PROJECT SUCCESS LIES IN THE THREE Ss OF INTERFACE MANAGEMENT

Large scale infrastructure projects set companies back billions of dollars and can take years to deliver if everything goes to plan. Unfortunately, instances of smooth-running are few and far between.

Recent statistics have shown that as many as 78 per cent of megaprojects experience both cost overruns and delivery delays, with overruns of more than 50 per cent not an uncommon occurrence.

With thousands of interfaces suturing together the multidisciplinary tasks that a megaproject is comprised of, successful delivery can marshalled and expedited at that level. In the following interview, we speak to the man in charge of interface at one of Norway's most complex subsea projects about how three simple "S" words can set you on the path to achieving your stated goals.

SPEAKER KEY

TH **Tim Haidar,** Editor In Chief, **Oil & Gas IQ**
TS **John Thropp,** Interface Lead, Maria Project, **Wintershall Norge AS**

TH John, please give us an insight into your background.

JT I have been the head of interface management at an operator in Norway, on an offshore oil-and-gas project for over three years now.

We are well into the execution phase - with many contractors busy talking with each other. They are delivering equipment and installing equipment, so quite an exciting time.

When I joined the project it was with a fairly blank page – no processes or systems defined, the strategy not yet clear and the contract structures not begun – so there was quite a lot of work to do. Previously I have worked at other oil companies (including Statoil). I also worked some years ago on CCS (Carbon Capture and Storage) projects where I had to set up everything from scratch.
My background is in geology and electronics engineering - a curious combination - and I worked for a number of years offshore on seismic vessels, which is very much the upstream end of the oil and gas business. Later I came ashore and worked in technical management and various kinds of project management and I've been an interface manager for quite a few years now.

TH I want to just ask you about these three Ss that are core to getting your interface management right.

JT Yes, the three S's are Strategy, Structure and System and I will be talking about them at the conference this year.

For the strategy, I think right from the very beginning of the project and even if you are just joining a project that is already running, it is important that you understand the big picture. What kind of a project is this? Because for many reasons, this will affect how you manage your interfaces.

How are the contracts arranged? Do you have one main contractor and that contractor has many subcontractors or do you have many main contractors? Do you have a number of main contractors, each of whom has many subcontractors? How are you going to manage that? Who is going to have the overall view and control? How do you make sure that everything is managed as it should be?

I'm not saying that you should change your contracting strategy because of interface management - there may be many reasons why a particular strategy is chosen - but you should be able to understand what the chosen strategy means for the way you handle interfaces.

So, for example, if you have a number of direct main contractors, then they should use your IT system. You should be in control of that, you should be able to see everything that's going on.
If you have one main contractor, it's completely different. That means that that contractor sees all his subcontracts, and most likely the contracts you have with your contractor will state that it's their business, so you lose visibility amongst the subcontractors of what's going on.

Another important thing is to make sure that the risks associated with interface management are understood, not just by yourselves, the interface management specialists, but also that we get senior management buy in: for them to understand what the risks are, and what needs to be done to manage those risks and for them to see the cost of you not managing it properly.
Interface management is really about adding value. I would say that for every dollar you can save in terms of efficient interface management, there are probably $10 you can save by avoiding or reducing the problems.

Make good use of risk registers and whatever tools you can use, to make sure that you get management attention.

Now, let's talk about structure. Once you have your strategy clear, you can identify and clarify the structure. Interface management is all about communication, so you need to know who is going to talk to who and how are they going to do that? How do you set up your IT tool, for example to make sure that you have clear communication? There should be only one route they can use for that communication. Keep it clear, simple and sensible.

You need to make sure that the scope of each contract package is clear, and that those scopes between different contractors actually match up, because that again is one of the core things of interface management, make sure there's no gaps in the scope and make sure there's no overlap because you don't want to pay two contractors to do the same thing, or have things not fitting properly.

You can use what I call interface matrix tables. The project I work in now ties into several different Statoil operated oil field licences, so we have to work with another operator, which is Statoil. The contractors that Statoil uses are clearly not our contractors, which makes for quite a complicated communication line, so we built up quite a detailed document with a lot of drawings and schematics that set out exactly who does what, who supplies the equipment, who then transports that equipment, installs, commissions that equipment and who is it handed over to. The roles and responsibilities are very clearly defined in that document.

That is something that has been very much appreciated by both of the operators and also by the contractors, so the roles and responsibilities are set out very clearly and I really recommend that for any project.

For the system part, you obviously have to have an overriding process, you have to understand what that process is, how you're going to manage that interface. Then one of the core aspects of that is you will need to have some kind of system and I know people will put their hand up and say, "Great, I know how to use Excel". Excel is a good tool, but only if you have one or two people in one location.

If it goes beyond that, Excel is absolutely unsuitable for the task, and is a major risk. So, please, don't think about using Excel as your system tool.
There are quite a number of system vendors on the market, about ten of them, I believe. Some of them are good, some of them are bad, some of them are terrible, and the choice is not just on whether they're good or bad but also on the type of project that you're working.

It's very important that you understand the basic kind of project that you work in, because that will very much affect the choice of tool you go for. You shouldn't go for a tool that is suited to the large plant type of project, if you have a distributed project which means contractors in different places, geographically different places. This was described in the first conference and can be found online

TH John, what can the oil and gas industry learn from other sectors of industry with regards to getting interface management right? I think the oil and gas industry, historically, does a very bad job of even entertaining learning from other parts of global industry, so what are your thoughts on that?

JT Yes, I think one of the most valuable aspects of the previous two interface management conferences was that people came together from different industries, backgrounds, parts of the world and we could compare the engineering challenges; the processes and systems in use; and also the different vocabulary used to describe our management of interfaces.

What we found was that, as people talked more, you understood that although the vocabulary was different, the engineering was different and the systems used were different, the main concepts and challenges were exactly the same. It was quite extraordinary, something that initially looked so different is actually just the same. Offshore and onshore wind turbine businesses; rail infrastructure projects all have similar challenges.

I hope there will be people from the nuclear industry, for example, who had very sophisticated interface management systems a generation ago but haven't built anything since, and now they're having to relearn it all.

There's no one person who has all the answers, so I think it is fascinating and I really look forward to the next conference.

There are also many other "one off" projects that we can learn from – and which possibly could learn from us. Something that was raised recently by Samin Shokri at Coreworx was the costs – and overruns – of Olympic Games. They can probably save enormous amounts of money by learning the lessons of interface management and everybody else can learn by understanding those challenges and looking for solutions.

People use different vocabularies for the same thing, and that's something I think we could work on - to come up with a more unified understanding of what we mean when one person says apples and somebody else thinks it's an orange and so on. Some of us might say 'battery limit' where others might think 'interface' or 'interface point' for example. There is now some guidance online but it would be good to align more widely if possible.

TH John, many thanks for your time today.



John Thropp will be speaking at **the Interface Management for Capital Projects Summit**, taking place from 24th – 26th October 2016, in London, United Kingdom. For more information and to book your ticket now, please contact us on +44 (0) 20 7036 1300, email enquire@iqpc.co.uk or click on the logo below to go directly to our registration page.

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