

# How can we accelerate the delivery of a sustainable built environment?

## A discussion paper

November 2018 [#ACESustainability](#)



# Sustainability and government: A timeline

2018	<ul style="list-style-type: none"><li>• UK government launches <i>A Green Future: Our 25 Year Plan to Improve the Environment</i>, that sets out what the government will do to improve the environment, within a generation.</li><li>• Valuation of natural capital included in Treasury Green Book for the first time.</li></ul>
2017	<ul style="list-style-type: none"><li>• The Environmental Audit Committee (EAC) criticises the government for failing to set out a clear plan to deliver the Sustainable Development Goals in the UK, and recommends establishing a new statutory body to advise the Government on sustainable development.</li><li>• UK government rejects the EAC's recommendation and commits to embedding the Sustainability Development Goals in Single Department Plans across government.</li></ul>
2016	<ul style="list-style-type: none"><li>• The UK becomes a champion of the Sustainability Development Goals, with Prime Minister Theresa May pledging to "drive forward the implementation of the Sustainability Development Goals" at the UN General Assembly.</li></ul>
2015	<ul style="list-style-type: none"><li>• The UK Adopts the United Nations 2030 Agenda for Sustainable Development Agenda consisting of 17 Sustainable Development Goals.</li><li>• Welsh government introduces the Wellbeing of Future Generations (Wales) Act 2015.</li><li>• UK government withdraws zero carbon homes target (first introduced in 2006) and withdraws the Code for Sustainable Homes.</li></ul>
2013	<ul style="list-style-type: none"><li>• The UK government publishes the Infrastructure Carbon Review which sets out a series of actions for government, clients and suppliers to reduce carbon from the construction and operation of the UK's infrastructure assets, in line with the UK's climate change commitments.</li></ul>
2012	<ul style="list-style-type: none"><li>• Natural Capital Committee created to advise government as a whole on how to incorporate natural capital thinking into policy decisions.</li><li>• UK government introduces the Public Services (Social Value) Act 2012.</li></ul>
2011	<ul style="list-style-type: none"><li>• National Ecosystem Assessment set out the first comprehensive analysis of the state of UK ecosystems.</li><li>• The Green Construction Board is established as a consultative forum for government and the UK design, construction, property and infrastructure industry.</li></ul>
2010	<ul style="list-style-type: none"><li>• UK government stops funding the SDC as part of the Comprehensive Spending Review, aimed at delivering savings of 25% over four years.</li></ul>
2008	<ul style="list-style-type: none"><li>• The Climate Change Act is passed creating the Climate Change Committee and a world-leading system of legally binding carbon targets and budgets out to 2050.</li></ul>
2006	<ul style="list-style-type: none"><li>• SDC publishes a number of reports critical of government plans, including giving the green light to new nuclear power stations in the UK.</li></ul>
2000	<ul style="list-style-type: none"><li>• UK government establishes an independent Sustainable Development Commission (SDC) to provide advice, analysis and guidance.</li></ul>
1994	<ul style="list-style-type: none"><li>• UK produces a comprehensive Sustainable Development Strategy recognising that everybody has the right to a healthy, clean and safe environment.</li></ul>

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## Chief Executive's foreword

The world is facing significant environmental, economic and social challenges that have the potential to affect all our lives and we, as an industry, must recognise our role in helping to meet these challenges. The National Infrastructure Commission's National Infrastructure Assessment and DEFRA's 25 Year Environment Strategy both serve as a stark reminder of the fragility of our environment and our collective responsibility in conserving it.

Now is the right time to seize this opportunity and influence the government and regulatory agenda to deliver real change. The signals of this change in approach from government can be seen in the updated HMT Investment Appraisal guidance which now include provisions for natural capital in the appraisal process for government schemes, along with the Transforming Infrastructure Performance Programme which recognises the need for government to set out consistent high-level ambitions around sustainability which align with the delivery of projects on the ground. However, we need to push for action to deliver on these commitments in the forthcoming Spending Review and to address issues such as lowest capital cost procurement and conflicting regulatory requirements on development land which frustrate the delivery of sustainable solutions.

Public perceptions and interest in sustainability has never been higher, leading to an increased appetite for sustainable investment opportunities for investors who seek to meet the evolving needs of their client base. In turn, this shapes our customers and our shareholders into recognising and appreciating the broader value we can deliver.

