

UK GOVERNMENT INVESTMENTS

THE PROVISION OF CONSULTANCY SUPPORT REGARDING GEOSPATIAL DATA

PROPOSAL FOR SUPPORT

Prepared by
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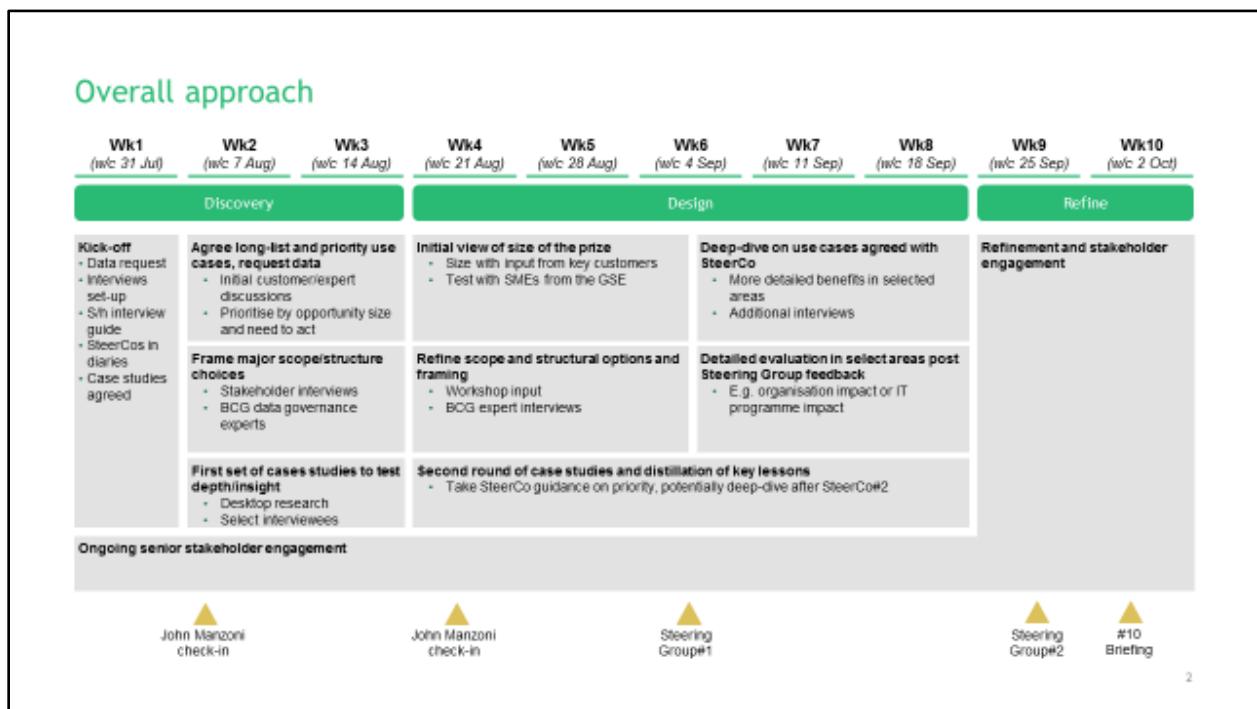
16th August 2017

4 Methodology

4.1 The Potential Provider is required to outline their approach to undertaking their aspects of this project. This should include a project timeline for the deliverables outlined in Appendix B and a resource plan of the proposed team and where their time will be focused. Potential Providers should also demonstrate how they will manage the requirement ensuring the critical deadlines for the Interim and Final report are met. In addition please include how you would ensure all key departments/stakeholders are fully engaged to ensure success.

Overall timeline and set of activities

We have developed a timeline and set of activities that matches your statement of requirements. This approach draws heavily from having successfully conducted highly analogous work in the US and India to size the economic impact of Geospatial data in these markets and from our extensive work in the public and private sector on organisational design.

