

# BRIEFING PAPER

# PROCUREMENT AND INNOVATION

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## Introduction

The UK has invested heavily in building an active and innovative startup community, which is the envy of many countries. But existing public procurement processes do not work well in harnessing their innovative potential. The experience of members of our network is that public procurement processes are often difficult, slow, bureaucratic, and otherwise unsuited to them – much more so than selling into the private sector. The Government's ambition of simplification and reducing bureaucracy, described in its 2021 green paper, is welcome – but more needs to be done. Public procurement can, and should, emulate the way entrepreneurs see risk.

Procurement is a very important mechanism for bringing innovations into an organisation, including public sector organisations. In turn, such innovations allow for the more efficient use of public money, and offer better goods or services which ultimately improve the lives of the general public.

Procurement can also stimulate other innovations: there is evidence from the US that procurement contracts encourage scientific publications from firms' scientists, which are not necessarily used by the originating firm but can be used by others.<sup>1</sup>

Government procurement can even bring entire industries into being. NASA, for example, provided the entire initial market for transistors, which it needed to get to the Moon. In 1962, the US federal government bought every single integrated circuit made in the world. By 1965, this proportion had fallen to 72%, while the market for transistors had become twenty times larger.

Attempts to improve public procurement, and to make this a tool for driving innovation, have a long history. More than a decade ago, the Office for Government Commerce reported that public bodies have a “tendency to opt for low-risk solutions, low-margin players and mature technology [meaning that] innovation is not routinely welcomed or rewarded.”<sup>2</sup> But little has since been done. The government looks set to miss its 2022 SME procurement target. Some trends, such as the rise in single-bid tenders, suggest we are even moving in the wrong direction.<sup>3</sup>

To be clear, we accept that procuring from startups can often be associated with greater risk. If a business has a limited track record or a novel technology, there will inevitably be doubts about its capacity to deliver. But it is important to bear in mind several countervailing factors.

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1 Sharon Belenzon & Larisa C. Cioaca (2021) 'Guaranteed Markets and Corporate Scientific Research', NBER working paper 28644 (DOI 10.3386/w28644)

2 Office for Government Commerce, 'Driving Innovation through public procurement'. Available at [https://procurement-forum.eu/resource/download/425/BIS\\_innovationbrochure.pdf](https://procurement-forum.eu/resource/download/425/BIS_innovationbrochure.pdf)

3 This temporarily fell during the pandemic, but a fifth of all tenders remain single-bid.

First, innovation always entails risk. Therefore, if we are to reap the benefits of innovation, we need to ensure that procurement processes (as with other processes) do not seek simply to minimise risk, but rather see risk as something that should be actively managed, with adequate awareness of the potential up-sides as well as the down-sides.

Second, the costs of not innovating can be substantial. Such costs are usually less visible in the public sector than in the private sector (where the failure to innovate may result in complete loss of the company). Nevertheless, forgoing innovation inevitably means forgoing efficiency savings and opportunities to improve public services.

Third, it is important to consider systemic risk, not just the risk of individual startups or contracts. The failure of Carillion demonstrated that bigger is not always better, and that there is value in cultivating a more diverse supply base – even if this value is difficult to quantify.

Fourth, there is significant social and economic value in supporting startups (and later-stage ‘scaleups’). In particular, young firms are important net new job creators, and the innovation which startups bring (both directly, and indirectly via their competitive pressure on established firms) plays a crucial role in improving productivity and creating economic growth.

In what follows, we set out a brief recent history of public procurement from 2010 up to the recently published Transforming Public Procurement Green Paper. Then, we set out the key problems with the status quo and how they make it hard for SMEs and startups to compete with large incumbents even when they have a better product. Finally, we highlight a range of reforms that would eliminate bureaucracy, simplify processes and accelerate the adoption of innovative solutions in the public sector.

We recommend this briefing paper to any policymakers who wish to understand:

- the key barriers that early-stage innovative businesses face when they go through existing public procurement processes;
- why recently proposed reforms in the Transforming Public Procurement Green Paper don’t go far enough and, in some cases, risk creating new barriers;
- and how best practices in procurement could deliver better public quality services at a reduced cost to taxpayers.

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## A brief history of procurement policy

Over the past decade, we have seen two recurring debates within public sector procurement policy. There has been the question of whether it should prioritise value-for-money at all costs, or whether procurement should be used as a lever to achieve wider policy goals, such as promoting innovation and sustainability, helping SMEs, or encouraging apprenticeships. Since the collapse of Carillion in 2018, there has also been the question of how to deal with strategic suppliers – that is, suppliers with contracts across multiple departments and worth over £100m.

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### The purpose of public procurement

In response to the financial crisis, the government embarked on an Operational Efficiency Programme with the Treasury in 2009, identifying £15bn worth of savings from reforming a ‘fragmented and inefficient’ public procurement system. It noted that there were 44,000 public sector buyers, including schools, police forces, and separate government departments, and that they were not working effectively together.

