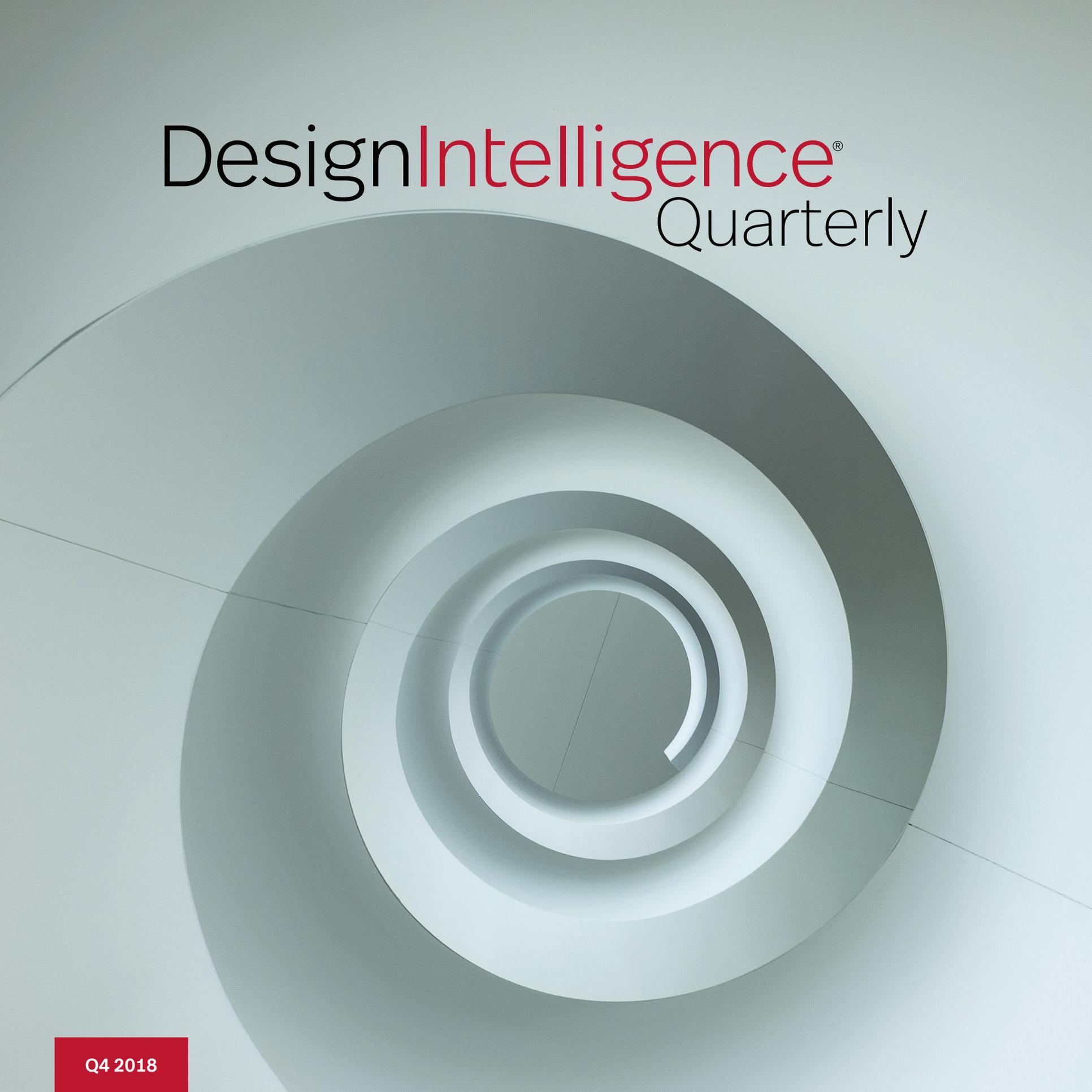


# DesignIntelligence® Quarterly



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## “Modernise or Die” –A Look at the Future of the Construction Industry, Part 1

David Ronksley—managing director of C2R Consulting (a DFC Australia member firm)—talked with Mark Farmer, founding director and CEO of Cast Consultancy about the future of construction. This is part one in a two-part series.

### DAVID RONKSLEY WITH MARK FARMER

**David Ronksley (DR):** I’d like to kick off our discussion with your “Modernise or Die” report. Were you surprised with your findings, or did it reinforce what you’d already suspected about the industry?

**Mark Farmer (MF):** Much of what I concluded, particularly in the first part of my report, was probably more about going over old ground but needed to be covered to inform my analysis. When I was carrying out the analysis to work out the underlying symptoms of failure, all that we know is wrong with our industry in terms of low productivity, adversarial nature of working, fragmentation, low spend on innovation, ideas, etc. had been covered many times before. But if I were to pick out one thing that I wasn’t expecting to be as big of a potential issue that it might be was the demographic profile of the industry and the resource quantum.

