

PROJECT

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The voice of the project management community

 Association for
Project Management

MAKE CHANGE HAPPEN

HOW TO OVERCOME RESISTANCE AND DELIVER

INSIDE

Introverts: It's time to do them justice
Boom time in Iceland: How projects are transforming the nation
Big Interview: Meet APM Chair Milla Mazilu

Lifting the lid

There's a lot for you to discover in this issue of *Project*. If you're interested in understanding the details behind APM's latest award-winning projects, then look no further than our 'change makers' feature, where we include three behind-the-scenes accounts of how each project team achieved real success in making change happen. Boldness, integrity and adaptability seemed key.

Or you might want to learn from APM's 2022 Overall Project of the Year winner, Heathrow Airport, about the lessons its project leader took away from working on a critical project to improve the airport's firemain system. And – demonstrating just how broad-ranging the project profession is becoming – you can hear from APM's Young Project Professional of the Year, Rose Young, about how she is taking the beauty retail sector by storm.

We also lift the lid on what it's like to be an introvert in the profession. It was obvious that we'd hit a nerve when we put a call out to APM members asking if anyone would be interested in speaking about their experience of being introverted. I was contacted by many professionals who were keen to share just how hard it is to be an introvert in a profession that seems ostensibly to prize

extroverts. Our interviewees explained how they forced themselves to be something they weren't until they were no longer prepared to hide it.

If this is the status quo for most project teams, then things need to change, fast, because every team needs the skills and strengths of introverts, and everyone should feel welcomed at work. We hope the valuable experiences we share give you a jumping-off point to start talking and to start taking action on this issue. Let us know how you get on.

Someone who gets her career kicks from taking on knotty problems and who is unafraid to make bold improvements is APM's new Chair Milla Mazilu, who is our Big Interview this issue. She perfectly encapsulates the many forces at play within the project profession, so who better to help lead it towards a successful future?

Finally, you can also follow my own journey of discovery through Iceland, a country whose transformation is driving a boom in project management. When you're living atop a volcanic landscape, the Icelandic mindset of 'just do it' makes perfect sense. Their gung-ho resilience is to be admired.

Emma De Vita is Editor of Project

I was contacted by many professionals who were keen to share just how hard it is to be an introvert in a profession that seems ostensibly to prize extroverts



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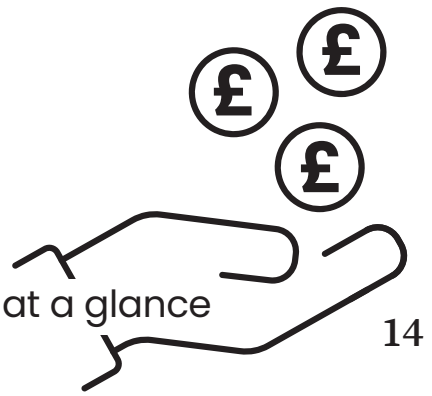
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20th anniversary of the completion of the Human Genome Project

Take three billion 'letters' and assemble them in the right order. That is a much-simplified description of the endeavour completed by global researchers between 1990 and 2003 known as the Human Genome Project, one of APM's 50 Projects for a Better Future. Although US President Bill Clinton and UK Prime Minister Tony Blair held a press conference in 2000 to present the sequence before the publication of papers, it wasn't until three years later that the research was completed. The project aimed to map the 'base pairs' – a type of code represented by the letters A, G, C and T – that make up human DNA. The number of human genes was discovered to be 20,500, with a remarkable 99.9% similarity between the genomes of every human. The huge collaboration between 20 universities completed its task two years ahead of schedule, and the global multi-lab approach set the stage for continuing research into genomics. Under the project's Bermuda Agreement, the decision was made to share the data as it was being generated without any restrictions. This continues to be publicly available for free, allowing scientists around the world to make use of it. Benefits include improved genetic testing and gene therapy treatments and a deeper understanding of human evolution. What's more, the project cost \$2.7bn, less than the expected \$3bn.

Perspectives

Project management salaries • The 'black box' of megaprojects • Gender diversity • Empathic leaders

Empathy matters

Belinda Parmar on the value of becoming a more empathic project leader who encourages a project team culture that's strong on empathy



Belinda Parmar, founder and CEO of The Empathy Business, who was also the keynote speaker at APM's 2022 Women in Project Management Conference, uses the science of empathy to change the way we lead at work, adapting cultures to bring more empowerment to people's lives, with a focus on belonging and diversity. Parmar is also the creator of the Global Empathy Index, published in the *Harvard Business Review*, which is the first index to measure empathy and inclusion at scale.



Q How do you define empathy?

A It's the emotional impact that the company has on its colleagues and customers. There are three types of empathy. There's cognitive empathy, which is about understanding others' perspectives. There is affective empathy, which is when you feel someone's pain. And then there's behavioural empathy – this is about when empathy moves you to act. Empathy is very different to sympathy. An example of empathy

in action is you telling me something sad and me saying: that's really sad that you've got an issue; let's sit down together and work it through. I will support you, but ultimately the responsibility and accountability are with you.

Q Why does empathy matter at work?

A Empathy matters because we spend 50 years of our lives at work, so that's more time than we get to spend with our kids, our families. For a lot of people, work should be a place of purpose, of meaning – a place where you feel like you have a voice. But the reality is that most of us think that work is not a place where we feel that. In the way organisational design has been created, we've knocked empathy out of the workplace, and what I want to do is transform the workplace to bring more empathy back into it. More empathic companies not only make more money, they also have higher levels of engagement, lower burnout and they're more diverse.

Q What advice would you give to project leaders about empathy?

A We're all a work in progress, and I think that's really important. The other thing is, we have to create the conditions for empathy because you can't expect people to show empathy if you don't even talk about it and don't reward it. So show people what great empathy looks like, what an empathy deficit looks like – it might be in the process, it might be in the way you write an email. If you're leading a project

team, making it a regular part of your conversation is really key. It's not a tick-box exercise. It takes time. It takes the involvement of people, and you've got to really show people what great empathy looks like, whether that's the way a meeting is conducted or the way a project is delivered. Empathy is everybody's responsibility. Create five or 10 empathy nudges, which are just small shifts that you're going to make. It might be that you're going to speak to clients in a more empathic tone. It might be the way we run

More empathic companies not only make more money, they also have higher levels of engagement, lower burnout and they're more diverse

internal meetings, or it might be the way we give feedback to each other. You can't really have empathy if you don't listen and you just want to tell the other person what you think. You don't have to agree with someone – the empathy is in the listening, so they feel heard, they feel visible and that you've taken the time to listen. What we need right now are managers and leaders who can really embrace difficult conversations, because that is where empathy is key.

Listen to APM Podcast's interview with Belinda Parmar on Spotify, Apple or Google



5 lessons learned

Nick Smallwood, CEO, Infrastructure and Projects Authority

What are the most important leadership lessons that the IPA's boss and the recipient of APM's 2022 Outstanding Achievement Award would pass on to project professionals?

1 Be clear on the expected outcomes and get the basics right from the very start of a project – known as 'front end loading'. This is fundamental in delivering successfully because the success or failure of a project is often determined in the early stages. Spotting and managing risks early on can prevent issues further down the line.

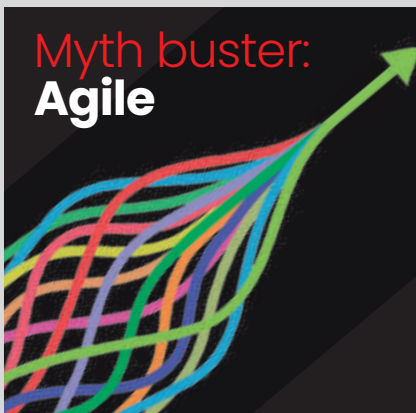
2 Equip people with the tools and capability needed to deliver successful projects. Projects ultimately deliver the public services that allow the UK to thrive and people are at the very heart of this. We are incredibly active in this space and have placed a huge focus on learning and development. New guidance and training products continue to be developed by the IPA and can be

accessed through the Project Delivery Hub for civil servants, as competent people deliver great projects.

3 It is crucial to share best practice and leave a learning legacy. This knowledge and insight can inform future projects and programmes to ensure the same mistakes are not made twice and successes are replicated. By utilising data and insight, we can have an even greater impact; a vision that needs to be mutual across government and industry.

4 The world is constantly changing and we have to adapt. This is especially true when it comes to meeting our commitment to net-zero carbon emissions. Building more sustainable infrastructure is the future. Equally, we must embrace digital technologies and innovation across all of our projects. That is why we developed the Digitalisation in Infrastructure Projects guide to demonstrate the digital opportunities that are available.

5 Projects are critical to the UK's progression as innovative world leaders – but we need to deliver them more efficiently. By transforming our approach, we can reduce overall costs at a time when it is most important for economic recovery and leverage key skills and technology where we don't have enough people to deliver our projects.



Agile project management is an iterative approach to delivering a project. Iterative or agile life cycles are composed of several iterations or incremental steps towards completion. Iterative approaches are frequently used in software development to promote adaptability, since the benefit of iteration is that you can adjust as you go along, rather than following a linear path. One of the aims of an agile or iterative approach is to release benefits throughout the process, rather than only at the end. At their core, agile projects should exhibit central values and behaviours of trust, flexibility, empowerment and collaboration.

Comment

Ask yourself: is my project effectively efficient?

Nick Fewings shares his thoughts on an often misunderstood yet important consideration for achieving project success



Is the question of whether your project is effectively efficient one that you have considered? If the answer is no, you are not alone, but effectiveness and efficiency need to be uppermost in your mind from the inception of your project and throughout its life cycle. Here's why.

If you search online for 'project failures', you'll be awash with results. If you dig deeper and read the reports, articles and case studies on why these projects failed, in the majority of cases they will lead you back to two underlying issues. First, getting the project strategy or goals wrong. Second, not delivering in terms of timescales, costs or quality, or a combination of all three. In essence, *what you do and how you do it*. The former is about effectiveness, while the latter is about efficiency.

Both words are frequently used, often without a full appreciation of what they truly mean, their symbiotic nature and the consequences of focusing too much on one to the detriment of the other. This was confirmed recently in a LinkedIn survey that I undertook, in which only 5% of respondents said that it was important to consider both effectiveness and efficiency.

One of those respondents stated: "I'd suggest it's a balance between the two and the location of the fulcrum depends on the level of risk associated with your project/product/service. A high-risk service (such as saving lives) would tend towards effectiveness, for example."

I totally agree, and the key is having the understanding and awareness of both. The other 95% of respondents who chose either effectiveness or efficiency could be focusing on achieving a goal that is

a huge drain on their resources or accomplishing goals in a resourceful way but focusing on the wrong ones.

Effectiveness is about accomplishing the right thing, whereas efficiency is about accomplishing something resourcefully. What comes first, effectiveness or efficiency? In my experience, it is effectiveness, doing



Effectiveness is about accomplishing the right thing, whereas efficiency is about accomplishing something resourcefully

the right thing, that comes first, as there is nothing as wasteful, or indeed damaging, as being efficient at doing the wrong thing. So, initially your team needs to be asking the question: are we doing the right thing? Once your team has agreed the right goals, then they should be asking the question: how do we do the right thing in the most resourceful way?

In high-performing teams, understanding effectiveness and efficiency helps them to focus on achieving the right goals in the most resourceful way. In terms of teamwork, different aspects of teamwork align

more with effectiveness, others with efficiency.

As an example, consider three of the 16 elements of the Team DyNAMics Model, which helps teams to measure their effectiveness and efficiency. 'Team Purpose' is defined as the understanding of why the team exists, what this enables and the benefits this delivers. So, on the fulcrum of effectiveness and efficiency, it falls on the side of effectiveness. 'Processes', defined as the rules, regulations and guidelines by which tasks are achieved, aligns with efficiency. 'Transformation' is defined as the implementation of ideas to change what is done and how things are done to become more effective and efficient, so it is at the midpoint of the fulcrum.

Effectiveness and efficiency also work on a personal level. As a keynote speaker talking about high-performance teamwork, I can be effective if I deliver a speech that meets the agreed objectives; but I am not efficient if I take an hour and a half when I've been allotted an hour. However, I could deliver it efficiently by being on time but delivering learning that doesn't meet the objectives. Success only happens when I am both effective and efficient.

I would therefore suggest that the title of the 1982 Fun Boy Three/Bananarama hit 'It Ain't What You Do, It's the Way that You Do It' needs to be changed to reflect both effectiveness and efficiency. I suggest 'It Is What You Do and the Way that You Do It', as that's what gets results!

Nick Fewings' book *Team Lead Succeed (2022)* helps teams achieve high performance and greater success

The state of the art of risk management in projects

APM's Risk Specific Interest Group ran a survey to assess perceptions of risk and opportunity management on projects

Project risk management helps with achieving project objectives, especially those concerning cost and time. APM defines a risk event as "an uncertain event or set of circumstances that would, if it occurred, have an effect on the achievement of one or more [project] objectives". Using this definition, risks can be either threats that hurt the objectives or opportunities that benefit them. Project professionals have expressed concern with the concept that risks can be 'positive', since it does not align with thinking in the non-project world, where risks are always negative. There is also a feeling that opportunities are often not identified, and if identified, they are treated differently from threats.

APM's Risk SIG conducted a survey among APM Corporate Members to assess the state of risk management, with an emphasis on opportunity management. Over 100 project professionals responded, and around 80 completed the entire survey. The survey was anonymous and included questions about experiences with risk management on a recent project, as well as the wider organisational view.

Over 90% of the organisations that responded carry out project risk management and use APM's definition of a risk event. There is, however, quite a difference between the application of risk management for larger projects and for smaller ones. As an example, 70% of larger projects have someone taking the role of risk manager, whereas for smaller projects this is only 35%. Quantitative risk analysis is used in over 60% of larger projects, but in less than 30% of smaller projects. The results show that risk management is taken very

seriously by project organisations, but more so for larger projects.

Part of the survey focused on opportunities and showed that 50% of organisations see opportunities



Some indicate that opportunity management could benefit from its own process and register

as quite different from threats, and they are not viewed as 'two sides of the same coin'. The most striking answer was that an opportunity involves a conscious choice whether to seize it or not (66% of the respondents), whereas a threat is an event that may or may not happen. Organisations seem to relate opportunities less to the risk world, where it is completely uncertain whether the opportunity will materialise or not, and more to the business world, where one can choose to seize an opportunity.

Over 70% of the organisations indicated that they pursue

business-related opportunities on their projects. For 55% of organisations, the distinction between a risk-related opportunity and business opportunity is not clear. Project managers like to keep control of these opportunities, though; fewer than 10% want to leave opportunity management purely to the business. Although there is confusion about the 'opportunity' concept, most organisations feel they can properly take advantage of opportunities (over 70%) and don't identify opportunities just to comply with the client's request (less than 15%). There is also reluctance to discuss opportunities with the client.

The concept that risks can be positive is difficult for some. Over 60% of respondents associate 'risk' with just a negative outcome, and over 65% would prefer the term 'threat and opportunity management' over 'risk management' in projects. Over 60% would even like to use the term 'risk and opportunity management'.

There was a repeated call to change the risk terminology so that risks cannot be positive, but not necessarily to overhaul the risk management process completely. Some indicate that opportunity management could benefit from its own process and register; others want to prevent creating yet another process and ask for more gradual changes. APM will publish the full outcomes and recommendations from the survey that can act as a starting point for this discussion.

By Alexander Verbraeck, TU Delft; Marian Bosch-Rekvelde, TU Delft; Sara Rye, London South Bank University; and Peter Simon, Lucidus Consulting

Why discovering invisible barriers is critical for success

Vip Vyas and Thomas Zweifel on why peeking into the 'black box' of megaprojects is critical to understanding why failure happens



We know that 65% of megaprojects

fail. Either they go over budget, over time or both. Or they don't meet their objectives. At a current investment of \$20 trillion per year in major projects, this would be like flushing \$13 trillion down the drain.

Did you know that, by 2027, an estimated 88 million people will work in project management-related roles? What factors are driving this trend? At least four can be observed. The first is the projects and programmes needed to combat the unprecedented challenges facing humanity. A second driver is the massive Chinese Belt and Road and US Build Back Better initiatives, designed to reconfigure, boost and expand the primary, secondary and tertiary sectors of two gigantic economies battling for geopolitical supremacy. Both have already spurred enormous demand for advanced project leadership.

It's time to course-correct

Then there is the impact of the COVID-19 pandemic – governments worldwide are making significant investments to help their sluggish economies rebound. Last but not least is the exciting lure of emerging disruptive technologies – such as the metaverse, blockchain, fintech, artificial intelligence – where business angels, venture capitalists, family offices and wealth managers see opportunities for exponential returns.

The project volume is there, but so is the risk. And we have a simple choice. We will either keep going as we always have, playing major projects and megaprojects like a lottery and usually (two out of three) failing. Or we will finally get to the bottom of why megaprojects systematically go wrong so we can course-correct at the root-cause level and put in place the critical path to make megaprojects succeed.

A system of failure

There are piles of books on project management: a recent search yielded over 20,000 results on Amazon alone. A smaller number of specialised books cover specific project methodologies. The bookshelf becomes extremely sparse in providing a ground zero, eye-level view of how large projects function in real time. This gap stems from the fact that relatively few people have worked on complex megaprojects from initiation to final operations. An even smaller number have the time to document, analyse and articulate their experiences in a meaningful way. And virtually nobody has deep insight into the human dynamics of megaprojects. This is a significant gap in the field of project management.

Many projects create an invisible 'system of failure' that predictably derails the project and has it spinning out of control. Creating a 'system for

success' is about creating a project environment, a force field, that sets the project up to win even when the pressure is on and the circumstances look ugly.

What we do in the shadows

There is one thing that consistently goes wrong in megaprojects. One missing element, a critical ingredient that requires a radical rethink and reboot of project management. This one thing is not the technical stuff. And it is not what is in the manual or the Gantt chart. It is the stuff in the background, in the shadows. It is in what people do not say. Or what they do not even see, though the writing is on the wall. They ignore the warning signs.

When megaproject expert Bent Flyvbjerg looked at what goes wrong with megaprojects, he researched extensively the political, strategic and operational crash factors, making vital contributions to the field. In his analysis (and theory), he has also directed the industry towards human factors, such as bias. But, as Einstein is supposed to have said: in theory, theory and practice are the same; in practice, they are not. The human element, with all its facets, from blind spots to bias to culture and communication, remains a 'black box'. We wanted to look at projects from a different angle. The angle we look from is our direct experience with projects. In our book, we open the black box. And we aim to make the human component accessible and actionable.

Gorilla in the Cockpit by Vip Vyas and Thomas Zweifel is out now. Hear Vip Vyas discussing the book in his APM Podcast interview on Spotify, Apple or Google.



Bouncing back after COVID-19

The 2023 APM Salary and Market Trends Survey highlights optimism in the profession. Here are the headline findings...



The eighth biannual APM/YouGov survey received 2,806 responses from project professionals across multiple sectors, including APM members and non-members. Respondents came from multiple sectors, with the majority educated to university level or above (81%) and 15% being chartered.

