



*buildoffsite*



Enabling collaboration in offsite construction

 We are...

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**A Membership Organisation**

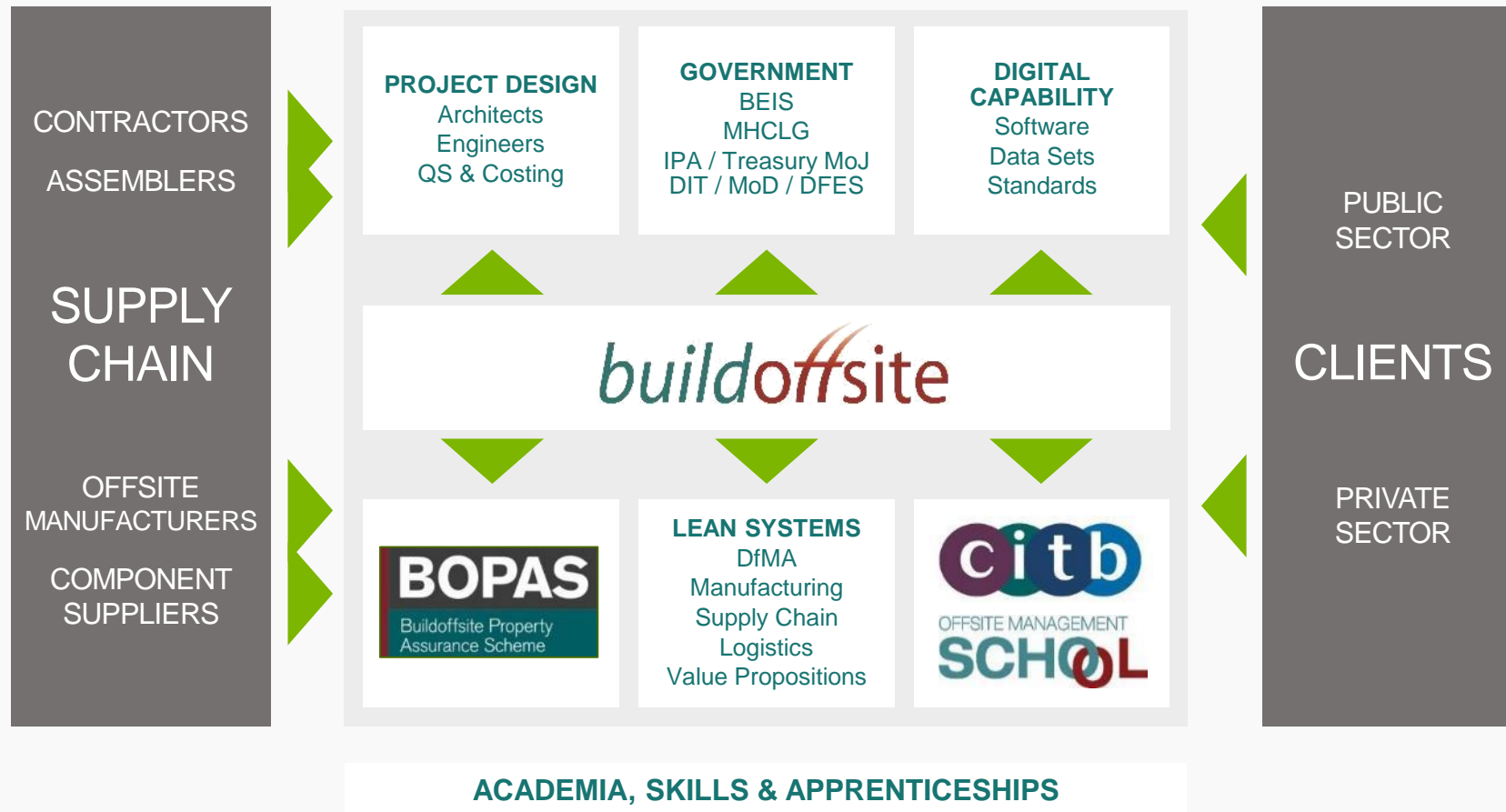
**Voice of the UK Offsite Sector**

**Championing a Capable Offsite Ecosystem**

**Enabling the construction industry  
to deliver greater project value**

# Across the Value Chain

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## Let's Explore

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- The BOPAS Scheme
- The market need
- The user benefits & value



