



COMBINING PRODUCTIVITY AND A NET-ZERO RECOVERY

Document A - SUMMARY

FISCAL PULL WITH TECHNOLOGY PUSH

The proposal is to create a financial pull to complement a technology push that would meet the five priorities of job creation, regional levelling, productivity, exportable skills and meeting the net zero obligation.

AVOIDING FOREST GUMP

Traditional stimulus using Government capital programmes, pulls forward existing projects to be shovel ready, meeting only two of the five objectives, jobs and to a degree regional levelling and actually works against the other three!

LEVERAGING INVESTMENT

The opportunity is to use the current crisis to link productivity and decarbonising targets to aspects of existing public or private serving assets as a massive disruptive measure linked to starting a cascade of productivity and technology improvement across the entire industry, private and public.

NOT DEPENDENT ON PLANNING

It is assumed planning will undergo significant reform which regardless of outcome will require a digital base for implementation. This proposal, whilst independent of that outcome and timing, provides the necessary base for a planning reform, ie: a digital model for building and infrastructure.

CONSTRUCTION IS NOT ONE BUSINESS MODEL

The construction industry, due to its structure has resisted to varying degrees across its sectors, any significant improvements. To disrupt and improve the sectors needs to be addressed separately.

The four sectors, each with their own fees and procurement, design process and structure are:

1. Housing
2. Buildings
3. Infrastructure Systems
4. Mega Projects (HS2, Crossrail, etc.)

The first three all have both new build and a significant portfolio of existing assets. The CLC are adopting a similar approach but do not recognise Mega Projects as being distinctive.

MOVING FROM HAND-BUILT CRAFT TO PLUS AND PLAY CONSTRUCTION SYSTEMS

Create a digital record of existing schools, selected housing and public buildings, EA assets, HE, NR and the regulated utilities, creating immediate employment for engineering graduates and apprentices to create the data base for a digital twin.



Use a wartime R&D approach with BSI FLEX to evolve practice incorporating the measures required by the Hackitt report. A digital asset base, proven on selected areas of the built environment industry, private and public can be rolled out across the country creating the necessary data base for economic scenario modelling, targeting retrofit or utility improvements, replacing EPCs with Building Value Models and enabling planning reform. It is essential to prove before rolling out to the private sector.

FIX WHAT YOU HAVE WITH PRODUCTIVITY AND CARBON TARGETS

Target stimulus which should be regarded as a scarce resource not merely an acceleration of funding plans, focusing on the enhancement of existing assets across the UK with progressive productivity and decarbonising targets. Retrofit and asset enhancement allows an accelerated learning cycle with iterative procurement, encouraging new entrants and products exploiting Modern Manufacturing Techniques, Retrofit and Enhancement with innovative procurement can replicate the productivity improvements the privatised utilities have achieved.

WHAT NOT TO DO

Mega Projects are not included due to their governance characteristics. These should be addressed independently with bespoke engagement. Improvements on mega projects despite efforts have not cascaded productivity improvements.

CASCADE

A data rich design process requires skills new to the construction sector that already exist in aerospace, automotive and oil and gas. These are transferable with training and imaginative procurement on the stimulus package. They will equip parts of the industry, ie: design, project management, tier 2 contractors and product manufacturers for meeting the private sector net zero expectations and create a knowledge based export potential. Tier 1 contractors are not useful in the main.

REASONS NOT TO DO THIS

It's inconvenient! It's disruptive, it requires agility and a rapid wartime attitude to waves of improvement, it challenges the existing institutions and graduate education, there are less ribbons to cut!

REASONS TO DO IT

Net zero cannot be achieved with the construction industry simply trying harder!

The UK needs a digital, data-based knowledge economy including its architecture, engineering, planning and product manufacturing sector to be globally competitive.

It rewards productivity improvement. It gives oversight of effective and medium-term capital spend. Avoids repetition of 'Green Deal' failures.

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