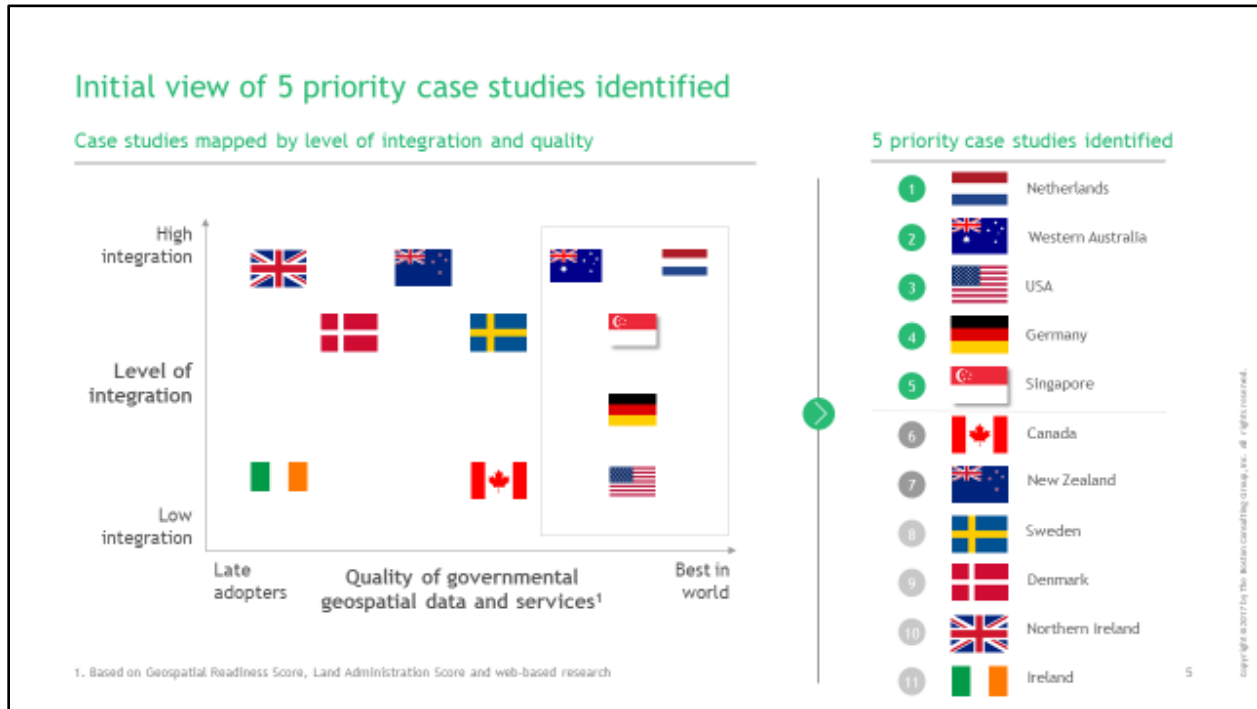


Discovery (weeks 1 – 3)

The objectives of this phase are to kick-off the project, develop a baseline of use cases, case studies, pain-points and principles and start the process of stakeholder engagement

Steps	Detailed activities
Kick-off the project	<ul style="list-style-type: none">• Initial discussion with UK-GI team on requirements and work in progress• Set-up initial round of stakeholder discussions• Get key Steering Group, Working Group and Sounding Board meetings in the diary• Agree initial view of case studies
Agree list of use cases	<ul style="list-style-type: none">• Review previous reports and conduct BCG expert interviews to develop initial use case framework• Test with working group to ensure coverage and buy-in• Develop use case template and begin to size• Develop top-down view applying previous reports
Frame major scope/ structural choices	<ul style="list-style-type: none">• Develop long-list of scope and structural choices, leveraging parallel DCMS work and previous agency reviews• Agree list of criteria for classifying different data bodies by the level of co-ordination required• Interview BCG data governance experts and frame alternative models and trade-offs
Develop case study long-list and initial insights	<ul style="list-style-type: none">• Collect long-list of use cases from stakeholder discussions and desktop research• Prioritise in order to arrive at ~5 or so high performing organisations with a range of integration models• Create initial view of case study and test with client• Set-up expert interviews to deep dive into selected countries

An initial view of the key international case studies and method of prioritisation is outlined on the slide below



Design (weeks 4 – 8)

The objective of this phase is to arrive at an initial set of recommendations to be tested with the Steering Group

