Future of Consultancy

Future of Consultancy

one industry I one voice I one future

#FutureOfConsultancy

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Drivers of change

Data

Effectively harnessed, the plethora of customer use and performance data could deliver annual benefits of **£15Bn across the UKs infrastructure sector[1].**

Demand

Society's expectations of our built environment are changing, reinforced by Government commitments to **Net Zero by 2050[2]** and an **increasing influence of ethical investors** – 50% have increased their allocation to sustainable funds compared to five years ago[3].

Devolution

The devolution of both spending and decision-making powers will bring **closer alignment between the customers and users** of the built environment. Between July 2012 and August 2014, **26 city deals were agreed[4]**.We must adapt to meet the needs of these new clients.

1. https://www.nic.org.uk/wp-content/uploads/Data-sharing-in-infrastructure.pdf
2. https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law
3. https://www.instituteforgovernment.org.uk/our-work/devolution/devolution-uk-nations
4. https://researchbriefings.files.parliament.uk/documents/SN07158/SN07158.pdf

Introduction

Hannah Vickers
Chief Executive
ACE

Craig Huntbatch
Vice Chair
Future of Consultancy

We stand on the verge of the transformation of our industry, driven by both the digital revolution and society's expectations.

Our engineering tools are changing as a result of digital transformation – the plethora of customer and asset performance data and new technology at our disposal brings evidence for better insights, quicker analysis and broader simulation. But we must harness them to deliver what the society of the future is demanding of us: deploying our expertise to set the roadmap to Net Zero and supporting long term socially accountable decisions and investments.

In doing so, we will build confidence that our built environment will support a safer, more prosperous and productive society.

The opportunity is in our grasp: over 30% of the UKs GVA and every one of the UKs citizens uses our products daily – which other industries can say that? As designers we cast a longer shadow and have a higher degree of influence than any other parts of the construction sector.

So what's the vision? A new role for consultancy as a technical partner where our expertise provides the evidence for how to deliver the political, national and local drivers of value. This means:

- At a strategic policy level, enabling the right decisions to be made for communities.
- On projects, assuring the design integrity, collaborating with the team to build the digital assets first then assuring the delivery against this design.
- In operation, working at a system level understanding and analysing performance to target the most effective interventions across individual clients.

And above all bringing together these three capabilities into a golden thread.

As a consultancy industry we are striving to deliver this vision; where the value we unlock is recognised and rewarded, helping to provide fantastic careers which attract, retain and build a diverse and talented workforce.

Where does this campaign fit with other initiatives? The National Infrastructure Assessment and Industrial Strategy have set us some bold targets. Working as part of the Construction Sector Deal with the Construction Innovation Hub, we are setting out how we as consultancy and engineering firms will contribute, showing real business leadership to guide initiatives into a single co-ordinated programme for delivery. We are delighted that so many firms have collaborated not only to help set this vision, but to deliver it. We will both welcome and need your ongoing support going forward.

What is the opportunity?

For society

Driving a new focus on the performance of the built environment as both a digital and physical system, where the physical assets and digital twins work in harmony to provide better services to users; supporting the flow of data to demonstrate better social, economic and environmental outcomes.

With 99.5% of our assets already in existence and the exponential creation of data relating to their operation, condition and use, as a nation we are on the verge of being able to unlock huge value from the insights that data can provide. There is no way we will be able to embrace the drivers of change and deliver on societies expectations unless we work at a system level and on the existing asset base. This is the opportunity for consultancy.

For consultancy businesses

We envisage a new role for consultancy, as a technical client partner tasked with unlocking the value from the digital and physical system. This new role will deliver a broader strategic scope for clients across the disciplines of policy, delivery and operations; delivering demonstrably better outcomes for people and society through a clearer and more transparent link between people and place and the decisions that are taken.

> We directly influence the lives of everyone in the UK and underpin the productivity of over 30% of the UKs economy through our work on the built environment. Our largest resilience risks and opportunities to respond to the drivers of change lie between the networks at a system level. However at present our capability is predominantly deployed during the construction phase which is only 6% of UK GDP, this is a huge opportunity.
>
> *Craig Huntbatch ACE Vice Chair – Future of Consultancy*

Through this change we will ensure we our industry is recognised and rewarded for adding value, is welcoming and attractive to work in, driving more inclusive, varied and rewarding careers.

The reputation of consultancy needs to be repositioned to ensure it is ready for this evolution. It needs to move up the value chain. The technical expertise we provide needs to be regarded equally as important as the delivery of physical assets and we need to develop our capabilities, business models and research to deliver in this new world.