# The Buildoffsite Property Assurance Scheme

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## The Market Need

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- Addressing sector labour skills and availability
- Addressing sector performance and defects
- Securing future mortgageability, insurability
- Providing user confidence: Carbon performance
- Accessibility: Database, BIM performance
- Delivering market confidence for the future





## The User Benefits & Value

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- For the provider
  - Product and process certainty
- For the user
  - Value
  - Predictability of performance
  - Future security of asset
- Brand value
- National assets



# Our Industry Challenge: To Deliver the 2025 Construction Targets

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PEOPLE

SMART

SUSTAINABLE

GROWTH

LEADERSHIP

## OUR INDUSTRY CHALLENGE Construction 2025

Lower costs

**33%**

Lower emissions

**50%**

Faster delivery

**50%**

Improvement in exports

**50%**

## Why offsite?

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Enabling production *not* construction



Offsite is not new...

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# Manufacturing Productivity vs. Construction Productivity

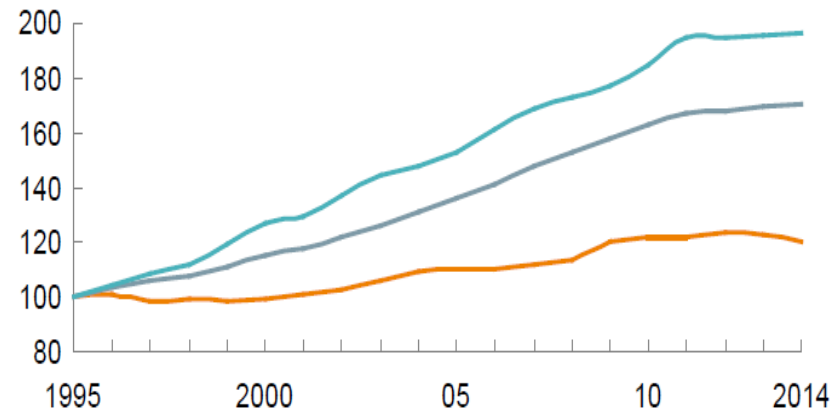
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Globally, labor-productivity growth lags behind that of manufacturing and the total economy

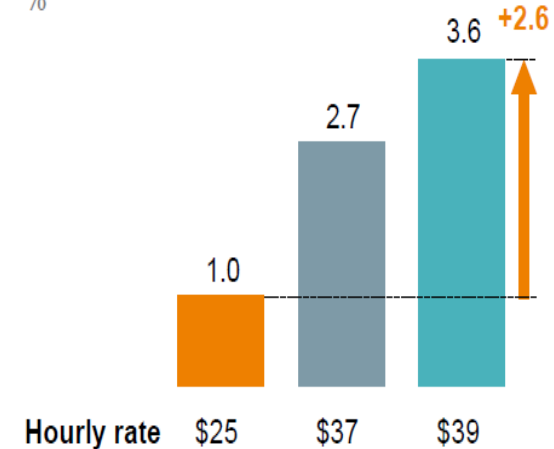
Global productivity growth trends<sup>1</sup>

Construction Total economy Manufacturing

Real gross value added per hour worked  
by persons engaged, 2005 \$  
Index: 100 = 1995



Compound annual growth rate,  
1995–2014  
%



<sup>1</sup> Based on a sample of 41 countries that generate 96% of global GDP.