Steps	Detailed activities
Develop initial view of size of prize	<ul style="list-style-type: none"> • Develop framework for prioritising • Conduct high-level sizing leveraging BCG experts and previous reports • Develop high-level view of role of government based on criteria agreed with working group • Test and refine with working group participants to generate buy-in and ensure coverage
Deep-dive on priority use cases	<ul style="list-style-type: none"> • Set-up deep-dive private sector interviews on most important or controversial use cases
Refine scope/ structural options and framing	<ul style="list-style-type: none"> • Identify pain-points from stakeholder interviews and previous reviews • Identify potential design principles (design criteria) and structural options and test with Working Group • Get Steering Group and Sounding Board input on principles and models
Detailed evaluation of scope/structure options	<ul style="list-style-type: none"> • Deep-dive in priority areas (e.g. governance or technology) as directed by the Steering Group

Develop set of international case studies	<ul style="list-style-type: none"> • Develop remaining international use cases through desktop research, prior report synthesis and expert interviews
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In the design phase we will utilise our proven approach for use case sizing, deployed in our US and India reports tailored to the requirements of UK-GI and this piece of work. The slide below gives an overview of the sizing approach

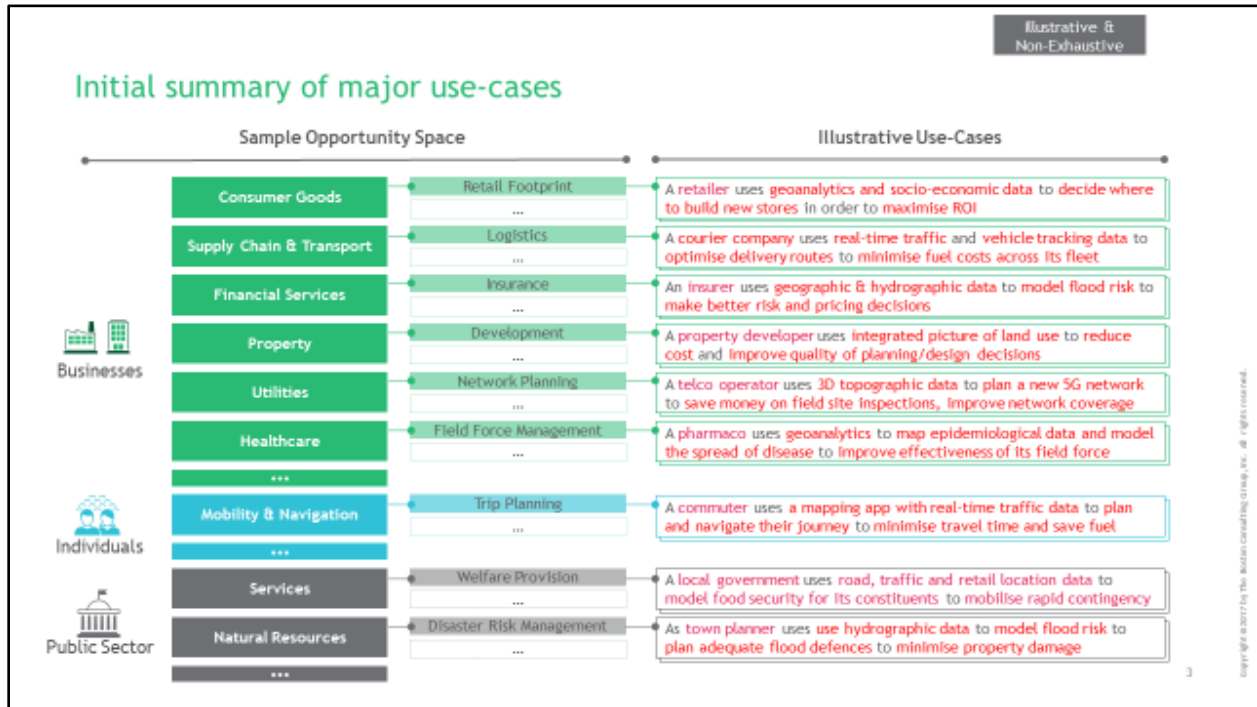
Approach to sizing economic impact

Our approach leverages analogous work in the US and in India

Identify specific use-cases in each sector	Assess current use & adoption	Quantify overall impact	Compile final impact multipliers	Describe the role of government
Develop long-list of use-cases for each sector Use desktop research, prior reviews, BCG expert interviews & working group input	Assess current rate of adoption of use case in industry Use desktop research, prior country reports and BCG expert interviews Use Rodger's curve to define high level buckets for expert validation	Estimate initial impact factor of use case on revenues and costs Use previous country reviews and prior BCG work in the US, and validate with experts Use bucketing consistent with previous BCG work e.g. <ul style="list-style-type: none"> Low: <1% Med: 1-5% High: >5% No effect 	Refine impact factor and extrapolate to overall industry Use selective industry participant and BCG expert interviews to assess <ul style="list-style-type: none"> Refined productivity estimate Applicability factor - cost base factor applied to Industry scope - which sub-sectors are relevant 	For each use case describe the potential role of government in driving greater value Use working group participant input to define potential extent of governments role

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The slide below gives a starting point for the list of major use cases leveraging our previous work in the US and India on sizing the economic value of geospatial data.



Refine (weeks 9 – 10)

The objective of this phase is to refine key final recommendations papers and brief senior stakeholders across government

Steps	Detailed activities