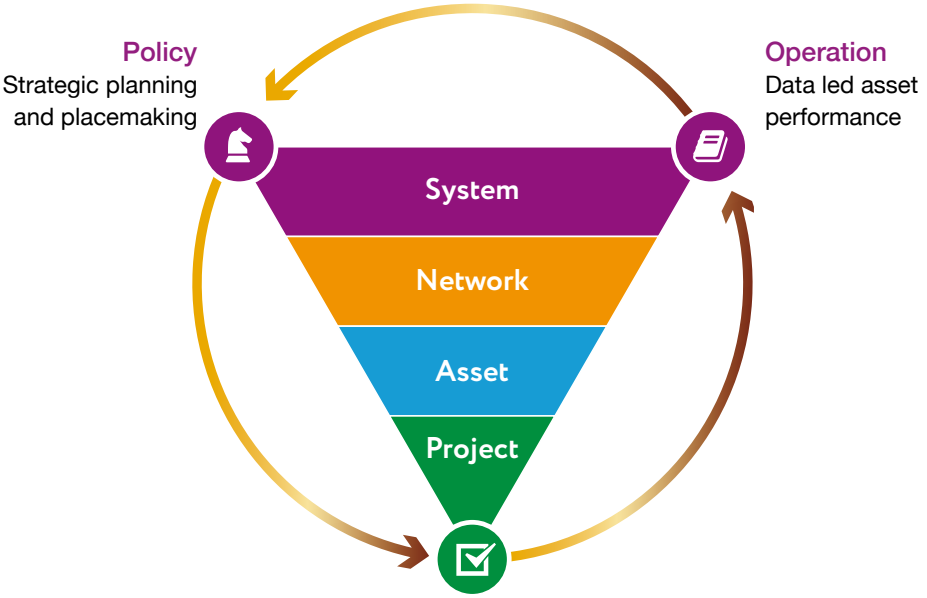
The Golden Thread

In the Hackitt review the concept of the Golden Thread protects the assets information, in turn providing an evidence base and assurance for decisions throughout the assets life.

The new role for consultancy is focused on the value that technical expertise can add when managing the information through these transitions. It's a virtuous circle through the assets life that allows for better more informed decision making and assurance. When engaged correctly we are the custodians of this golden thread through policy, delivery of projects and operations across assets and even between clients networks at a system level.

About the consultancy industry

- Export - ACE members employ over 60,000 people in the UK and 250,000 worldwide.
- Business Investment - We contribute 8.3% of national GVA and are part of a sector that contributes 30% of the economy.
- SMEs - The vast majority of our industry by number is made up of SMEs who will be increasingly able to scale their offering as result of digital technology delivering productivity improvements.



'Adapted from HM Treasury Transforming Infrastructure Performance 2017'

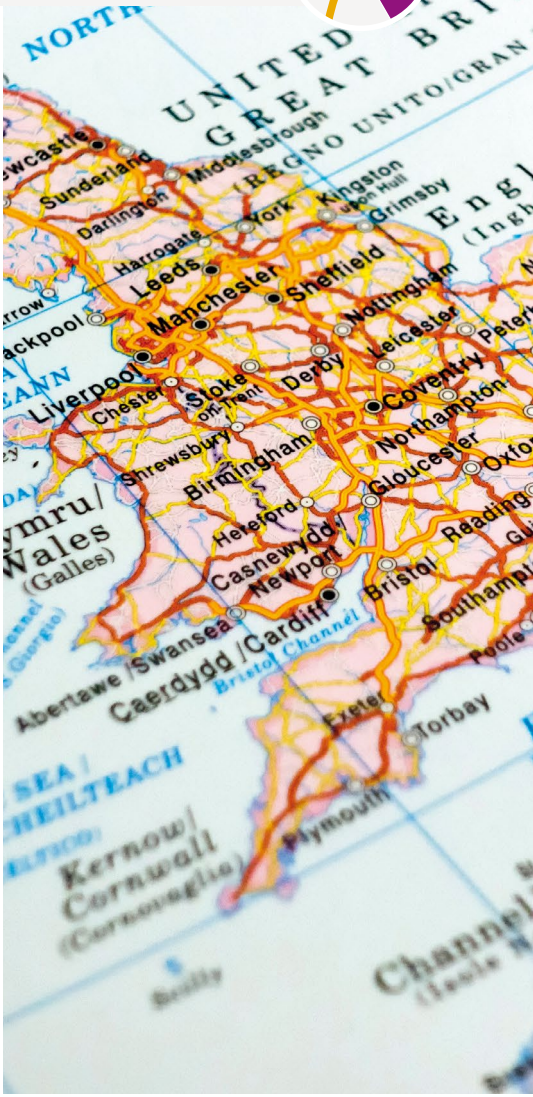
The three disciplines

Policy - Strategic Planning and Placemaking

Infrastructure is the fabric of society that binds our communities together. It strengthens the connection between people and the places we share, and through these connections we create a community.

Statutory planning documents and design guidance often refer to the requirement for new developments to create a particular type or sense of 'place' and yet, throughout the construction sector, there remains a degree of uncertainty about how this translates to a physical project.

By placing design at the heart of the strategic planning process, consultancy businesses are able to provide high level advice to meet our social aspirations. Technology has enabled us to develop deeper insights and simulate strategic plans against multiple requirements iterating until we find the right solution for each place. This results in a unique masterplan designed with people and place in mind. These digital models can also prove incredibly powerful in identifying and drawing together funding opportunities: making unviable development sites viable and maximising the outcomes for society from any public investment. It's about making the right strategic decisions for a long term vision.



