UniPhi

Managing the things you can't control

Why today's leaders must stop looking for total control and instead strike the right balance to develop and adapt to opportunities

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Foreword

Dear Colleagues,

Despite vast advances in technology, materials and equipment, major projects continue to fail on a massive scale; with time and cost blowouts, misreporting, and even corruption allegations.

It's clear that managing complex projects, whether in infrastructure or professional services, requires more flexibility and adaptability than the traditional, manual methods of Gantt charts and spreadsheets can provide.

However, many companies, large and small, are still persevering with methods that hamper their ability to adapt to opportunities and challenges.

After many years as a financial analyst and management consultant for a range of ASX 200 and Fortune 500 companies, as well as major government departments, I have observed what drives true competitive advantage.

My passion and focus revolves around using innovative and disruptive technologies to improve organisations' internal processes and returns.

It's my firm belief that in today's diverse work environment, collaboration and transparency are essential to optimise performance and efficiency.

A system that provides adaptive solutions to complex problems can bridge the gap between on-the-job effort and project value. Organisations can then improvise to change and start maximising opportunities in an unpredictable marketplace.

There are many things that influence the success or failure of a project that are beyond the control of project managers and even senior leaders in an organisation. The key is to find the right balance of control; enough control so the system isn't chaotic, but enough freedom to be creative.

This whitepaper explores how project managers and senior leaders can use technology to find that balance, improve communication, and thereby strengthen project viability.

Mark Heath
Managing Director
UniPhi

Poor communication leads to major project disasters

One of the most high-profile construction fiascos of the past few years – Wembley Stadium in the United Kingdom – involved Australian company Multiplex running almost a year behind schedule and leading to losses in excess of £150 million.[i]

Originally, Multiplex blamed the rising cost of steel and arguments with sub-contractors for its situation. However in 2005, the Australian contractor admitted it didn't actually know how bad the situation was.[ii]

Five years later, the company settled a $110 million class action stemming from allegations that it failed to keep investors informed about losses linked to Wembley.[iii]

There are a number of reasons projects fail, but poor communication within and between teams is often a major contributor. This can come from leaders' and managers' siloed approach, which leads to a distinct lack of transparency, particularly around costs and time.

Silos are present when certain sectors in an organisation are unwilling or unable to share information with others in the same company. This type of mentality reduces efficiency and morale, and may contribute to a project's demise.[iv]

