



Buying for operational readiness: opportunities for military procurement

Rising geopolitical tensions and continuing terrorist threats provide justification for increasing defense spending. When dealing with budgets this vast, small improvements can generate great benefits — and mistakes can be very costly.

Governments spent a total of US\$1.56 trillion on defense in 2017, equivalent to 2 percent of global gross domestic product (GDP).¹ Some countries spent a significantly higher proportion, with both the United States and Singapore committing more than 3 percent of GDP to defense and Israel more than 5 percent. Others are increasing their spending, with Nato's members recently renewing a commitment for each of its 29 members to spend at least 2 percent of GDP by 2024, up from just five at present. Australia is also making substantial increases in its defense expenditure.

Many countries have significantly reduced their defense personnel numbers since the end of the Cold War, with the United States alone cutting from 2.15 million in 1985 to 1.35 million in 2016.² The remaining staff have been equipped with more technologically-advanced equipment, which has made defense procurement increasingly important and expensive. The costs of some individual projects can reach to tens of billions of dollars: for example, the UK expects to spend £56.9 billion (US\$76 billion) on its 12 largest current equipment projects over their lifetimes, with £18.2 billion on Typhoon Eurofighters alone.³

For defense departments, this has made the job of purchasing major pieces of military equipment much more complex. "Often, big 'heavy metal' procurements are at fixed price," says Mike Stone, KPMG's Global Head of Technology Transformation for Infrastructure, Government

and Healthcare and former Chief Digital Information Officer for the UK Ministry of Defence. They also take the best part of a decade to complete, or even longer if the development of new technologies is required, and in the case of a warship can be in use for decades.

Waiting for the 'last responsible moment'

But supporting information technologies such as networking hardware and software are likely to last less than a decade, meaning that in a lengthy procurement process they can be out of date before the 'heavy metal' even goes into service. Stone says some advanced agencies tackle this by postponing the choice of such hardware and software until the "last responsible moment," by budgeting for it early on, defining its size, weight and power but agreeing its technical specifications as late as possible during development. It may also be possible to introduce incremental improvements while equipment is in service.

More generally, Stone adds that procuring for outcomes — saying what items should be capable of achieving, rather than defining precise specifications — can allow suppliers to take advantage of technology upgrades in everything from electronics to weapon systems that will take place

¹ International Institute for Strategic Studies, Military Balance 2018. <https://www.iiss.org/en/publications/military%20balance/issues/the-military-balance-2018-545f/mb2018-10-country-comparisons-83f9>

² Data from older editions of International Institute for Strategic Studies Military Balance, compiled by the World Bank. <https://data.worldbank.org/indicator/MS.MIL.TOTL.P1?end=2016&start=1985&view=chart>

³ Ministry of Defence (UK), Finance and Economics Annual Bulletin, Trade, Industry and Contracts 2017. <https://www.gov.uk/government/collections/defence-trade-and-industry-index>

during the building of a plane, a warship or a vehicle fleet. At present, however, many still procure for what he calls “atomized requirements,” demanding contracts with hundreds of measures of performance that may require suppliers to deliver products that have already been superseded.

Sharing the risks, stewarding the market

Suzanne Nickerson, Partner, Advisory Services and national lead for the defense sector at KPMG in Canada, says that contracts based on the availability of operationally-ready equipment would align the interests of defense agencies and suppliers. However such deals are currently thin on the ground, perhaps as they involve a significant change to defense agencies’ usual role as market administrators. “We are seeing the role of government shifting to market steward, to taking a different approach to risk, and sharing risk and responsibility between government and industry,” she says.