Industry has a key role to play here. To date we have successfully worked with government on its Infrastructure Carbon Review and the updated National Planning Policy Framework, which will have significant impacts on the development of housing and infrastructure over the next decade. There is no shortage of ambition committing to change, and each incremental step helps, but we need to see a refreshed commitment to actions to set the context, whilst recognising the areas industry can take a lead on working through existing forums such as the Green Construction Board and the Construction Leadership Council.

Both our market and society at large are turning their attentions to addressing this challenge and we need to lead the way with ACE members' knowledge. ACE firmly believes that making sustainability one of our core considerations when it comes to infrastructure and planning is essential to deliver the best outcomes for society, the economy and the environment well into the future. Now is the time to move the UK construction sector towards sustainable development.



**Hannah Vickers**  
Chief Executive Officer  
Association for Consultancy and Engineering (ACE)



## Chair's introduction

The **ACE Sustainability Group** represents a cross section of the consultancy organisations responsible for designing and delivering buildings and infrastructure. We provide a forum to promote how our consultancy services interlink with the sustainable development agenda and use the expertise and skills in this area to inform government policy through consultations and lobbying. We provide support for members on their own sustainability journey and feed into ACE activities to promote sustainability to the wider sector.

There are few areas in which sustainability is more important than in the built environment: our towns and cities, and the infrastructure that connects them, all benefit if built with the future in mind. Considering project outcomes and end users during development is essential. A well-planned built environment has the potential to unlock productivity, support the health and wellbeing of the community and have far reaching impacts on the environment today and in the future.

There are considerable economic and social benefits from increasing sustainable development across government, society and business. For businesses and investors, sustainable development enables the capability of delivering a greater return on investment with increased resilience and reduced risks long term. For society and individuals, sustainability has real tangible benefits: increased happiness from better planned and funded public spaces, better access to quality community facilities and infrastructure that works for all.

Individual aspects of sustainability are attracting attention across sectors, shaping our understanding, and looking at ways to improve measurement and management; natural capital, social value and circular economy are examples of aspects that are being developed. The challenge comes in bringing this understanding into an integrated decision making process that can combine aspects in a consistent way and addressing the disconnects that exist. When the opportunity and importance of all aspects of sustainability are properly considered together, the outcomes are greatly improved for all.

ACE members provide a huge range of services that support the development of the built environment, therefore we should be advocates for maintaining and increasing sustainability on the agenda with our clients and with government.

This discussion paper is the first of its kind to be produced by ACE's Sustainability Group. In it we set out our views on sustainability in the built environment in the UK, which we are opening up to the wider industry for consultation and discussion. Our hope is to start a conversation about delivering a sustainable built environment through the creation of a strategic framework, pursuing consistency in policy and regulation, and improving the use of data and evidence in the decision making process.



**Natalie Cropp**

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## Creating the right strategic framework

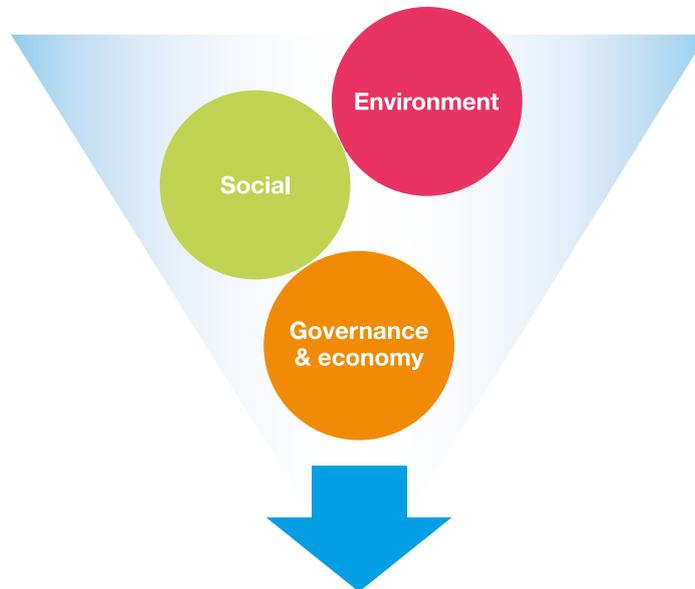
The UK was at the forefront of negotiating the Sustainability Development Goals (SDGs) and the government stated an ambition to be leading the delivery of them too. The UK's experience as a world leader in development meant that we were well placed to work with the global community to create goals that tackled the challenges that continue to face the world; extreme poverty, global instability and conflict, mass migration, climate change and gender inequality. In rejecting an Environmental Audit Committee recommendation to establish an independent advisor on sustainable development, the government argued that the most effective way of achieving the Goals was by embedding them in each department's Single Departmental Plan (SDP), arguing that as these plans inform and direct the priorities of departments throughout the year they are the best repositories for this policy.

