

Advances in Project Management Series¹

Benchmarking for a quick turnaround: The search for performance excellence²

By Prof Darren Dalcher
Director, National Centre for Project Management
United Kingdom

According to the Oxford Dictionary the verb benchmark implies ‘*evaluating something by comparison with a standard*’. In practice, it often entails a direct assessment of business processes, procedures and performance metrics and outcomes against those applied by industry or sector leaders in order to understand why market leaders are successful, or against other organisations in a similar position or of a similar size and expertise, in order to provide a reading about the current performance level of the organisation.

Benchmarks emerge out of the pursuit of ‘best practice’ implying an intention to copy or replicate what is considered to be superior performance. Benchmarks provide a disciplined approach and a reference point for determining ones current position from which measurements could be made, or a basic standard and reference point against which others could be compared.

Reference points have long been used to determine position or encourage performance improvement. Land surveyors might be familiar with the idea of a benchmark, a distinctive mark made on a wall, rock or building which serves as a reference point in determining the current position and altitude in topographical surveys and tidal observations (Bogan & English, 1994, p. 3). Reference points are used elsewhere: Following the mass production and standardisation of rifles and cartridges in the mid-1800s, the marksman became the uncertain variable. Gun factories would therefore fix the rifle in a bench, making it possible to fire the rifle multiple times and determine the spread, introducing the idea of benchmarking weapons as used in both the gun factory and the ammunition factory to find the best combination of rifle, and ammunition, without necessarily accounting for the foibles of the rifleman.

McGrath and Bates suggest that Fredrick Taylor used the concept of a benchmark at the beginning of the Twentieth Century to identify excellent performers in the factory by putting a chalk mark on their benches (2017; p. 192). Taylor had utilised time and motion studies to identify good performers (Dalcher, 2017; p.3). The mark on the bench could thus indicate

¹The PMWJ Advances in Project Management series includes articles by authors of program and project management books published by Gower in the UK and by Routledge publishers worldwide. Each month an introduction to the current article is provided by series editor **Prof Darren Dalcher**, who is also the editor of the Gower/Routledge Advances in Project Management series of books on new and emerging concepts in PM. To see [project management books published by Gower and other Routledge publishers, click here](#). This article by Prof Dalcher is an introduction to the invited paper this month in the PMWJ.

² How to cite this article: Dalcher, D. (2018). Benchmarking for a quick turnaround: The search for performance excellence, *PM World Journal*, Volume VII, Issue VI - June.

staff whose output or working practices should merit emulating, and McGrath & Bates (2017) propose that this rather crude method had evolved into rather more sophisticated benchmarking tools and procedures.

In the 1970s benchmarking became a widely accepted term. However, companies such as Xerox applied it in a narrow way that focused primarily on comparisons with one's main competition to assess performance against the best in class, invoking the practice of competitive benchmarking (Camp, 1989). Competitive benchmarking entails comparison of company standards with those of leading rivals (Hindle, 2008; p. 15)

Yet, benchmarking is not a panacea, and needs to be applied with judicious intellect and some degree of caution:

'All too often benchmarking is carried out by semi committed managers, without the use of predetermined measures, and without the proper tools for analysis and presentation. Unquestionably, many benchmarking projects end in dismay, a futile exercise often justifiably portrayed by onlookers as industrial tourism, comparing apples with pears. Even when performed in a structured way, the 'they're different from us syndrome' prevents benchmarking from leading for changes for the better. Furthermore, competitive sensitivity can stifle the free flow of information, even within an organization.' (ten Have et al., 2003; p. 24)

Nonetheless, benchmarking has been utilised for a range of diverse and varied purposes, including (Bogan & English, 1994):

- Setting and refining strategy
- Reengineering work processes and business systems
- Continuous improvement of work processes and business systems
- Strategic planning and goal setting
- Problem solving
- Education and idea enrichment
- Market performance comparisons and evaluations
- Catalyst for change
- A utilitarian tool

The power and potential impact of benchmarking

For an early example of benchmarking, Bogan and English note that in the 1800s British textile mills were best in class. American mills in contrast were relatively immature. New England industrialist, Francis Cabot Lowell wanted to improve and upgrade local capability and modernise business technology. International trade was severely impacted by the 1807 embargo, leading Lowell to the inevitable conclusion that the local manufacturing basis in the US needed to be strengthened. In June 1810 he embarked on a two-year visit to Scotland and England paying particular attention to the spinning and weaving technologies that he was able to observe by travelling around Scotland and Lancashire.