Ramboll- Nordhavnen

Ramboll has developed a holistic and integrated urban planning model which encapsulates the environmental, social, economic, and physical aspects of a city as whole system rather than treating each element of the urban environment, such as water or transport infrastructure, in isolation. This approach combines strategic development that focuses on policy making, socioeconomics, and stakeholder management alongside urban master planning and detailed design of infrastructure, architecture, urban landscaping, and design. These are central to the development of Nordhaven in Copenhagen, Denmark. This initiative, which covers 625 football grounds, is Scandinavia's largest and most ambitious city development project to date. The overriding vision for Nordhavnen is to become the sustainable city of the future and it is the only new urban district to receive DGNB's highest gold certification for sustainability.

To promote liveability and sustainability, Nordhavn has been designed as a "five-minute city", making it possible to reach shops, institutions, work places, cultural facilities and public transport within 5 minutes' walk from any point in the district.

WSP - Tipner West

WSP recognises that our towns, cities and communities are responding to a complex set of challenges – from reducing carbon emissions to adapting to changing mobility patterns, and that devolution increasingly provides them with the means to do so.

Their Future Ready approach anticipates and responds to overlapping environmental pressures and societal trends, integrating best-practical knowledge into technically robust masterplans which connect housing and infrastructure, create high-density transport interchanges, improve physical and mental health, drive local productivity, and ultimately, accelerate delivery.

This integrated expertise is a key part of the Tipner West scheme, a new coastal housing community planned for reclaimed land in Portsmouth Harbour. Alongside engineering support to the masterplan, our planning advisors analyse wider megatrends to review future parking demand and trip generation and local projections for autonomous/electric vehicles and mobility as a service. This is supporting the vision for a healthier, greener way of living, defining managed parking provision and an integrated and people-friendly concept masterplan. It will connect people to their natural environment by focusing on more walkable spaces and even concealing cars and services underground.

Delivery – Delivering integrated projects

Design has always been the most influential phase of a project when it comes to value, unfortunately this is often conflated with cost which moves the focus to the construction phase. It's now time to apply lessons from other sectors and shift the balance back towards design.

Automation of the design process and the introduction of BIM when used correctly has the potential to improve productivity of the design process itself, making time and space for multiple design simulations focused on value creation and more productive delivery. In certain cases, this will unlock offsite manufacturing options, in others it will simply provide a forum for all project partners to input and ''rehearse" delivery before moving to site. For all projects we should be seeking to first build them digitally first. Giving cost, risk and schedule certainty by working in collaboration with the whole team before embarking on a site.

The commercial models and incentives implemented on a project can have a significant impact on the quality of the design produced and how this is assured into delivery. There is evidence that the independence of design assurance has been undermined by the inappropriate use of design and build and the impact of novation in the private sector. This enduring and independent role of design is critical to the principles of the golden thread outlined in the Hackitt Review; clarity of responsibility

and protecting the integrity of the design throughout its development and delivery stage should be paramount when developing a project and commercial structure. The designers have a role to play in safeguarding this integrity and as such should be independently at the top table on projects throughout their whole lifecycle. The digital twin is the vehicle of integration for the project we are the creators and custodians of this digital asset.

Crofton – Temple farm

Crofton Consulting were involved in a unique project where dimensioned working drawings were produced to enable a volunteer labour force to work from our output without a main contractor. Accurate 3D views could be shown to the labour force to improve their understanding.

The first phase 450-unit apartment block took little under seven months, some six months ahead of what would be typical for a project of that nature. Our development team created custom add-ins to automate asset numbering to the client's specification, quickly updating 1000s of asset tags based on space and building number.

Arup – Welsh Water Alliance

An opportunity arose to migrate the Alliance's existing collaboration environment to Welsh Water's collaboration platform of choice called Source. This project allowed Alliance Partners to seamlessly access the platform to manage their work and share knowledge.

The collaborative project between Capital Alliance, Welsh Water BIS, Welsh Water IMS and Arup began in 2017 and engaged with end-users to define a clear scope to develop features, functionality, and governance in response to their business requirements. The complex migration of over 103,000 documents from SharePoint 2010 to Source has been accomplished using the Welsh Water licenced tool ShareGate.

Thorough investigations were undertaken by BIS to confidently select a suitable tool to migrate information from a platform outside Welsh Waters domain to Source. BIS's Advisory Board (CAB) approved the deployment ShareGate allowing a licence to be provided to Arup. This sharing of digital tools and knowledge was a unique form of collaboration undertaken between BIS and an Alliance Partner allowing an efficient, cost saving approach to migration.

Operation - Data led Asset Performance

Using data to derive value from an existing asset base through making firmed decisions is widely applied in other sectors but for the built environment we are not yet maximising this opportunity.

Work is already underway establishing some ground rules around data standards and the interoperability of technology through the Construction Innovation Hub and the Centre for Digital Built Britain.

