

KNOWLEDGE MANAGEMENT

Highlights from the Major Projects Association event held on 10th July 2018



The complexity of modern major projects and the rate of change, both in terms of technology and process, means that our ability to learn from past experiences is becoming more and more important. Major project delivery professionals need to develop new skills to cope with this evolving environment and capitalise on the lessons of past successes and failures.

This challenge was addressed at a recent Major Projects Association seminar, which drew on the experiences of leading project organisations and individuals and heard how new social and collaborative tools can boost the ability to share information and experience and break the cycle of non-learning.

'It is essential that major projects promote and embed a lessons learnt culture – that means being honest and establishing a mechanism to share knowledge and ideas.'

Colin Westwood, Sponsor – Phase 2A, HS2

A number of key issues emerged:

- The scale and complexity of major projects drives the need to learn past lessons.
- Openness and honesty around knowledge sharing is vital.
- Different people approach knowledge sharing in different ways.
- The choice of tools and platforms to communicate and share knowledge impacts performance.

LEARN FROM THE PAST BUT AVOID PREACHING

While the major projects community is typically good at sharing ideas, the challenge is doing this without undermining or alienating the existing team.

'The best way to motivate a new team is listen and engage. Don't just attempt to replicate and impose processes from past organisations or projects.'

Gordon Alexander, PMO Director, HS2

'Copy and paste' does not usually work in a new project environment – or will be resisted by a 'not invented here' syndrome in which teams reject new ideas. Instead, project managers should work with their teams to identify and analyse lessons from a number of projects, and discuss within the team how these might be applied and tailored to their project.

This collective approach to knowledge sharing is likely to create an engaging and interesting conversation rather than simply promoting a culture of ideas imposition.

Most importantly, it will ensure that the project team pushes beyond simply replicating successful actions towards sharing a wider understanding of outcomes.

PEOPLE ARE AS DIFFERENT AS THE CROSS-SECTIONS THROUGH A TREE

'Different people will have different ideas about what constitutes successful knowledge sharing – to some you may be sharing too much; to others not enough. Understanding this difference is key to maximising the team performance.'

Donnie MacNicol, Director, Team Animation

To get the maximum value from the knowledge sharing it is vital to appreciate and accommodate how different people operate. The challenge is to enable effective interaction and knowledge sharing while maintaining harmony and productivity across diverse teams of often very different individual characters.

For example, highly analytical personalities (such as so-called 'High Green' on the [iMA scale](#)) will find it harder to share compared to other more naturally consultative personalities (such as so-called 'High Yellow' on the [iMA scale](#)). Similarly, such High Green personalities will require a higher level of structure around any process of sharing, compared with High Yellow personalities, for whom sharing comes naturally.

Understanding these differences is critical to effective knowledge sharing. It means appreciating what each individual perceives as knowledge, how they believe it should be captured and then shared, and what they consider constitutes success.

CHOOSE YOUR TOOLS WISELY

A plethora of tools is now available to help visualise data on project performance, to disseminate information and encourage feedback and to help boost collaboration across teams in mobile or diverse geographical locations.

Choosing the right tools is crucial. However, too often the tools that are used are designed as IT solutions rather than communications tools. As such, they often do not match up to the sophistication, ease of use and value that tools such as Facebook, Instagram or WhatsApp provide in our lives beyond the workplace.

This is starting to change as businesses embrace a more open, social media approach to internal knowledge sharing in a bid to collaborate across teams more effectively. Ultimately the goal is to use technology to drive up productivity. Yet there have been no gains in productivity seen in the workplace as a result of technology since the introduction of email.

Despite its huge impact on productivity in the 1990s, email, as a closed communication, is increasingly not the best way to share information. Instead, 'working out loud', 'mobile first', communicating via social platforms – following the way that people naturally interact online – is increasingly taking a lead in the workplace.

'We have to follow the way that people want to work. "Working out loud" provides a slam-dunk improvement in business productivity.'

Marc Wright, Founder, simply communicate

CASE STUDY – NASA APPEL KNOWLEDGE SERVICES

NASA employs 18,000 staff, around 60,000 contractors and has an annual budget of \$19.9bn – 0.4% of the annual US Federal budget.

Its projects are big and complex – it currently has 38 projects running with a life cycle cost of more than \$1bn. Key to its training process is to ensure that engineers share lessons learnt from the past and understand how to manage this scale of project, where critical decisions are being taken every day. To boost its ability to learn from past experience NASA has combined its knowledge gathering function with its knowledge dissemination division to create APPEL Knowledge Service.

The APPEL website is the primary vehicle for dissemination of knowledge. Anyone can view the data, including the Critical Knowledge Gateway – a comprehensive guide to lessons learnt and advice; and the Curriculum service which last year delivered 152 courses to 3,431 participants from the NASA technical workforce across 60 subjects.

'Our engineers know their math and understand analytical computation. It is the decision-making that is the key to avoiding failure.'

Roger Forsgren, Chief Knowledge Officer, NASA

CASE STUDY: ROLLS-ROYCE PROGRAMME MANAGEMENT ACADEMY

Rolls-Royce now recognises that programme management (PM) must sit as a core competence alongside engineering to underpin transformation of the company. The firm has established a PM Framework with a formal PM Executive and PM Board to develop this capability. The result is the new Programme Management Academy – with 22 online professional training courses designed to develop skills and encourage self-learning and professional development.

Key elements of the Academy are:

- **Learn:** develop competence across the community
- **Connect:** share knowledge and excite professionals
- **Enable:** provide the right tools and best practice ways of working

The goal of the Academy is to ensure that programme management has a professional identity at Rolls-Royce – so that the company is not only known for good engineering but also for good delivery.

'The challenge is to put in a framework for developing ways of working and knowledge sharing that allows the businesses to be flexible, agile and capable of operating at pace – whilst also retaining the appropriate levels of governance and assurance.'

Alistair Kirk, Director of Programme Management, Rolls-Royce plc

POINTS FOR FURTHER DISCUSSION

- What steps and processes can be embraced to encourage a life cycle of learning?
- How does knowledge management deliver greater public value from major project investment?
- How does the major projects industry have to change to create a culture that shares knowledge more effectively?

With grateful thanks to HS2 for hosting this seminar.

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HS2
Highways England
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