This message was reinforced in Sir Philip Green’s Efficiency Review, which argued that the government was failing to leverage both its credit rating and its scale. It noted that different departments paid significantly different prices for the same commodities and services, and that expensive IT systems were contracted for too long, with too little flexibility. It argued that the government “acted as a series of independent departments rather than as one organisation”, complaining that “there is no motivation to save money or to treat cash ‘as your own’.”<sup>4</sup> Early on, a network of Crown Representatives was set up to ensure the government acted as a single customer and communicated a consistent message to suppliers.

At the same time as some in government were advocating for a focus on greater efficiency, however, others advocated that public procurement should be used to support the Government’s wider policy agendas.

The Office of Government Commerce (OGC) set out a Policy Through Procurement Action Plan, in the same year as the Operational Efficiency Programme, which outlined potentially contradictory government plans to use procurement as a means of achieving other policy goals.

One example of its ‘Policy Through Procurement’ approach was seen in the Coalition agreement, which set out an ambition (which they exceeded) to increase the share of contracts going to SMEs from 6.5% to 25% by 2015. At the 2015 election, the Conservatives pledged to increase the share further to 33%. Shifting a greater share of public procurement to SMEs is not inconsistent with achieving value-for-money, as we will argue later, but it appears that over the past decade it has not been the only or even primary aim.

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4 Green, P. (2010). Efficiency Review by Sir Philip Green. London: The Cabinet Office, 62.

Under Theresa May's premiership, the idea of using procurement to meet broader public policy goals gained further momentum. The Government released a Procurement Policy Note recommending that procurement teams should not just aim to provide services as cheaply as possible, but should also take into account "broader social value". Under this new policy, procurement decisions were to account for other factors, such as supporting SMEs, creating apprenticeships, and "appropriate use of supply chains". Some, such as the think tank Demos, have even argued that the list should be expanded to include tax arrangements, as almost three-quarters of strategic suppliers have operations in tax havens.<sup>5</sup>

A major success for the social value approach to procurement has been in tackling late payments. Data specialist Tussell found that the government's policy to exclude suppliers with poor payment practices from bidding on public sector contracts worth more than £5m has improved supplier payment practices. Companies are required to prove they pay at least 95% of their invoices within 60 days or less. Since the measure was brought in, compliance among strategic suppliers has increased by nearly 30%.<sup>6</sup>

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### The problem of strategic suppliers

The other key shift in procurement policy over the past decade has been the increasing focus on strategic suppliers. In 2010, it was an issue that was hard to understand. In fact, there were no comprehensive records of the contracts held by government suppliers. On the day Carillion went under, there were only 29 public contract notices that named Carillion as a supplier. This was clearly a gross underestimate. Cabinet Office Minister Francis Maude had to ask suppliers directly to understand the extent of their contracts.<sup>7</sup> It turned out that Carillion had nearly 400 contracts with the public sector at the time of failure.

The importance of major contractors such as Capita, G4S, Atos, and Serco, and the relative lack of planning for handling them became seen as a major problem with the collapse of Carillion in 2018.

There was already a range of measures in place to prevent, or at least mitigate the impact of future Carillion-style collapses. Each Strategic Supplier, of which there are currently 34, is assigned a Crown Representative. The Crown Representative must provide a risk assessment every six weeks, using a Red Amber Green (RAG) rating system. If a firm is high-risk, they become subject to extra controls. For instance, they have to provide extra performance information and are no longer allowed to have meetings with ministers.

A report from the Public Accounts Committee into Carillion found that

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5 Lasko-Skinner, R., Glover, B., Lockey, A., and Dale, T., [2019]. Value Added. Demos.

6 Tussell. Prompt Payment Report: 2020 Update.]

7 National Audit Office (2013). The role of major contractors in the delivery of public services.

the RAG system was failing to provide adequate scrutiny. One issue raised was that a decline in a company's RAG status had no material impact other than to trigger closer scrutiny from the Cabinet Office. And even then, Carillion was never given a Red or high-risk rating.

The Public Accounts Committee argued that the Crown Representative system was under-resourced and suffered from high turnover rates. They also expressed concerns that the status quo of a narrow pool of civil servants working directly with the same suppliers also posed a risk.<sup>8</sup> As a result, they argued for independent commissioners to be appointed to monitor the situation.

Over £4.2bn worth of contracts were awarded to strategic suppliers in 2019, equivalent to 6% of all public sector procurement spending. Since then, the figure stayed flat in real terms, but fell as a share of total procurement spend, seemingly as a result of the pandemic. Of the £21.6bn awarded as part of the pandemic response, just 3.5% went to strategic suppliers.

The collapse of Carillion and the risks posed by strategic suppliers highlight how the contracts that are on paper the best value-for-money can be worse for the taxpayer. Beyond just social value procurement, then, a key reason to expand access to public procurement for SMEs and startups is to reduce procurement's systemic risks.

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### Transforming public procurement

Since Brexit, the Government has begun to set out a new vision of procurement. Its Transforming Public Procurement Green Paper is an attempt to navigate the twin pressures of efficiency and meeting wider policy goals. It aims for faster, simpler procurement processes with less red tape and a greater focus on value. It also wants to support more resilient, diverse and innovative supply chains "by creating a culture of continuous improvement."<sup>9</sup>

The new system attempts to create more flexibility by creating three new processes. There will be an open procedure for 'off-the-shelf' tenders, a limited procedure for times of crisis, and a new, flexible procedure to allow buyers to negotiate and innovate with SMEs, charities, and social enterprises.

