

PROJECT

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APM AWARDS

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THE 2019
WINNERS!

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ACROSS
BORDERS

TO INFINITY AND BEYOND

*Why the UK
space industry
can't do
without you*

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FROM THE EDITOR

A year of big ambition

What a year 2019 was.

It has been a big year for the profession and for APM, and one to be celebrated. So, congratulations to all our winners, who came together in November in London for the APM Project Management Awards 2019. It's times like these – sharing success stories and recognising the talent that abounds among you – that must be savoured. It's also about encouraging big ambition – to reach for the stars, no less.

Which takes me neatly on to our cover story on the UK space industry. If you're going to dream big as a project manager, whether as part of an impressive corporate or working in a fast-growing business, then this is the industry to gravitate towards. Read how project managers are the backbone of the whole endeavour, including our interview with NASA project manager Tom Hoffman, who gives a real flavour of what it's like to be at the heart of such an iconic organisation.

Hoffman works on the Mars InSight mission, whose lander touched down on the Red Planet last year. "Whenever you embark on a project, especially one that will journey to the stars," he told us, "you need to have people whom you can count on to be successful. I have been fortunate to work with some truly brilliant people who are as dedicated to the success of each mission as I am."

An unwavering dedication to the success of a mission is what true project leaders thrive on. I jumped at the chance, therefore, to spend some time with APM's new president, Sue Kershaw, whose determination to make a success

of some of the gnarliest projects that could be thrown at you fuels her impressive reputation.

Her confidence in her abilities (untouched by arrogance or hubris), intellectual acuity and toughness make for a strong leader who is the perfect person to champion the profession as it continues its journey upwards. Importantly, it was an interview full of laughter.

This issue features another big leader, albeit one made from gold-lacquered polystyrene, who towered 20m high over the 2017 Asian Indoor and Martial Arts Games in the blistering heat of Turkmenistan's capital, Ashgabat. UK events company Stage One made the homage to semi-mythological Turkic leader Oguz Han, and we went behind the scenes to find out what it takes to project manage crazy ideas like this. As managing director Tim Leigh put it: "We do get a lot of madness coming our way." Stage One ended up giving the statue emergency Botox injections of stabilising polymer to prevent the core of the structure melting. All in a day's work.

I hope that, by the time you read this, you will be enjoying a well-earned break from the workplace melee. If you're seeking some project-related light relief, I recommend turning to our *Strictly Come Dancing* lessons in project management, not least to relive former cabinet minister Ed Balls' turn on the show. If that doesn't get you smiling, nothing will. ☺

● **EMMA DE VITA** IS EDITOR
OF *PROJECT*

An unwavering
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leaders thrive on



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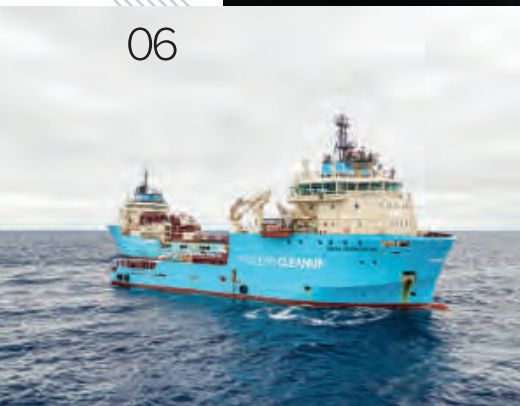
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Plastic purge launches

With a mission to rid the world's oceans of plastic, a Dutch charity has released its innovative plastic collector on the Great Pacific Garbage Patch

Dutch inventor Boyan Slat founded The Ocean Cleanup in 2013 at the age of 18 in his hometown of Delft. He now leads a team of more than 80 engineers, researchers, scientists and computational modellers working to rid the world's oceans of plastic. In October, its System 001/B project successfully began capturing plastic debris, including 1mm microplastics, in the Great Pacific Garbage Patch – the largest accumulation zone of ocean plastic in the world – using the natural forces of the ocean to collect it passively. “After beginning this journey seven years ago, this first year of testing in the unforgivable environment of the high seas strongly indicates that our vision is attainable, and that the beginning of our mission to rid the ocean of plastic garbage, which has accumulated for decades, is within our sights,” said Slat. 

THE OCEAN CLEANUP

Dyson shelves its electric car

Pulling the plug on a project close to James Dyson's heart was a difficult decision, but making a U-turn on a project can be a brave strategic call

It is often criticised, but seldom celebrated, when a decision is made in the interests of a business to shelve a project that no longer brings the benefits the business planned or meets the business case it was originally conceived with.

In October, Dyson announced it was abandoning its electric vehicle project that would see a car being built from scratch in Singapore. "We have been through a serious process to find a buyer for the project which has, unfortunately, been unsuccessful so far," founder James Dyson told staff. The project, which was announced to much acclaim in 2017, was simply no longer commercially viable.

THERE'S NO SHAME IN A U-TURN

This was a humbling U-turn for the billionaire, who had hoped to break into this fantastically competitive market by capitalising on his group's expertise in high-tech manufacturing, aerodynamics and battery systems. The project had got as far as producing a drivable prototype that was meant to be on the roads by 2021.

The company did not disclose how much had been sunk into the project, but it had been part of a £2.5bn investment war chest that Dyson had earmarked for new technologies, including artificial intelligence (AI), batteries and robotics. The project had 523 Dyson employees working on it, 22 of whom were in Singapore, where the car would have been produced, and where the company's headquarters had been relocated. The rest were based in Dyson's large research and development operation in Wiltshire.

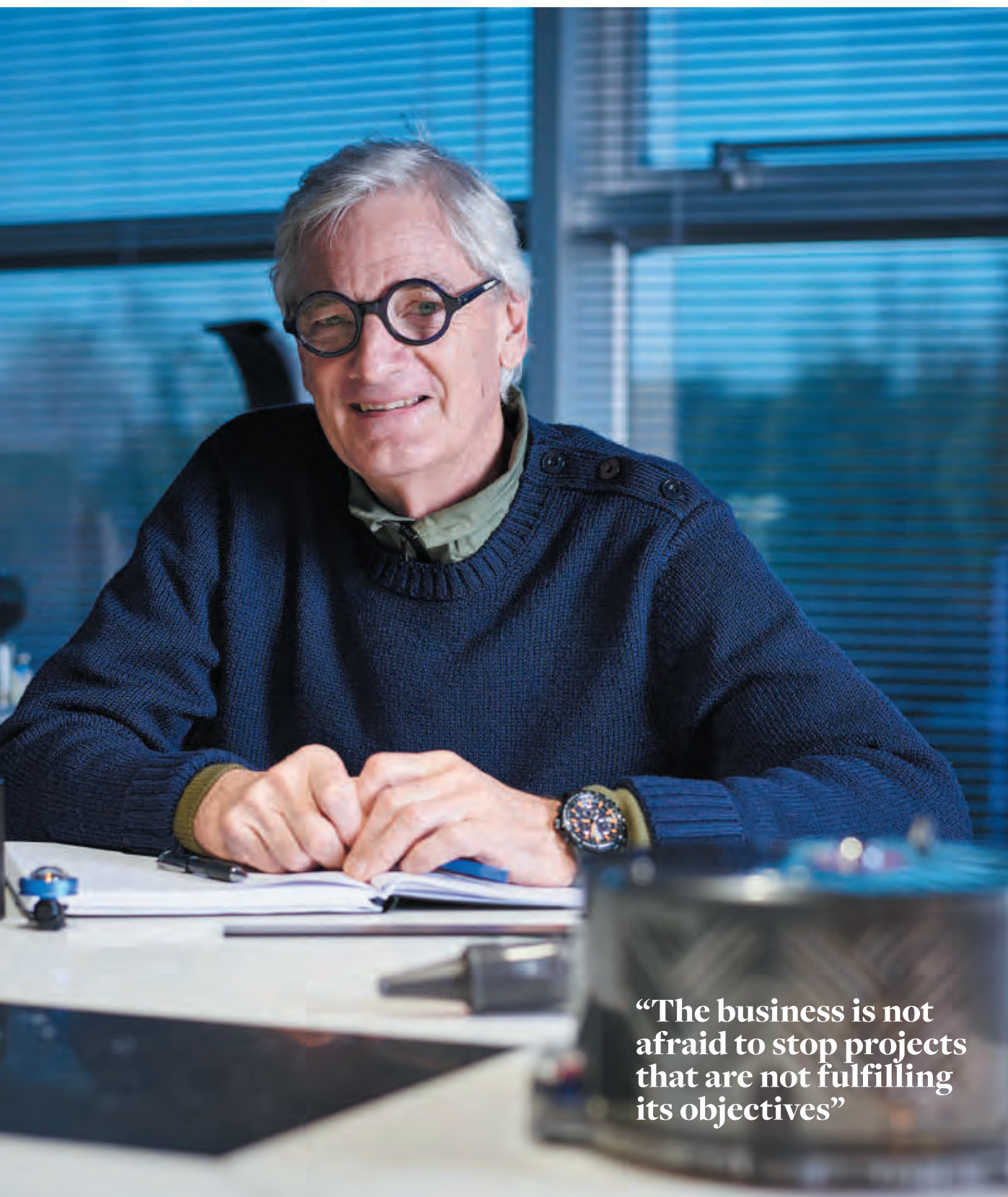
Shortly after the announcement, management commentator John Gapper wrote in the *Financial Times* that it was "better to admit defeat now than after having thrown away hundreds of millions. For any business to thrive, difficult decisions need to be made. This applies not only to new projects but to corporate strategy." Dyson once told Gapper about his failed attempt to make washing machines that "didn't charge enough", adding that he had "learnt that lesson".

Last year, Dyson was celebrated as APM's 2018 Project Management Company of the Year. What the company told us then reveals a lot about its approach to shelving projects: "The business is not afraid to stop projects that are not fulfilling its objectives, whether that is because the technology is not ready or the market needs change. Every project is a learning experience, though, and all our lessons learned from cancelled projects are reinvested to make the next project more successful."

EMOTIONAL INVESTMENT v COST

The impetus for cancelling the project is thought to have been the decision to install manufacturing equipment at the Singapore factory identified to build the car. Professor David Bailey told *Wired* that: "I think [James Dyson] was emotionally invested in this, and it took him way too long to see commercially this was an extremely difficult thing to do." According to *Wired*, costs on the project quickly ballooned.

"While the core automotive engineers were focused on building prototypes ►►



“The business is not afraid to stop projects that are not fulfilling its objectives”



“A cancelled project or programme may offer an opportunity to reallocate resources, change direction or deliver a better strategic performance”

a tendency to overemphasise benefits and underestimate costs and potential difficulties,” Dalcher told *Project*.

It is worth emphasising that there are different ways of terminating projects and programmes. Dalcher points out that a new drug that has failed a series of tests would typically offer learning benefits that can inform other lines of research. Projects that are no longer cost-effective may be integrated into other undertakings or handed to external contractors. Projects may also be delayed while they are awaiting specific resources, organisational or scientific tests, and approvals – or while certain environmental impacts are being investigated. These could then be revisited once there is a better understanding of the environmental implications or once test results indicate that progress is possible. Some projects may also become integrated into business as usual and become part of a more complex delivery environment.

LESSONS LEARNED

“Context matters, and therefore the best approach would depend on the specific circumstances and what may be possible in the future,” explains Dalcher. “A cancelled project or programme may offer an opportunity to reallocate resources, change direction or deliver a better strategic performance. Early results and learning can inform future undertakings and result in better decision-making and improved capability.”

It’s likely that the research that has already been carried out at Dyson for its prototype will not go to waste. Dyson told *Engineering & Technology* that the company will also: “Concentrate on the formidable task of manufacturing solid-state batteries and other fundamental technologies which we have identified: sensing technologies, vision systems, robotics, machine learning and AI offer us significant opportunities which we must grab with both hands.” Dyson’s sites, including Malmesbury in Wiltshire and Singapore, will be expanded.

It would seem that there are always lessons learned, even with the most difficult decision. **P**

When to cancel a project

According to Harold Kerzner, senior executive director for project management at the International Institute for Learning, establishing criteria for cancelling a project may include factors such as:

- The objectives cannot be met, and continuation will not necessarily create intellectual property.
- The project’s assumptions have changed and it may not be the ‘right’ project to work on.
- The project can be completed, but it will not create any sustainable value for the company.
- Market conditions have changed such that the ROI or sales expectations will not be met, or the competition is introducing a more advanced product.
- The final product may become obsolete earlier than expected, or the company may not be able to provide customer support for the product to meet customer expectations.
- Costs have risen and the schedule has slipped significantly.
- Technical difficulties are beyond the capabilities of company personnel.
- The problem is too complex for the company to manage.
- Key resources have left the project or resigned from the company.
- The company is experiencing a significant cash-flow problem.
- There has been a significant change in the company’s interest and strategy.

◀◀ to get out on the road, long-term Dyson employees steeped in the culture embodied by their boss were tinkering with the shape of headlights and the design of the car’s interiors... Every minor tweak set back the project’s completion date – and added costs to the bottom line, which eventually led to the decision to halt the project,” it wrote.

A STRATEGIC CALL

It was a big blow for the company, which hoped to become a major player in the automotive industry. According to Darren Dalcher, professor of strategic project management at Lancaster University, once organisations make a commitment and

spend a lot of money on a particular course of action, it seems to make sense to them to spend only a little bit more to justify and support their earlier decision. There is also the need to avoid loss of face while admitting that something is not working.

“Ultimately, there needs to be a more strategic approach to making rational decisions about the closure or realignment of projects and programmes.

“Balancing investments allows us to identify the best utilisation of resources and hence needs to be organised on a more strategic basis. And, of course, more generally, there is an element of optimism that starts with the business case, where there is



Public-sector megaprojects scrutinised

An interim report on the management of major government projects brings together project management experts, including APM, to shed light on the difficult work that goes to the very heart of politics

The Public Administration and Constitutional Affairs Committee (the Committee) launched an inquiry into government projects in the wake of high-profile delays to major projects, such as Crossrail and HS2. The interim report was issued in October after the announcement of a general election put the inquiry on hold. The purpose of the

inquiry was not to conduct autopsies into individual high-profile projects that have experienced problems – that is the responsibility of the Public Accounts Committee and the relevant departmental select committees – but to take stock of the steps taken at the centre of government to improve the delivery of projects across departments.

Political imperatives can disrupt pre-approval scrutiny of major government projects

THE PROBLEM OF HIGH CHURN

The report highlights the problem of the high churn of civil service staff working on major projects. As these projects often last many years, this churn should be expected and, indeed, in some instances, the expertise needed to progress a project will change as it develops. However, this differs from the rapid rotation of staff between posts, which will have a detrimental impact on projects.

Although this can be mitigated through ensuring a steady pipeline of replacements and good knowledge management, the Committee found that “the government is evidently conscious of the issue of churn on its major projects and steps taken to reduce the turnover of project [senior responsible owners] are to be welcomed”. It found that the government is introducing measures to combat the conflicts of interest that can arise as a result of this churn, although it is still too early to say whether or not these have been successful. ▶▶



Former prime minister Gordon Brown (right) and John Armit, chairman of the Olympic Delivery Authority, during a visit to the Olympic Park in London

PRE-APPROVAL SCRUTINY

The Committee believes that the “robust pre-approval scrutiny of project business cases is essential. The government has acknowledged that and there is a comprehensive system of pre-commencement scrutiny now in place.”

It seems, however, that political imperatives can “subvert” this scrutiny. It is entirely appropriate for ministers to initiate projects. But if political pressure is sufficient to override this early scrutiny process, this will significantly impact on the successful delivery of major projects, according to the report.

MORE COLLABORATION NEEDED

The Committee reiterated that it had been critical of the “transactional approach the government tends to adopt in its commercial relationships, at the expense of the quality of personal relationships and trust between contracting parties”.

An exclusive focus on minimising costs and aggressively attempting to offload risk has neither yielded value for money for taxpayers nor resulted in genuine risk mitigation, the report found. “There are clearly benefits to a more collaborative approach,” it suggests. “However, the circumstances under which this can take place and those where the benefits of a more conventional, transactional approach might be more appropriate are not yet clear.”

The difficulty of accurately forecasting the benefits of a project is clear, and it can also be difficult to assess whether a project has actually achieved what it was designed to.

“Nonetheless, while there is considerable attention paid to improving project management, major projects are not an end in themselves but exist to achieve public policy goals. Robust ex ante scrutiny of the link between projects and the needs that they are supposed to address, and proper post hoc evaluation of whether they have done so, cannot be overlooked in the focus on improving project delivery,” the Committee reported.

PROJECT X

In the course of the inquiry to date, the Committee has held five evidence sessions and received 28 written submissions – including evidence from APM. One oral evidence session focused on Project X, a collaboration between academics and the civil service that seeks to improve the delivery of government major projects.

Four academics working on Project X – Professor Michael Bourne of Cranfield University, Dr Richard Kirkham of the University of Manchester, Professor Michael Lewis of the University of Bath and Professor Terry Williams of the University of Hull – gave evidence to the major projects inquiry, the minutes of which were published alongside the interim report.

● [Read the Public Administration and Constitutional Affairs Committee’s full interim report at bit.ly/2r5EJwf](https://bit.ly/2r5EJwf)

The session threw up some interesting points of debate, not least the idea of ‘shadow costing’ projects, where a government will set up a shadow costing team to calculate the cost of a potential project, then compare this with the actual cost.

Williams cited the Norwegian government, which gives projects to an external body of consultants, who cost and look at a project’s risk, before making a comparison as part of the parliamentary submission.

Asked if this should be adopted in the UK, Bourne said: “There is a cost involved. There is also a benefit involved, because you have somebody who has no axe to grind doing the costing.” Asked if huge savings could be made, he said: “You may not do the project at all.” But then you would not have the benefits either.

Bourne pointed out that Gordon Brown asked HM Treasury for a shadow costing for the 2012 Olympic Games. “The costs went up just over threefold as a result of that, just after we won it. What was the benefit of that? We knew earlier that the original cost estimate was out three times,” Bourne explained. 🗣️

● *See our feature on page 56 for the latest in Project X’s research*

We need to change the way we manage projects

A new global survey shows a greater agility in how projects are managed, but says this won't be the silver bullet to improve success rates



The survey findings indicate that important fundamental project management disciplines are not being consistently applied.

Globally, at least two in five organisations 'never' or 'sometimes' apply a risk management methodology, have measurable project success criteria or report on project benefit variations. Yet these governance disciplines are important for ensuring alignment to business strategy, while also ensuring key stakeholders are being appropriately engaged in decision-making.

PMO PERFORMANCE

While 40 per cent of organisations surveyed used a centralised project management office (PMO), 65 per cent reported using more focused divisional portfolio or programme/project-specific PMOs. The main reason for using a PMO was to improve governance (36 per cent). However, 30 per cent of organisations have disestablished a centralised PMO in the past two years, with the key reasons being a failure to gain alignment across different organisational divisions and a perception of the PMO as being a cost overhead.

To be valued, PMOs need to focus on facilitating effective decision-making around the organisational portfolio or programme. There is much work to do – it is concerning that such low numbers of respondents regarded PMOs' focus to be on engaging senior management with key risks and issues (two per cent) and ensuring complete, timely and accurate data is collected to enable quality decision-making (nine per cent).

● To download *The Future of Project Management: Global Outlook 2019*, visit bit.ly/2KBYt18

Only 19 per cent of organisations deliver successful projects most of the time, says a new survey of 500 project professionals from 57 countries. *The Future of Project Management: Global Outlook 2019* – by KPMG, the Australian Institute of Project Management and the International Project Management Association – found that 44 per cent of projects met their original goal and business intent, 30 per cent were delivered on time, 36 per cent on budget and 46 per cent with stakeholder satisfaction.

Clearly, organisations globally continue to find it difficult to deliver projects that meet all objectives around the iron triangle of time, cost and scope – as well as achieving stakeholder satisfaction. The survey results point to challenges in applying consistent governance oversight, focusing on managing benefits and managing change throughout the project life cycle. The good news is that 58 per cent of organisations felt that project success rates in relation to achieving stakeholder satisfaction have improved over the past two years.

AGILE BECOMES THE NORM

Importantly, the report discovered that 47 per cent of organisations are using agile delivery, either as the predominant approach or alongside traditional techniques. Agile principles are also moving beyond software development and into broader business change and improvement projects. This is good news,

as an agile or hybrid approach can help project managers adapt to fluctuating business circumstances, because it doesn't doggedly tie them to a business case view of time, scope and cost.

However, the challenge for project managers is to find a balance between senior executives' demands – for a clear picture of what investment needs to be budgeted for and what return can be promised – and allowing for the much more free-form nature of agile. The report suggests that the increased use of agile is unlikely to be the silver bullet needed to improve overall project success rates of 19 per cent so long as the wider issues around business engagement and governance remain.

Routes to project success

Improving the 19 per cent full success rate for projects and programmes means:

- organisations investing in building an agile delivery mindset that is balanced against executive planning needs;
- project managers becoming increasingly strategic and connected, and adept at change management, communication and understanding the dynamic between business strategy and the projects they are responsible for;
- organisations doubling down on commitment to project and programme governance, particularly risk identification and escalation;
- project management offices pushing beyond tactical processes and focusing on strategic decision-making around the prioritisation of investment and how to best move with the overall business's needs; and
- investing in new technologies such as artificial intelligence and collaboration tools to make better use of project management data.



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Next Entry: January 2020

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Don't be shy in celebrating success

Making the most of milestone wins – big and small – can keep your project team riding high, says Mike Clayton



Congratulations to all the wonderful APM award winners featured in this issue, and to everyone who was nominated too (see page 20). We should do more to celebrate our successes.

I'm no motivational speaker, so I can't tell you that doing this will make you happier. But as a project manager, I found that, when we did celebrate a team's success, everyone felt good. It gave a boost to our confidence, which translated into better performance and improved results, and so more success. It's a virtuous cycle.

As an advocate for positive psychology and its application to projects, I recognise this virtuous cycle as a variant of Barbara Frederickson's broaden-and-build theory. She suggests that positive emotions lead to more expansive and creative thinking. This, in turn, creates personal growth and allows us to flourish. With that comes greater mental and emotional resilience, which strengthens our positive emotions.

If celebrating success is a good thing, how can we create more opportunities to do so? I remember a criticism I received many years ago for a project plan. "Too many milestones," the grizzled project manager told me. "It's unwieldy and amateurish. Milestones are big moments in my projects." I never agreed with him. I always liked to have more milestones, not fewer. Not only do they give you more points of control and leading indicators of progress, milestones are a chance to celebrate, unlike deadlines, which motivate through fear of failure.

A decade ago, I was delighted to learn that my point of view had been vindicated when Teresa Amabile and Steven Kramer published an article in the *Harvard Business Review* called 'What Really Motivates Workers'. They followed this with another article, 'The Power of Small Wins', and a book, *The Progress Principle*. The message from their research is simple to

understand, easy to adopt in project work and powerful in its impact.

What makes people feel good at the end of a working day? The main thing is the feeling of having achieved something.

If you finish your day feeling that you've been busy, but have achieved nothing, you go home miserable. Yet when you have that feeling that you've really achieved something, it feels great. What if all you've done is another day's work on a five-day task? It is valuable to your organisation, but won't feel that wonderful – it is progress, but not an achievement. But what if that same five-day task had a dozen or so checkpoints – small milestones that indicate completion

of a specific part of the task? Now, at the end of the day, you've probably hit two or three milestones. That gives you a sense of achievement, because milestones are intrinsically motivating.

The other thing I love about celebrating successful projects is the capacity to link to lessons learned. Wise professionals emerge from smart young ones who are able to reflect on their experience, but what can the success of a large mechanical engineering project teach a project manager who focuses on business change projects? And what is there to learn for a civil engineering project manager from an agile software project? Too often, we work hard to draw specific lessons that lead to definite recommendations within our own narrow area of focus, but we need to work on extracting more general principles that can guide wider thinking and decision-making.

We are at our most creative when we think broadly across multiple contexts and disciplines. That's what we can learn from projects that are very different to our own, so don't just skip over the awards in fields you'll never work in. Read about what the winners did and let the ideas incubate. There will be something there to learn. Awards are not just a chance to pat each other on the back. I believe they are – or can be – part of the way our profession evolves. And that is truly something to celebrate. 🎉

If you finish your day feeling that you've been busy, but have achieved nothing, you go home miserable



● **Mike Clayton is a project management speaker and trainer, the author of several project management books and founder of OnlinePMCourses**

MATTHEW MORAN

Diverse teams think better



*Cognitive diversity pays off, but don't expect it to be all plain sailing when you're working with rebels, argues The Open University's **Matthew Moran***

The business case for gender and ethnic diversity in business is irrefutable. Diversity delivers – it's good for the bottom line. There is a vast quantity of evidence that businesses with higher levels of social or identity diversity among staff outperform less diverse firms for profitability, value creation and innovation.