> Very few large projects perform well to the project management triple constraints of cost, time and scope. In contrast to small projects, which have more than a 70 per cent chance of success, a large project has virtually no chance of coming in on time, on budget, and within scope; which is The Standish Group definition of a successful project.
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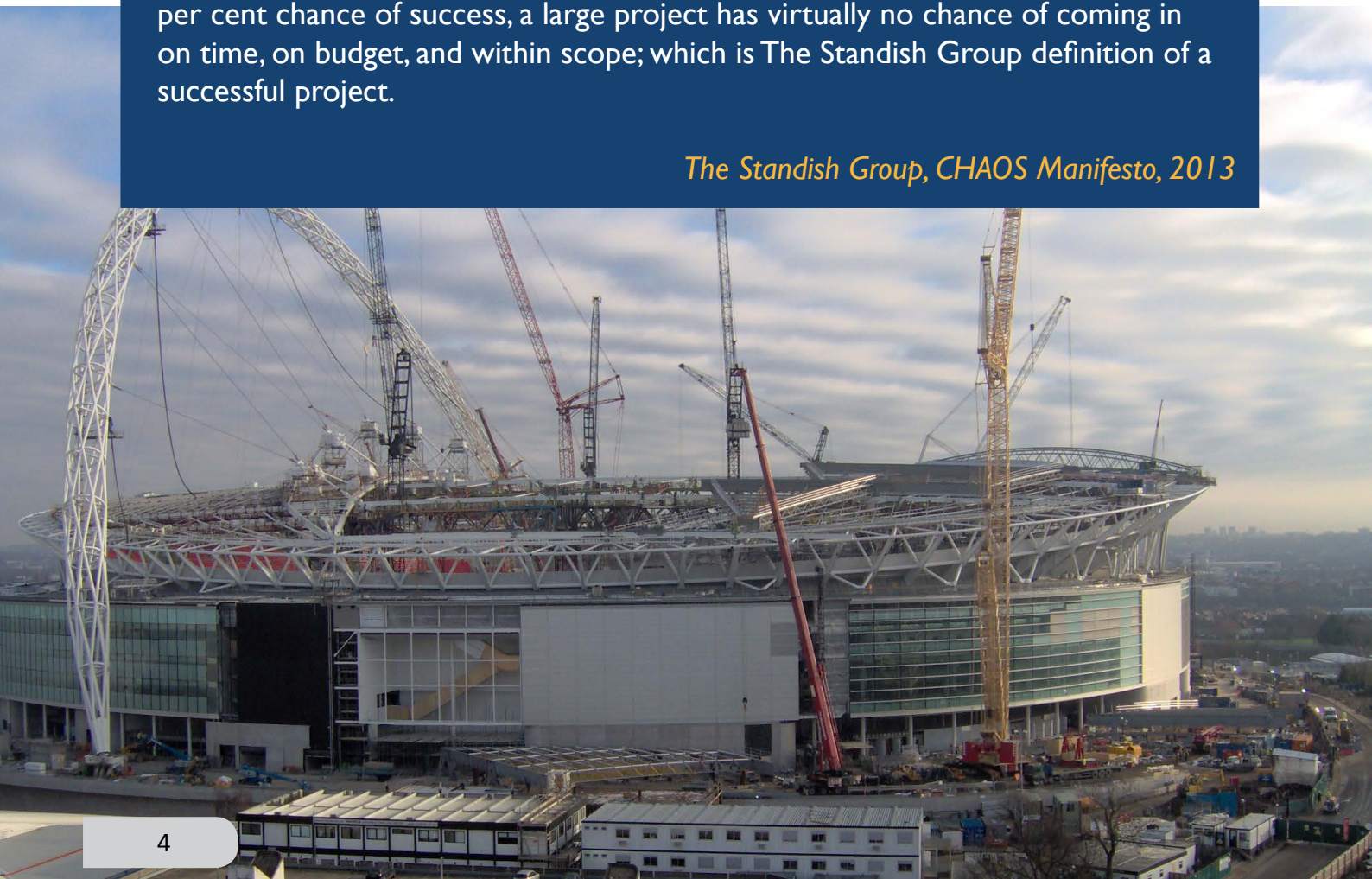
> *The Standish Group, CHAOS Manifesto, 2013*



Former Davis Langdon Australia and New Zealand Managing Director, Mark Beattie, says transparency in an organisation is critical to project success.

Davis Langdon Australia and New Zealand – now part of AECOM – provides consulting services across the infrastructure, property and construction sectors.

The company has worked on iconic and challenging projects in Australia and New Zealand, including delivering cost and project management services for the Hardened and Networked Army Defence Precinct in South Australia, infrastructure services for the Port Botany expansion in New South Wales, and project and cost management services for the Hutt Hospital in New Zealand.

Beattie says disparate systems come with an inherent corporate risk. “They contain errors that aren’t seen by other users or other parts of the organisation.

“Transparency enables sustained and viable growth. Without that you’ve got a series of fiefdoms that may be operating effectively, but probably aren’t.”

He says, for many years, his company’s approach to project management was detached. “Every project manager had their own spreadsheets and a silo of information.

“There was a real lack of corporate view, regional, and business unit view.

“Fundamentally, project managers are individuals who have their own plans and systems. The challenge is for organisations to join those together and make the reporting and cost processes clear across an organisation instead of holding onto their silos.”