Enabled by this work we (consultancy businesses) will be able to pool data sources and analyse them to provide technical advice to clients on the most effective interventions, whether this is to influence demand or deliver a direct improvement to the assets performance. Scaling up our ambition we can work on a system and across multiple clients and their networks. It will also bring clarity to levels of resilience in the Built Environment, as we will be able to model the interdependencies between networks, and sensitivity test the risks and model opportunities. This is the single greatest area of opportunity to influence societies' interaction with, and the £15bn enhanced benefit from, the Built Environment.

Royal HaskoningDHV - Smart Ports

Smart Ports is a topical theme in the maritime industry as ports, terminals, shipping and the logistics chain seek to understand and take advantages of technology to improve the productivity of all aspects of their businesses. Royal HaskoningDHV is developing innovations around data analysis for maritime clients in both Smart Operations and Smart Infrastructure.

As an example, technology (e.g. sensors) can play an important role in extending the life of aging infrastructure assets such as lock and dock gates. These gates are critical assets for a port and their failure would have significant implications for the operation of the port.

However, these characteristics also present challenges for monitoring and maintenance of the gates. By being 'smart' Port Engineering Managers can use technology to gain greater knowledge about the day to day operation of their gates. In addition, the financial impact is significant, in one port, the use of sensor technology on gates provides a benefit of in the region of £100k per tide through enabling continuing operation of the port entrance.

BWB – Royal Mail

BWB and Deetu have implemented Location Alerts for Royal Mail (RM) Group to protect over 400 properties across the UK, representing just over a quarter of their entire estate. The system has enabled advance planning and preventative action to be taken that has minimised damage to property and assets, kept staff safe and avoided potential fines being incurred for delayed mail.

Having digitised location data for the entire RM estate and combined it with Environment Agency and weather data feeds, we're able to quickly and accurately assess which sites are at significant risk of flooding.

We use big data technologies to monitor current and forecasted weather conditions and combine these with operational information about the assets. Prioritised alerts are raised to operational managers using a variety of methods depending on the severity and location of the predicted flooding.

Delivering our strategy
The enablers

To deliver on our vision for the Future of Consultancy, we have identified three enablers that will be critical to success.

Business models and contracts

Digital Transformation is creating the opportunity for engineering and consultancy businesses to provide greater support to clients through the whole lifecycle of assets and networks, closing the gaps between policy, delivery and operations. Technology is making it easier for consultancies to develop long term commercial relationships based on a deep understanding of what is of value to their clients and how their businesses operate. This combination of financial reward for value added and greater repeat business will underpin a sector that is both highly profitable and invests heavily in innovation.

As with any transition this will take time, different clients and different consultancies will move at different speeds, existing practices will not become obsolete overnight. Similarly, there will not be a single, value-based business model. There is no end point to which all consultancies should aspire as they become more

mature. Different models will be used dependent on what the client is seeking to achieve, the nature of the services offered, the risk & complexity involved. To support this enabler ACE has developed a framework of value based business models.

Skills and capability

The evolution of our service offering, and our business model, will in turn alter the skills profile of the workforce we employ.

We have reviewed the research and analysis undertaken by academia and professional bodies, looking through the lens of a consultancy business and examining the skills and capabilities needed by our employees in future. We also considered what the workplace, values of the company, and the ownership structure should be, to meet the expectations and ambitions of emerging professionals.

Innovation

Innovation is one of the overarching themes across the entire Future of Consultancy campaign. We have analysed what is driving the wider digital transformation of our clients and how quickly they are evolving. In addition, we have identified the opportunities that innovation opens up to us in developing new products and services as well as the blockers which will require an intervention to kick start the innovation process on a larger scale.

Using value
Measuring and rewarding our performance

Natural Capital

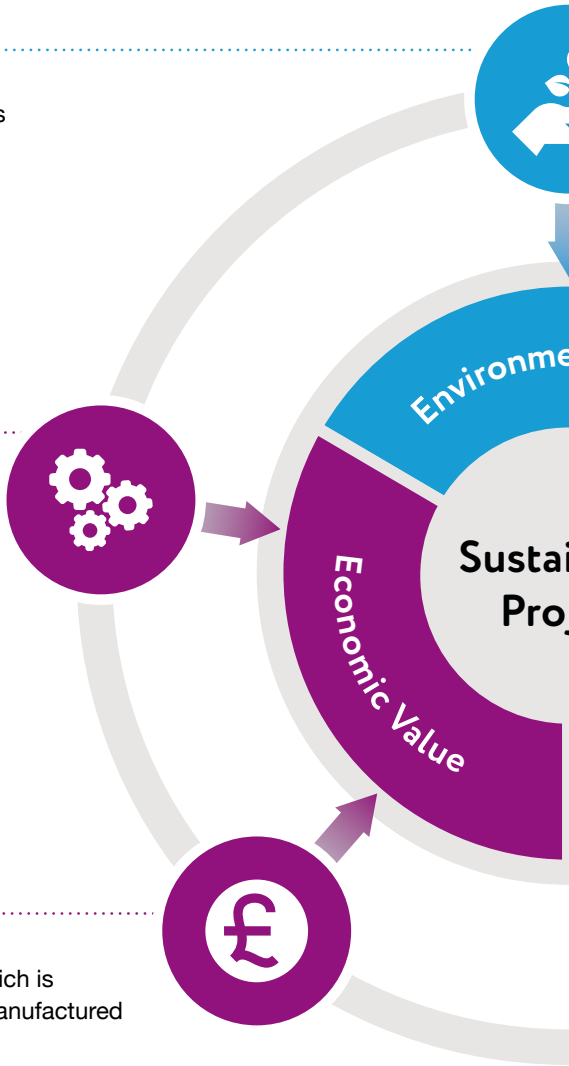
The natural environment, natural resources and the ecological services provided.

