Reimagining construction project delivery in a post-pandemic economy

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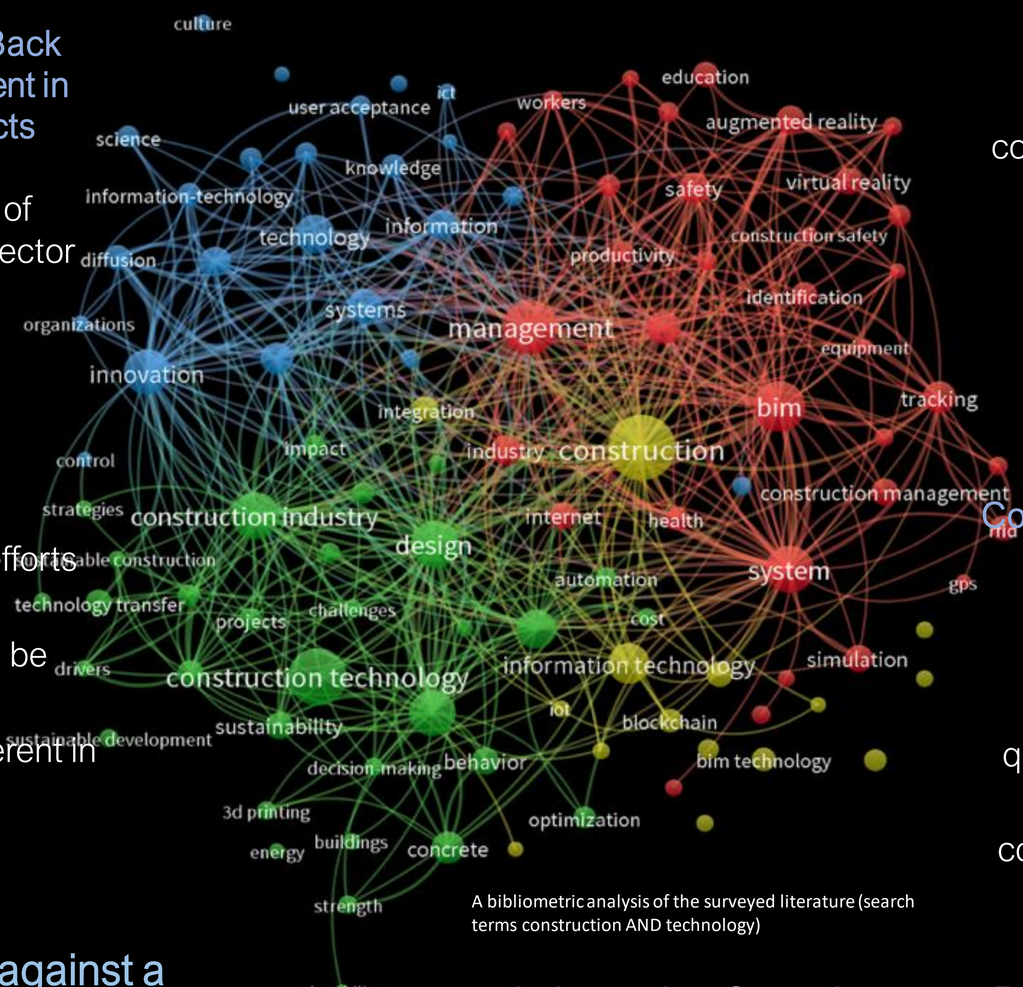
Project aim Gather evidence to support post-COVID-19 policy making in the construction sector, with a focus on small-to-medium sized industry participants.

Objectives

1. Evidence of the impact of the COVID-19 pandemic on small-to-medium sized construction industry participants
2. Establish the priorities for a sustainable transformation of the sector in the context of the Government's 'Build Back Better' strategy.
3. Identify the factors influencing the performance of small-to-medium sized industry participants
4. Contribute to the wider evidence being generated through the PROTECT programme on the impact of COVID-19 transmission

The government's ambition to 'Build Back Better' by promoting greater investment in infrastructure programmes and projects may not necessarily deliver long-term productivity improvements; a decade of increasing underperformance in the sector is a consequence of systemic and entrenched problems