Happy and optimistic in work

Job satisfaction among respondents was very consistent, standing at 81% in 2023 vs 83% in 2021. **The median average base salary for project professionals was £47,500**, which has not changed for the fifth consecutive year. There was a drastic increase in the proportion of respondents who expected to increase their pay since 2021, with a rise from 48% to 65%. What's more, **80% were optimistic that there will be a good supply of jobs in the**

next five years, up from 78% in 2021. After a sharp drop in 2021, the proportion of organisations looking to recruit has reached a five-year high, which could be a result of recovery from the COVID-19 pandemic.

Confidence, flexibility and opportunity

Respondents' likelihood of changing employer increased in this survey period, returning to near pre-pandemic levels. Changing employment was fairly common, with **32% saying they are likely to change their**

job in the next 12 months, up from 26% in 2021. When asked why they were likely to change jobs, the most common reason was wanting to earn more (59%) and looking for a change (50%). **When asked why they are unlikely to change jobs, the most common reason given was being happy with their current employer (62%)** followed by being happy with their current role (52%). The 18- to 24-year-old group has the highest proportion saying they are unlikely to change employers (74%).



Mary McKinlay

One of the trailblazers of the project profession and the first female Fellow of APM, Mary McKinlay celebrated her 80th birthday in February. *Project* spoke with Mary about her career and the changes she's witnessed in the profession over the years.

Q How did you become interested in project management?

A I've had a lifelong interest in engineering and technology. I enrolled to study biochemistry at Chelsea College and then undertook an Open University degree. While studying for that, I came across a course in systems thinking, which I was inspired to apply to project management. After gaining my degree, I began working for GEC Marconi in 1978.

Q What have been some of the highlights of your career?

A My first role at GEC Marconi was a technology role, and I was assigned to a team working on the iconic Tornado combat aircraft. I wanted to enhance the management and delivery of projects within the company and was encouraged by the desire of the Chairman, Lord Weinstock, to improve project management within GEC. Lord

Future skills

The below figures show responses to the question of what skills are needed to be a model project professional. Communication skills were the most valued skill, with 44% selecting it in their top three, followed by project leadership (38%) and stakeholder engagement (34%). Men were more likely than women to think that project leadership (42% vs 33%) and people management (33% vs 23%) were important, while women are more likely to mention communication skills (47% vs 42%).

44%
COMMUNICATION SKILLS

38%
PROJECT LEADERSHIP

34%
STAKEHOLDER
ENGAGEMENT

29%
PEOPLE MANAGEMENT

24%
PLANNING AND
MONITORING
(AND SCHEDULING)

20%
RISK MANAGEMENT

16%
FINANCIAL MANAGEMENT
(INCLUDING BUDGETING,
COST CONTROL)

16%
PROJECT GOVERNANCE

13%
RESILIENCE

12%
TIME MANAGEMENT

11%
DIVERSITY OF THINKING

1%
N/A - NONE OF THESE ARE
THE MOST IMPORTANT



Where change is needed

Project professionals from ethnic minorities were more likely than their white counterparts to agree that their ethnicity has had a negative impact on their professional development (24% in 2023, down from 27% in 2021). There were also **30% of ethnic minority professionals who reported that they felt their ethnicity has had a positive effect on their professional development.**

Overall, 15% of respondents considered themselves to have a disability or long-term health condition. Of this group, 32% said it has had a negative impact on their career, while 21% said it has had a positive impact.

To access the report, visit the resources section of the APM website: apm.org.uk

Weinstock established an internal programme dedicated to project improvement. I became one of their trainers and troubleshooters. I remember one day flying in the company aircraft from Rochester to Norwich. We detoured to another RAF base to deliver some parts. While we were there, three Tornados parked on the runway were waiting to take off. Up until then, I hadn't seen my aircraft fly. They took off and I

was in tears. That was six or seven years of my life in those planes. It was incredible to see.

Q What are some of the main ways project and programme management has changed since you began your career?

A Years ago, I found the profession to be quite exclusive of people who weren't involved in construction. Now we know that project management is a

transferable skill that can be used – and is used – in all industries. Other main changes have been concerned with people and technology. Initially we used machines like DEC VAX. Access was by booking a dumb terminal to input data or providing paper to be used to create punched tape. We received the output sometime later as mounds of paper, which were hard to analyse. With the advent of PCs, access was

easier and results were obtained more quickly. Networking and email improved things further while bringing different problems – it was easy to set things up but harder to integrate. There has also been greater acceptance of the fact that people make projects. Recognition of this brought about changes in how project personnel were treated. The psychological environment on projects became warmer.

Professor Adam Boddison

Capacity and capability: the catalysts for change

APM's Chief Executive on reigniting the latent project capacity in the workforce



Too many parts of our society are fundamentally broken. There are first-world countries with people living in poverty. War, conflict and political instability are constant issues. Social inequality seems to be getting worse. The combination of an energy crisis and a cost-of-living crisis is forcing some to choose between heating and eating. Climate change is already affecting us, with many concerned we have left it too late to do anything meaningful about it.

These problems are well known, but how do we get better at solving them? The UN has arguably led the way at a strategic global level with its Sustainable Development Goals (SDGs), a “blueprint for peace and prosperity”. However, articulating the problem and knowing what needs to be done is not the same as actually putting the solutions in place. The hard reality is that fixing society's issues and delivering the 17 SDGs requires major, coordinated change. And if there is a group of professionals who really understand how to deliver change effectively, it is project professionals.

In 2021, the strategy implementation scholar Antonio Nieto-Rodriguez forecasted that the world would need 88 million project professionals by 2027. Given that the UK's contribution to global GDP was 2% in 2022, one could argue this means we will need 1.76 million project professionals in the UK by 2027. The good news is that we might already have exceeded this target, with research undertaken by PwC

in 2019 suggesting there were 2.13 million project professionals in the UK. The bad news is that many of these are not aware they are project professionals (in APM terms, they are ‘accidental project professionals’).

This means we are in an interesting position in terms of our project capacity in the UK. The debate around project capacity within the workforce has typically been based on the premise that we do not have



I am absolutely convinced that project professionals have a vital role to play in delivering the scale and pace of change we need

enough project professionals. Indeed, recruitment challenges and a lack of project capacity are a regular feature of the conversations I have with those leading corporate organisations, although this is often related to geographical constraints.

Let's consider an alternative perspective for a moment. Perhaps we do have sufficient capacity and our focus should instead be on ensuring all of these professionals understand they are in project-related roles.

The reason for doing this relates to the other catalyst of delivering change, which is capability. Once people are aware they are project professionals, they are likely to be more deliberate in undertaking project-related professional development. This, in turn, builds project capability (and arguably capacity too) into the workforce.

It's fair to ask the question about whether ‘accidental project professionals’ would want to be considered project professionals at all. Some believe (incorrectly in my opinion) that project professionals are all about paperwork and processes rather than delivery of change and benefits realisation. That said, the few ‘accidental project professionals’ I have talked to about this have found this insight about their roles to be a revelation. This may be anecdotal, but to quote Levelling-up Secretary Michael Gove, “the plural of anecdote is data”, so we should certainly be mindful of this approach.

Returning to the issue of our broken society, I am absolutely convinced that project professionals have a vital role to play in delivering the scale and pace of change we need. However, it is project capacity and capability that are the catalysts for this change. Therefore, we need to reignite the latent project capacity within our workforce and invest significantly in developing project capability. There are many specific aspects to building project capacity and capability into the workforce, but here are a few areas that



Jenn Harris
Programme Manager,
Department for Environment,
Food and Rural Affairs



are strategic priorities from an APM perspective:

1 International collaboration is essential. Ultimately, the project profession is 'one profession' and so it's important that APM aligns its efforts with its international siblings, notably the PMI (Project Management Institute) and IPMA (International Project Management Association).

2 The project profession must have relevance and prominence within non-traditional project sectors.

3 We need to be adaptive on the balance we strike between technical excellence and strategy delivery. This will mean more chief project officers, more Chartered Project Professionals (ChPPs) and an increased 'projectification' of leadership. This is one of the reasons that APM has launched its 1/10/100 initiative, designed to accelerate us towards having 1,000 corporate partners, 10,000 ChPPs and 100,000 members.

4 It is important that the automation and predictive power of project data analytics dovetail with the human power of emotional intelligence and effective leadership. APM's Data Advisory Group is helping to ensure we get this right.

Ultimately, we know that when projects succeed, society benefits. The next step is to ensure we have the capacity and capability within our workforce to make this a reality.

Project spoke with Jenn Harris about her research into factors affecting gender diversity in the male-dominated profession of construction.

Q How did your career lead you to be interested in gender diversity?

A While working in construction, I was surrounded by young, ambitious women who had done apprenticeships and come in as trainees. But there were no female senior leaders or directors. I wanted to look at barriers to women entering, but also to them progressing.

Q What did your research find?

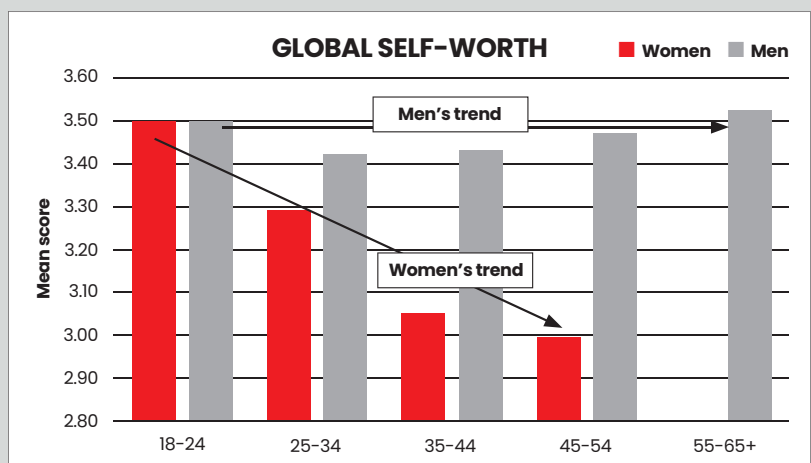
A I surveyed 131 construction consultants. One area that stood out as significant was 'global self-worth'; that is, respondents' perception of worth, such as liking how they're leading their life or liking the kind of person they are. There's a clear trend that women's perception of global self-worth decreases as they get older. Men showed a slight dip between the age groups 18-24 and 25-34, but then their sense of global self-worth increases continuously (see graph below).

Q What does this mean for project-centric industries like construction?

A Gender-diverse companies are 25% more likely to achieve above-average profitability. Also, construction companies with women in executive roles experience above-average financial performance.

Q How can companies make a difference?

A Women who are returning to work have a lot to bring to the table. A lot has been said about T-Levels and recruiting new graduates. But what happens when someone leaves to have a child? Or to people who are seeking a new career after being in the military? That experience can give people so many skills that are usable in construction projects. Women who are returning to work have a lot to bring to the table. We all have such long careers now. Don't discount people because they've had a break in their career.



In every way you look at it, a project professional is a change maker, but while you might be enthusiastic about change, getting others to sign up to it can be a hard task.

“Project managers do have to be very good on the business case and the financials, but that’s really just the thing that gets you through the door,” says Carmel McConnell, founder of breakfast for kids charity Magic Breakfast, author of *Change Activist: Make big things happen fast* and keynote speaker at this year’s APM Conference. McConnell says that projects are essentially about delivering change, and that making change stick depends on the ‘why’ at least as much as the ‘how’.

That means persuading others that what you are changing really needs to be changed, and for reasons that matter to them rather than just because the boss says so. “Most people don’t care about new projects. If they’re in a meeting and someone says, ‘We’re going to do this great new project’, what most people are thinking is: ‘Shoot me now. I’m too busy,’” says McConnell.

The way to get over that initial negative reaction, she says, is to understand not only the business case for change but also the emotional and even moral case – why this change has to happen and how they can contribute to it personally. “What do I bring to this as a human being with my own values? What will I want to talk to my

mates in the pub about? If you can get that nailed, as well as the business case, it will build real commitment to a project – it’s a rocket booster.”

Fear of change, while much discussed, is not as much of a roadblock as it can at first appear. “What people really fear is unwelcome change. The sense that another burden is being heaped upon them. But if they’ve been involved in the process and the improvement is something they feel genuinely signed up to, then you don’t get that big fear,” McConnell adds.

Emotions over logic

The change challenge is compounded by the fact that, for many project professionals, ‘change’ is still more about stuff rather than hearts and minds, adds Donna Unitt, Chair of APM’s Enabling Change Specific Interest Group. “When you ask them, a lot of project managers will say that change is about new IT systems, for example, rather than people change. But often issues with accepting change arise when people’s emotions take over. So we’ve been doing quite a lot of work on the neuroscience of how our brains work, and how people tend to be led by their emotions rather than by logic.”

That calls for project professionals with a wider set of skills that embraces not only practical delivery, but also ‘softer’ leadership factors. “It’s more about empathy, listening and communication.



**THE
CHANGE
MAKERS**

**ANDREW SAUNDERS REPORTS ON
PROJECT PROFESSIONALS' PIVOTAL
ROLE IN MAKING CHANGE HAPPEN
AND HOW THEY EXPERIMENT WITH
CHANGE THEMSELVES**

You do need a level of emotional intelligence, but it is something that can be learned,” says Unitt. Another key is to make sure that they factor in change management from the start of a project, so that it does not fall by the wayside as things progress, she adds. “It’s about realising the need to build time into your project plans to spend with people and find out where they are coming from, rather than just trying to bulldoze things through.”

Negotiation and inspiration

Ultimately, these softer skills will become increasingly important for career development as technology takes over more of the everyday tasks of project management, concludes McConnell. “The technical aspects will become increasingly outsourced – they already are. No one is sitting drawing critical paths anymore. But there will always be change in business, new projects starting and people who are confused about it. So the job becomes more about negotiation, inspiration and how you make sure your project gets in front of the board, rather than someone else’s.”

Here follows a series of accounts by 2022 APM Award-winning change makers on how they made change happen, and how they experimented with change themselves.



CYBER RESILIENCE PROGRAMME, MOD & ATKINS

Winner of APM's Innovation in Project Management Award

Cybersecurity is increasingly on the frontline in the 21st-century world of defence. The Cyber Resilience Programme (CRP), a Ministry of Defence (MOD) initiative supported by Atkins, is a 10-year plan aimed at making the organisation more responsive, flexible and effective in managing cyber-risk.

Challenging a long-standing MOD culture where fixed project deliverables are defined at the outset was key. “We’re a risk-averse organisation and it’s hard to change that,” says Jason Gneswaran, CRP Programme Manager for the MOD. Introducing innovative approaches such as the use of ethical hackers and bug bounties (payments to hackers for finding vulnerabilities) required project leaders who were able to persuade the owners of some highly sensitive MOD systems that these new approaches were the right thing to do, says Steve Morgan, who set up the project in 2019 as an Atkins managing consultant to the MOD, before handing over to Gneswaran in 2021. “We were basically saying, ‘Do you mind if we use ethical hackers to try and penetrate your system?’ Many people were understandably nervous about it.”

But once it became clear that this novel approach was getting results, they quickly came round, Morgan adds. “They [the hackers] found vulnerabilities that other forms of penetration testing had not. The system owners quite rapidly moved to become advocates.”

With 60,000 civilian staff, simple human error is still a major source of cyber-risk for the MOD. The CRP’s teams worked with behavioural scientists on more effective ways of building awareness, such as games where employees’ understanding of cyber-risk are put to the test, and even set loose a ‘malicious floor walker’. The latter being someone wearing a T-shirt emblazoned with ‘I am a cyber-risk’ who approaches employees and asks, for instance, to borrow their laptop to charge a phone. “Letting someone log into your computer without knowing who they are is a real security risk,” says Gneswaran. “But often we say yes because we want to help each other.”

The effectiveness of the behavioural initiatives on culture change has been an eye-opener, says Gneswaran. “I’ve been involved in transformation programmes that, in hindsight, I can see would have been more successful if we had included a suite of behavioural interventions. I’ll definitely take that with me to any future change programme.”

*Simpler,
smarter,
better*

'It's adapt or die'

PROJECT ORPHEUS, ROLLS-ROYCE

Winner of APM's Transformation Project of the Year Award

PROJECT RUBIX, OPENREACH & ACCENTURE

Winner of APM's Programme
of the Year Award

Openreach's 12,000-strong Fibre Network Delivery unit has the crucial task of connecting 25 million UK homes to the fibre-optic network. But issues with disjointed systems, legacy IT and a variety of regional ways of working were causing delays and incurring excessive cost.

Enter Project Rubix, a digital transformation partnership between Openreach and Accenture starting in March 2020, which aimed to realise over £100m of efficiency savings annually. "Our CEO wanted us to go faster. The aim of Rubix was essentially to drive significant savings that we could reinvest into the fibre build," explains Zane Bowen, Transformation Director at Openreach.

Analysis of previous projects identified some common failings, notably that transformation teams tended to work in isolation and did not engage with the wider operational business early enough. The result was a feeling that transformation was something that was being done to the business rather than by and for it, and a consequent unwillingness to get behind change. "Transformation was an island in head office where we looked at spreadsheets. The conditions for project success were not really present," says Bowen.

So, for Rubix, operational staff were built into the agile delivery squads from the start, ensuring that not only their knowledge and input were incorporated into the project, but also that people felt involved in the change. "Embedding operational voices into the squads was really important – it meant they really felt part of the team and were wedded to the success of the initiative," he says.

A clear strapline – 'Simpler, smarter, better' – made it easy for people to

The opportunity to discover and test radically new ways of working was a key driver behind Rolls-Royce's groundbreaking Project Orpheus. Its deliverable in the traditional sense was a small, fuel-efficient jet engine for testing, but the less tangible results – innovative ways of working and an eagerness to embrace change – were in many ways more significant.

The need for more change, faster, is increasingly pressing, says Project Orpheus team leader Alex Darvill: "It's adapt or die." Eschewing Rolls-Royce's traditional project teams, where individuals cycle in and out as their expertise is required, Orpheus took an approach based on making change stick through continuity and accountability. Its core team members were hand-picked because they were representative of the company's demographic – and 80% of them stayed with the project as it progressed. "There's a continuity of people," says Darvill. "Most quality escapes happen at the interfaces where you hand over work to somebody else. We had roughly 100 times fewer interfaces than usual at Rolls-Royce."

Working in scrums of eight or nine, team members were empowered to 'unclog the arteries' by choosing the simplest and most appropriate methods to achieve the task. This was such a huge mindset change that the project leaders even devised a thought experiment to help their people make it. "When they were faced with a problem, we said to the teams: 'Ask yourself what you would do if you were working for a start-up in a garage.'"

The key insight was that the real value of an agile hardware project is learning. "Learning is our minimum viable product. By releasing as much learning as possible as early as possible, much less unanticipated risk emerges through the course of the whole project," says Darvill.

Ultimately the goal was to allow the team to demonstrate their true capability and creativity. "You can get 10% more just by getting people to do a process faster. But if you can empower them to completely recreate the process themselves, that's doubling or tripling their effectiveness. This is what made the project special to me: creating an awesome team and watching them make the impossible possible."

understand the overarching purpose of a large and complex project, and the results speak for themselves. Savings of £400m were achieved over three years; 2,000 engineers were freed up to work on the fibre build; and there was a 23% increase in engineering throughput and a 90% reduction in complaints. "Change is always the hardest part of any delivery," concludes Bowen. "But the more you win the trust of the people you are landing the change into, the easier it becomes over time."