SOURCE: OECD; WIOD; GGCD-10, World Bank; BEA; BLS; national statistical agencies of Turkey, Malaysia, and Singapore; Rosstat; McKinsey Global Institute analysis

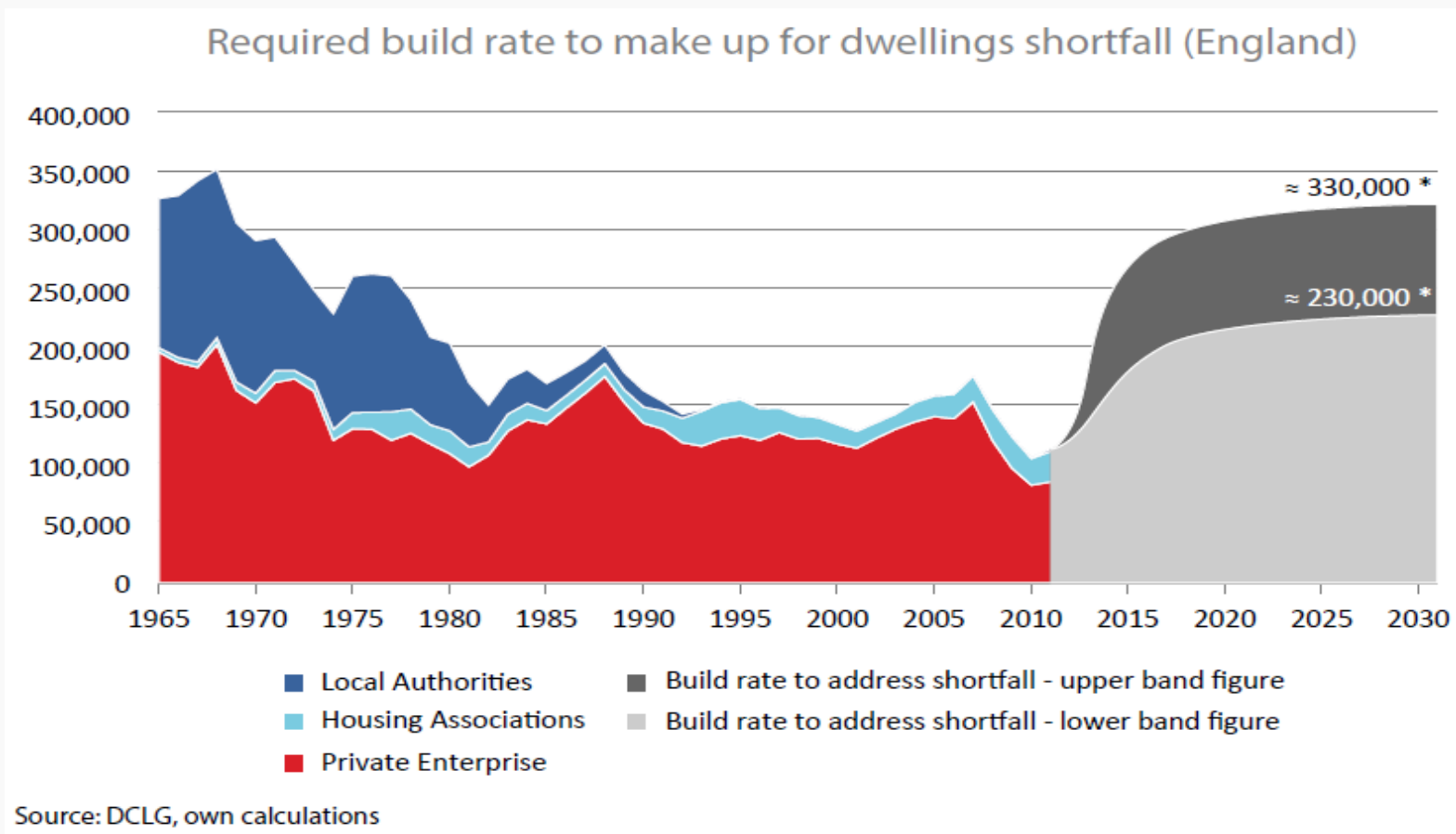
# Health & Safety in Construction 2016-17

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- 30 deaths on construction sites
- 526,000 work related illnesses
- 70,116 non-fatal injuries
- 7% falls from height
- 31.2 million work days lost
- 19 deaths in manufacturing – *still too many but nearly half that of a construction site*

