

# ACHIEVING EFFECTIVE COST REDUCTION

Regulatory pressure is forcing clients to work harder at squeezing more value from their programmes. Smart ways of cutting costs and maintaining performance are the order of the day.

Report by **Bernadette Ballantyne.**

NCE in association with EC Harris

**S**crutiny of expenditure and asset performance in the UK's regulated industries has never been greater. Companies in the rail, energy and water sectors have been striving hard to find efficiencies and meet their obligatory targets, yet just as quickly, regulators are turning up the pressure with new objectives and methodologies. "Tighter performance targets are being set, cost reduction and efficiency targets are pretty stringent," explains EC Harris head of client solutions David Sparrow.

"This is being done in a volatile market where cost of capital is more of an issue, as are commodity prices. And the artificial peaks in construction activity around some of the regulatory reviews are also adding to the challenge," he says.

As if this wasn't enough to contend with, traditional models of evaluation are being replaced with a trend for examination of total expenditure (totex) measured against output measures, rather than the traditional separation of capital and operational expenditure. Infrastructure



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owners are therefore having to think very differently about their assets.

The good news is that although meeting the



» challenge and in fact exceeding regulatory requirements may be difficult, built asset consultancy EC Harris says that it is certainly achievable. Using a range of key management strategies, the firm explains that every client has the ability to implement intelligent cost reduction and make major savings. “We worked with one water company for just eight months and they saved 15% from their capital costs, so the prize is there to be had,” says Sparrow.

For many organisations the biggest challenge is knowing where to start. “To genuinely transform their position, clients need to make their five to 10 year asset management plan clear. That sounds very simple but it is not often done,” says Sparrow.

He explains that the tendency to treat asset management as a group of schemes rather than a complete programme prevents clients from reaping the rewards of long term strategic planning. With a clear long term programme, internal management and the management of contractors becomes a lot more efficient because clients then have visibility of what they are going to do, when they are going to do it, and how to get the best out of the supply chain.

From this basis Sparrow says clients can then consider how to best drive performance. “The programme approach will pay great dividends; you can align your supply chain against it, with the right commercial terms, making sure that you reap the benefits of more efficient contracting.”

Taking the long term view can be challenging, particularly in industries like the rail, electricity and water sectors that are evaluated by the regulator in five year cycles. “Often what we see is the construction window getting very compressed, as the client is refining the detailed asset management plan against new targets, but the need dates for asset performance outputs and the corresponding construction programme end dates don’t change,” explains EC Harris partner Greg Bradley. In some cases, this then forces companies to turn directly to framework contractors to deliver the work in shorter periods rather than working out more efficient options.

Contractors themselves have also suffered from the tendency

to squeeze the supply chain to reduce costs. Sparrow says that there are still savings to be made here, but risk is everything. “A contract we let recently was with the same contractor but let on a value based way. The risk was apportioned differently with more appropriate accountability. The contractor did the work 12 weeks faster, so the client asked him why had this not happened previously and he explained that he could have, if the risk had been apportioned differently.”

Simply expecting contractors to be able to carry out the same work cheaper in the future has been a feature of the infrastructure markets. But Bradley says this has been almost exhausted and can have unwelcome side effects.

“In mature industries there is only so much that can be achieved and the implications of a contractor cutting 3% to 5% is that they may make their savings around where they deploy their people, by removing added value services, or by reducing their investment in innovation or training and development. The risk for the client is where capabilities are either cut »

**HYPOTHETICAL CASE STUDY**

**A large utility company seeking a 20% cost reduction within their capital programme, whilst delivering an improved performance on network performance, and achievement of new regulatory targets.**

**Solution:** If this 20% were to relate to a programme costing £100M, approximately 5%, or £5M could be saved at each “building block” stage.

Typically the most transparent and measurable savings are in the supply chain, through reduced unit costs or rates.

However contractors and suppliers can only offer these savings in a sustainable way if they are based on a clear programme of work.

Risk can only be properly controlled if there is a very clear operating model across all processes and responsibilities.

An integrated approach is therefore required to fully release all benefits.

There are cost reduction opportunities within each building block:

● Smart asset management plans enable investments to be appropriately prioritised, generating additional revenue through regulatory incentives, and allow non-essential work to be deferred or removed safely.

● Programme management enables delivery efficiency to be maximised, including appropriate use of contingency and maximising productivity on site.

● The right operating model enables lean processes, which avoids duplication, reduces waste, and optimises on-costs and overheads.

● Effective supply chain and procurement processes can also release direct savings, and provide governance safeguards around commercial management of delivery.

**RAIL**



**“It’s about getting clarity and transparency in the asset management plan. This informs the industry about what is in the pipeline”**

Mark Prior

The need for the rail sector to drive out costs is at the top of the Government’s agenda. Most recently Sir Roy McNulty’s Rail Value for Money Study published in May 2011, identified the need to reduce spending by a further £1.05bn by 2019. EC Harris partner Mark Prior says that Network Rail has come a long way in terms of making efficiencies, but that major challenges remain. “It is about getting clarity and transparency in the asset management plan. This informs the industry about what is in the pipeline and has been a consistent observation in both the Infrastructure UK and the McNulty reports,” he says.