TRANSFORM

EUROPE'S NORTHERNMOST STATE IS FAMED FOR ITS NORTHERN LIGHTS, BUT PROJECT MANAGEMENT'S STAR IS ALSO IN THE ASCENDANT. EMMA DE VITA REPORTS MID-WINTER FROM THE VOLCANIC ISLAND.

In this geologically volatile country of fire and ice, there's a saying the locals live by. *Petta reddast*, loosely translated, means 'everything will work out in the end'. When you live on a collection of volcanic islands with a tiny population

of just under 380,000, resilience, adaptability and high levels of trust are the way to survive. What's more, the gung-ho Icelandic mindset of 'just do it' (they were centuries ahead of Nike) is fortuitous when it comes to project

managing the various transformations Iceland has passed through as it has modernised over the past century.

Project management is central to Iceland's latest transformation into a sustainable nation. Surrounded by



ING ICELAND

snow-covered volcanoes, mountains and lava fields, the country's diminutive capital Reykjavík is replete with roadworks, cranes and construction sites. Major works include a new hospital, a new public transport line and the ongoing development of the airport. With such a tiny and concentrated population, when you work on projects like these, you really get to see and appreciate first-hand the benefits they bring.

A century ago, Iceland was an undeveloped society, explains Helgi Þór Ingason, Professor of Project Management at the University of Reykjavík, who runs its Master of Project Management (MPM) programme alongside his teaching partner of nearly 20 years, Professor Haukur Ingi Jónasson. "My grandparents lived in a house made from mud," the latter explains. The Iceland of the 1920s is a long way from today's ambitious nation that attracts

three million tourists a year, who come to enjoy its waterfalls, lagoons, smoking volcanoes and boiling mudpots. But these natural features are more than Instagram eye candy. Nature's power is key to fuelling Iceland's energy transformation.

Energy transition

It began in the 1940s when the country moved from a reliance on oil and gas for domestic heating to geothermal power, fuelled by the geological volcanic →

The Reykjavík region is home to two-thirds of Iceland's population



“Project governance and the decisions regarding projects are being gradually pushed upwards in the hierarchy of the company”

Hellisheiði Power Plant is the largest geothermal power station in Iceland

SOURCES: FRÍÐGEIRSSON, INGÁSSON AND JÓNASSON, PROJECT MANAGEMENT IN ICELAND (2019); EIU; THE ROUGH GUIDE TO ICELAND

heat lying close to the surface. This was followed in the 1960s by the adoption of hydropower for its electricity needs, for which it became self-sustaining. The smog that hung over Reykjavik disappeared. In the 2020s, Iceland’s latest transformation project is the electrification of transport, from cars and buses to aeroplanes and ferries, and investment into its gridlocked capital, which is experiencing a population boom.

This rapid change plays to the strengths of the optimistic Icelandic mindset, but the acceleration of transformation projects and the concurrent projectification of Icelandic

organisations have required an expansion and professionalisation of the home-grown project management workforce. Leading the way are Ingason and Jónasson, whose MPM is helping place the project profession at the heart of Iceland’s transformation. The project management courses the university runs are currently being modified in accordance with APM standards; once this is done, the university will be able to grant chartered status to its students. Its graduates are central to many of the country’s most complicated projects (see boxes). Although the MPM is situated in the university’s Department of

Engineering, only 12% of graduates of the course are engineers. There are teachers, ballerinas and nurses on the course, such is the widespread appeal of the career.

A partnership of opposites

Ingason and Jónasson have radically different backgrounds that make for a broad yet deep education in what they term “transparent project leadership and sustainable project management”. Ingason is an engineer; Jónasson is a psychiatrist and cleric. Their definition of sustainability is holistic, not just environmental; it’s about sustaining yourself, your team and the organisation. →



Left to right: Professors Helgi Þór Ingason and Haukur Ingi Jónasson

ICELAND IN FACTS



- The population as of 2022 is 376,248, with two-thirds of Icelanders living in and around Reykjavík.
- Total surface area is 103,000 sq km.
- Glaciers, lava fields

- and lakes comprise 26% of the total area, 54% is barren land and most of the remaining 20% is used for grazing.
- Iceland sits atop the Mid-Atlantic Ridge, the fault line where two of the earth’s tectonic plates are slowly

- drifting apart, making Iceland 1cm wider each year.
- 27.7% of Iceland’s GVA is based on project-related work, indicating that the monetary benefits of projects in 2014 was around 425 billion króna a year and growing.

THE HIGH-FLYER LEADING A REVOLUTION

Aðalheiður Sigurðardóttir,
Reykjavík Energy Group



Aðalheiður Sigurðardóttir is Director of Enterprise PMO at state-owned Reykjavík Energy Group. She joined its governance and strategy division in 2021 to lead the group to becoming a project-based organisation. One of its major programmes is the implementation of electric vehicles (EVs) through its On Power subsidiary, which has a strategic goal to support 40,000 EVs in Iceland by 2023. This will include the creation of charging stations around the main island, installing charging points at home through a lease and monthly fee, and helping finance charging points in apartment blocks.

Reporting to the CEO, Sigurðardóttir has a cross-functional role to influence the culture of the group's four subsidiaries to become a project-based organisation. The group has around 150 people working in project management roles, and her PMO is six strong.

The creation of her department was an urgent response to what she calls "a small rebellion within the organisation", with people asking for a better project management structure and software tools. They were also complaining that there were too many projects ongoing at the same time. Sigurðardóttir quickly commissioned research, which showed that the organisation had become extremely siloed. To bridge the gaps, she created cross-functional teams to discuss project topics. For the first six months, it was about getting people to talk, to establish basic project terminology and to



Iceland has the second-highest market share of EVs in the world after Norway

understand where the projects were originating.

A small rebellion

Next she met the group's C-suite, together with a consultant. "We now meet four times a year to understand how they communicate, collaborate and make decisions." She also wanted to understand how they would approach conflict.

"We've been working a lot with them as a cohesive decision-making team in this context," she says. "My regular audience with the C-suite is very important – keeping them close, working with them and making them accountable for this change."

"If we want to transform, we need to understand what we want to transform, what it takes and how much we can do"

This was a precursor for her own "small kind of rebellion". She initiated a programme that takes groups of nine people and puts them through a nine-month programme where they are taught design thinking and project management skills. So far,

38 people have graduated from this rolling programme and been placed back into the business to spread cultural change.

A future without job titles

The office interior is also being redesigned to better accommodate project work. "We want to create spaces where we as a team can just coexist for a full day. In the future, job titles will matter less. It's more about: what is my role today? We're thinking that people can arrive at the office and can land somewhere where they can have coffee with their teammates, but then you go in separate directions based on what you're focusing on today," explains Sigurðardóttir.

There are other strands to the transformation. There is a move to push decision-making down the hierarchy. Another priority is to understand exactly what the portfolio encompasses and where resources should be invested. The company is building software that will help decisions become more transparent.

How critical does she think project management is to Iceland's future? "If we want to transform, we need to understand what we want to transform, what it takes and how much we can do. And that's just simple project management."

What makes their partnership and the course special, explains Ingason, is their emphasis on the things “that are not very tangible, the soft things that cannot be measured but that are usually the sources of problems”. They are a successful partnership of opposites – the objective technician and the subjective counsellor – whose reflective approach charms their students and creates responsible, motivated and critical-thinking professionals who are charged with changing the world for the better. “We want them to go out and be good representatives of the project management profession,” says Jónasson.

Maximising limited resources

They are needed now more than ever. “The importance of projects as a vehicle for change has risen. We have become more aware of the risks of choosing the wrong projects, and that we are working with limited resources so we need to use them cleverly,” explains Ingason. “Project governance and the decisions regarding projects are being gradually pushed upwards in the hierarchy of the company. A project-oriented organisation runs its business through programmes and portfolios, and so, automatically, project-related decisions are taking place at the highest possible level.”

This entry into the top echelons of the corporate world requires the natural self-confidence Icelanders exude, but sometimes, it can be too much of a good thing. “We often just do things and we sometimes don’t think much about them. Often it turns out okay, but I think that we should take a little bit longer to plan and think about things before we do them,” reflects Jónasson. “We understand that it’s the outcome and the value that we’re creating that is of the utmost importance.” And what better measure of success than the benefits a project brings?

“We often just do things and sometimes don’t think much about them... I think that we should take a little bit longer to plan”

PROJECT MANAGING REYKJAVÍK’S TRANSPORT TRANSFORMATION

Sunna Björg Reynisdóttir, Deputy Project Director, Vegagerðin



Sunna Björg Reynisdóttir is Deputy Project Director for Reykjavík’s Borgarlína

programme. The Borgarlína will be the new public transport line for the capital, modernising the bus system it currently relies on. Too small for a metro or a light railway, Reykjavík has opted for a bus rapid transit system, common to many smaller cities across Europe. The plan is to run electric bendy buses through a new dedicated bus lane in the middle of the street so that speeds can be kept low in areas with lots of pedestrians and bicycles.

“The aim,” she says, “is to make public transport a viable option in daily life. Because the city has grown, there are few places where you have a nice connection and fast interval between buses. For a lot of people living in the suburbs, going to work in another suburb, this isn’t an option, so they drive.”

100 billion króna

The Borgarlína, currently in a preliminary design phase, is part of a larger transport treaty for the city, which also makes provision for the building of more main roads, one of which will run past the new hospital currently being constructed. Improvements to Reykjavík’s transport infrastructure are urgently needed and the treaty is a welcome boost in the wake of Iceland’s financial crash of 2008, when the financing of projects like these was scaled back. The 14.5km Borgarlína route has 100 billion Icelandic króna (£5.85m) in agreed funding.



The Borgarlína aims to develop a solid backbone of public transport in the capital’s main routes

“A few years ago, you were either with the Borgarlína project or against it. Now I think the discussion is around how we do it”

The major stakeholders in the programme are the new public company that was established to finance it, the six municipalities of Reykjavík and, of course, the public. “A few years ago, you were either with the Borgarlína project or against it. Now I think the discussion has shifted from ‘Should we do it or not?’ to ‘How should we do it?’”

The forecast population increase in the capital region is about 70,000 people to 2035, she says. “How are we going to get around? How much infrastructure do we need to build up?” The first part of the programme is due to be delivered in 2026 and finalised in 2034. “There is, of course, a limit to how much we construct in the city because the route is



in the most traffic-heavy places," she explains.

Good in a crisis

Reynisdóttir began her project management career in 2012 in geothermal energy. "Because the energy has been so cheap we have got away with not being as good at project management in the early phases of our projects," she says.

Over the past decade, she has noticed a big rise in the number of qualified project managers, one of the benefits of which is the use of a unified language. "When I say we need the memorandum of change or the project controls person, people don't just look at me and wonder what I'm talking about," she laughs.

Does she think there is a particular Icelandic approach to project management? "I would definitely say it's in our nature to get things done for sure, and that also sometimes means less planning, less thinking ahead. But in a crisis, I think we're very good and we will get things done very fast and efficiently."

SOURCE: INGASON, FRIDGERSSON AND JÓNASSON, THE EVOLUTION OF PROJECT MANAGEMENT IN ICELAND (2019)

A TIMELINE OF IMPORTANT ICELANDIC PROJECTS

1909

Cold water distribution system in Reykjavík, the largest construction project in Iceland at that time.

1917

Reykjavík harbour project is built, crucial in the development of Reykjavík as a capital.

1906-1983

Telephone line connection to Europe. One submarine channel connection from Scotland via Faroe Islands (opened in 1961). In 1935 the connection opened to London and Copenhagen. This involved building two telephone centres, a receiving station and a transmitting station.



1939-1943

Most houses in Reykjavík were connected to a district heating system serviced by geothermal water from a borehole 12km from the city, replacing oil and coal.

1965

First paved road in Iceland, Route 41 to Keflavik International Airport.



1969

The hydropower plant in Búrfell was commissioned. This was the first time a glacier river was harnessed in Iceland.

1974

Bridge on the Skeiðarársandur. The Skeiðará river was the toughest obstacle in the construction of Iceland's Route 1 ring road. It was closed by this 904m-long bridge.

1978

Krafla geothermal power station commissioned, the first large-scale geothermal power plant (60MW) in Iceland, built on top of an active volcano. The first time electricity was produced (large scale) from geothermal power.

1980

Skyggnir Earth Station came online, which enabled telephone calls to other countries via satellite.

1987

New terminal at Keflavik International Airport. It was the largest construction project in Iceland at that time and has been under development ever since.

1990

Nesjavellir geothermal power station commissioned.

1998

Hvalfjörður subsea tunnel commissioned, the first and only tunnel of its kind in Iceland.

2007-2009

Kárahnjúkar Hydropower Plant is designed to produce 4,600 gigawatt-hours annually for Alcoa's Fjarðaál aluminium smelter. The project involved damming the rivers Jökulsá á Dal and Jökulsá í Fljótsdal with five dams, creating three reservoirs.

2009

Hellisheiði Power Plant, the largest geothermal power station in Iceland and the second largest in the world, comes online.

2017

Phase One of the new geothermal power plant in Þeistareykir is completed.

2018

The 7.5km Vaðlaheiði tunnel opens.



ALAMY

Milla Mazilu

Emma De Vita meets APM's new Chair and finds a humble and ambitious young leader. A railway lifer working on cutting-edge data projects, Milla Mazilu personifies the many different forces at play within the project profession. She's the right person in the right place at the right time...

Milla Mazilu is making headlines despite her best efforts not to draw attention to herself. At 37, she is APM's youngest ever Chair, and her commitment to volunteering work led to her being awarded the British Empire Medal for Project CARE (COVID-19 African Rapid Entrepreneurs). Does she feel like a role model? "Everyone in a leadership position should be. I would like to be the kind of role model that allows people to look at me and say, if she can do that, then crikey, so can I," she says with a laugh.

The video call might be a little fuzzy but Mazilu's energy, determination and enthusiasm cuts straight through. She has found herself at home in a profession she evidently loves and in a sector that gives her the intellectual challenge she needs. Mazilu is a doer who relishes pulling apart complexities and finding a way to do things better. As Principal Programme Controls Manager in Network Rail's Wales and Western Region, she is guaranteed exactly the kind of big-thinking knotty problems she likes to get stuck into.

APM's new Chair is well placed to help bring together the disparate facets of a changing profession. She is young and female and works on modernising project processes and systems using cutting-edge data analytics in an old industry with a mature project management function and a predominantly male workforce. Her priority as Chair, she says, is to bring together the different generations of

project management skills to lead APM through the next steps of its journey.

"Career-wise, I can see both the youth coming in and all of these skills that have arrived with the technology, but also I work closely with people who've been in this field for a long time and have equally valuable skills that come from a different environment and from a different era of project management," she tells me. "Sometimes I notice that we're not necessarily able to bring all of those skills together to really harness the strength of what technology brings us and also maximise the use of those skills around understanding how to deliver projects."

The obvious solution is to get everyone to talk to each other. "Ultimately,

"Ultimately, projects are all about people working together, and building relationships is what will help – this kind of organic process of knowledge and skills being shared, because I think it's the main way we can bridge the gap"

projects are all about people working together, and building relationships is what will help – this kind of organic process of knowledge and skills being shared, because I think it's the main way we can bridge the gap," reasons Mazilu.

At Network Rail, her role as Principal Programme Controls Manager means she is responsible for proactive planning, monitoring of progress, scope control, schedule control, reporting and analysis of projects. The latter is what she has been focusing on recently. As the software now available to (and trusted by) organisations has made data analysis easier and more accessible, the appetite has increased to join the data dots and improve project performance. "In the past we just had to rely on Excel spreadsheets to do any kind of analysis because IT departments were quite restrictive. Now there's been a surge in analytical tools that are much more accessible. Business intelligence is now very actively talked about," she says. "It's made our work a lot more exciting and easier because people are interested. They want to know what's possible."

In Network Rail Wales and Western, Mazilu's team has been focused on developing systems and solutions to problems around project reporting, analysis and handling large amounts of data. This means her colleagues now have access to the right information to support their project decision-making and not





"I'm not one of those people who think the technology will solve everything. It will really help, but technology is a tool and a skill to be used by people to make better decisions."

waste any time trying to track the right data down. This, explains Mazilu, is part one of her plan. Part two will be about extracting more value from the project information that Network Rail holds by stitching datasets together to get better insights into what might be happening across a portfolio and prevent any nasty surprises.

Mazilu is wise to the temptation of believing tech can in itself fix the world. “I’m not one of those people who think the technology will solve everything,” she stresses. “It will really help, but technology is a tool and a skill to be used by people to make better decisions. What I’m hoping to do in my work is to get the tools as good as possible, to get the people skilled up to do some of the data crunching, which will then enable us to focus on the meaningful conversation about what’s happening on a project rather than arguing over the numbers. This will allow the people with the experience and the expertise to make the right decisions for their projects without having lost all this time trying to just manage the information.”

The work of her team of three has not gone unnoticed. They won Business Intelligence Solution of the Year at the British Data Awards, and also IT Project Team of the Year at the UK IT industry awards from the British Computing Society. For a project management team, the win was particularly rewarding. “I was really, really chuffed. It was so rewarding for our team to succeed in a national award outside of our industry,” Mazilu says, beaming. She has also been sharing her team’s work with APM’s specific interest groups, the National Audit Office and the Major Projects Authority – as well as working alongside Warwick University.

It’s evident that Mazilu enjoys being involved in changing things for the better – it’s one of the biggest motivating forces in her career. Not one to agonise over a detailed career plan, she has simply pursued what she enjoys, and railways and project management were the two things she stumbled across that fit her perfectly. Her love affair began in her 20s when she found an interesting sounding job on the Channel Tunnel Rail Link, now known as High Speed 1. “My heart was captivated by the railway industry itself

“Find an outlet for your creative energies; always be ready to learn about things and be prepared to change and adapt”

and public transport and the benefits that it can bring to people – to be able to connect communities, travel freely, reduce carbon... it is really motivating. As an industry, it’s quite complex, which is very interesting to work in, and there have been lots of opportunities for me to make my part of it better,” she explains.

“I’m able to work on things that are sorely needed and ultimately we’re able to – in a small way – have an impact on this really big system that so many people rely on. In the work that I focus on at the moment, I’m able to harness the value of the data that we capture organisationally and use it to better inform the decisions that we make. And that saves time. It saves money. It reduces risk and there’s a fantastic opportunity to make things better... [Joining the project profession] was entirely accidental and not part of a big plan except to just work on good things with good people, and I’m lucky that that’s where I am.”

Mazilu is in thrall to the idea of working on projects that have a positive impact on society; that bring about meaningful change. “Projects are about change, and the ability to work on something that implements meaningful change is very compelling. To be able to do it really well so that you can leave a lasting impact is what I find very enjoyable

and motivating,” she reflects. What needs to change for the profession is to have more coverage of successful projects, she believes: “One of the opportunities that we ought to do more with is actually looking at the projects that have been successful and trying to learn from those as well.”

