

# Research sets the benchmarks

By Ken Lane

Project management has come a long way since *Project Manager Today* started some 22 years ago. When we launched the magazine it would have been difficult to find any dedicated research on project management outside of construction and engineering and as for PM degrees and doctorates, they didn't exist.

It is very different today. There are now many different qualifications, degrees and hosts of research projects.

As Carl Pritchard, our US correspondent, says elsewhere in the issue, the US has been somewhat lagging Europe and Asia in the research stakes at Universities, though this, of course, ignores work done at places like NASA. But it's a theme that's echoed by Rodney Turner, Professor of Project Management and director of the PhD Programme at SKEMA Business School, Lille, who says: 'I agree that the most important work is being done in Europe and through PMI.'

'American universities don't recognize project management as a proper management subject. In spite of the fact that over half the global economy is project-based, they want to focus on strategy and marketing,' he says.

'There is also a lot of research being done in the Far East. I get many papers submitted to the International Journal (IJPM) from Taiwan, China and Hong Kong. They seem to recognize the importance of PM to their economy.'

## Global reach

Research, of course, is driven by different forces. There's the research that sets out to prove or disprove the intellectual basis for what the practical world accepts as truisms. Its results often get the reaction: 'but we already knew that'. However, basic pm research does provide bedrock and a challenge to accepted views, especially as practice sometimes takes intuitive rather than considered leaps forward.

The theme of this issue is University research, but with a practical management discipline like project management, research comes in many guises and from many different sources.

Both the PMI and APM bodies of knowledge come from a fascinating mix of expert knowledge, practical experience and accepted practice from a wealth of sources. The OGC's best practice guidance has evolved from

the needs of the UK government and grown into a major force in the project management world. Then there are the influences from other ways of working, like Agile, developed in other industry sectors.

This all goes to show that choosing research topics and ideas for project management have few limits. This is exactly what our brief review has revealed.

At the launch of OGC's latest Guidance – Management of Portfolios (MoP) – last month, Stephen Jenner, one of the authors, said that he had conducted an extensive trawl of research on working with portfolios before he and Craig Kilford began the task of writing the Guide.

## Programme issues

Perhaps the best place to start with any overview of current research is with research that's aimed at the most complex and largest projects. The BT Centre for Major Programme Management at Saïd Business School, Oxford University, was set up to look at the problems of mega-programmes. Bent Flyvbjerg, is the centre's director and BT Professor. He leads a team looking at such diverse topics as the reasons why risk in major programme management 'is generally poorly understood



and is typically grossly underestimated', to the use of due diligence to find out just how reliable, or unreliable, a given business case or cost-benefit analysis is and what this means as to whether or not a given investment should be made.

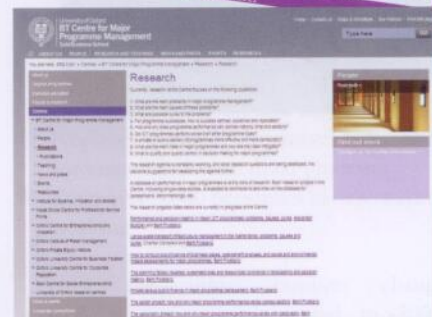
Janet Smart is investigating project management and systems engineering at the CERN ATLAS experiment, one of the detectors positioned on the beam of the Large Hadron Collider. ATLAS is an example of a major project that's part of the specification, design and construction of one of the largest machines ever built: consisting of 20 million components and involving over 130 scientific institutions and 37 nations.

Apparently the ATLAS community 'seems to defy the standard models of project management and systems engineering'. Janet is looking at the extent to which they deviate from accepted practice and the consequences that follow on from their behaviour.

On now to The International Centre for Programme Management (ICPM) at Cranfield. This is a

Group photo taken during the event celebrating the completion of the installation of the ATLAS Big Wheel in the cavern (September 2007).

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unique university-industry partnership. Dr Harvey Maylor, director of ICCPM told me that: 'We are engaged in research and development. Research without development leads to an academy detached from reality. Development without research leads to solutions that have no basis. It is a combination that is central to the future of both parties.'



He adds: 'For a researcher, the kind of arrangement ICCPM have with HP is fantastic. Rather than spending a lot of time and energy negotiating funding and access, these are provided through the partnership. This means we can get on with the main task of finding ways, through programme and project management capability and context, of securing benefits for our collaborating organizations.'

