

# Knowledge in Action

Issue 04



## Knowledge management in project-based organisations

For project-based organisations, knowledge management presents an awkward dilemma. With an intense need to share knowledge both within and between projects, such organisations may find that the project-centric nature of their work actually serves to make knowledge sharing more difficult.

Research carried out by Henley Knowledge Management Forum highlights a way of categorising projects that can help project-based organisations share knowledge more effectively.

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“It’s absolutely vital that knowledge management is embedded into our day-to-day activities. When we work on a bid, we want to make sure that every scrap of reusable information has been harvested.”

Alma Kucera, UK & Ireland head of knowledge management, HP Services



While every business engages in projects to some extent, certain businesses live or die by them: construction companies, for example, or architectural practices, publishing companies and design firms. To such project-based businesses, effective knowledge management is of crucial importance to deliver current and future project performance.

But if effective knowledge management is important, it is also challenging. Believing that the project they are working on is unique, for instance, can result in project teams mistakenly assuming that the knowledge they need is also unique, leading to wheels being reinvented and mistakes repeated. Projects are also transient by nature: team members disband at the end of a project and move on to new work – with the new relationships that have to be formed at the start of each project increasing the barriers to meaningful knowledge sharing.

What’s more, projects often take place in a ‘hothouse’ environment that isn’t helpful to good knowledge management, and where they are closely controlled to make sure that they are completed on time and on budget, rather than with an emphasis on knowledge sharing or knowledge retention for the future.

Recognising that projects tend to fall into four discrete types helps managers to maximise the opportunities for knowledge management – both sharing and learning *between* projects, and creating, sharing and using knowledge *within* projects. By applying techniques appropriate for the project in question, businesses can enhance their knowledge-sharing capability.

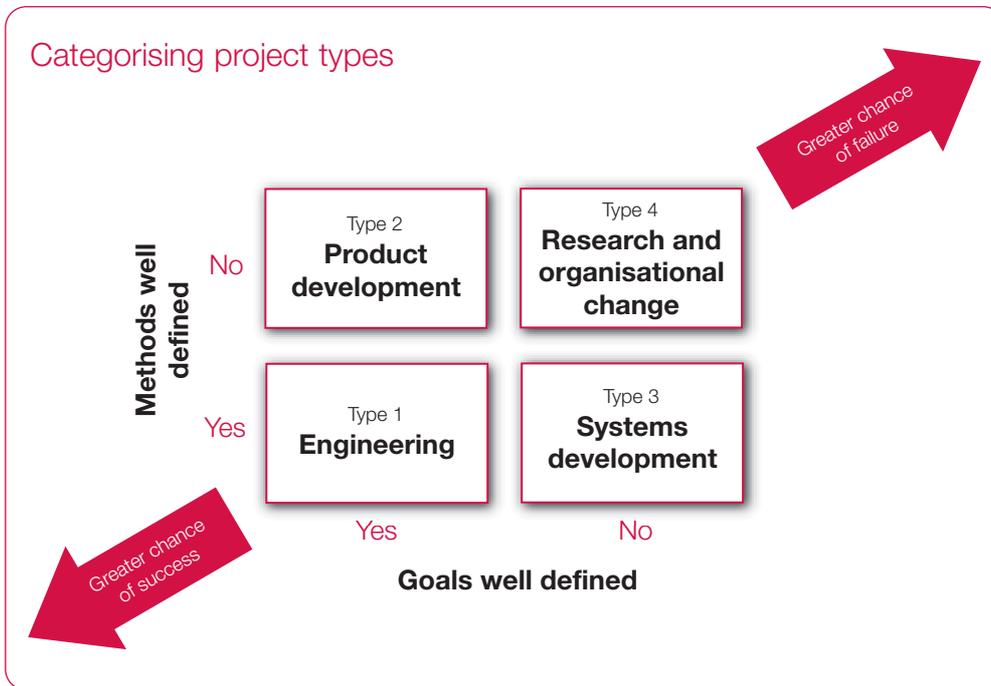
## Categorising project types

The starting point is to characterise projects according to how they score on two dimensions: on how well defined are the goals of a given project, and on how well-designed are the methods of achieving these goals. Regarded in this way – an approach pioneered by researchers JR Turner and RA Cochrane in the early 1990s – projects naturally fall into four discrete types, as shown in the illustration.

**Well-defined goals, well-defined methods.** Typically, ‘Type 1’ projects like these include engineering projects. Because the goals and methods are both well defined, it is possible to move quickly into activity-based planning of the work to be done. And in this type of project environment, the research suggests that the most valuable aids to knowledge sharing are regular meetings at which project managers can share experiences and learning, and holding ‘problem-sharing’ sessions or project clinics. Organised social events at which informal knowledge sharing can take place are needed to support relationship-building within this relatively structured project environment.