What’s her advice to those starting out in the project profession? “Give it a go; just do it; get involved, whether it’s volunteering or work. If there is something you have an interest in, and you’ve got a bit of energy for it, then just do it. Find an outlet for your creative energies; always be ready to learn about things and be prepared to change and adapt.” It’s advice she takes seriously. She has long been committed to volunteering for APM and on heritage railways. During the COVID-19 pandemic, she volunteered her project management skills for Project CARE, the main aim of which was to support African engineering entrepreneurs to make and supply PPE for use in sub-Saharan Africa. “The impact report was just phenomenal... I just did this tiny thing in this wonderful, amazing project that impacted people in such a positive way,” she says with a huge smile.

When she’s not zooming (physically or virtually) between London, Cardiff, Swindon, Reading, Bristol and Bath for work, Mazilu is studying for an MSc in programme management at Edinburgh University, which is giving her plenty of brain food. One unexpected focus of study really piqued her interest. “The ethics and philosophy modules covered the importance of sharing one’s knowledge, so that linked in for me to professional associations, because that is their purpose.” And so the dots joyously join back to Mazilu’s latest role at APM.

CV: MILLA MAZILU

2019–2023 Wales & Western Regional Portfolio

2017–2019 Paddington to Reading Portfolio

2013–2017 European Rail Traffic Management System Programme

2009–2013 National Electrification Programme

2007–2009 FTN/GSM-R Programme

2006–2007 Step-free Access Enhancement Programme

2005–2006 Channel Tunnel Rail Link/HS1 Programme

THE MID-CAREERISTS

THERE HAS BEEN A LOT OF TALK ABOUT THE GREAT RESIGNATION AND QUIET QUITTING, BUT WHAT DO MID-LIFE PROJECT PROFESSIONALS WANT FROM THEIR CAREERS? TO STEP UP OR TO STEP BACK? ALEXANDER GARRETT FINDS OUT

There are many ways you could view a career: as a ladder, a journey, a narrative or story, an evolution – or even a project. Whatever the case, it's fair to say that the mid-point is a time to pause, reflect and consider what happens next.

To paraphrase Churchill, see this as the end of the beginning, rather than the beginning of the end. The mid-point of your career isn't clearly signposted like the start and end points; some may even pass through without noticing it. But what should you expect when you are approaching that significant landmark? And what are the pitfalls to look out for?

For most people, the early stage of a career is a time to establish yourself. Estelle Detrembleur, Associate Director of Project Controls at construction and consultancy firm Mace, says: "It is all about understanding what is out there, what you are interested in, building a support network, and then you just go for it." In her case, that meant roles on



"Sometimes when you move into a business, they have something in mind for you. And over time, you find that you don't necessarily align with that."

ESTELLE DETREMBLEUR



“There’s a lot of expectation at this level, and there’s always the feeling that I could do more. But there’s only so much you can do before burning yourself out.”

MATT MOUSLEY

a series of high-profile infrastructure projects. “Now I’ve got all those skills, those competencies, all that knowledge, and I want to move to the next level.”

Rob Crofts is Regional Operations and Project Performance Manager at underwater construction company Subsea 7, based in Stavanger, Norway. He didn’t set out to work in project management. He started as a workshop technician with a company making diving equipment in Scotland, was introduced to underwater robotics, and then spent years in different roles off the coast of West Africa, eventually running projects. Now he has a project management office-type role that looks across the company. “I’m overseeing how we do projects, how project managers work together, the processes and tools we use,” says Crofts.

The impact of the pandemic

One positive of being in mid-career is having accrued experience and knowledge, which gives you credibility and respect from your peers. But while those aspects play to your advantage, other challenges come to the fore.

Crofts says the biggest one for him at this stage of his career is having a family to think of. During the pandemic, he says, “like many businesses in UK we had a downsizing, and I had to go find different work”. The role that came up necessitated moving from Aberdeen to Stavanger, and has fortunately worked out well. “In the past, when I was a single guy I could work anywhere across the globe, but now I have to think of the family as a whole.”

Egypt-born Miriam Messiha spent much of her early career working

for the UN in the Middle East and has just started a new role managing European grant-funded projects at Aston University. For her, work-life balance is a key challenge at this stage of her career. “It can be quite draining to always be thinking about future plans, challenges and the way to overcome those challenges,” she explains, “and also to give some time to my family – because they are just as important as my work.” Work-life balance is difficult at all career stages, she says, but at the mid-point you have extra responsibilities and possibly a family. “The big difference is that you know how to manage your time properly and you value the time – I appreciate every minute of every day.”

Matt Mousley, Engineering Programme Manager at Rolls-Royce Small Modular Reactors, says it’s not just about time, but also the intensity with which you work. “There’s a lot of expectation at this level, and there’s always the feeling that I could do more hours or get more done. But there’s only so much you can do before burning yourself out and then being off for a long time.” Delegating and sharing the knowledge you have are two key coping strategies, he says.

One plus-point of the pandemic, he believes, is that a much greater attention is now paid to wellbeing in the workplace, and it has become far more acceptable to work flexibly. In his new

job with Rolls-Royce, being able to cycle to and from work every day has been a key factor in enhancing that sense of wellbeing.

Take the strategic view

Mid-career is a good time to take a more strategic view and evaluate what you want from the second chapter of your working life. “I think the next stage in my career will be about having a clear vision and I will be more goal-oriented to achieve concrete results,” says Messiha. “In the earlier stage, I think the vision was a bit blurred – I wasn’t sure exactly what I wanted to do, or how to do it. I was focusing on the task and not focusing on the whole goal.”

Detrembleur says: “I feel I haven’t fulfilled my dreams as yet.” For her, that includes applying for Fellowship and obtaining chartered status with APM. She adds: “I would like to lead a bit more.” She says she has been particularly inspired by working with former Crossrail Programme Director and Thames Tideway CEO Andy Mitchell and HS2 CEO Mark Thurston. “My ultimate dream would be to lead a major infrastructure project, like one of them.”

For Mousley, the immediate priority is to consolidate what he’s achieved already. “It did take me a few years to find what I was naturally best at, but I feel I’ve probably done that now. I’m working at programme level and that suits me because you are working in that middle ground between the people that are making the big decisions and those working on the day-to-day. When you need to get involved and deal with a crisis you have the ability to do that – I’ve got the experience to back that up. But also being able to influence strategy

and direction and modify the approach and things like that is really important.” He found out during the first half of his career that working with people and solving their problems is what gives him most satisfaction. “Do I want to progress further? At the moment I don’t know, but I think it’s always nice to have that as an option.” Mousley has also identified chartered status and Fellowship as career objectives – not just with APM, but also with other professional bodies that intersect with his work, such as the Nuclear Institute. It gives you credibility among your peers, he says, “and it’s recognised industry-wide that being chartered indicates a certain level of attainment”.

Shifting roles and sectors

Project management is acknowledged as a good position from which to move into senior management roles. “The project management role gives you exposure to many parts of the business,” says Rob Crofts. At the same time, he’s aware of other career paths: perhaps becoming a consultant or specialising in a more niche area such as digitalisation or supply chain.

Project management also lends itself to making a lateral move to a different sector. None of our interviewees expressed a particular ambition to do that, although most seem receptive if the right opportunity comes along. More important, it seems, is that



“In the past, when I was a single guy I could work anywhere across the globe, but now I have to think of the family as a whole.”

ROB CROFTS

“The big difference is that you know how to manage your time properly and you value the time – I appreciate every minute of every day.”

MIRIAM MESSIHA

the work continues to be interesting and challenging.

When it comes to managing your career, one thing is clear: in mid-career there is less handholding and a general awareness that it's down to you as an individual to be more proactive: to decide what you want and forge your own direction. Employers are generally supportive in helping people realise their ambitions, but it's down to you to ask in the first place. As Detrembleur puts it: “Sometimes when you move into a business or an organisation, they have something in mind for you. And over time, you find that you don't necessarily align with that. Some people just go with the flow. But I think it's important not to forget your dream.”

Those embarking on their careers, perhaps post-university, might expect that by the time they reach their 40s, further studying would be a thing of the past. But that seems to be far from the case. There is a powerful awareness that learning and development are absolutely vital if you want to stay relevant and on top of your game, and perhaps even to stave off competition from younger peers. Messiha, who most recently studied for a master's in business administration and management at ESLSCA Business School in Paris, says she picked up this lesson from her father, a doctor in Egypt who carried on learning throughout his career. “He told me that if you want to continue to grow, science has no end, education has no end. You have to keep yourself abreast of every new practice or theory.”

Mousley, who completed an MSc degree at the University of Manchester five years ago, echoes this, pointing out

that learning at every level is important. “I'm quite passionate about learning. I would even say that if you did the same course again, with a different group of people, you would learn a whole lot of different things from it.”

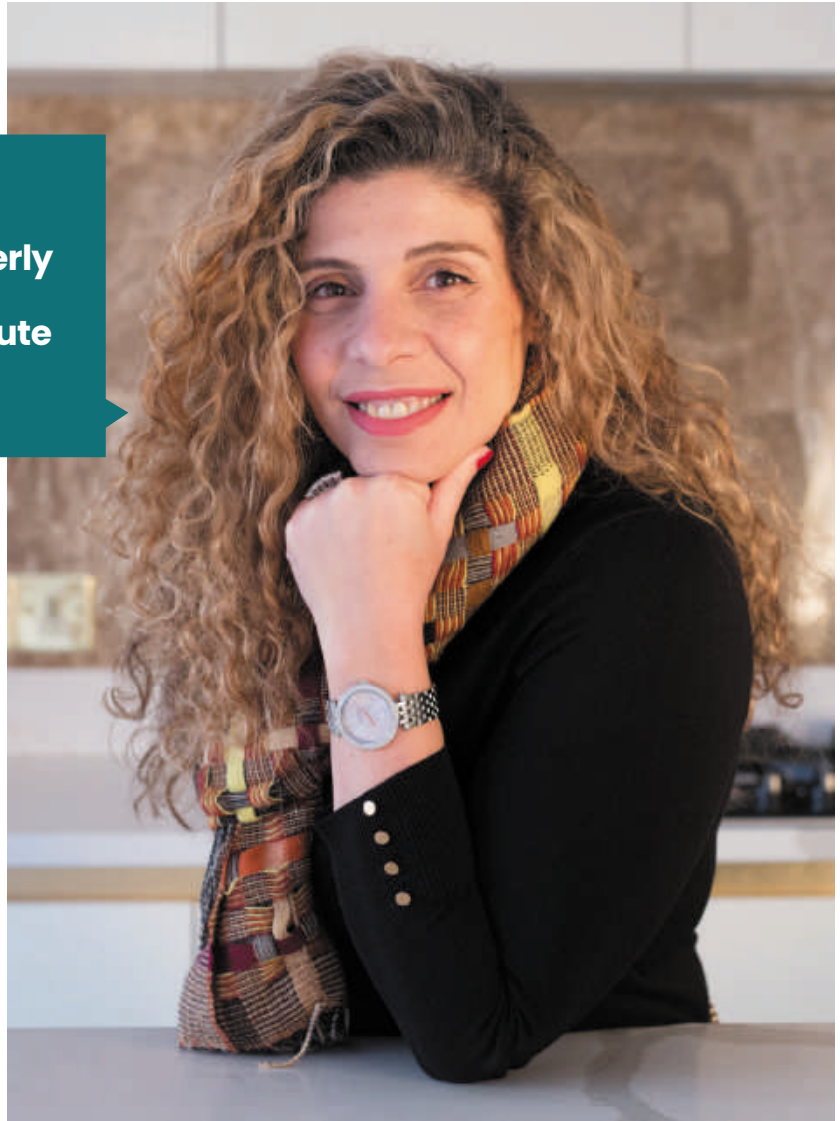
Time to give back

Finally, if there's one topic that seems to unite project professionals as they reach the middle of their career, it's the desire to give something back. For Detrembleur, that comes in the form of volunteering with various groups – Women in Projects, Friends of Nuclear Energy, APM, where she is Chair of one specific interest group and involved in others – as well as mentoring, speaking and other activities. “The next generation is very close to my heart,” she says. “I feel we can really

support them. I love working with young professionals because they give me that energy, and they have a way of thinking that is completely different.” She also considers it important to give back to the profession.

Messiha has also set her sights on mentoring. “My goal is to help others to break the fear inside themselves, to find hope and to motivate them, even if they feel that it's too late to learn anything or to get into a job.” Mousley says: “I've realised through my career that you get joy from helping others to achieve their ambitions.”

Mid-career, in other words, shouldn't be a time to dread, but instead to take stock, figure out what you'd like to do next, manage your life in a better way – and offer something back to the next generation.



BEN WRIGHT



WIND POWER HAS BEEN GETTING MOST OF THE ATTENTION IN THE RENEWABLES FIELD, BUT PRETTY MUCH ALL THE ENERGY ON EARTH IS PROVIDED BY THE SUN. THE TRICK TO MAKING SOLAR POWER PROJECTS WORK IS JOINED-UP THINKING, RICHARD YOUNG DISCOVERS.

What energy crisis? A back-of-an-envelope calculation spells it out: 173,000 terawatts of solar energy hits the Earth around the clock. That's about 10,000 times more than the world's current energy use. Net zero feels a lot more achievable if we could access this power more directly through solar photovoltaic (PV) generation projects. And progress is good.

Researchers from Imperial College London recently reported that wind, solar, biomass and hydropower accounted for 40% of the UK's electricity in 2022 – up from 35% in 2021. Solar PV could be critical in increasing that proportion. The installed base increased from just 22 megawatts (MW) in 2008 – less than

0.01% of UK electricity consumption – to around 14,000MW (14 gigawatts, GW) last year. That's well above 4% of total capacity. Solar PV generating costs have fallen 89% in 12 years (far faster than wind generation), and plummeting battery costs are helping make it an increasingly compelling option for investment.

But the critics of renewables have a point. If you predicate your power needs on wind and solar, what happens when it's a still and/or cloudy day? Base load provision remains the issue even net zero advocates struggle with (see box). And the UK just isn't that sunny. The solution? Get your solar power from places where sunshine is reliable; somewhere like Africa.

Linking up

That's why British company Xlinks is proposing a project in Morocco to develop a 10.5GW solar farm, a 20GWh battery storage system and a 3.6GW high-voltage direct current interconnector to carry electricity to the UK (and a massive windfarm, to boot). The scale of the Xlinks project is overwhelming – and could, if completed to plan (political barriers notwithstanding), provide nearly 10% of UK electricity needs, far more than Hinkley Point C's projected output of 3.2GW. The full £18bn proposal would take up 1,500 sq km of desert (including the 200 sq km solar array) in the Guelmim-Oued Noun region. That's about the size of Greater London.

According to project founder Simon Morrish, it's the fall in solar costs that makes Xlinks a more compelling proposition than earlier Sahara solar projects such as Desertec. "At our site now, with advances in technology, our cost of generation is around about £10 per MW hour," he told *Trade Finance* last summer. "One of the biggest differences here is timing. But there's also more of an impetus around renewables and



SOMES THE SUN

sustainable power. This is much cheaper than fossil fuels as well. It stands up on its own two feet rather than previously when it was required to have enormous subsidies to make it work.”

Cable vision

Empty desert, reliable sun and wind, technological and cost advances, a UK market desperate for additional low-carbon power... and a price tag several billion pounds less than Hinkley Point C, with none of the controversy. Sounds great. There’s one small problem. It’s 3,800km from source to market. To get the power home, Xlinks needs four high-voltage direct current (HVDC) undersea cables running along the continental shelf, landing in Devon. (Direct current results in relatively low loss during transmission – unlike the alternating current on the National Grid.) European manufacturing capacity for that spec of cable is around 2,000km a year, which creates a massive supply bottleneck for the project. The solution? Make your own, via sister company XLCC.

Alan Mathers, Project Director for the XLCC start-up, says: “The great thing

about Xlinks and XLCC is that there’s really nothing new about the project. It’s just that no one has ever done it at this scale before [see box, page 41]. Our mission is to introduce as few variables as possible so that backers are comfortable.” So, while the scale of the factories being planned – at Hunterston in Scotland and Port Talbot in Wales, both near deep-water ports that the specially commissioned cable-laying vessel will need – is massive, the technologies are all well proven.

The XLCC factories’ fortunes could also be boosted by the need for new HVDC links within the UK to balance supply and consumption as renewable generation ramps up in windier parts

The full £18bn proposal would take up 1,500 sq km of desert (including the 200 sq km solar array)... or about the size of Greater London

of the country while demand stays put. According to RenewableUK’s onshore wind *EnergyPulse* report, the amount of wind capacity under construction or consented in the UK in Q3 last year had increased by 1.1GW to 6.8GW. But nearly 80% of the new projects in the UK are located in Scotland. It seems counter-intuitive that onshore wind should boost demand for undersea cabling. But the most promising plan to increase the bandwidth for transmission of power south of the border is HVDC links down east and west coastal waters (starting, conveniently for XLCC, in Hunterston). And that’s just in the UK.

Joined-up thinking

The Xlinks project shows that renewables – and energy projects more generally – have to be weighed up, developed and run as part of a wider approach. It’s not just how you generate, but where, and in concert with which other sources of capacity. That could be power infrastructure – balancing different generation types with different inputs. Or how we design any project around energy efficiency. Because solar PV –

PROJECT OPPORTUNITIES IN THE UK ENERGY MIX

Energy is hard. UK electricity generation fluctuates during the day, during the week and over the year as people sleep, use heating or cooling, open or close factories, and spend longer in the dark. The low end of UK consumption is around 26GW; generation peaks closer to 50GW. But it's not just variability of demand. Solar energy clearly doesn't deliver at night (UK consumption drifts down from the daily peak during the evening, happily); the wind doesn't always blow; at the end of the summer hydroelectric power is reduced as reservoirs get lower. All this affects pricing, too. In the spring thaws, for example, meltwater drives massive increases in output from Scandinavian hydro power – driving down cost.

That's why 'base load' generation projects are considered so important. Nuclear plants deliver a consistent output – it's actually costly to power them down – and gas-fired power stations can be cycled on and off very quickly, making them ideal to handle daily fluctuations in demand. Making the journey to net zero requires us to find projects that can offer both this ultra-reliable base and an extremely flexible variable supply, without adding to CO₂. And that means variety in renewables – not just how they're generated, but where.

The low end of UK consumption is around 26GW; generation peaks closer to 50GW



Laying subsea cables to carry electricity is a massive project in itself. Inset: XLCC's new cable-laying vessel is planned for delivery in 2025.

XLCC



unlike wind, hydro or biomass – can be integrated into almost any infrastructure or construction project with minimal fuss.

"The cost of the consenting process is a major hurdle for many big solar projects," explains Matthew Clayton, Managing Director at Thrive Renewables – set up 28 years ago by Triodos Bank to arrange investments in low-carbon power projects. "For a solar farm, there's planning permission for the land, even if you're able to lease it; the grid connection; and a range of environmental considerations." Thrive specialises in connecting project managers with landowners and investors for wind, solar and hydroelectric schemes. "Project managers need to consider the complexities – ground, grid, irradiance, shading, ecology – and work through the financials," Clayton says. A typical solar panel has a 25- to 30-year life, and the best large-scale sites pay back their investment



Alan Mathers

Matthew Clayton

within eight years. But some of the most interesting projects are rooftop solar, which faces fewer of those hurdles.