Manufactured Capital

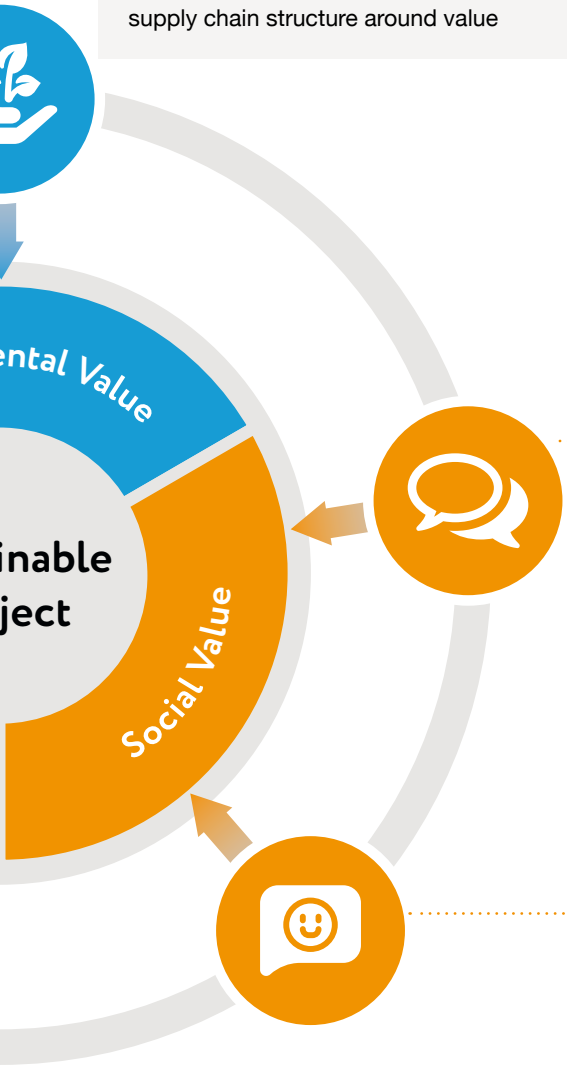
Materials and goods/assets that are required to input to the process.

Financial Capital

Traditional economic measure of value which is intrinsically linked to natural, social and manufactured capital.



To support this conversation ACE has developed the following Five Capitals models which sets a framework within which a client can define what value means to them in the context of a specific investment. This definition of value then unlocks the ability to develop a commercial model and supply chain structure around value rather than volume, similar to the approach taken in the automotive industry where the evolution of their supply chain dynamics to streamline low value processes into a production line whilst maintaining appropriate high value interaction for example through a focus on the design process rather than the construction process.



Social Capital

Societal groups, communities, schools, businesses, voluntary organisations etc.

Human Capital

The individual: health, skills and motivation required for a productive economy.

Skills and capability

Summary of research findings

To realise this new vision for consultancy will require a different profile of skills and capabilities for businesses to succeed. In addition, the career expectations of future built environment professionals will challenge our traditional professions and training providers currently supporting our businesses to develop. To analyse the change required we have broken the skills profile down into three component parts - **DEMAND** - our research points to a skills shortage not by number, but by capability, we require more highly trained/re-skilled engineers and consultants equipped for longer careers. Graduates still require the first principles design knowledge alongside greater exposure to their digital tools before they enter workforce - **BLEND** – applying our expertise to deliver strategic outcomes requires an increased capability for systems thinking through the academic and continued professional development alongside a greater focus and understanding across the different professions and where each adds value to develop deeper insights - **TEAM** - truly integrated teams will be essential in unlocking skills capabilities whether they are or across organisational boundaries and traditional professions, the new additional capability will be that of digital expertise so basic digital skills to support this interface will become increasingly important. We also expect to be forming new business to business relationships with digital businesses to bring the range and depth of specialist digital capability required.