This report was specifically focused on the labour model in the UK. It wasn’t necessarily about doing a report on technology or even collaborative working. My focus is actually on the government targets for output relative to our productivity levels and the mismatch. About two months into my research, I was getting worrying statistics on basic demographics from the census data and some additional deep dive projections on what may or may not happen.

Then, in June 2016 we had the referendum here in the UK for Brexit, which suddenly created another risk because in the UK, particularly London, we are very dependent on EU migrant labour. Will that labour stay here? So, it was interesting that pure labour resourcing emerged as a major issue to an extent that I hadn’t considered.

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I’ve been in the industry for a long time, and I know that it’s a highly cyclical industry. I’ve been through two major recessions in my career, and our industry sheds labour and rebuilds labour in line with those cycles. This brought me to the conclusion that there’s an underlying structural issue and not just a cyclical issue, particularly in relation to our ability to further inflate the labour force in future cycles. We can shed labour, that’s very easy—you just lay people off, as our industry is very good at doing. My biggest concern now, though, is

the next upward cycle. When that happens, we will struggle to get the numbers of people we need to deliver what the government is expecting in terms of critical national infrastructure, and social infrastructure as well as schools, hospitals and housing. There will also be the private commercial work that developers and investors commission. That was the one thing that came out my report. It's probably the one theme I speak about most, as well, in the two years since my report.

**DR:** Your observation about the challenge of demographic shifts is interesting. Can you go into more detail about the implications on the construction industry?

**MF:** It is my main concern. It feels different this time and still, even now, I'm not sure people know how serious an issue it is. The basic premise is we are potentially going to lose 20–25 percent of our workforce in the UK in the next decade. Japan is an interesting international example of where they are ahead of us on their ageing profile, and they've lost a third of their workforce in the last 15 years through ageing. So, this is coming—it's not that it might happen, it is *going* to happen. It's just a matter of pace and scale.

To address it, we can either increase the number of people coming into our industry—and we already struggle in the war for talent—or we increase productivity. Preferably we do both.

So that realisation reframed the whole debate and that's where “Modernise or Die” as a title came from. My concern is that all of the stress and strain is starting to show in the industry, and it has accelerated since my report was published. It comes down to skills—to the quantum and competence of resources and the ability to deliver what the country needs in terms of real assets.

**DR:** Yes, and in some ways, I think Australia is ahead of that curve having seen the construction boom coming and the influx of additional construction resources.

**MF:** Exactly. This came up in discussions I've had in Australia and New Zealand. There seems to be a generational pattern here and it is internationally generic.

There's a societal shift as the next generations are increasingly unwilling to do the manual labour aspects of construction—like working in adverse environments where it's cold, wet and windy. They all want to be working more with technology and in better environments such as an office, which is just not possible in the current model.

That's a big risk because site construction is hands-on and labour intensive. Ultimately, this is what's driving migrant dependency in some countries that are sourcing labour from where the cultural backdrop and work ethic is different. People in developed economies are increasingly put off by the element of hard work, which is why we have become so dependent on overseas labour where they don't have that aversion. If we didn't have overseas bricklayers and dry-liners in London, there wouldn't be half of the buildings that are currently being built.

It's a big issue, and it's one that I suppose we can't change; we have to work with it. We have to recognise that the next generation may be less willing to pick up a trowel or a sledgehammer and do the physical work. It means we will still struggle to attract talent until our industry does work in a different way—like higher productivity, more manufacturing and technology, etc. That in itself is still a challenge, but we've got to attack it if we are going to solve productivity and the whole construction image issue.

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**DR:** The report is now two years old. Have you seen any significant changes?

**MF:** I'm a bit nervous about saying that there's been a change. What I will say is there seems to be a bit of a mood shift and

it's not just due to my report. There are a few major events that have happened in the UK that I believe have acted as catalysts for change.

First, the Grenfell Tower fire last summer has put a big focus on our industry. There's a public inquiry in London that is probably not going to paint a pretty picture of our industry. It will look, amongst other things, at how that refurbishment project was designed and constructed as well as what happened in the occupancy phase. I think it's going to paint a fairly bleak picture of what we do in our industry, probably reinforcing a lot of those symptoms of failure I talk about in my report.

That's the way the industry is, and there's no point in anyone being surprised about it. It just happens to have created a situation that no one thought would be possible and, ultimately, it's the worst-case scenario.

Second, with Carillion—which is the largest UK construction company—going bust, suddenly everyone is thinking, “What's going on here?”

All of this is compounding awareness, causing people to question whether we can continue as we are. I talked a lot about “Modernise or Die” for the first year after its release, and people asked, “What's he talking about?” It was more about rehearsing the narrative that we've got some big problems in order to build that awareness. Then Grenfell happened; then Carillion. And there are ongoing issues being reported every week in the trade press. It's all building to a point where we have to change how we do things.