### Collaboration, insight ... practical value

Co-ordinated by Judy Payne of Henley Management College, the research was carried out by members of the Henley Knowledge Management Forum and a number of construction firms taking part in a DTI-supported research project. Companies participating in the research included Balfour Beatty, Metronet Rail BCV, PRP Architects, Thames Water and Orange.



**Well-defined goals, poorly-defined methods.** Examples of ‘Type 2’ projects include product development projects, where the functionality of the required product is known, but not how this functionality will be achieved. Here collaboration tools and processes are needed to identify people in the organisations involved in the project who may have encountered similar problems before. Technology plays an important role in connecting people and allowing shared working, while ways of stimulating creative thinking are also needed.

**Poorly-defined goals, well-defined methods.** ‘Type 3’ projects include systems development projects, which are generally managed using milestones representing completion of life cycle stages. Here, the main aids to knowledge sharing proved to revolve around ‘people issues’. Practices such as mentoring schemes, internet forums and provision of ‘knowledge facilitators’ all score highly as close working relationships need to be established to agree goals.

**Poorly-defined goals, poorly-defined methods.** ‘Type 4’ projects include research or organisational change projects, where the management focus is on mission definition, team-building and the refinement of objectives. Included among the most valuable aids to knowledge sharing were: identifying experts within the organisation – including freeing up their time so they could operate across projects; making use of suppliers’ skills; and holding informal social events at which opportunities for knowledge sharing can arise to stimulate creative thinking and connections across projects.

**“To a business like ours, knowledge management matters: quite simply, it’s one of the most important things we do.”**

Cathy Blake, head of knowledge management, PRP Architects

Some practices were valued highly, irrespective of project type. Making sure that the knowledge-capture strategy supported the business strategy, for example, scored highly, as did making sure that the whole team had access to documents, drawings and plans databases and compatible communications technologies. Just as important were the establishment of project reviews at appropriate points with an emphasis on knowledge sharing and capture.

“It’s impossible to over-state the importance of face-to-face contact and discussion – and in a project-based business like ours, where by definition people are focused on the projects that they are working on, we have to deliberately engineer opportunities for that to happen.”

Steve Major, managing director,  
Simons Design



Also important is the recognition that while projects may start life as a particular type, they tend in practice to evolve – gradually morphing from one type to another as the project progresses, usually ending up as a Type 1 project in the delivery phase. As such, the most effective knowledge management approaches will need to change in parallel, as different techniques and tools assume greater relevance. In general, more informal knowledge management systems are most valuable where methods are not well defined, while a more structured process approach to knowledge management is needed by the time the project is in the Type 1 phase. Evolving the knowledge management tactics as the project itself evolves, will deliver the most value to the current project, as well as future ones.

## Project-based knowledge management in practice

At HP Services, the consulting and integration arm of Hewlett-Packard, a project-oriented information repository is just one of a number of IT-based tools that facilitate effective knowledge management. Acting as a library that’s searchable by approximately a dozen project characteristics – including customer, type of project, countries and technologies involved – the aim is to store every scrap of reusable material, says Alma Kucera, UK & Ireland head of knowledge management at HP Services. “Looking for lessons learned, and identifying potentially reusable material, is a formal part of our project ‘shutdown’ procedures,” she stresses.

At PRP Architects, meanwhile, an intranet – supplemented by videoconferencing and regularly-scheduled personal visits – helps the four-office business to pool knowledge effectively among its architects and other professionals. “It’s vital to ensure that people have a common way of categorising and describing their knowledge so that it’s searchable – and then put in place an IT infrastructure that lets that searching and sharing happen,” says Cathy Blake, head of knowledge management at the firm.

And at architectural and interior design firm Simons Design, a new headquarters building has purposely seen the creation of a ‘knowledge café’ – a staff restaurant and coffee shop where employees are encouraged to sit and talk, and trade experiences and insights. “By design, it’s the only place in the building where people can get a coffee – there are no ‘mini-kitchens’ or drinks machines anywhere,” says Steve Major, the firm’s managing director.

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### Henley Knowledge Management Forum

The Henley Knowledge Management Forum, founded in 2000, is an internationally recognised centre of excellence in knowledge management. As a membership-based community, it is a magnet for leading business practitioners, world-class academics and thought leaders who collaborate to develop insights, understanding and practical guidance on knowledge management.

To discuss the benefits of membership for your organisation, contact Dr Christine van Winkelen +44 (0)1628 486849 or Dr Judy Payne +44 (0)118 947 4652.

For more information visit [www.henleymc.ac.uk/kmforum](http://www.henleymc.ac.uk/kmforum) or email [kmadmin@henleymc.ac.uk](mailto:kmadmin@henleymc.ac.uk) for an information pack.

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