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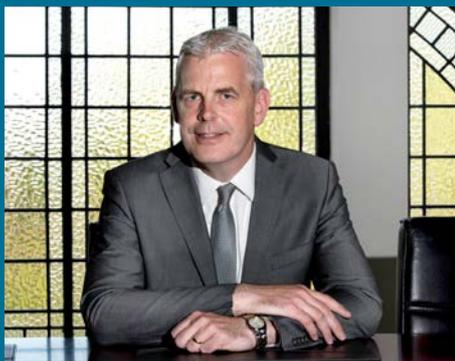


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Breaking down the barriers – more dialogue with construction sector lowers cost and boosts innovation

Commenting on the Dutch “poldermodel” EFCA President Kevin Rudden said: “Value based business models incentivise consultancy to create value for the client rather than just rewarding inputs. The nature and diversity of clients and businesses within construction does not however lend itself to a single-based business model. This means that a range of business models, fitted together like a jigsaw, will need to be deployed to realise the opportunities presented by different types of clients, asset owners and regulatory systems.”

He referred to a study done in the UK which researched into the possible range of value-based business models that will be deployed over the short and medium term.



“This study” the President continued “demonstrates that the nature of opportunities for consultancy businesses vary across the business models. Input and output business models are suitable for delivery by the consultancy businesses on their own, or via joint ventures with similar types of firms. For some very complex projects it is likely to involve



Jaap de Koning

More dialogue, sooner and with the right people: three steps to a more innovative and cost-effective built environment and infrastructure. As climate change bites and budgets get tight, communication becomes the critical ingredient for change and is slowly getting the attention it deserves.

In public procurement, changing the type of contract used for a project could allow construction companies to have more open communication at critical points. According to Jaap de Koning, partner at Witteveen+Bos, an international engineering and consultancy firm based in the Netherlands, and chair of the Internal Market Committee at EFCA¹, bringing contractors earlier into design discussions, especially for large complex infrastructure, gives them more time to understand their remit, greater opportunity to share their knowledge and experience, and eventually leads to more innovative and cost-effective projects. In this approach, known as ‘Building Team involvement’, the engineer is responsible for the design and the contractor acts as an extra advisor, bringing in experience on constructability. This is in contrast to an integrated approach - like a D&C contract - where the contractor is in the lead.

Construction companies have long been involved at the early stages of small projects. “But it is something new and innovative for large infrastructure projects,” says Mr de Koning.

Reducing the risk

“The contractor should be thinking ‘what’s our biggest risk and how can we reduce it in the design?’ But instead, integrated ‘design and build’ contracts are forcing them to accept a design and take on much of the risk while offering a fixed price,” explains Mr de Koning. “Their lawyers even warn them against bringing their expertise too early to the table because it will attract responsibility – and therefore more risk.”

Integrated design and build contracts² have been around since the 1990s, offering opportunities for greater efficiencies. But disadvantages are becoming clear. “We’ve been using them in the wrong way because they incentivise contractors to minimise their risks and charge a high price,” Mr de Koning continues. “It is a time when public authorities are more and more wanting some sort of involvement in their own projects. They want to see what’s happening, to see what they’re getting, sometimes to bring in their own expertise, and to talk to the contractors.

“The current process is not optimal. We need to be able to bring the construction firms in earlier, giving them two roles – consultant and contractor.”

¹ European Federation of Engineering Consultancy Associations

² D&B or D&C (design and construct)



some form of alliance model that brings together consultants with organisations such as contractors and facility management companies.”

In this respect he also drew attention to the Second Annual EFCA Future Trends Booklet 2019, saying that: “We further explore the trends that will disrupt the Global Architectural & Engineering Consultancy Industry. It is irrelevant whether we as a Federation support, embrace or encourage these trends, the future is inevitable. The only constant is change and the rate of that change is increasing uncontrollably. Our goal is to expose the European AEC Community to the possibilities and opportunities that this inevitability will create and the consequence of ignoring it.