Synthesise	<ul style="list-style-type: none"> Synthesis papers into single narrative for final Steering Group and Number 10 discussion
Engage and refine	<ul style="list-style-type: none"> Engage senior stakeholders and sounding board on key recommendations Refine briefing paper with stakeholder input

Stakeholder engagement

The steps above will be underpinned by broad stakeholder engagement. Specific activities across these areas will include:

- Daily interactions and informal meetings with the UK-GI working team (facilitated by the BCG and UK-GI teams working side-by-side in 1 Victoria Street once security clearances are available)
- Weekly participation in cross-Department working group, contributing to integration of work and alignment on key messages. Departments and bodies involved include BEIS, DCMS, DCLG, GDS, DEFRA, MOD and National Archives alongside UK-GI
- 1:1 briefings with key organisational leaders (e.g. Steering Group and Sounding Board members) ahead of key meetings in order to align on content and objectives, and avoid any unnecessary 'surprises' during the meeting
- 1:1 meetings with senior stakeholders (e.g. Ministers, Agency senior executives) in order to engage them with the process and get their input and buy-in

Resource plan and focus

We have developed a resource plan to ensure access to deep private and public sector expertise and to achieve Value for Money for UK-GI

Resource	Individual	Focus	Time commitment
Project Leadership	<ul style="list-style-type: none"> • Alastair Flanagan • Patrick Roche • Karalee Close 	<ul style="list-style-type: none"> • Supporting senior stakeholder engagement • Thought leadership and private sector use case examples 	80% (combined)
BCG experts	<ul style="list-style-type: none"> • Nic Gordon • Rash Gandhi • Miguel Carrasco • Michael Tan • Frederick Lind • Adam Whybrew • James Tucker 	<ul style="list-style-type: none"> • Data governance • Analytics capabilities • International case studies • International case studies • International case studies • Data use cases • Land registry privatisations, intl. case studies 	
Project management	<ul style="list-style-type: none"> • James Hollingsworth 	<ul style="list-style-type: none"> • Managing day-to-day work of BCG team 	100%
International case studies	<ul style="list-style-type: none"> • Kate Browning 	<ul style="list-style-type: none"> • Developing the international use cases • Distilling key lessons learned 	100%
Private sector opportunities and challenges	<ul style="list-style-type: none"> • Graeme Burns 	<ul style="list-style-type: none"> • Sizing the private sector use cases • Identifying the challenges today in realising those use cases 	100%
Options and assessment	<ul style="list-style-type: none"> • Kayne Harwood 	<ul style="list-style-type: none"> • Examining best practice data governance models 	100%

		<ul style="list-style-type: none"> • Framing scope and structure options • Interviewing stakeholders • Evaluating options against agreed principles 	
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In addition to the named experts we will reach out to the key BCG practice area leads (partners and senior partners) across the major industries in order to validate our view of use case size and impact as needed.