A key issue hampering the effectiveness of the SDPs is consensus on how to apply the broad definition of sustainability in practice. Sustainable development isn't just a question of choosing the most environmentally focused projects or products. It is about achieving the best possible whole project value and performance over the long term and should include a strategic balance of economic and social, as well as environmental, considerations.

A National Sustainable Development Framework would go a long way to achieving this as it would organise thinking about sustainability, as well as inform planning, management, and evaluation of activities in order to improve and maintain health outcomes at a national level.<sup>1</sup>

There is a crucial need for a holistic approach to sustainability policies, plans and projects at the heart of government and it is critical that sustainability issues are not consistently trumped by economics. Considering sustainability at the earliest possible stage in a development project has the power to deliver benefits to the people and environment around them. This is not consistently appreciated or valued by clients.

Pure economics is too simple and fails to appreciate the true value of a project, weighting the lowest capital cost above performance and sustainability outcomes. Therefore, ACE proposes developing a strategic sustainability framework underpinned by three core principles: Environment, Social and Governance (ESG principles).



### Balanced approach to sustainable development

Environment and social principles are key staples of all sustainability models and definitions, with governance often reflecting a degree of financial measurement. However, true sustainability is about more than delivering a project within budget. It requires cultivating a culture that appreciates the benefits derived from sustainability that aren't necessarily directly measurable by financial criteria and this can only be done in an environment with the right governance structures to manage the process.

Looking at each of the principles in closer detail, reveals the importance of each in their own right. It also demonstrates when they are considered holistically, the benefits to be achieved are significant and go far beyond the returns on the initial financial investment.

#### Environment

A key challenge for our society is quantifying and monetising the benefits of the natural environment. By appreciating that nature is vital for economics, and has measurable tangible financial values, we can move beyond the supposition that nature is nothing more than a supply of resources, or an economically costly distraction that prohibits economic 'growth'.

Natural resources are capital assets in the same way that land, buildings and stocks are considered assets — and spending money to protect these resources should be viewed as an investment in the future rather than just another cost.

For those working on construction sites it is crucial to embed environmental considerations in sustainable construction to ensure that those projects minimise the impact of the surrounding environment, reduces the unnecessary use of resources, and works within the regulatory framework placed upon the project.

The construction industry also has a larger impact on the environment than just the land we use for buildings and infrastructure. Just over half of non-renewable resources that humans consume are used in construction.

Material use is a key issue for the built environment sector and managing the environmental impacts of our materials and the associated waste products can more readily be linked to economic benefits to business and the economy. While more emphasis is now placed on the waste hierarchy (i.e. reduce, reuse, recycle, extract energy, dispose), around 80% of the UK's economy is still a 'once through' process.

Raw materials are extracted, processed, turned into products which are then disposed of at the end of their life. We need to move away from this concept towards a circular economy model that aims to keep products, components and materials at their highest utility and value at all times, distinguishing between technical and biological cycles.

## Social value

The second underpinning principle is that sustainable development can add social value to a community through improved facilities, access to employment and transport. Additionally, sustainable development can play a huge role in improving an individual's wellbeing through improved aesthetics, green spaces, or a reduced risk of crime.

Sustainably developed infrastructure has a beneficial effect on the community and the individuals it serves. The design of our public spaces has an important role to play in our lives, and, when done well, can deliver substantial benefits. It also works in reverse: cutting funding to community infrastructure such as youth clubs, child care and day centres for elderly people is likely to have knock-on effect associated with increased crime and antisocial behaviour, new parents being unable to return to work, and chronic loneliness and depression, respectively. When we put people at the heart of the design of our social places, the benefits for the individual and the wider society are significant, if not always immediately evident.