We certainly need to keep making the case for diversity at work while there are more CEOs in the US named John than there are female CEOs, but we no longer have to do so on grounds of equity or social justice. Diversity delivers particularly in situations of ambiguity, complexity and unpredictability – situations faced by most organisations in 2019. That's because diverse organisations and teams think differently.

Diverse teams have been shown to make better decisions under pressure and uncertainty. They scrutinise and evaluate the evidence more thoroughly, and they consider a wider range of perspectives and options. More homogenous teams, by contrast, tend to be less rigorous and more complacent. The research is so convincing that the US military now recognises the lack of diversity among its generals as a national security risk.

Diverse teams think better. In general, they learn more quickly, and they are better able to perform unfamiliar or complex tasks and navigate uncertain or unpredictable environments. This is because diverse teams tend to have a greater variety of cognitive tools. Not just different forms of specialist knowledge,

but varied ways of seeing, analysing and interpreting the world.

This cognitive or psychological diversity pays huge dividends, as Scott E Page explains with abundant examples in his 2017 book *The Diversity Bonus*. But in our enthusiasm and commitment to diversity at work it can be easy, tempting even, to overlook the problems commonly faced by diverse teams. Diversity is not all sunshine and sand.

Highly diverse teams often struggle to integrate and align to a project vision and objectives. Team members may speak different languages (literally and figuratively) and see the world very differently (see feature, page 38). They may argue over different interpretations of their purpose and goals, and how to achieve them. It is not

uncommon for cliques to emerge in diverse teams.

This may develop into competition for resources and at worst dysfunctional behaviour, even conflict, between team members.

Highly diverse teams can be difficult and challenging, but we should welcome the arguments and disputes as

signs that we are in the presence of diversity, not cosy conformity. There are as yet no reliable tests for cognitive diversity, so let the discomfort we feel when working with others be our test.

If we are to progress in our complex, divided, anxious and at times irrational world, we need to widen the pool of our collective intelligence. We need to empower and include people who think very differently to the norm, as Matthew Syed argues so convincingly in his new

We should welcome the arguments and disputes as signs that we are not in the presence of cosy conformity



book *Rebel Ideas: The Power of Diverse Thinking* (see review, page 80). Even in a homogenous team, the presence of just one individual with rebel ideas is enough to improve the team's performance. As Syed points out: "Collective intelligence emerges not just from the knowledges of individuals, but also from the differences between them."

Yet working with rebels who think very differently can be challenging for some people. It can provoke highly charged, even unpleasant, responses – just look at the reaction to Greta Thunberg, the teenage climate activist with Asperger's syndrome.

The project leader's role in highly diverse teams must not be to reconcile or level the differences. Instead, we need to enable every voice to be heard and considered. And we must seek to understand and mitigate the implicit



We need diverse people who think differently. As Greta Thunberg says, “being different is a superpower”

biases that everyone in the team brings about the others, which left unchecked will harm the team’s interactions, judgements and outcomes.

Want one simple takeaway? Try assuming everyone knows something that you don’t. Make it your mission to unlock all that unknown and untapped thinking power in the team. Now, more than ever, we need rebels. We need diverse people who think differently. As Thunberg says, “being different is a superpower”. 🗨️

● **Matthew Moran** is head of transformation at The Open University and a lecturer at the OU Business School

AMY GALLO

Why it pays to have ‘smart fights’



Amy Gallo, an expert on workplace dynamics, says conflict shouldn’t be avoided and that being too nice can scupper even the best team’s efforts

When I was in my 20s, I was on a project team that got along brilliantly. We had a shared vision, we each knew what our particular role was and we effortlessly passed work between us. But when deadlines loomed or our client requested something urgently, we fell apart. The partner would be short with us, we’d bicker over who got credit for which deliverables and we’d send passive-aggressive emails. During one particularly stressful week, I remember one of my colleagues breaking down crying on the way to a client meeting.

What caused our team to go from Dr Jekyll to Mr Hyde? Stress was a big part of it. Our brains don’t function well under duress because we lose access to our prefrontal cortex, the rational thinking part of our brain. But we also didn’t know how to handle conflicts. We knew how to collaborate when we agreed, but we couldn’t function when we didn’t.

Everyone wants to work in an office where people are polite, considerate and kind, but in some companies the aversion to conflict is so strong that saying “I don’t agree” is the same as saying “You’re an idiot”. But you can’t have an inclusive, productive, creative team without some healthy fights and, when handled well, conflict has benefits. We produce better work because people bring different perspectives to the table and build on one another’s ideas. Our relationships with colleagues are stronger if we can navigate through a disagreement and come out the other side. There are studies that show handling conflict well leads to higher job satisfaction. Instead of feeling as if you have to walk on eggshells, you can focus on getting your work done.

To reap these benefits, don’t pretend you work in a conflict-free utopia. There are tensions that are important to play out. Will we value speed over quality? Should we prioritise meeting customer needs even if it means going over budget? As a project manager, it’s on you to design conflicts that allow your team to make the necessary trade-offs, and to be creative and productive. Make it OK for them to dissent, debate and express their true opinions.

First, agree that you’re going to disagree. Conflict is a normal, inevitable part of interacting with other people. Tell your team that you want them to express disagreements, even if it’s uncomfortable to do so.

Ask people to adhere to a few norms. For example, you might request that they hold their opinions lightly. This means not digging their heels in and being open to persuasion. Of course, people will have topics they care about deeply; they shouldn’t cave in the face of disagreement, but they should remember there are multiple ways to see an issue. And remind them not to use honesty as an excuse to be a jerk. Urge them to disagree with compassion and kindness.

As the project manager, it’s important to act comfortably. When two team members raise conflicting opinions, it may be hard not to tense up, but the team looks to you to gauge whether this kind of debate is tolerable. The more you manage your emotional reaction – and your body language – the more relaxed the team will be. So, next time a difference of opinion comes up, take a deep breath and remind yourself and your team: it’s all going to be OK. 🗨️

● **Amy Gallo** is the author of the *HBR Guide to Dealing with Conflict*, a contributing editor at *Harvard Business Review* and an executive coach at Paravis Partners

Projecting the future: a big conversation continues

Debbie Dore, APM's chief executive, urges APM members to help shape the future of the profession by joining those who are already making a valuable contribution



In June, APM launched a big conversation about the future of the project profession in a fast-changing and complex world. From the outset, this ambitious campaign recognised that, if the project profession is to continue thriving, we must actively shape its future, challenging long-established ideas about managing and valuing the benefits of projects while also challenging ourselves.

As the pace and scale of project work gathers momentum, professionals of all backgrounds spend more of their time working on delivering change, rather than simply managing the status quo – and it is in this context that project professionals must actively lead the way in shaping the future. Project professionals are pioneering the delivery of transformative change – whether through digitisation, the Fourth Industrial Revolution, infrastructure investment or mitigation of the impacts of an ageing population and climate change.

Having now published the third of six challenge papers in this campaign, it is great to see the energising effect of our big conversation – both within the project community and more widely. Indeed, the


**Whatever your role,
your organisation or
your career stage, we
want to hear your views
about the future of the
project profession**

challenge papers have elicited responses from parliamentarians, academics, think tanks and industry and policy experts. We are delighted too that input has been provided by professionals across different stages of their career journey – from graduate and apprentice project managers to those who remain active in retirement. Whether contributing ideas, challenging or endorsing key questions raised within the papers or simply welcoming APM's ambition in launching this campaign, responses have been unequivocally constructive.

Perhaps the most frequent response has related to the timeliness of the three challenge papers published to date. None more so than *Climate Change, Clean*

Growth and Sustainability (see our special report on page 42), which poses pressing questions, including where the influence of the project profession might be greatest in addressing climate change while promoting clean growth and delivering sustainability. While it does not fall to the project profession to provide all the answers, with climate change and the environment firmly at the top of the global political agenda, there has never been a better time to consider what role the project profession might play.

The three remaining challenge papers in the series will address the following topics: mobility and transport; urbanisation, smart cities and connectivity; and the future workplace. The new UK government and parliament will face significant challenges in order to develop our economic and social infrastructure in all six areas we have outlined in the 'Projecting the Future' series. In continuing to promote discussion across all published challenge papers, APM will be assimilating the invaluable input received into our strategic thinking relating both to individual project professionals and the profession as a whole.

Whatever your role, your organisation or your career stage, we want to hear your views about the future of the project profession. We also want your examples of innovative practice from projects that are adapting to a fast-changing world so that we can develop case studies to share across the project community and ideas of how the project profession can improve the delivery of projects for the good of society. 

SHAPE OUR FUTURE

Get involved in shaping the future of our profession now – either via our website (apm.org.uk/projecting-the-future), via social media or by emailing ptf@apm.org.uk



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MEET THE APM PROJECT MANAGEMENT AWARDS 2019 WINNERS...

It was an evening not to be missed (that stretched into the early hours of the morning). The great and the good of project management were regaled in London's Old Billingsgate Market on a frosty November night, and celebrated for their awe-inspiring work. Project congratulates them...

This is a celebration of great projects and inspiring professionals across a wide range of sectors," Sue Kershaw, APM president, told the excited award nominees as the evening began. Allyn Keown, chair of the APM Project Management Awards, praised APM for its impressive growth in membership this year, as well as a 12 per cent increase in the number of award entries. "I could talk about Brexit but I won't," he said wisely. "Let's just celebrate the achievements of the past year." So, without further ado, *Project* presents this year's APM award winners. Congratulations to you all!



SOCIAL PROJECT OF THE YEAR AND OVERALL PROJECT OF THE YEAR

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NORTH CUMBRIA INTEGRATED CARE (NHS FOUNDATION TRUST)

Maternity Information System

Women registering their pregnancy in Cumbria are now some of the first across the country to have access to electronic maternity notes via an app created as part of the Maternity Information System project. The purpose of the project was to replace paper-based processes with an electronic personal health record system, called BadgerNet.

The app helps women track their pregnancy journey, talk to care professionals through secure

messaging, keep a note of their antenatal appointments and upload photos. It also contains information about their baby's development as they move through their pregnancy, and up to six weeks post-birth. The new system is safer, as women no longer need to carry paper notes.

The project board included a digital midwife, other clinical and business staff, as well as a benefits and change manager, a project manager and a project officer. Having a digital midwife involved throughout the lifetime of this project was key to its success. "The digital midwife was able to provide her clinical expertise every step of the way, helping to inform the training materials and configuration of the new system; streamline and standardise processes; engage the midwives and obstetricians; and remind the project team why we were doing what we were doing: for the women," explained the team in its awards submission.

The project is forecast to deliver long-term benefits. Implementing a fully electronic record for both midwives and women will reduce spend on paper files drastically. North Cumbria University Hospitals Trust (NCUHT) currently obtains funding through 'Payment by Results', but due to difficulty in the past with capturing the pregnancy pathway electronically, reporting has not been sufficient to capture the care given. Now that this can be effectively captured in BadgerNet, reporting will result in accurate payments that are expected to increase by nearly £150,000 a year.

Karen McGovern, project manager at Clevermed, a supplier to NCUHT, was part of the team that picked up the award: "I'm absolutely delighted. I've worked in the NHS for the last 20 years and had my little boy last year, so I've seen it essentially from the customer and the supplier side, and it completely changed my viewpoint."



Winners of the Overall Project of the Year Award, North Cumbria Integrated Care, pick up their award with host comedian Jo Caulfield (far right)



The Sellafield Ltd, Cavendish Nuclear and Balfour Beatty team, winners of the Engineering, Construction & Infrastructure Project of the Year Award

ENGINEERING, CONSTRUCTION & INFRASTRUCTURE PROJECT OF THE YEAR

Sponsored by



SELLAFIELD LTD, CAVENDISH NUCLEAR AND BALFOUR BEATTY Silo Maintenance Facility Project

Sellafield is the UK's most complex nuclear site, with a mission to reduce the hazards of its nuclear legacy safely and securely. The Silo Maintenance Facility (SMF) project is a critical element of a wider programme of work at Sellafield and enables a number of the strategic objectives for cleaning up the site, the benefits of which were delivered in January 2019.

In addition to delivering to cost and schedule, the project delivered a significant achievement in project safety performance, with more than four million man-hours worked without a lost-time accident. The benefits of this project were delivered to time and within the sanctioned business case at a cost of £252.9m (under the required cost maximum of £254m). At its peak, the project team comprised a multidisciplinary team of around 300 people.

Close adherence to project fundamentals, using visual health dashboards, was key to the successful delivery of the project. The team developed visual management processes to ensure that project information and its status were accessible to everyone.

The SMF project was also an early adopter of building information modelling (BIM) in the nuclear industry. The project team realised the potential of BIM model usage for management of conventional safety and planning of works. The 4D BIM models were used for animations, virtual walk-throughs/reviews and screen grabs.

This allowed for clearer, more meaningful discussion with the designers and installers and made the management of safety more productive. When combined with the use of interactive whiteboards at co-locations, the team was also able to reduce the number of people travelling to meetings. This approach is now being incorporated into Sellafield's Digital Transformation Strategy.

Kevin Bell, SMF project manager for Sellafield, said: "We're proudest of the collaboration that we achieved between ourselves and the supply chain... and the way that we worked together to deliver a successful outcome for all three partners."





Winners of the Transformation Project of the Year Award, Rolls-Royce

TRANSFORMATION PROJECT OF THE YEAR

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ROLLS-ROYCE Product Lifecycle System

Rolls-Royce Civil Aerospace was challenged to transform a £250bn technology portfolio to achieve better delivery and technology, and lower costs. The four-year Product Lifecycle System (PLS) programme has delivered £350m of benefit to the bottom line through implementing best practice in an environment of low project management maturity.

With an expanding portfolio, Rolls-Royce needed significant transformation. The PLS programme included the deployment of a new Oracle planning suite. A project management office (PMO) with new roles, such as PMO lead and project controllers, was introduced.

Due to the complexity of the PLS programme, Rolls-Royce needed to be innovative. It ran a series of workshops with practitioners to identify key processes where data and reporting were required. Of 67 reports that were being used in the product life cycle, 28 were instantly removed. The digital approach of the PLS programme focused on lean techniques and the deployment of agile programme management.

The short-term benefits included raising the profile of project management practice and delivering a new organisational structure with clear accountabilities. The long-term benefits have resulted in a simplified work breakdown structure, reporting using executive data and minimising waste.

Mike Hopkins, head of engine programme transformation at Rolls-Royce, said: “The team has put so much energy in over the last couple of years... It’s brilliant to see the programme get recognised as a transformation project at this level.”

TECHNOLOGY PROJECT OF THE YEAR

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HEATHROW AIRPORT Integrated Airport Operations Plan and Demand Capacity Balancing Tool

Heathrow’s ambition is to provide the best airport service in the world. To deliver this, it has partnered with EUROCONTROL, NATS and its technology partners to implement the next generation of airport planning and operations. The result is the Airport Operations Plan (AOP), underpinned by a cloud-based Demand Capacity Balancing (DCB) tool – a paradigm shift in the way flight operations are handled.

Operational planning for large international airports is a challenging task, balancing relatively fixed resources against the ever-changing operating times of aircraft. Heathrow, NATS and their partner Harris Orthogon began to develop a solution to enable more stable pre-tactical planning. The DCB solution provides the Heathrow Airport Operations Centre with high-quality flight-time predictions up to 10 days ahead of operation.

By combining flight schedules with local weather forecasts and global wind data, the DCB system, integrating user intelligence and analysis of historic data, can identify congestion issues long before they materialise, enabling users to take pre-emptive actions and avoid such problems. The DCB tool drives an optimised AOP, providing a single, trusted view of operations. With this user-friendly

and visually intuitive plan, stakeholders can move from being reactive to proactive, organising resources and activities in anticipation of events, resulting in fewer cancellations, improved punctuality and reduced costs, fuel consumption and CO₂ emissions.

The project successfully delivered an industry-leading capability – not just new software, but a complete change in the concept of operations. Such an innovative, ground-breaking project required use of new tooling and methodologies. The DCB tool built by NATS used service-oriented architecture and micro-services to provide simulation generation and analytics capabilities to predict flight movements. The algorithm integrates with multiple data sources and generates predictions based on algorithms designed using predictive analytics, producing 52,000 simulations to forecast flight movements.

Joe Butterfield, project manager, Heathrow Airport, said: “The project itself was incredibly successful... but what was really paramount to the success was the ‘one team’ ethos across our supply chain, business users and operations... Everybody had that one shared vision. There was no hierarchy and no silos across different organisations.”

“Paramount to the success was the ‘one team’ ethos across our supply chain, business users and operations... Everybody had that one shared vision”



Heathrow Airport, winners of the Technology Project of the Year Award



Jacob Achenbach picks up his award for Young Project Professional

YOUNG PROJECT PROFESSIONAL OF THE YEAR

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JACOB ACHENBACH

Rolls-Royce Crosspointe

The aim of the project Jacob Achenbach was tasked with was to rapidly expand Rolls-Royce Crosspointe, a plant manufacturing turbine blades for commercial jet engines. The objective of the project was to deliver a comprehensive expansion of the manufacturing plant with sole ownership and accountability for £31m of capital investment. He ended up doubling the size of the facility four months ahead of schedule and £3.5m under budget.

The Crosspointe facility was limited to an empty manufacturing hall, posing a need to convert the civil engineering infrastructure first. The key requirement of the project was to source, install and validate over 50 pieces of advanced manufacturing machinery capable of meeting the increased blade demand. The expansion also required development of the IT architecture for new machines and recruitment of employees capable of operating and servicing those machines.

The project gained recognition and accolades from the Rolls-Royce organisation, external customers and suppliers. It increased the plant's machining-ready footprint by 60 per cent, securing the future of the facility and making it a mature plant that can reliably serve the aerospace industry, and led to the recruitment of 112 new employees.

An area for which Achenbach received much praise was the management of lessons learned. "I knew that Rolls-Royce Crosspointe was not the first plant to be expanded. Therefore, I reached out to professionals who had worked on similar projects in the past and asked for their advice and project documentation," he explained. Throughout the project, he collaborated with teams who had previously expanded factories, which particularly helped with the machine validation process.

"It wasn't just a project for our facility, it was a project for the whole aerospace industry," said Achenbach. "The reason why this project even took place was because Rolls-Royce was facing a global turbine blade shortage. So knowing that we could increase the capacity and alleviate the situation in the global aerospace industry was very rewarding."

PROJECT PROFESSIONAL OF THE YEAR

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DAVID CALVER

North Highland

A project manager at management consultancy North Highland, Calver has over the past three years been managing the IT and audiovisual work streams for the Cambridge Expansion Programme (circa £64m), which will deliver a flagship HQ for Arm, the semiconductor and software design company.

The Cambridge Expansion Programme was set up to build a state-of-the-art smart building that would more than double the capacity of Arm-owned buildings on campus. Under Calver's stewardship, the project evaluated and selected multiple products that were installed in a demo suite to facilitate early end-user feedback. The showcased integrated solutions received resoundingly positive feedback from Arm staff and resulted in the leadership team deciding to set this as the new Arm standard.

It authorised the rollout of the technology to all sites globally and Calver was asked to manage the rollout to four buildings in Cambridge with an overall budget of around £9m. Part way through the project, Arm was acquired by Softbank and embarked on ambitious plans to almost double headcount globally. This was coupled with multiple instances

of water ingress in the building that was under construction, which impacted the project.

"The tech hub was going to be housed in the new building, but Arm could not afford to wait for that benefit to be delivered. I therefore came up with the idea of using the space leading into the atrium of one of the existing buildings and this has turned out to be a huge success, as it is easily accessible," Calver explained.

Even though he was taken seriously ill, Calver managed to keep the project running on an even keel, and returned to work with minimal disruption, delivering the ARM 3 (Phase 1) and ARM TV Project on time and under budget.

"I know the purists out there will kind of string me up for this, but I am most proud of the ability of the team to incorporate agile ways of working in a very regimented traditional waterfall-style project methodology," he said.



David Calver, Project Professional of the Year

◀◀
**CONTRIBUTION TO THE
 PROFESSION: COMPANY
 SELLAFIELD LTD**

The mission to clean up Sellafield operates a 100-year plan and deploys around 14,000 people, and project delivery is vital. Project delivery sits at the top table in Sellafield, with an executive projects director reporting to the CEO.

Sellafield is implementing a radically different approach to project delivery, integrating and collaborating with four supply-chain partners for a 20-year period. The change is managed through a relationship management plan – Collaborative Business Relationships – and industry best practices. This sets out the vision, objectives and desired end state, including the behavioural model and the selection approach.

Its first cornerstone is governance, with a project board to review implementation of key strategies, training and development, and communication messages. Its second is employee engagement, and its third is training and coaching. The final cornerstone is measurement, so that understanding and expectations can be tested throughout the readiness phase.

Sellafield has established its Project Academy to develop capability for unique and complex decommissioning projects over the coming decades, and has created two new national standards for higher education in projects: the UK's first university certificates (HNC equivalent) in project controls and in project scope baseline management. These qualifications are open to non-staff. Sellafield provides a pathway from HNC to PhD through courses, professional qualifications, mentoring, professional accreditation and professional chartership.

Andrew Tyson, head of project management at Sellafield, said: "We've spent a lot of time training our people, bringing on apprentices and graduates, and it's paid real dividends today to win this award. It's a source of great pride."



**CONTRIBUTION TO THE
 PROFESSION: CHARITY/
 NOT-FOR-PROFIT
 HOME GROUP PMO**

Home Group is one of the biggest housing associations in the UK, and one of the largest providers of new homes and houses for affordable rent. In addition, it provides long-term integrated housing, health and social care.

Created in 2017 to enable holistic delivery of Home Group's five-year strategy, its programme management office (PMO) has become a central function with an overview of all change across the organisation – allowing successful cross-departmental working and transparency for all staff, giving greater change control and governance, and improved control of budgeting and reporting of change.

The PMO is now a central go-to point, actively sought out to assist the business in delivering change, and provides the executive and board with the confidence and security that the entire organisation is committed, engaged and on track to deliver the company-wide strategic objectives.

"Just because we can deliver a change doesn't mean we should, so we consider the collective impact of delivery on our colleagues and customers, and plot this and when it lands to ensure we don't overload and cause change paralysis," explained the team in its awards submission. "We produce various snapshot views, considering data in innovative ways to inform decisions, helping us to speed up, slow down or stop

delivery as needed. This, mixed with the 'people impact assessments' completed for all projects, ensures we give our projects the best possible chance of success."

The Getting Home Group Ready for GDPR project demonstrated how the PMO's 'little bit out there' approach gave colleagues and customers the right amount of information and training, showing them just how serious it was about protecting their data – while making the information

"They've tried many times before to set up a similar function, and we've succeeded where others have failed previously in providing that service to the organisation"

interesting and easy to digest. It introduced a range of formal and informal methods for managing communications, and created a brand called 'We Love Data and the Data Detective'. The project came in on time, under budget and with loads of positive feedback.

Alison Moore, director of programme management, said: "They've tried many times before to set up a similar function, and we've succeeded where others have failed previously in providing that service to the organisation."

CONTRIBUTION TO THE PROFESSION: CONSULTANCY

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ARUP

Arup's portfolio, programme and project management consultancy provides specialist services on a wide range of complex projects. It develops bespoke tools, delivers innovative solutions and connects with its global network of specialists to share the most current thinking, skills and best practice for the benefit of clients and employees.

As a firm with innovation at its very core, Arup's aim is to contribute to the industry, proactively influencing its future with initiatives. Its dedicated Foresight + Research + Innovation team helps Arup and its clients to understand trends, explore new ideas, identify future markets and produce publications based on its findings.

For example, Arup's team collaborated with APM and The Bartlett, University College London's (UCL's) faculty of the built environment, to write *The Future of Project Management*, a report that explores future trends, such as artificial intelligence. The consultancy has also assigned a research manager role in its PPM team to promote and pursue project and programme management research opportunities, and its annual internal Innovation Awards are a vehicle for celebrating and sharing innovative projects and ways of working.

"Our people are the single biggest contributor to achieving our goal: to provide an optimum service to our clients to shape a better world," explained Arup in its awards submission. Central to its company culture is investment in its people. All staff have an annually updated personalised development plan, jointly agreed with their people manager. This combines individuals' development aspirations and the organisation's need to provide current and future skills, and a range of services required by clients. Discussions are captured in the Arup contribution guide and its self-assessment APM Competence Framework tool. Arup's learning and development framework is accredited by APM and in the most recent assessment achieved the highest score ever awarded.