‘Lowell travelled to England where he studied the manufacturing techniques and industrial design of the best British mill factories. He saw that the British plants had much more sophisticated equipment but the British plant layouts did not effectively utilize labor. In short there was room for improvement’ (Bogan & English, p. 1).

Upon his return to the US, Francis Lowell proceeded to build his factory replicating the use of technology that he observed in the British mills. However, it was designed to be significantly less labour intensive than the British facilities. In 1814 he established the Boston Manufacturing Company and built its first mill beside the Charles River in Waltham, Massachusetts. The plant housed an integrated set of technologies that could deal with the full life cycle of converting the raw cotton to the finished product in one place. Its success was immediate and enormous but it rapidly depleted the waterpower of the Charles River. To expand the enterprise, the plant was moved north to the banks of the more powerful Merrimack River. Following Lowell’s death, this new mill centre became known as Lowell, Massachusetts. By 1840, the new industrial city of Lowell, Massachusetts had become the second largest city in America and was recognised as the largest manufacturing centre in the whole country.

The dynamic growth and impact on the wider industry is attributed to Lowell’s ability to creatively adapt and further improve practices observed in the world’s leading mills. Lowell has been able to identify and copy patterns that were sufficient to transform mills in the US from small facilities to integrated production facilities. By upgrading and strengthening the identified gaps, he was further able to establish industrial manufacturing in the NE region of the US.

From benchmark to Benchmarking for further development

Industry has clearly progressed from Taylor’s notion of marking a bench with a piece of chalk in order to identify a good performer that can pace others, towards recognition of effective practices that merit emulation and further improvement as exemplified by Lowell.

A key shift is in progressing from simple metrics and measures towards the observation of processes. This is perhaps best represented by the shift from a hand written benchmark towards benchmarking, a more observational activity concerned not merely with gauging operating statistics, but with identifying effective practices.

Benchmarking represents a positive, intentional and proactive process preoccupied with the search for improvement and superior performance. The Japanese have a special word *dantotsu*, which means striving to be the best of the best. Being the best of the best incorporates the essence of what benchmarking is really about; a continuous search to become ‘best of the best’ that is innovatively applied and can lead to a true focus on uncovering developmental insights and gaining and sustaining superiority.

Searching for dantotsu is innovatively applied as new approaches, perspectives and ideas are explored through a fresh pair of eyes. Such benchmarking can open up new possibilities for transformative innovation and the importation of good practices and methods to deliver new superior performance.

In 1912 Henry Ford observed men cut up meat whilst on a tour of a Chicago slaughterhouse. The carcasses were hanging on hooks mounted on a monorail; after each worker performed his job, they would push the carcass to the next station, allowing the next bit of work to commence. Ford was inspired by the production line dynamics, and was interested to consider its potential application to his line of work. Less than six months later, the world's first assembly line at the Ford Highland Park Plant started producing magnetos. The idea that would ultimately revolutionise car manufacturing was first observed in a completely different industry, in the meat packing warehouses in Chicago.

Ford explained his vision in the following way: *'the man who places the part will not fasten it. The man who puts in the bolt does not put in the nut, and the man who starts the nut will not tighten it... We started assembling a motor car in a single factory'* (Ford, 1924; p. 27)

Looking elsewhere: From racing cars to saving lives

Is it possible to learn from experts in other disciplines? Indeed, can we improve our own practices by watching other professionals ply their trade?

Racing and medicine are not normally reckoned to have a lot in common. Formula One racing offers many thrills to viewers and fans. But apparently it can also offer instructive lessons in process improvement.

Doctors in the UK's Great Ormond Street Hospital for Children NHS Trust's Surgical and Intensive Care Unit have long realised that there was an urgent need to speed up the handover process of patients moving from the operating theatre to the intensive care unit (ICU) following heart surgery. A normal transfer could take about 30 minutes as wires and tubes are untangled and unplugged while a number of handover conversations could be taking place before the patient is transferred to the care of the ICU.

Following a particularly demanding 12-hour emergency transplant two exhausted senior surgeons were unwinding by watching a Formula One race in the staff common room. They were struck by the contrasts between the somewhat chaotic process of transferring patients, and the highly coordinated activities of the 20-member crew of engineers and mechanics who change the car tyres, fill it with petrol, clear the air intakes and correct any flaws, allowing the car to clear the pit within seven seconds. Indeed, the mechanics appeared to be using a highly coordinated, efficient and disciplined process.