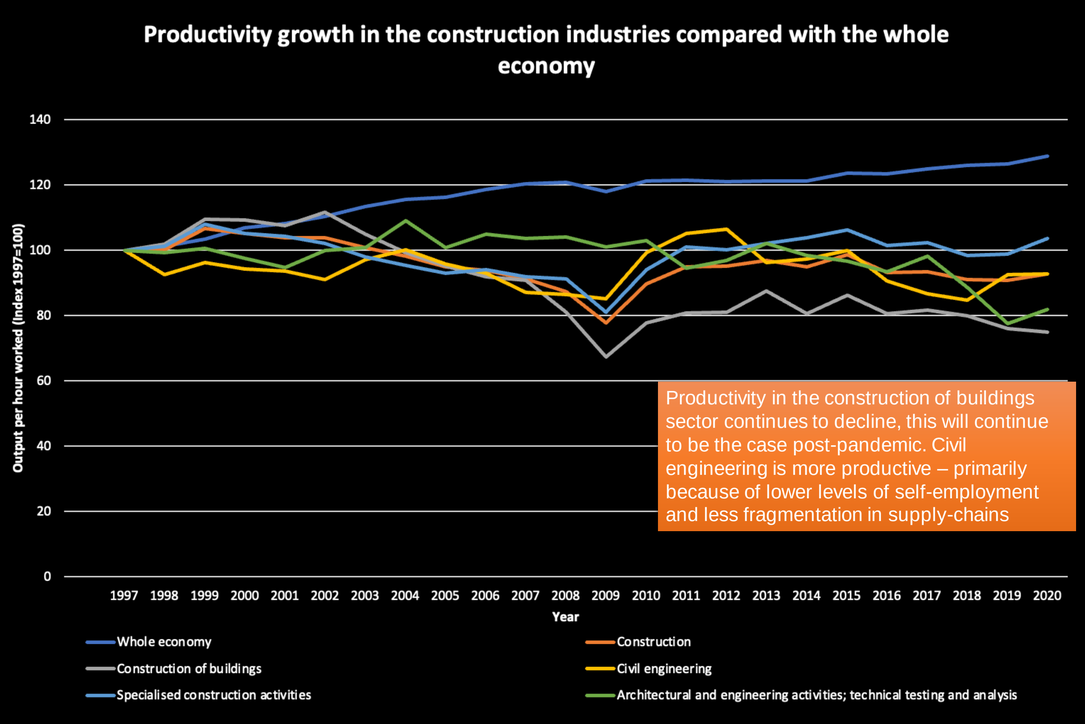
A bibliometric analysis of the surveyed literature (search terms construction AND technology)

Recognition of the importance of the materiality of construction is crucial; efforts to accelerate modern methods of construction across the sector should be tempered by an appreciation of the economic and social value that is inherent in a high-quality built environment

The sector is extremely vulnerable to shocks. 307 company administrations were recorded in the month of February 2022, this was the highest on record since the onset of the COVID-19 pandemic

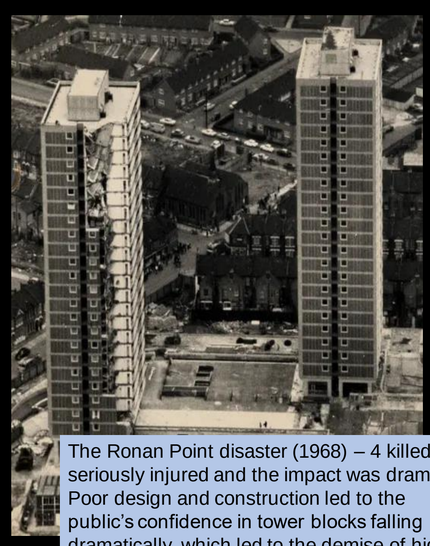
Construction supply-chains are exposed to significant uncertainty. Our research uncovers evidence of construction materials price quotes expiring after 24 hours because of inflationary concerns arising from COVID-19 and the war in Ukraine.