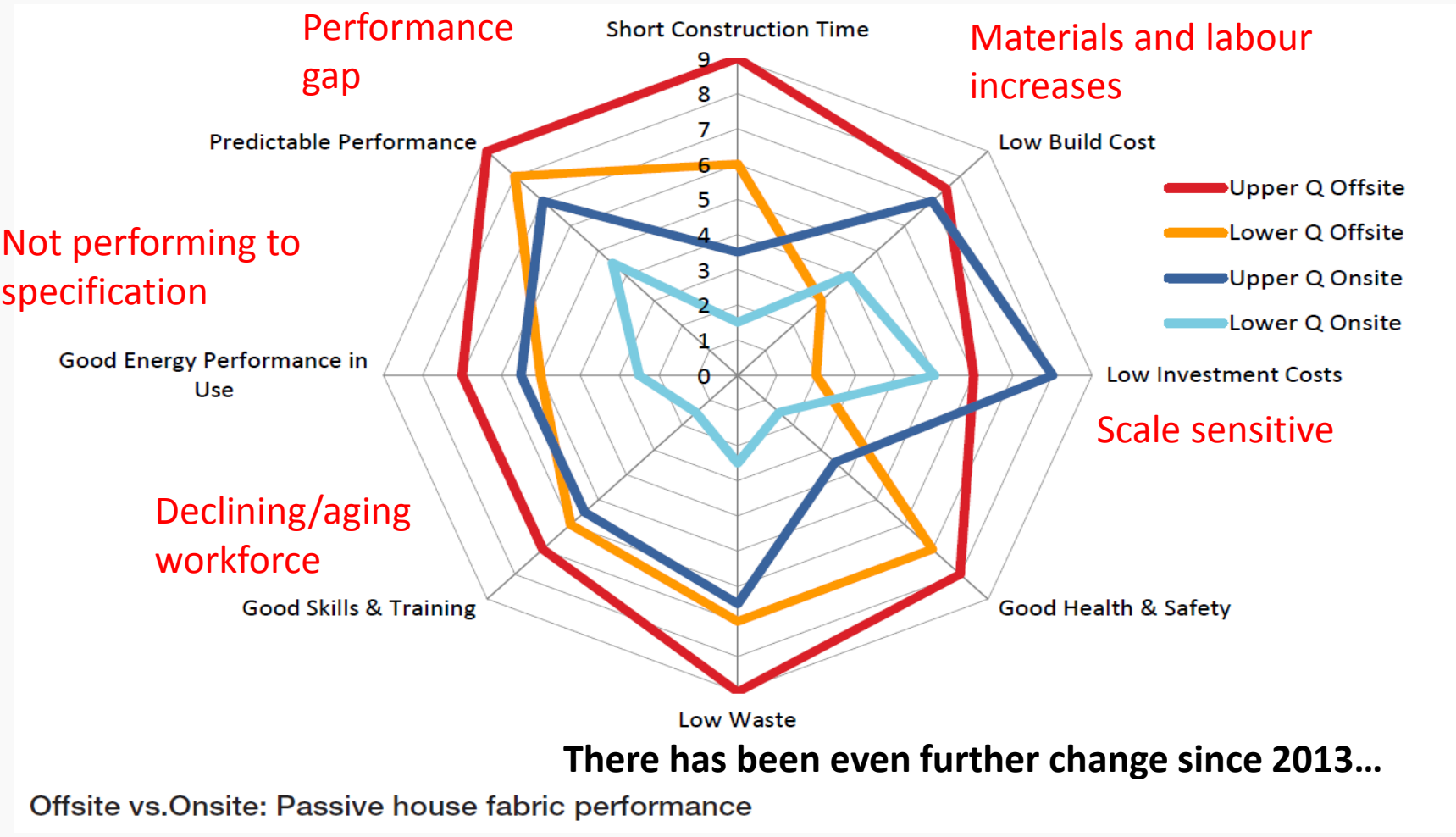


# The Housing need



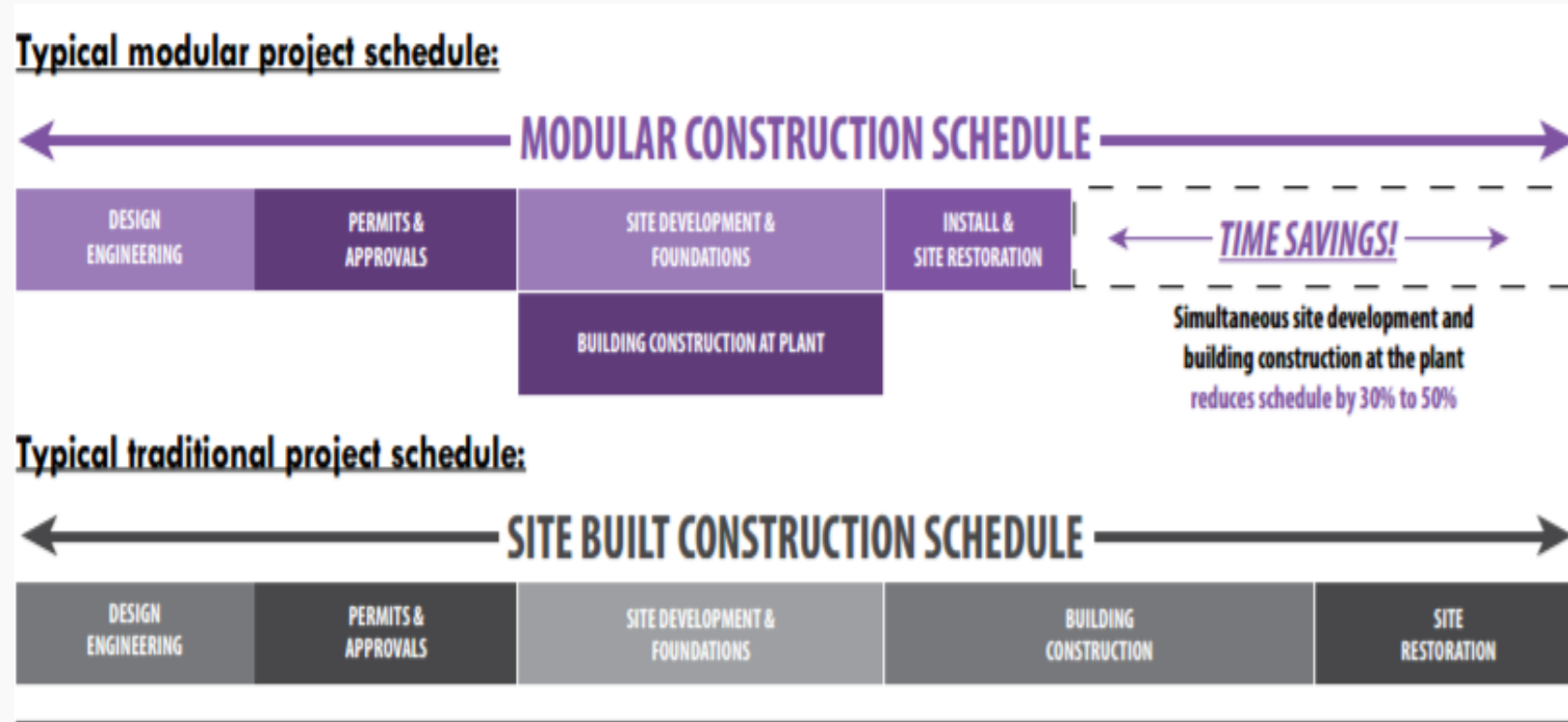


# Offsite vs. Traditional



# Offsite vs. Traditional

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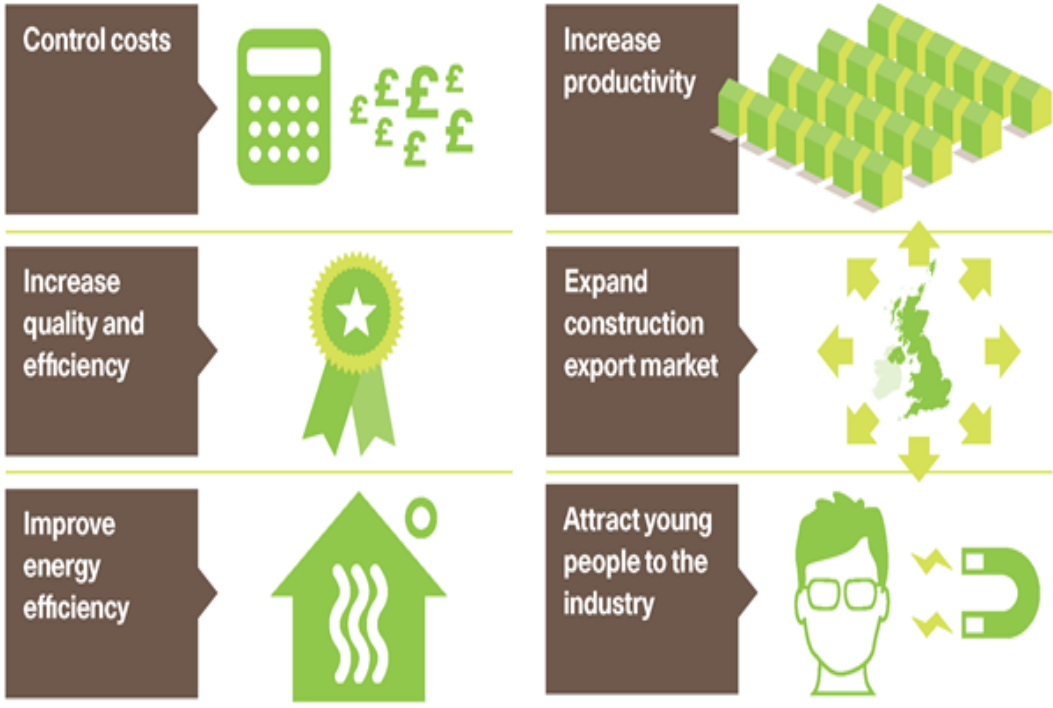


Source: Modular Building Institute annual statistical report Aug 2016 [http://www.modular.org/documents/Modular\\_Advantage/ModularAdvantage\\_Pub\\_3-Q\\_DIGITAL.pdf#26](http://www.modular.org/documents/Modular_Advantage/ModularAdvantage_Pub_3-Q_DIGITAL.pdf#26)

UKCES says so too...

# Why Build Offsite?

Key to realising new opportunities for the industry



## Example; North West Cambridge Development

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Using traditional  
building systems