“Getting this visibility of the investment pipeline makes it real to the suppliers, who can then start to put longer term plans in place to invest and innovate, essential to driving out inefficiency.”

Network Rail’s recent decision to use an alliancing approach for major contracts provides much potential for making further

efficiency savings says Prior, as does the move towards fewer frameworks.

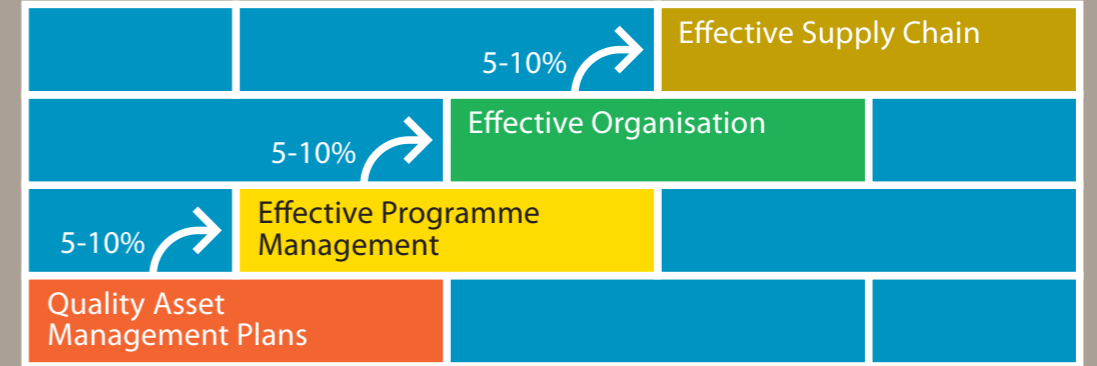
However, he argues that organisational change will also likely be required to ensure it is optimally set up to successfully engage with suppliers and to work together with them to improve efficiency. “That will be one of the challenges in the rail industry – how quickly can organisations adapt to dealing with the supply chain? Will they in-source, outsource or become a hybrid client? I feel Network Rail will become a far leaner organisation by virtue of its commitment to improving supplier engagement.”

Working more closely with train operating companies through the appointment of regional managing directors is another important step by Network Rail that should also yield efficiencies. Overall Prior says the industry is on the right path to intelligent cost reduction: “a lot of good progress has been made and it just needs to be accelerated to meet the Government’s goals.”

**Intelligent Cost Reduction – Building blocks**

**Transformation Building Blocks**

There are four key building blocks to delivering outperformance



**Performance Drivers**

• Scope	• Efficiency	• Productivity	• Labour rates
• Volume and timing	• Out-turn	• Overhead	• Plant/materials
• Output targets	• Risk	• Customer service	• Contract performance

**Benefits**

Capex	⬢	⬢	⬢	⬢
Opex	⬢	⬢	⬢	⬢
Revenue	⬢		⬢	

**WATER**



**“In our view, further value all comes from integration.”**

Greg Bradley

As the water industry moves through the second year of its latest five year investment cycle, EC Harris partner Greg Bradley says that a lot has been achieved by the UK’s water companies in terms of cost reduction, but this makes the future even more challenging.

“It was quite a tough determination and that has put the challenge back to the asset management team to refine or optimise their plans,” he says.

“In our view, further value all comes from integration. There are pockets of excellence within asset management, pockets of excellence in programme delivery, pockets of excellence on process design and delivery models and pockets of excellence in dealing with the supply chain. The trick will be in bringing it all together.”

Critical to achieving this integration is the development of a long term programme that looks at the overall work required.

Bradley explains how this kick-started the efficiency gains for one

recent major client.

“By creating a multi-year long term capital programme they could get volumes on a material level, such as screens, pumps, aggregate, rebar, and could then decide what their procurement strategy was going to be.

“They were also able to make a deliberate decision around what they want from their Tier 1 contractors, whether they wanted to contract directly with Tier 2’s and 3’s, and whether they or their partners were best placed to source the materials required to deliver the plan.

“Everyone understands the theory of these principles, but it can’t actually be done properly unless there is a clear multi-year plan at a volume level, based on common assumptions and standardised work descriptions.”

However, the need for all water companies to submit their investment plans to the regulator Ofwat on a five year basis inevitably reduces some of the scope for efficiency as the industry collectively

stops to await approval for the plans and the actual construction window is compressed.

Bradley suggests a staggered approach over a longer period with the best performing organisations having longer periods of up to eight years between reviews.

“Other industries are looking at this, and we think it will help smooth out the construction peaks and troughs. However, the actual budgetary or regulatory cycle should be irrelevant when it comes to creating a long term Asset Management plan.

Replacement, refurbishment and maintenance needs, linked to asset performance outputs should already be known, irrespective of the regulatory cycle.

While some priorities and incentives may change, 70% to 80% of the core plan will be the same, hence creating a stable operating model, aligned supply chain, and efficient work delivery regime are still the key requirements,” he says.