In answer to the question, “Have things changed?” I am seeing the beginnings of change. It is very early, but some interesting things are beginning to happen that involve significant disruption to the way in which we will deliver. Certainly, in my world of residential, where my business focusses, things are taking shape that maybe in a few months or a year will start to reshape our industry. It involves industrialised construction, digital lead manufacturing and technology platforms. It also involves more collaborative working and vertical integration.

**DR:** Is this already happening elsewhere in the world?

**MF:** There's a new housing manufacturing business in California called Katterra, which is a technology-led platform. So, it's all about product platforms and a big digital library. What's interesting is they are vertically integrated end to end. They are a designer, a manufacturer and a constructor, and then they sell it at the end.

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**DR:** The blockchain of the construction industry?

**MF:** Yes. There are no consultants, no tier one builders. There aren't even many subcontractors. I believe there will be a similar model here, and that presents a challenge to our industry because it is highly fragmented. There are consultants, developers, contractors and subcontractors, and they're all used to being brought together in one-off clusters for one-off jobs doing what we always do.

What I sense is that some of these disruptors are saying, “I'm not going to go near that. I'm doing it a different way. I'm going to take the risk of a big fixed entry capex cost, buying a factory and equipping it. I'm going to employ everyone. I'm not going to subcontract it. I'm going to put everyone on the payroll and I'm going to trust my instinct.”

We could have some massive crash-and-burn scenarios with this approach. My instinct tells me, though, that if the technical fundamentals of the business, process and product are

right, many will be successful this time. The pent-up demand for housing and the benefit of delivering housing differently—through a manufactured process that delivers better quality—creates real opportunity. If volume is achieved, it gets cheaper ... whilst everyone (at the moment) still thinks pre-manufacturing is more expensive. There's an inflection point that we can get to by just driving the volume and diluting the fixed establishment costs.

So, I am very confident that disruption is going to take place. Will it change our industry at large? That remains to be seen.

**DR:** The barriers to entry are huge, aren't they? And it is risky, with a need for deep pockets.

**MF:** Absolutely. What's interesting, though, is where these businesses are coming from. They're institutionally financed with long-term money or increasingly, private equity. The fact that PE money is coming into manufactured housing tells me that the analysts have realized that there's an opportunity here.

**DR:** And New Zealand's a bit ahead of the game in that, isn't it?

**MF:** Yes. In New Zealand, there is a government-sponsored program called KiwiBuild. It is acting as a bit of a stimulus for offsite manufacturing. The NZ government is quite keen to use it as a means to drive innovation in the construction industry to address challenges with their labour force. That has attracted some overseas interests, institutional capital and private equity interest into New Zealand's construction sector. Money doesn't come into any market unless there's an ability to make a return, and in New Zealand, the demand and opportunity is for affordable housing.

From New Zealand, as well as the wider international sphere, money is being put into ventures that would then respond to that kind of program. We have a version of that in the UK, but it's not all about the government program here, with institutional finance being used to build PRS Private Rental Sector portfolios known as "Build to Rent." There is also North American investment in the equivalent of what they would call multifamily housing.

**DR:** Are there political concerns over where the funding is sourced?

**MF:** This will be the recurring theme—whether it's Australia, New Zealand, UK or elsewhere—about where the money comes from to bankroll some of these disruptive platforms. Where the work is done is an important distinction. You might have a new venture that is foreign financed, but the actual factory production might be done in the country where you want the homes to be built—which makes it more politically acceptable. Most governments are actually encouraging foreign direct investment—provided it's not just shipping things from overseas, landing at the docks and installing them, because the government would be losing all or most of the value-add for its economy.

My concern is that we are moving in that direction. There are a few such volumetric modular/container-led ventures that are active in the UK, Australia and New Zealand that have that model of "We'll just build it in Asia, we'll put it on a container ship and transport it into position." We live in an internationalist economy, and we shouldn't be promoting anti-competitive behaviour, but also in reality it's a lost opportunity for local supply chains to modernise. The construction industry has been very good in most economies acting as an economic powerhouse for employment, for economic growth, for wages. If, all of a sudden, the disruption of building differently actually means that the "building differently" is all happening 5000 miles away, then that to me is not right. There's a more effective way of building things differently and doing it more efficiently with foreign money, which means we are still actually delivering value locally.

*In the second installment of this story, we'll talk more about delivery, technology and reskilling our people.*

**Mark Farmer is founding director and CEO of Cast Consultancy and the author/researcher of *Modernise or Die: The Farmer Review of the UK Construction Labour Model*.**

**David Ronksley is managing director of C2R Consulting.**

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