Intrigued by the need for a highly ordered and controlled handover process and the slick execution observed in real time on the television screens, they invited McLaren and Ferrari racing managers to benchmark processes. Hospital surgeons went to the pits in the British Grand Prix, and met Ferrari's technical managers in Italy. Ferrari's technical managers agreed to come over to the hospital and observe and reflect on their handover procedures.

One of the key lessons was that the racing environment was actually more safety conscious and process oriented than the medical context. The fast and fiery world of Formula One had developed stringent procedures and lines of responsibility that simply did not exist in the medical equivalent. At the end of an operation the baby is transferred from the safe surgical

environment onto a trolley that is then taken down a cold corridor towards intensive care without the dedicated equipment and with little monitoring. Within the space of 15 minutes all the technology and support systems are transferred two times (Sower et al., 2008; p. 173). The transition is difficult and requires a large team engaged through multiple stages and steps, not unlike the racing maintenance team.

While doctors deal with a variety of emergencies, the bulk of the preparation comes from their original training and the experience they accumulate over time. Existing procedures had involved operating on a solid table, which included all the vital connections to equipment. Following the operation, all equipment would be unplugged and a hand-operated ventilator utilised for transferring the child out of theatre, into the lift, and along the corridor towards intensive care.

Teamwork is essential to success. In racing, teams try to optimise activities and minimise the time wasted when a car is away from the racing track. Many procedures are carried out concurrently with different teams taking control of different activities and small units dealing with each component of the racing car.

The team of doctors was originally convinced that their processes were optimal as many of them have been following the same procedures for many years. However the racing experts filmed the doctors at work. When they analysed the tapes and had time to reflect on their actions they were shocked to realise the lack of structure in what they were doing. The reflection enabled the team to identify bottlenecks and areas for improvement. Moreover, it revealed that the medical specialists were not acting as a unified team. Junior doctors and nurses did not feel able to challenge, identify concerns or express their views.

Observing the process in action carries an enormous value. Formula One teams spend a lot of time rehearsing their procedures, making sure they do not infringe on the work of other specialists and watching recordings of themselves at work. Suggestions for improvements are fed into this process and trialled with a view to creating additional improvements. Shaving seconds or hundredths of seconds is meaningful, but avoiding delays and not getting in the way of other teams is even more crucial to ensure that the overall objective of getting the car back on the road in minimum time is still on track.

Improvement offers benefits to the organisation thereby resulting in added value. Process improvement is about adopting a process-centric approach and maintaining a holistic view that will enable the 'improvers' to see the wood for the tree. Looking from outside and reflecting can often highlight deeply enshrined flaws and quirks. In order to continue to improve, we need to keep an open mind while remembering the ultimate purpose for improvement. The technical managers pointed out that performance was not about assembling the best collection of technical experts and asking them to perform. Performing as a team requires practice. Moreover, getting a collection of experts to work together required them to become a team.

The racing experts observed the current procedures and advised the medical team on how to turn a relatively chaotic and noisy process into one of optimised procedure with each member of the team knowing their role at every given moment. The input from the pit technicians led

to a major re-structuring of the patient handover procedures (Catchpole et al. 2007; 2010, Sower et al., 2008), which included the adoption of a new protocol, the elaboration of new checklists and the development of training and rehearsals designed to improve performance in practice. The key to the transformation was in adopting the systematic discipline from Formula One. The protocol identified the leader through the process (the anaesthetist), provided detailed procedures and checklists for each stage of the handover, specified task allocation, rhythm and communication patterns, and even included a detailed diagram of the patient surrounded by staff, so all team members could recognise their station, which identified their exact position and the their precise tasks.

While the hospital team may never be able to overhaul a patient inside ten seconds like the racing engineers, they managed to trim down and optimise the handover procedures, hopefully saving lives in the process. They were also able to continue the search for improvement and continue to gaze, reflect upon and explore other aspects of the business.

What started initially as a fanciful idea of turning a hospital procedure into a Formula One arena had ultimately become a benchmarking and learning exercise that allowed highly experienced practitioners to learn how to work together as an efficient team. Borrowing processes from other disciplines and indeed, applying a fresh pair of eyes to well-established routines has been instrumental in radically transforming patient handover following heart surgery.

