



Future Skills and Training - Meeting the Challenge

Mark Farrar - CEO ConstructionSkills

8th October 2009



What is the challenge?

To develop a sustainable construction industry capable of delivering a low carbon future and to meet the current carbon, water and waste reduction targets and future targets that have not been established yet

“We need you (CS) to support us in providing the skills for the industry in the future for new technologies - but we can’t tell you what those technologies actually will be and when they may arrive”

Department of Climate Change July 2009



Impact on the industry

"We cannot simply design a and then ask key questions about energy use or environmental impact afterwards..."

It requires hugely different skills put together in a hugely materially different way."

Keith Clarke CEO WS Atkins: Guardian June 2008



Defining what innovation is..

‘If it is new to you and you are including it in your design, installing it or adopting it for the betterment of the construction product, or process, then that is innovation’



The Innovation/Environmental Sustainability link

Climate Change Mitigation
Climate Change Adaptation
Water
Biodiversity
Waste
Materials



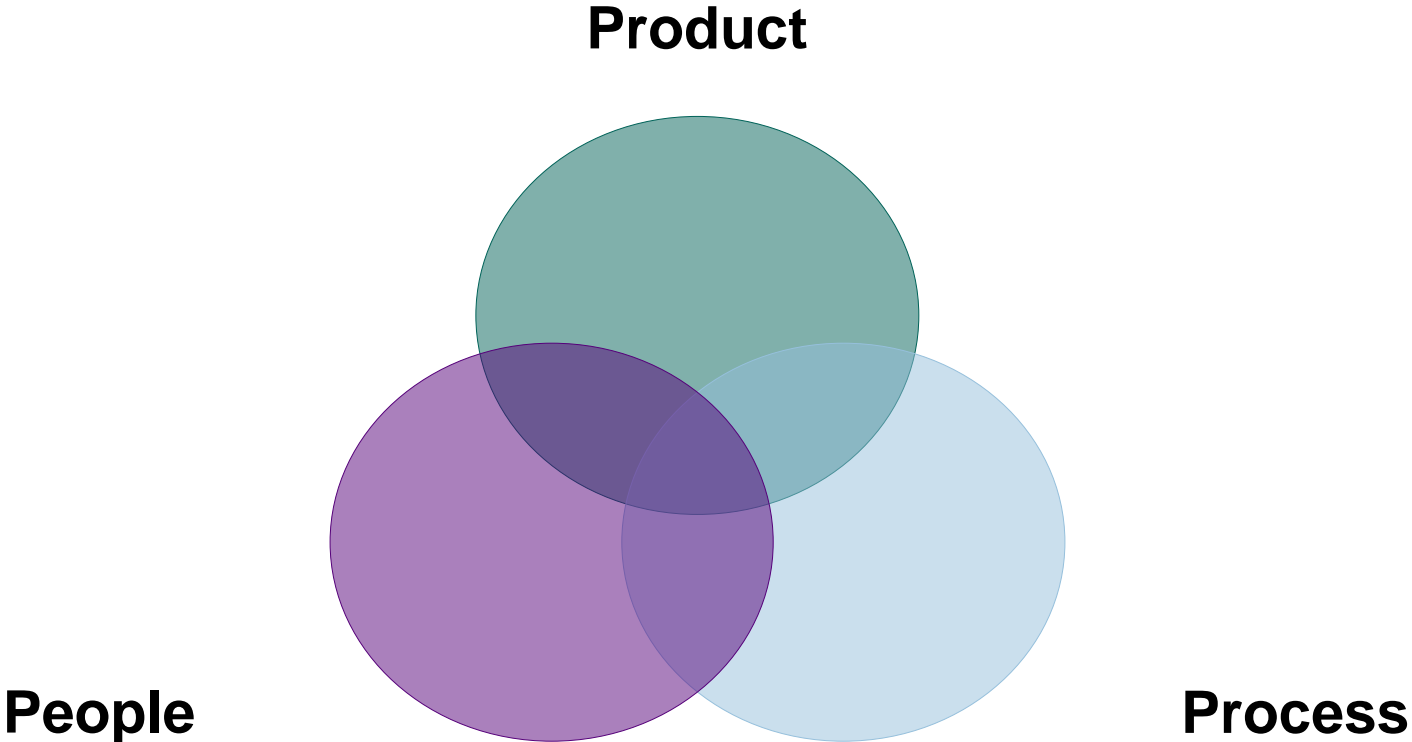
Procurement and Process innovation
Design
Product Innovation
People and People innovation
Better Regulation