David Twine, director of Arup's programme and project management business, said of winning the award that: "It's really fantastic; it's a great feeling and is testament to the work of the team." Asked what he thought made Arup's an award-winning entry, he explained: "We are responding to volatility and uncertainty now in the world and the need to tackle not just business's problems, but also society's problems."

"Our people are the biggest contributor to achieving our goal: to provide an optimum service to our clients"



Arup with their Contribution to the Profession Award



The Proteus Learning Hub team

INNOVATION IN PROJECTS

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PROTEUS

Proteus Learning Hub

Proteus is a consultancy with a reputation for supporting client organisations to successfully deliver their largest and most business-critical change programmes and grow their internal change capability. It was engaged to support a large financial services client to transform its change expertise, utilising its innovative data-driven Learning Hub and benchmark data to deliver rapid, sustainable results. The Learning Hub allowed the client to access and take advantage of Proteus's 20-year experience and know-how from delivering successful projects and programmes.

Its unique approach allowed the client to flip learning on its head to deliver accelerated capability development. The client director described the implementation of the Learning Hub: "What you have put in place is not just good, it is phenomenal. I have never seen a better set of supporting structures and content for change capability development in my 25-year career."

The adoption of the Learning Hub and its approaches was instrumental in the achievement of these results. It provided the unique blend of diagnostic tools, capability modules and community functionality necessary for success. These elements supported improved know-how and better dialogue, and helped to establish a safe place for everyone involved in projects to access best practice.

Sandra Jowers, head of Learning Hub, said: "It's absolutely amazing to win this award for our innovative data-driven hub, not only for all that's been achieved to help our clients maximise their change performance, but also for what it does to enhance the credibility of the project profession as a whole. It means the world for the team and our clients." ▶▶

APM PROJECT MANAGEMENT AWARDS 2019



The Conwy team with their Programme of the Year Award

PROGRAMME OF THE YEAR

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CONWY COUNTY BOROUGH COUNCIL

Conwy Modernisation Programme

Conwy County Borough Council's modernisation programme ran from 2014 to 2019 and was established with two main objectives: to implement Workwise, Conwy's version of agile working and the authority's proposed new operating model; and to implement an office accommodation strategy and facilitate the development of new office accommodation for the authority in the town of Colwyn Bay.

The programme achieved all of its objectives and benefits. Its structure, tools and techniques were instrumental in its success, which will leave a lasting legacy.

Also critical was governance, which included a programme board and a Modernisation Programme Delivery Group, which consisted of the programme manager, the programme coordinator and all of the individual project managers and work-stream leads. As a result of the programme controls, and the continual review of the business case and the benefits, the programme delivered on time, on budget and to the required standard.

The programme included a number of new initiatives for Conwy, such as 'embracing change' training that covers key change theories, the importance of communication and the emotional aspects of dealing with change. This scale of change programme had never been implemented across Conwy before.

Emma Roberts, head of corporate modernisation, said: "I feel really happy and validated in what we are doing in terms of programme management. It's people that made this an award-winning programme – the staff, the directors with the vision and the councillors who were really behind us."

PMO OF THE YEAR

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GCHQ

Transforming and Operating GCHQ's Enterprise PMO in our Centenary Year

The GCHQ enterprise programme management office (PMO) supports more than 300 professionals to deliver over 200 projects, with a 100-strong PMO team that includes 30 GCHQ staff. Since early 2018, the enterprise PMO has transformed itself and its impact on the project profession – which comes in GCHQ's centenary year. It has achieved 20 per cent cost savings, led the way in helping GCHQ embrace agile ways of working and has established an outcome-focused, digitally enabled PMO service.

In April 2018, it organised its people into six cross-functional teams that best aligned with its mission strategies, placing planning and scheduling experts, finance specialists and risk management practitioners alongside data analysts, agile coaches and business change specialists.

Its vision is to deliver outcomes, rather than people, to its customers. This enables it to support more projects and to build resilience into its service by reducing customer over-reliance on individuals within the PMO. Its 'PMO+ Service Menu' describes the services it provides in terms of outcomes, and its six cross-functional teams understand the outcomes they are required to deliver and have autonomy in how they achieve them.

Today, GCHQ's portfolio is delivered using a blend of agile and more traditional approaches, with the PMO leading the way in supporting development of agile delivery management capability and building confidence in project professionals to experiment with new ways of working to deliver more efficiently and effectively. Over the last two years, agile delivery within GCHQ has grown from less than 20 per cent to over 50 per cent of its portfolio.

A spokesperson for GCHQ's PMO said: "I'm absolutely thrilled for the team. The PMO, like the rest of GCHQ, combines the right mix of minds to find innovative solutions for the business." Her advice to other PMOs looking to lead a transformation is: "Don't try and plan it from the start!"

"Its vision is to deliver outcomes, rather than people, to its customers"



Winner
Lorraine Martins

THE MIKE NICHOLS AWARD FOR INSPIRATION

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MICHÈLE DIX CBE, TRANSPORT FOR LONDON, AND LORRAINE MARTINS MBE, NETWORK RAIL

The competition was so stiff this year that APM decided to present this award to joint winners. Michèle Dix, managing director of Crossrail 2, was honoured alongside Lorraine Martins, director of diversity and inclusion at Network Rail. "I feel very humbled by this and it's an honour to be in Michèle's company," said Martins. What did she feel most proud of? "The everyday changes we are seeing in the sector, with more people supporting our work. There is a change in language and process."



Arup's Healthy by Design team with their Shell HSSE Award

SHELL HSSE AWARD

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ARUP

Healthy by Design Programme, HS2 Phase 2b

To successfully deliver Phase 2b of HS2, Arup had assembled a core multidisciplinary team, known as Arup+, comprising ERM, Foster and Partners, Jacobs, Ramboll, Typsa and Costain. With a workforce of over 1,500 working in varied locations across the UK to deliver civil design and environmental statements as part of Europe's largest rail infrastructure project, HSSE is integral to HS2 Phase 2b.

Through its Healthy by Design Programme, HS2 Phase 2b has become a flagship project for truly living a proactive health, safety and wellbeing (HSW) culture, demonstrating collaborative ways of working at both behavioural and performance levels. Arup+ has greatly benefited from the collaborative and proactive approach to HSSE, noticeably working in a united 'one team' environment.

From the initial bid phase to the present day, the HS2 Phase 2b leadership team has fostered an HSSE excellence culture. Staff were selected at leadership level who truthfully demonstrated HSW values in practice. Psychometric tests were used to recruit leadership into these roles

with behavioural assessments to ensure alignment and team 'fit'.

The project also took a deliberate decision to integrate wellbeing (including mental health) into the health and safety work stream, which includes a dedicated health, wellbeing and collaboration team who monitor HSW performance and culture to identify any gaps across work streams or partner organisations. Working collaboratively across disciplines and organisations, it ensures professionalism, competency and knowledge exchange to provide a holistic approach to HSW.

GEOFFREY TRIMBLE AWARD

TROY LANCASTER

Amey (University of Warwick)

Troy Lancaster's dissertation on 'Unlocking the Performance of Railway Enhancement Programmes through Supply Chain Integration' earned a high distinction from the University of Warwick. According to Lancaster, principal project manager at Amey, projects and programmes within the UK rail industry are currently deemed to have a 40 per cent efficiency gap compared to other European railway systems. This is primarily due to poor levels of integration with the supply chain. His dissertation demonstrated through extensive research how dramatic performance improvements can be achieved via establishing high levels of integration between client, tier 1 contractor and critical tier 2 suppliers. His findings are now contributing to a £3bn railway infrastructure programme.

HERBERT WALTON AWARD

Sponsored by

BAE SYSTEMS

DR SIMON ADDYMAN

Charles Rymill Ltd (University College London)

This award recognises the importance of excellence and innovation in a PhD dissertation. Dr Simon Addyman's thesis challenged the underlying theoretical assumptions of the temporary organisation and provided a new theory of organisational routines to offer a fresh perspective on the ex ante defined time boundaries of a project organisation's life cycle. It identified a five-stage recursive process model of transitioning as a project organisation. Dr Addyman is associate professor in project management at UCL and managing director of Charles Rymill.

BRIAN WILLIS AWARD

JOSEPH BARNES

This is awarded to the student who has achieved the highest mark in APM's Project Management Qualification. Barnes, a senior project engineer at BAE Systems, scored a phenomenal 99 per cent.

SIR MONTY FINNISTON AWARD

SIR AMYAS MORSE

The Sir Monty Finniston Award for lifetime achievement is presented to an individual who has devoted their career to projects. This year, it went to Sir Amyas Morse, comptroller and auditor general and chief executive of the National Audit Office before retiring in early 2019, having spent a decade in the post. "Sir Amyas speaks truth to power," said APM president Sue Kershaw.

HONORARY FELLOWS

New Honorary Fellowships were awarded to individuals who have made exceptional, demonstrable and significant contributions to project management in their own professions and careers. This year, five new Honorary Fellows were announced:

- **Dr Sally Howes OBE, chair of the UK Space Agency Steering Board**
- **Hilary McGrady, director general of the National Trust**
- **Andrew Bragg, former chief executive of APM, who helped lead it to chartership**
- **Myrtle Dawes, former planning and dispatch director for Centrica, and UK board member at the Institution of Chemical Engineers**
- **Sir Tim Smit, co-founder and executive vice chair of the Eden Project, and executive chairman of Eden Project International**



Study for an MSc in Business Project Management

In today's business environment, the skills of the project manager have never been more in demand. Organisations, businesses and governments are becoming increasingly aware of the strategic importance of effective project management for gaining a competitive advantage.

Project managers play a key role in helping businesses introduce change through the development of a new product, process or service. In order to succeed, you'll need to be highly adaptable and able to work in areas as diverse as IT, health services and education, local and national government, media, and sport and leisure.

DEVELOPING YOUR SKILLS

A master's degree in the rapidly growing area of project management will help you develop skills that are highly sought after globally in almost every sector. The Business Project Management MSc course at London South Bank University's Business School is particularly relevant for professionals who wish to be able to run complex projects with a range

of stakeholders, managing all phases to time and to budget. Business project management ensures that projects meet the change needs of the organisation.

The course supports you to develop a range of technical skills that will be complemented by transferable soft skills so that you develop as an independent learner and thinker who is comfortable tackling the two key ideas in modern business project management: choosing the right project and doing the project right. This means you'll be able to identify and select projects that are going to benefit an organisation, and then deliver them within the scope required, to the budget and on schedule. With that skill set, it isn't hard to see why graduates from this course are in high demand.

If you're already working in project management, this course will link your current practice with the theory and enable you to develop a further understanding of new tools, techniques and areas of interest. It will also expand your existing industry network and give you the opportunity to connect with professional bodies.

UNDERPINNED BY APM

This course is underpinned by the core competencies at the heart of APM, so you can be sure that what you learn is contemporary, relevant and directly applicable in the workplace.

PROFESSIONAL EXPERIENCE

The course also provides professional training towards a relevant project management certification. The university holds project management-specific events for postgraduates, including evenings with professional bodies, subject-related national conferences, and guest lectures from the industry and special interest groups. It also offers free student membership of professional bodies.

LSBU Business School focuses on tools and techniques to get you ready to hit the ground running with managing all aspects of a project.

● To find out more about MSc Business Project Management at LSBU Business School, please visit lsbu.ac.uk

REACHING FOR THE STARS

*It's all engines go for the UK space industry. Brimming with enthusiasm and entrepreneurialism, its project professionals are critical in keeping the endeavour heading for the stars, reports **Joseph Flaig***



The much-hyped SABRE 'air-breathing rocket engine' is expected to reach orbital velocities of around Mach 25

Space missions are the ultimate projects. What else provokes the jaw-dropping awe of developing an idea from a sketch board to watching it fly to the furthest reaches of the solar system? And project managers are the driving force, uniting disparate teams,

navigating perilous risks and getting designs into orbit. They are key to the sector's ongoing expansion.

"Project managers are the backbone to the whole thing," agrees Dr Chris Castelli, the UK Space Agency's (UKSA's) director of programmes.

Project management in aerospace and defence contributes £1.79bn to the UK economy, according to APM's *Golden Thread* report, and this year – the 50th anniversary of the first moon landing – has been one of reinvigorated human interest in the space endeavour. ▶▶

A SPACE ODYSSEY

It is T-1 day for Will Whitehorn, new president of trade association UKspace and former president of Virgin Galactic. When *Project* meets him, he is about to take the helm of one of the UK's most important space organisations at a time of cosmic importance – Brexit, British spaceports and dazzling new technology are all on the horizon. “Project managers are absolutely crucial to the UK space sector, as most satellites are fairly unique still, and each one constructed is a project in its own right,” he says.

Skills and components are sourced from all over the world, often by space agencies working with private companies to feed into a NASA or European Space Agency (ESA) project. “That requires huge depth of project management. As the industry gets more sophisticated, more of these skills will be required,” Whitehorn explains. “I think what is about to happen in the UK sector is very exciting. It’s a situation where, finally, we can not only build satellites, but actually launch them as well, from Cornwall or northern Scotland.”

Numerous rocket and earth-observation companies have sprung up across the UK, joining the traditional telecoms specialism. Major players like BAE Systems, Cobham, Leonardo, Lockheed Martin, Qinetiq and Virgin are building rockets and satellites, rapidly developing plans to exploit new orbital access from Sutherland spaceport in the Highlands or a horizontal-launch site in Newquay.

Young and exciting companies are thriving in areas including the Harwell Space Cluster, transforming conceptions of what spacecraft look like and what they can do. Huge international projects, such as the James Webb Space Telescope, a Hubble successor, are rarely without British managers, researchers and engineers. “I can’t think of many recent projects that haven’t had British involvement,” says Whitehorn.

Of course, Brexit brings fresh uncertainties. Despite continuing membership of ESA, the UK withdrew from the Galileo satellite programme, an alternative to GPS, after British companies were barred from contracts, and involvement in the Copernicus earth-observation programme hangs in the balance. The British government remains upbeat and ambitious, aiming to capture 10 per cent of the global space market by 2030 – up from 5.1 per cent in 2016/17.

NEW HORIZONS

UKSA is responsible for all strategic decisions on the UK civil space programme

“Project managers are absolutely crucial to the UK space sector, as most satellites are fairly unique still, and each one constructed is a project in its own right”

and provides a single voice for UK space ambitions. It invests and works with companies on major sovereign projects such as the SABRE ‘air-breathing rocket engine’, a much-hyped piece of technology from Oxfordshire’s Reaction Engines. The engine would be incredibly fast in the atmosphere – about five times the speed of sound (Mach 5.4), slashing London to Australia flights to just four and a half hours – and even faster in space (Mach 25), potentially revolutionising orbital access.

UKSA invests about £30m each year in earth observation for environmental protection around the world, and it works closely with ESA on cutting-edge missions. “They are beyond the scope of what one nation could do,” says Castelli. “You’re really going out into the unknown to understand the fundamental questions about the universe and how it evolved.”

CRITICAL TO MISSION SUCCESS

Project managers are central to the sector, he says. “They are the ones who have to bring together these very complicated pieces of engineering – the design, the development, the building and testing of the hardware and subsystems, and the integration of all this into a final, working satellite.”

Good project managers are adept at not only sourcing and combining the

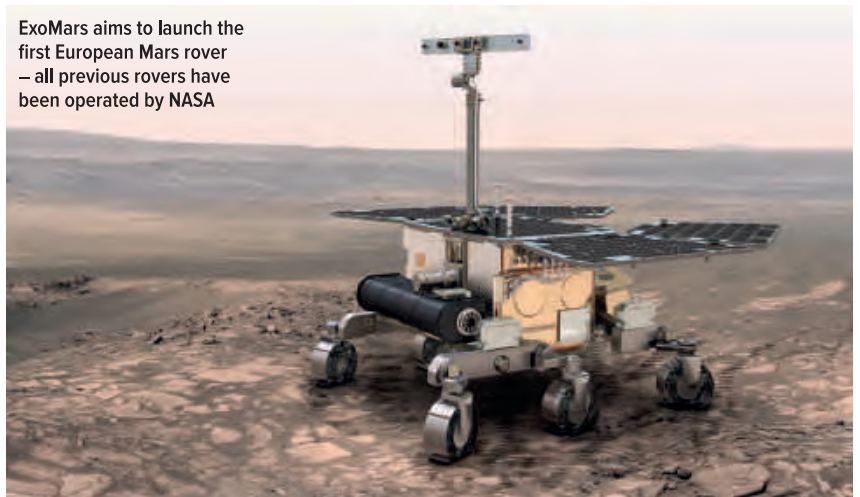
right talent, but also injecting energy and watching out for pitfalls. The irradiated vacuum of space is an unforgiving, inaccessible environment, requiring meticulous attention to detail and a willingness to face potential issues head-on. “If things go wrong in space, there are very few options to fix them. This is why you have to design things to a very high degree of reliability,” says Castelli.

There is a demand for strong project management skills, especially in risk management. “We are dealing with unknowns. We are not building the same satellites over and over again,” says Castelli. “There is quite a lot of focus and attention on managing the risk, really understanding the fundamentals and the technology, and getting to the right level of maturity.” He is particularly wary of ‘black swan’ risks, the low-probability but high-impact events that can scupper spacecraft and ultimately cost billions. Even if a fault is not catastrophic, you can hardly send a technician into orbit for a quick fix.

Nothing is more valuable than starting a project team on the right foot. “You have to create the right culture within the project teams; that is very important. One of the things I have tried to do at the beginning of projects is to really dig down into the fundamentals of the project and overcome optimism bias,” says Castelli. “Often, teams are very optimistic about how quickly they can do something, how regulatory problems can be resolved – the whole basic fundamentals of the programme. I try to make sure my review team really gets into the details, in order to put the right level of reality into the programme.”

Emotions frequently run high in exciting and innovative missions, but Castelli says good project managers keep a handle on it.

ExoMars aims to launch the first European Mars rover – all previous rovers have been operated by NASA





Mike Lawton hopes to pioneer a new way of developing technology at Oxford Space Systems.
Left: Sarah Macken, business development lead at Airbus Space



“You need to create the right culture – one where people feel they can raise their hands and say they think the project is not on track.”

ROUTE TO ORBIT

Major companies often have the most experience in space programmes, working with agencies around the world. State-of-the-art missions supplement commercially focused work like telecoms satellites.

“The experiences from ‘science projects’ can really help our commercial programmes,” says Sarah Macken of Airbus Space in the UK. As business development lead, Macken says her role is to pull together diverse players, including governments, other companies and internal staff such as engineers and technologists, striving to ensure good communication.

“Think of all the elements right from design – a concept, through to winning support, funding, people’s imaginations,” she says. “You have got to do all that

“Project managers are absolutely essential to ensuring that complex space platforms remain operational for decades”

before you start developing designs. We have a team of engineers in our company, but also in the supply chain, working out how to get something like the Mars rover to Mars at the right time.

“Project managers are absolutely essential to ensuring that complex space platforms are delivered on time and remain operational for decades. They ensure that space platforms make their launch windows and remain operational for many years to come. A project manager is a team leader, an important voice in the larger programme and an interface with the customer. The sector is going through a transformation, with changes in technology happening much more quickly. Those project managers who are not phased by change will do very well.”

A large company is needed to manage or deliver a range of big programmes, claims Macken – and they do not come much bigger than ExoMars, a collaboration between ESA and Russia’s Roscosmos agency that aims to launch the first European Mars rover in July 2020. Airbus is leading development of the machine, which project manager Van Odedra describes as a complex, mobile laboratory that will move across the surface and retrieve samples for internal analysis – and potential signs of life.

The programme began in 2001, and Airbus started developing hardware in ►►

UK SPACE FROM 1957 TO 2021

2 AUGUST 1957

The pioneering steerable Lovell radio telescope scans the Milky Way for the first time at Jodrell Bank

26 APRIL 1962

Britain becomes the third country with an operating satellite as Ariel 1 launches

28 OCTOBER 1971

The Prospero experimental satellite launches aboard a Black Arrow, the first – and so far only – British satellite carried by a British rocket

30 MAY 1975

The UK and nine other countries found the European Space Agency

26 MAY 1991

Sheffield chemist Helen Sharman becomes the first British astronaut

25 DECEMBER 2003

The British Beagle 2 Mars probe lands on Mars, but fails to deploy successfully

SEPTEMBER 2004

Formation of Richard Branson’s commercial spaceflight company Virgin Galactic

1 APRIL 2010

The UK Space Agency is formed

19 DECEMBER 2013

The Gaia space observatory launches, including a camera sensor built in Chelmsford

15 JULY 2018

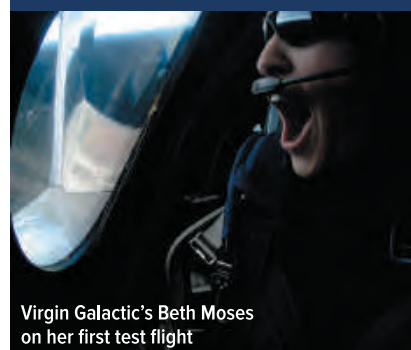
The UK Space Agency selects Sutherland in the Scottish Highlands for the UK’s first ever vertical-launch spaceport

25 JULY 2020

Planned launch of the UK-built ExoMars rover

JUNE 2021

Planned launch of first British lunar rovers from start-up Spacebit



Virgin Galactic’s Beth Moses on her first test flight



Harwell Space Cluster plays home to both established industry giants and 'new space' start-ups

◀ 2013, when Odedra joined. A major part of the ExoMars contract was distributing the work across Europe. "That requires careful management. We need to make sure suppliers have the capability and skills to develop the technology required," says Odedra.

The complexity and scope of the programme require a certain distance for project managers, he explains. "There's no way that you can get intrinsically involved in every issue that staff are facing," he says. "The key is working together with the right disciplines." For space missions, this means a swathe of engineering talent – software, control, electrical, mechanical and system engineers, insurance specialists, and integration and testing experts. "My job is to encourage them, and to help resolve any issues," says Odedra.

'NEW SPACE'

Rarely will you find more excitement than at Harwell Space Cluster in the Oxfordshire countryside, where Airbus has a base. There is a "buzz in the air", says Mike Lawton, founder and chief executive of Oxford Space Systems (OSS), which develops lightweight and compact satellite technology. When Lawton started in 2013, Harwell was home to OSS and four other space companies. Now, there are 90.

"We have achieved quite an enviable critical mass, we have got a whole range of companies, guys stepping out of their bedrooms and setting up their first hot desk, up to mega-companies like Airbus," says Lawton. "We have a joke that the best resource on campus is the coffee shop, because you inevitably bump into each other. The networking is phenomenal, and it does lead to connections and agreements between businesses. It's also a great way to recruit."

Companies at Harwell include aerospace giant Cobham, Reaction Engines and miniature satellite specialist Open Cosmos. Building OSS alongside

such a wide range of firms gives Lawton a great perspective on how project management has evolved along with the industry over the last decade or so.

"If you really want to be relevant or have the maximum chance of commercial success, the industry has to evolve a new way of developing technology, and that's what we are attempting to pioneer at OSS," he says. "With project management, we essentially take a non-linear approach to developing technology."

In the past, programmes would have had up-front design analysis before anything was built, but Lawton says 'new space' firms like his do not have the luxury of time or very large budgets. Instead, programmes accelerate quickly, and they start building rapid prototypes "to challenge and evaluate assumptions". OSS also works with new manufacturing techniques and non-traditional suppliers from other industries, such as Formula One, to explore different approaches.

"Historically, the space sector had been all about risk aversion – failure was not an option," says Lawton. "That was certainly true in the days of very large missions taking a very long time to get through gestation, and of course they were very high value. That dictated a certain type of approach – a highly linear, risk-averse way of managing a project through to fruition."

He compares the industry with the development of computers from huge, room-filling machines at IBM to the pocket-sized power in each of our mobile

APM SPACE EVENT

Join APM at the Project Management in the Space Sector Seminar, a special networking event to be held at Satellite Applications Catapult, Didcot, at 3pm on 14 January 2020. More information can be found at bit.ly/34dEmOJ

"Historically, the space sector had been all about risk aversion – failure was not an option"

phones. The technology is cheaper and does not need to last as long. The same thing is starting to happen in the risk-averse space industry, says Lawton, especially at younger and more agile companies.