While this was a small initiative introduced by individuals, the results have proved to be very encouraging. The mean and number of errors and handover omissions have been significantly reduced and enhanced communication has resulted in improved teamwork and a reported improvement to patient safety. The unit reported a four-time reduction in mistakes, moving from poor to good on a number of standard performance measures.

The success of the initiative generated a growing appetite for further improvement. The partnership between the medical team and the engineers has now been in place for over a decade. Crucially, they continue to innovate and experiment with new technologies. Some of the new areas include the use of analytics and big data to monitor performance, utilisation of predictive technologies, fault monitoring and intervention and the development of 3D printing, as well as recognising the value of rehearsing and modelling in improving procedures (Massey-Beresford, 2016). The collaboration has also given the medical team license to begin to explore additional areas and ask new questions that can lead to further improvements.

By daring to look for expertise away from their main specialism, doctors have thus been able to radically improve the outputs and outcomes associated with their handover procedures. Using expertise honed while maintaining and servicing cars, experts were able to identify bottlenecks and fine tune procedures required to operate in entirely different domains, create better performing teams, and improve their resulting performance proving that innovation sometimes lies where you least expect it.

Directing the lean quality management revolution

But such informed initiatives are few and far between. Meanwhile, the need for improvement in most sectors and projects continues apace, requiring new approaches for rethinking quality management. This month's contribution by John Oakland and Marton Marosszeky draws on the new edition of their comprehensive textbook *Total construction management: Lean quality in construction project delivery* published by Routledge. Oakland and Marosszeky adopt a broader focus that lean quality brings to all aspects of organising and managing. They acknowledge that the traditional product-based paradigm does not offer a sufficiently broad or robust perspective to support continuous performance improvement and offer new insights and perspectives. Their work thus endeavours to provide the basis and the platform for progressing the conversation and honing practice in the area.

Benchmarking, lean management and other quality initiatives have offered multiple approaches and alternative perspectives for improving organisational performance. Oakland and Marosszeky are interested in exploring the wider foundations underpinning the range of approaches. While the different approaches appear to present distinct theories, they expose the commonalities and try to provide a guided tour through the strengths and values embedded in the different approaches. In doing so they expose and compare the different dialects that unfold in what they view as an enormous jigsaw puzzle. They are thus able to document a comprehensive approach to improving organisational performance through an emphasis on quality.

Oakland and Marosszeky explore recent developments around TQM, quality awards, and lean management thereby explaining the language of performance improvement. Quality thinking provides the basis for uncovering the assumptions and ideas underpinning the various quality trends. More importantly, Oakland and Marosszeky develop a new framework for lean quality management, which provides a starting point for making sense of new developments and introducing a new perspective for approaching lean management and quality improvement concepts in organisational settings. Surveying the foundations of different approaches to quality highlights a set of central principles that underpin thinking, offering the potential to improve performance and enhance quality. The underpinning principles enable organisations to re-focus their culture, values and philosophy, adopt a longer-term perspective, develop exceptional people and robust networks, drive to achieve quality, and encourage investment in planning to enhance reliability and flexibility.

Many of the quality ideas support continuous and never-ending improvement as the arena for addressing performance issues. The book offers a uniquely informed perspective enriched by extensive detail about the principles and key insights embedded in various quality improvement models. Oakland and Marosszeky's distinctive framework sets down a clear way for organisations to proceed with their quality and performance improvement quest. The volume concludes with 12 new case studies each presenting the tactics and achievements of different organisations within the building and construction sector in terms of specific approaches and their achievements. The cases include private and public sector exemplars in a wide range of business areas: quarrying and concrete supply, design, construction, MEP services contractors, structural systems production, private owners, public infrastructure providers and a major hospital project. The cases provide a description of what occurred in 14

quite different organisations. They give insight into various aspects of lean quality and operational performance improvement efforts demonstrating the application of the concepts and techniques of lean quality and business excellence. The cases make an essential contribution to lean and quality practice by providing a benchmark and showing how contemporary organisations operate in the quality and continuous performance improvement space.

A key strength of the work is in the focus on underpinning principles, which enable the merit and direction of each approach to be explored. The principles emphasise many of the underpinning values, including aspects such as: long term vision and philosophy, the creation of a co-operative culture and structure, utilisation of creative resource, a focus on creating customer value as the driver for continuous improvement and maintaining a commitment to lean quality from top management throughout the organisation. Pulled together many of the principles provide the agenda required for an on going quest for continuous improvement and the on-going development that such approaches advocate.