"The 'private wire' model is ideal for large consumers of electricity," he says. "With a large roof area – on a factory or warehouse, say – a project can get going without any of those barriers. And because you're not connecting to grid, you reduce capex and planning times, you don't face any tolling charges from the network, and there's no transmission loss." These integrated power projects are particularly



CABLE MANNERS

The XLCC project to manufacture the undersea cable Xlinks needs is itself a massive undertaking with complex timelines, dependencies and risks. Project Director Alan Mathers explains why it will take at least three years just to get going. “To meet Xlinks’ needs, we need to construct two factories for HVDC cable manufacture – one with six lines and one with three. Assembly requires cable to run through the factory building layers on the aluminium core, through to the outer insulation layer. But that coating takes three hours to harden, and to avoid it collecting on the underside of the cable, we have to run it vertically for that period. So we need a tower 180m high – it will be Scotland’s tallest building.

“The tower alone will take a year to build. It will take another year to build and fit out the rest of the plant – which will end up being 800m long and 375m wide. Then the cable we make needs to be tested – which means putting a section under incredible stresses of heat and cold for a year, at 180% capacity. So we’ll build the first line to manufacture that, then build out the rest ready for full production at the end of that year.

“The biggest cable-laying vessel in the world, Prysmian’s *Leonardo da Vinci*, can handle two spools of 10,000 tons and 7,000 tons, but we’re going to need a bigger vessel capable of carrying two 13,000-ton spools. So that has to be commissioned – a three-year project on its own. The vessel will be 200m long, 35m wide and include 110 bedrooms and a canteen. We also need to be able to join the cable, which is manufactured in 20km sections, into the 160km spools for the vessel. That’s a skilled job, so we need 60 joiners on the team – twice as many as Prysmian has. It takes three years to fully train and certify them. We’ve already been working with academic institutions to recruit engineering graduates to join a programme.” But the dividends – from jobs and educational opportunities, to the project itself – should make the effort worthwhile.

interesting because, unlike carbon offsetting or signing solar power purchase agreements from ‘green’ providers, they’re incredibly efficient – both in energy terms and for the project manager. “We also find that employees of businesses that undertake this kind of solar project get more interested in renewables,” Clayton continues. “We know companies that have won business on the back of being lower carbon emitters, especially if they supply industries with tough targets on carbon emissions, such as automotive.”

Wiping away the sunblock

While the on-roof solar that most project professionals might factor into projects tend to be uncontroversial, Mathers admits that planning consents are a huge factor for Xlinks. He’s confident that the XLCC factory projects – using brownfield sites and creating thousands of jobs – should achieve planning permission

“We know companies that have won business on the back of being lower carbon emitters”

despite their scale. And the proposed site of the huge Xlinks array in Morocco is rocky desert where there’s no one to object. But there’s more to it than that. “Even laying the cables under the seabed is complex – we’ll be crossing 68 other cables along the way,” he says. “And then once it comes back to the beach, it’s got to go 15km inland to the conversion site. So that will need planning too.”

Consulting with local residents is now key – as onshore wind project managers are learning now that central government has warmed to the concept. For example,

Xlinks needs a 50-acre site near the south coast at Gammaton to build a converter station to feed the electricity from Morocco into the grid. In January it agreed to extend its consultation with local residents after an intervention by local MP Geoffrey Cox.

It’s a reminder that even the biggest and best-planned projects – with transformative outcomes – have critical dependencies that must be managed in concert. Which brings us back to the idea of diversified approaches. Solar is low-profile, efficient and scales well. But the sector needs a mix of household, industrial and domestic solar farm projects – plus the associated infrastructure – to sit alongside high-availability, at-scale solutions like the Moroccan solar megaproject, with all its engineering and political challenges, if it is to live up to its potential as a driver of net zero.



introverts:

listen

to the

**quiet
voices**

in a

**loud
world**



ON THE SURFACE, PROJECT MANAGEMENT FAVOURS THE EXTROVERT. THAT LEAVES MANY INTROVERTS HAVING TO FAKE IT AND SUFFER THE CONSEQUENCES. ISN'T IT TIME THINGS CHANGED SO INTROVERTS CAN JUST BE THEMSELVES? DAVE WALLER REPORTS

Natalie Talbot remembers her first day in project management very clearly. It was 2019, and she'd arrived at a role in digital transformation from a role in biochemistry. "Four years up to my elbows in Chinese hamster ovary cells," as she described it. Her new colleagues enjoyed telling their peers about her PhD. What they didn't know was that Talbot was an introvert. She felt embarrassed by all the attention and wished she could meet everyone on her own terms. "It made me feel really uncomfortable having people sing my praises," she says. "Please don't draw attention to me. That's not who I am. I'm here to blend in and figure out how I do this."

What is an introvert?

The term introvert means different things to different people. One definition, popularised recently by author Simon Sinek, is that introverts are depleted by social stimulation, while extroverts are fuelled by it. A more nuanced take is that introverts get their energy from controlled interaction, in balance with solitude. In a 2021 YouGov survey, 50% of the UK identified as introverts, with 9% saying they were 'very introverted'. Introverts have, of course, played a huge role in shaping our world. Their number includes Bill Gates, JK Rowling, Albert Einstein and Elon Musk, to name just a few famous examples.

They're also very common in project management – although that may not

be so obvious. Talbot, who now works as a project management consultant for Alchemmy in Bristol, is among those introverted project professionals who feel the job demands they bury their true nature and play a role. "There's an accidental bias towards project managers having to be this shiny extrovert," she says. "I've become very good at slipping the mask on. As a consultant, I have to be bubbly and show interest in small talk, and then deliver whatever I'm on site to deliver. Chest up, smile on, off we go. And when I get back in the car, I slump into myself, breathe out, and think: 'I'm bloody knackered,'" she says.

Forced to be someone you are not

Five years ago Alex Constantine was a project management professional struggling with the role. His manager at the time felt that Constantine's best hope of progressing his career didn't lie in amplifying his own strengths. "I had a boss who tried to get me to do everything like him," says Constantine, who describes himself as having a social battery that's easily depleted. "And because of that, I found it very difficult to handle the stakeholder engagement needed to progress in project management – such as presenting solutions to problems, and trying to influence people to take a particular path."

Constantine spent 15 months trying to find a more suitable role, including over two months out of work, because his CV also emphasised skills and traits project professionals expected him to have, not the ones he did. "Project managers are expected to take charge," says Constantine, who now works as a consultant at PCubed. "People don't understand that there are different ways to engage. And that if a non-extrovert finds the right way of doing things, they can still achieve the same outcomes. I had to learn that."

One issue for Talbot, Constantine and their fellow introverts is that the working world doesn't readily present them with the space to do things differently. "The modern workplace requires a lot of putting yourself out there," Susan Cain, author of *Quiet: The*

Power of introverts in a world that can't stop talking, has said. "And that can push introverts out of their comfort zones." Indeed, popular workplace wisdom holds that idea-generation, decision-making and problem-solving are group activities. So we often end up with open-plan offices, hot-desking, and endless meetings and Zoom calls. Going beyond the comfort zone is one thing; it's when you do it too much, and have to maintain the mask, that can cause stress and fatigue.

"It's challenging if you find yourself trying to adapt to a norm," says Linus Jonkman, who wrote *Introvert: The friendly takeover*. "People tend to look at personalities and behaviours as being synonymous, but they are in fact very different concepts. Your personality

"I started doing it more and more, and realised the world doesn't end if somebody disagrees, or if I step beyond my comfort zone, ask a question and my face goes red"



Natalie Talbot

is your gut feeling: when you step into a room full of people, will you be overwhelmed by all the faces? Or is it where you feel most at home?"

Taking a bold tack

Rachel Jackson is an introverted project manager who has worked on large defence, rail and nuclear projects. One role involved regular meetings that often descended into a dozen people talking over each other. They included Jackson's superior, who was also her predecessor in the role, the person who employed her and very extroverted. ("I think he went to Vegas in a cowboy suit for his stag do," she says). Jackson would often struggle to express herself in the meeting, and the two would end up bickering.

This is a common issue for introverts. Certain people tend to dominate meetings, especially in projects challenged by budgets or deadline pressures. People often resort to firefighting, which can overwhelm the quieter, more thoughtful approach. This breeds frustration when you're unable to share your vision of what's needed or you can see bad choices are being made but feel unable to object.

Jackson eventually decided to take the guy out for a coffee and a chat. She explained why the group meetings weren't functioning and told him what was actually happening in her part of the business – news she hadn't been able to get across in the meetings. She'd even brought written notes. "Because I'm an introvert, I'd gone away and strategised," says Jackson. "I checked my notes as we were talking. That may seem a little bit

"It's about learning to accept the person you are. Since I worked that out, I've had quite a lot of success and managed to progress in my career."

over the top, but it kept me on track." Her bold strategy worked. She'd shifted the work climate to suit her. She now had somebody in her corner, and those meetings became much more aligned and productive. "He said he found it really helpful, because he actually learned about what was going on," says Jackson, who's currently working on a project at Manchester Airport. "At the end, he said he respected me for having that conversation, because a lot of people wouldn't. It had a real positive outcome."

The power of introverts

As well as thriving at autonomous, detailed and considered tasks like generating dashboard reports and updating risk logs and dependencies,



Alex Constantine

introverts tend to be adept at building deep and lasting one-to-one relationships. They can bring greater self-awareness, spending more time in self-reflection, which can extend out to developing lessons learned that are authentic and impactful. And they are often skilled at tailoring their communication styles. Jonkman suggests introverts may be more suited to the modern form of leadership, which favours psychological safety, candour, vulnerability and listening, over telling people what to do. Cain, meanwhile, believes introverted leaders get better results from proactive teams than extroverts, because they're able to draw them out.

“Because I’m an introvert, I’d gone away and strategised. I checked my notes as we were talking. That may seem a little bit over the top, but it kept me on track.”



Rachel Jackson

“Introverts solicit other people’s thoughts and are more likely to let those employees run with their good ideas,” she has said. “They allow the best ideas to reach the light of day.” It’s worth noting that no one is suggesting introversion is inherently better than extroversion, or vice versa. Successful projects require people to complete a range of tasks, which will vary in whom they suit best. Extroverts need to act more introverted when they sit down to write a report, and introverts have to stretch themselves when networking or in meetings. The best teams will comprise a blend of personality types. “Introverts and extroverts need each other, depend on each other,” Cain has said. “When they understand each other and work together respectfully, look out world – you see yin and yang at its best.”

Managing your introversion

For Talbot, who spent those first weeks of her project management career remaining very quiet in meetings, change came thanks to a mentor. He took her to one side, told her he’d seen how good her work and opinions were, and that she needed to speak up. “I started doing it more and more, and realised the world doesn’t end if somebody disagrees, or if I step beyond my comfort zone, ask a question and my face goes red,” she says. “I’m able to more consciously push through it now.”

Constantine, meanwhile, recalls a job interviewer who spotted he had more to offer than his CV suggested, and took time to point that out. Finding his own way involved a lot of soul-searching. “It’s about learning to accept the person you are,” he says. “Since I worked that out, I’ve had quite a lot of success and managed to progress in my career. Now I set everything up in a way that helps me to succeed.”

While a huge part of work lies in pushing beyond your comfort zone to try new things, the trick lies in building the parameters and boundaries that give you the energy you need, to do your best for yourself and the project. “It’s within your gift to do things your way and to mix things up,” says Talbot. “It’s about understanding when we can go rogue, do things our way – and take a bit more time.”

FIVE TIPS FOR INTROVERTS RUNNING PROJECTS

1 Adapt. Instead of fearing big meetings, approach people one-to-one first, gathering viewpoints and establishing a consensus in advance. How you visualise and document what you need, and how you brief everyone to get them up to speed, is just as important.

2 Take time. When hosting meetings and workshops, prepare for different eventualities. Try to predict the tone, and pre-empt any challenging aspects. Ask for time to think in other people’s meetings too. Tell them you have some ideas brewing, and that you’ll come back to them later.

3 Don’t wait for the perfect words. Introverts can tend towards overthinking and perfectionism. Susan Cain has said that, to prevent this becoming a block, “we have to err on the side of talking before we feel ready. It will probably go better than you think.”

4 Create boundaries. Block out time in your diary that looks like meetings, but is actually a period of focused, undisturbed work.

5 Embrace the challenge. Build work around your own needs, but enjoy the moments that push you beyond your comfort zone too, as that’s where you’ll grow.

PEER TO PEER



HOW TO USE NUDGES TO IMPROVE PROJECT PERFORMANCE

THERE ARE FIVE IMPORTANT THINGS EVERY PROJECT PROFESSIONAL CAN DO TO MAKE THEIR PROJECT A SUCCESS, ARGUE DR TESLIM OYEGOKE BUKOYE AND PROFESSOR JENS ROEHRICH OF THE UNIVERSITY OF BATH SCHOOL OF MANAGEMENT

It is the project or programme manager and the project team who make project delivery a success. It is a range of different people who deliver successful projects, and it is often the individual's ability to engage intelligently with the complexity of projects that leads to project success. This calls for more attention on the behavioural aspects of projects.

The concept of nudges might help project professionals and teams to meet performance targets. The nudge concept emerged predominantly in behavioural economics and public policy (initially popularised by professors Cass Sunstein and Richard Thaler in 2008). Over the past decade or so, nudges have been adopted more widely across a variety

of areas, such as encouraging healthy eating, stimulating pension savings and introducing 'green nudges' to tackle climate change. Governments around the world have also embraced nudges; for example, the UK government established a Nudge Unit in an effort to apply the associated behavioural science to public policy.

The following insights are based on our own research working closely with project professionals from different project contexts and studying reports by governments and industries. While our published article identified over 20 different nudges, here we delve deeper into five important nudges for project professionals to drive project performance.

Nudge 1

ESTABLISH CLEAR SOCIAL NORMS

Project teams often unconsciously try to follow the behaviour of others around them, which has both positive and negative outcomes if not properly managed. So, it is important for project professionals to establish appropriate standards and benchmarks for a team from the project's outset. Depending on the complexity of a project, each member of the project or group of teams should be aware of the expectations and their contributions to the team in a standardised format in order to encourage positive social norms and team culture. For example, in agile projects characterised by constant changes, information clarity through a board where

Project professionals need to configure messages using the right words, expression and structure

problems are visible and team members share problems at daily stand-up meetings is highly important to facilitate positive social norms.

Nudge 2

FRAME MESSAGES

Our respondents strongly emphasised the need for project professionals to configure messages to a project team effectively to influence decision-making and meet performance targets. Project professionals need to configure messages using the right words, expression and structure to influence their team. While they may insist on the project team meeting their go-live date as planned or as expected by the project sponsor(s), it is important to be logical in doing so by emphasising the positive impact the outcome could have on the team, i.e. promoting the value to the business. Such framing affects how individuals/teams think and feel about an issue, based primarily on how the choice or option is described to them; for instance, using phrases like 'not to worry, we are on track but keep an eye on our risks'.

Nudge 3

CHANGE LAYOUTS

Making appropriate and impactful changes to the project environment to facilitate easier decision-making is also an important nudge. For project professionals to reduce ambiguity and create an ambience for a productive thinking process, the layout of the workplace (e.g. safe paths to walk on in a construction project; encouraging queuing for a bus to take workers to/from a project site) should be changed to foster this experience. Project professionals can also change the layout of meeting rooms to enhance collaboration and facilitate decision-making.



For example, they could place key information such as maps and timelines at eye level to increase awareness and 'demote' other information by moving it lower on the wall. Altering the project environment by using a creative visual office design could enhance collaboration and add some aesthetics to the workplace or ambience to foster positive energy and increase motivation.

Nudge 4

SET DEFAULTS

Setting default options for a project team towards preferred outcomes reduces resistance and encourages prompt decision-making. Setting default options to avoid errors and make systems as effective as possible can save time. This subtle approach to managing project performance could help to prevent conflict within the project team. For example, project professionals can use reminders (since individuals pay more attention to tasks that they are reminded of) and warnings (when things aren't going in the right direction or when



It is important to implement feedback systems to reduce mistakes and influence the team's behaviour positively

Project professionals should take practical steps in mapping out the range of nudges available to them. We noticed that nudges were more commonplace than expected, but project professionals did not always realise that they were 'nudging'. Developing an awareness of a range of nudges available to project professionals is helpful. Then, start implementing a few nudges first. Experiment to find out what works for you and your team, and over time develop a fuller portfolio of nudges.

Finally, consider when to use nudges and to what end. As expressed by one of our study participants, nudges are not a one-size-fits-all solution. During project delivery, for example, nudges may support project professionals to design feedback and reflective systems in such a way that individuals perceive them positively, make beneficial decisions on that basis and thereby contribute directly to improved project performance and resilience. Remember that some nudges are better positioned to drive certain project measures than others.

things are wrong so that they can change their approach), which are beneficial in meeting project performance targets. Some project professionals expect their teams to meet deadlines a week prior to the stipulated due date as a default setting.

Nudge 5 PROVIDE ACTIONABLE FEEDBACK

Providing quality feedback is highly regarded by project professionals as a relevant nudge for a project team to perform well. Here, project professionals constructively engage with their team members regarding what and/or when they are doing well or making mistakes. This motivates and increases awareness through detailed, customised feedback for individual team members rather than general team feedback. It is therefore important for project professionals to implement feedback systems to reduce mistakes and influence the team's behaviour positively (including addressing mistakes and things that are not working well at the moment), which in turn

enables a project team to meet its performance expectations.

There is a need to provide quality feedback to motivate the project team appropriately. Identifying the right motivation through constructive individual and group feedback helps to ensure that both individual and group goals are met, as does the early detection and correction of individual errors. Building a culture where feedback is expected and having an open culture where team members are expected to participate in honest conversations are beneficial to a project in meeting its performance targets.

What you can do now

Project professionals need to embrace the behavioural aspects of their projects to successfully manage project teams. With the ever-changing demands on projects, professional bodies and project professionals in particular should focus on human issues (behavioural) to nudge behaviour, beyond the 'hard' systems and tools (e.g. processes and methodologies) that focus more on planning and control.

FURTHER READING

'Using Nudges to Realize Project Performance Management', *International Journal of Project Management*, Vol 40, Issue 8, November 2022, by Oyegoke Teslim Bukoye, Obuks Ejohwomu, Jens Roehrick, Judy Too: www.sciencedirect.com/science/article/pii/S0263786322001260?via=ihub

THE JOURNEY TOWARDS A SEAT IN THE PMO

HOW DO INDIVIDUALS FIND THEIR WAY TO WORKING IN A PMO? THAT IS THE QUESTION LIZABETH BOHLER AND MIKE HOOPER SOUGHT TO ANSWER. HERE'S WHAT THEY DISCOVERED.

The APM PMO Special Interest Group (SIG) wanted to discover how people discover a career in project, programme or portfolio management offices (PMOs). We felt this knowledge would be an important contribution to the continued professionalisation of the PMO industry. Should we be offering PMO roles to people with experience or transferable skills? When is best to deliver PMO skills – at higher, further or work-based education? To investigate this, we designed a poll sent out to PMO professionals on the APM website, LinkedIn and Twitter. Our poll asked, “How did you get into PMO?”, with these possible options:

- I was a project/programme manager
- straight from education
- I had a career change
- other

You can see the results of our LinkedIn poll above. Our initial conclusions from our poll and interviews are that:

- The majority of PMO professionals have had a career change or have experience as a project and/or programme manager. This strongly suggests that PMO roles are not the

As 36% of respondents have had a career change, there is a need for PMO education

How did you start your PMO career?