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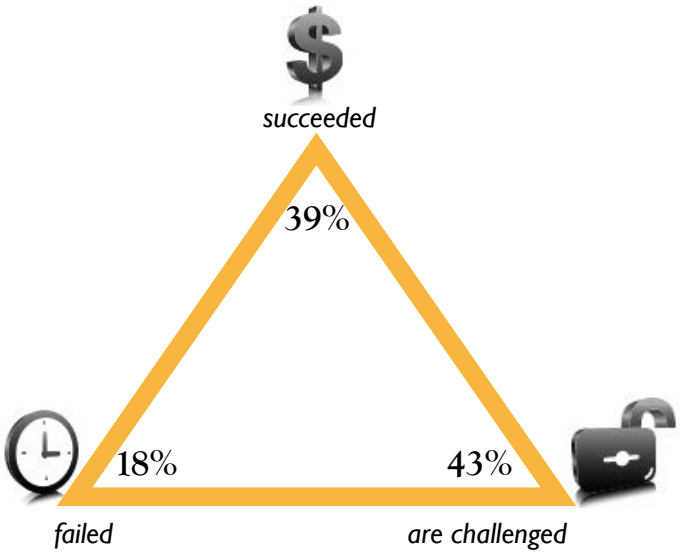


Low transparency leads to low productivity

Inefficient management of construction resources results in low productivity. For project managers to achieve the income expected from any construction project, it is important to have a handle on the factors that contribute to its productivity, like labour, equipment and cash flow.[v]

Keeping large projects on track is a major problem in the construction industry, and yet a number of companies are still managing projects though manual files and spreadsheets.

UniPhi Managing Director, Mark Heath, has spent time helping construction companies to review their processes.

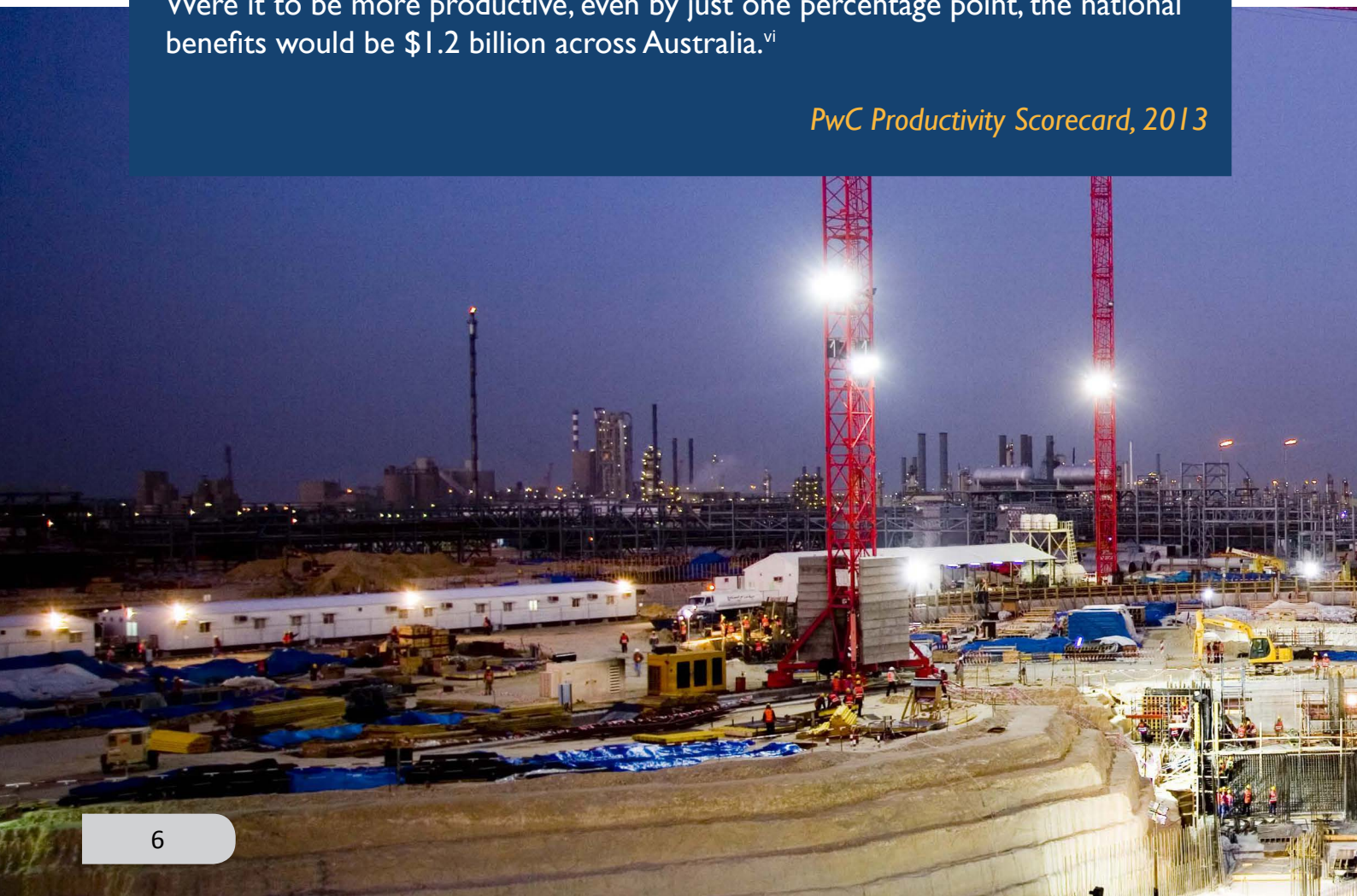
"Too many organisations lump a project onto a project manager and say, 'we need $500,000 out of this'," Heath says.