There is also an emphasis on open data, with the government proposing to legislate that all contracting authorities use a common data model in accordance with the global Open Contracting Data Standard and in a standard, machine-readable format.

But the Green Paper continues with past calls to focus on wider policy

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<sup>8</sup> Public Accounts Committee. (2018). Strategic Suppliers.

<sup>9</sup> Green Paper: Transforming public procurement.

goals beyond just value for money. It argues that public procurement must support Government priorities such as productivity, the Covid-19 recovery and net zero. To this end the Government intends to require contracting authorities to include criteria that “go beyond the subject matter of the contract and encourage suppliers to operate in a way that contributes to economic, social and environmental outcomes on the basis of the ‘most advantageous tender’.

There is a risk, however, that such an approach creates unnecessary bureaucracy and inadvertently favours larger businesses – those that have the added capacity, for example, to track environmental impact. As a result, and as part of a broader effort to integrate SMEs and startups into public procurement, there is a simultaneous emphasis on regulatory simplification. The new system would slash and integrate the 350-plus regulations which govern public procurement into one uniform framework. It also proposes the creation of a new supplier database, which would mean that bidders would only have to submit their information once.

The proposals aimed at reducing red-tape and bureaucracy received support in The Penrose Report on competition. The review noted that “the 25 largest firms increased their share of contract value from 13% to 18% between 2013 and 2017” and blamed the rise in concentration on red tape for creating barriers to entry.<sup>10</sup>

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10 Penrose, J. (2021) The Penrose Report: Power to the People. HM Treasury & BEIS.

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## What's wrong with the status quo?

This section sets out seven key problems with public procurement that lead to less innovative and more expensive public services. The problems range from excessive regulatory criteria and a tendency to over-specify solutions to a lack of collaboration between public bodies and a failure to work collaboratively with startups.

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### Public bodies set excessive risk and qualification criteria

It is common for procuring bodies to specify minimum qualification criteria for suppliers, such as ISO certification or proof of suppliers' previous ability to deliver contracts of similar size. Some procurers will also ask for large indemnities. In many cases, tenders ask for unlimited liability insurance. Such criteria reduce risk for the procurer, but also make it more difficult for startups and SMEs to qualify, and less likely that innovative solutions will be selected. Innovative startups also face an obstacle in existing requirements on some tenders to demonstrate billable hours.

To make matters worse, new proposals for public bodies to consider past performance when awarding contracts risk unintentionally penalising early-stage businesses. There should be a clearer distinction between negative past performance (such as consistent failure to meet performance metrics), negative behaviour (such as under-bidding with the objective of clawing back profit through change control) and a lack of evidence of good past performance.

It is also important to consider where poor performance is not down to the supplier behaviour, but may be due to a poorly specified tender, failure of the procurer to meet its own side of the obligations, or from the procurer underestimating the delivery challenges. The important point is to consider the degree to which past performance reflects companies' behaviour and competence, rather than circumstances or lack of opportunities which are outside of their control.

One of the problems faced by small businesses looking to engage with the public sector market is that around 15% of all tenders are framework tenders: securing a place on a framework contract effectively grants a business a licence to sell a service but does not guarantee any revenue to the supplier. To earn any revenue the supplier must respond to and win a further stage of competition known as a 'call off contract'.

Small businesses can therefore expend many, many hours bidding to earn places on frameworks only to be rejected because they don't meet certain criteria. However, when they do win a place, they can find that there is little to no business passing through the framework. They have effectively bought a fishing licence for an empty fishing lake.

In some cases, frameworks appear to have been structured to make it



difficult for smaller businesses to challenge large businesses for contracts,<sup>11</sup> and the frameworks themselves often suffer from the problems mentioned above, like overly-demanding contract terms, high financial thresholds and complex bidding procedures.

It is not unreasonable to expect the owners of frameworks to adopt the same approach that Government Digital Service employs for their Digital Marketplace frameworks—which provides detailed information on which suppliers have won contracts, through which framework and how much they are paid. This would give suppliers a clear indication of whether or not a framework was going to provide genuine revenue opportunities.

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### Opportunities are not advertised in a timely fashion

For small businesses, every activity has a major opportunity cost. Most small businesses cannot devote dedicated resources to scouring multiple outlets in search of public procurement opportunities. It is thus very important to reduce these search costs, by ensuring that procurement platforms are properly used by the procurers advertising for opportunities, and easily accessed by qualifying businesses.

Unfortunately, the Transforming Public Procurement White Paper fails to deal with this problem effectively. Its comment that there is “increasing compliance with the requirement to publish contract opportunities and awards on Contracts Finder” glosses over the scandalously poor state of compliance when it comes to the publication of contract award notices which provide an early insight into upcoming opportunities. Data from Spend Network suggests that the vast majority (73%) of contract award notices are, in fact, not properly published.<sup>12</sup>

There is no mechanism to hold to account those bodies which fail to comply with the requirement to publish on Contracts Finder. The White Paper proposes to “legislate to require all contracting authorities to publish procurement and contracting data”, but it can go even further.