Project/programme manager

33%

Straight from education

24%

Career changer

36%

Other

7%

obvious route when starting out in the change industry.

- As 36% of respondents have had a career change, there is a large need for fundamental PMO education, and therefore PMO SIGs need to offer lots of best practice advice and safe spaces for people to ask questions.
- As 33% of respondents have been a project and/or programme manager, going into a PMO role is seen as a natural career progression, and we need to find out why people move on, whether that's for work-life balance, salary progression or to become a mentor.

From 88 respondents, we looked into those who answered 'other' and chose two for interview to gain additional insight. The PMO journeys of Fatimah Abbouchi, Australia's first PMO Influencer of the Year, and Jo Candlish, Head of PMO at Metro Bank, are presented here.

Fatimah Abbouchi Australia's first PMO Influencer of the Year

Q What was your first job and when?

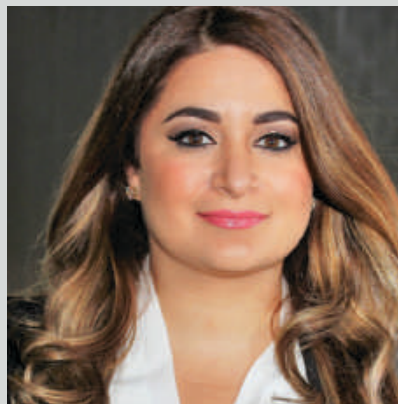
I graduated from secondary college early at the age of 17, unsure of what to do and without comprehension of the words 'project' or 'PMO'. All I knew was that I liked to help people be organised. I went into a global manufacturing company of 55,000 employees undertaking an administration traineeship. I finished that early too! The company offered me an IT administration assistant role in a department of 55 people. That's where my career started.



Q When did you discover the concept of PMO?

The manufacturing company was implementing SAP and an opportunity arose for me to become the right-hand person to the Programme Director. I didn't know what a programme was, or what a programme director did, but I started to understand that the skills I was performing in my role were being referred to as 'PMO'. I would hear things like, "Fatimah is doing our PMO." I assumed that meant doing my previous IT role in a project environment.

After two SAP implementations, I was a bit sad when it all finished, and I looked up 'admin' and 'programme' roles. The first opportunity that I found was a role as a project administrator,



and that was my second job after college.

Q What was your first PMO role and when?

After three years at the manufacturing company, it was

I assumed 'PMO' meant doing my previous IT role in a project environment

time to move on. Although the role I found was advertised as 'project administrator', I soon realised, when in post, that it was a programme. And for many years since, the 'P' in PMO has stood for programme for me. This became my first PMO role. I was thrust into an AU\$800m government programme at a utilities company. They had a Programme Manager who was struggling to get project status updates and he asked me to build a PMO to enable this. Over the next 12 months, I built this

function and that was my first PMO. I was 21 at the time and I became keen to stay in the change profession, as I enjoyed helping the teams that were delivering to figure out challenges and organise activities.

Q What is your role now?

Over 20 years, I've worked in over 19 industries. I discovered that I like governance and the pillars of it, structure, order and managing information. Around 2016, I had worked on a very successful programme where I had set up a global PMO overseeing delivery across 16 countries. It was a fun and stressful experience, but I had figured out a way of integrating strategy with C-suite, delivery and operations. I documented

I didn't get into university, which is why I went into the traineeship

this way of working and have set up a company that delivers this to organisations as the 'Agile Management Office (AMO) Way'. My company has a staff of 10, helping organisations in Australia and the US to roll out AMO as a way of working to become successful in change delivery.

Q What is agile for your company?

To us there is the small 'a', the behaviours and mindset of agile, and there is the big 'A', which is

the Agile Manifesto, the method and the tools of agile. We believe that if you don't have both, companies won't achieve the agile way. When setting up an AMO, it's about creating an agile function running all the way through from strategy, delivery and operations, so change is fast.

Q What would that 17-year-old say if she met you today?

I don't think she'd believe it to be honest! When I was that age, I didn't get into university, which is why I went into the traineeship. I had to learn skills by working and absorbing everything I could from those around me. That's the same with business – be adaptable and agile to figure out solutions to problems, and fast!

Jo Candlish, Head of PMO, Metro Bank

Q What was your first job and when?

I did a number of jobs when I left school, things like waitressing, working in hotels, but I went to university (to study economics and history) a little bit later than everybody else and my first job out of university was working for the Department for Environment, Food and Rural Affairs (Defra).

I went in partially as an economist, partially as a Welsh speaker. I worked with Welsh farmers around cattle subsidies and cattle tracing. I started off, believe it or not, making paper passports for every single cow in the UK!

Q When did you discover the concept of a PMO and what was your first PMO role and when?

I discovered the concept of a PMO after I started being one, which is slightly embarrassing, but I always share it with people! I moved on from Defra and I went to work



I wrote down 'PMO' and later Googled it. The CIO couldn't get funding for a PMO, so he hired an assistant.

for a start-up bank of about 500 people. I was recruited by the CIO as his assistant, and what he actually needed was somebody to coordinate bringing together technology, data and change, which I started doing. And at some point, the Head of Change sat me

down and said, "in this PMO role that you're doing...". I wrote down 'PMO' and later Googled it. I found out afterwards that the CIO couldn't get funding for a PMO, so he hired an assistant. He didn't ever say, "please be a PMO". I learned from the Head of Change, and realised PMO was a thing. I discovered I could stop making it up on my own and I could actually learn from other people who already did it. That was my first introduction to PMO, slightly by stealth!

Q Was introducing a PMO made easier because you started doing the job and sharing results before formalising your PMO?

It hugely helped and it was a stealth move to bring someone in. It was because the Head of Change recognised the value of having PMO coordination and so was already a champion of it. Coming in, asking the dumb questions and making sensible decisions was very fertile ground. It was easy to have quick wins in terms of efficiencies and repeatable processes where people didn't think, 'Oh no, we're being hampered by governance'.



I grew up in a small Welsh village, went to a Welsh-speaking school and started off waitressing in hotels. I had no idea where I would end up.

Q What is your role now?

I moved on to work for Metro Bank two-and-a-half years ago as Head of PMO. Metro Bank has been around for 12 years; it's the first new high-street bank for over 100 years. There is quite a developed change department and it had a huge amount of investment activity going on when I joined, partly because there's a big regulatory burden on financial

institutions. We have moved from waterfall projects and agile projects operating together in a hybrid framework to rolling out an enterprise 'value stream' model. My role is to amalgamate change in this model, implementing lean portfolio management. We're changing how we do change transformation.

Q What would that 18-year-old say if she met you today?

She'd be very surprised. I grew up in a small Welsh village, went to a Welsh-speaking school and started off waitressing in hotels. I had no idea where I would end up. I live in the South-East of England now, because I came where the jobs are, but that's not what I would have recognised or expected or a role I even knew existed. But it's been an interesting journey.



Lizabeth Bohler MAPM is a Portfolio Consultant and experienced Portfolio Director with a proven track record of leading diverse teams. She has successfully delivered high-risk change portfolios, worth up to £25m,



in both the private and public sectors. **Mike Hooper ChPP** is a Principal Consultant at Atkins who currently leads a PMO delivering engineering services to the MOD. He has over 20 years' experience of delivering engineering projects, programmes and portfolios in the defence sector.

Learn more about the PMO SIG at apm.org.uk. Check out our recent PMO-focused APM Podcast episode on Apple Podcasts, Spotify and more.



UNDER PRESSURE



VICKY YE, PROJECT DELIVERY MANAGER FOR HEATHROW AIRPORT'S FIREMAIN REPLACEMENT PROJECT, EXPLAINS HOW THE KEY INFRASTRUCTURE PROJECT WAS DELIVERED – FOR WHICH IT WON APM'S OVERALL PROJECT OF THE YEAR AWARD

Heathrow's firemain is a 115km network and the recent replacement project sought to address one point of failure through a number of key works: replacing an existing multiple-valve chamber and the valves inside; installing a new CCTV inspection chamber and a new multiple-valve chamber; and relining 250m of 800mm

diameter pipework underneath the A30, a main arterial road. This required isolation of the area in focus with comprehensive contingency plans over a crucial eight-week period.

'Take a deep breath...'

During the past decade, I have managed a range of different projects, including flood

alleviation schemes, motorway improvement projects and airport projects. Heathrow's firemain replacement project has been the most challenging and the most rewarding project I have worked on. Winning two APM Awards – Engineering, Construction and Infrastructure Project of the Year and Overall Project of the Year – is testament to the hard work that the entire team put into the project.

After five years of working at Heathrow, I thought I knew a thing or two about the airport's infrastructure. That was until I led the team responsible for implementing the contingency plan required to provide full

Right: the team from Heathrow Airport at the 2022 APM Project Management Awards in November (Vicky pictured third from right)



I always knew that the firemain system was extensive, but I did not fully appreciate its complexity until I reviewed its 115km-long network and areas affected by the firemain outage

isolation of the firemain network. I always knew that the firemain system was extensive, but I did not fully appreciate its complexity until I reviewed its 115km-long network and areas affected by the firemain outage. Addressing the point of failure and understanding the consequences of getting it wrong was my 'take a deep breath' moment.

Contingency planning

It was the first time in the airport's more than 70 years of operation that the firemain had been reviewed in its entirety. It was installed in the 1950s, with its primary purpose being to provide firefighting water to the

runways. However, over the years, it has been expanded to cover airfield, terminals, businesses and facilities surrounding the airfield.

A series of comprehensive contingency plans were developed and executed in order to conduct the full isolation of the firemain required by the project. Pulling the support from subject matter experts across the airport's functions and external organisations was instrumental to the success of the project. It meant coordinating with over 30 internal and external teams and ensuring every single affected building or facility had an appropriate contingency plan in place – and with just an

eight-month timeline it certainly put my project management skills to the test. To give you an idea of the scale of the contingency measures for the project, I worked out that approximately one million litres of water were stored across the airport.

Plugging the gaps

With just eight weeks until the isolation date, it came to my attention that one of the tenants did not have a suitable contingency plan. To develop and execute a contingency plan that had the capability to put out a fire on the largest aircraft in 47 seconds was the biggest challenge for the whole

project. However, within a week, five different suppliers worked together to develop, procure and construct the contingency plan required. They bonded quickly through the sense of urgency, and the only thing on their minds was to help Heathrow deliver this critical project, going the extra mile to help each other. For example, when we struggled to secure a fire-certified pump or an equivalent, everyone used their networks to find what we needed.

The most thrilling moment

Standing on the runway at midnight, just metres away from two fire engines spraying the high-pressure water into the sky, was the most thrilling moment during the project for me. As part of the contingency plan, Heathrow's own Airport Fire and Rescue Service needed to check that they could lay a 1,000m firehose in just 10 minutes across two runways and several taxiways with sufficient water pressure and water flow.

However, organising such an exercise in a live operational environment is never simple, especially on the runways for a major international hub like Heathrow. We only had the luxury of a four-hour window during the night to complete the exercise. Meticulous planning was put in place to ensure the precision of the action and timing. Through clear communication, all the parties involved in the exercise understood what to do and when. Three 'go/no-go' calls were scheduled with six teams on the day to ensure that all the resources required were ready, there were no last-minute changes to the air traffic, no weather risk and no operational incidents that could prevent the exercise.

At midnight, after the final go/no-go call, I made a call to initiate the exercise. Within seconds, a fire alarm started in our fire service HQ. I saw our

What made the firemain project so special? In my mind, it was the team's can-do attitude during the eight weeks that we isolated the firemain to complete the works.

firefighters running down to the fire engines and driving them across the runway with sirens and blue lights on. The speed with which our firefighters responded to the planned fire event, even though it was an exercise, was so impressive. They are such a wonderful bunch, and their professionalism is second to none.

We gave it a go

What made the firemain project so special? In my mind, it was the team's can-do attitude during the eight weeks that we isolated the firemain to complete the works. To do so within COVID-19 constraints as well as space constraints required careful planning. For example, to replace two pipes sitting between the top of the Piccadilly underground train line and a gas pipe, a building information model was used to envision the work activities and sequence.

In addition, Heathrow and its suppliers were delivering the project at a time when workforces were still recovering from the impacts of the pandemic. With the positive attitude and technical support from the engineering team, the project team managed to learn quickly and tackled the challenges successfully. Each time we encountered a new challenge, our response was that we would give it a go.

Expecting the unexpected

Heathrow's firemain was built 70 years ago and little information or records were available at



the outset. The specific area of interest for a replacement lining ran underneath the A30 and it was decided to isolate the firemain for a short period to carry out a CCTV survey. The CCTV identified that there was a metal prop stuck inside the pipe, but with no further information available, removing the prop was a risk. We didn't know how it was installed and what was stopping it from being flushed away by the 12-bar water pressure.

To reduce the disruption and to be cost-effective, it was decided that the removal of the prop would be carried out by a robot during the full isolation for the relining of the pipe work. Removing it could have affected the integrity of the pipe's structure or damaged the pipe itself, so to mitigate the risks and still meet the timeline, the project team developed six scenarios. Under each scenario, extensive impact assessments were carried out and mitigation plans were identified. While the



team was working on the robot cutting plan, plan B was also put in place. If one of the scenarios were to happen, we could deploy plan B immediately without causing delay. For example, procuring long-lead items and securing the agreement from the local authority to close the A30 if required.

Once the project was given the go-ahead through governance procedures, the robot was sent in immediately. As it was the first time that Heathrow had used a robot in this way, the whole cutting process was live-streamed to a large and interested audience.

The support I received was overwhelming. I remember them saying, “Vicky, I know how challenging this project will be; you will have all my support.”

Effective governance

Due to the potentially significant impact on the airport, two levels of governance were employed: one for the decisions impacting the overall airport, the other for the functions or department concerned. The final decision for the project to go ahead was with the Chief Operations Officer, who delegated her power to a forum called Heathrow Airport Ltd Assurance and Review Panel (HALARP). To facilitate the firemain project, instead of the normal monthly meeting, HALARP was held ad hoc as the project required. All the panellists were empowered to voice any concerns, share their views and provide advice on the project. A typical project is presented to HALARP just once, but the firemain project went to HALARP five times to provide assurance and confidence.

Numerous go/no-go calls were set up at both the organisational level and project level. For example, to allow the full isolation to start, I chaired

the go/no-go call with over 30 people confirming each of the listed actions, one by one, on their completion. For the isolation itself, I had a go/no-go meeting confirming that the project team was ready to take over the firemain; that the operations team had resources to isolate the system; and that there were no operational issues across the airport that could prevent the isolation.

Securing buy-in

The success of the project relied heavily on third parties to implement their contingency plans and secure endorsement through collaboration and influence. Bringing over 30 people across functions and organisations on board to explain how critical it was to implement the project was a key objective. The support I received was overwhelming. I remember several of them saying to me, “Vicky, I know how challenging this project will be; you will have all my support.” Another thing I noticed while leading the contingency plans is the strong sense of solidarity. In common with Heathrow Airport, our suppliers and external stakeholders had been devastated by the COVID-19 pandemic. After explaining what was required, everyone was so helpful and supportive.

Where would we be without our wonderful sponsor?

The key to unlocking this challenge was to have great support from the project’s sponsor. My sponsor was very knowledgeable and passionate about this project and had great influence on stakeholders. Any fire event during the firemain outage could have been extremely damaging to safety, confidence and reputation. A strong sponsor was a champion for the project at an executive level and aided the effective decisions that were the key to our success.

HOW TO MAKE IT IN THE HIGHLY COMPETITIVE WORLD OF RETAIL

(AND GET SPOTTED AS A TOP TALENT BY BEING CURIOUS, PROACTIVE AND GUTSY)

ROSE YOUNG, PORTFOLIO DELIVERY MANAGER AT No7 BEAUTY COMPANY, IS APM'S YOUNG PROJECT PROFESSIONAL OF THE YEAR. CHARLES ORTON-JONES DISCOVERS HOW HER FRONT-FOOT MANAGEMENT STYLE HELPED HER WIN.

Ambitious project professionals are always on the lookout for ways to improve. And what better way to learn than by following the advice of APM's Young Project Professional of the Year?

Every year, APM receives a raft of extraordinary applications. It takes something special to top the charts. The 2022 winner was Rose Young.

Originally from Cambridgeshire, Young is too modest to sing her own praises, but during the course of our interview, big lessons don't so much emerge as leap out.

The backdrop is the No7 Beauty Company, owned by Walgreens Boots Alliance and one of the nation's most popular cosmetics brands. Young got a taste for project management during a university placement there, and on graduation in 2019 she joined full time. She'd landed her first project manager job with the Soap & Glory sub-brand in January 2020

with a brief to help launch a new skincare product, when reports of a significant virus from China hit the press. We all know what happened next.

It pays to be nosy

"It was a challenge," she recalls. The opportunity to meet senior staff was gone. The chance to grab colleagues for advice, stolen. Her response? "I got on the front foot. I would put a meeting in anyone's diary whom I wanted to get to know. I'd talk to them and try to find out about them as a person and not just about work stuff, as that's what you miss in an office when you sit next to someone." She made a list of all the departments and roles she wanted to understand and simply booked in video calls with anyone and everyone she regarded as a useful contact. Then she moved onto the company leadership.

"I scheduled some time for an introduction. I'd say: this is who I am. This is my job. This is my name, my email and what I'm going to deliver," she explains. Even for a naturally charismatic and confident individual such as Young, this was a gutsy move. "Basically, I'm just really nosy," she jokes – deflecting from the fact that this method should be in textbooks. As she stormed her way through the company contacts book, she began to see ways of improving operations. Again and again, she'd see opportunities and then set about implementing changes.

Taking on procurement

For example, a brand like No7 thrives or dies on Christmas trade. "We have gifts that do £1m a day before Christmas," says Young. "We have to deliver on time. It's a hard deadline." There are 350 products in the full range, with 50 million unit components to order for the manufacturing process. The lead time is more than a year. "I noticed the way we were running things didn't fit with the extended lead times COVID-19 brought about. I came in with fresh eyes and created a framework of what

"I got on the front foot. I would put a meeting in anyone's diary whom I wanted to get to know. I'd talk to them and try to find out about them as a person and not just about work stuff."



CV: ROSE YOUNG

Aug 2021–present

Portfolio Delivery Manager

Nov 2020–Aug 2021

Project Manager, Gifting

Jan 2020–Oct 2020

Project Manager, Soap & Glory

November 2019

Joined No7 Beauty Company

Education: Nottingham

Trent University, business management and enterprise (first class); Hills Road sixth form college, Cambridge

needed to happen when, stating the duties of each function. I aligned the framework with all the different functions across the entire gifting programme and got everyone's buy-in." Her system fundamentally reorganised procurement.

She tweaked how orders are made. Instead of buying cosmetic ingredients and packaging in one go, she split orders into two 50% tranches. The second tranche is delayed until the company is clearer on sales volumes, lowering the risk of unsold inventory.