1. The challenge of COVID-19 recovery against a backdrop of poor long-run productivity

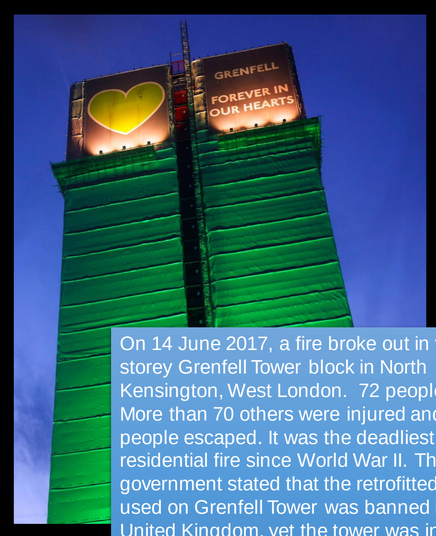


Productivity in the construction of buildings sector continues to decline, this will continue to be the case post-pandemic. Civil engineering is more productive – primarily because of lower levels of self-employment and less fragmentation in supply-chains

2. Learning from the past; Ronan Point and Grenfell

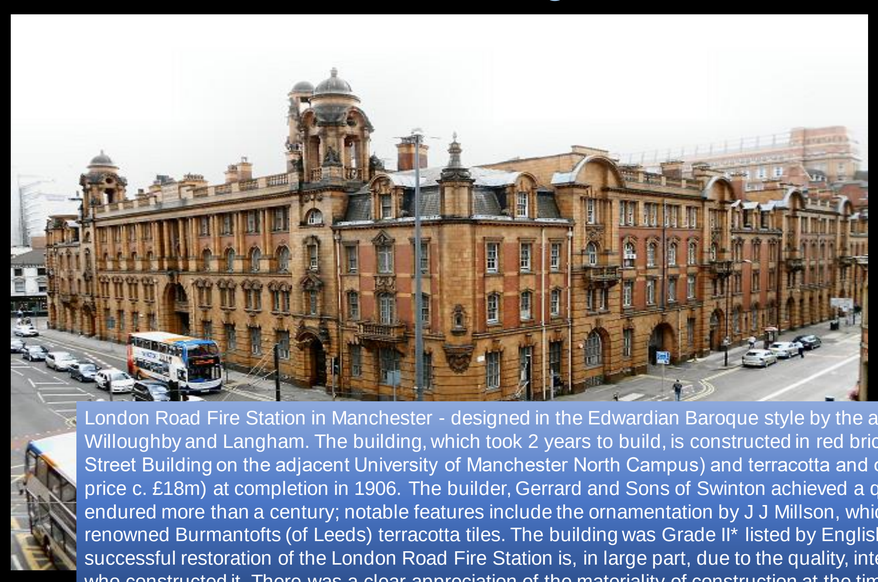


The Ronan Point disaster (1968) – 4 killed, 17 seriously injured and the impact was dramatic. Poor design and construction led to the public's confidence in tower blocks falling dramatically, which led to the demise of high-rise prefabrication solutions to the post-war housing crisis.



On 14 June 2017, a fire broke out in the 24-storey Grenfell Tower block in North Kensington, West London. 72 people died. More than 70 others were injured and 223 people escaped. It was the deadliest UK residential fire since World War II. The government stated that the retrofitted cladding used on Grenfell Tower was banned in the United Kingdom, yet the tower was inspected 16 times during the refurbishment and none of these inspections identified that banned materials were being used.

3. Our architectural history is rich in quality; by valuing materiality we create the stimulus to invest in construction skills for the long-term



London Road Fire Station in Manchester - designed in the Edwardian Baroque style by the architects Woodhouse, Willoughby and Langham. The building, which took 2 years to build, is constructed in red brick (similar to the Sackville Street Building on the adjacent University of Manchester North Campus) and terracotta and cost £142,000 (today's price c. £18m) at completion in 1906. The builder, Gerrard and Sons of Swinton achieved a quality of build that has endured more than a century; notable features include the ornamentation by J J Millson, which is executed in the renowned Burmantofts (of Leeds) terracotta tiles. The building was Grade II* listed by English Heritage in 1974. The successful restoration of the London Road Fire Station is, in large part, due to the quality, integrity and skill of those who constructed it. There was a clear appreciation of the materiality of construction at the time of construction

4. Re-orienting the industry and its clients to focus on the delivery of wider social value will enable government to tackle entrenched societal problems