The Social Value Act (2012)<sup>2</sup> went some way to embedding social value by requiring relevant public authorities to procure services that account for increased social value in their assessment. This is a progressive step towards a more sustainable approach to procurement and there have been some successes since its adoption.<sup>3</sup> However, the 2015 Social Value Act Review identified some key barriers to the success of the Act in delivering the desired outcomes.

Although the links between the quality of environment, health and wellbeing of the individual are becoming better understood, there is still more research required to understand what the indirect consequences and value of the benefits are before they can be properly accounted for at a project level. It is critical that the government puts more emphasis on deriving a monetary value of the health benefits of environmental improvements, and these benefits are considered as part of a project's viability.

We believe the best way to achieve this is by collecting data. Therefore, it is imperative the government standardise the collection of social value data that can be used to make better sustainability decisions.

## Governance and economy

Governance is the final principle that we believe should form part of a strategic sustainability framework for the built environment. In this sense, governance is more than just economic management. It strikes at the core understanding that sustainability is more than looking at the lowest price and is a commitment to embracing broader principles to ensure projects are delivered in a truly sustainable manner. Good governance requires decision-makers to act professionally and openly, and demonstrate leadership by taking a whole-system, whole-life view of a project.

To establish a true whole-system, whole-life view of a project the value of the outcome needs to be measured alongside the cost of delivering it. ACE echoes the recommendations within the Transforming Infrastructure Performance Programme and believes that a more consistent approach of data collection would enable monitoring and measurement from a project's delivery and help to inform value decisions at the project selection stage. Implementing this feedback loop is dependent on a committed governance structure and is a key driver of ensuring sustainability outcomes.

Public sector governance, at both a national and local government level, has the ability to significantly impact sustainability in the UK as a whole. This is because sustainability implies consideration for not only the needs of current but also future generations.

Governments have a key role to play in the reorientation of societies towards this sustainability path and developing an integrated response. They have the mandate and resources to bring all stakeholders together and get them to jointly define common objectives, elaborate policy options, reassess progress and make sure that the direction towards achieving long term goals is maintained.<sup>4</sup> Across the UK we can see examples of this in practice. For example, the Welsh Future Generations Act (2015)<sup>5</sup> has provided a vision and framework for what a sustainable Wales looks like and the practices need to be adapted to achieve this.

A key challenge for governance is the scalability of requirements to smaller projects without losing the core principles of sustainable development. On major projects with greater budget and reach, client requirements can be very complex so tender documents have a range of policy and process requirements that are time-consuming to complete, more befitting to a response from large enterprises rather than small and medium sized enterprises (SMEs).

ACE believes that planning guidance and tools, such as the National Planning Policy Framework (NPPF) and local plans, are critical to achieving desirable sustainability outcomes and must be maintained in the future. This must not be done, however, at the expense of agencies that enforce environmental protection legislation; the key to delivering sustainable projects is balance across all aspects of sustainability.

The NPPF encourages developers to consider the cost of complying with planning policies in the consideration of the development proposals. However, there have been cases where developers' viability assessments have made an assumption that planning policy objectives can be compromised (such as affordable housing targets or community infrastructure commitments). This can be due to the fact that the developer, for example, has paid a significant amount for the land and standards are reduced as a consequence, in order to retain a target profit margin.

As part of the planning process, viability assessments should take into account an appropriate purchase price for the land as well as delivering national and local policy compliant social and environmental objectives. Ensuring that viability assessments are made publicly available as part of the NPPF will help improve transparency. We believe this could help planners and others to better evaluate viability assessments and improve the long-term delivery of social and environmental commitments in development.



## Consistency in policy and regulation

Just as sustainability requires an integrated approach in development, sustainability policy requires a multi-disciplinary approach by government. When policy is made in isolation of other disciplines, sustainability suffers. One government agency's policy may solve an issue, but create a number of problems as a consequence.

In the environmental dimension of sustainability, a number of tools are being developed which could form part of a more consistent approach to the issue across the built environment. For example, the property sector is well-represented in the Science Based Targets Initiative which can help determine what carbon performance in new developments is compatible with the 1.5C global warming limit recommended in the recent Intergovernmental Panel on Climate Change report. Furthermore, the Department for Environment, Food and Rural Affairs is developing a set of indicators and guidance to flesh out the government's commitment to ensure new infrastructure enhances the UK's natural capital – these will be relevant to both public and private sector projects.

