

bWf Build it Better with Wood

Members Day 2018





The BWF Members' Day Conference 2018 is also sponsored by:











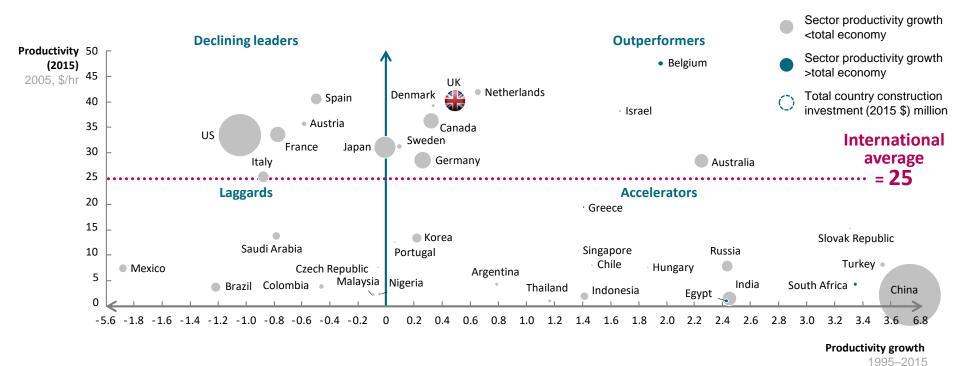






Global Construction Productivity





SOURCE: OECD Stat; EU KLEMS; Asia KLEMS; World KLEMS; KSA CDSI; KSA MoL; WIOD Socieoeconomic accounts. GGDC-10: Oanda: IHS: ITF: GWI: McKinsev Global Institute analysis



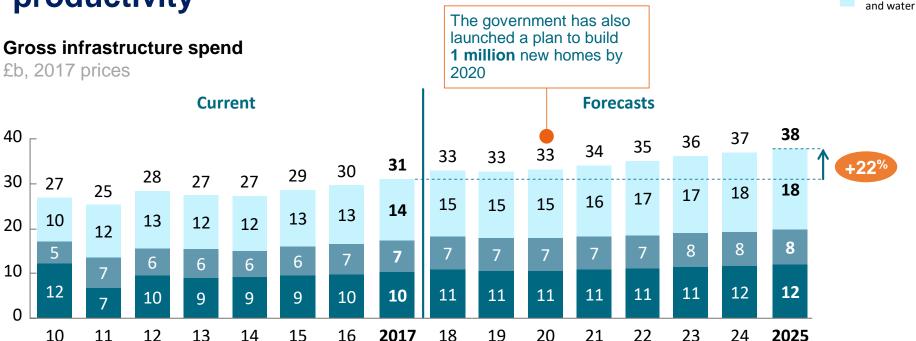
ESTIMATES

Transport

Communication

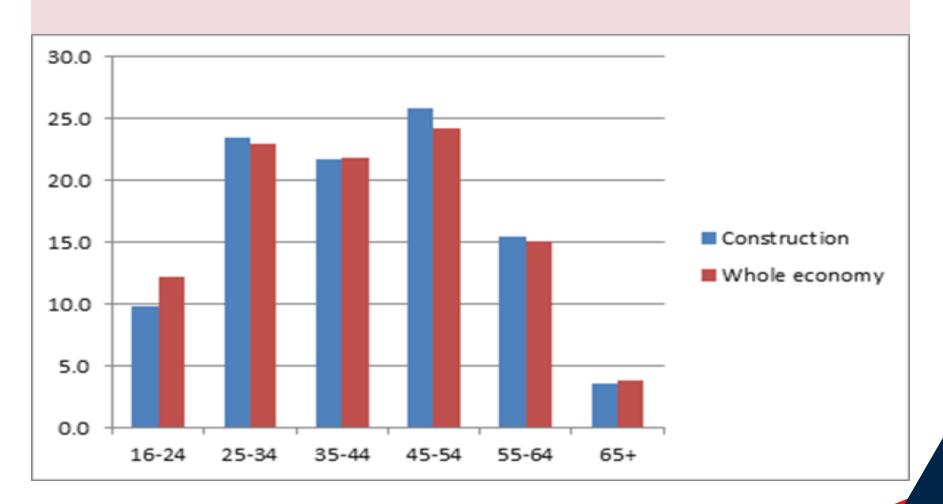
Electricity, gas

Delivering the 2025 investment with today's workforce would require a 22% increase in productivity