Same time  
onsite using  
offsite  
solutions

## Example; Factory in a Box

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- Defect-free pharmaceuticals facility developed by Bryden Wood
- Built by 8 ex-Gurkhas using 'factory in a box' – IP free

## Example; Dalston Works, London

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RAMBOLL

- Tallest CLT building & by volume the largest CLT project globally; 121 residential units
- Saved 2,400 tonnes of carbon, compared to an equivalent concrete frame
- Its 3,852 cubic metres of CLT entirely make up the external, party/core walls, floors & stairs
- HS1 and Crossrail pass underneath, so CLT perfect for lighter construction weight, enabled smaller foundations & added 2 stories on to the building

## Example; Wenlock Road, London

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- The building is a solid CLT structure, manufactured off-site, it uses steel reinforcement where necessary, and is one of the tallest of its kind in Europe
- The innovative CLT hybrid structural strategy, developed by timber and steel specialist B+K Structures, proved the most efficient and sustainable way to achieve the unique 10-storey building

Hawkins  
Brown

**B+K**  
STRUCTURES  
OPTIMISED OFFSITE SOLUTIONS

- Provides assurance & insurance of product & process
- We will hear from the other partners in BOPAS to discuss how the scheme works
- Followed by Stelling Modular, who will give of an overview of their journey to accreditation