'The end goal' - Sustainability

'The means/the process' - Innovation

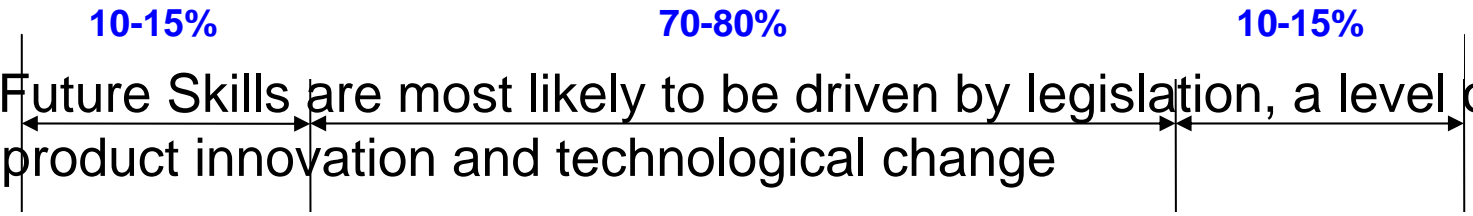


Components of Innovation



What are “Future” Skills?

- They are skills that are needed by some companies and sectors now, further sectors and companies in the next few months, and for the rest of the industry in the next few years

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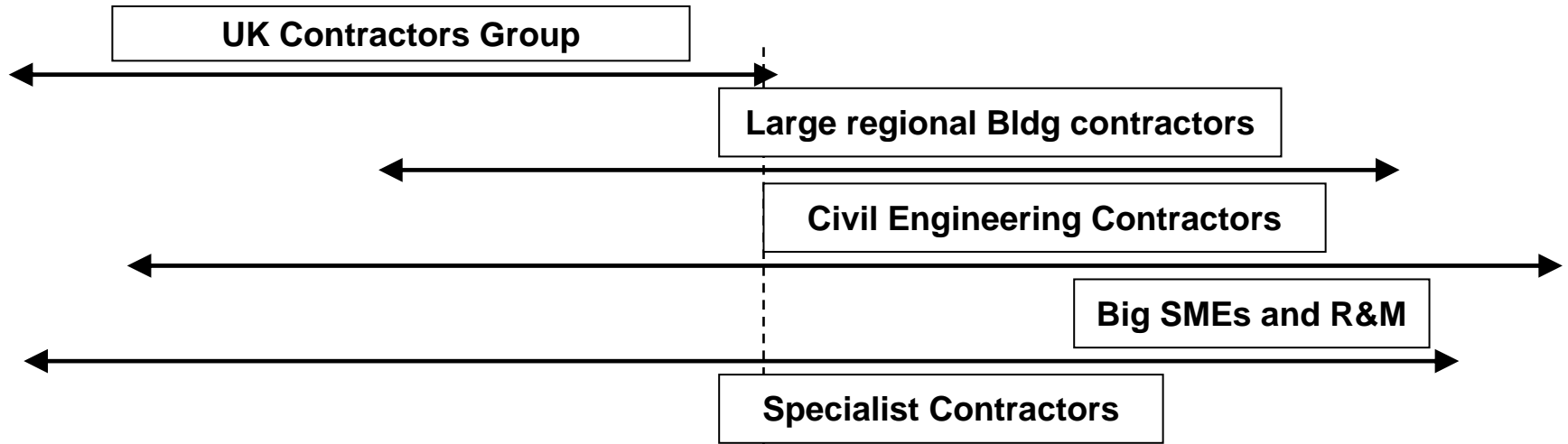
Future Skills are most likely to be driven by legislation, a level of product innovation and technological change
- Specific Future Skills needs of the industry are different within the different sub-sectors of the industry