"I've seen instances where each project manager had their own manual file and they were followed up with just a spreadsheet.

"That is never going to be significant or accurate enough to handle large value or long-term projects.

The Australian construction industry is a serial productivity underperformer. Were it to be more productive, even by just one percentage point, the national benefits would be $1.2 billion across Australia.[vi]

PwC Productivity Scorecard, 2013



"This type of system means there is a complete lack of transparency from a central management point, productivity is low, and a lot of time is wasted waiting for status reports.

"Often, people don't find out that things are running off the rails until they've already departed the rails and everything is a big mess."

Technology has been identified as a key way to address productivity in the construction industry[vii] and Heath agrees that innovative solutions to project management are necessary for growth.

> *"Too many organisations lump a project onto a project manager and say, 'we need $500,000 out of this'."*

Managing the things you can't control

In addition to the reporting and cash flow issues that influence a project's success and productivity, complex projects often involve things beyond our control.

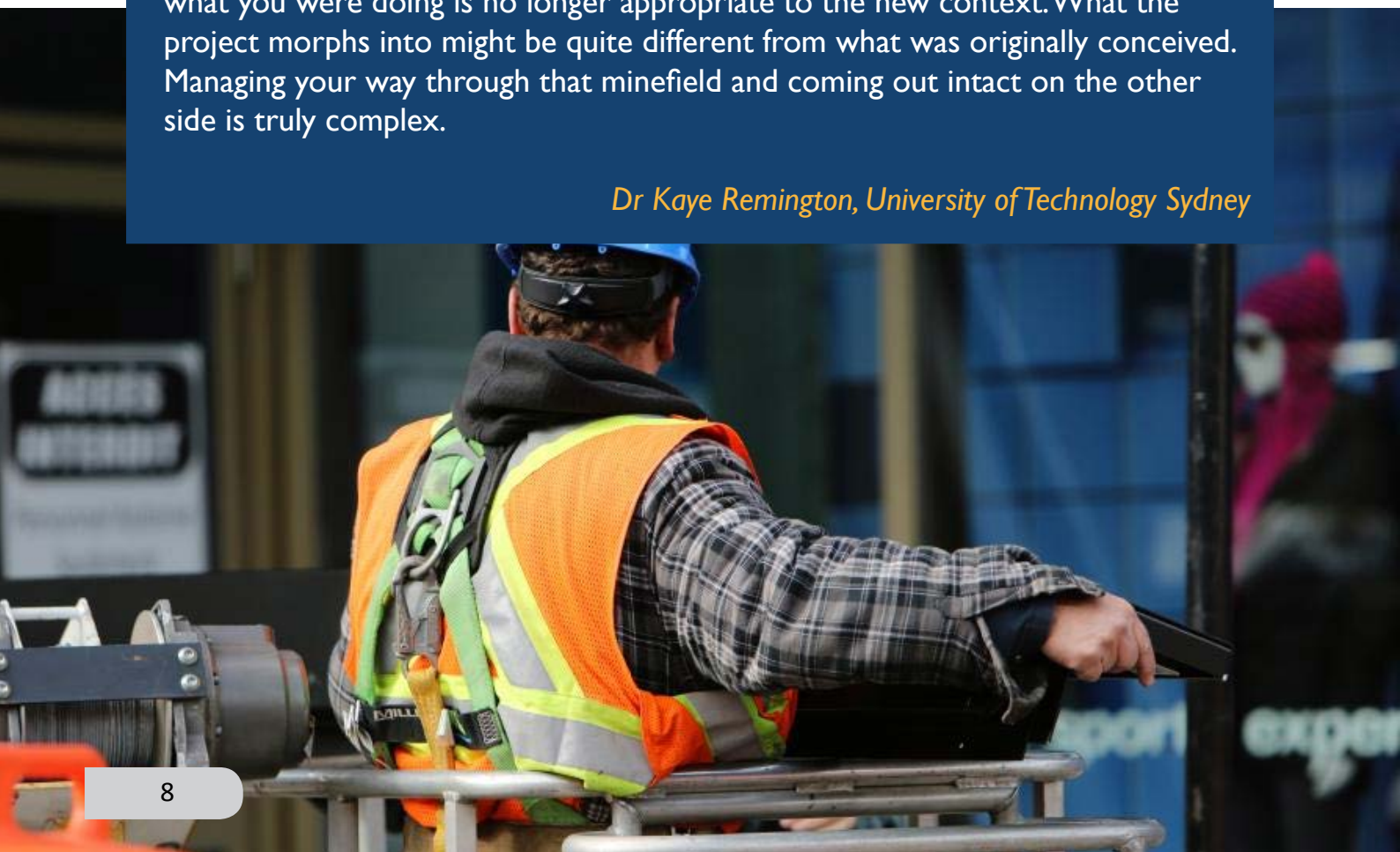
Author of *Leading Complex Projects*, Dr Kaye Remington, says a key issue with managing complex projects is that project managers don't realise they're complex until it's too late.