A key sign the system is not working is the rise in single-bid tenders. Between 2012 and 2018, there was an almost fivefold (476%) increase in the number of tenders that received only one bid. At the same time, the average number of days suppliers are given to respond has fallen. This, it should be noted, was already the case before the pandemic. When normal tendering rules were bypassed during the pandemic, £19bn-worth of contracts were awarded without any competitive tender.<sup>13</sup> This is a problem because multiple bidders means greater competition and in turn, better value for the taxpayer.

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**“Crucially, although the SMS designation may only arise from one activity or set of activities in which the firm was considered to have such market power (designated activities), the SMS status would apply to the firm as a whole.”**

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11 Smith, P. (2021). Bad Buying. Money No Object! UK Government Invites Proposals From Consulting Firms

12 Ian Makgill. Spend Network.

13 Spend Network. UK Government Procurement Under Pressure.

It is thus not enough for contract opportunities to be published on Contracts Finder. Suppliers also need to be given sufficient time to respond. In some cases, very large bids have been advertised only weeks before the deadline for responses. Spend Network cites a case where a £450m tender had to be submitted in just 17 days.<sup>14</sup> This practice creates a significant bias towards larger firms, who can allocate much larger resources to writing bids quickly. Start-ups and scale-ups inevitably lose out.

Ideally, opportunities will be advertised far in advance of the tender being published. For example, in their report, the Local Government Association recommended that procurers engage early with suppliers and regularly map out what opportunities are available. This “market-making” role would reduce the risk associated with building new technology startups, by giving them a guaranteed customer for whatever they developed.

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#### Contracts focus on inputs rather than outputs

Many contracts evaluate performance in terms of prescribed activities, rather than outcomes. Thus, even when innovative solutions may deliver greater impact, they will invariably be scored lower in evaluations because they failed to use the prescribed activities.

To help with innovation, the Local Government Association has advocated that when writing tenders, desired outcomes should be defined in the most open way possible.

#### CASE STUDY: DR SHAMUS HUSHEER, CO-FOUNDER, SENSIAA

“Our startup develops technology to help infertile couples conceive. Despite data demonstrating that the system significantly improved pregnancy rates - comparable with a cycle of IVF for many couples - we were disqualified from many procurement processes because our technology didn’t ‘fit’ the tender. If the tenders had been specified in terms of the ultimately-desired outcome - that is, the cost to the NHS per healthy, live birth - then we would have compared very favourably. But, instead, many tendering organisations seem to have presumed at the outset that existing IVF treatments were the only approach to infertility.”

For example, one NHS tender for fertility treatment was specified in terms of cost per IVF cycle. But this excluded a startup with a different technology (based instead on monitoring temperature micro-fluctuations), even though the startup concerned could demonstrate that it was more effective than IVF under many conditions at improving pregnancy rates, delivering healthy births at radically lower cost to the NHS. Had the

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**“Many contracts evaluate performance in terms of prescribed activities, rather than outcomes.”**

tender been specified in terms of the ultimately-desired outcome - such as 'lower cost per live, healthy baby' - the procuring organisation would have received a wider range of proposals and potentially generated significant savings.

In addition, prescribed activities can sometimes be "gamed". For example, business support tenders are often evaluated by the number of new Companies House registrations. But it is cheaper and easier to register a company than to build a foundation for its future success. A better metric would be sales or evidence of market traction.

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### **There is an excessive focus on compliance**

Public bodies must, of course, adhere to numerous regulations. But the balance of ensuring compliance with such regulations, against the other aims of the tender, often seems askew.

For example, one recent tender devoted more questions and more space for answers to the matter of GDPR compliance than to the subject of the tender itself - which was delivery of business growth support. Options to articulate why the existing arrangements were failing to deliver the required outcomes - and thus to present a case to the procuring organisation as to why a different approach was needed - was subsumed into a requirement to demonstrate completion of proprietary training. The procurement process thus actively discouraged innovation and reduced the potential to deliver better value for money.

Regulatory compliance should be understood as a fixed cost to the suppliers. While large businesses can spread the cost over millions of sales, SMEs often cannot. As a result, any increase in the regulatory burden can create barriers to entry and have a disproportionate impact on SMEs and startups. Startups are invariably resource-constrained, such that every action has a much larger opportunity cost. Additionally, many startups are often unfamiliar with the style and content that may be expected of them. As a result, unless they rely on external bid-writing specialists, they are disadvantaged relative to larger, more experienced suppliers.

Simplified procedures and systems are therefore very important in ensuring that innovative startups and SMEs can and will respond to tenders.

There is a risk that the move to preferring the "most advantageous tender" rather than "most economically advantageous tender" will create additional compliance issues along these lines. For instance, the emphasis on environmental benefits or other criteria may prefer large firms with dedicated Environmental, Social, and Governance (ESG) teams. Startups will have limited resources to track such impact, and may not yet have the track-record to demonstrate impact over a long period of time. It is therefore important, if ESG criteria are used in scoring, that startups are given credit for their future potential to contribute to ESG goals and are not penalised for a lack of track-record.