The opportunity

Our aim is to set out a vision, whereby our quality and productivity is enhanced through investment in developing our staff and higher quantities of R&D and innovation, whilst partnering with specialist digital firms to support our professional services. This in turn will provide more

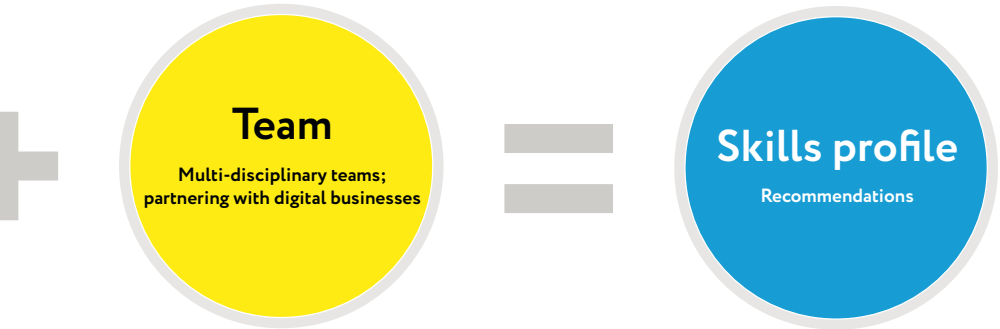
of what the emerging professionals expect from their workplace in terms of flexibility, creative, rewarding work and opportunities for personal development. The change will be enabled by a shift in the business models and a change in focus for the professional bodies and training providers to deliver a different skills profile to the industry in future.

Our findings

1. To ensure we have the right capabilities for the future, there needs to be a greater emphasis on developing systems thinking and an appreciation of the impact on societal outcomes alongside the current technical capabilities promoted within the professions.

2. Consultants can be agents of positive change. However, they operate in roles that are often misunderstood and underrepresented to the wider world which damages our ability to attract those who may be motived to effect real change and deliver for society. This attraction and retention of emerging professionals could be improved by focusing on the values of the workplace and personal development of staff. There is also an opportunity to open up alternative pathways into the professions by alternative routes such as apprenticeships.

3. Last year, the UK government announced that it will "take forward all of the recommendations" of the Hackitt review into building fire safety. We are looking to continue this research on a higher level of competence and lifelong robust continued professional development in collaboration with academic and professional institution partners before publishing joint recommendations in the new year.



Business models and contracts

Value based business models

Digital Transformation is creating the opportunity for engineering and consultancy businesses to provide greater support to clients through the whole lifecycle of assets and networks, closing the gaps between strategic planning, project initiation, construction and operations. Technology is making it easier for consultancies to develop long term commercial relationships based on a deep understanding of what is of value to their clients and how their businesses operate. This combination of financial reward for value added and greater repeat business can underpin a sector that is both highly profitable and invests heavily in innovation.

As with any transition this will take time, different clients and different consultancies will move at different speeds, existing practices will not become obsolete overnight. Similarly, there will not be a single, value-based business model. There is no end point to which all consultancies should aspire as they become more mature. Different models will be used dependent on what

Definitions

Input:

Where reward is measured through the delivery of time.

Output

Where reward is measured through achieving milestones or delivery of products.

Outcome

Where reward is linked explicitly to the achievement of the clients success criteria with no reference to the methods or processes involved.

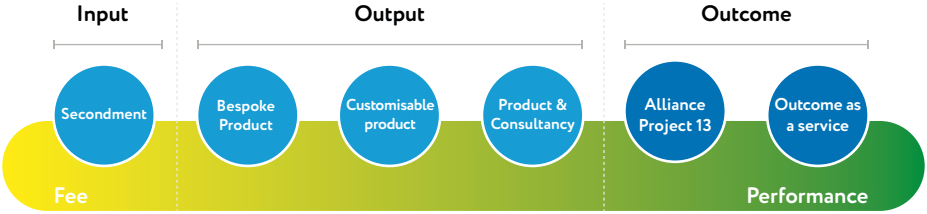


Figure 1. The value-based models

the client is seeking to achieve, the nature of the services offered, the risk & complexity involved and a host of factors. Figure 1 sets out a framework of different models which could be applied to these range of different circumstances.

These value-based models are all predicated on a clear definition of the value the client is seeking from the investment. Consultancy will need to become more adept at working with clients to tease out this definition. To support this conversation ACE has developed a Five Capitals models (page 14/15) which sets a framework within which a client can define what value means to them for any specific investment.

The purpose of the project commercial model should be to cascade the definition of value and incentivisation of performance throughout the project.

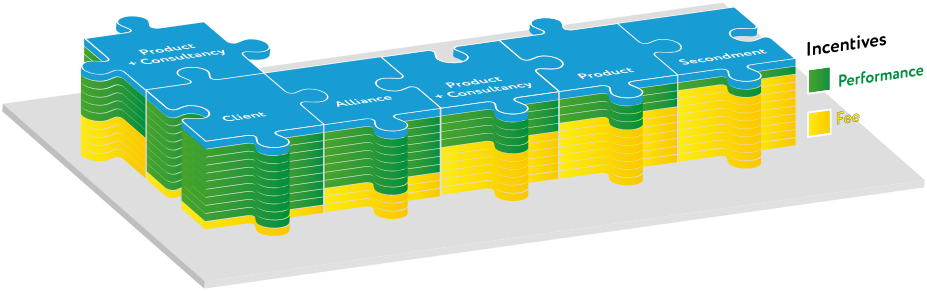


Figure 2. A project commercial model showing how the different business models fit together an incentives are aligned.