The impact was a rock-solid supply chain and superior cashflow. She compounded the benefits with a total rethink of procurement sign-offs. "There was a massive to-do with how many people it took to sign orders off," she recalls. "We looked at it again. Is it really necessary to go through each person for approval? No, okay, let's switch that. We also gave everyone the information they needed, so they tick-box the order straight away." Form filling fell 64%.

On the front foot

Her proactive style is extraordinary. How does she explain it? "I like to be on the front foot," she says. "I'm really results driven. The more I learned about different functions, and the interdependence, I could see how things hadn't quite linked up and how we could create efficiencies. When you show people your ideas, they think, 'Well why weren't we doing that before? Let's do it.'" Time and again, she's seen an inefficiency and bust a gut to fix it. When Young noticed a pinch-point

in the data completion process, she instigated twice-weekly focus meetings with a sprint mindset to remedy the glitch, slashing four weeks off admin lead time.

She's looking to automate SKU (Stock Keeping Unit) tracking to improve resource efficiency by 70%. When difficulties arise, the company looks to Young to head a Rapid Action Team (RAT) to bring multiple functions together to find solutions. "I just find out who I want in a RAT, call a meeting, talk through the risks, divvy up the tasks and tell people when they need to be done by." She restructured the company stage gates to add more flexibility to lead times, and is even eliminating Letters of Interest (LoIs) in procurement: "We are trying to get rid of LoIs to move straight to a purchase order."

Tenacity and enthusiasm

During the pandemic, she even took a lead role in improving morale, organising monthly video calls to share team successes and team news. Her boss, Charlotte Bowerman, Head of Gifts at No7, says, "Without Rose the programme's success wouldn't have been possible. She already has one eye on Holiday '24 and beyond to ensure continuous growth and improvement." Bowerman nominated Young for the 2022 APM Young Project Professional of the Year Award, where judges recognised her "tenacity and enthusiasm" in awarding her the top prize.

It's worth adding that Young may be driven, but her cheerfulness and humour suggest she's a lot of fun to work with. Her front-foot style seems to be entirely achievable while remaining polite, calm and collegiate. Starting a career during the pandemic is a tough act. Doing so, thriving and becoming indispensable in a sizeable corporation within two years is a phenomenal achievement. The front-foot management style is a career hack we could all learn from.

ROSE'S TOP TIPS FOR PROJECT PROFESSIONALS



1 Turn your camera on

When you join a meeting, make sure your camera is on. Being able to see the faces of participants is important. When you can see the face of someone you feel like you are talking to a real person and getting to know them. I've noticed a lot of people don't do that. Why? I don't know, maybe they are in their pyjamas!

2 End meetings with a summary

At the end of every meeting, make sure you summarise the actions and who is responsible, otherwise people will leave the meeting and forget what was said. Nothing will get done. Ask if anyone has any questions. Some participants can be shy, especially in online meetings. Be direct and ask each person if they have any questions.

3 Make a contingency plan

Plan A rarely happens. Always have a Plan B, C and D. And keep making contingency plans. Things will go wrong and keep going

wrong, but as long as you have an idea of how to respond to each challenge, and you've discussed your plans with colleagues beforehand, you can switch straight away, as people are already signed up to it.

4 Break big tasks into smaller ones

Smaller tasks are easier to track as a project manager. This method also keeps the team motivated. If you talk about something four weeks in the distance, they'll lack a sense of urgency around a job and put it off until the end, by which point it's too late. If you truly understand a task you should be able to break it down into parts.

5 Ask lots of questions

As a project manager you can't know everything about everything. Instead, gather information by talking to experts. Personally, I love to know the 'why' behind things. I want detail so I can understand the logic at work. When I grasp a concept then I'm better at serving my team.

Be prepared to ask stupid questions.

6 Set out your goals before you start

Before embarking on any action make sure your goals are clear. This way you can track progress and stay on task. If you drift from your goals you'll notice. I'll have a big goal that we cannot waver from. We'll have other goals too. They all go in a project action log at the top, so when you hold your project kick-off meeting everyone is clear from the first minute, and the team can move in the same direction together.

7 Get comfortable with uncertainty

Unknowns will always rear their head. This is why I advocate preparing multiple plans. The other aspect is your emotional state. A project manager needs to be like a swan. Totally calm on the surface, with legs going absolutely crazy below the surface. When you are confident in your planning and knowledge of a project, then it's easier to keep calm.

Before embarking on any action make sure your goals are clear

PUBLIC REGISTER OF ChPPs

The following individuals make up the latest cohort to achieve Chartered Project Professional status with APM. Congratulations to you all, from those based in the UK and France to the US and Aruba! Full details of the criteria for achieving chartered status and the routes to get there can be found at apm.org.uk/chartered-standard, where you can also view the full Register of Chartered Project Professionals.



Name	Country	Name	Country	Name	Country	Name	Country
Raed Adawieh	UK	Emma Evans	UK	Maria Maillo Soria	UK	Stuart Simpson	UK
Mohammed Ali	UK	Jerome Evans	UK	Dashgin Mammadov	AZE	Chris Sloane	UK
Martin Allan	UK	Matthew Fewtrell	AUS	Oliver May	UK	Gillian Smith	UK
Reda Amrani	OMN	Simon Ford	UK	Stephen McAlister	UK	Nicola Smith	UK
Muhammad Anjum	UK	Stacy Fresquez	USA	Craig McCaffrey	UK	Nick J Soames	UK
Dawn Anstey	UK	Andrew Frew	UK	Anthony McCarthy	IRL	Julie Sobers	UK
Juan Ares	UK	Maria Froberg	UK	Laura McGourty	UK	Weronika Sroka	UK
Victoria Ashcroft	UK	James Fulton	UK	Donald McKay	UK	Ian Stilwell	UK
Ross Ashton	UK	David Gallagher	UK	Christopher McKee	UK	Isabel Suarez Valdivia	NLD
Catherine Astley	UK	Ross Gardiner	UK	Colin McKee	UK	Adil Suleman	UK
Henny Balentin	ABW	Kathryn Gardner	UK	David McSorley	UK	Sam Surridge	UK
Rachel Beeston	UK	Michael Garhard	UK	Craig Melville	UK	Paul Sutherland	UK
Keith Bethell CBE	UK	Ehsan Gerami	UK	Robin Merlane	UK	Anthony Sutton	UK
Jordan Bingham	UK	Layla Ghomshei	UK	Sarah Mitchell	UK	Jeremy Kai Li Tan	PHL
David Bond	UK	Robert Gooch	UK	Greg Montgomery	UK	Eugenie Thornton	UK
Fiona Briggshaw	UK	Richard Graham	UK	Antonio Moreno Cortes	ESP	Vikas Tiwari	NGA
Alan Brisbane	UK	Lucy Guyan	UK	Darren Mullan	SAU	Rimmy Vij	UK
Ed Brown	UK	Juliet Hamilton	UK	Ian Myers	UK	Chandrasaala Virah	
Jillian Buckley	UK	Stuart Hamilton	UK	Chijindu Nwachukwu	UK	Sammy	MUS
Alexander Cameron	UK	Luke Harris	UK	Shane O'Brien	UK	Marcel Voogt	NLD
Carmen Teresa Campos		Oliver Higgins	UAE	David O'Donnell	CAN	Ged Warburton	UK
Castellanos	UK	Tanya Hinder	UK	Craig Ogilvie	UK	George Ward	UK
Paul Carter	UK	Herb Hira	UK	Gbolagade Oguntola	NGA	Tracy Warden	UK
John Catterick	UK	Mark Holl	UK	Ryan Oliver	USA	Laurelle Wellinger	UK
Watson Chiwambo	UK	Sean Homer	UK	Olusegun Otegbeye	UK	David Westbury	UK
Paul Clarke	UK	Kenneth Hope	UK	Antonios Palatianos	UK	David Whitehead	UK
Ben Clegg	UK	Michael Housby	UK	Harshad Parakh	USA	Laura Whitehead	UK
Louis Clement	UK	William Hudson	UK	David Peet	UK	Olivia Williams	UK
Penelope Cogle	UK	Yahia Imam	UK	Timothy Perkin	UK	Richard Wilson	UK
Emma Cooper	UK	Will Johnson	UK	Garvin Phillip	TTO	Thomas Wood	UK
Megan Cooper	UK	Stuart Kewell	UK	Cesar Sierra Piqueres	UK	Jay Wootton-Woolley	UK
Joanna Cousins	UK	Sonam Khan	UK	David Portelly	UK	Natalie Wright	UK
Alison Cox	UK	Georgina Kinsey	UK	Adi Prasetyo	IDN	Natalie Young	UK
Richard Crompton	UK	Stephen Knox	UK	Joe Queening	UK		
Michael Crossling	UK	Michael Koerber	JPN	Pierre Rabeau	FRA		
George Csatlos	UK	Jean-Paul Koninx	NLD	Subodh Chandra			
Timothy Daly	UK	Jo Koroma	UK	Raghavan	NOR		
Matt Davies	UK	David Lacombe	USA	Asad Rasool	UK		
Gary Davis	UK	Hannah Lawrence	UK	Jessica Rehan	UK		
Shanaz Dawood	UK	Richard Livingstone Jones	UK	Will Richardson	UK		
Stuart Day	UK	Paul Loader	UK	Daniel Richter	UK		
Kuran Dhaliwal	UK	Ian Lock	UK	Joanne Rickard	UK		
Simon Dimmock	UK	Darren Lowe	UK	Hannah Ridley	UK		
Paul Dugard	UK	Jez Lowe	UK	Maureen Roberts	UK		
Charles Dunbar	UK	Fintan Lyons	UK	Lorena Rosas Ruiz	UK		
Adrian Durbin	UK	Stuart Macbeath	UK	Allison Rowland	UK		
Glyn Edwards	UK	Alan Mackay	UK	Thais Sanchez Rilo	UK		
Hani El-Falahi	UK	Liam Maguire	UK	Richard Scragg	UK		

DEAR SUSANNE

I have just returned from maternity leave, working four days a week. A lot has changed and I feel stressed. Before, I would have worked longer hours to get up to speed, but I can't now. What can I do?



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*. For more information, visit www.susannemadsen.com

You're not alone in how you feel, and your reaction to re-entering the workplace after a year away is understandable. Change is happening at a faster and faster pace – something that we truly notice when we've been away for a while. In addition, you're no longer the same person you used to be. Even if you're still driven to achieve great things at work, your personal circumstances have changed and so have your priorities. That's okay. You're stressed because you wish the situation would be different. You wish you could easily slot back into work, hit the ground running and fit five days' worth of work into four. But for a few good reasons, that's not the case.

Don't be a superwoman

I wonder if you would feel different if you were able to fully accept that it's going to take a little while for you to get up to speed. So often we want to be flawless supermen and superwomen, who can deal with anything without showing any sign of vulnerability or needing to ask for help. But unrealistic and high expectations are a recipe for stress. A much better response would be to show compassion and understanding for yourself. You're doing your best with the time you have available, and perhaps that's good enough?

When you substitute guilt for self-compassion, you'll feel less stressed and you'll be better able to think clearly about how to structure your new project. Set some clear priorities and work through them one by one. The rest will follow. Ask yourself what the most

important activity is right now. Is it to define the scope of the project? Is it to understand how the business has changed during your absence? Is it to build a better relationship with the project sponsor? Or is it to get to know the team through one-on-one conversations, team-building activities and by collaboratively creating a team charter?

Focus on relationships

Remember that it's people who deliver projects. The better your relationship with your stakeholders, the more support you're likely to receive. And the more you invest in creating an empowered and highly functioning team, the more you can draw on it to define and execute the project. Because you feel overwhelmed and only work four days a week, you may feel tempted to stay behind at your desk and try to wrap your head around the project on your own. But becoming overly task-oriented would be a mistake. To ease your way back into the organisation, get to know your team members and dust off some of your past working relationships, even if they're not directly linked to your new project. It will help you get up to speed with organisational changes and boost your sense of belonging within the firm.

Invest in a brainstorm

Now would also be a good time to review your strengths and remind yourself of why you're motivated to keep working for the organisation. When we're put under pressure, it's all too easy to lose our

confidence and to feel that we're in the wrong job. Invest half an hour to brainstorm everything you're good at and all the value-added activities you have put in motion since you returned to work. If you asked the managers and team members you worked with before you went on maternity leave, what would they say that your strengths are? What are all the reasons why you're the right person for this job? Don't dismiss your strengths and your many years of experience. You're in a place right now where you need to find your feet, and that's okay. If you see this as a challenge, rather than a problem, you're more likely to open up to the experience and grow and learn from it.

Do you have a question for Susanne? Email mail@susannemadsen.com

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PROJECT ME

WE ASK PROJECT PROFESSIONALS WHAT THEIR ATTITUDE TOWARDS CHANGE IS. DO YOU SEE YOURSELF AS A 'CHANGE MAKER' WHEN IT COMES TO PROJECTS? DO YOU LIKE CHANGE? WHAT HAVE YOU LEARNT ABOUT WORKING WITH CHANGE? AND WHAT TIPS OR ADVICE WOULD YOU PASS ON TO YOUR PEERS? READ ON FOR ADVICE FROM THE FRONT LINE...



People change people

Alison Whitehead, Transformation Business Change Lead, Agilisys

I love change and lead change as part of my work inspiring and building empathy through daily conversations with people. My advice to others is to ensure you have the ability to listen and build empathy, and acknowledge people can react negatively due to being afraid. I firmly believe if we have a good range of soft skills and are willing to have difficult conversations with people, treating them with respect, we can build their confidence and take them on a journey. Only when we move people to a mindset can we start to realise organisational benefits and shape behavioural change. Processes and tech don't change behaviours, but people change people!

Managing change is an art

Ed Mason-Smith, Director of Project Services, CBO Projects

Understanding and managing the human side of change is essential for project success. As project professionals, we spend our time putting in place controls and structures to ensure our projects travel smoothly from start to finish. My experience is that the people side of change is not always this linear, as individuals' needs and understanding evolve over time. Running projects can be a science, while managing change is an art! As project managers, we need to balance our desire for control and progress with the needs and comfort of stakeholders; this can regularly be at odds with project timescales. My advice to project professionals is to understand your stakeholders and to factor in the flexibility needed for the adoption of change into your project plan as early as possible. Remember, if you don't have the people on board with the change, your project cannot succeed.



Change is never to be feared

Simel Kara, Consulting Director, YouSP



Former Prime Minister Benjamin Disraeli said: "Change is inevitable. Change is constant." Being a practitioner in transformation, the pace of digital adoption at the outset of the COVID-19 pandemic

alone was at such a rate, at such a constant, that I termed the period the beginning of the True Digital Age. After two tumultuous years, the global economy started 2022 with what appeared to be new strength. Then came geopolitical events, which put paid to that optimism. The lean into innovation has not abated, however. Digital change is happening in days, not decades. The path of curiosity is at its apex. In my opinion, this translates to change being accepted far more quickly as a less suspicious outcome and a key enabling factor in a growth mindset-focused economy. Change is never to be feared; it is always to be learnt from and built upon, using the three Cs as anchors: communication, collaboration and coordination.



Consider yourself a leader

Jerome Evans ChPP, Programme Director, Purple Sector

For me, what differentiates high-performing project and programme managers from the 'norm' is their ability to proactively and inspirationally lead change. I'm purposefully not just talking about 'managing' change. Whatever job title you may have, ignore it, and consider yourself a change leader: act like a change leader, talk like a change leader and, most importantly, coach every one of your team to embrace change and enjoy the journey. No amount of process or tools will create success alone. No amount of lagging schedule, cost and quality metrics will drive positive change. After all, each project or programme is just a change activity. The secret ingredient, the differentiator, the superpower... is change leadership. What more are you going to do to prepare your team to change?

Be open

Susie Palmer-Trew, Change Lead, Everyday Change

My attitude towards change? Be open. You don't have to like it, love it or even understand it. But you need to be open to it. Approaching change openly gives you, your people and your organisation time to explore, challenge and engage in the proposed change from a point of curiosity. From this point, you can start to understand what's ahead of you and how you can influence it. Change journeys are there to be curated, because no two changes are the same, so get comfortable exploring unfamiliar landscapes with an openness as to what you might find, think and feel. But to really have an impact, you have to be in the change, engaged and active in order to influence what the journey ahead feels like.



Be honest about the effects of change

Tamsin Alli-Balogun, Operational Performance Manager, Atkins Global

Despite being a change manager myself, I don't like having to make changes to my routines. Hardly anyone does. Having to switch to something new takes mental effort. So, when life and work are busy, I'd rather stick with a familiar but cumbersome process than have to learn a new one, even if I know it will pay off in the long run. My tip for introducing a change that is likely to affect people's routines is to be upfront about it. Be honest that the change might be inconvenient for a while as everyone moves to a new way of working. Having empathy and being realistic, rather than proclaiming that all aspects of a change will be positive, can make it easier for people to accept the hurdle they'll need to get over in making the change.

PROJECT: TO MOUNTAIN BIKE FOR TEAM GB

LUKE PEYTON, PROJECT MANAGEMENT APPRENTICE AT BAE SYSTEMS, RACES CROSS-COUNTRY MOUNTAIN BIKES AND REPRESENTED BRITAIN AT THE MOUNTAIN BIKE MARATHON WORLD CHAMPIONSHIPS

Following a strong 2021 season,

I was given an Elite mountain biking race licence by British Cycling. This meant that I would be racing in the hardest category in cross-country (XC) mountain biking in 2022. The step up from second-tier racing is huge and I concluded that managing my training like a project would give me the best chance of being competitive.

XC mountain biking emphasises both climbing and descending across a wide variety of terrain. The races are mass-start events with riders completing a set number of laps of a technical and often hilly circuit. XC Olympic (XCO) races take place on a relatively short and technically demanding course, with races typically consisting of 7.5km laps and taking around 1hr 45min to complete. XC marathon races are much longer, at around 100km and five hours in duration. They also take place on a longer and less technically demanding course.

Many techniques are similar to project controls

When I started looking into writing my own training plan, I felt overwhelmed, but the more I understood about the core theory and training principles, the more similarities I started to see with project management – specifically, the techniques for planning, monitoring and controlling training.

Before planning anything, I had to establish which training tools I



Managing my training like a project would give me the best chance of being competitive

was going to use. The first was a power meter, which measures the power output of a rider and allows for training rides to be precisely focused to meet pre-planned power targets designed to maximise training benefit. I also used a heart rate monitor to better understand my body's response to the training, as well as a Garmin head unit to display this data on my handlebars. Finally, I used coaching software to plan and monitor my training – I chose to use Today's Plan.

Choosing the right metrics

When using training software there are a few key metrics that are crucial to understand as they form the basis of training scheduling and monitoring. The first and most important of these is Training Stress Score (TSS). TSS uses power meter data to precisely calculate and forecast the training stress of a ride by accounting for both duration and intensity. It is a bit like how earned value is used to measure the actual value of the work performed against the budgeted value of the work scheduled. For instance, it is difficult to objectively measure the training stress of a five-hour endurance ride just based on how it felt. Therefore, you can instead use the TSS from a ride to accurately measure the actual training impact of a ride. TSS forms the basis of three aggregate training metrics:

● Chronic training load (CTL):

A measure of your average daily TSS score over a long period of time. This shows your long-term training load/fitness level.