"When you move to, let's say, new space, the appetite for risk is higher," says OSS head of projects Neil Killoran. While space agency missions might last 15 years or longer, OSS can work on projects lasting just five years. That opens up new approaches. "We can go quicker if, for example, we are using material that is new to the space industry." If OSS engineers can take a material from an adjacent sector, such as Formula One, they can test and validate the material in parallel, opening up "new degrees of freedom".

ROUTES TO THE STARS

There is more freedom from the very start of technology development, says OSS chief operating officer Mat Rowe. "We have an R&D department that has very few controls and boundaries in place. It is almost like a sandpit, an area for engineers to play in. If they want to make things, they can go and manufacture, they can hit things with hammers. We allow the engineers to breathe and create."

The company also makes decisions further down the line to streamline projects as much as possible. Rowe jokes that, in the space sector, customers are often "paying for the paperwork, not the hardware". Instead, he says OSS focuses on engineering and makes agreements with clients to produce summary reports and presentations, rather than "documents 200 pages long". OSS has won many plaudits thanks to its reimagining of how space companies can work, letting it focus on radical and influential new technology.

As companies and UKSA make their tricky ascents into orbit, project managers will have to bring together complex teams and navigate countless risks. Following new space trailblazers like OSS, they will also increasingly have to explore novel approaches, working alongside experts from related industries to find new routes to the stars. Whatever happens in the coming years, the UK space sector is on course for a universe of opportunity. 



Tom Hoffman (left) is project managing the InSight mission, whose lander (below) touched down in the Elysium Planitia region of Mars in 2018



PROJECT MANAGEMENT AT THE ULTIMATE SPACE AGENCY



Analysing the earth's wind patterns, mapping lunar gravity, remotely exploring the surface of Mars – Tom Hoffman's work at NASA's Jet Propulsion Laboratory has helped expand

knowledge about our home planet and the wider solar system. He has had a project management role on four out of eight missions, and he is now project manager for NASA's InSight mission, which is collecting information on the Red Planet's crust and the 'marsquakes' beneath.

"Each mission that I have worked on was rewarding in different ways," he says. "On my very first mission, I worked on the Voyager encounter with Neptune. That was an incredible experience, because I got to be one of the first people to see the very first close-up images from this distant and previously unseen planet.

"Fast-forward to InSight, and that was very rewarding from the standpoint of being responsible for the success of a Mars mission. Landing day was very tense, but incredibly satisfying once we knew we had successfully landed on a great location." Hoffman and colleagues

had anxiously ticked off vital steps on a checklist that included atmospheric entry, parachute deployment, heat-shield separation, radar acquisition of the ground – and touchdown.

"The whole process of entry, descent and landing [EDL] involves hundreds of operations working perfectly and on a tight schedule, so the whole time is tense and stressful to the team. If any of these don't happen as planned, the mission can fail to land successfully," he says. "To make matters more difficult, even if we see something we don't like happening, there is nothing we can do about it because, on landing day, the one-way light time to Mars was eight minutes. Since our whole EDL timeline was less than six minutes, that meant that, by the time we started getting EDL data from Mars in the control room, EDL had already finished on Mars and we were essentially experiencing very recent history.

"Just like the entire team and many of the millions of people watching around the world, I was completely ecstatic when I heard 'touchdown confirmed'. Having worked on InSight for more than seven years, and knowing that some others had worked even longer

to get InSight to Mars, I also felt a great sense of pride for what the team had accomplished. Because landing on Mars is hard and even a small problem can be fatal, I also felt relief that everything had worked as planned."

Trust in your team is key, says Hoffman. "Whenever you embark on a project, especially one that will journey to the stars, you need to have people whom you can count on to be successful. I have been fortunate to work with some truly brilliant people who are as dedicated to the success of each mission as I am. Giving people on your team the freedom to do what is needed to succeed, and ensuring that they have the resources to complete the task, has been a great formula for me to date."

The international space sector has been transformed by private companies such as Elon Musk's SpaceX in recent years, but Hoffman says the industry still has the same "dynamic environment driven by people with great ideas and ambitious plans". For the project manager, the more people who are interested in space, the better it is for everyone – "there is more than enough space to go around!"



The big interview

SUE KERSHAW

*Her reputation as a great project leader precedes her. APM's president talks to **Emma De Vita** about the intellectual challenge of complex projects, her globetrotting childhood and what she hopes to achieve for her profession*



“What you see is what you get. I could never be bothered to be someone else”

Sue Kershaw

1982 BSc (Hons), civil engineering, University of Surrey

1982–87 Assistant civil engineer, Taylor Woodrow Construction

1987–89 Senior engineer, Whitby and Bird

1989–93 Team leader, Bangkok Transit System, Acer Freeman Fox consultants

1993–2000 Design and delivery manager, Canary Wharf station, Jubilee Line Extension Project

2000–01 Senior project manager, Royal Docks, English Partnerships

2001–02 Assistant director, London projects, Strategic Rail Authority

2002–04 Sponsor, East London Line Project, Strategic Rail Authority

2004–06 Programme management, Transport for London

2006–11 Head of programme management, transport, Olympic Delivery Authority

2011–13 Deputy director, transport, Olympic Delivery Authority

2013–14 Director of programme management, Grosvenor Britain and Ireland

2014–16 Director of rail, Europe, CH2M

2016 Managing director, infrastructure advisory group, KPMG

2019 Visiting professor, University College London

2019 President, APM

“I love really difficult, major, complex projects. I want to get stuck in,” says Sue Kershaw, managing director of KPMG’s infrastructure advisory group, laughing. It’s a good job, because it doesn’t get more difficult, major or complex than many of the UK’s large-scale infrastructure projects, several of which she leads on.

Kershaw is not your typical project manager. For a start, she says she hates process. What she loves is, “people and the intellectual thought that you bring to problems”. Kershaw doesn’t fit into the corporate stereotype. She speaks her mind (you get the impression she relishes rebelling against the expected norms) and has eschewed the corporate ladder to pursue a more interesting zigzag career. It’s evident she is an entrepreneurial, courageous and tenacious leader who follows her curiosity.

Maybe it comes from a globetrotting childhood that demanded she find her feet in unusual situations where she learnt to take

turmoil in her stride. As a seven-year-old, she was evacuated out of Nigeria on one of few BOAC flights during the Biafran War. She spent her formative years in the Himalayan foothills of troubled Tarbela in Pakistan – and she has sniffed out and won a place on some of the toughest projects in the UK.

The skills and experiences that have helped shape Kershaw’s career to date also marked her out as an obvious candidate to take on the role of APM president. Her key aim during her tenure as president is to celebrate the professionalism of APM’s members.

“[I want a Chartered Project Professional to be] something that is akin to a chartered engineer or chartered accountant. As we are growing tremendously fast and we are extremely broad – across 50 sectors in the UK – how do you get that same professionalism across each?” she asks rhetorically. ▶▶

THE BIG INTERVIEW

◀◀ Kershaw is also keen to introduce the concept of project assurance more widely across the profession (describing it as the reverse of audit), so that issues can be resolved in real time before they turn into problems. It's a concept she is exploring at University College London, where she is a visiting professor at The Bartlett, the university's faculty of the built environment. "Project assurance is preventative and it provides confidence in delivery. Every client wants that." Kershaw's big ambitions for the profession are unsurprising, and are matched only by her own: "I want to move onwards and upwards. Who wouldn't, really?"

Kershaw's verve shines against the background of a nondescript meeting room in Canary Wharf. It's a stone's throw from the London Underground station that she helped design and commission, and where she received one of her biggest project management lessons. It was a technical one, where the design of the walls included a key-like connection to the slab. "The forces coming up from this slab were tonnes per metre squared, and I just looked at that design and I thought I can't sign that off. It wouldn't last more than 20 years," she explains.

She sought out the advice of the ethics committee of the Institution of Civil Engineers, and the design was changed to replace them with traditional piles. "What I learnt was to stand by what you believe, even if it causes a lot of hassle and costs a lot of money," she reflects. She says she has still got a bit of the original design knocking about in her garage in Greenwich, where she lives. (You can't help but wonder what other leftover bits of project infrastructure you might find there.)

As for many who worked on it, the London 2012 Olympics was a career highlight for Kershaw. She is a civil engineer by training, with an innate love of city planning, a penchant for civic duty (it runs in the family – her three sisters are a teacher, a doctor and a vicar) and a desire to leave a tangible legacy for her two children. She was deputy director of transport for the Olympic Delivery Authority (ODA), with responsibility for all rail and road transport for the Games and the programme management of its wider portfolio.

She ascribes the Olympics' project management success to two things. The first was that "everyone who was there really wanted to be there, so there was that magic dust that you never get anywhere else". The second was that she was able to bring over her team from Transport for London, where she had been programme manager, and simply plug in her project management office and get going right away. "We started immediately, whereas the main ODA took 18 months to set up. You can tweak it later, but get the basics right, and get running, and you've got a huge advantage."

Getting traction on a programme early on is critical, believes Kershaw: "I find people like to wallow in indecision. They find it a very comfortable place, particularly in the public sector, because the environment is so politically charged and decision-making is incredibly hard."

The Olympics was a tough gig to follow. "I thought: how the heck can I beat this? It was a fantastic high," she explains. No need to worry. She was quickly headhunted for Grosvenor, the Duke of Westminster's property arm, where she started up its first project management office. It represented a big shift for her: from transport to property; from delivery to capability and transformation.

Another headhunting approach (they won't leave her alone) and she joined CH2M HILL (now Jacobs) as director of rail for Europe.



Sue Kershaw's humility and sense of humour shine through – important traits in the high-pressure world of major projects

It's clear Kershaw doesn't let the grass grow beneath her feet. She recoils at the idea of a linear career plan, mapped out at age 21. "I've never been one for staying in an organisation and going through the ranks; that would drive me mad," she says, laughing. "I love learning. If you are curious and inquisitive, then you want to get everywhere and anywhere."

She was tasked with melding the old British Halcrow consultancy with the American CH2M. It was a difficult marriage culturally, she explains, and brought out her appreciation for the British approach to project management. "In the States, project management started with putting men on the moon; it was all very process-y. Whereas [in the UK] we start from scratch, we do mind maps, we think about stakeholder management, about the vision, about what we want to achieve, the purpose – and then follow the structure of actually bringing it together."

At CH2M, she helped win the bid to become delivery partner for several large-scale infrastructure projects, including the new Tube line for London. Then she got another unexpected knock on the door from consultancy KPMG, asking her to build up its fledgling project and programme management business. "When the headhunter contacted me, I said, 'I don't put KPMG and project management in the same sentence,'" she says. That was three years ago. Now the department has a team of 24 and a pipeline of several million pounds. Her big achievement, and the catalyst for that

"I've never been one for staying in an organisation and going through the ranks; that would drive me mad"



“What I learnt was to stand by what you believe, even if it causes a lot of hassle and costs a lot of money”

success, was winning the role of project representative on various large infrastructure projects for the secretary of state. “We were then a known entity in the project and programme management world,” she says with obvious pride.

Being able to define and communicate a strong vision is key to being a successful project leader, believes Kershaw. “You need to know what you are here to do. You need the ‘why’ really sorted out in your head and then you need the leadership to deliver the ‘what’.” Conversely, she is also a good listener. “That’s a big thing that people say about me. In an engineering environment, leaders are usually big, bold and brash – they hit the table. I’m the reverse of that.”

She didn’t fall into the trap of trying to emulate the men at the top of her profession: “What you see is what you get. I could never be bothered to be someone else.” She’s also a clever pragmatist. Until a decade ago, she put her name down on her CV as ‘S. Kershaw’. “I didn’t want to give the game away before they had even seen me,” she explains.

She has experienced her fair share of sexual discrimination.


The most shocking instance was during her first job after university, working on the construction site of a power station. “The first week was fantastic. The second week, the agent came back, called me into his office and said: ‘Sue, do you know what? I hate women – I hate women engineers even more.’ I was 22.”

She is keen to debunk what she sees as the myth that women are always underpaid, reluctant to ask for a pay rise. “I’ve always been paid at least what my male counterparts have been. I have asked for pay rises – I have followed managers into lifts and not let them out until I get agreement. I’ve got this thing about justice and fairness – it’s innate,” she continues.

She says her father was a key influence on her (“He really respected his team over hierarchy,” she says) and she has inherited his wanderlust that led to him travelling the world, family in tow, as he followed his career constructing dams. Kershaw was born on the construction site of a hydroelectric scheme on the Waikato river in New Zealand. At the age of three she came to the UK before leaving again for Nigeria four years later, where her father worked on the Kainji Dam. Three years after that, her mother and the four children were evacuated during the Biafran War.

“BOAC was the only flight willing to come into the runway to get the women and children out. I remember it circled forever and almost ran out of fuel before it eventually landed.” Back in the UK, her mother took the children to Bognor Regis – it was January. “All we had was our little summer clothes on. I think my mother thought of where would be relatively cheap that time of year with four kids.” The family moved to Suffolk, then Kent, when she was asked if she wanted to stay in the UK and go to boarding school or move with her parents to Pakistan, where her father had been headhunted to work on the Tarbela Dam on the Indus river.

She went with them, moving to the foothills of the Himalayas and attending an American school, then on to Islamabad to an international school before returning to the UK to sit her A-levels at Dartford Grammar School, and then the University of Surrey to study civil engineering.

During a time of few female role models in business, her father was evidently a big influence on Kershaw. “He raised his daughters as four people, not four girls,” she says. She is mindful of her duty to help the women coming up behind her in the profession, and becoming APM’s president is key to doing this. “I wanted to have a different face for the profession; I wanted to influence its future,” she says. It’s certain that she will. 

WORKING BEYOND BORDERS

*Navigating cultural differences in a multinational project team can be tricky, especially if you're scattered around the globe. **Alexander Garrett** gives the dos and don'ts*



An international project used to mean jumping on a plane to a far-flung client and then spending the next couple of years as an expat telling the locals what to do. Today, it's more likely to be a collaborative enterprise that entails coordinating a multinational team spread around the globe via video meetings, messaging apps and an array of other technology platforms. And woe betide the individual who thinks they can simply

inflict the Anglo-Saxon way of doing things on Shanghai, Mumbai, Riyadh and Rio.

In a global world, working alongside people from a variety of nationalities, backgrounds and cultures has become the norm. But when those people are geographically dispersed – such that you may never even meet them in person – and you're only coming together for a short-lived project anyway, the odds can seem stacked against you.

AVOID CULTURAL GAFFES

Stories of when things go awry because of cultural faux pas are legion. Kevin Parry, an independent consultant at Cogenic Services, recounts how, years ago, he was running a team in Germany setting up a fixed and mobile business for BT and its joint-venture partners: “I turned up at the meeting with a blank sheet of paper and a few headings. My German colleagues were absolutely horrified – most were



doctors, certainly professional engineers. They were shocked to be called to a meeting where we were going to do some planning with no prior documents, whereas my expectation was that we were simply going to brainstorm.”

Parry compounded the cultural gaffe by pulling up a flipchart and asking for contributions that hadn’t been agreed by all; and then further by unilaterally taking off his jacket. Germany, it soon became

clear, had a much more formal approach to doing meetings.

Penny Pullan, author and director of Making Projects Work, offers another example. “Many organisations have contingents of people doing software development in India, and if you ask them in a meeting ‘Will it be done by Wednesday?’ there’s only one answer you will get – they’ll always say yes. That’s because in places like India, China, the

Middle East and South Asia, saving face is very important.

“You wouldn’t say anything that would make your boss look like an idiot, or even yourself. So they won’t say no – even if they can’t do it – because they don’t want you to look like an idiot, especially in front of a group.” The correct approach, she says, would have been to talk to the individual outside the meeting, using open questions to elicit a more realistic response. ►►

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DISPERSED TEAMS

Virtual working, with team members dispersed around the world, presents a series of challenges of its own, the most obvious of which is time difference. Finding times when everyone can talk together can be particularly difficult. Forming emotional bonds between team members, and avoiding miscommunication, are other well-rehearsed issues for virtual teams.

“Even when webcams are used, there are misunderstandings because you are not seeing the non-verbal gestures

Woe betide the individual who thinks they can simply inflict the Anglo-Saxon way of doing things on Shanghai, Mumbai, Riyadh and Rio

people make,” says Sean Dubberke, New York-based director of learning with training organisation RW3 CultureWizard. “And on electronic platforms, like email, chat or SMS, it’s common for people to misunderstand what has been said.”

Put the two things together – multiple cultures and virtual teamworking – and the challenges are augmented. Key areas include language, communication, relationship building and working styles.

UNCONSCIOUS EXPECTATIONS

The first essential step to crossing the cultural divide, says Parry, is awareness. “We all need to be aware of our own beliefs and values, which we take for granted. That’s especially the case for people who’ve only worked with other Brits.”

We have each stored up a slew of expectations – largely unconscious – about how meetings are run, how people are addressed, how decisions are made and every aspect of teamworking. The starting point in any project is to understand your own expectations and preferences, and those of the other team members.

Professor Eddie Fisher, a consultant and APM Fellow, says: “What is paramount is the attitude of the project manager. It needs to be someone who is open and has a positive attitude. Your attitude will drive behaviours throughout the project team, and that means showing respect to all people and what they stand for.”

He advises learning as much as you can about the cultures of those you’ll be working with. On a project for Vodafone in the Netherlands, he discovered that a top priority for his colleagues was having their evening meal with family. “So I said: we’ll finish at 5pm each day and if we need to do more we’ll restart after 7pm.”

On an assignment in Riyadh, the daily call to prayer and the annual Ramadan fast each presented a potential impact to the delivery schedule. “We had to plan accordingly, but that religious observance of the Saudi team members was an important part of their cultural values. If anyone else on the team moaned, I pointed out that the Saudis were working an hour and a half longer than them each day.”

TAKE THE LEAD

Fisher advocates having one-to-one meetings with each member of the core team at the outset of a project, ideally in person, but if that’s not possible, then via Skype or a similar platform. “I will find out where they are coming from, what is important to them; their personality, strengths and weaknesses, and values.”

National characteristics help with understanding the cultural background of team members, but stereotypes don’t apply to all – and individuals who have worked on global projects previously may be more influenced by the culture of their organisation.

It’s down to the project manager to lead in deciding how the team will communicate, and to make important calls on aspects of working such as hierarchies and decision-making itself, as well as ensuring that everyone participates and is committed to the project. Where different team members have conflicting expectations, that can mean brokering a compromise.

Parry cites a Hong Kong-based project he worked on for Cathay Pacific, with team members from up to 14 countries at any time, encompassing Commonwealth, Asian and North American countries. Some, notably Australians and Americans, were more outspoken and tended to dominate; others, such as the Thais and Vietnamese, were more hierarchical in their outlook and less inclined to speak. “In that situation you have to create a team culture and, in a sense, take each person out of their comfort zone, but not totally out of character,” he says. “For example, you ask the Australian to hold back a bit, and you need to ask the Chinese guy to speak first.”



“Non-native English speakers actually find it a lot easier to talk to each other than when there’s a native speaker there”

Spelling out to everybody how you are going to do things, and making sure they understand, is vital. When you’re holding a meeting, make the timing and participation crystal clear, then track all the comments, document what has been agreed, share it and check it with all the participants. “The communications need to be much more explicit,” says Parry.

According to Dubberke, that extends to ensuring that people are talking to each other in the first place. “Being



High five: top tips for managing a cross-cultural team

- 1 TREAT EVERYONE THE SAME – DON'T HAVE FAVOURITES.** To be really successful as a project manager on a cross-cultural team, you have to think about how you view people from different cultures and confront your own prejudices, says Eddie Fisher. Failure to do so will lead to mistrust and unwillingness to fully participate.
- 2 USE EMOJIS.** All forms of electronic communication risk being misinterpreted because we can't see the other person's body language. Encouraging the use of emojis can help, says RW3 CultureWizard's Sean Dubberke. "It clarifies whether you are being serious, sarcastic or making a joke."
- 3 CHECK FOR ENGAGEMENT.** "Every 10–15 minutes in a meeting, I stop and do a quick call-out of each individual by name and ask them for their comments," says Penny Pullan. To ensure everyone's on the same page, at the end of the meeting ask team members to repeat back what you've discussed.
- 4 VARY MEETING TIMES.** If it's the same members of the team who always have to call in late at night or early in the morning, it becomes an unequal burden. Organising calls or meetings at different times – where that is possible – makes it fairer and shares the inconvenience.
- 5 CREATE A SHARED EXPERIENCE.** "I once tried delivering the same pizza at the same time to all the participants on a video call around the world," says Pullan. "It wasn't so great for those having breakfast, and I found distributing M&Ms in the project colours works better. It gives you something to talk about other than the work."

proactive is key. There's a need almost to over-communicate, because the water-cooler conversations don't just happen organically; they require some scheduling.

"So, whether it's showing your availability by having that green light next to your name on a chat platform, or having a meeting every Monday morning, even if it's just a few minutes to say hello – having that structure in place to connect on a more regular basis is paramount."

HANG OUT TOGETHER

One of the problems with virtual teams is that it's hard for members to build a relationship that goes beyond the transactional if their interactions are all work-focused. If you can't go out for dinner with each other, you need to find other ways to forge an emotional connection. Informal chat platforms

like Google Hangouts or Slack can help to foster "virtual closeness" by emulating the real-life conversations that take place when people are physically co-located, says Dubberke.

When team meetings are held, language is a frequent stumbling block, even when all the participants are used to speaking English.

"Non-native English speakers actually find it a lot easier to talk to each other than when there's a native speaker there," says Pullan. "I was surprised when I first heard that. There's a subset of international English they use, which is very easy to understand, but tends to be a bit more formal than the way we would speak. And it's because we speak in metaphor. I introduced someone I'd invited to talk to my followers as a 'leading light', which is a nautical term. While people are

thinking about what that means, they'll miss the rest of what is being said."

There are many organisations where cross-cultural virtual teams are a vital part of their core business, and lessons can be learned over time. For those managing a short-term project especially, it could be tempting to cut corners and get straight to the nitty-gritty. But the simple lesson is that if you want your project to be successful, you need to invest the time and effort that's necessary to cross cultural and geographic borders.

Only when you understand your team members as individuals, create the structure to facilitate communication and decision-making, and build a genuine sense of team spirit will you be ready to surmount the challenges ahead. 📌

ALEXANDER GARRETT is a freelance business journalist

Special report CLIMATE EMERGENCY

Everyone has a stake in the climate crisis. For project managers, especially those working on long-term projects, what we choose to work on, how we work and what we do each day must consciously cultivate a sustainability mindset, writes Richard Young

In 2016, APM posed a tricky question: “How can a time-bound activity such as a project – which is by definition ‘temporary’ and ‘unique’ – be reconciled with sustainability objectives which are typically set in an unspecified but remote future?” Three years later, sustainability is top of national and global agendas, but this question remains difficult to answer.

One challenge is that sustainability is not just about a project’s CO₂ emissions or landfill waste. Researchers at Utrecht’s University of Applied Sciences have defined sustainable project management as “project-organised change in policies, assets or organisations, with consideration of the economic, social and environmental impact of the project, its result and its effect, for now and future generations”.

Another challenge for project managers is that they are generally employees or contractors. “They’re required to take a client brief and execute it to the best of their ability, but it’s often not clear what that employer or client expects in terms of sustainability,” says Tom Taylor, former APM president and visiting professor at the University of Salford. “Is it specifically mentioned in the brief? Is it framed as a cost-in-use? Are they asking for metrics around carbon footprint? What about the implications of decommissioning? Getting those factors into briefs would be a major step forward.”

STRATEGY ISN’T ENOUGH

This need to be more strategic and more practical about sustainability is reflected in some of the proprietary methodologies

designed to help. The GPM Global network, for example, established its Projects Integrating Sustainable Methods (PRISM) approach nearly a decade ago to help projects align to the UN’s Sustainable Development Goals.

“Our approach is called P5. It’s a matrix that project managers can use to make that kind of wider assessment,” says Antony della Porta, executive adviser to the network in the UK and founder of the Sustainable PM initiative. “To people, planet and profit [the traditional ‘triple bottom line’], we add programmes and projects – making a specific link between what we do as project managers and those outcomes. It covers environmental and





“Project managers should constantly think about sustainable approaches to execution”

social elements, as well as profitability, economics and capital deployment, all of which are necessary if you're going to be truly sustainable.”

It's about treating projects more holistically to get a complete picture of their environmental and social impact. “Project managers need to think of themselves as people who do more than just cope with the post-sanctioned stages of a project,” says Rob Leslie-Carter, a director at Arup and a former APM Project Manager of the Year. “We should be acting as advisers to clients at a strategic level, influencing the purpose of the project and the deliverables – all with an eye to sustainability.”