» or diminished, which can arise inadvertently by both client and contractor trying to generate savings without being very clear about their operating model and the capabilities they need to hold, compared to those they expect to be provided by their supply chain partners. For example, who optimises the work delivery schedule? Who is the design authority? Who ensures on-site productivity?"

Instead of asking contractors for incremental decreases, EC Harris advises that more time is spent considering what activities should cost rather than what they have previously paid. They point to a combination of three key factors in calculating the "should cost" value which is a combination of:

- The direct unit costs for the work
- The indirect overhead costs of putting £1 of asset in the ground ("on-cost"), and
- The overall end-to-end process duration, from planning through to work completion

"Our view is that incremental change brings in a lot of risk, and will not achieve the step change performance and cost savings required," says Bradley.

"The critical requirement is to implement the long term asset management plan, which should clearly articulate the outputs it will deliver in terms of asset performance, capacity, service to customers, and the expectation for cost and risk within that plan. Then the client and its delivery partners and contractors can optimise their response to that in terms of people, tools, capabilities, and who is responsible for what.

This "delivery optimisation" should be considered on a five to 10 year model to enable new ways of working to become embedded, and for those who invest in the new model to earn a return, whilst delivering the overall programme and outputs for less."

Increasingly the industry is

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Greg Bradley

## ENERGY

**T**he energy industry today is facing major challenges ranging from the need to invest in a new generation of power stations to commercial pressures to extend the life of existing plants. "A significant amount of plant is old and that brings its own problems in terms of obsolescence and the significant costs required for replacement," says Jeff Collins, EC Harris group head of programmes and projects. "The regulators are holding the operators to account to further demonstrate the safety integrity of the plant and that in turn pushes an ever increasing requirement on the owners to invest," he says.

At the same time the supply chain has diminished and many original manufacturers in the nuclear industry have gone out of business or diversified into other areas. The regulators themselves are set to come under greater pressure as the operational nuclear power plants will have to incorporate lessons from Japan's Fukushima disaster. "That will certainly concern the regulator in terms of manpower as it will have to deal with ongoing operations as well as seeking to push forward the new build programmes. That

acknowledging this and Sparrow and Bradley are starting to see more clients reward contractors based on performance indicators rather than simple commoditised requirements based on pools of rates.

"It is a good thing that clients are trying to reward contractors based on end outcomes, such as reduced leakage and bursts, and putting in a KPI measure linked to that.

"It is helpful if the contractor has a call on what work gets done rather than it being prescribed by the client. Again it comes back to how to segment and proportion the risk," says Bradley.

For organisations that do subscribe to what EC Harris describes as the key building blocks of intelligent cost reduction (see diagram), total commitment is essential. "You need absolute focus on what you are trying to deliver, a clear



**"Developing the asset management plan is hugely critical."**

Jeff Collins

will be one of the big ticket items coming up across nuclear," says Collins.

For existing operations Collins says that there are three key areas that should be considered to create a platform for intelligent cost reduction and asset life extension. "Developing the asset management programme is hugely critical. Having an overarching asset management plan that determines what the five year investment is going to look like, and a really well constructed and

plan and a sustained mobilisation of your own team and the supply chain and that takes a lot of effort. That may not initially mean focusing on delivering projects, it is getting the processes right. You are not going to take 15% to 25% of costs out or achieve a step change in performance unless you do it in a sustainable manner," says Sparrow.

Taking a light touch approach and delegating responsibility on cost targets to individuals won't work for ever, says Sparrow. Integration is key.

"The manager may want to do this but he says that he can't create a programme of work on a long term horizon 'because the capital works director won't release it or doesn't have that visibility' and they don't have it because the asset delivery manager hasn't produced it.

"Then there is the question about who is actually going to

dependency driven schedule that identifies when these activities are going to take place, are both vital."

Governance and strong, informed control through a Programme Management Office (PMO) is another key part of the process. "That is about providing an internal project control environment to offer forward looking advice and guidance to our clients in terms of cost, schedule, and quality and providing the insightful delivery framework for those customers that want it."

From these foundations greater savings can be made by appropriately incentivising the supply chain. "It would be beneficial for the remainder of the UK supply chain to be in strategic relationships with clients and not in commoditised relationships that are part of a broad framework detailed on an hourly rate basis for work as and when it comes along," says Collins. "The most cost effective solution is early supply chain involvement, with a non-prescriptive specification that allows innovation – you are ultimately paying for their expertise. Why tell them explicitly how to do their job?"

deliver it. It all comes back to integration."

So confident is EC Harris that its approach can deliver major savings it is investing along with its clients.

"We are being increasingly asked to take a stake in the outcome and we feel very positive about doing that as long as the environment is right. If all executives are not aligned or there is no clear plan to deliver benefits then it would not be sensible for us to take a share," says Sparrow.

So the message is clear. To outperform the regulatory challenge organisations need to be committed to a long term asset management programme against which their internal operations and external supply chain are effectively aligned, costs understood and risk appropriately shared. For those that can achieve this, the savings are there for the taking.