Ending the age of uncertainty

In a changing world, *Jon Herbert* looks at unchanging priorities.

If one word sums up the national and international economic outlook, now and into the foreseeable future, it is "uncertainty", for many bewildering reasons.

The UK's relationship with Europe remains unclear. Political leadership is potentially unstable. Globalisation is giving way to "national interests" and isolationism. Tariff wars could damage international trade.

However, the world still faces growing environmental threats. Global warming hasn't gone away, in fact, a new autumn report for the International Panel on Climate Change (IPCC) suggests that by failing to tackle global warming we are turning an existing global problem into a worse one that will be increasingly hard to solve.

If the world had a school report, it would say "Must try harder. B-".

UK leadership

The current government triple-level response is designed to put more certainty into the economy — whatever the short and medium-term political weather — and take advantage of an optimistic new age of world trade. By recognising that economic and commercial success is inextricably tied to environmental and social wellbeing, it wants the UK to rise to the top of the global class.

Its chosen tools are the Industrial Strategy, Clean Growth Strategy and 25 Year Environment Plan. These are backed by a series of key sector deals; one with a large environmental footprint is the Construction Sector Deal unveiled during the summer.

Industrial Strategy

A closer look at the Industrial Strategy puts the above points into context. Created to boost productivity and economic power, the strategy is built on the five policy foundations: Ideas, People, Infrastructure, Business environment and Places. Over this, four Grand Challenges provide specific support for the pivotal 21st century priorities: the AI and Data Economy, Future of Mobility, Clean Growth and Ageing Society.

Each policy foundation has individual targets. For example, **Ideas** includes R&S investment rising to 2.4% of GDP by 2027, R&D tax credits rates rises to 12% and £725 million invested in new Industrial Challenge Fund programmes.

Similarly, **Infrastructure** includes an increase in the National Productivity Investment Fund to £31 billion to support transport, housing and digital infrastructure development. A further £400 million is earmarked to fund a new electric vehicle (EV) charging infrastructure, plus an additional £100 million to extend the plug-in car grid. Digital infrastructure will receive more than £1 billion, including £176 million for 5G and comprehensive local full-fibre networks.

Meanwhile, **Business environment** should see the roll-out of the wider Government/ industry Sector Deal partnership programme already mentioned. In the first phase, this will cover life sciences, construction, artificial intelligence (AI) and the automotive

sector. More than £20 billion will be invested into innovation and high-potential businesses, including a new £2.5 billion investment programme incubated in the British Business Bank.

Importantly, to ensure everything is on the right track, actions deemed to be most efficient in improving SME productivity and growth will be reviewed — with a focus on reducing the "long tail" of lower productivity firms believed to be holding back the overall economy.

The final category is **Places**. If all goes according to plan, this should see the creation of Local Industrial Strategies and a Transforming Cities fund that will provide £1.7 billion for intra-city transport, plus financial support for better intercity connections. An additional £42 million will test the impact of putting a £1000 individual budget behind the high-quality professional development of teachers in areas "that have fallen behind".

Construction Deal

Construction is a big deal when it comes to UK sustainable performance, though its fortunes have been mixed — again with a "could do better" tag. Like energy, it affects everyone. Or as the Secretary of State for Business, Energy and Industrial Strategy, Greg Clark, announcing the Construction Sector Deal policy paper in July 2018 said: "It is fundamental to our economy as we invest in our future: building the homes we live in, the schools and hospitals we rely on, and the offices, factories, and transport and energy infrastructure that keep the wheels of industry turning."

He added, "We are in the early days of one of the greatest construction programmes in our history, from delivering more homes that people can afford, in the places they want to live, to major infrastructure projects such as Crossrail and the third runway at Heathrow. This infrastructure pipeline represents more than £600 billion of spend over the next decade, including at least £44 billion for housing. The pace of this change, and the size of this opportunity, demands a construction sector that is the best in the world."

Economic driver

The construction sector's sheer size makes it important. Of the 30 million economically active people in the UK, some 3.1 million work in construction, either directly or indirectly.

At its most inclusive, construction includes contracting, product manufacturing and professional services. Its 2016 turnover was circa £370 billion, contributing an assessed £138 billion — or 9% — to the UK economy. Product and service exports totalled more than £8 billion, according to government figures. However, productivity below the UK economy's average continues to hold the sector back by a factor of 21% since 1997.

The 2016 Farmer Review highlighted key reasons, including the sector's cyclical nature, future work unpredictability and, crucially, a lack of cross-sector collaboration. It concluded that, to transform the industry, more cooperative joint leadership is needed.

Green, clean and social

The Sector Deal wants to bring these many aims and people together so its full potential can be achieved in uncertain times. This will include the provision of buildings that meet challenging environmental standards but can be erected quickly at low cost using less overall energy. There should be an additional 25,000 apprenticeships by 2020. Taxpayers and investors need to see better value from the ambitious infrastructure and construction pipeline. We need a sector that exports successfully in the globally-competitive $2.5 trillion international infrastructure market.

The Sector Deal also builds on *Construction 2025* published by the Government and Construction Leadership Council. The result should be a framework in which construction costs and whole-life asset costs can be reduced by 33%, completion times from project inception to final delivery are cut by 50%, greenhouse gas emissions in the built environment are slashed by 50%, and the trade gap between total construction products and materials exported and imported also falls by 50%.