LIVING THE BREEAM

At the top level, then, project managers can seek out projects that will contribute to meaningful change, and help define projects by their sustainability if they're in at the very start. “Some clients are already pushing more aggressive stipulations on environmental standards – beyond, for example, the BREEAM [Building Research Establishment Environmental Assessment Method] benchmarks,” says Taylor.

Industry-wide criteria such as BREEAM make it easier to nudge clients if they're not already thinking about sustainability. Simply considering the checklist forces stakeholders to make conscious decisions about sustainability, but it must be part of the design stage. “It's much harder to retrofit that kind of thinking once a project kicks off,” Taylor adds.

So, how we manage projects is almost as important as what we manage. A wind farm clearly contributes to a sustainable world, but if the project manager ▶▶

Frame, plan, adapt, measure



Ramboll's Bruce Wulff is working with the British Antarctic Survey (BAS) to upgrade its facilities. Given that BAS is a research-driven organisation and is committed to environmental stewardship, sustainability is a key priority.

“There are more than 60 separate task orders within the programme, so, to ensure a consistent approach to sustainability, a programme-wide steering group was established,” Wulff says. “It includes the client and

all stakeholder groups, and sets an overall strategy. It means we can build a sustainability management plan [SMP] for each project, based on the relevant parts of the UN's Sustainable Development Goals.”

Some project measures are obvious: upgraded buildings are designed around careful analysis of usage patterns and suitability of on-site renewable energy technology, for example. But, even in the Antarctic, looking at local sourcing is a key sustainability win.

“We are building a new wharf capable of berthing the new, larger research vessel, the *Sir David Attenborough*,” says Wulff. “We needed massive rock-fill, but rather than ship it in, we opened

up a small borrow-pit nearby. That not only slashed the carbon footprint for transport, it also minimised the risk of introducing invasive species.”

But Wulff stresses this in-the-field sustainability decision-making is empowered by a clear SMP, which must be bedded in from the start. It helps, he adds, to have a collegiate client in BAS, which endorsed a partnership approach right through each project's supply chain.

That's typified by the programme's sustainability metrics, some of which are captured in KPIs for each project. At quarterly updates with the client and construction partners, these form a key part of the discussion.

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uses helicopters to survey the site or just mindlessly prints out paperwork, that's a problem. "You can't just put your sustainability protocols up on a website and assume the work is done," says della Porta. "If day-to-day decisions aren't being shaped by their impact on those criteria, it's just lip service."

BAKING IN SUSTAINABILITY

"Project managers should constantly think about sustainable approaches to execution – on procurement, for example, using local suppliers or recycled materials," says Leslie-Carter. "Then performance targets and reporting are a factor. Baking in sustainability requirements to project KPIs will help hugely when client resourcing inevitably shifts later in the project. The project management team can be policing those areas, asking the questions about whether the methods of delivering the project are still securing, say, the planned whole-life costs."

He also suggests using smarter project management technology, which can help both at the strategic planning level and when making sure sustainability KPIs are visible in dashboards, reports and team communications.

Individual project managers can make a difference. "Project management is, by definition, a process of change," della Porta says. "Every time we change anything, we have an opportunity to look at what that means to the triple bottom line elements – and not just apply the traditional iron triangle, which can lead to us running projects for their own sake." Every project is an inflection point and the project managers guiding it have an opportunity to set a part of the world on a new, more sustainable course.

Formal professional responses are also coalescing. "We're seeing more bodies align around the climate emergency," says Leslie-Carter. "The Royal Institute of British Architects formally agreed to join the global declaration of a climate emergency in June, and there is a host of 'engineers declare' sites." Project managers are getting in on the act, too. In November, Leslie-Carter confirmed that #projectmanagersdeclare will soon be launching. "We hope that every organisation managing projects or teaching project managers will join us in making this commitment," he says.

The *APM Body of Knowledge 7th edition* supports this, spelling out that project managers have a responsibility to ensure that their work minimises environmental damage or positively affects ongoing sustainability. Like Taylor, Leslie-Carter thinks the profession can go further. "There has to be a commitment – upskilling and supporting project managers, developing a code of practice for sustainability, looking at how project managers can influence the wider adoption of more sustainable ways of life."

A CRITICAL QUESTION

If projects are designed around long-term planning and we're considering whole-life costs from inception, additional costs can be justified. Slower replacement rates, reduced maintenance and lower environmental costs should all be part of the decision-making process ahead of both the scoping of a project and the tools and techniques used to deliver it.

The conscious and practical application of these core tenets of sustainability is now a critical question for every project manager. 🗣️

Projecting the Future: Climate change, clean growth and sustainability

This is the second in a series of short papers by APM on the challenges shaping the profession's future. The questions it poses are critical to the evolving professional response to sustainability. How would you respond to some of these?

- How do you expect climate change to affect the profession over the next 10 years?
- How might sustainability get more consideration in the way that projects are defined, designed, developed and delivered?
- How can project professionals influence project sponsors, end users and project professionals to move sustainability up the agenda?

Share your views on LinkedIn, Facebook and Twitter, or by emailing ptf@apm.org.uk. APM is particularly keen to hear about case studies of projects that put sustainable ideas into practice.

- Download the latest *Projecting the Future* report at bit.ly/2X57xAT



A mission-oriented approach to sustainability projects



Professor Mariana Mazzucato, an economist and director at University College London's Institute for Innovation and Public Purpose, proposes a radical "mission-oriented approach" to sustainability projects. She is a co-ordinator, with economist Carlota Perez, of a 'Green New Deal'.

This would involve "greening the entire economy", transforming the renewable energy industry and every single aspect of manufacturing. Tax incentives and disincentives would be required to tackle high polluters

and to encourage innovation in areas like waste and durability, as Mazzucato explained to *Wired* earlier this year.

In a 2018 paper on the Green New Deal, Mazzucato and Martha McPherson, head of green economy and sustainable growth at University College London, argued that: "To battle climate change, we can transform today's fears of uncertain outcomes into a mission to be accomplished, as bold and inspirational as the 1969 moonshot. This will require visionary leadership, patient strategic finance, a grassroots movement and bottom-up innovation. It must be economy wide, and occur at

all levels: local, regional, national and international, federal and city level. Only by having a wide stakeholder governance of green transitions can we enable growth that is both sustainable and inclusive."

For project managers, turning sustainability into a mission to be accomplished, rather than a challenge to be feared, in a project could pivot a team towards a positive goal and embed a sustainability mindset, similar to how health and safety has become embedded.

To read more about Mazzucato's ideas, visit bit.ly/32AsoNu and bit.ly/2q9BovV

THE SHOW MUST GO ON

*Stage One's project managers help to pull off some of the world's most spectacular events with their incredible installations, reports **Andrew Saunders**, who enjoys an exclusive behind-the-scenes tour*

A series of cavernous aircraft hangars on a former RAF base a few miles west of York might seem an unlikely location for a business at the cutting edge of project management. But it is home to Stage One, an events specialist with expertise in creating extraordinary structures to meet challenging client briefs and impossibly short timescales.

Within the hangar's impressive span, many wonders have taken flight. Everything from the experimental architecture of the Serpentine Pavilions to the set for blockbuster ITV reality show *The Voice*, from a 20m-high golden statue of local hero Oguz Han for the 2017 Asian Indoor and Martial Arts Games in Turkmenistan to a giant can of Irn-Bru and some outsized Tunnock's Teacakes for the 2014 Commonwealth Games in Glasgow. A pretty eclectic portfolio by any standards.

The events sector is brimming with project managers. According to APM's

2019 *Golden Thread* report, project managers in the arts, entertainment and recreation sectors contribute £25.8bn to the UK economy – and Stage One is in the international vanguard.

The name of the game here is not the usual process of getting progressively more expert at providing a limited number of defined products or services – rather the opposite. The Stage One team are creative makers in an organisation where every job is unique, with all the challenges and rewards that accompany the custom-builder's art. Yet this creativity also needs to be structured to bring projects in on time and within budget.

JEOPARDY, MADNESS AND AN INNOVATION MINDSET

"There is a lot of jeopardy in the process," admits managing director Tim Leigh, "but there are two good things about delivering bespoke projects. The first is that there are very few other companies brave enough to

compete with you – we do get a lot of madness coming our way. The second is that it drives an innovation mindset. We're an innovation business because every client comes with something new that hasn't been done before."

Crucially, that creativity is balanced by an understanding of what it's possible to make, he adds. Starting with what is often nothing more than a few sketches or some partially dimensioned initial drawings, Stage One's 150-strong team are specialists in producing finished objects or installations that remain faithful to the designer's creative concept while also being practical and safe, relying on tried-and-tested project management techniques to deliver these one-off projects.

"The designers we work with can care more about the aesthetic than how heavy something is going to be or whether it will stand up. These are less sexy considerations, but still super important in delivering a project," says Leigh.





Stage One's creations have included (from left) bee's-eye view installation The Hive and incredible structures for the Sochi Winter Games and Asian Indoor and Martial Arts Games



It's a collaborative process, and he cites *The Hive* – now at Kew Gardens, but originally created for the Milan Expo 2015 – as an example of what can be achieved when all the partners work harmoniously together. Composed of 32 spiralling layers of hexagonal cells, *The Hive* provides visitors with an immersive 'bee's-eye view' of life. The idea arrived

at Stage One as a rough sketch with only a few months to go. All 169,300 parts – each with a unique label specifying its precise location in the structure – were manufactured in the company's workshops.

"*The Hive* involved working with an artist who had come up with the concept, with a very talented structural

engineer, with scientists who attached accelerometers to beehives – it was complex, multidisciplinary and award-winning," says Leigh.

ON TIME, EVERY TIME

And, like most of the firm's jobs, it also required working to unmissable fixed deadlines. If you've been commissioned to provide the centrepiece for the opening ceremony of the Special Olympics in Abu Dhabi or, Stage One's next big annual shindig, a series of experiential installations for Android at the giant Mobile World Congress (MWC) show in Barcelona in February, you can't ask for an extension because something isn't quite ready yet.

"The show must go on," says project director Sam Phillips. "We can't be late or over budget – we make a promise to deliver and we always do, no matter what it takes." This makes Stage One a highly focused environment, which relies heavily on project management. "Good project ►►

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Stage One's 150-strong team include traditional craftspeople such as carpenters and metalworkers, as well as specialists in computer-aided design and, of course, project managers

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management is absolutely crucial; it's the glue that binds everything together here – production, manufacturing and on-site.”

The MWC project for Android is a case in point. “It's the biggest mobile technology trade show in the world. We have a plot 200m long by 6m wide, and we build a series of structures and experiences on it. There are lots of elements and it has to be delivered in a very short space of time. We have three days to put the whole thing in, and 150 or so working round the clock.”

So, careful planning and preparation – everything is test-assembled at Stage One – must be married to the practical heavy lifting of making sure it all works in situ. This requires a blend of pragmatism, commitment and organisation, says Phillips. “Our project managers are hands-on – they don't sit behind a desk. They have to be passionate and committed to delivery, and they have to be flexible and able to solve problems on the fly.”

DIVERSE TEAM THINKING

Consequently, the members of Phillips' team of eight full-time project managers

typically don't come from a traditional project background. “We have a range of skills here – from people who have started at the ground level loading trailers, so their understanding of the business is brilliant, to ex-military project managers with outstanding organisational skills.”

Senior project manager Dan Kelly is one individual who made the grade. He has worked on projects for clients including Jaguar Land Rover and the Royal Opera House. “I'm not an engineer or a designer. But I can say, ‘Look, this isn't working, let's try and approach it from a different direction.’ It's brilliant when you get those ideas, you think, ‘Yes, that might work’, and it does. That's the best part of the job.”

He describes how each project begins with the creation of a master document that becomes ‘the bible’ for every job. It contains everything they know, or can infer, about a project – from dimensions, materials and functionality down to the precise details of colour and the finish required. A piece that is going to be viewed up close, perhaps even touched, by the

“Project management is absolutely crucial; it's the glue that binds everything together here – production, manufacturing and on-site”

audience will have to be finished to a much higher standard than, say, a stage set where the audience will always be at a distance.

“From the original brief we create a specification document – which often includes a lot of things we have had to come up with on the fly – and we take it to our computer-aided production department so we can start to make it. We also have to build in any special requirements at this stage, such as ‘It's all got to fit inside shipping containers’ and ‘We have to be able to put it up on-site in two hours,’” says Kelly.

It then becomes a matter of working with the customer on a more finalised design, while simultaneously starting the initial construction phase – an iterative design process that has to be carefully managed to meet the client's requirements within the time and budget available. “In an ideal world, you'd complete your design first and then focus on producing it, but because of the lead times we don't have that luxury. The design process keeps rolling while you are already working on making some elements of the job.

“It's all about managing expectations, knowing when you can have a chat and maybe pull the design in a bit. You have to manage the client, and manage the team here, in order to deliver the best result.”

If something has to give to meet a deadline, says Leigh, it's usually the specification. Timescale is sacrosanct, even more so than budget. “Sometimes that costs us money – and we only have a business if we can do this profitably. But if we deliver an opening ceremony two days late, we don't make any money at all.”

FROM CARPENTRY TO CONTROL

Kelly and his fellow project managers can call on the services of a very wide range of highly skilled specialists. Working under the hangars' lofty roofs are not only traditional craftspeople like carpenters and metalworkers, but also experts in computer-aided design and production, the latest tube- and sheet-cutting machinery and a fleet of 3D printers that includes one of the largest models in Europe. ▶▶

APM BODY OF KNOWLEDGE

7th edition

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Another nearby building houses Stage One's automation and control team, responsible for the technology behind standout pieces such as the five giant animated snowflakes that morphed into the Olympic Rings for the opening ceremony of the Sochi 2014 Winter Games.

In order to monitor resources against budgets and timelines while managing the inevitably fluid design process, Stage One has also developed its own planning system based on FileMaker software. Maintaining it keeps two full-time in-house developers busy and, like the projects themselves, says Phillips, it's completely bespoke. "All our past projects, hours logged, procurement, our contact lists – it's all there in lots of databases. It's a complex system that underpins everything we do here."

It also aids the tricky business of costing up a new job – but, even so, making a consistent financial return is an ongoing challenge. "I'd love to say we always make a healthy margin, but some jobs are great and others not so great. On the whole, we get it right, though," Phillips adds.

One hangar where the magic happens




"There are times when you are really pushed to the limit, but you get a dopamine hit when you solve a really complex problem – it's addictive"

STATUE BOTOX IN TURKMENISTAN

The business started out designing and building sets for theatre and TV, but these days is increasingly winning business from the organisers of games, expos and live events. Countries in Asia and the Middle East are among its most valuable customers, says Leigh. "They are trying to establish themselves as destinations for art, technology and architecture. They have got deep pockets and are more open to doing things at scale."

The ultimate test of a project manager's resourcefulness, he says, is getting a job up and running on-site, especially when that site is thousands of miles away. Any number of problems can and do arise. Take the aforementioned giant statue of Oguz Han. Once erected in the blistering heat of Ashgabat, Turkmenistan, underneath its gold-lacquer finish the polystyrene core of the structure began to melt. Only timely intervention in the shape of polymer injections saved the day. Or, as Leigh puts it, "We had to give it a Botox treatment."

It's the kind of near-disaster that tests the mettle of the steeliest project manager, but the rewards are worth it, concludes Phillips. "There are times when you are really pushed to the limit, but you get a dopamine hit when you solve a really complex problem – it's addictive. We are delivering incredible, jaw-dropping projects and everyone enjoys the challenge. From a technical and aesthetic standpoint, there is nowhere like Stage One. You are part of something unique." 

ANDREW SAUNDERS is a freelance business journalist

Stage One's standout projects



SERPENTINE PAVILIONS

An annual commission by London's Serpentine Galleries intended to showcase the best and boldest of avant-garde design and architecture, the Serpentine Pavilions are an established highlight of the global architectural calendar. Stage One has been responsible for delivering every pavilion since 2009. This year's example by star Japanese architect Junya Ishigami called for a 'barely there' steel structure to hold up a 61-tonne wave-shaped slate roof, requiring Stage One to design and fabricate 106 slender but super-strong cruciform roof brackets, each with its own unique geometry.



SINGAPORE BICENTENNIAL EXPERIENCE

This was Stage One's third major project in Singapore after working on both the National Day Parade in 2016 and the 2015 Southeast Asian Games. For the 2019 Bicentennial Experience – a hit international festival now extended until the end of the year – Stage One worked closely with the prime minister's office to create two key elements. First was a travelator on which live actors performed against a video backdrop as if walking through history. Second was a set of huge rotating doors on which video was projected. The installation was tested in the workshop before being shipped the 6,700 miles to Singapore.



2012 LONDON OLYMPIC CAULDRON

Thomas Heatherwick's iconic design for the cauldron – wellspring of the 2012 Olympic and Paralympic flame – called for a total of 204 distinctive copper petals. Each was fashioned by hand from copper sheet on wooden formers made on Stage One's high-tech 5-axis CNC machinery. Arranged into a flowerhead that also had to open and close, the project was codenamed Betty and delivered in almost total secrecy. It worked perfectly, showcasing Stage One's combination of traditional craft skills coupled with the latest digital manufacturing techniques to a global audience of nearly one billion viewers.



Solutions to common project problems

Regular reports and studies from a variety of sources highlight the common causes of projects failing to deliver the intended outcomes and benefits. A number of these issues feature with alarming regularity.

APMG has been providing professional certifications for project, programme and change management professionals for over 25 years, supporting professional development and helping to maximise the return on investment from change initiatives.

PROBLEM

Poor planning and monitoring with a failure to effectively monitor project progress (or lack of).

SOLUTION



www.apmg-international.com/ppc

PROBLEM

Business cases and spending proposals that fail to accurately scope projects and intended benefits.

SOLUTION



www.apmg-international.com/bbc

PROBLEM

Disengaged and/or badly managed stakeholders.

SOLUTION



[www.apmg-international.com/
StakeholderEngagement](http://www.apmg-international.com/StakeholderEngagement)

PROBLEM

A loss/lack of focus on the benefits and deliverables of projects.

SOLUTION



[www.apmg-international.com/
ManagingBenefits](http://www.apmg-international.com/ManagingBenefits)



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PEER TO PEER

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HOW TO CREATE A HIGH-PERFORMING TEAM

Four top tips on coaching your project colleagues to excel, time after time

Why do some teams consistently deliver a high level of performance while other seemingly identical teams struggle? This was the subject of research led by Sandy Pentland at Massachusetts

Institute of Technology's Human Dynamics Laboratory in 2012.

The study of 2,500 individual team members taken from a broad variety of projects and industries found that the most important predictor of a team's success was its communication patterns. These patterns were as significant as all other factors – intelligence, personality and talent – combined.

The study found that successful teams shared some defining characteristics:

- Everyone on the team talked and listened in roughly equal measure, keeping contributions short and sweet.
- Members faced one another and their conversations were energetic.
- Members connected directly with one another, not just with the team leader.
- Members carried on back-channel or side conversations within the team.
- Members periodically went exploring outside the team and brought information back.



1 ENERGY, ENGAGEMENT AND EXPLORATION

The researchers also identified three key communication dynamics that affect team performance: energy, engagement and exploration.

Energy is measured by the number and the nature of exchanges among team members. The most valuable form of communication is face-to-face. The next most valuable is phone or videoconference, but with a caveat: those technologies become less effective as more people participate in the call or conference. The least valuable forms of communication are email and texting.

Engagement reflects the distribution of energy among team members. If all members of a team have a relatively equal number of exchanges with all other members, engagement is extremely strong. Teams in which clusters of members engage in high-energy communication, while other members do not participate, don't perform as well.

Exploration involves communication that members engage in outside their team. Essentially, exploration is the energy between a team and the other teams it interacts with. Higher-performing teams seek more outside connections. Exploration is most important for creative teams responsible for innovation, as they need fresh perspectives.

The data showed that exploration and engagement don't easily coexist, as they require the energy of team members to be put to two different uses. Energy is a finite resource. The more energy people devote to their own team (engagement), the less they have available to use outside their team (exploration), and vice versa. But they must do both.

Successful teams, especially creative ones, alternate between exploration for discovery and engagement for integration of the ideas gathered from outside sources. The most effective work is done by teams that are high in energy and engagement, but as soon as either energy or engagement drops, so does performance. For the best performance, team leaders need to keep energy and engagement in balance as they work to strengthen them.

2 LET EVERYONE HAVE THEIR SAY

Studies carried out by Google into high-performing teams show that the most noticeable characteristic is that all team members communicate and contribute evenly. Yet in workplaces, it is not unusual in a team of seven for four of those team members to do most of the work and most of the communication. But that will never create a high-performing team. For high performance to occur, all seven team members must be equally active, not only communicating with the team leader, but also communicating with each other.

It turns out that equal communication and contribution happens when team members feel safe enough to contribute. In teams where a few members are allowed to dominate discussions or where the team leader – or other team members – are too controlling or judging, many members withhold their views and ideas out of fear of being dismissed.

On a time-sensitive project, it can be tempting to rush a conversation or a decision, ignoring the quieter team members, but research shows the importance of slowing down and taking the counsel of all team members. If only four of the team's seven members are contributing, you must spend time activating the remaining three people.

How can you do that? By slowing down and explicitly inviting the more reserved team members to share their views. You will have to use your emotional intelligence and be sensitive to each team member. Ask questions, listen, empathise and make people feel that they belong in the group.

3 MAKE YOUR TEAM FEEL PSYCHOLOGICALLY SAFE

This means that you have to take on the role of democratic facilitator and coach so that you can moderate your team's discussions and make members feel safe enough to come forward and share what is on their mind. When you do that, you begin to create what psychologists refer to as 'psychological safety' – a sense of confidence that the team will not embarrass, reject or punish someone for speaking up or for sharing something sensitive.

When psychological safety is present, people feel free to share what's on their

The most effective work is done by teams that are high in energy and engagement



Is your team fully engaged?

- Are people trying to contribute and being ignored or cut off – either by you or by other team members?
- Do they communicate only with one or a few other team members, maybe because the group consists of cliques?

mind, whether it's a bright new idea or a tough personal challenge. They are able to talk about what is messy and have difficult conversations with colleagues who have different opinions. This practice leads teams to success and higher performance through greater role clarity, peer accountability and commitment to the team's shared vision.

Leaders need to show their vulnerable side to build trust with team members. They can do that by acknowledging their mistakes, weaknesses and failures, and by asking for help. Openly acknowledging a time in the past when you made a wrong decision or failed at implementing a



● Do you do most of the talking at meetings without giving others enough space to participate?

● Are you able to show vulnerability and signal to others that it's OK to fail?

To get to the root cause of the team's behaviour, ask yourself: Why is

someone holding back? Why are they being interrupted? Why are they not collaborating?

Finally, look at what you can do to create psychological safety for team members and raise the energy and engagement levels.

project will signal to the team that it is OK to fail. You can also show vulnerability by recognising the strengths of others, even when those strengths exceed your own.

4 COACH YOUR TEAM TO HIGH PERFORMANCE

A coaching leadership style can help you to create a high-performing team. More than any other style, it can be used to both challenge and support your team. Some project managers, especially those with a technical background, are experts in their field and give advice more than they coach. When we give advice, we go into problem-solving mode and come up

GETTY

with instructions and ideas. It makes us feel great to pass on our knowledge and to help someone make progress with a task. But when we give advice, we don't encourage people to grow and to find their own answers.

When we coach a team member, we empower them to take ownership for the task they want to complete or for the problem they want to solve. How do we do that? By asking, rather than telling. By patiently listening to the person's account, rather than assuming we know what is on their mind. The real power of coaching is that it allows us to be equally supportive and challenging of

our team members, which is one of the best ingredients for helping people excel.

We all need the support of our managers, but we also need them to challenge us to deliver our best work. When you coach, you essentially help the team member understand the nature of the problem they are trying to solve, the options for solving it and what action they can take to overcome it.

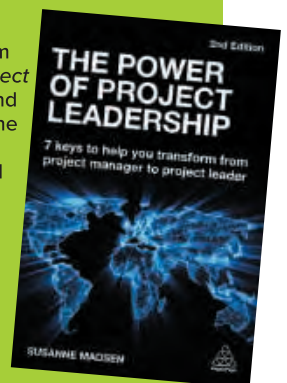
To help a team member gain insight, it is important to resist giving advice and instead to ask open questions, such as: What do you feel is wrong? What have you already tried? What steps can we take to change this? Which option would be fastest/easiest? What will you do right now?