These new forms of organisation structure place more trust on the integrity of all those involved in the journey. They can only succeed with the preservation of the core ethical principles which lie at the heart of our profession. Without these, failure is inevitable.

To be successful in today's world it's no longer sufficient to imitate past models. We must innovate and concentrate our efforts on what our competitors are not yet doing.

EFCA challenges our Industry to have the courage to transform ourselves, to abandon preconceived frameworks, to embrace new models and try new experiences that will allow us to truly evolve as an industry and society.

The transformation won't be easy. There will be many challenges and obstacles as we try to reconcile these future trends with the legal, regulatory and liability precedents which have both constrained and protected us for many years. Shattering the status quo is always disruptive.”



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Building Team involvement

“It's not just me pushing for this,” Mr de Koning declares. “A 2018 report from the global management company McKinsey, investigated what could be done to get better performance in the construction sector, to make it more efficient, successful, and innovative. They concluded that we need more ‘early contractor involvement’.”

Contractors are usually appointed once the project design is completed but with a Building Team involvement contract, they can be brought in during the design phase of a project, becoming a contributing member of the design and planning team.

Mr de Koning quotes the Dutch Department for Infrastructure and Waterways (‘Rijkswaterstaat’) as a client considering the benefits of Building Teams. “Rijkswaterstaat is the country's largest infrastructure client and since 2007 has insisted all contracts be integrated. But we are all asking – are they the right sort of contract?” One of their many projects is a €1.5 billion reconstruction of the highway encircling Utrecht. “It was intended to run on an integrated contract. But this project is so complex they are now looking at changing it to one of Building Team involvement.”

The idea of involving contractors earlier is spreading but it may not be a success everywhere. “Building Team involvement is now very popular in Holland and there's a lot of curiosity. It should be happening worldwide but in some places lack of trust, and perhaps corruption, is too prevalent. Without trust, it's not going to work.”

A complementary ‘poldermodel’

For centuries, cooperation has been at the heart of Dutch engineering, not least due to local geography which gave rise to a ‘poldermodel’ approach. “Hundreds of years ago our farmers were threatened by flooding,” says Mr de Koning. “They knew they had to cooperate; they could not manage their ‘polders’ alone. They shared common goals to keep the sea out and everyone had to overcome their differences. This created what we call now the poldermodel – a co-operative approach for solving problems – which goes hand-in-hand with a Building Team type of contract.”

This consensus model is having a come-back of sorts in Holland, particularly in the construction phase of public projects where it can also help working relationships. “For a lot of clients, this phase is always a hassle. There's lots of shared frustration, changes, costs, sometimes legal disputes – even though we know its inefficient to fight and call the lawyers. There can be a really negative energy in the team. Poldermodel helps improve communications and teamwork.”

The poldermodel can be as effective an instrument for climate change today as it was against flooding in the past. “You cannot take political sides, argue, that's not the way. If you don't cooperate you will not reach good solutions. ‘If you want to go fast, go alone; if you want to go further go together’.

Use procurement more strategically

With Building Team involvement improving the contribution of contractors, and the poldermodel improving cooperation amongst all project partners, the use of procurement itself can also serve to improve performance of public projects in the face of, for example, the ambitious 2030 sustainable development goals. “Really big problems you can't do alone,” says Mr de Koning. “I understand why we have procurement regulations, because we are dealing with public money but they are not always the most efficient. That's all the more reason to use them strategically – don't see them as a hassle or just as a technical necessity. I tell all my clients to use public procurement more strategically.

“If you organise procurement in the right way, the engineer and contractor will be able to offer you innovation. The Rijkswaterstaat has €8 billion worth of public contracts a year – from small to very big – managing them strategically can make an enormous difference.”

EFCA has member associations in 28 countries, and is the sole European federation lobbying on behalf of engineering consultancy and related services, a sector that employs around one million staff in Europe. EFCA contributes with a strong and cohesive input to legislative actions of its national associations on issues affecting market conditions. Furthermore, the organisation works as a Europe-wide platform for national associations and their member firms to gather relevant facts and discuss issues with their counterparts.