The very interrelated nature of sustainability requires an in-depth understanding of potential unintended consequences. The UK will not be able to develop a sustainable built environment unless there is a much greater degree of collaboration across government when it comes to policy making.

ACE is therefore calling for an evidenced based, multi-disciplinary approach to sustainable development that enables government departments to work closely towards evaluating the broad sustainability impacts of policy making in the built environment. Engineers, environmental scientists, economists and public health specialists collectively have the expertise to assess the impacts of policy on development. To achieve this, an overarching government response is required.

ACE believes there is a need for the UK government to make sustainability a core policy priority to challenge sustainable development progress across Whitehall and the UK as a whole. By embedding sustainable development as a priority in decision making processes, and mandating it as an underpinning principle in future Spending Reviews, would ensure a sufficient whole of government commitment raising the importance of the built environment to the highest level.

While the government rejected calls by the Environmental Audit Committee (EAC) to establish a new statutory body to advise on sustainable development, ACE believes there is merit in the government considering the EAC's recommendation. The government's plans to establish a body to hold government to account for environmental outcomes, could be expanded to include an advisory capacity in relation to sustainable development.

## Sustainability in the Public Sector

The final report of the Independent Review of Building Regulations and Fire Safety, also known as the 'Hackitt Review',<sup>6</sup> published in May 2018, reviewed the systemic failures in the governance of the regulatory system and raised questions about the ability of the public sector to deliver safe and sustainable projects in the built environment. Predominantly, this appears to be an issue of understanding the consequences of poor procurement, as well as being able to distinguish best value from lowest cost. This is in spite of the introduction of the Social Value Act (2012)<sup>7</sup> that was designed to broaden the idea that we should be considering more than capital expenditure in the development decisions we are making, and that social value should also be considered as part of these procurement decisions.

We have not moved on from 2006 when the Procuring for the Future<sup>8</sup> report stated:

*"The public sector needs to procure sustainably because that is the only way that we can be sure to offer real value for money over the longer term. **A false choice is often posed between 'value for money' or 'efficiency' and sustainability.** A number of examples of public sector decisions being made purely on the basis of upfront costs were presented to and considered by the Task Force."*

ACE believes that the government needs to better appreciate 'value' in procurement and increase the resources and competencies invested in regulators and the assessment of compliance. Broader lessons for local and central government include the need to have sufficient in-house technical capacity to be able to recognise competency and quality when assessing the value of the supply chain. It is important for the government to understand the value of sustainability as part of its procurement process for projects in the built environment.

One important way this could occur by is by ensuring that sustainability assessments are conducted in a way that is consistent across the public sector. The Building Research Establishment Environmental Assessment Method (BREEAM) and the Civil Engineering Environmental Quality Assessment and Awards Scheme (CEEQUAL) are sustainability assessment tools that have helped drive higher sustainability standards in the built environment. These are evidence-based assessment tools that provide a useful foundation for building knowledge and understanding of sustainability metrics. However, the variety of tools available has led to different reporting tools being used leading to discrepancy across industry. The UK government should seek to work with industry to establish and standardise a consistent set of measurements and supporting tools that can be applied to all projects within the built environment and help inform development objectives.



## Data and decision making

Institutional investors are a key source of finance for the projects that ACE members are involved in delivering. Developing an understanding of the key issues and appropriately valuing them in their decision-making processes is essential. Failure to consider sustainability issues and the value it can add can have significant implications for an investor's return on a project. There is increased interest in the sustainability credentials of investment opportunities from investors as a result of a shift in public preference.

Investors require information that measures sustainability, highlighting and attempting to quantify the business risks and opportunities. Over time, the investment community has developed a raft of voluntary self-reporting requests, for example, the Dow Jones Sustainability Index, the Global Reporting Initiative, and Trucost.

However, for some companies there was just too much data being collected, some of which was irrelevant. In an attempt to remedy this, the Task Force on Climate Related Disclosure (TCFD) was formed in 2016 to help investors identify the information needed by themselves, lenders and insurance underwriters to appropriately assess and price climate-related risks and opportunities. The TCFD has set out reporting recommendations alongside guidance documents and a 'Knowledge Hub'<sup>9</sup> designed to help organisations implement the TCFD recommendations.