Incentives:

When developing the commercial model it's important to consider how incentives will support the flow of value down the supply chain. These performance incentives can take two forms:

1. Financial, introducing a financial performance incentive is not a new concept but the application is complex to drive the right behaviours and transparent performance measurement. A simple performance incentive can take the form of a pain share/gainshare where profit it adjusted on the delivery of performance criteria identified by the client. A much more powerful mechanism such as in a *Project 13* style alliance takes the form of putting fee and profit at risk potentially incentivised on longer term project outcomes. This is not always appropriate, indeed a powerful mechanism such as the above need to be used carefully as they could have a profound impact on the working capital of firms who under the majority of their currently revenue streams operate tight cashflow so delays in payment waiting for proof of performance.

2. Repeat business, this is a simple and effective performance incentive in the private sector, however it is utilised less often in the public sector and whilst the Public Contract Regulations do require a transparent procurement process the design of frameworks and quality criteria can be utilised to include this incentive.

Both of the above rely heavily on the clarity of definition and communication of value between the client and their suppliers.

Next steps

The value based business models framework identified by ACE research provides a framework for the development of new commercial models for clients. We will take this forward by:

- Working with the Professional Indemnity Insurance Industry on the PI products to support the new business models.
- Working with the Construction Innovation Hub (CIH) and Infrastructure and Project Authority (IPA) to further explore:
  - The adaptation required to contracts to support these new models.
  - The development of a transparent supplier performance system where clients can access information and data on previous supplier performance for use in the procurement process.
- Seeking partners to develop an academic programme for business leaders focused on moving your business into new markets and deploying different business models.
- Working in collaboration with Civil Engineering Contractors Association (CECA) to support clients in designing their commercial models through advice and access to best practice, with the aim of delivering a balanced approach for both industry and clients.

Innovation

Summary of research findings

There are fantastic examples of consultancy businesses of all sizes investing in R&D to develop technology enabled solutions, but there is significant scope to expand this. Often client led, such as the BIM level two mandate from Government, we need to adjust the dynamic to being able to bring solutions to clients. The development of the Future of Consultancy strategy and identification of the three disciplines will help to prioritise the efforts of academia and business to have the most impact for society and relevance for businesses in future. There are however significant blockers to innovation which will require an intervention to kick start the innovation process on a larger scale:

Availability of capital for investment – the shift to value based business models rewarding outputs and outcomes will develop a sustainable return on investment in the long term for consultancy business which will allow for investment in research and development. However the initial shift from a people based services business operating on relatively low margins does not provide sufficient available capital to start this process and a Government intervention will be required to fix this market failure.

Commercial drivers against collaboration – with the dynamics changing around our business models and the way we interact with clients there is understandably some commercial wariness around collaborating between businesses – we don't yet fully understand the rules of the game in terms of where we will derive competitive advantage in future. This will become clearer through programmes like the Construction Innovation Hub and the creation of their information management framework. This will unlock our ability to be able to organise more structured and effective collaborative research and development partnerships between businesses.

Lack of demonstrator projects – Building on the above another key input to collaborative research and development partnerships will require clients to put forward demonstrator projects or even pre-project simulations to allows businesses a safe space to experiment and test their innovations without undue risk exposure of trying it for the first time on a live project.

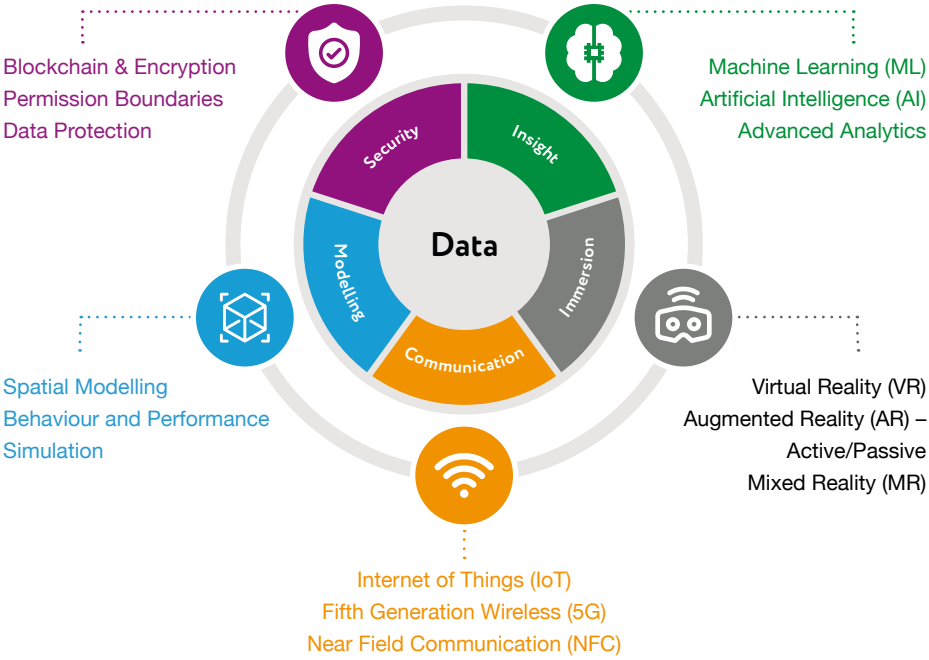
Immature Innovation ''infrastructure" – the infrastructure around supporting businesses who wish to innovate is relatively immature in the consultancy industry compared with others who have had a longer period to develop it. This results in it being challenging for businesses (especially SMEs) to find their way to the right academic institutions to develop meaningful academic/business partnerships, in everything from tailoring