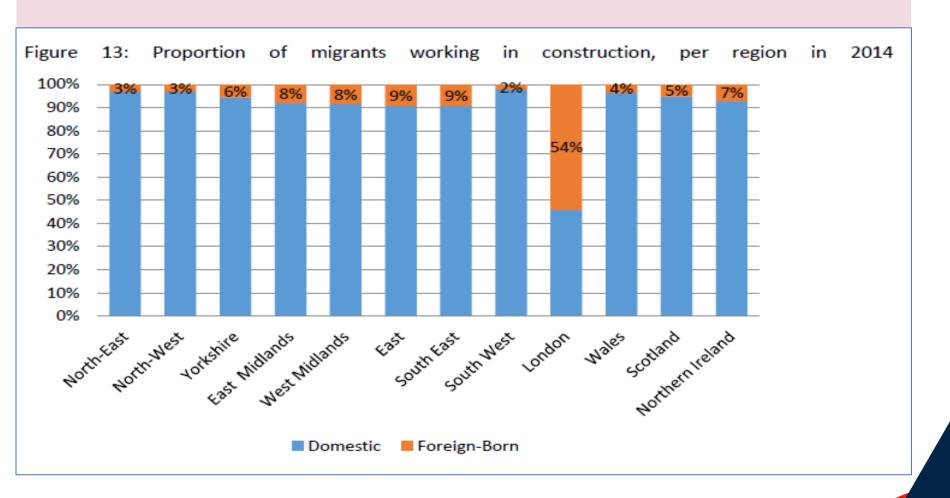


Demographic Change: Impact on the Construction Workforce





Migrant Workforce in Construction



Five Foundations

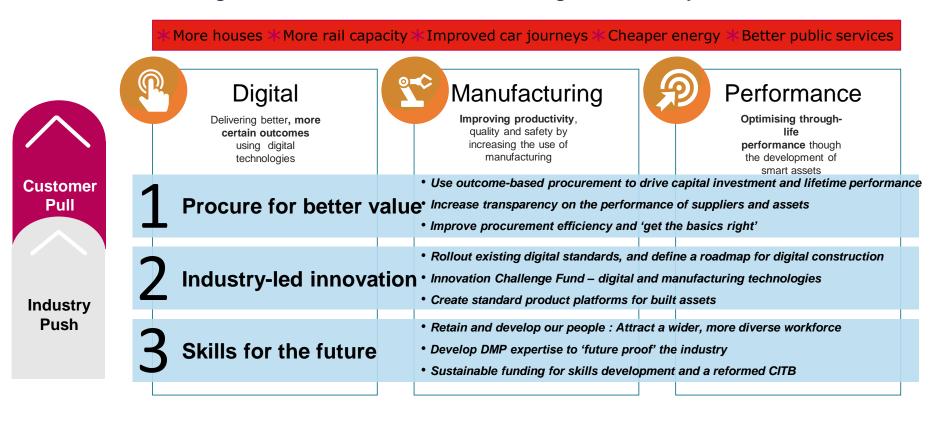


Focus on the five foundations of productivity:

- Ideas the world's most innovative economy
- People good jobs and greater earning power for all
- Infrastructure major upgrade to the UK's infrastructure
- Business Environment the best place to start and grow a business
- Places prosperous communities across the UK



Three strategic outcomes delivered through three key enablers





More houses * More rail capacity * Improved car journeys * Cheaper energy * Better public services Manufacturing Performance Digital Optimising through-Improving productivity, Delivering better, more quality and safety by certain outcomes increasing the use of performance though using digital manufacturing the development of technologies smart assets Customer Pull Use outcome-based procurement to drive capital programmes – develop a common methodology for procuring best value (RICS/CIPS) Underpinned by open access information source, standardised PQQ processes Procure for better value **Industry** Push Consult on payment practices – which create adversarial relationships within supply chains and obstruct collaboration Benchmark performance of assets and contractors



More houses * More rail capacity * Improved car journeys * Cheaper energy * Better public services Manufacturing Performance Digital Improving productivity, Optimising through-Delivering better, more quality and safety by certain outcomes life increasing the use of performance though using digital manufacturing the development of technologies smart assets Customer Pull

Industry Push 2 Industry-led innovation

- Innovation Challenge Fund £170m programme to develop and commercialise new digital and manufacturing technologies for construction, and a £65m R&D and demonstration fund
- £450m private sector funding £250m directly aligned with HMG investment
- Link to market demand I3P consortium, ESFA, MoJ



** More houses ** More rail capacity ** Improved car journeys ** Cheaper energy ** Better public services



Delivering better, more certain outcomes using digital technologies

Digital



Manufacturing

Improving productivity, quality and safety by increasing the use of manufacturing



Performance

Optimising throughlife
performance though
the development of
smart assets

Industry Push

3 Skills for the future

- Reform Construction Industry Training Board to identify and deliver skills needed in future, with stronger links with industry and more support for SMEs
- Work with IfA to put in place apprenticeship standards needed for the industry to invest Apprenticeship Levy funds in training and improving workforce skills
- Co-ordinated industry approach to promoting construction careers – to attract talent and increase workforce diversity

Case Study



Laing O'Rourke schools in Yorkshire – driving productivity improvement through offsite manufacturing









Case Study



Y:Cube Mitcham: use of offsite construction in affordable housing

Description

- Y:Cube is a project by YMCA London South West that offers self-contained and affordable starter accommodation for first time buyers or those unable to afford private rent
- Developed in partnership with architects Rogers Stirk
 Harbour + Partners and project manager AECOM
- With use of offsite manufacturing, each apartment is built under controlled conditions in a factory in Derbyshire, increasing precision and quality control while minimising waste, then craned into place on site, with services already installed.
- The units have a lifespan of around 60 years, during which they can be moved and re-installed up to five times



Impact achieved		
Impact	Success Criteria	
36%	Productivity improvement	£95 per manhour from £70 per manhour
50%	Speed	Half the time taken to build the project
35%	Reduced Embodied Carbon	Quality improvements
50%	In-Use Energy	% better than traditional projects

The level of insulation and airtightness in the this project makes the bills for heating and electricity at £10 per month, while the cost-saving in construction makes the units be rented for £150 per week, 65% of the local market rate.