Despite advances in understanding the kind of information required, disclosure remains voluntary. It has, however, created the expectations for standardised reporting and information sharing between companies and investors, lenders and insurance underwriters. There is clear value in these reports for investors as they convey a wider value not expressed by simple cost-benefit analysis. The key issue is quantifying what these metrics are and translating them into something tangible for investors to make decisions on. Environmental risks, social and governance considerations all face similar challenges in expressing and quantifying their value to enable them to be included in the decision-making process. A standardised set of data that considered social and environmental impacts would go a long way to informing investment decisions and greatly aid sustainable development, additionally supporting investors who want to choose this benefit.

When it comes to direct clients of ACE members, the interests of their investors will be often be identified in project requirements through the procurement process. If a client has a forward-thinking sustainability strategy, this will also engage the supply chain, including outsourced activities. A client's sustainability strategy can therefore dictate the value of measuring sustainability to a supplier, giving their procurement process the power to influence ultimate sustainability outcomes.

Typically, performance measurement is more apparent at the bid stage of a contract with gateways to progress put in place so that only the best suppliers remain in the competition. However, when it comes to implementation through the contract, measures of sustainability are rarely written into it.

This is a missed opportunity which leaves broader sustainability initiatives vulnerable to being dropped in the race to the lowest bottom-line cost. In these cases, the client is using their sustainability credentials as a proxy for sustainable outputs. However, this is done without embedding it into the running of their own facilities; frequently due to procurement-stage cost-cutting exercises. The risk is that the outputs are not sustainable.

Making post-project completion reporting mandatory would provide a robust sustainability information source for investors. There are, however, implementation considerations, particularly for smaller sized firms. While larger companies may be able to absorb the costs of administering mandatory reporting into their broader organisational reporting obligations, smaller ones may face additional costs to implement a mandatory reporting regime. ACE therefore envisages a sliding scale of reporting standards based on careful consideration of designing a system which balances effort, risk and reward including the role of the asset owner.



# Industry response: Leading the way

This discussion paper represents the first step of a 12 month journey to explore how we deliver a sustainable built environment. We have started the discussion by proposing the creation of a strategic framework, pursuing consistency in policy and regulation, and improving the use of data in the decision-making process.

However, it is important for us to test our thinking, and establish an evidence base to better inform how our industry understands how we can deliver a sustainable built environment, and what we require from government in order to achieve this.

ACE is interested in the views of stakeholders operating in the built environment sector, on delivering a sustainable built environment. We are starting this campaign to further develop and implement the concepts discussed in this paper and we would welcome engagement and feedback around the following questions:

## Definitions

- Should the UN Sustainable Development Goals be used to provide a framework for defining sustainability for the built environment in the UK or should we be developing an alternative framework?

## Legislation

- Do we need new legislation to set down sustainable development principles (along the lines of the Wellbeing of Future Generations (Wales) Act? If so, how would this relate to the Social Value Act, and the proposal to include environmental principles in the forthcoming Environment Act?
- How do we integrate any nationwide system sustainable development with the devolved governments?

## Governance

- How could the UK government ensure a consistent approach to sustainable development across different departments and projects? Could the new 'green watchdog' proposed for the Environment Act play a role?

## Measurement and targets

- Do we need to have clear targets and metrics for the different aspects of sustainability defined by government (in legislation or guidance)?
- We would welcome examples of where metrics have been successfully applied in combination to provide broad sustainable outcomes (combining social value, natural capital assessments etc.).

### **Project implementation**

- Who is best placed to identify and decide on trade-offs between different elements of sustainable development at project level?
- Is this complicated when the benefits of the sustainable outcome don't directly benefit the procuring organisation such as broader health and wellbeing benefits?
- What is the best mechanism for ensuring sustainability objectives are carried through a project from conception to delivery?
- When thinking about successes and failures in project implementation of sustainable development, what are the differences between large and small-scale projects, and what stops government, the client and/or the investor aspirations being implemented to the fullest effect?
- Should viability assessments consider an appropriate purchase price for the land as well as delivering national and local policy compliant social and environmental objectives?

### **Data collection**

- How can consultants and clients develop a shared understanding of what sustainable development means for projects?
- How can industry feedback evidence and insight to government and regulators on the effectiveness of policies and processes designed to progress the sustainable development agenda?
- What would the impact be of mandated sustainability reporting during project delivery / post completion? Would you support such an approach to reporting?