● Acute training load (ATL):

A measure of your average daily TSS score over a short period of time. This shows your current short-term training load.

● Training stress balance (TSB):

This compares your CTL to your ATL to give a freshness score. A negative number shows that you are gaining fitness, while a positive number shows that you are well recovered and will likely lose fitness



As with any project, I had to set objectives before writing my training schedule

I love spending time training on the bike both solo and with friends. I appreciate the downtime it gives me in the evenings when it's just me, the bike and the peaceful rolling hills of the Chilterns.

Come March, all my numbers suggested that I was in great form and substantially fitter than the year before. However, would the successful completion of my schedule result in the benefits being realised? For the first round of the National XCO series, I was gridded 31st and last. "Oh well, at least the only way is up," I thought. After navigating a chaotic start, I settled into a good race pace and started picking up places. I eventually came home 17th, which I was really pleased with for my first attempt at an Elite national event. It set a precedent for the rest of the year as I managed to pick up a top 20 finish at every round of the national series.

Towards the end of the season, I took part in the National Marathon XC Championships and managed to surprise myself by finishing 11th. This resulted in me being offered a place on the British team at the World Marathon XC Championships in Denmark. It is something I never thought was possible, let alone while working a full-time job. Thankfully, BAE Systems kindly granted me special leave straight away. I think it is fair to say I felt a bit out of my depth racing in national colours among a world-class field, but I managed a respectable 102nd out of 144 starters. With this year's World Championships taking place in Scotland, I am training hard again to try and qualify for them. I would love to be a part of it.

if you maintain this training load in the long term.

Planning the work and working the plan

As with any project, I first had to set objectives before writing my training schedule. The first of these was my endurance and overall fitness, which I would develop through lots of long, low-intensity rides. However, training at high intensities does have its place for developing specific adaptations for racing. The three objectives I targeted through high-intensity training were:

● **Aerobic threshold power:** This is the maximal amount of power that is sustainable for an extended period before lactate production begins to exceed the rate of lactate clearance. I would target this through 20-minute intervals at threshold power.

● **V02 Max Power:** This is the highest rate of power at which oxygen can be taken up, delivered to and utilised by the muscles. I targeted this through maximal four-minute V02 Max efforts.

● **Microburst repeatability:** This is the ability to repeatedly go above threshold and recover quickly. I targeted this through blocks of 15 30-second on/off intervals.

With these objectives in mind, I set about populating my schedule with training activities. I wrote my schedule using four-week blocks, with three weeks of focused training followed by a week's recovery.

Benefits realisation

I then set to work completing all of the training activities. With the first race of the season in March, this meant training 15 to 20 hours a week through the winter. Aside from when it's cold, dark and raining,

OFFLINE

WHERE PROJECT MANAGEMENT MEETS POPULAR CULTURE

Matilda The Musical

GOOD PROJECT MANAGEMENT DEMANDS DISCIPLINE, PROFESSIONALISM AND TEAMWORK. SO, ASKS RICHARD YOUNG, HOW DO YOU COPE WHEN YOUR TEAM INCLUDES A DISRUPTIVE AGENT – WHO HAPPENS TO HAVE SUPERPOWERS AND A HIDDEN AGENDA?

Poor Miss Trunchbull. The story of Matilda Wormwood (the put-upon child who summons supernatural powers to vanquish tough teachers and wayward parents) is classic Roald Dahl. Even his biggest fans acknowledge that he has a darker side, but his attempt to sketch an unlovable villain in the form of the headteacher of Matilda's primary school is an object lesson in his twisted mind. Agatha Trunchbull is played in the new film *Matilda: The Musical* by Emma Thompson. Reviewing the movie through the lens of project management – and basic human psychology – leaves one feeling profound sympathy for a character who's supposed to be a monster.

Her biography is tragic. In the book, she explains that she barely felt like a child and became a woman very quickly. This emotionally stunted young lady was channelled into athletics after school, specifically into women's power events. Through hard work and dedication, Agatha won gold at the 1972 Olympics in the hammer throw. Yet like so many athletes, world supremacy failed to translate into any financial security, and

she turned to a nurturing profession – teaching – after her sporting career was over. And it's here that her project management skills come to the fore.

The Trunchbull way

The project is to build a school capable of turning out capable young people facing a tough world. Agatha applies a quite modern approach to school administration, correctly identifying that poor discipline will undermine every other attempt to educate pupils. In other words, she has looked at the end state – the outputs – for her project and tracked back through the process to identify the critical path required to deliver them. A reminder of the essentials of the critical path method:

1 Create a list of all activities required to complete the project. Typically, this is categorised within a work breakdown structure. Agatha correctly identifies intellectual rigour (her spelling tests are challenging but achievable); physical fitness (the movie's school assault course looks incredibly good fun); and, above all, discipline.



2 The time (duration) that each activity will take to complete.

This demands strong behaviour management, particularly around assembly for instruction. Again, the movie portrays this as something negative, when



in reality lateness massively undermines teacher planning.

3 The dependencies between the activities. We can only teach when pupils are attending and attentive. Agatha lets nothing slip – her attention is focused

on every aspect of school life, from the lunches to school-grounds security.

4 Logical end points such as milestones or deliverable items. In short, obedient, well-schooled children.

It's only when Matilda deploys what many might argue are Satanic powers to emotionally attack Agatha that the headteacher's project is finally derailed

The 'Chokey' is just Agatha's version of the isolation units that every school uses on the most unruly pupils – admittedly without her signature flourish of an inner lining of nails and broken glass. Its expansion into a complete system, when she builds dozens of them overnight in the face of a coordinated rebellion by pupils, is a lesson in highly effective project management. Agatha identifies a major project risk, diverts resources to address it and works tirelessly on the deliverables. She's a hard-charging project hero, not a monster. It's only when Matilda deploys what many might argue are Satanic powers to emotionally attack Agatha that the headteacher's project is finally derailed.

Is Matilda a project manager?

So, are we being unfair to Matilda (played brilliantly in the film by Alisha Weir)? After all, she is victim to neglectful and abusive parents; and suffers from a poor start to her school career. It's clearly a huge frustration for any genius to go unrecognised. From the outside, her project is to reshape the school system to suit her more unstructured educational needs. In the film, this project is shaped by librarian Mrs Phelps (Sindhu Vee) and wide-eyed teacher Miss Jenny Honey (Lashana Lynch). But while they cater well to Matilda's needs, any project manager looking at their contribution would be horrified at the misallocation of resources.

For example, *Matilda* is the only person who seems to borrow books from Phelps; and Honey devotes so much extra-curricular time to *Matilda* that either her work-life balance or her other pupils are bound to suffer. Of course, *Matilda*'s project comes to fruition – necessitating the failure of Agatha's own more disciplined educational programme. But the shots of singing, dancing pupils over the end credits will leave many project managers in education shaking their heads in disbelief. A big wheel? An entire zoo's-worth of animals? There's a new glass table in Agatha's old office – that must have cost a fortune and is a risk assessment nightmare in a primary school. In short, *Matilda*'s project has no budgetary accountability at all.

The trouble with the eponymous hero as a project manager is that while, yes, she's a genius and a free thinker... well, running a project with someone like that on your team is a real double-edged sword. For every inspirational idea, there's a missed stage gate or a blown budget. Project discipline goes out the window,

This, then, is the oft-encountered tragedy for the project leader. You have to take unpopular decisions in order to make a project deliverable at all; and manage your team and your end users in a way that seems draconian.

and while fellow team members might like the idea of freedom – *Matilda*'s rebellion gains widespread success – in the end, these things tend to fall apart.

Having your cake...

This, then, is the oft-encountered tragedy for the project leader. You have to take unpopular decisions in order to make a project deliverable at all; and manage your team and your end users in a way that seems draconian. But once you start breaking the rules for one wayward genius, things can unravel quickly. For example, Agatha is the victim of a robbery – a slice of cake is stolen, and no one is willing

ALAMY



**THE REAL HERO PROJECT
MANAGER OF MATILDA**

Matilda: The Musical is a story that lacks compassion for the brutalised Agatha Trunchbull (and fawningly accepts what in another movie might be the demon-possessed child of the supernatural – *Matilda: The Exorcist*, anyone?), but it more than makes up for it with the brilliant dancing. The ensemble numbers are huge, brilliantly choreographed set pieces with some of the snappiest, most carefully coordinated group moves seen on film. Bully prefect Hortensia (Meesha Garbett) and Bruce Bogtrotter excel in their own dance routines with quite remarkable performances. We're talking 'perfect 10s from Craig Revel Horwood' brilliant. Ellen Kane is listed as choreographer, so it's to her we doff our caps and award project manager of the film. Bravo!

the question, who is the better project manager – Agatha or *Matilda*?

Matilda's vision of sunshine, rainbows, fairground rides and giraffes interrupting lessons might seem like the optimum outcome. But those project goals are ultimately flawed. The organisation will never be able to sustain the costs; the pupils will be happy, but ill-educated, unfit and undisciplined. In short, the business-as-usual case is appalling – it's proof that, like Bruce, you can't have your cake and eat it. Yes, Agatha needs to work on her interpersonal skills. And it's clear something fishy happened with stepdaughter Miss Honey. But in the final analysis, any project sponsor worth their salt wants dependable Agatha Trunchbull running the programme... not supernatural *Matilda* Wormwood and her wacky nonsense.



to grass. Then Bruce Bogtrotter (Charlie Hodson-Prior) reveals his involvement. Rather than punish him in the Chokey, Agatha aims to cure him of kleptomania and chocoholism with kindness, offering a whole cake to eat. Which he does. A riot ensues and the pupils take the whole thing as an excuse to disrupt their own education. The incident is presented as a defeat for Agatha, but shouldn't we maybe accept her version of events? It is at least consistent with her in-house project methodology and objective. And it begs



NEW BOOKS, RECOMMENDED FAVOURITES AND PODCASTS TO KEEP YOU ENTERTAINED

INCLUDING ANTONIO NIETO RODRIGUEZ ON BENT FLYVBJERG'S ANALYSIS OF HOW TO GET BIG PROJECTS DELIVERED ON TIME, TO BUDGET AND WITH ALL THE PROMISED BENEFITS

How Big Things Get Done: The Surprising Factors Behind Every Successful Project, from House Renovations to Space Exploration

Bent Flyvbjerg with Dan Gardner (Macmillan)



Projects are designed to deliver benefits; that's the whole point. Every year, around \$48 trillion is invested in projects. Yet, success rates are alarming and appalling. According

to Bent Flyvbjerg's research on more than 16,000 megaprojects, 47.9% are delivered on budget, 8.5% are delivered on budget and on time, and 0.5% are delivered on budget, on time and with the projected benefits.

It is even harder to quantify the losses in unmet benefits, social impact and revenues from these massive delays or failures caused by poor projects and

deficient project leadership. Flyvbjerg's Iron Law of Megaprojects couldn't be more accurate: "Over budget, over time, under benefits, over and over again."

The book provides extremely detailed facts about exceptional projects, such as the Guggenheim Museum in Bilbao, the Empire State Building and Pixar's movie planning, and the stories and insights from the actual leaders who made these projects a reality. As a big believer in the importance of the purpose of projects, Flyvbjerg advises that asking why you're doing your project will focus you on what matters and the outcomes you have to deliver.

In a profession in which thorough planning has been labelled as old-fashioned and bureaucratic, Flyvbjerg's seminal work proves that detailed planning and multiple prototyping before actually starting implementation are fundamental for project success. Planning is relatively cheap and safe; delivering is expensive and dangerous.

Good planning boosts the odds of quick, effective delivery. He calls this "think slow, act fast", reminding us of the work by Nobel Prize winner Daniel Kahneman.

Another of the book's many great insights is Flyvbjerg's advice to think about Lego blocks when working on your project. Every project, even megaprojects, should be seen as a set of Lego blocks. After developing the basic building block, you can scale it up while getting better, faster and cheaper as you continue building your project. This approach has been successfully applied to software, subways, hotels, hospitals, rockets, cars and app stores.

If you are passionate about project management and want to learn how big projects work, Flyvbjerg's book is the ultimate go-to guide. It will help you increase your knowledge about extraordinary projects and teach you new, simple and proven techniques to thrive in the project economy.

Review by Antonio Nieto-Rodriguez, author of *The Harvard Business Review Project Management Handbook*. Check out APM Podcast's recent interview with Bent Flyvbjerg, discussing the book in depth.



The Get Things Done Book: 41 Tools to Start, Stick With and Finish Things

Mikael Krogerus and Roman Tschäppeler (Profile)



This is an uncomplicated and enjoyable read.

The opening section on procrastination, with its frankness about just how common this issue is, together with the relatable and

unapologetic tone of the dialogue sets the reader up for a pleasant, reflective

There is a comforting consistency in the drawings that accompany most sections so one is able to visualise the techniques

and useful experience, rather than an intimidating self-reflective mountain, as other informative books of a similar nature tend towards.

There are lots of different techniques to try, some rather analytical, explained in brief and understandable psychological terms rather than in too much detail, which could distract by causing over-psychoanalysis of oneself. I was particularly interested to learn about the five-second rule, perhaps the simplest of them all, which has since turned out to be instrumental in my own life and getting to the root of my procrastination psyche, something I wouldn't have learnt without this book.

The book acts as a great crib sheet and introduction to a myriad of useful tools that can be applied both professionally and personally, without any overly analytical self-evaluation. The various techniques are brief in explanation, but I like this informal structure to draw out freedom of thought around the concept. There is a comforting consistency in the drawings that accompany most sections so one is able to visualise the techniques. I particularly enjoyed the section on doing things differently, covering some interesting psychological concepts that I'd not come across before in project management theory.

Review by Amelia Morgan, Legal Project Manager at Pinsent Masons



My Bedside Books

Haukur Ingi Jónasson, Professor of Project Management, University of Reykjavík

Project Psychology: Using Psychological Models and Techniques to Create a Successful Project

Sharon De Mascia (Routledge)

This book, written by a dear friend and colleague, looks at project management from occupational psychology perspectives; it suggests a variety of people skills to effectively lead projects of all kinds. An excellent read, especially for managers who could benefit from some sound psychological insights!

Putin's People: How the KGB Took Back Russia and then Took On the West

Catherine Belton (William Collins)

I read this to understand the archaic mindset of Putin and his alliances and the outdated

vulgarism that seems to prevail in the state of Russia. The book gives a convincing, detailed and well-researched account of how Russia got Putinified and gives insights into some of the darkest aspects behind some projects and their management.

The crazy PMPprep: A novel for the PMP and CAPM certification preparation and everybody else

Rüdiger Geist & Bernie Cornwell

This is a very innovative and fun book that prepares for PMP and CAPM certification by telling a story of people at a mental institute. You cannot but identify with the characters, who struggle with situations that mirror the challenges of project management. I recommend it!

We're all ears – podcasts to listen to

APM Podcast

It might be spring already but now is the perfect chance to reflect on what *Project* columnist Eddie Obeng defines as the three biggest trends that will influence projects in 2023. While you're at it, listen to our round-up of the five project management lessons we learned in 2022 through the advice and experiences shared by our podcast guests, from those behind the James Webb Space Telescope to the raising of Sir Ernest Shackleton's ship, *Endurance*.

The News Agents

Emily Maitlis, Jon Sopel and Lewis Goodall – three of the UK's top

journalists – host this daily news podcast. They're not just here to tell you what's happening, but why, with astute analysis and explanations of the day's news – plus a healthy dose of scepticism and the ability to laugh at it all when needed. A pithy half-hour listen to bring you up to speed with world events.

Work Life with Adam Grant

As an organisational psychologist, Adam Grant rethinks how people lead, work and live. His pioneering research has inspired people to question assumptions about motivation, generosity and creativity. Each episode takes you inside the minds of some of the world's most unusual professionals to discover the keys to a better work life, including a group of misfits at Pixar who defied expectations and broke boundaries with *The Incredibles*.

Are you ready to be a change smith?

EDDIE OBENG ON SEEING THROUGH THE FASHIONS OF CHANGE TO FORGE PROJECT SUCCESS

Recently, we gave my father-in-law a copy of George Orwell's *Animal Farm*. Orwell called it a fairy tale about revolution. The clue to how the story ends is in the word 'revolve', like a wheel returning to its starting point.

The animals of the farm overthrow the humans, adopting the slogan 'Four Legs Good; Two Legs Bad'. After a while, that changes to 'Four Legs Good; Two Legs Better' and finally to 'All animals are equal but some are more equal than others'. There is plenty of change – projects to repair mills and upgrade the farm – not to mention battles (more chaotic projects) and lots of hard work! The role of pig project managers was to enable the animals to do what humans

Just as a blacksmith must understand how to heat, melt and shape the iron, we must know the properties of change

had done previously. Each project was a success but, in the end, the overthrown humans return to rule the farm.

Does all change lead you back to where you began?

Not all change is improvement. With revolutionary change, although the projects are well run in an agile way with effective coordination, stakeholder engagement and de-risking, the outcome may be undesirable, like a project version of 'the operation was a complete success and the patient died'.

Not all projects lead to revolution. Have you noticed how over time you feel more or less the same person as your body clearly changes? You only feel like a new person if something, usually dramatic, causes you to transform. Has that ever happened to you? You'll recall that you can barely remember the previous you. In transformational change the endpoint is not more of the same. To test if you are involved in transformation, just ask yourself if the vision, goals and approach can be well articulated. If the answer is yes,



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you are not in transformational change, just change.

You may begin with a level of certainty, but all transformation projects include a degree of 'fog' – unknown goals or methods. You must pass through a zone of high emotion, learning frantically to emerge alive on the other side. Your leadership skills will be tested and without superb stakeholder management you will flounder. Transformation demands change skills for three sets of projects. The first set is when defining goals and scope is straightforward and your coordination skills will be useful. The second set is about setting up 'scaffolding' for constructing the new or removing the soon-to-be-obsolete. Here your ability to pre-eliminate risk will help. And the final set is when needs are hard to define, even for you. You will need attention and learning.

And so to change

David Lomas, my techno-wizard business partner, uses 'horseshoes' to explain how his 'digital smithing' has shaped QUBE's virtual world. He says: "When a blacksmith shoes a horse, they don't try to fit the horse to the shoe. Instead they fit the shoe to the horse." It should be the same with all digital technology. I see project managers as 'change smiths' who shape the world of change to produce what all their stakeholders see as improvement. All projects are change. And just as a blacksmith must understand how to heat, melt and shape the iron, we must know the properties of change and how to handle it. So, off you go. Put an anvil on your shoulder and forge the future, change smith!

THE SEVEN LAWS OF CHANGE

All change obeys the same laws. You may recognise them.

- 1** One change leads to another. You can see what's coming next from what you did last.
- 2** Adding change to change creates chaos. This is why you look to the future to pre-eliminate issues.
- 3** People create change; people constrain change. This is why you engage people first.
- 4** To accomplish change, choose carefully. This is why you scope and chunk change by time, people or deliverable.
- 5** Accumulated complacency creates challenges. Projects that don't turn into processes unravel.
- 6** Resistance means changes often can't all go through at once. Don't push the whole world because it pushes you back.
- 7** Sparsely coupling your changes creates calm. When each project consists of effort and benefit and a stepping stone to the next, you can sleep at night.