Digital helping hand

Three strategy areas have been identified where these goals can be met. The first is to use digital technology in all phases of design to create more certainty throughout project life. The second is offsite manufacturing, often in factories where bad weather is not a factor. The thinking here is to minimise waste while squeezing out persistent inefficiencies and expensive delays. The dual benefit is that site preparation and production can go ahead in parallel. The third factor is a shift to whole-life asset performance parameters that show the true costs of construction, and particularly the cradle-to-grave hidden use of energy.

As part of the Clean Growth Challenge, the Prime Minister announced a mission to halve energy use in all new buildings by 2030 via low-carbon energy innovations that simultaneously drive down costs but elevate quality. Crucial here is the ability to retrofit greater efficiency and sustainability into Britain's ageing building-stock, including safety and particularly fire safety.

When it comes to construction's own **business environment**, the standard business model will be re-orientated towards one taking advantage of integrated supply chains in line with four principles.

These are that procurement must be based on whole-life asset value and digital designs, with benchmarks for performance to be measured clearly. A fairer approach is needed for contracting but also financial performance — cashflow difficulties drive many companies into the ground — to make sure SMEs are not disadvantaged. The sector also needs better access to capital.

In terms of **Places**, the Deal comments that construction includes mineral extraction, employs significant skilled worker numbers across the UK, and that some 80% of construction products used in the UK are UK-made.

A series of detailed construction commitments are then listed to help make the UK "the world's most innovative economy".

Clean Growth Strategy

The Clean Growth Strategy's £2.5 billion investment role in new clean technologies and infrastructure must be mentioned, too. The Climate Change Act of 2008 made the UK the world's first nation to set itself a legally binding carbon reduction target — at least 80% by 2050 over 1990 levels. Progress has been substantial but there are fears 2023–2027 targets could be missed.

The Clean Growth Strategy should boost "clean growth" in two ways. The first is cutting emissions; the second is through sustainable economic growth. The caveats are that overall costs to consumers should be minimum but with maximum social and economic benefits.

It focuses on improvements in six key areas that jointly cover all UK carbon emissions. Specifically: improving business and industry energy efficiency (25% of emissions), raising domestic energy efficiency (13%), a step-change towards low-carbon transport, mainly via green electrification (13%), using flexible smart power (21%), better use of natural resources (15%) and championing public sector improvements (2%) — an obvious government role.

Domestic targets are heating, cooking and lighting; industrial and manufacturing processes will be encouraged to use cleaner, greener alternatives. Heat pumps, biomass boilers, solar panels and small-scale onsite wind power generation will be used widely. The emerging Internet of Energy, smart appliances and smart-grids mean that more homes and companies will power themselves off-grid — trading "home-grown" green power at peak times and advantageous prices.

25 Year Environment Plan

The third part of the Government's triumvirate is its long-term environmental plan to improve air and water quality and protect biodiversity "within a generation".

Despite persistent air quality problems, the plan is to halve the health impacts of 5 damaging air pollutants by 2030. The sale of conventional petrol and diesel cars and vans sales will have to end by 2040, if not sooner.

At least 75% of UK waters should be returned to close to their natural state by reducing damaging abstraction from rivers and groundwater, ensuring that the number of water bodies meeting environmental standards will rise from 82% to 90% for surface sources by 2021, and from 72% to 77% for groundwater sources. There are also plans to reach or exceed goals for rivers, lakes, coastal and ground waters with special protection for their biodiversity, drinking water, or under River Basin Management Plans.

OFWAT's leakage targets will be given more support to minimise year-on-year water losses; water companies must cut leaks by an average of 15%, or more, by 2025. Harmful bacteria in designated bathing waters must be minimised by 2030.

To stop marine biodiversity losses, there will be more well-managed sea areas. Some 75% of the UK's one million hectares of terrestrial and freshwater will also be restored. England's woodland cover could also increase by 12% by 2060.

Reduced harm to people

To minimise environment and economic risks from natural hazards, like flooding, drought and coastal erosion, more information will be available. Public, private and third sectors will be expected to work together to make better land-use decisions and ensure interruptions to water supplies are minimised during prolonged dry weather and drought.

Food, fish and timber should be used more sustainably, with a greater emphasis on sustainable soil management. In parallel, conservation and natural "beauty" will be safeguarded for their environmental and heritage value, plus public accessibility.

Mitigate climate change

The common 25-year plan theme is cutting greenhouse gas emissions from land-use, the agriculture and waste sectors, and the use of fluorinated gases. The second National Adaptation Programme will play a key role.

Zero avoidable waste by 2050 is a target; if possible avoidable plastic waste — and marine waste — will end by 2042. Landfill, reuse and recycling targets will carry a new weight; waste crime and illegal waste sites will be eliminated.

Other crucial targets are to end use of polychlorinated biphenyls by 2025 in line with Stockholm Convention commitments, reduce land-based emissions of mercury to air and water by 50% by 2030, substantially increasing the amount of persistent organic pollutants material being destroyed or irreversibly transformed by 2030.

It's a demanding but essential agenda for all future economic and political conditions. ■

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