To give an example, a team member complains to you about the client, who hasn't delivered the requirements they promised. Instead of automatically agreeing with the team member and providing a solution, ask questions. What was the agreement with the client? What communication has there been between you? What's going on for the client at the moment? How could we resolve this in the best way?

Can you see how this approach is helping you empower the team member to take responsibility for their own solutions? The key to a good coaching conversation is to be fully present with the person in front of you and to ask quality questions.

The best way to become a project leader who coaches is to practise as often as you can. Coaching isn't an approach that should be used just for the big conversations. It is a leadership style that can be used even in short interactions with team members. Try it for a week and see what happens: give people your full attention, listen, ask open questions and resist the temptation to simply tell them what to do. 🎧

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PROJECT



Good governance is key to establishing a successful project. A new APM report that contributes to the government's Project X activity focuses on the governance of large public-sector projects – and gives project professionals new guidance on how to do it better

A project needs to be governed from concept all the way through to delivery – or the point at which it is terminated. So, governance should be seen as a continual process throughout the life of a project. However, there are different types of project, different elements within a project and different phases of a project. All of these should have an influence on how governance is enacted in practice. We will introduce our view on the different types of project, and the elements and phases of them. These views are not the conventional way most projects are seen, but they are helpful for the purposes of categorising our guidance.

FIXED-GOAL VERSUS MOVING-GOAL PROJECTS

Within government, major projects are often categorised into four distinct types. These are: infrastructure projects, digital projects, transformational projects and MOD projects. Although this categorisation creates a set of useful descriptors, here we wish to create a categorisation that is more useful from a systems perspective. In its simplest form, we wish to distinguish between fixed-goal projects and moving-goal projects.

In the first type, the goal of the project is understood and not expected to change significantly over the course of the project. An example of this could be a piece of infrastructure, such as building a bridge with the purpose of improving traffic flow. In the second type, the goal of the project may not be fully understood

and/or is expected to emerge or change over the life of the project. For these projects, it may only be possible to state the ultimate goal in general terms at the outset, and the expectation is that things will change. An example of this could be a transformational new computer system that changes the way work is delivered and users interact.

We make this distinction because the way we plan, manage and deliver these two basic project types is different. Consequently, the governance and assurance should be different too. It isn't always easy to determine whether a fixed-goal project is really fixed, as often the devil is in the detail. Further, changes in stakeholder perception or political position may complicate what looks (at least at the outset) to be a straightforward project.

ELEMENTS OF A PROJECT

Conceptually, we are proposing that a project should be divided into three elements: project delivery, project implementation and project results (outcomes and benefits).

Project delivery is focused on delivering the outputs of the project. These could be a piece of infrastructure, a software application or a piece of military equipment. They are the tangible

things that the project team will create and deliver.

Project implementation is all about how the project changes what people are doing or how they do it. This will involve people using the new infrastructure, application or equipment efficiently and effectively to deliver products and services; and/or how people (including wider society) change the way they behave. Project results refers to the outcomes and benefits achieved. Here, we use the word 'outcomes' to refer to all the changes that occur as a result of a project (including both the positive and the negative), while 'benefits' are the financial benefits less the cost of delivering them.

It isn't always easy to determine whether a fixed-goal project is really fixed, as often the devil is in the detail

PROJECT PHASES

Projects can be considered in phases. The 'initial phase' lasts from the concept or idea to approval. The 'delivery phase' lasts from business-case approval to the handover to those taking forward the operation following the completion of the project. The final 'operate phase' technically happens after the completion of the project. In reality, there is a considerable blurring between the different phases, and many projects end up being far messier than this. ▶▶

Outline structure of recommendations			
TYPE OF PROJECT	INITIAL PHASE	DELIVERY PHASE	OPERATE PHASE
Fixed goal	Focus on detailed planning, risks, uncertainties and clarity of end goals	Focus on the balance between project delivery, implementation and results	Evaluate the project in terms of both efficiency of delivery and effectiveness in achieving outcomes and benefits
Moving goal	Focus on the broader business plan, uncertainties, unknowns, possible project journeys (including indicators of unacceptable risk creep) and desired end-state goal	Focus on the evolution of project delivery, implementation and results Ensure that the current aim point and risks are reviewed regularly and tested against the unacceptable risks developed in the initial phase	Evaluate the project in terms of effectiveness in achieving outcomes and benefits



PHASE ONE

CONCEPT TO BUSINESS-CASE APPROVAL

This critical phase of the project covers feasibility, initial appraisal, selection of approach and definition of timescales, costs and benefits:

- The concept should initially be judged on how well it aligns with government and departmental policy.
- Feasibility should look at whether the project is deliverable and outline timescales, costs and benefits.
- Initial appraisal involves refining timescales, costs and benefits, identifying alternative delivery approaches and assessing risks.
- Selection is further refinement, including identifying the preferred delivery approach.
- Definition is creating the business case for approval with the most appropriate level of detailed planning for judgements to be made on the likely success of the project and whether to proceed or not.

The governance questions that should be asked are as follows:

- Are the appropriate leadership and oversight practices in place?
- How good a fit are the proposed project approach and outcomes with government and departmental policy?
- Has the feasibility study been done to an appropriate level of detail, informed by individuals with the requisite expertise?
- Has soft analysis been undertaken and informed by individuals with the requisite expertise?
- Has a determination been made on whether this project should be classified as fixed or moving, and was the determination informed by individuals with the requisite expertise?
- Has the identification of risks been done satisfactorily, and has this work been informed by individuals with the appropriate expertise?
- Have the alternative delivery approaches been suitably identified and evaluated, and has this work been informed by individuals with the appropriate expertise?
- Has the identification of the preferred approach been justified, and has this work been informed by individuals with the appropriate expertise?
- Have stakeholder benefits been identified, and have stakeholders been appropriately consulted over the approach and the expected benefits?

- Is the business case complete, and is it appropriate for the type of project being proposed?
- Has a fully independent estimation been made of the likely scale of costs and likely benefits? Does this align with the internal estimates?

As the project progresses through the sub-phases cited above, the following questions should be asked:

- Is this project still needed?
- Can the project be justified in terms of the latest assessment of timescales, costs and benefits?
- Is this the right time to progress this project given competing priorities?
- Are the resources available to proceed?

An appropriate business case is one that matches the type of project being considered. Therefore, we expect that fixed-goal projects will have different business cases to moving-goal projects.

RECOMMENDATIONS

For fixed-goal projects, the focus should include:

- detailed business planning with scheduling and costing;
- risks with risk mitigation;
- uncertainties with range estimates; and
- definition of future state with clear measures of success.

For moving-goal projects, the focus should include:

- a broad business plan with ranges of timescales and costings;
- independent estimation of the scale of the costs and likely benefits;
- risks with potential risk mitigation where appropriate;
- uncertainties with range estimates;
- unknowns with discovery and learning activities and objectives;
- predefined criteria for 'stop action' and initiating independent review;
- phased delivery paths, possibly with intermediate deliverables and review points; and
- a description of future state with indicators of success.

In reality, there is a considerable blurring between the different phases, and many projects end up being far messier than this

PHASE TWO

BUSINESS CASE TO OPERATE

Traditionally, in the main delivery phase, the emphasis is on project delivery, but it is a mistake not to focus on project implementation and project results.

- Are the appropriate leadership and oversight practices in place for delivery?
- Are the appropriate leadership and oversight practices in place for project implementation?
- Are the appropriate leadership and oversight practices in place for delivering outcomes and benefits?
- Are the appropriate leadership and oversight practices in place for delivering outcomes and benefits in the longer term?

For fixed-goal projects:

- Are the risks being identified and managed appropriately?
- Are the uncertainties being reduced?
- Is the project being delivered in an efficient way?
- Is the project implementation being delivered effectively?
- Are the intermediate deliverables being implemented and used effectively, resulting in the expected benefits being realised?
- Are the planned outcomes and benefits still deliverable?

Effectiveness, in terms of delivery of outcomes and benefits, is always the most important criterion for evaluation

It should be noted that fixed-goal projects are simpler to deliver than moving-goal projects. Effectiveness, in terms of the delivery of outcomes and benefits, is always the most important criterion

for evaluation, but, for fixed-goal projects, efficiency is important too. If projects are moving-goal projects and the solutions have to emerge or be discovered, then the concept of efficiency has little meaning. Work on discovery or developing solutions will inevitably be wasted, so focus should be limited to asking whether money was wasted or not. These questions should not be asked with the benefit of hindsight, but from the perspective of those running the project at the time they were making the decisions they took.

For moving-goal projects:

- Does the project still have clarity of purpose? Are the requirements still fully aligned to the challenges?
- Do these outcomes and benefits direct the delivery and implementation?
- Are the intermediate deliverables being implemented and used effectively, resulting in the expected benefits?
- Are the discovery and learning activities effective?
- Are the risks being identified and managed appropriately?
- Are the uncertainties being reduced?
- Is the project implementation being delivered effectively?
- Is the project delivery well managed?

RECOMMENDATIONS

- Governance should be determined by the type of project.
- Governance of fixed-goal projects should enable managers to take appropriate and timely decisions.
- Governance of moving-goal projects should enable managers to have the flexibility to navigate towards the current view of the ultimate goal.
- The balance between delivery, implementation and results will change over the life cycle. Assurance should evaluate whether or not this balance is appropriate for the type and stage of the project.

PHASE THREE OPERATE

The operate phase occurs after the project handover. So, in this phase, the focus is on using the product or service delivered by the project or exploiting the change that has occurred. The focus should also be on evaluating the outcomes and benefits, understanding how they were achieved and learning lessons from the project:

- Are the appropriate leadership and oversight practices in place for operation?
- Are the project outputs delivered in line with expectations?
- Was the handover appropriate?
- Was the operating department prepared for the project handover?
- Did the operating department embrace the project and aspire to achieve the outcomes and benefits?
- Does the operating department have mechanisms in place to guide and track the continued delivery of benefits from this project?
- What was learnt during delivery?
- What was learnt during implementation?
- What were the unintended consequences arising from the project?
- What was learnt about the delivery of outcomes and benefits?
- With hindsight, was the project worthwhile, and, if not, what should be learnt for the future?

RECOMMENDATIONS

- Evaluation should consider both the role of the project team and the role of the receiving operating unit.
- Fixed-goal projects should be evaluated on the delivery of results and the efficiency of delivery.
- Moving-goal projects should be evaluated on delivery and a final evaluation of outcomes for the costs incurred (and not on efficiency).
- Focus can be lost in operations after project delivery, so the governance and assurance mechanisms must ensure this doesn't happen.
- Learning lessons will require the evaluation team to understand the entire process, so this should involve not only analysts, but also experienced practising project professionals. 📌

FIND OUT MORE

This article is an edited extract from APM's newly published report *Developing the Practice of Governance* by M Bourne and M Parr. For more information, visit apm.org.uk/resources/find-a-resource/developing-the-practice-of-governance

AUDACIOUS PORTFOLIOS

Borrowing Silicon Valley's Objectives and Key Results approach to strategy to manage your own portfolio will allow your projects to flex and adapt, says John McIntyre. Speaking at the APM Portfolio Management Conference, he explained how to set ambitious objectives, compete against your own targets and dare to achieve greatness

Japan seems an odd choice of location in which to start my story. I've never visited, but an article in *The Times* back in 2017 about the impact of increased tourism in the country caught my interest and started me on a journey through Abenomics, building cathedrals and Silicon Valley start-ups. It is a journey that Larry Page and Sergey Brin went on when they built Google from nothing to a company with an \$843bn market capitalisation. And it's a journey that will help you align your portfolio with your organisation's vision and inspire your project teams to achieve far more than they would dare to think is possible.

The article was by Tokyo-based correspondent Richard Lloyd Parry. He was reflecting on the impact tourism was having on the city, but the bit that caught my attention was that the Japanese government had set a target of 20 million foreign visitors a year by the time the country hosts the Olympics in 2020. It achieved its goal five years early, but rather than sitting back and celebrating its success, it doubled the 2020 goal to 40 million, with a target of 60 million for 2030.

As someone who has delivered projects and managed portfolios, these achievements sounded incredible. When the 20 million goal was first conceived, Japan had never seen visitor numbers above nine million. Setting a goal of more than double that must have felt almost impossible to those in the Japan National Tourism Organisation. Yet these almost impossible goals are often the ones that inspire true greatness.

SHOOTING FOR THE MOON

Andy Grove, former chairman and CEO of Intel, certainly thought so when he first coined the term Objectives and

Key Results (OKRs). He observed that output is greater when everyone strives for achievements beyond their immediate grasp – even though trying means failure half of the time.

Project managers are not taught this. They are taught to come up with realistic goals, with safety and contingency built in. Risk management features heavily, yet opportunity management seldom gets a mention.

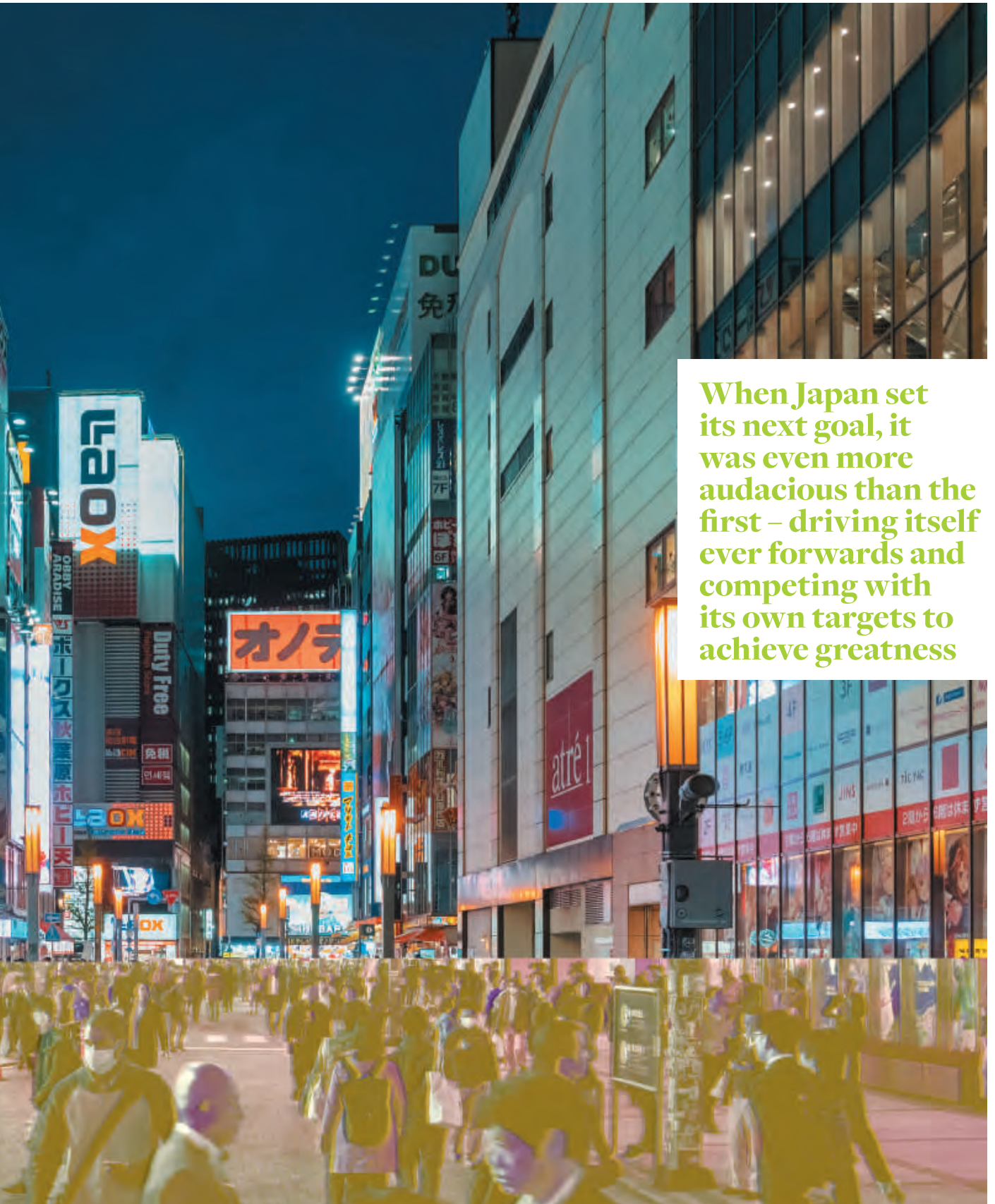
MOONSHOTS

The OKR framework sets out to do something about that. It consists of an objective statement (where we want to go), supported by key results (quantitative statements that determine whether our objective has been achieved). The objectives are designed to be inspirational and challenging. They are the rallying cry that your portfolio teams will swarm around. The key results are designed in such a way that they can be measured on a scale from 0–1. If you don't move the dial, you remain on zero. But as you move through the period, your team focuses on turning the dial ever closer to that 'moonshot' of 1.0.

Moving from nine million to 20 million visitors a year meant Japan hit its moonshot. But teams that consistently hit their moonshots are probably not stretching themselves enough. When Japan set its next goal, it was even more audacious than the first – driving itself ever forwards and competing with its own targets to achieve greatness.

Ambitious goals are one thing, but there is no point in shooting for the moon if your organisation's mission is to shoot for the planet Venus. Management thinker Peter Drucker summed this up perfectly in his parable of the three stonemasons, who were explaining ▶▶





When Japan set its next goal, it was even more audacious than the first – driving itself ever forwards and competing with its own targets to achieve greatness

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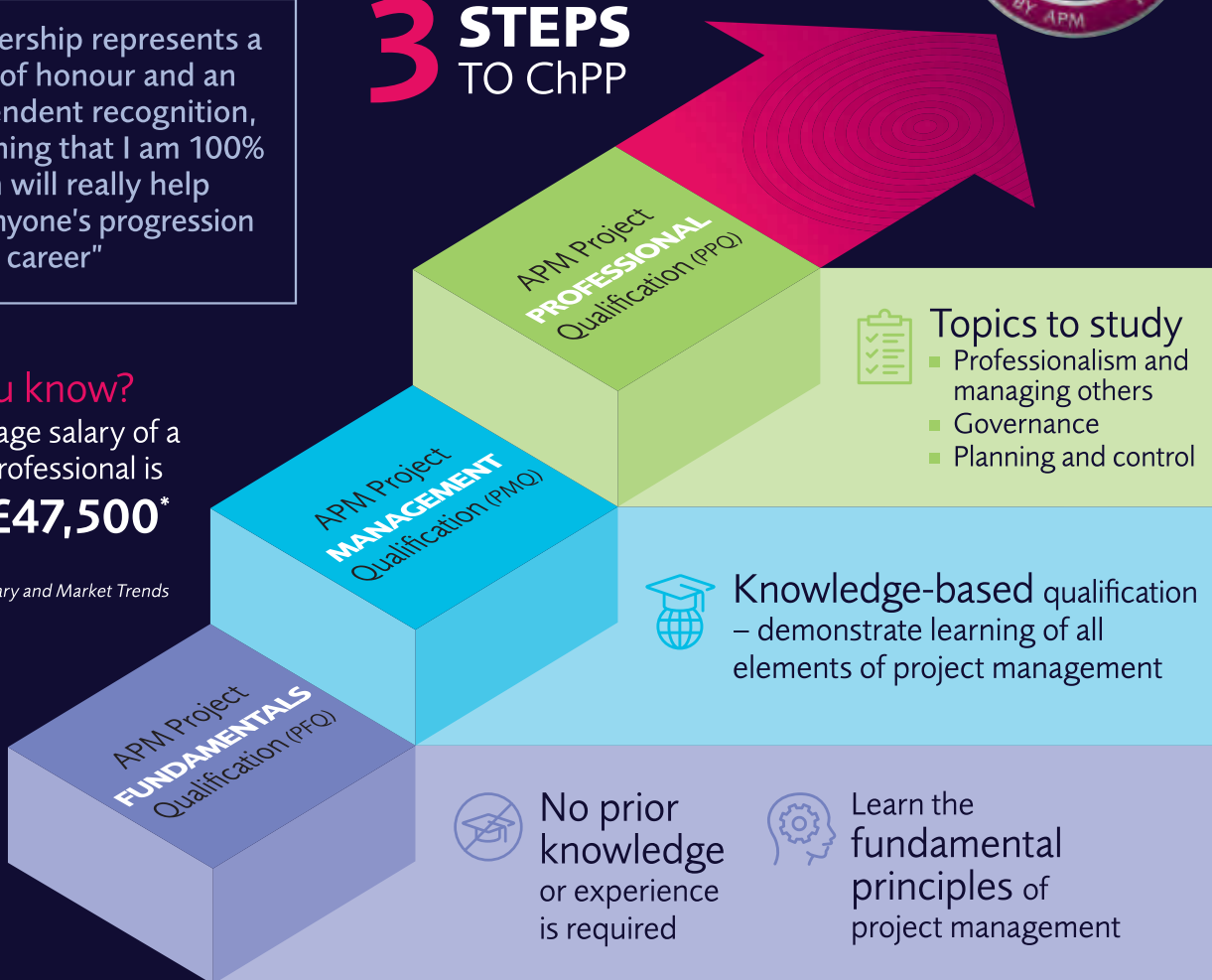
Did you know?

The average salary of a project professional is

£47,500*

*from APM Salary and Market Trends survey 2019

3 STEPS TO ChPP



Google has used OKRs since its start-up



◀◀ what they were working on. The first said, “I am making a living.” The second said, “I am doing the best job of stonecutting in the entire country.” The third said, “I am building a cathedral.”

In this parable, it is entirely possible that the second stonecutter may achieve their objective, but it may not be the right goal for the construction company. They could spend decades doing the best stonecutting in the country, but the job may well require stones to be cut within the week. The third stonecutter, however, is aligned with the vision of the organisation. While their focus may be on stonecutting, they are doing so with an eye to the wider goal of building a cathedral.

FROM START-UP GOOGLE TO PORTFOLIO MANAGEMENT

When Google was a start-up, it used the OKR framework to define where it was going, to align its teams and to set itself ambitious targets. The framework has scaled with it and is still in use today. OKRs are defined at the highest level and are cascaded down. Everyone understands the vision, which is encapsulated by the objectives and measured by the associated key results. Individuals are granted the flexibility to set their own OKRs too, so that the top-down objectives are balanced with bottom-up objectives, which serve to prevent a silo mentality building up. ▶▶

How to incorporate OKRs into your portfolios

Switching to an OKR-driven portfolio approach takes time. It is a system, like agile, that can be described as deceptively easy. The concept is simple, but it can take four or five quarters to implement and bed in. So, to help you on your OKR journey, I'd like to leave you with three pieces of advice that will serve you well when planning to incorporate OKRs into your portfolio management strategy:

1 Data must flow two ways. You may have a project management office in your organisation that is used to gathering information from project teams and sharing this with the business. With an OKR-driven portfolio, we expect teams to track progress against key results, which means information needs to flow in the opposite direction too. For your

portfolio team to turn dials, they need to have fast feedback loops so they can see business metrics changing as project teams deliver. Challenge your project management office to think about how they can deliver information into teams to drive effective decision-making within projects.

2 Encourage thin-slice delivery approaches. When you adopt OKRs, you should be able to see the numbers against your key results steadily rising throughout the cycle. If your projects only deliver at the end of a period (or beyond), then you risk numbers staying flat. This can sap energy and belief in the system. Challenge your teams to adopt more incremental delivery approaches that see small packets of value being delivered frequently.

This will allow everyone to see how their efforts are affecting the portfolio OKRs in real time.

3 You won't always hit your goals – and that's OK. One of your big challenges will be mindset. People are reluctant to commit to objectives when there is a risk that they will not achieve them fully. Maybe they have been penalised for this in the past. As portfolio manager, you will need to work closely with the leadership team to promote a culture where it is safe to take such risks and it is OK not to hit moonshots all the time. With OKRs we know that hitting our 1.0 targets on every key result may be almost impossible, but we know that striving for our audacious objectives will drive us further forwards than conservative and safe goals ever will.

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◀◀ How does this link to portfolio management? As someone with a projects background, my approach to portfolio management mirrored my approach to projects. Lock down the scope and plan, then manage risk. The portfolio plan was usually constructed as a sum of the projects that were running within it. The portfolio outcomes were derived from the benefits we expected to see from the projects. If the outcomes broadly aligned with the business plan, then all was good. We had a portfolio plan! If not, we would make changes, swapping projects out and adding initiatives in – balancing capacity with requirement until we felt that we had it right.