"It becomes a major blind spot. Project managers don't lobby for the right resources or get the right support. They think, 'I've done this before, of course I can cope'. Then things happen that are absolutely out of left field and they compound to become something out of control."

She says project managers predominantly rely upon prior knowledge to anticipate the future, but complex projects require more.

"Complex events occur when myriads of little individual events, each manageable individually, combine and emerge as something quite unknown and unpredictable. Project managers need to understand what complexity means and why a complex project is different from a challenging project."

> Say your project is designing and implementing the construction of a city in the middle of nowhere. The project has started, there is a local political disturbance and your sponsors change or there are intractable environmental issues. Suddenly what you were doing is no longer appropriate to the new context. What the project morphs into might be quite different from what was originally conceived. Managing your way through that minefield and coming out intact on the other side is truly complex.
>
> *Dr Kaye Remington, University of Technology Sydney*



Remington says strong senior leadership teams are vital to ensure complex projects are successful.

“Senior leaders face a number of challenges on a daily basis. One is integrating the vast amount of information that is available to them. The other is managing very powerful stakeholders. For example, a project that has a strong public profile is going to have stakeholders with very strong vested interests in how it turns out.”

Remington says good leaders spend time developing critical leadership teams who are encouraged to give fearless feedback.

“As projects become more complex, leaders habitually narrow their focus, so there has to be some way to mitigate this, and that’s through a fearless leadership team.”

According to Remington, the secret to managing complex projects, with elements that might become beyond our control, is to analyse the project deeply and early – find out where the complexity might emerge, where it might come from, and how the project needs to be resourced to address these high level risk patterns.

“The key is to understand the landscape and understand your stakeholders. Connecting information is critical. If we don’t connect the issues as they arise, it can cause a snowball effect which can be unstoppable.”

“You need to have the knowledge in real-time in order to adapt the project before it’s too late.”

The Queensland Flood Road Recovery, in which Jacobs Engineering Group (formerly Sinclair Knight Merz) played a leading role, is an example of a huge logistical and administrative project with multiple high-profile stakeholders.

Between 2011 and 2014, Jacobs managed nearly $1.5 billion worth of reconstruction work divided into more than 200 contracts. Up to 20 contract administration teams were operating across the state at any one time.