Please note: Per the approach section, we are proposing 10 weeks of work to complete the requirements outlined. Given the importance of this project to HMG we are proposing to invest the first 4 weeks of our support at no cost to HMG. The days quoted in the pricing template reflect charges for 6 weeks of effort only – there will be the equivalent of (approximately) 36 Director days, 20 Managing Consultant days, and 35 Principal Consultant days invested in addition to this and at no cost. We will also invest the time of our knowledge analyst teams to support with desk based research as required.

Post the end of the proposed approach period (w/e 2nd October) the senior team would remain available to support ongoing senior stakeholder engagement etc. for a period to be mutually agreed with UK-GI.

Ensuring critical deadlines are met

We will use a proven approach to ensuring critical deadlines are met, that we have successfully deployed on a number of public and private sector cases to-date

- We will conduct early interviews with senior stakeholders to gather ingoing views and reduce likelihood of last minute changes
- We will invest additional resource as needed to ensure all critical milestones are met (at no extra cost and within the proposed fixed price for this work)
- We will provide continuous and early visibility of progress towards key milestones – including through daily interaction and more formal weekly process updates with UK-GI
- Where possible we will take an inductive approach to outputs, preferring to get a rough draft out early for iteration than to produce documentation at the last minute
- We will conduct weekly process update with UK GI as appropriate to discuss progress and deliverable status
- We will team flexibly across the BCG team to ensure coverage and manage workload across the life of the project

4.2 Please demonstrate your approach for the assessment and analysis of the proposed options

Overall approach

There are four steps to our approach to assessing operating model design choices/options. This is similar to the approach we have successfully deployed in 100s of organisation design cases in the private and public sector and will leverage our expertise in data governance and digital organisations.

Steps	Detailed activities
Baseline and pain points	<ul style="list-style-type: none"> • We will develop a baseline understanding of the current ecosystem and develop a view of key pain points that the work needs to resolve • We will do this by conducting a range of structured stakeholder interviews across relevant bodies to understand perspectives and by synthesising previous review findings on the relevant bodies
Design principles	<ul style="list-style-type: none"> • We will develop long-list of principles that will guide the assessment and recommendation of preferred options • We will do this by leveraging BCG prior work on organisation design in the private and public sector with particular reference to requirement of digital organisations. We will refine the list with senior stakeholder, steering group and sounding board input • Principles may include increased agility and resilience, required 'heft' to enable cross Whitehall co-ordination etc.
Options development	<ul style="list-style-type: none"> • We will develop a long list of viable options and iterate these in conjunction with UK-GI and the working team. • This will be done by leveraging international case studies, BCG best practice and will capture the strategic options to solve for he identified pain points and achieve the desired design principles. • Options may range from broadly keeping existing institutions unchanged but making an existing body accountable and empowered to drive data standards, governance and collaboration through to structural options for combining existing organisations
Options assessment	<ul style="list-style-type: none"> • We will assess options against the design principles in order to arrive at a set of potential recommendations, this will include a view of the end-state as well as the step-wise "Journey" to get there • We will do this by testing options with key stakeholders, the Steering Group and the Sounding Board as well as applying prior learnings from BCG's extensive work on organisation design

4.3 The Potential Provider is required to outline their proposed project team, this should include CVs for all members of the team. References and experience should clearly show the strength of technical capabilities and demonstrate why they are best suited to support the delivery requirements.

Project leadership



**Alastair Flanagan
Senior Partner and Managing Director, London**

Since joining BCG in 1987, Alastair has worked with a wide variety of clients in the UK, US, Europe, Africa, Asia and South America at operational, executive and board level. He has deep experience in strategy, operational effectiveness and change management issues across many industries. Alastair has worked extensively in the public sector, travel, industrial goods and healthcare sectors.