Time and the impact of legislation/change



Construction Continuum

Industry Activity



Fusion

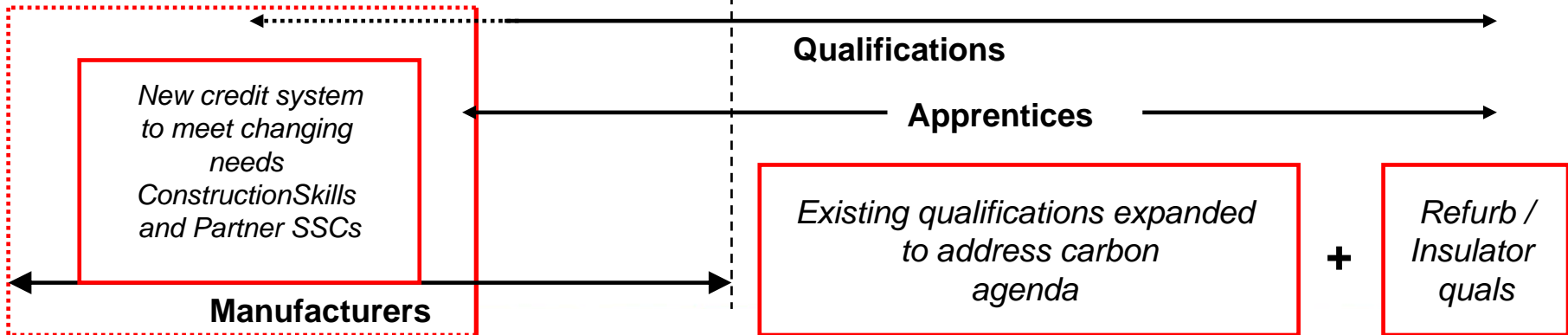
Offside Activity

Modern Methods
2000-2008

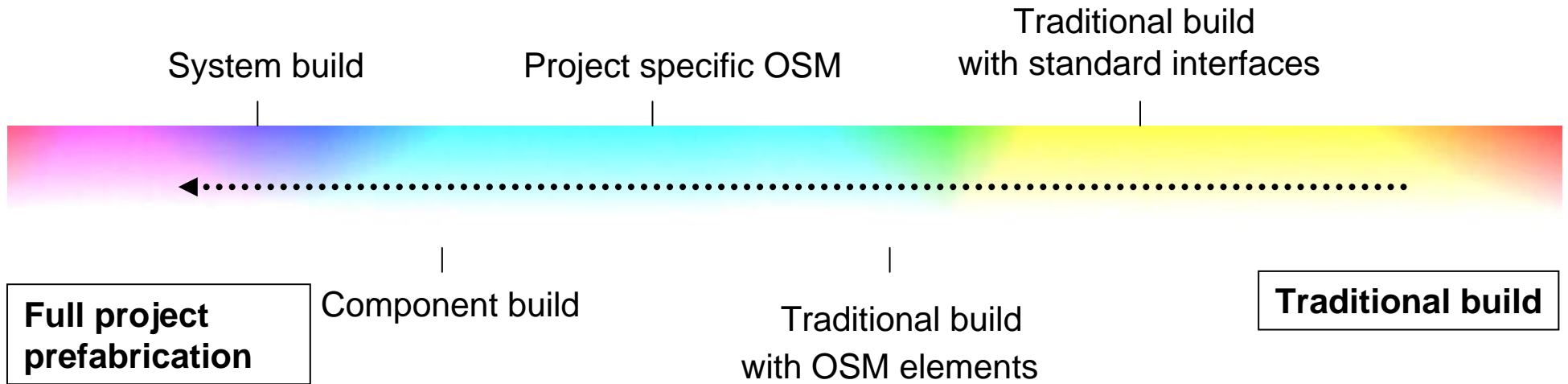
Traditional Construction