Australia is moving towards greater use of risk-sharing between government and suppliers as a result of its plan, announced in 2016, to spend A\$195 billion (US\$149 billion) on military acquisitions. It decided that existing procurement models could not deliver this program, and in April 2018 it released its Defence Industrial Capability Plan. This explores the use of collaborative contracting, which is commonly used in the construction and infrastructure sectors and involves shared risk, transparency, accountability and incentivizing agreed outcomes. A model of this kind has been used in a collaboration to refit and refurbish three of Australia’s guided missile frigates, which resulted in a 44 percent decrease in hourly labor costs, a 38 percent decrease in defects and on-time delivery of all work.⁴

Ideas from outside the military

Defense organizations can also draw on transformational work taking place in procurement functions elsewhere that allow much greater visibility and analysis of spending. Some US states have moved to digital cloud-based procurement systems, which allow them to track and analyze spending, helping them to consolidate contracts — one state found 96 contracts for the same service — and negotiate volume discounts.⁵ Mike Stone says that countries including the US and UK have already introduced ‘category management’ where commodity goods and services are bought electronically across the public sector, including by defense agencies.⁶

There are specific technologies that could make a significant difference. 3D printing, also known as additive manufacturing, means in some cases suppliers can sell digital files rather than shipping physical items. For military agencies, this could be particularly beneficial: a replacement part could be printed in a remote location or at sea, saving money and time and increasing operational availability.

Far more profound changes in procurement could take place over the next few decades. A 2016 KPMG study outlined four potential scenarios for procurement in both the public and private sectors in 2035 and beyond:

- **RIP procurement:** most procurement processes are automated, partly through use of artificial intelligence.
- **Procurement primacy:** with humans and software working alongside each other, procurement takes a key role in organizations, overseeing operational functions.
- **Project economy world:** a human-centric world, with organizations decentralized and much work carried out by freelancers.
- **The creative agency:** procurement becomes a central hub for information, business model development, trend management and creative services.⁷

Unless the first scenario is closest to the eventual reality, procurement in many organizations is set to become more important and sophisticated.

New processes for smaller suppliers

As well as greater flexibility, some defense agencies have established new procurement processes designed to attract smaller, more innovative suppliers. These include the Other Transaction Authority (OTA) process and the Defense Innovation Unit Experimental organization (DIUx), both in the US; Australia’s Defence Innovation Hub and Next Generation Technologies Fund; and Canada’s recently-launched Innovation for Defence Excellence and Security (Ideas) program.⁸ Suzanne Nickerson says the C\$1.5 billion (US\$1.15bn) Ideas program includes innovation networks, contests and competitive projects, alongside the broader Sustainment Initiative which aims to make military contracts more cost-effective and flexible, while also creating jobs and economic growth.⁹

Nickerson says that deeper relationships with a larger number of smaller suppliers are vital in accessing new technologies: “Whether it’s data analytics, virtual reality or automation, that’s where the non-traditional and smaller players can play

⁴ Collaborative contracting in defence: the challenges and opportunities of putting theory into practice

⁵ Government procurement transformation: how to create a practical strategy for success

⁶ See <https://www.gsa.gov/acquisition/category-management> and <https://www.gov.uk/government/organisations/crown-commercial-service>

⁷ Future-proof procurement: now or never, the big procurement transformation

⁸ See <http://iac.dtic.mil/ota.html>, http://defenseinnovationmarketplace.mil/DII_Defense_Innovation_Initiative.html and <https://www.canada.ca/en/department-national-defence/programs/defence-ideas.html>

⁹ <https://www.canada.ca/en/department-national-defence/news/2017/02/sustainment-initiative-government-modernizing-defence-procurement.html>

a much greater role.” However, she says that such suppliers can be discouraged by traditional defense procurement approaches, such as insisting that deals including the purchase and transfer of intellectual property.

There are other options for defense agencies looking to strengthen their links with smaller suppliers. These include the use of framework agreements, which save suppliers time and effort by allowing them to apply once and then sell many times in a category to a range of government agencies. They can also support innovators directly, something the US Defense Advanced Research Projects Agency has done for more than six decades.¹⁰ More recently, UK signals intelligence agency GCHQ has helped establish an accelerator for cyber security start-ups that provides grants, workspace and access to the agency’s staff and personnel.¹¹ A recent review of how the UK defense can contribute to national prosperity recommended increased agility in procurement, by removing excess process and considering the impact on the UK economy, including through greater collaboration with smaller suppliers outside the defense sector.¹²