Alastair led the BCG teams that completed our previous work with MOJ. He also leads our relationship with HM Treasury, the Cabinet Office and other major HMG departments. Particularly relevant for this project is his breadth and depth of experience in the public sector, cost reduction and change management. Example projects include:

- Designing a new Target Operating Model for the Department of Education
- Redesigning functional services for a major public sector transport authority in the UK to support the delivery of significant efficiency goals
- Cost mapping and efficiency and effectiveness assessment across government departments
- Using zero Based Budgeting approaches and leveraging new information technologies to redesign the business model and operations of an international carrier
- Multi-year transformation and strategic review across the international operations of a global pharmaceutical company
- Assessment of the operating model, cost and effectiveness implications of introducing new technologies in R&D for a major global pharmaceutical company.

Before joining BCG, Alastair worked as an actuary for Legal and General in Zimbabwe.

Education

Alastair obtained a first class honours degree in Business Science from the University of Cape Town where he had an Anglo American Open Scholarship. He was awarded a Beit Trust Postgraduate Fellowship to study at Oxford University where he received an MPhil in Management Studies.



Patrick Roche
Partner and Managing Director, London

Since joining BCG in 2004, Paddy has worked extensively across operational topics and support function excellence in the private and public sectors.

Paddy co-leads our public sector practice and specialized in strategy, operating model design and large scale transformation.

Examples of relevant experience include:

- Led the operating model redesign and transformation work at DfE – incl data and digital transformation
- Led the TFL operating model redesign and transformation program support – incl technology and data workstream
- Led op model design and business transformation for global Medtech Co
- Strategy to address disadvantaged communities via repayable finance
- Led numerous cost and efficiency projects across government, e.g.
 - "HMG at the Border", Health and Social Care, Mental Health, Research
- Led commercial operating model redesign for a global health care player

During his time at BCG, Paddy has worked in a number of BCG offices, including spending a number of years in Australia.

Education

Before joining BCG, Patrick worked for Deloitte Consulting (formerly Andersen) in their strategy practice. Paddy has a Masters in Engineering Science from Oxford University.



Karalee Close

Partner and Managing Director, London

Leads BCG's Global practice on Digital, Analytics and Technology in Healthcare. Core member of BCG's Global Healthcare and Technology practice leadership.

Recently published: ***The Digital Imperative, The Digital Dimension of Healthcare, and Big Data: Opportunities for Payors and Providers***. Speaker at industry conferences, including. Led BCG's development of Innovation Value Institute including IT capability maturity methodology for use with hospitals, linking IT capability with EHR adoption.

Technology-strategy in Healthcare – leading Providers, Pharma, MedTech

- Digital and Big Data strategy for Providers, BioPharma, MedTech
- IT strategy and transformation (current state, target architecture, sourcing strategy, roadmap and set-up for delivery)
- IT capability maturity and organisation
- Project recovery, process design, vendor selection / contracting, solution design.

Software and Information-based business models in Healthcare

- Software strategy covering range of markets in Europe, North America and Asia (EMR, Critical care, OR/Anaesth, ERP)
- Market and competitive strategy and strategic due-diligence for software players in healthcare
- Market assessment and growth strategies in healthcare analytics.

IT transformation and capability – HC and other industries (Media, Telco, Consumer & Retail, Automotive)

- IT strategy and governance, architecture and project portfolio management
- IT in PMI, Business-IT roadmaps for capability development (e.g, Digital, Online)
- IT organisation and capability development
- Simplify IT – cost reduction and service improvement
- Sourcing, BPO and large-scale project recovery & program management

Prior to joining BCG, Karalee held Senior management positions in **Corporate Planning** and **Information Systems** in Hospitals. She has 8 years of hospital and healthcare experience (incl. tertiary care, government and Public Health).

Education

Ms. Close has an MBA from University of Toronto and a BSc in Health Informatics from University of Victoria, both with distinction.

Project management (on the ground 5 days per week)



James Hollingsworth **Principal, London**

James is a core member of our Public Sector and Strategy Practices. He has experience in strategy, digital and large scale transformation in the Australian and UK public sector.

In 2013 James completed an ambassadorship to the BCG Strategy Institute in New York, to deepen BCG's understanding and client engagement on adaptive strategy.