1920 - 2000

Built Heritage
Pre 1919

Training and quals



Skills changes within process

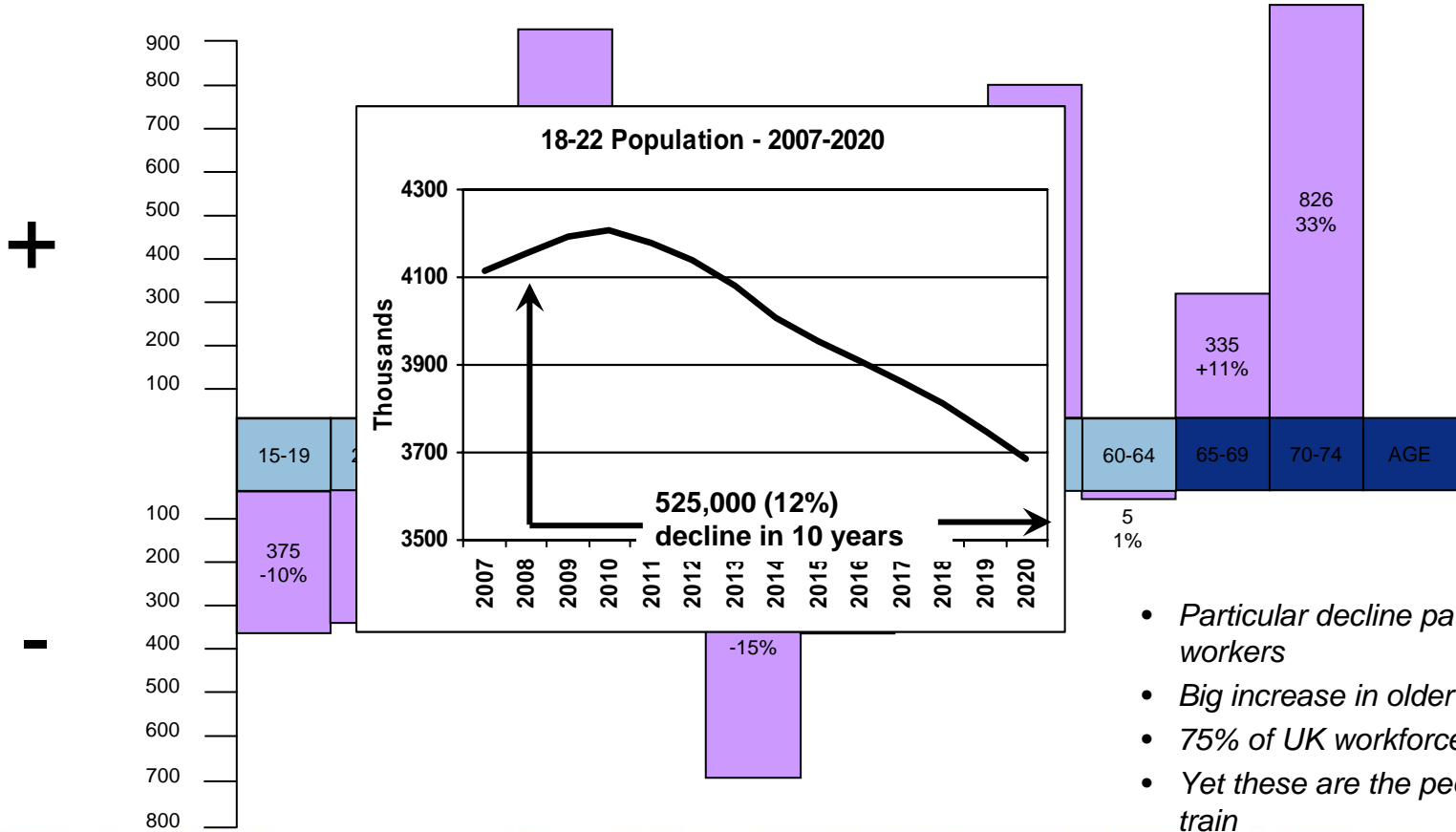


Source – Bryden Wood Architects



Changing Demographics

Projected change in age groups 2010-2020 (in thousands)