### **Find out more, get involved and provide feedback**

If you would like to find out more, get involved in our campaign, or provide feedback to this discussion paper, please contact ACE's Policy and External Affairs team on 020 7222 6557 or [pea@acenet.co.uk](mailto:pea@acenet.co.uk).

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## Endnotes

1 UN, Transforming our World: the 2030 Agenda for Sustainable Development (September 2015); <https://publications.parliament.uk/pa/cm201617/cmselect/cmintdev/103/103.pdf>

2 <https://www.gov.uk/government/publications/social-value-act-information-and-resources/social-value-act-information-and-resources>

3 <http://www.socialvaluehub.org.uk/>

4 <https://publicadministration.un.org/publications/content/PDFs/Compendium%20Public%20Governance%20and%20Administration%20for%20Sustainable%20Development.pdf>

5 <https://gov.wales/docs/desh/publications/160610-three-bills-diagram-en.pdf>

6 <https://www.gov.uk/government/publications/independent-review-of-building-regulations-and-fire-safety-final-report>

7 <https://www.gov.uk/government/publications/social-value-act-information-and-resources/social-value-act-information-and-resources>

8 [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69417/pb11710-procuring-the-future-060607.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69417/pb11710-procuring-the-future-060607.pdf)

9 <https://www.tcfhub.org/>

## 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](http://www.acenet.co.uk)

### **Brexit and Employment Law**

This paper looks at EU employment law and how our industry will be affected by Brexit.

### **Cities and Infrastructure**

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

### **Delivering our Strategic Networks:**

#### **A Department for Infrastructure**

This paper proposes the creation of a consolidated Department for Infrastructure that can take a cross-Whitehall approach to delivery of the future strategic networks.

### **The Effect of EU Migration on the UK Consultancy and Engineering Sector Post-Brexit**

This paper was written with Pennington Manches and explores in detail the contribution made to the UK consulting and engineering sector by EU migrants.

### **Funding Roads for the Future**

This paper explores issues facing our road network and how they will impact the current funding model.

### **The Housing Gap**

This paper is the first in ACE's housing paper series and explores in detail the conditions within the UK housing market.

### **Pensions and infrastructure**

This paper is the fourth in ACE's infrastructure investment series and explores current conditions in the market, and the implications on pension funds' investment potential into infrastructure.

### **Performance of PFI**

This paper reviews the performance of historical PFI data to learn lessons for the development of new financing models.

### **Procurement in PPFM**

This paper is the third in ACE's infrastructure series and examines how to improve procurement in Public Private Finance Models.

### **Public Private Finance Models**

This is the second in ACE's infrastructure series and explores in more detail the rationale, performance and conditions that surround Public Private Finance Models.

### **Revolutionising Housing**

This paper is the second in ACE's housing paper series and explores in detail a new model to rebalance the incentives for development.

### **Scrapping the Levy**

This paper explores the Community Infrastructure Levy (CIL) and analyses CIL expenditure by local authorities across England and Wales.

### **State Investment Bank**

This paper is the final paper in ACE's infrastructure investment series and explores in more detail the rationale and practicalities of establishing a State Investment Bank.

### **Triggering Article 50**

This paper explores the complexities and realities facing the UK and the industry from Brexit.

### **Unlocking Housing**

The third paper in a series on housing looks at ways to invigorate local communities through the concept of placemaking.

## About ACE

As the leading business association in the sector, ACE represents the interests of professional consultancy and engineering companies, large and small, in the UK. Many of our member companies have gained international recognition and acclaim and employ over 250,000 staff worldwide.

ACE members are at the heart of delivering, maintaining and upgrading our buildings, structures and infrastructure. They provide specialist services to a diverse range of sectors including water, transportation, housing and energy.

The ACE membership acts as the bridge between consultants, engineers and the wider construction sector who make an estimated contribution of £15bn to the nation's economy with the wider construction market contributing a further £90bn.

ACE's powerful representation and lobbying to governments, major clients, the media and other key stakeholders, enables it to promote the critical contribution that engineers and consultants make to the nation's developing infrastructure.

Through our publications, market intelligence, events and networking, business guidance and personal contact, we provide a cohesive approach and direction for our members and the wider industry. In recognising the dynamics of our industry, we support and encourage our members in all aspects of their business, helping them to optimise performance and embrace opportunity.

Our fundamental purposes are to promote the worth of our industry and to give voice to our members. We do so with passion and vision, support and commitment, integrity and professionalism.

### Further information

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