Jacobs principal engineer, Robin Vogrincic, says having multiple teams delivering contract administration services to a consistent standard across such a vast geographic area can only be achieved using a web-based program and project management system.

“Senior managers needed real-time access to all project data, program-wide metrics and reports from any computer, via the internet,” he says.

“This meant system audits could be carried out from head office without the need to interrogate the contents of ring-binders, filing cabinets or a myriad of bespoke Excel spread sheets in remote site offices.”

“*You need to have the knowledge in real-time in order to adapt the project before it’s too late.*”

A new way of thinking

To manage things beyond our control, we must foster the creation of complex adaptive systems. These systems are not about centralised control or rigid, mechanistic systems. Instead, their flexibility allows them to adapt in response to their environment to survive and thrive in new situations.

Projects and organisations operating with complex adaptive systems, will find productivity, performance and profit come naturally to them.

Complex adaptive systems are made up of many autonomous, interconnected parts that behave as a unified whole – learning from experience and adjusting, not just reacting, to changes in the environment.[viii]

UniPhi Managing Director, Mark Heath, says the key ingredient to having the right level of control in a system, with enough freedom to develop as a complex adaptive one, is transparency of information; and technology is the driver that can provide this.

“Project management software must enhance and automate processes to drive true value for businesses. UniPhi software has been developed to automatically gather information from various sources at various sites. It consolidates, integrates and aggregates information into various views, showing people what they need to see. The knock-on effect is great, timely transparency,” Heath says.

Davis Langdon's Mark Beattie found a huge difference in the organisation once they adopted the UniPhi enterprise management technology.

"There was a dynamic flow of information coming firstly to our project managers, up the chain, and then to me," he says.

"Traction became even more positive as the results were being seen. We could see on a daily basis where our work was going and whether we were receiving an income from it."

According to Heath, implementing a central project management system helps organisations to address productivity issues.

"Each member of the project team contributes to the overall status of the project, which means the status can be seen in real time, without the need to manually compile a report that is out of date and incorrect due to the time it takes to produce.

"The best thing about UniPhi is that it allows you to define and refine what you've got very quickly and easily. It provides a lot of information straight away and, more importantly, that information is in the system if you need to access it again."

UniPhi client, the AECOM Verification Services department, is responsible for verifying works on major infrastructure projects throughout their design and construction phases.

AECOM Project Services Manager, Judi Gardiner, says her independent review teams deal with large amounts of email to and from external stakeholders including contractors and government agencies on a daily basis.

"We have been using UniPhi's 'Save as Issue' feature for a number of years now, and we've found it saves us an incredible amount of time. Our project teams save all project related emails into the UniPhi system at the click of a button, indexing them on the way in. These emails are then available to be viewed by all project team members and all related correspondence is traceable, captured and classified as necessary.

Gardiner says this simple feature has significantly reduced their reliance on email accounts.

"We no longer need to search through multiple personal inboxes, sent items, deleted items etc. Instead we go straight into UniPhi and find out exactly what is

> *"The paperless system offered by UniPhi removed the need for dedicated administration assistants resulting in an estimated saving over the program of about $5 million."*

happening within each project and activity subset." Robin Vogrincic from Jacobs agrees. "UniPhi's direct link to MS Outlook through a customised 'Save as Issue' icon allowed the capture, tagging and storage of all incoming contractual emails.

"The work flow system allowed leaders to electronically direct tasks to team members with priority ratings and response deadlines."

He says completed documents with password protected electronic signatures could be forwarded to recipients on a pre-populated project email list through UniPhi without the need to go back into an email system.

Cloud-based storage provided easy migration to the client's document management system on project completion.

"The paperless system offered by UniPhi removed the need for dedicated administration assistants resulting in an estimated saving over the program of about $5 million," says Vogrincic.

Heath says technology systems that have functions designed to integrate business activity and encourage people to communicate within them can provide powerful insights into how management's direction, values and strategy, are perceived across the broader organisation.

"Too many projects can drift into darkness, but the right technology keeps the spotlight focused on what's important," he concludes.

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