There is also a risk that a requirement to demonstrate social value may in practice lead to inefficient practices. For example, some procurement tenders seek evidence of social value as defined by the use of sub-contractors from a particular region. However, the procurement process did not require one to justify whether these sub-contractors could deliver a better quality outcome, just whether or not they were local. If each local authority chooses to prefer local firms, irrespective of their relative value for money or competence, then this will clearly be detrimental on a national level as well as inhibiting the growth and opportunities of more productive firms. Similarly, an emphasis on job retention and creation may disadvantage startups proposing more productive and innovative automated solutions.

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### Best practice is not shared across public bodies

There is a missed opportunity for sharing best practices in procurement across government departments and other public bodies. Many public bodies have similar needs, and many innovations have multiple applications. However, at present there are few incentives for procurement teams in one department or public body to recommend innovations to other bodies, even if these might lead to wider governmental efficiency savings.

By sharing best practice, they can reduce the duplication of effort, build in greater functionality (such as being able to answer queries that cut across departments), and save money.

Likewise, some departments may decide in light of the Net Zero pledge that they need to improve the quality of departmental emissions data. Better communication between departments may identify solutions already used by other departments that could be ported over, rather than built from scratch, again saving public money. An active dialogue between departments on procurement may also identify past failed programmes and prevent mistakes from being repeated.

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### Procurement processes are transactional, rather than collaborative

Procurement processes are typically transactional, leaving little opportunity for potential suppliers to help shape the process, or to collaborate in developing a solution. This leads to two inter-related problems for innovative startups and SMEs:

First, buyers are often not aware of what exists in the market. Buyers are most familiar with the systems they have already been using, but are not necessarily aware of the current available 'state of the art'. This bias among procurers means that their requests for services tend to be specified in terms of their legacy systems, with a solution already envisaged instead of capturing or even considering the benefits of newer kinds of solution.

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**“the three objectives that the Taskforce proposes to set for the codes of conduct—fair trading, open choices, and trust and transparency—would inevitably clash in practice”**

At worst, this can manifest itself as ‘organisational arrogance’, with unfamiliar solutions viewed by default as having little possible merit – a particular problem when contracting authorities exist in a ‘Whitehall bubble’ at arms length from the needs of the users and beneficiaries of the services procured.

Second, suppliers typically are given no opportunity to develop their offer in collaboration with the buyer. As a result, there is little scope for a supplier to outline how a different approach might work, whether certain changes would be acceptable, or to test unproven technologies. This leads to less innovative tenders. In theory, it is possible for public bodies to work with suppliers in an “innovation partnership” when there is a need for “an innovative product, service or works that cannot be met by (those) ... already available on the market” under EU law. However, this mechanism has been under-utilised by public bodies outside of large defence procurements.

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#### **Public bodies prefer large ‘turnkey’ solutions opposed to modular components.**

Some procuring organisations are reluctant to break large contracts into smaller components because it creates the need for subsequent integration of those components, with the burden and risk of that integration then falling to the procurer. However, many startups and SMEs are deterred from bidding for very large contracts, which as a whole are often outside their capacity to deliver. Requiring complete solutions tends to preference the established and larger suppliers, resulting in procurers getting an ‘end-to-end’ system that may be outdated or inferior in its core capabilities.

Yet there is not always a reason for contracts to be as large as they are. Many large contracts could be broken down into smaller, modular contracts that smaller suppliers would have a better chance of meeting. This is already considered good practice in many public bodies, but is something worth making more explicit, with greater attention to its benefits and challenges.

Relatedly, many procurers want ‘turnkey’ solutions, whilst startups often have only part of the solution that is required. For instance, one recent procurement call sought a supplier to create and run an innovation centre, including both landlord services and innovation support for tenants. These components could potentially be delivered by different organisations, and there may in fact be advantages in doing so, but that option has not been allowed for at all.

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## How to fix public procurement

Fixing public procurement so that innovative startups and SMEs are better able to bid for and win contracts will require a range of changes. This section sets out a range of policy solutions that vary from the culture and training of procurement professionals to better advertising of opportunities and measures to limit the compliance burdens.

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### Culture

Many of the problems with public procurement are matters of culture, mindset and process, rather than of law or regulation. Risk appetite is an important component: many public bodies are, despite their implicit guarantee against failure, much more risk-averse than private sector organisations. Yet risk is inherent to innovation. To help overcome this, it is important for senior leadership to emphasise – both internally and externally – the potential value of procuring innovative solutions. Managers should provide “top cover” for junior staff, in order to encourage experimentation. They should laud the successes, but also allow them to learn from the failures without blame.

To achieve a culture shift, public sector leaders should explain the potential benefits of experimenting with innovation to the users of services, and the broader public, so that when some innovations fail (as is inevitable), there is reduced backlash, and these are more likely to be seen as learning opportunities

Since risk-aversion sometimes stems from fear of public opprobrium, we suggest that there may be particular value in trialling innovative procurement in specific areas – such as defence or climate change – where there is a public acceptance of higher risk, or at least an understanding that different approaches are needed.