Benchmarking reprised

'All Good to Great companies began the process of finding a path to greatness by confronting the brutal facts about the reality of their business. When you start with an honest and diligent effort to determine the truth of your situation, the right decisions often become self-evident.'

— Jim Collins

Benchmarking clearly fits within the continuous improvement and value delivery framework applied by organisations. Oakland and Marosszeky identify a number of external drivers for benchmarking, including (p. 227):

- Customers continually demanding better quality, lower prices, shorter lead-times
- Competitors seeking a strategic advantage
- Legislation which places greater demands for improvement

The internal drivers, include (ibid.):

- Targets which merit improvement
- Technologies, such as BIM, which drive fundamental changes in processes
- Self-assessment results providing opportunities to learn from the adoption of good practices

Oakland and Marosszeky define benchmarking as *'the continuous process of identifying, understanding and adapting best practice and processes that will lead to superior performance'* (ibid.).

Oakland and Marosszeky observe that organisations progress through four different focus points related to benchmarking (p. 229):

- Initially, attention is concentrated on competitive products or services
- Subsequently, the focus shifts to industry best practices

- Consequently, the real breakthroughs begin to occur as the organisation becomes concerned with total business performance across all functions and aspects
- Ultimately, there is a focus on processes and true continuous improvement

Superior performance remains the objective of modern process improvement. The move from products to processes, and from benchmarks and metrics, to processes and practices, thus chimes with the development in understanding and applying benchmarking to support organisational growth and improvement described earlier in this article.

Progressing beyond the benchmarking paradox

‘All successful companies are constantly benchmarking their competition. They have to know what they have to match up with day-in and day-out if their company is going to be successful.’

— James Dunn

Benchmarking is fluid and dynamic, requiring attention to relative performance and to the changing circumstances and conditions. For example, a retailer that shifts attention from sales through their high street shops towards greater presence on the Internet should become less concerned with the accessibility of their physical shops, the ability to park near them and the delivery to car service that they offer. Their new focus would probably include the accessibility and appeal of their web portal, the performance of their delivery company and the effectiveness of the search algorithms when looking for the service, company or their products. Benchmarking therefore needs to acknowledge that the relative importance of performance shifts with time.

However, we are often limited by past behaviours and acknowledged and idealised and celebrated past behaviour patterns.

The benchmarking paradox: Identified ‘best practices’ are often fossilised and ossified within organisations. As soon as you identify a ‘best practice’ and mandate its use, the organisation risks institutionalising it and codifying it into a bureaucratic dogma that can arrest future development and rigidly obfuscate any further attempts at improvement. Indeed, mandating best practices can become a force against innovation and improvement, for bureaucracy and innovation operate at distinctly different levels and seek to achieve different, and often contradictory, objectives and outcomes.

Other challenges may also persist:

‘Nonaka and Takeuchi present some tough challenges to Western managers and organizational theoreticians. They question whether Peter Senge’s work on the learning organization does not continue the Cartesian split between mind and body, something they feel has plagued Western thought for several centuries. They also question the West’s notion of “best practices” and “benchmarking” because they believe it is not enough to just learn about other ways of doing something. Instead, companies need to actively process what they are learning to make it their own. And they question our approach to the virtual corporation

that easily combines the knowledge of the company, supplier and customer' (Savage, 1996; p. 138)

Best practices offer limited and temporary value unless it is considered in context and assessed for continued relevance. Nonaka and Takeuchi (1995) thus advocate a better combination of action and reflection to drive the knowledge creating processes by translating tacit to explicit knowledge. They also recognise the role of culture and values in shaping the organisation and the individuals within it. Their main contention is that Japanese firms are successful because they are innovative; they continue to make new knowledge, incorporating ideals, values and emotions, and use it with speed and flexibility to produce successful products and technologies. Therein lies the true essence of innovation through benchmarking, in direct contrast with defensive conservatism..

Benchmarking should therefore remain an *evergreen* process, one that is allowed to renew and regenerate as the organisation seeks to develop and innovate as part of a continuous improvement discipline. Ultimately, the best practices are those that pave the way for the next level of continuous improvement by becoming a step forward and a milestone to development and higher achievements, rather than a millstone which can arrest further refinement and growth. Superior performance can thus build on rapid and changing insights, take advantage of emerging understanding and continue to innovate and challenge the organisation to do even better on its perpetual journey towards superior performance and sustained excellence.