MOVING BEYOND MILESTONES

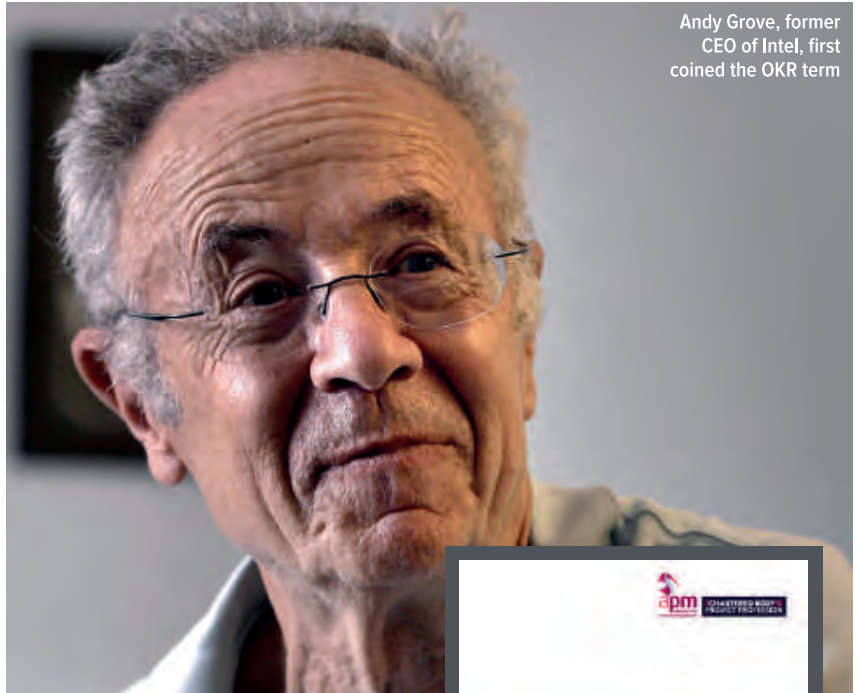
Once the plan was agreed, we could track progress against key milestones. Indeed, these milestones were communicated widely. We celebrated when we hit them and doubled down with renewed fervour when we missed them. This approach is replicated across many organisations – and it is one that is fraught with difficulty.

When focus on milestones intensifies, we take our eye off the dials we are aiming to turn, and when the list of projects is locked down, we reduce our ability to seize opportunities when they arise. Above all, we stop people thinking about how to achieve our audacious objectives, and we focus them on delivering on competing project plans.

Applying the OKR framework to portfolios increases joint accountability, alignment and focus. Rather than starting with projects, we start with the OKRs. Defining the right three to five OKRs for the portfolio is vital. More than that and you simply aren't focused enough. The key results need to be stretching and inspiring. It is important to balance these out so you avoid perverse incentives: increasing sales volumes is easy if there is no corresponding target that ensures those sales are profitable.

The process of agreeing the OKRs could warrant an article in its own right. There are passionate debates and pitches as people discuss what really matters – not how we layer projects, but what direction we should be heading in.

With the portfolio OKRs defined, communication is critical. Teams are encouraged to set their own OKRs that align with the portfolio objectives. The mappings don't have to be precise, but teams should be able to explain how their key result of increasing the number of corporate applications running in the cloud by 34 per cent is going to support the overall objectives of the portfolio.



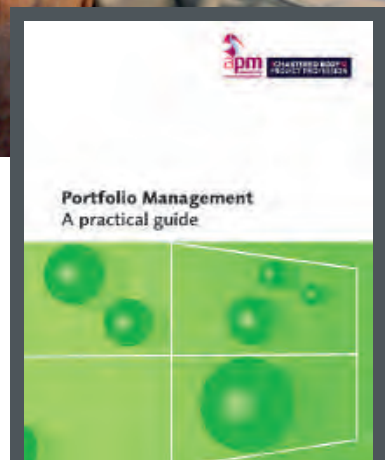
Andy Grove, former CEO of Intel, first coined the OKR term

PUTTING THE PORTFOLIO FIRST

With OKRs drafted, teams go through an exercise of horizontal and vertical alignment. In large organisations it is almost impossible for a single team to deliver an OKR without aligning with other teams and other departments. The portfolio-level OKRs help break away from silo thinking. Rather than focusing on projects that compete with each other, people work together to align around the portfolio OKRs. Priority calls – when they arise – are made based on which action is most likely to turn the dials the fastest, and furthest.

The OKR approach puts business metrics at the heart of our portfolio. Projects become the 'temporary endeavours' that they were always supposed to be, instead of the cornerstones of our portfolios that they so often end up becoming. With an OKR approach, I have found it becomes easier to swap projects out and kill those that have passed their useful shelf life. Portfolios become more fluid and pivoting becomes easier – while never losing sight of the overarching OKRs. **P**

JOHN MCINTYRE is founder and CEO of PMO consultancy HotPMO. He has been responsible for the strategic planning process, portfolio planning and projects delivery in mixed-framework environments across a number of sectors



APM Portfolio Management – A practical guide

This new guide illustrates how portfolio management is a key mechanism in enabling an organisation to optimise delivery of its strategic goals in the required time frame while maximising value. It promotes awareness of, and outlines good practice in, portfolio management for the practising or developing portfolio manager or portfolio office manager, and provides a benchmark for portfolio managers and the portfolio management community to assess their own organisation's maturity in the discipline. It aims to stimulate new thinking and contribute to the development of portfolio management practice.

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PROJECT ME

As 2020 fast approaches, what new year's resolutions do you plan to make? Here, project managers reveal their own personal productivity wish lists

Find the fun at work

EDMUND HUTTON

Project manager, AECOM

There is a temptation every new year to make grand, overarching resolutions, which one suspects will be unachievable or at least open to compromise. Sometimes, I have tried to combat this by setting SMART (specific, measurable, acceptable, realistic and time-bound) objectives, with mixed success. I did manage to run the half-marathons I set out to do – but I can't say I'm actually much fitter! This year, I thought I would aim to do something broader and harder to quantify: I want to focus on finding fun in my work. Instead of beating myself up about deadlines, deliverables and problems that have not yet occurred, I will focus on what I do achieve and tell myself more often: "You did well".

Project: resolutions

CLINT GRABS

Programme manager, Network Rail

I'm normally not one for setting new year's resolutions, because there is often no process put in place to help you track, deliver or evaluate your progress. Often you can feel as if you have failed to achieve your elusive target. That's why, this year, I'm going to take a project management approach to new year's resolutions. I'm planning to select the things I want to accomplish based on their importance to my personal development over the next two to three years. As I want to achieve chartered status, I have started to review my APM competence profile and CPD log to allow me to effectively select personal development areas. The activities I need to carry out will be work streams in my larger project, and the project success will be achieving chartered status.

Switch off the tech – and go running

HAYLEY MAGORIAN

Principal sponsor, HS2

My new year's resolutions focus on the improvement of my mental and physical health. My first resolution is an evening tech ban. Studies show that using devices late at night can have a negative impact on sleep, so affecting concentration, creativity and productivity. I've set myself the challenge to switch off my phone and put my laptop away at least an hour before bed. Second is running club. I'm often guilty of eating lunch at my desk. To break this bad habit, I'm setting up a running club at work using a Yammer group for colleagues to share stories and achievements of their runs. Exercise is essential to helping manage life's stresses, and I hope this resolution helps not only me, but the wider team, by providing a healthy way to improve physical and mental wellbeing through a fun, social platform while enhancing productivity.

Kill the meetings

DANIEL BRADLEY

Project engineer, Shell

My 2020 resolution is to be more effective with my time spent in meetings. I want to: (1) spend less time in meetings by excusing myself from meetings that I cannot contribute to or that I gain no benefit from, and (2) be more efficient by taking notes digitally – no more paper and pen!

GET IN TOUCH

Stumbled across a great productivity hack or tip? Get in touch with *Project* to share it in the next issue

Beautiful project reporting

SEBASTIAN HARRIS

Regional head of security, networks and operations delivery, NCC Group

Project reporting has become so standardised that there is little noticeable difference between sectors, PMO teams and project individuals. However, every so often, I encounter project updates presented in powerful, visual ways. This turns the mundane into a masterpiece. At the receiving end, if done right, it stops you in your tracks. My aim for 2020 is to explore how organisations present project and business data. If this is perfectly executed, project stakeholders are better engaged and better informed.

This is an area of significant under-recognition in our industry. I am looking to resolve this. And, of course, to share my findings.

For 2020, I'm also going to read one book a week to deepen and expand my knowledge of leadership, business management, financial disciplines and project management. I find at times that there is a desire for professionals to master only one area, rather than many – this is a mindset I've never aligned to.

Set weekly challenges

ANNIE MAINGARD

EU project manager, University of Kent

My resolution for 2020 is to set myself a challenge to do something every week at work that I would usually avoid, find uncomfortable or just pass on. This means things like accepting invitations to speak at community events or in schools about what I do. Also, I intend to take on responsibility with the various committees that I sit on and actually achieve those things. 🎯

Dear Susanne

HOW CAN I BETTER SERVE MY TEAM?

I'm intrigued about the role of servant leadership. Is it relevant to the project leaders of today, and if so, what should I be aware of as I build this capability?



SUSANNE MADSEN

is an internationally recognised project leadership coach, trainer and consultant. She is the author of *The Project Management Coaching Workbook* and *The Power of Project Leadership* (second edition now available). For more information, visit www.susanne-madsen.com

Do you have a question for Susanne? Email mail@susanne-madsen.com

Q&A

What a great topic to explore. Servant leadership is a term we use when a project manager or leader puts the needs of those they are leading before their own. Rather than being interested in power, money or prestige, they have a desire to serve their team and client and enable others to make a difference. You could say that servant leaders are givers who seek to empower people to contribute to a bigger vision. When things go well, servant leaders look out of the window and let others take credit. When things go wrong, they look in the mirror and take responsibility.

The servant leader is highly relevant in today's workplace. With new generations entering the workforce, there is an increasing demand for project managers to empower their teams and to help people find purpose in their work. Millennials don't just want to be told what to do. They want to be involved. A traditional command-and-control management style works well in a setting where the manager holds all the knowledge – but in our era of knowledge workers, and in an environment that is volatile, uncertain, complex and ambiguous, one leader simply cannot hold all the answers. The leader's role now is not to know it all, but to help team members apply and expand their knowledge so that they are better able to innovate and deliver great outcomes.

SERVANT LEADERS ARE EMOTIONALLY INTELLIGENT

Key characteristics of servant leaders are a high level of emotional intelligence, good listening skills and an ability to coach. Servant leaders acknowledge other

people's perspectives, give them the support they need to meet their goals and build a sense of community within the team.

The ability to listen and maintain stability can be symbolised by the feminine 'yin' element. Servant leaders use this element to build the team's confidence and to develop skills that are lacking. They encourage collaboration and provide a safe environment for team members to

For you to develop into an effective servant leader, you will need to combine the elements of yin and yang so that you use equal amounts of warmth and strength

work together and come up with their own solutions. This style is enabling and is concerned with making it possible for others to flourish and contribute.

But servant leadership is not only characterised by supportive yin. It's also important that leaders can access their challenging 'yang' side. This symbolises the masculine element, which is demanding and factual. Servant leadership is not about being nice all the time. It's


about serving the client and developing a high-performing team to enable that (see page 53).

Interestingly, a high-performing team isn't necessarily the most comfortable place to be, because it's constantly being challenged to improve and innovate. Yang leaders have a strong sense of direction and are results-driven. They set a high standard, ask difficult questions and challenge the team to deliver to the best of its ability.

IT TAKES YIN AND YANG

For you to develop into an effective servant leader, you will need to combine the elements of yin and yang so that you use equal amounts of warmth and strength. You can do that by involving people in the decisions that affect them and at the same time asking questions that empower and stimulate innovative thinking.

The trick is to challenge the team to reach a high standard and at the same time provide them with the support required to do so. When done well, the outcome is a higher level of engagement, more trust, stronger relationships and increased innovation.

As you venture further into the area of servant leadership, be aware of any desire to serve yourself and try not to use situations, colleagues and team members to gain greater power, money or recognition. In addition, be mindful that, if you work for an organisation where leaders are expected to make all the decisions, you may need to initially move quietly and let your results and stellar team performances pave the way. Good luck! 



HOW TO LIVE YOUR CHILDHOOD DREAM

(RIDING ROLLER COASTERS AND MEETING TIGERS UP CLOSE)

Michelle Hicks reveals how she got to make her ambition to work for a theme park come true – picking up 15 awards along the way

Lots of children dream of working at a theme park. For Michelle Hicks, the idea stuck. “It’s the whole reason I studied engineering,” she admits. “It’s what I wanted to do since I went to my first theme park, aged five. My dad would take me on my birthdays, and I knew even then.”

And lo and behold, today Hicks has a job many children – and adults – would go crazy for. She designs and builds the star attractions at Chessington World of Adventures. The Gruffalo River Ride, the Land of the Tiger and the Adventure Tree are all hers. She giggles at the confession, adding: “It’s true, I’m not normal!”

A glance at her CV confirms this. Hicks is a stellar performer on every level. She has won 15 awards in her short career so far. Even at university she was hoovering them up, winning five prizes, including the top award for engineers in her graduating class. A judge described her as “scarily good”. She also writes academic papers, including the esoteric ‘Structural Appraisal of Existing Masonry Quadripartite Vaults’, which beat 300 other papers to the Frederick Palmer Prize from the Institution of Civil Engineers.

ROLLER COASTERS VIA CHARLIE CHAPLIN

So, what’s going on? How did a childhood obsession for theme parks turn into a career of outstanding achievement?

“I was 14 when I realised that I could follow my passion for theme parks as a career,” she explains. “I went to a lecture at a university to hear a talk by the designer of a roller coaster. I started to realise what was involved, working with creative teams, engineers and others, and bringing them all together to make it happen. I knew I could do that.”

When she later enrolled at the University of Surrey, she won a scholarship from WSP, a global engineering company. This accelerated her development: “I was lucky, as I was sponsored and also got to work with them during my summers. I also did a year with them.”

She quickly discovered that project management combined all her favourite elements. “At university, I worked on a project to design an iron-ore processing

“It’s what I wanted to do since I went to my first theme park, aged five”

facility. It was multidisciplinary, with chemical engineers and civil engineers, and I took on the project management role. It felt natural.”

On graduating (with a first), she worked at WSP as an engineer. “My favourite project was designing the foundations of the Charlie Chaplin statue in London’s Leicester Square. It sits on a marble plinth. Quite hefty!” But the idea of working in theme parks never left her. “I saw the job ad for Merlin Magic Making, the creative arm of Merlin Entertainments, which owns Chessington, and applied.” With her qualifications, she was always going to get the job.

THE LAND OF THE TIGER

Now she builds the kind of rides she loved as a child. “I do it all. It begins with a creative team coming up with ideas for attractions. We ask what is achievable? Can we build it on time and on budget? Then I develop it and apply for funding from the board. Then I appoint architects and creative designers, get planning permission and go to construction. Then I monitor the construction.”

She added to her skills as a project manager by taking the APM Project





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“The Land of the Tiger attraction features four Amur tigers. It was a beast of a project!”



Management Qualification. “All the project managers at Merlin take it,” she says. “It means we all have the same base knowledge and terminology.”

Can the job really be as much fun as it sounds? Daft question. “It’s incredible!” says Hicks. “The Land of the Tiger attraction features four Amur tigers. It was a beast of a project!

Normally, the guests are the priority. Here, the priority is the tigers. We designed enclosures so they have enough space to be happy, and we created walkways so they can walk over the guests. Tigers love being up high. They feel they can pounce on people. If you wear a bright colour or fur, the tigers will follow you. It’s exciting for them.”

She even makes the dull bits sound fun. Take quality control: “With the Gruffalo ride, we needed to make sure visitors saw what we intended. The ride consists of boats travelling along a water trough. We walked around the trough, but realised we were too tall, so we weren’t seeing what the children would see. We had to crouch down, looking like ducks walking around the trough. People looked on thinking ‘She’s finally lost it!’”

HANDS-ON RESEARCH

Is the passion dimming? Er, no. “My work is my passion,” she enthuses. “Even on my holidays I go to theme parks. I think of it as research. If anything, working in the industry gives me a greater appreciation of what goes into a ride. I see them in a brand-new light.”

Perhaps the secret to Hicks’ limitless commitment is the impact her work has on visitors, especially young minds. “You immerse them in a story,” she says. “They lose themselves in it. You see the effect an attraction can have, and you think: ‘How can I take it further?’”

Hicks has plenty she wants to achieve. She’s already helping the next generation by being the youngest member invited to the industrial advisory board at her old university. “Next for me is getting my chartered status with APM,” she reveals. She could work anywhere. “But I’ll stay at Chessington,” she says. “We are working on some big projects. I can’t tell you what. Top secret!”



Michelle Hicks

EDUCATION: Master’s in civil engineering, University of Surrey

CURRENTLY: Resort theme parks project manager, Merlin Entertainments; industrial advisory board member, University of Surrey

PREVIOUSLY: Assistant engineer, graduate engineer, WSP

Michelle’s top tips for outstanding performance

1 Never settle for less than “Wow!”

If you want to deliver amazing work, you must be prepared to stop a project and take action, no matter how far along it may be. When I was working on the Gruffalo River Ride, we got to the construction phase, but we saw the station where the guests get on and off, and it wasn’t making us say “Wow!” We could do so much better. But we had just a month left. We decided to act. We sat down with the creative team and came up with a new vision, adding layered scenery and artificial foliage. Yes, it sounds completely bonkers. But it makes guests say “Wow!”

2 Explain your logic. Cost overruns during a project are not easy to

handle. During the Gruffalo redesign, I needed to go to the client to ask for more money. I presented the cost implications and explained why we needed the extra budget. I also detailed how we’d minimise the cost impact. Explaining the logic behind my request and why our changes would result in a better experience, together with how we would cover the cost, meant they backed us.

3 Listen to everyone. As a project manager, you’ll need to have difficult conversations at times. My tip is to make sure you really listen to everyone’s points – and then process them. By doing this, you will come up with a fair outcome, and everyone will feel like they have been included in the final decision.

4 Work on your weaknesses. When I came to Chessington, I had a few areas of weakness. One was the operational side. When we work on a new attraction, we need to be aware that the rest of the park is open. It can’t close to suit us. I learned to keep everyone informed of what’s happening and be very clear in our requirements. It also helps to second-guess what others may say and prepare for compromises.

5 Have fun! I find that, when I work with big teams, I get the best out of people by creating a sense of community. It is important to me that we all like what we do. Frankly, if we aren’t enjoying working on an attraction, then maybe the guests won’t either.



**BEYOND
THE JOB**

PROJECT: TO LEAD MY SCOUT GROUP



*In this series, project managers tell us how they're using their skills for a personal project. Here, **Vicki Griffiths**, senior project manager at geo-data specialist Fugro, explains that when it comes to axe-throwing, camping and practising first aid, you need to be well prepared*

I'm a Chartered Project Professional working in the offshore industry, managing geotechnical and geophysical projects for clients in the oil and gas and renewables industries. However, I have an alter ego: on Wednesday evenings and some weekends, I am a group Scout leader for the 8th/9th Falmouth Scouts.

You might not immediately think being a project manager and a Scout leader have much in common, but I have found many parallels. The first is in the scheduling and planning. As a Scout leader, I need to ensure that the programme for the term is fun. There are 12 Scouts in my group, both boys and girls. They range in age from around 10-and-a-half to 12 years old and will stay with the Scouts until they are 14. Some of the activities we have done, or are planning to do, include geocaching, building bird-nesting boxes, lighting fires and outdoor cooking, axe-throwing, first aid and camping.

Getting badges to sew on your uniform is a key part of being a Scout. The aim is to complete all nine challenge badges before leaving Scouts to gain the coveted Gold award. I have a four-year plan that reminds me of what I need to include in

my planning for the term so that each Scout has the chance to achieve this.

My team of Scout leaders work with me to provide a balanced and interesting programme. The Scouts themselves also contribute. Once a term, I hold a patrol forum and ask them what they would like to do as an activity. Although it is one of the more popular requests, I haven't quite worked out how to have a video gaming night yet.

There is an old adage that 'no plan survives first contact with the enemy'. Or, in Scouting terms, 'Be prepared!' It is always a good idea to have a backup plan. Typically, this is because of heavy rain – or occasionally snow – when you have planned an outdoor activity. Managing change is a frequently used skill.

I confess that I have never had to write a risk assessment for axe-throwing while at work, but the same principles apply

There is a lot of competition for the young people's time, so it's important to have a quality programme that they can engage with. At the end of each session I ask my Scouts for feedback on what they thought, so that I can learn and adapt my future programming.

RISK ASSESSMENT FOR AXE-THROWING

As you can see from the activities we get up to, I get to apply my risk management skills. I confess that I have never had to write a risk assessment for axe-throwing while at work, but the same principles apply.

Having looked at quality, schedule and risk management, what about budgeting and financial information? Organising a budget for the camping trip might not involve the figures I normally work with in my geotechnical projects, but it is still important to work out how much it will cost and whether the group has enough money coming in to cover the costs. The aim is not necessarily to make a profit, but it is very important to avoid a loss.

As a project manager, I spend much of my time engaging with stakeholders,



be they clients, team members or subcontractors. As a Scout leader, I also spend much of my time engaging with stakeholders. In addition to the young people, their parents fall into this important category. The group has a private Facebook page where I can send updates about what we are doing, send out reminders for subscriptions and also request help.

The parents in my group are very keen to get involved. I had some willing victims – sorry, volunteers – to help when the Scouts were learning first aid and needed to practise their bandaging.

Other stakeholders include the leadership team for my group and other members of the Scouting community in the district and county. The groups in the district are planning a number of combined events that will give my Scouts the opportunity to meet others and try new activities in a larger group.

FROM PROBLEM-SOLVING TO LEARNING HOW TO DO THE FORTNITE FLOSS

Working with the Scouts has taught me a number of things about coaching and mentoring. A major part of my role is about empowering my Scouts to develop new skills and getting them to work as a team. Some of their solutions to the problem-solving activities are completely different to the ones I envisaged when I planned the activity.

Recently, I set them a team challenge to cross the floor using two planks without touching the floor themselves. I thought that they would try to get as many Scouts as possible on a plank and then swap between the two planks until they were all across the floor. I was amazed to watch individuals shuffling across the floor on the planks and then pushing them back to the rest of the team so that they could cross too. It worked, reminding me that there are many ways to solve a problem.

I have also learned other useful things, including how to floss (a dance move from video game *Fortnite*) and how much fun you can have with an enormous bar of chocolate, a knife and fork and large foam dice. I also now have a great recipe for cooking a pocket pizza in a Trangia (a portable outdoor stove), which I would never have if it wasn't for my alter ego. 🍕



From arts and crafts to cooking outdoors, no two Scout meetings are the same, but they all benefit from some prior planning

MEET APM'S YOUNGEST EVER ChPP

Step forward Craig Scott, project manager at BAE Systems, who achieved Chartered Project Professional status at the age of 26



Craig Scott started his career in project management aged just 16, when he began as a project management apprentice at BAE Systems. Little did he know that, with a decade of experience under his belt, he would become the youngest ever Chartered Project Professional, after his employer sponsored his four-year journey towards accreditation. Scott is currently on secondment at Eurofighter head office in Germany to oversee project management of the latest Typhoon aircraft for delivery to Qatar in time for the 2020 FIFA World Cup.

While Scott gained his first APM qualification in 2012, it wasn't until 2015 that he was inspired to go for chartered status. He had read about Mike Wallace, a project manager who was then the youngest ever Registered Project Professional, at the age of 29. Scott explains: "That then set a plan in motion of: 'Right, how do I beat that? How do I achieve it faster and better?' APM is the only project management body in the world to hold a Royal Charter, which sets it and anybody who has chartered status apart. That's so fantastic."

BRINGING MILLENNIALS ON BOARD

Scott hopes his achievement will inspire others in his millennial generation to aim for chartered status. He says the project profession is currently experiencing a massive generational shift, and that getting millennials to follow in his footsteps is important, particularly for the younger 'generation Z', who would hopefully be encouraged to follow suit.

His journey to achieving chartered status demonstrated the ageism younger people can experience. Too often, Scott believes, young people are discriminated against by members of older generations,

often with decades of experience behind them, who don't believe that someone younger has the experience, nous and right to be successful.

"I do think we should be nurturing young people," he says. "I think it is key to give them those opportunities in their path early on in their career. I was fortunate enough, with BAE Systems, to have that. They were very supportive, but there were a number of people on that journey who said I was too young, which isn't great. I really want young people to push themselves and not let that get them down."