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### Training

Procurement, especially innovative procurement, is a specialist function. Procurement managers often find themselves pulled in different directions by competing priorities and regulations; understanding how to balance or trade-off these priorities against one another takes skill. Training of procurement staff is therefore important – not only to share best practice, but also to educate and inform them about innovative solutions in their area. In our experience, many procurement teams are open to innovative solutions, but may not be aware of the state of the art. Since the technological frontier is constantly changing, we recommend that training be refreshed regularly, especially if there are no pre-engagement opportunities (as discussed below). We also suggest that greater attention be paid to mechanisms for resolving conflicting priorities.

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### Limit the growth of excessive compliance requirements

In order to maximise the potential for innovative solutions or ideas, it is important that procuring organisations specify qualification criteria only when really necessary and avoid the ‘upwards creep’ of qualification criteria, which occurs especially after failed procurement processes. Additionally, the government should set an ambition of having the most startup-friendly procurement system in the OECD and appoint an independent SME representative to report annually on the compliance burden to hold them to account on this ambition.

Although there are reasons to assess potential tenders on a wider range of criteria than value-for-money alone, there is a large risk that in practice explicitly considering social value has the unintended consequence of creating additional compliance burdens on SMEs. In a worst-case scenario, this could lead to SMEs and startups who are better on the merits, missing out on tenders because they are unable to navigate the new bureaucracy.

Two mitigations should be employed to minimise the above risks. First, the type of social value requirements that public bodies are allowed to consider should be restricted. Specifically, job-creation, use of local subcontractors, and training should not be considered. These metrics are game-able and are likely to discourage solutions involving automation. Second, other social value considerations should only be employed if a public body is unable to achieve that aim through other policy levers such as taxation or regulation. For example, on-site renewable energy generation is a matter for energy policy, it should not be a factor in determining which supplier should win a tender to provide PPE.

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### Pre-Commercial Procurement & SBRI

Pre-commercial procurement (PCP) is the process of challenging industry to develop an innovative solution to a particular public sector need - usually because an existing solution does not exist. There is a dedicated scheme to help UK public-sector bodies with this process, called the Small Business Research Initiative (SBRI). Typically, this scheme involves an initial competition, from which promising applications are selected for a feasibility-testing phase of up to six months, and awarded grants of £50,000 to £100,000. After that first phase, some ideas may be taken into the second phase, lasting up to two years, where firms are awarded grants of £250,000 to £1 million to develop a prototype. Despite the success of the scheme in many departments, however, there remains a low awareness of it among local councils and many other public bodies. We recommend that more effort is made by the government to promote PCP and SBRI across the public sector.

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### Pre-Procurement Consortium Building

Startups often have dramatically superior core solutions to a problem, but lose out to less innovative firms because they are unable to provide an ‘end-to-end’ solution requested by the procurer. One way to alleviate this is through pre-procurement consortium-building, which helps startups collaborate in developing a more complete solution. At its simplest, this may take the form of facilitated workshops, arranged some time before formal procurement starts, where interested startups can be encouraged to meet and identify complementary strengths. We recommend that procuring organisations hold such events for all sizeable tenders.

We welcome the guidance in the Government’s Digital, Data, and Technology Playbook that public bodies publish their commercial pipelines for the next three to five years to help SMEs suppliers better understand and compete for tenders.<sup>15</sup> Ensuring widespread adoption of this guidance across the public sector should be a key objective.

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### Feedback

Providing more feedback to startups and SMEs, or publishing previously-successful bids, is a valuable but often overlooked activity. Whilst it is often dismissed by the procurer as too time-consuming, the simple act of providing feedback to startups, or publishing examples of successful bids, can help smaller companies prepare for subsequent tenders. Ultimately, making the reasons for their decisions explicit will help public procurement teams as well. We recommend that all public bodies publish successful tenders (with commercially sensitive information redacted if necessary) to help startups better prepare for tenders. Additionally, there should be an expectation startups can request and receive detailed feedback if their bid is unsuccessful. Providing feedback should be seen by public bodies as an investment that will pay off in the long-run by increasing competition for tenders in the future.

Under the status quo, there is a risk that feedback can be used as a trigger for large suppliers to launch a legal challenge. The government should explore options to prevent fear of legal action acting as a barrier to the provision of feedback. For instance, feedback could be limited to smaller suppliers who are less likely to bring forward legal challenges. Alternatively, feedback could be provided on the basis that the recipient agrees not to mount a legal challenge.

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### Better Advertising and Use of Brokering Platforms

The current use of procurement platforms is very inconsistent. This benefits no-one. We recommend that all public tenders are publicly advertised on Contracts Finder or similar standardised, easily accessible portals for at least



a month. In addition, we recommend that public bodies engage in early, non-committal, advertising of possible tenders, in order to give smaller firms sufficient notice, and allow them to find partners for the larger bids too. This is particularly important in cases where an end-to-end solution is required and innovative providers only have part of that solution.

Using a single public procurement portal brings significant benefits, including reducing search costs for small businesses that want to sell into the public sector. There is also a benefit in terms of illustrating to public bodies what other bodies are doing in terms of managing their procurement processes, potentially leading to more efficient, combined tenders, and the sharing of ideas. For example, one council might notice another council has a tender out for a near-identical solution, and hence decide to partner with that other council to reduce costs. They might also learn from one another about the successes and failures of past procurement processes.