References

Bogan, C. E., & English, M. J. (1994). *Benchmarking for best practices: winning through innovative adaptation*. New York: McGraw Hill.

Catchpole, K. R., De Leval, M. R., Mcewan, A., Pigott, N., Elliott, M. J., Mcquillan, A., ... & Goldman, A. J. (2007). Patient handover from surgery to intensive care: using Formula 1 pit-stop and aviation models to improve safety and quality. *Pediatric Anesthesia*, 17(5), 470-478.

Catchpole, K., Sellers, R., Goldman, A., McCulloch, P., & Hignett, S. (2010). Patient handovers within the hospital: translating knowledge from motor racing to healthcare. *BMJ Quality & Safety*, 19(4), 318-322.

Camp, R. C. (1989/2006). *Benchmarking: the search for industry best practices that lead to superior performance*. Milwaukee, Wisconsin: ASQC/Quality Resources.

Dalcher, D. (2017). What has Taylor ever done for us?: Scientific and humane management reconsidered. *PM World Journal*, Vol VI, issue, IV, April 2017.

Ford, H., & Crowther, S. (1924). *My Life and Work: in Collaboration with Samuel Crowther*. New York: First World Library.

Hindle, T. (2008). *Guide to management ideas and gurus*. London: The Economist.

Masse-Beresford, H. (2016). The benefits of a business partnership, Telegraph, 21 April 2016

McGrath, J., & Bates, B. (2017). *The Little Book of Big Management Theories... and how to use them*. London: Pearson UK.

Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford: Oxford university press.

Oakland, J.S. and Marosszeky, M., (2017). *Total Construction Management – lean quality in construction project delivery*, Oxford: Routledge.

Savage, C. M. (1996). *5th generation management: Integrating enterprises through human networking*. London: Butterworth-Heinemann.

Sower, V. E., Duffy, J. A., & Kohers, G. (2008). Ferrari's formula one handovers and handovers from surgery to intensive care. *Benchmarking for Hospitals: achieving best-in-class performance without having to reinvent the wheel*, 171-190.

Ten Have, S., ten Have, W., & Stevens, F. (2003). *Key management models: The management tools and practices that will improve your business*. London: Pearson Education.

About the Author



Darren Dalcher, PhD

Author, Professor, Series Editor
Director, National Centre for Project Management
United Kingdom



Darren Dalcher, Ph.D. HonFAPM, FRSA, FBCS, CITP, FCMI SMIEEEE SFHEA is Professor of Project Management, and founder and Director of the National Centre for Project Management (NCPM) in the UK. He has been named by the Association for Project Management (APM) as one of the top 10 “movers and shapers” in project management and was voted Project Magazine’s “Academic of the Year” for his contribution in “integrating and weaving academic work with practice”. Following industrial and consultancy experience in managing IT projects, Professor Dalcher gained his PhD in Software Engineering from King's College, University of London.

Professor Dalcher has written over 200 papers and book chapters on project management and software engineering. He is Editor-in-Chief of *Journal of Software: Evolution and Process*, a leading international software engineering journal. He is the editor of the book series, *Advances in Project Management*, published by Routledge and of the companion series *Fundamentals of Project Management*. Heavily involved in a variety of research projects and subjects, Professor Dalcher has built a reputation as leader and innovator in the areas of practice-based education and reflection in project management. He works with many major industrial and commercial organisations and government bodies.

Darren is an Honorary Fellow of the APM, a Chartered Fellow of the British Computer Society, a Fellow of the Chartered Management Institute, and the Royal Society of Arts, A Senior Member of the Institute of Electrical and Electronic Engineers, a Senior Fellow of the Higher Education Academy and a Member of the Project Management Institute (PMI) and the British Academy of Management. He is a Chartered IT Practitioner. He sits on numerous senior research and professional boards, including The PMI Academic Member Advisory Group, the APM Research Advisory Group, the CMI Academic Council and the APM Group Ethics and Standards Governance Board. He is the Academic Advisor and Consulting Editor for the next APM Body of Knowledge. Prof Dalcher is an academic advisor for the *PM World Journal*. He can be contacted at darren.dalcher@warwick.ac.uk.