Research outputs - technology categories

degree standards to business needs to collaborative R&D programmes which deliver solutions we can commercialise. Similar is true of the Innovate UK funding competitions where the impact could be increased through establishing stronger collaborative business to business partnerships in order to bid.

In order to promote a more strategic conversation around technology and the opportunities it unlocks for the future of consultancy ACE has created the following technology categorisation which links the type of technology and it's use. This has been used to create technology roadmaps which benchmark baseline which of the technologies offer the greatest benefits in each of the three disciplines and how mature we are as an industry with developing and commercialising the technology. This research will be published in the new year.

ACE technology categories



Adapted from the Technology Categorisation by the Institute for Digital Engineering

Next steps

ACE will seek to remove the blockers to innovation by working in partnership with academia, government and knowledge organisations to put in place a programme to support business in increasing their innovation. Specifically in the short term we will:

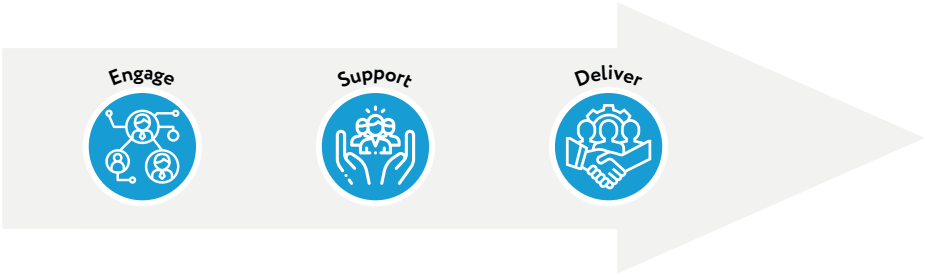
- Seek a partnership with the Digital Catapult to further develop the technology roadmaps for the three disciplines identified in the Future of Consultancy strategy to scope out the opportunities in further detail.
- Develop an industry wide strategic relationship with EPSRC and Social Sciences research councils to influence their research funding into the sector
- Working with partner organisations explore the creation of consultancy hubs within the existing network of catapults and innovations centres to:-
  - Act as centres of excellence for both businesses and academia to facilitate strategic collaborations
  - Host a small programme of innovation challenges based on the technology roadmaps to stimulate interest and appetite from the local businesses
  - Provide a conduit and targeted/ segmented marketing to improve take up of wider Innovate UK challenges to local businesses.
  - ACE to continue to develop case studies and a knowledge sharing programme through the hubs to encourage and inspire innovation in businesses.

Next steps

Over the coming months we will be seeking to develop a partnership between business, academia and professional bodies to deliver on the vision and develop the capability required. For consultancy businesses, members and non-members alike, we will support them in the delivery of both the domestic and export strategies, focusing our efforts on the enablers. We will do this through workshops and events, 1-2-1 meetings, thought leadership pieces, articles, and structured communications.

ACE's Board and staff are fully committed to ensuring the entire consultancy and engineering sector, through the Future of Consultancy campaign, will not only adapt to, but welcome, a new era of design and delivery in the built environment.

If you would like to join us in shaping the future of consultancy as a partner or access support for your business please do get in touch **futureofconsultancy@acenet.co.uk**



ACE economic and policy papers

This paper forms part of a growing portfolio of research by ACE into the key issues involving financing and upgrading the UK's infrastructure and the effects on the wider economy, as Reports and Policy Briefings on a wide range of key issues.

To access go to: www.acenet.co.uk

How can we accelerate the delivery of a sustainable built environment?
A discussion paper that attempts to create conversations and options around sustainable built environment with examples and case studies.

Scrapping the Levy
A report which provides an analysis of council infrastructure spending with recommendations.

Unlocking housing
A report arguing for community design and invigorating local communities through placemaking.

Funding roads for the future
A paper recommending a more productive and sustainable road network in England.

Cities and Infrastructure
A joint paper with WSP that explores the infrastructure needs of our cites, how investment can improve growth and the importance in of political and fiscal devolution.

Review on EU Environmental Regulations
An in-depth review of all EU environmental regulations affecting the UK and how they will be affected by Brexit.

Triggering Article 50
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The Housing Gap
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