Furthermore, the Government should consider publishing an annual league table which shows, by public body, the percentage compliance with Contracts Finder, total spend with SMEs, and average time tenders are advertised for. This would create pressure within public bodies to improve processes and make it easier for political leaders to identify which bodies are underperforming.

However, while use of Contracts Finder should be mandatory for all tenders, procurers should also be aware that the number of online brokerage platforms has increased significantly in recent years, becoming more sophisticated through the use of artificial intelligence.<sup>16</sup> Some of these platforms are specifically focussed on innovative procurement, or particular types of procurers, and hence may in some instances be advantageous for organisations to use in addition to Contracts Finder. For example, platforms such as Innocentive specialise in internationally crowdsourcing solutions to specific challenges. The use of open data standards (see below) should mean that such platforms can effectively scrape and process procurement tenders.

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## Better Data

The UK was the first G7 country to commit to the Open Contracting Data Standard (OCDS) for central procurement contracts.<sup>17</sup> The fact that the Crown Commercial Service publishes its procurement notices in OCDS format on the 'data.gov.uk' platform, and on the Contracts Finder database, is welcome and should allow the growth of third-party market-making platforms (as discussed above). However, there remain various deficiencies and opacities in UK public procurement data, and much more value which could be extracted from such data.

Better data creates a better-informed marketplace - as well as improving

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<sup>16</sup> See <https://innovationbrokerage.nesta.org.uk/>

<sup>17</sup> Open Contracting. Crown Commercial Service.

accountability, transparency and public integrity. This should make procurement more efficient and effective, to the benefit of both sides of the market. For example, many businesses have solutions but are unaware of specific tenders and lack knowledge of how to pitch to public bodies; information about where to pitch, about typical contract sizes, and about when contracts might expire would help such businesses to bid for public sector work, ultimately increasing competition and innovation. In addition, on a macro-level, better data about which bodies are successfully procuring from startups and SMEs would also make it easier for government to identify good practices to be shared, or areas which are potentially in need of reform.

At present, there are a number of private sector organisations such as Tussell which exist to help vendors understand the markets into which they wish to sell. However, the existence of such firms illustrates that the current data provided by the public sector is sub-optimal.

We therefore recommend that the government renews its commitment to open contracting and OCDS and increases efforts to ensure the quality and completeness of data. Government should also make more extensive use of this data itself, including to identify bodies (or types of body) which struggle to procure from startups and SMEs, and which might require additional support.

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**“Better data about which bodies are successfully procuring from startups and SMEs would also make it easier for government to identify good practices to be shared, or areas which are potentially in need of reform.”**

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### **Actively identify innovations with cross-public body applications**

To facilitate more effective, cross-departmental and cross-local authority procurement, government should consider better supporting the transfer of innovations developed for one part of the public sector into other bodies.

This task could conceivably be given to the newly-formed Government Office of Tech Transfer (GOTT), which was recently established to help make better use of the ‘knowledge assets’ created by the public sector. Alternatively, or in addition, such a task could be adopted by Ploughshare Innovations (which was originally established to find civilian applications for technologies developed by UK Government-funded defence laboratories, and which has since widened its remit to include research created by other government organisations).

Additionally, when successful innovative procurements are identified by this organisation the relevant officials should be rewarded through awards and opportunities for career advancement.

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### **Broadening ‘meet-the-buyer’ events**

Engagement between buyers and suppliers, outside the formal procurement processes, can allow buyers to see what is possible and allow innovators to tailor or contextualise their offers to better match buyers’ needs. Such arrangements are encouraged under the various legal obligations

imposed on commissioners (e.g. Section 3 of the Local Government Act). Unfortunately, narrowly-defined procurement processes often skip such events and, where they do occur, they typically focus on explaining the procurers' needs and processes – rather than allowing providers to demonstrate their innovations. (Likewise, 'market engagement' processes typically ask a set of questions, but rarely provide an opportunity for suppliers to express what questions should have been asked but were not.) We recommend that these events are expanded, and treated as occasions for two-way learning, not just dissemination.

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### Buy first, build second

Too often, public bodies opt for expensive bespoke solutions delivered by large businesses when startups can provide off-the-shelf solutions at a significantly lower cost. To combat this tendency, a range of governments including Canada and the US have explicit guidance to prefer off-the-shelf solutions unless necessary.<sup>18 19</sup> For example, procurement regulations in the US require agencies to employ pre-market engagement to identify and acquire potentially useful commercial off-the-shelf solutions. While in Canada, procurement managers are encouraged to use off-the-shelf products unless a bespoke solution is operationally necessary.

The government should adopt the same approach here by creating a requirement for public bodies to explain why they have sought a bespoke solution over off-the-shelf solutions. This must not become a box-ticking exercise, but rather be part of a long-term shift to greater pre-market engagement. Data on the share of bespoke solutions, relative to off-the-shelf solutions, should be published on an agency-by-agency basis and the worst offenders should be required to invest in greater pre-market engagement.