'For the organization, we are working with key individuals to develop the knowledge, frameworks and systems for managing in environments that exhibit particular complexities. Our work so far has included researching the organizational implications and requirements for effectively managing risk, customer satisfaction, and complexity and how Programme and Project Management Offices (PMOs) can be configured to support these activities.'

'Our ongoing programme of research now includes work streams focused on a number of areas including: how organizations create and modify the context in which programme management operates; how this context relates to organizational strategic requirements, and the role that clients play in the success or otherwise of delivery in programmes and projects.'

### Working with complexity

Back in 2005 a group of defence companies came together with Australian, UK and US government departments to start an initiative aimed at improving the international community's ability to successfully deliver very complex projects and manage complexity across all industry and government sectors.

In September 2007 they established the International Centre for Complex Project Management (ICCPM) - previously known

as the College of Complex Project Managers.

Board members include Simon Henley, programme director at Rolls-Royce, and Mary McKinlay, adjunct Professor of Project Management at ESC Lille, who told me of an initiative from the ICCPM for a A\$10,000 research prize. This recognizes 'innovative and exceptional research contributions in an emerging area of complex project management'.

She says that the Prize is awarded annually to the individual, organization or university that produces the most worthy piece of applied research in support of ICCPM's Research Agenda.

Research papers can address any area of complex project management. Each nominee must have the support of at least two leading academics, or practitioners, in the area of complex project management.

The contribution of the nominee may have been as an individual who has conducted the research, or as the leader of a productive team where the nominee provides the main initiative and intellectual input. Nominations close on 1 May and the prize will be presented at the annual ICCPM Innovation and Research Seminar.

Defence industry partners of the ICCPM now include among others, Raytheon, BAE SYSTEMS and Thales. As well as supporting research, the ICCPM also helped in developing the Executive Masters in Complex Project Management programme at Queensland University of Technology.



### Construction at the forefront

The construction and engineering industries have always been a rich source of project research and the current crop at UK universities is no exception. Professor Peter Morris at UCL Bartlett School of Construction and Project Management has a well-established reputation for work in this field. He was the first recipient of IPMA's Research Award in 2009 and also received PMI's Research Achievement Award in 2005.

Peter is currently working on a definitive history of project management while also looking at the management challenges for the built environment in 2050 and has just seen published 'The Oxford Handbook of Project Management' which he co-edited.

Colleagues are working on a host of projects including, among others, complexity (Joana Geraldi), joint ventures (Satu Teerikangas),

social network theory in supply chain management (Stephen Pryke), managing the front-end (Morris, Andrew Edkins, Geraldi), and relationship management and trust in procurement. The School has 12 PhDs at work, 300 students and 20 faculty.

UCL has just launched a new MSc for strategic management of projects to 'explore and examine projects and their management worldwide from the built environment and infrastructure to software systems and R&D'.

Networks between academics also play an important part in research activities. The Centre for Research in the Management of Projects at Manchester Business School, headed by Professor Graham Winch, has links with UCL, MoP at Manchester University and the BAE/ESPRC Systems Engineering programme. CRMP focuses on the dynamics of projects, dealing with uncertainty and innovation in project-based industries.

At Sheffield Hallam's Department of the Built Environment, supply chain management and its impact on project management, and 'turnaround maintenance project management' are recent examples of their ongoing post-graduate (PhD) research studies programme.

They received further recognition in the CIOB's 08/09 International innovation and Research Awards when in connection with a recently completed PhD project, Setya Winarno, Professor Alan Griffith and Professor Paul Stephenson received the 'Highly Commended Innovation Research Paper Award' for research examining the design and project management of non-engineered buildings in Indonesia.

### Effective communication

Brendan D'Cruz says that the MSc Project Management in Newport, University of Wales, has a 'Project Futures' module that is research based. Current work includes 'Project corruption' and 'Corporate manslaughter and project accountability. He also comments that the APM, through the Education Network Advisory Group (ENAG), are increasingly looking at applied research with HEI and corporates, and making results available through journals that are accessible to practitioners and not just academics.

Andy Gale, Professor of Project Management at the School of Mechanical, Aerospace and Civil Engineering at the University of Manchester, and their management of projects expert group are trying to ensure that wider communication is part of their remit. Their inaugural MoP newsletter appeared last month with a staff profile and brief news on research including a piece on emergency projects which they point out are possibly the only projects which follow the definition of having 'a definite start'.

It's through effective communication and understanding that good research will avoid gathering dust on a shelf.