

# Egan: I'd give construction about four out of 10

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*Sir John Egan on how the industry responded to Rethinking Construction: full transcript of speech at Commons reception marking 10th anniversary of report*

When I got involved with the report 'Rethinking Construction', I expected that as with most government reports, it would end up in the wastepaper bin, and never be seen again. So it's really quite a surprise that here we are, 10 years later, meeting together to debate what's happened.

I'm delighted that at least people are measuring performance, because when I got involved to start with, people weren't even measuring it, so they didn't even know if they were getting worse or they were getting better.

However, we have to say we've got pretty patchy results. And certainly nowhere near the improvement we could have achieved, or that I expected to achieve.

However, if you look at the demonstration projects, and I know that you can't add year-on-year improvements that were made over that period of time, but if you look at the the year-on-year improvements, the costs look as though they're something like 20 or 30% lower than in the seven years that you've been doing the counting

Projects are taking something like 40% less time. Profit margins within the construction industry have gone up from six per cent to 10%. One very important thing is that 78% of those projects took place without any loss time accidents. That is a marvelous thing for the workforce that is in this industry: 'we did 78% of those projects without injuring anybody'. This is extraordinary

Also the productivity measured up year-on-year showed an almost 80 per cent improvement. So yes, we didn't achieve everything, but on the other hand within those demonstration projects it's quite clear that some very good work was being done. You don't need to go to Timbuktu, the middle of the United States, or France to find good projects. There are good projects going on here where measurable improvements have taken place

I'm now in the water industry, and we spend five or six hundred million pounds a year. We don't have cost overruns. Our regulator has cost curves which describe most of the work we do, 60 per cent of it. And we're not allowed to have any overruns on those projects, which we have to swallow, we don't get them on a regulatory basis. They expect us to have a cost improvement every year, and we've beaten that by six per cent. So we're running over a four year period at something like 10% or 12% less in terms of cost. We're not unique in

the water industry, most of the companies are doing it by the very things that we asked them to do.

So, I'd like to just cover three things: What did the report set out to do?; What's going wrong?; and how do we fix it?.

From a personal point of view, realising that government reports usually went into the wastepaper bin, I wanted to learn. And so I invited all of the companies I thought we could learn from onto the taskforce. We had guys like Tesco and Nissan, anybody who had already established a reputation for improvement, we had. By the way, you'll notice that they were virtually all clients, because I think the client controls everything. He pays all the money, he pays all the bills. If he wants to, he controls everything. And I think that should have taught us something – that control is very, very important. And I'll come back to that later on.

We took stock of the projects that we were buying. We were buying projects worth four or five billion a year between us, and we were able to say productivity was low, costs were out of control, quality was poor and so on and so forth. It reminded me very much of the car industry of the 1950s and 60s, the revolution that we went through as an industry to compete with Japanese car companies, and the absolute change we had to bring to our new car programmes to actually attain competitive products.

So what we did in the taskforce was to mimic the new car programme in a huge project. And what did we suggest? Well first of all, you have to work as a team. If you don't work as a team you simply are going to fail. You're not going to achieve all it is that you have to do. Secondly, you design the whole project on a computer versus a target that you're trying to achieve, and why not try to be really good and use the world-best? Search for improvement within your supply chain, release the value that they've got in their supply chain and build it into your project.

So, your project is an iterative sort of thing. You do it all once, you find it's too slow, too expensive etc. you bring the supply chain in to help you, and you then do all of the work you have to do to build in their supply and their cost improvements into your project, and then you start making sure that any new technologies are offline, and they're tested before you start. And secondly you pre-plan all of the construction processes you're going to use, to make sure they're safe. And also you pre-plan the production processes themselves, to make sure you get high levels of productivity.

Incidentally, you then build as quickly as you can with a trained workforce. We noticed when we were building the Heathrow Express that something like 93% of all the accidents we had were outside of process, so in other words people were doing what they shouldn't do. And secondly, that 70% of the people on our workforce were not trained to do what they were doing. So if you add those two things together, of using only process which is safe, with people who are trained, the likelihood is you won't have any accidents. And I notice that 78% of the demonstration projects don't have any accidents. So

that's what you're supposed to do. It's not complicated at all. But if you short change any one of those things, you will not achieve anything like world-class capability

So what's going wrong? First of all, I have to say, one segment of the industry which I really expected to do very well indeed was housebuilding. They're in control. And yet, across the seven year period, from the statistics we've got, they made no cost improvements at all. Absolutely nothing. Also, their productivity processes actually generated much less than half of the demonstration projects. Only 30-odd per cent improvement versus over 80%.

I just don't think they were trying. In this 'nice decade', as the Bank of England called it, they really didn't try. And now they've got their comeuppance. It's very, very sad. But if they'd have only learnt from one of the lessons we put in our report – Travel Inn. They could sell bedrooms at £45 a night, but they couldn't for £50 a night, and they were occupied at 90-odd per cent.

They [housebuilders] were delivering £50,000 houses with banks (who are now much better bankers than they were) owning the ground rent and owning the land. Now we could have product that ordinary people could buy. But they're not ready for that.

The target of John Prescott's £60,000 house is an example. Incidentally, I was responsible for that but I said it should only be £50,000, and I was actually talking about the normal three-bed house. I said it could be built not for £80,000 but for £50,000 if you built it without waste, and you built it with a proper productivity.

The activity rate on a building site is still probably I guess no better than 30-odd per cent, and yet 60-odd per cent is quite easily attainable with good pre-planning and having everything available when you want it on the site.

With simple productivity improvements, simple design improvements and simple stuff built off-site, the houses could be costing a great deal less than they do, and there would still be a market.

I think lowest cost tendering (and I think the government is absolutely the culprit here, they were very bad as the main buyer of projects, still buying the education department with lower cost tendering) is absolutely ridiculous.

You see, the problem is that until you've designed the project you don't know what it's cost, and it costs you 10% to design it. How can you get a rational tender? How can you get a number that means anything? It doesn't mean anything. It means very little. It seems impossible if the government is buying 40 or 50% of all the projects, all the construction in the country, and they just simply aren't trying to be a good client. I don't see how the industry will ever become fully competitive.

And the point to remember is that it's a team that does it - a designer, a construction team a supply chain and so on. Working hard together they can

produce a good cost. But they can't do it if they work separately. And lowest cost tendering starts them off as separate groups.

I also think that the industry has no basic designs yet. The one or two companies that have got standard designs, like the warehousing industry, are excellent low-cost solutions, but very few of the construction companies have any standard designs that are anything near a wonderful cost.

I think that clearly, where the client is in charge, you're seeing 'you can do this'. But if you remove any of the attributes of a good project you don't have a successful project.

Now what would I do? I have to say that I would introduce, as early as possible, in every possible project, a gain share between the client and the industry, with a target based upon an agreed set of parameters, plus or minus I would say 15%.

It isn't just the government that is a bad buyer, developers are too. They're so anxious to dump all of the risk onto the industry that they don't actually grasp what the enormous cost improvement could be if they shared the cost of the 10% design, and they shared the risk.

So, I think if anybody wants to know how to reduce the cost of what they do a lot, they could read the 'Rethinking Construction' report all over again. Any of the steps you miss out will cost you. I think if you don't do all of the steps you'll fail. But in the mean time, I think there should be the concept of two teams of target costs with plus or minus 15% gained or pained between the client and the industry, and perhaps then we might start seeing some real improvements.

In summary, I guess if I were giving marks out of 10 after 10 years I'd probably only give the industry about four out of 10, and that's basically for trying, for having its demonstration projects, still being in the game, and still having enough there to actually, perhaps with another big heave, get it done the next time around."