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## Using procurement to accelerate innovation

The standard procurement process is inappropriate for buying in certain innovative solutions. The much-celebrated work of the Vaccine Task Force in securing covid vaccines is a good example of this. This final section looks at a range of approaches to acquire cutting-edge solutions where traditional procurement structures are ineffective.

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### Challenge prizes

One process, which can be applied either to pre-commercial procurement or commercial procurement, is that of the 'Challenge Prize' or inducement prize. Such prizes have a long history of bringing novel solutions to a

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**“Too often, public bodies opt for expensive bespoke solutions delivered by large businesses when startups can provide off-the-shelf solutions at a significantly lower cost.”**

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18 Federal Acquisition Regulations.

19 Guide to Management of Materiel.

particular problem. They work by offering a reward to the person who first (or best) meets a particular challenge or end-goal, whilst remaining agnostic about the approach they take. Proper specification of the judging criteria is important, but when used well, such Challenge Prizes can attract a broad pool of innovators, bringing solutions from unexpected directions. The Longitude Prize of 1714 was an especially famous example, with its prize money awarded for meeting technical milestones as well as overall results. It yielded both the marine chronometer and the development of accurate lunar almanacks as ways to calculate one's longitude while at sea. The UK also used a similar procedure to rapidly increase the number of UK-made ventilators available to the NHS in the early stages of the coronavirus pandemic, though it then failed to follow through and have the new models put into mass-production by not providing sufficient demand. The prize was sufficient to increase capacity, though in this case more would have been needed to take the next step of building the industry. Even when the prizes themselves are not awarded to the best technologies, however, there may also be spillover benefits such as raising awareness of the issue overall. We recommend greater use of such Challenge Prizes, and are pleased to see that they feature in the new Innovation Strategy.

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### Advance Market Commitments

Another type of pre-commercial procurement is the Advance Market Commitments (AMC). This is a legally-binding commitment to buy, or to subsidise, an as-yet unavailable good – and so give assurance to firms to invest in R&D or production capacity. AMCs have been used to great effect in vaccine development, and also other areas such as the development of low-carbon technologies.<sup>20</sup> Even large companies, such as the payments processor Stripe, are using AMCs to try to create a market for technologies extracting carbon directly from the air – something they are doing with only a small budget, compared to what would be achievable by a government. AMCs work best when suppliers are willing and able to respond to the change in market conditions, which typically means that the innovations concerned are nearer to market. Although AMCs are not specific to startups, they are often relevant to emerging sectors, where startups may be particularly important.

For example, a similar process helped cultivate the private space industry in the United States. NASA's commercial orbital transportation service program (COTS) sought private sector help to resupply the International Space Station. It contracted with companies to buy their services for a pre-agreed number of years after the retirement of the space shuttle, thereby providing a crucial market for start-ups like SpaceX. Winning a COTS contract saved the now-giant company from bankruptcy. We see potential for AMCs to be applied in other areas where demand-side uncertainty is hindering the development of novel solutions, like carbon reduction.

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<sup>20</sup> Vivid Economics (2009), Advance Market Commitments for low-carbon development: an economic assessment. Final Report for DFID, London.

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## Subscription Payment Models

Under some circumstances, innovative payment models can be useful to stimulate the provision of new goods or services. For example, healthcare providers want access to novel antibiotics in order to combat antibiotic-resistant microbes; however, at the same time, they hope not to use these ‘drugs of last resort’. This uncertain demand may inhibit suppliers from investing in R&D or production capacity. To combat this, a number of countries have experimented with ‘subscription’ or ‘Netflix’ models, where public healthcare providers pay a lump sum for access to novel drugs, regardless of how much or how little they use. As with AMCs, this provides innovators with reassurance of demand. This also results in more predictable budgeting for procurers, and potentially also better healthcare for patients (since access is broadened and cost is removed from the considerations at the point of prescription).<sup>21</sup>

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## Conclusion

Over the past decade, the UK’s startup ecosystem has made rapid progress. According to data from Dealroom, the UK’s tech sector is worth \$1trillion and the largest in Europe. Yet, too often innovative British startups are overlooked by public procurement. This is a problem for startups, who miss out on a new revenue stream, but it is also a problem for taxpayers who pay more for less efficient public services as a result. The UK’s exit from the European Union presents an enormous opportunity to reform procurement processes. This will require changes to legislation, guidance, and, most importantly, public sector culture.

Under the status quo, startups and SMEs are hindered by a combination of excessive bureaucracy and regulation, a failure to advertise tenders in a timely fashion, and a lack of pre-market engagement to explore and understand what is commercially available. It is clear the Government recognises there is a problem. There is much to welcome in the recent Transforming Public Procurement White Paper and in the Digital, Data, and Technology Playbook. It is now imperative that the government continues to tackle the problem by legislating in the next Parliamentary session to fix public procurement so the public can benefit from cheaper, more efficient, and more responsive public services.

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21 Cherla, A., Howard, N., & Mossialos, E. (2021). The ‘Netflix plus model’: Can subscription financing improve access to medicines in low- and middle-income countries? *Health Economics, Policy and Law*, 16(2), 113-123. doi:10.1017/S1744133120000031





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