GENERATIONAL SHIFTS

Scott believes that millennials' influence on the profession has centred on the use of technology, specifically social media, as a project management tool. "Every young person within project management can use social media to their advantage – to get what they want and solve problems," he says. "I think that, in the future, more and more people will be using it in their day-to-day work, and in the management of projects. Things need to shift towards this." He emphasises that young people bring a different perspective on how to solve a problem, and a new angle on possible solutions.

Reverse mentoring schemes, where a younger person, often at the start of their career, mentors a far more senior

"There were a number of people who said I was too young, which isn't great. I want young people to not let that get them down"

Craig Scott

2019 Chartered Project Professional, APM

2019 Project manager, Eurofighter

2016–2019 Bid/project manager, BAE Systems

2018 Higher national diploma, project management, Lancaster University

2015–PRESENT BSc (Hons), project management, Lancaster University

2014–2016 Senior project controller, BAE Systems


2013–2014 Combat air cost account manager, BAE Systems

2011–2013 Cost/schedule integrator, BAE Systems

2009–2011 Modern business apprentice, BAE Systems

Full details of the criteria for achieving chartered status and the routes to get there can be found on the APM website at apm.org.uk/chartered-standard, where you can also view the full Register of Chartered Project Professionals

person with the aim of discussing a particular theme or issue, are an effective way for companies to reap the benefit of multigenerational diversity, says Scott. Bringing together different perspectives – someone at the bottom of an organisation, who is working on delivering a complex programme, and someone at the top, with 30 years of delivering complex programmes – is invaluable and part of the way forward for the profession.

"That shift is starting to take place," Scott says. "Businesses really can nurture young people and give them opportunities to develop." 

PUBLIC REGISTER OF ChPPs

The following individuals make up the fifth cohort to achieve Chartered Project Professional status with APM

First name	Surname	Country
Trevor	Alex	AUS
Barrie	Andrew	UK
Timothy Richard	Andrews	UK
Rob	Anthony	UK
Sheraz	Arshad	UK
Paul	Bamber	UK
Ross	Barrett	UK
James	Bawtree	AUS
Matt	Bayley	UK
Matt	Benfield	UK
Stephen	Bignell	UK
Alan	Blackwell	UK
Emma	Blagg	UK
Robert	Blakemore	UK
Christopher	Bonner	UAE
John	Bridges	UK
Helen	Britland	UK
Steve	Bryce	UK
Christine	Burt	UK
Lee	Burton	UK
Christopher	Carpenter	UK
Barry	Chesterman	UK
Jonathan	Clarke	UK
Suzanne	Cooper	UK
David	Cox	UK
Glyn	Cragg	UK
Michael	Cushen	UK
Adeline	Daly	UK
Brendan	D'Cruz	UK
Jaspall	Devs	UK
Richard	Djan	UK
Anthony	Dobbie	UK
Caroline	Dobbs	UK
James	Doran	UK
Richard	Fanning	UK
Fiona	Forbes	UK
Emma	Ford	UK
Carl	Forey	UK
Gerald	Forward	UK
Mark	Fotheringham	UK
Grant	Gallacher	UK
Mark	Geary	UK

John	Gifford	UK
Ewan	Glen	UK
Mark	Goodwin	UK
Alex	Hall	UK
David	Hall	UK
Christopher	Hannah	UK
Stuart	Hawkins	UAE
Nicola	Hayes	UK
Gareth	Healy	UK
Graeme	Hodgson	UK
Carl	Holroyd	UK
Stephen	Hopkins	UK
Clare	Hornsby	UK
Brynmor	Hughes	UK
Efe	Igurube	UK
Mark	Johnson	UK
Adam	Jones	UK
Gert	Kloeck	UAE
Ather	Lodhi	UK
Gary	London	UK
Hema	Luqman	UK
Vijay	Luthra	UK
Andrew	Mackellar	NIG
Alan	Maguire	UK
Kevin	Man	UK
Gillian	McArthur	UK
Iain	McFarlane	UK
Luke	McInerney	UK
Jacqueline	Mckague	UK
Stephen	McKinnell	UK
Gerry	McQuade	UK
Martijn	Melens	NED
Justin	Mills	SIN
Riyaz	Mohammed	UK
Michael	Moore	UK
Tammy	Morgan	UK
Tesfaye	Mulu	UK
Christopher	Murray	UK
Paul	Nixson	UK
Judd	Norton	UK
Mike	O'Hare	UK
Walter	Osedeme	UK
Lisa	Penfold	UK

Clive	Phelps	UK
Rachael	Pickwell	UK
Darren	Platt	UK
Andrew	Pratt	UK
Nicky	Rance	UK
Albert	Renshaw	UK
Andrew	Roberts	UK
Sheila	Roberts	UK
James	Robertson	UK
Christopher	Roffe	UK
Michael	Rowley	UK
James	Savage	UK
Craig	Scott	UK
Paul	Seller	UK
Ian	Sharpe	AUS
James	Shepherd	UK
Andrew	Short	UK
Ian	Smith	UK
Stuart	Stevenson	UK
Andrew	Stone	UK
Kailash	Sunnechurra	UK
Marion	Thomas	UK
Norman	Thomson	UK
Sarah	Walton	UK
Matt	Watts	UK
Paul	Wilde	UK
Shaun	Williams	UK
Neil	Winfield	UK
Oliver	Wyatt	UK



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Simon Maxwell ChPP MAPM
Programme Lead, Dyson

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OFFLINE

Where project management meets popular culture



Scores out of 10, please

Working with willing but inexperienced partners? Facing weekly audits from sponsors? Feeling accountable to, and having to court, a diverse stakeholder group? A requirement to wear sequins? Yep, Strictly Come Dancing is more or less the archetypal project management challenge, writes Richard Young

In APM's glossary of project management terminology, a programme is defined as "a group of related projects" that are "undertaken to achieve beneficial change". It's an almost perfect description of the BBC prime-time show *Strictly Come Dancing*.

Related projects? How else would you describe several celebrities all being taught to dance each week ahead of a

gala show? Beneficial change (for an organisation)? Let's put it this way: there were four *Strictly* episodes in the top 10 most-viewed TV programmes of 2017. Even in a World Cup-dominated 2018, *Strictly* nabbed 12.9 million viewers to take number five in the list that year.

So, *Strictly* certainly qualifies as beneficial change for the BBC, but what does it tell us about project management?

THE PROJECT MANAGER PROS

The individual 'projects' (APM: "a unique, transient endeavour undertaken to... achieve planned objectives" – yep, we're still on safe ground) are clear cut. Each week, our project manager dance pro has to turn an inexperienced celebrity into a model performer for a particular dance. Their 'projects' follow a remarkably consistent

project management phasing approach.

● **Design phase** – the choreography, music choices and use of props. Unlike many programme projects, the brief on *Strictly* is consistent and clear: put on a great dance routine that meets the technical requirements of the style selected. But the design must be very carefully calibrated by the project ▶▶

manager on a case-by-case basis. Throw in a flashy lift for an unfit celeb, and you'll never get through training, much less the show.

- **User training** – meticulously documented in dance studio footage. For many project managers, the user – or even their own less experienced team members – can be the biggest headache of all. Great project managers develop a sense of users' abilities and tailor their approach. When any stage gate has a hard deadline like the live show, it's up to the project manager to ensure minimum viable product (or minimum viable polka, perhaps) is achieved by tailoring their training.

- **Project delivery** – performing at the live show. Never mind the quality: on *Strictly*, the 'time' point of the iron triangle is non-negotiable. Ready or not, the project manager pro and their user/mentee (see box) have to hit the dance floor live on Saturday night. The best project managers know how to sell their project even if it's a bit rough around the edges. In *Strictly*, that might be flashy staging and breathtaking costumes (think Anton du Beke emerging from Susannah Constantine's samba dress, or Ed Balls doing 'Gangnam Style'). For project managers, it's great project comms and a glorious PowerPoint deck.



When any stage gate has a hard deadline like the live show, it's up to the project manager to ensure minimum viable product (or minimum viable polka, perhaps) is achieved by tailoring their training

- **Sponsor audit** – the judges' verdicts. Imagine a world where you present a project you've just completed and the programme lead, CEO, chief financial officer and operations director hold up numbered golden lollipops to tell you how you've done. No equivocation. No two-week pause while you wait for feedback. Just 'here's what you did right, here's what you did wrong' and marks out of 10. Bliss.

- **Stakeholder engagement** – pleading for public phone votes. The broader stakeholder community is harder to calibrate. In any organisation, the project managers know

much less about how their work has landed with the wider community of employees, customers and partners than they do their direct superiors. In *Strictly*, the pros can only plead for our votes; they never know exactly how popular their work is because the public vote isn't revealed. It's the same for project managers. Sometimes you see how enthusiastic people are; the rest of the time, it's guesswork.

- **Lessons learned** – getting better the next week. The joy of *Strictly* isn't the already-capable hooper practising the rumba for the first time. Pussycat Doll (and former

dancer) Ashley Roberts was runner-up in 2018, but her 'journey' was overshadowed by that of complete novice Stacey Dooley. By embracing her lessons each week, Dooley aggregated the skills needed to give her the winner's crown by the series finale. That's a narrative the public can get behind – and every project manager knows it's much easier to learn lessons from something genuinely innovative than if you've been retreading old ground.

FOLLOW THE MONEY

There's one other way *Strictly* follows a classic project management model: money. When the tabloids looked into remuneration on the show, they found some pretty stark differences between the key players.

- **The celebs** – the mentees and delivery team members in our analogy – get the lowest base pay (£25,000), although those still in the show after October can get considerable performance-related bump-ups. The semi-finalists get £75,000, for example, and the winner's total purse is £100,000.

- **What about the pros** – our project managers? Huh: turns out they mostly get a rather modest £30,000 per series. Seems a little unfortunate they don't secure a performance-related bonus, but then they

Project mentoring

The *Strictly* pros are also mentoring their celebs as project team members. And you only have to watch the clips of the training sessions in the show or *It Takes Two* to see how well that maps to a classic mentoring relationship. Here's a related checklist that appeared in *Project* a couple of years ago – and how *Strictly* fares...

HAVE A CLEAR PURPOSE

Crystal clear: "We have a foxtrot routine to perform on Saturday." Get the steps or energy wrong, and you're out. Matthew Channell, the director at TSW Training who wrote the article, stressed using SMART goals (specific, measurable, attainable, realistic and timely) for both mentor and mentee.

MENTORS SHOULD BE WILLING AND PROPERLY TRAINED

The pros have been selected for their ability to teach dance skills as much as for doing a mean quickstep. Choreography, teaching, performing – they need it all.

MENTEES SHOULD BE PROPERLY BRIEFED

The relationship is key. When celebs have unrealistic expectations, they can run into trouble. The shows are a test of their development – and they know exactly when and where they're expected to perform. No confusion: you dance or you leave.



Imagine a world where you present a project and the programme lead, CEO, chief financial officer and operations director hold up numbered golden lollipops to tell you how you've done

also don't lose money if their partner is voted off. Arguably, that's good risk management.

● **But the (high) kicker?**

The judges – project sponsors – get a salary of between £180,000 (Craig) and £250,000 (Shirley and Bruno). As in the world of projects, it's the senior organisational execs that get the big bucks, even though it's the project managers doing all the work to deliver the transformations they'll end up criticising at the weekly check-in meeting.

It's just a shame project managers can't also get the kind of lucrative spin-off work the *Strictly* team can secure for being on the show. Dancer AJ Pritchard might only make £30,000 for the series, but last year his earnings were estimated at £360,000 when the live tour, TV appearances and endorsements were factored in. Earning 12 times your salary for work outside your main project? That's a deal every project manager could endorse! 📌

MENTORS AND MENTEES SHOULD BE PROPERLY MATCHED

Poor Anton du Beke. Every series of *Strictly* features a handful of no-hopers heading for an early exit. Anton's the only pro who's been on all 17 series, and his roll call of celebs would make anyone wince. He's only made the final once (series one) and had to cope with Esther Rantzen, Susannah Constantine, Gillian Taylforth, Ann Widdecombe

and Jerry Hall – all of whom were no-hopers. No wonder he looks so nervous during the results show this year.

Best on this score? Before drawing a short straw with Anneka Rice this year, Kevin Clifton had been a finalist in five out of six series, winning last year with the outstandingly well-matched Stacey Dooley.

THERE SHOULD BE A CLEAR EXIT STRATEGY TO THE RELATIONSHIP

When the red light falls on a couple in the results show, their project is over. But *Strictly* is known for mentor/mentee relationships that become... well, 'inappropriate' is a bit strong, but they don't end when the project is up.

Gemma Atkinson and Gorka Márquez, and Ashley Roberts and Giovanni Pernice, weren't actually paired, but still ended

up dating via the show. Stacey Dooley and Kevin Clifton turned a winning team into a romantic relationship. Rugby star Ben Cohen scrummed down with pro Kristina Rihanoff. And Joe Sugg and dancer Dianne Buswell are moving in together. But the 'Curse of *Strictly*' is something no project management mentor/mentee should risk.

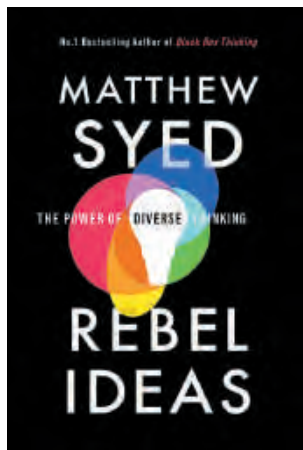
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7

New books, from saying sorry to improving your collective intelligence



Tim Banfield considers the why and how of apologising well, while *Dee Tamlin* enjoys Matthew Syed's treatise for cognitive diversity



REBEL IDEAS: THE POWER OF DIVERSE THINKING **Matthew Syed** **(John Murray)**

I first came across Matthew Syed when he closed the 2015 APM annual conference. He was as impressive then as he is in his latest book, which looks at the trade-off between excellence and diversity, and the power of bringing people together who think differently from one another, with the whole greater than the sum of its parts. His thesis is that diversity is the basic ingredient

of collective intelligence, which in itself is smarter than the individual brain.

While identity diversity (race, age, gender, religion) plays a part, it is cognitive diversity (perspective, experience and thinking styles) that dominates. What I really enjoy is how Syed weaves academic research in with anecdotes that bring it to life. He explains in detail how teams interact and explores why some are more successful. The point is also made that innovation is not

just about creativity, but about connections and networking to avoid information getting trapped within institutional boundaries. He warns that it is not sufficient for organisations to be aware of unconscious bias when recruiting diverse teams – they also need to optimise cognitive diversity.

Rebel Ideas is an interesting read. My key takeaways are: 1) Homogeneity creates blind spots. If a team is made up of people who have had similar backgrounds (even if they look different), blind spots should be expected. 2) Team commitment is not sufficient in complex situations if diverse perspectives are suppressed by a dominant leader. 3) Brainwriting (anonymously providing a possible solution) rather than brainstorming produces high-quality ideas as it gives everyone a voice.



Review by Dee Tamlin, head of client and legal project management at Pinsent Masons

SKIMMED Top reads at a glance

TEAMS UNLEASHED

Phillip Sandahl and Alexis Phillips

Team coaching is the way forward for more productive results, and this gives a clear and practical framework for team leaders searching for the right path.

ALIGN

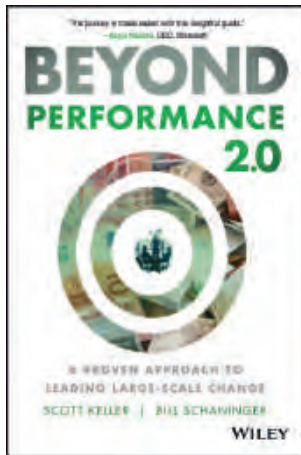
Jonathan Trevor

Why do some businesses thrive, while many more struggle? Alignment may be the answer. It's often the organisations that most cohesively align their constituent elements to serve a long-term strategy that are the best performing.

INDISTRACTABLE

Nir Eyal

Eyal tackles how to control your attention so that technology doesn't distract you from what really matters in your daily life: work and looking after yourself and your family. The trick? Use your tech time purposefully.



BEYOND PERFORMANCE 2.0: A PROVEN APPROACH TO LEADING LARGE-SCALE CHANGE
Scott Keller and Bill Schaninger (Wiley)

This book, by two McKinsey consultants, is about delivering ‘change at scale’. The change is organisational transformation and the scale relates to enterprise-level in large corporates. The original *Beyond Performance* book was written almost a decade ago about change leadership, whereas ‘2.0’ focuses on ‘Five Frames of Performance and Health’. The ‘Five Frames’ are not that distinct from most methods, but will interest APM members involved in transformational change.

What separates the authors’ methodology from others is the ‘Health’ component. This relates to organisational health and how effectively an organisation works together on common goals. They argue that many programmes have an over-focus on performance (results) and overlook health (culture). This invariably leads to long-term issues. Put simply, good health leads to long-term good performance. The key considerations for each step cover both ‘Health’ and ‘Performance’ factors.

Although examples given are of multinational corporates, the methodology is a thought process that guides analysis, design and implementation, so would also apply more widely.



Review by Andy Murray,
 a chartered director and
 management consultant
 at RSM UK

MY BEDSIDE BOOKS

David Worsley, associate director, transport planning, WSP

DOUGHNUT ECONOMICS

Kate Raworth

Criticism of orthodox economics is not new. Any A-level student will realise Paul Samuelson’s circular flow model excludes issues such as humanity’s impact on the natural environment. Raworth rectifies this, imagining a new economics. She proposes replacing economists’ preoccupation with equilibrium with analysis borrowed from biology’s concepts of reinforcing and balancing feedback loops in which a stable state is not necessarily achieved. Forces investigated are widened to include environmental and social ones, such as natural resources and unpaid work. The resulting model is more comprehensive and realistic.

OFFICE POLITICS

Oliver James

This book focuses on the organisational harm caused by staff exhibiting three related personality disorders: narcissism, psychopathy and Machiavellianism. James is a psychologist who illustrates the behaviour of this ‘dark triad’ with examples ranging from the comedic (eating all the sandwiches ordered for a meeting, then shamelessly denying their delivery) up to hacking a rival’s email and sending racist messages to get them fired. These types have no empathy, viewing colleagues as chess pieces in their game. A decade ago, I would have thought these examples outlandish, but now I see some workplaces really are that toxic.

17 EQUATIONS THAT CHANGED THE WORLD

Ian Stewart

I wish I had read a book like this at age 18. I gave up maths after school, only to find that I had to pick it up again in my 30s to progress in my chosen fields of project risk and value management, and transport economics. Stewart succeeds in injecting human interest into the equations that he covers by describing the history and personalities behind the algebra. This includes Pythagoras, Newton and Einstein, alongside some familiar to risk professionals, including Abraham de Moivre. Further interest is added by explaining equations related to subjects such as topology and information theory, which are little known outside the sphere of specialists.

THE APOLOGY IMPULSE: HOW THE BUSINESS WORLD RUINED SORRY AND WHY WE CAN’T STOP SAYING IT

Cary Cooper and Sean O’Meara (Kogan Page)

Have you ever wondered why so many businesses apologise for the most trivial things, but withhold apologies when things go really wrong? This fascinating book explores outrage culture and why it has left businesses unable to sincerely say sorry. Fear of mass disapproval driven by social media means they instead routinely apologise for trivial transgressions, issuing ‘fauxpologies’ and baffling customers with jargon. The authors examine why people quickly demand apologies and why businesses are so hasty to give them, often in a way that undermines their reputation.

Are the lessons relevant to project professionals? Well, projects are definitely not immune from criticism. Sometimes it’s fair, sometimes it’s not. Criticism, anger and

alternative presentations of facts by those with different perspectives are a fact of life – witness HS2! So, what to do? Acceptance of an apology is often conditioned by whether the cause is operational or cultural. People tend to be far more accepting of operational shortfalls – KFC running out of chicken hasn’t affected its long-term prospects. Cultural shortcomings are another matter. They are harder to deal with because they mess with the delusion that organisations genuinely care. This is an important distinction for a project professional operating to high ethical standards.

We also need to remember that contrition is a spectrum. Over-egging the atonement can rob future apologies of much-needed credibility. Keep your apology short and use simple language. For a project professional, being seen as authentic is key.

But the best advice in the book is the most obvious: have a plan to deal with adverse commentary and don’t rush

into reactive apologies. They are seldom seen as sincere. Far better to take time to reflect, plan and implement an appropriate response – music to any project manager’s ears! *The Apology Impulse* made me think differently about responding to criticism and the adverse coverage most projects receive.



Review by Tim Banfield, director
 at The Nichols Group



3 TRICKS TO REDUCE THE FRICTION AROUND YOUR PROJECT TEAM

Spell out 'how you do things around here' so that stakeholders know what to expect from you and can change tack accordingly



An acquaintance complained to me that “they just don’t get it”. He was confiding to me about the challenges of his agile implementation project and the friction he was rubbing up against within the organisation. “As we expand it to new departments, they insist they are already doing something equivalent, but they’re not. This organisation has been resistant to change forever.”

It got worse. “Now the senior sponsor has just asked me for a detailed nine-month plan on the agile implementation roll-out, plus a comprehensive business case. Once they heard that news, the department heads became totally unwilling to even listen to anything new. I hate the way we do things around here. We need a culture change!” he ended.

Organisational cultures are notoriously difficult to change – just ask anyone who has tried. Even project cultures are tough to improve because we have developed bodies of knowledge, certifications and support. Early on, project cultures used to be similar to organisational cultures, relying on experience and clarity to deliver, but even then friction was felt where the project came into contact with the business-as-usual organisation.

Then projects morphed from being concrete activities with a beginning, middle and end, where we could apply our waterfall methodologies, to more fluid activities, requiring us to be more nimble in a world where goals and the best route forward are often obscured. At the same time, increasing complexity and pace meant that the benefits come from a change deeply woven into the fabric of an organisation. This has led to an explosion in the number of stakeholders affected, and rising resistance to projects from outside it. To counter this effect, we added soft skills and new methodologies because delivering new projects demanded a different project culture to the one that had gone before.

Now projects needed learning, openness, engagement and influence. The culture of projects had become even less aligned with ‘business as usual’. The new projects also generated friction between the different project ‘tribes’, between PRINCE and agile, between RAD and Design Thinking, and many others.

Most cultures, which can be described by collective habits and ritual processes, arise organically from the pursuit of a strategy for success. My shorthand

Compare the culture of a caring and sharing Inuit community with that of a brash and determined New York

explanation is to compare the culture of a caring and sharing Inuit community with that of a brash and determined New York. You would fail if you implanted either culture in the other place. Once an overarching strategy, outcome or approach is decided upon, actions supporting it are elevated and actions that don’t are lost.

Culture is the cement that holds people’s thoughts, actions and behaviours in a tight range to achieve a shared goal, but every new objective creates friction with what has gone before. I’ve learned three tricks to reduce such friction.

PROFESSOR EDDIE OBENG

is an educator, TED speaker and the author of *Perfect Projects* and *All Change! The Project Leader’s Secret Handbook*. Read his white paper at eddieobeng.com/howdigitalwillsavetheworld. Tweet him @EddieObeng or read his blog at imagineafish.com

These all rely on the fact that everyone is adaptable enough in their thinking and behaviour to fluidly navigate different cultures, whether that’s between home and work or a social club. The secret to making it work is to make a custom culture for your project, then:

1 MAKE YOUR PROJECT CULTURE EXPLICIT. At the start of every project or meeting, I get people to share their hopes and fears (see QUBE.cc/PETs/Hopes&Fears). In my methodology, I add to the ‘Fears’ column concerns that I think we must overcome to succeed, for example: ‘People will not be open to learning’. As we discuss how to avoid the fears, we create a shared set of ground rules – a kind of mini-culture. Be sure to always engage stakeholders and non-permanent team members when working through this.

2 USE A FAIT ACCOMPLI. I learned this while creating a culture for a virtual reality project. It simply means announcing the ground rules as if they are immutable fact. If they are intuitively right everyone will go along with them. Find a couple of minor infringements to bring to people’s attention for reinforcement.

3 BUILD MICRO-HABITS. My fitness trainer once told me that each time I begin to type, I should check my shoulders are pulled back and my core muscles tight. I kept it up for a month and it became a habit. It worked because I was motivated to succeed, I was able to do it easily and I had a constant trigger. Every time I began to type, it would trigger my action. Try to reinforce your team ground rules with triggers.

For example, every time you meet, someone gets to say what they did wrong that day and what they learned. After a while, the ground rules will become ‘the way we do things around here’.

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