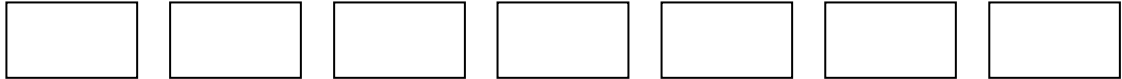


- Particular decline pattern amongst youngest workers
- Big increase in older workers
- 75% of UK workforce already in work
- Yet these are the people we are least likely to train



Proposed Training & Qualification framework

Construction Industry

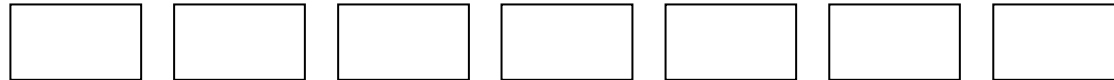


Housing				Commercial Bldg		Public Bldg		Civil Eng		Energy	
New build				Offices, Hotels, Supermarkets		Education, NHS, Defence, MOJ		Road, Rail, Water etc		Wind, wave, Nuclear, Groundsource etc	
R & M		Pre 1919		1920+		New		Refurb			
Social	Speculative										
<p style="text-align: center;">← Craft, management and professional occupations →</p>											



Training & Qualification framework for a volume homebuilder

Construction Industry



Housing								
New build								
Social	Speculative							



Supporting Buildoffsite with BESA

ConstructionSkills

Cogent

Nuclear power and decommissioning

Semta

Offsite activities and manufacturing of components or sections of buildings

EU Skills

Renewable technologies and energy infrastructure

Summit Skills

M&E activity, Renewable technologies

Lantra

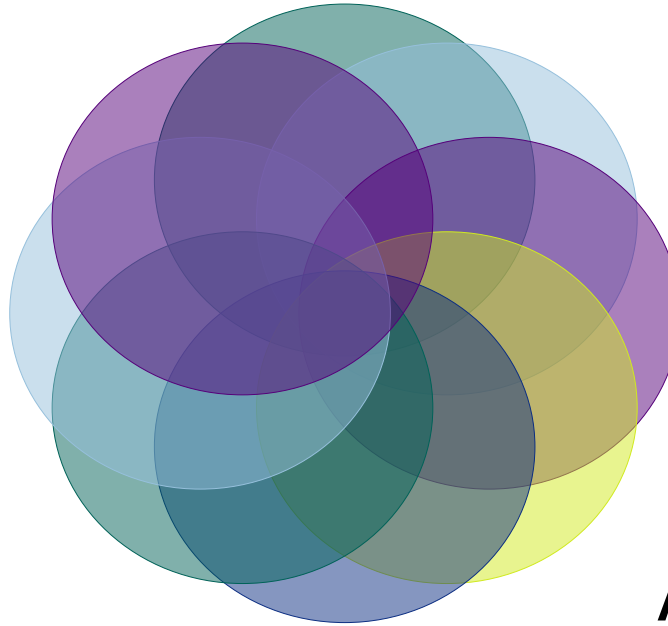
Green roofs

Proskills

Links to product development

AssetSkills

Retrofit renewables



ConstructionSkills activity

Innovation	Renewables	Zero Carbon	Low Carbon	Change	Environment
Product	Large scale renewables	New Build residential	Refurb of existing stock	Design	Climate change
Process				Low energy bldgs	Flooding
Offsite	Nuclear/decom New build	New build non-residential	Reduce carbon emissions	Procurement	Waste
Lean			Energy Assessment	Industry Strategy	Pollution
				Performance, Management and productivity	
				IT	
				Social/ behavioural Change	
				Accreditation	





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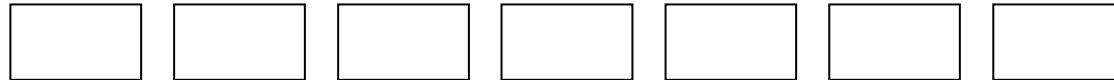
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Housing								
New build								
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