Examples of relevant work include:

- Helped a welfare department prepare for digital transformation by simplifying the policy landscape to unlock the value of new technologies
- Developed a new operating model and defined the reform programme for a communications department to better anticipate and respond to shifts in the digital economy
- Examined the investment landscape and developed options for increasing the level of private investment in disadvantaged communities in the UK, including sizing major opportunities
- Developed a new operating model and set up an ambitious transformation programme for a major UK government department and its associated NDPBs
- Reviewed the strategy and planning function of the Australian Department of Defence as part the First Principles Review of Defence, the most ambitious review of the Department since the 1970s
- Reviewed the portfolio planning rules and capability development processes for a major Australian government department in order to increase approval speed and co-ordination
- Reviewed the ICT reform plan and implementation progress for a large federal government department.

Before joining BCG, James was an Associate Director in the investment banking division of UBS AG in the financial services and telecommunications practices.

Project execution (on the ground 5 days per week)



Graeme Burns **Consultant**

Graeme is a core member of BCG's Technology Advantage Practice and he has worked for clients across the UK, Australia, South East Asia and the Middle East within health care, financial services, telecommunications, higher education, and defence sectors.

His focus is on technology strategy, designing technology-enabled products, services and customer-experiences, and leading technology-enabled transformation programmes.

Relevant case experience

- Founded C-level enterprise architecture practice and IT governance framework for Australian government-owned telco. Led end-to-end process architecture for BSS/OSS platform design & procurement whilst mentoring 20-business process analysts in design of procure-to-pay, trouble-to-resolve, lead-to-cash and hire-to-retain processes
- Co-developed digital & data strategy for a leading global pharmaceutical and consumer health company, including analysis to identify and quantify priority opportunity areas across pharmaceutical value chain
- Designed the IT operating model and capital budgeting framework as part of a strategic cost reduction and shared services transformation program for Australia's largest university delivering 20-30%/yr savings
- Operationalised a 20-person, multi-national design authority function for a Gulf Nation's defence supply chain transformation. Managed sourcing, negotiation and procurement of technology and system integrator contracts (US\$350M)
- Led the customer experience strategy and enterprise architecture roadmap design for Australian wealth manager, optimising ~AU\$400M IT-spend and designing a 3-year migration roadmap.

Education

- Master of Business Administration, London Business School, UK
- Master of Commerce (Financial Econometrics), University of New South Wales, Australia
- Bachelor of Telecommunications Engineering (Honours), University of New South Wales, Australia.



Kayne Harwood
Senior Associate

Kayne is a core member of BCG's London office with experience in digital, public sector and financial services. Prior to joining BCG he was a corporate solicitor for the Transport Accident Commission.

Expertise

- Digital strategy
- Evaluation of public policy initiatives and simplification of legislation and policy
- Probity and integrity in public procurement

Relevant case experience

- Conducted a rapid review of welfare payments for Ministers' offices, assessing alignment with policy intent and identifying opportunities for fiscal savings
- Conducted workshops to create consensus on simplification of policy and legislation for government service delivery department in preparation for a >\$1b IT transformation
- Designed and implemented a voluntary benchmarking initiative for suppliers of services to a government insurance agency, in a complex stakeholder environment
- Designed a digital strategy, including sizing the benefits of digital initiatives for a credit card company.

Education

Kayne has degrees in Law and Commerce from Deakin University. He graduated Law with first class honours.



Kate Browning
Associate

Kate Browning is part of BCG's Technology Advantage Practice in London.

She has breadth of experience across several high-profile public sector transformation projects, with a focus on technology. This includes transformation of the IT function and enabling significant business change through new technology.

Expertise

- Public sector transformation
- IT cost and structure analysis
- Complex Agile IT delivery
- Digital strategy

Relevant case experience

- Led the business change function for three major projects at the Home Office's Immigration Platforms Technologies Programme, a large-scale and ambitious Agile delivery. She worked closely with developers on product development and process design for a creating a person-centric view from multiple databases
- Reviewed the IT structure and spend of a leading Utility to identify key ways to achieve major cost reductions and improved service
- Assessed the digital maturity of a leading European Utility with multiple business to identify next steps on the strategic digital roadmap
- Coordinated Programme Management for the Better Care Fund for the Department of Health and CCGs, to join up different workstreams within the programme and collaborating departments and agencies.

Education

Kate holds a law degree from Cambridge University.