Increasing competition for contracts

Nickerson says that finding new suppliers could help agencies reduce their dependence on non-competitive contracts, which are estimated to make up more than 30 percent of military deals worldwide and are often used for maintenance. It also opens the way to better pricing arrangements: “Most non-competitive contract pricing works as cost-plus-profit percentage, negatively incentivizing suppliers and increasing costs,” she says. The supplier is under less pressure given they did not compete to win the business and has an incentive to increase costs as they will gain from doing so. In 2014, new regulations were introduced in the UK to manage such contracts, although some suppliers are resisting their use, according to a recent audit report.¹³

One way to tackle such industry resistance is to involve suppliers in the development of new procurement and contracting methods, with Australia publishing a better practice guide to early industry engagement. The country is also working to encourage new suppliers by providing more information on security clearance requirements, export controls and sovereign capability policy decisions, the last focusing on retaining a country’s ability to produce military equipment such as a fighter jet from domestic suppliers.

Developing defense procurement culture

But Mike Stone says that, despite some governments setting percentage targets for purchases from smaller suppliers, military agencies still prefer to deal with big organizations, finding ways around the targets. “It often just means that a larger provider teams up with a bunch of smaller ones, and then subsequently acquires them,” he says. “They want the stability of the larger provider and some of the innovation that comes from the smaller ones.”

He believes that one of the greatest opportunities in defense procurement would come from changes to its culture: “They have been brought up in a highly structured way,” he says of officials. Procurement exercises often proceed at a cautious pace, partly to avoid repeating past mistakes which have wasted taxpayers’ money, but this has its own disadvantages. “We must all work together to find ways which will enable procurement at pace, with the right degree of compliance and governance,” says Stone.

Seizing the opportunities for better military procurement will require strong leadership and a different style of staff training, he adds, so that in fast-moving areas such as information technology, procurements can “match the lifecycle” by taking much less time to complete. At present, the multi-year, fixed-price nature of many procurement exercises means agencies have to predict what they are likely to need in several years’ time: “The trouble is, nobody can think that far ahead,” he says.

Improved flexibility of contracts, more sharing of risks with suppliers, bringing in ideas from other sectors and encouraging smaller suppliers are all ways in which defense procurement could be improved. But perhaps the most important is to shift defense procurement officials from trying to predict the future to making use of agile methods of buying that allow them to take advantage of what the future brings.

Further reading

Government procurement transformation: how to create a practical strategy for success, KPMG Government Institute, May 2017.¹⁴

Future-proof procurement: now or never, the big procurement transformation, KPMG and Florida State University, April 2016.¹⁵

¹⁰ <https://www.darpa.mil/about-us/about-darpa>

¹¹ <https://www.gov.uk/government/news/groundbreaking-partnership-between-government-and-tech-start-ups-to-develop-world-leading-cyber-security-technology>

¹² Philip Dunne MP, Growing the Contribution of Defence to UK prosperity, July 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/723679/20180709_MOD_Philip_Dunne_Review_FOR_WEB_PUB.pdf

¹³ Improving value for money in non-competitive procurement of defence equipment, National Audit Office (UK), October 2017: <https://www.nao.org.uk/report/improving-value-for-money-in-non-competitive-procurement-of-defence-equipment/>

¹⁴ <http://www.kpmg-institutes.com/institutes/government-institute/articles/2017/05/government-procurement-transformation-how-to-create-a-practical11.html>

¹⁵ <https://advisory.kpmg.us/managementconsulting/function/procurement-advisory/future-proof-procurement.html>

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Mike Stone is renowned for his use of innovative technologies to disrupt and transform business models in order to realize large scale benefits. He has repeatedly demonstrated his ability to deliver business outcome goals by resolving highly complex and ambiguous challenges at pace across a wide range of sectors including the technology, telecoms and public sectors. His experience includes roles as Chief Digital and Information Officer for the UK MOD, CEO of Defence Business Services, CEO of the MOD's Information Systems and Services organization, Group EVP & Chief Client Officer of Mastek, President Service Design and CIO of BT Global Services, COO of BT International and CEO of BT OpenAccess. As KPMG's Global Head of Technology Transformation for the Infrastructure, Government and Healthcare sectors, Mike is responsible for optimizing the benefits clients obtain from their business transformation programs through the use of technology.



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