



# *Is it Time for PMOs to Admit Defeat with Lessons Learned Processes?*

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**PMO**  
Conference  
London   
**2018**

# Why 'Lessons Learned'?

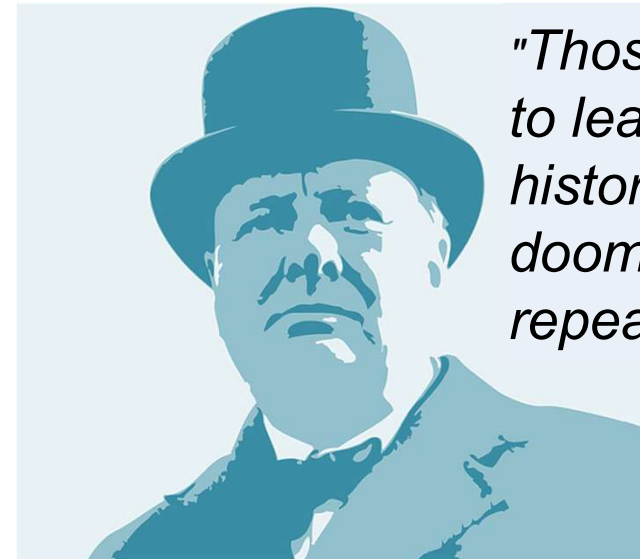
Project Lead for \$Bn  
Nuclear New Build



PMO roles in  
multi \$Bn  
portfolios



Programme Manager  
for £400m portfolio  
of 60 projects



*"Those that fail  
to learn from  
history are  
doomed to  
repeat it."*

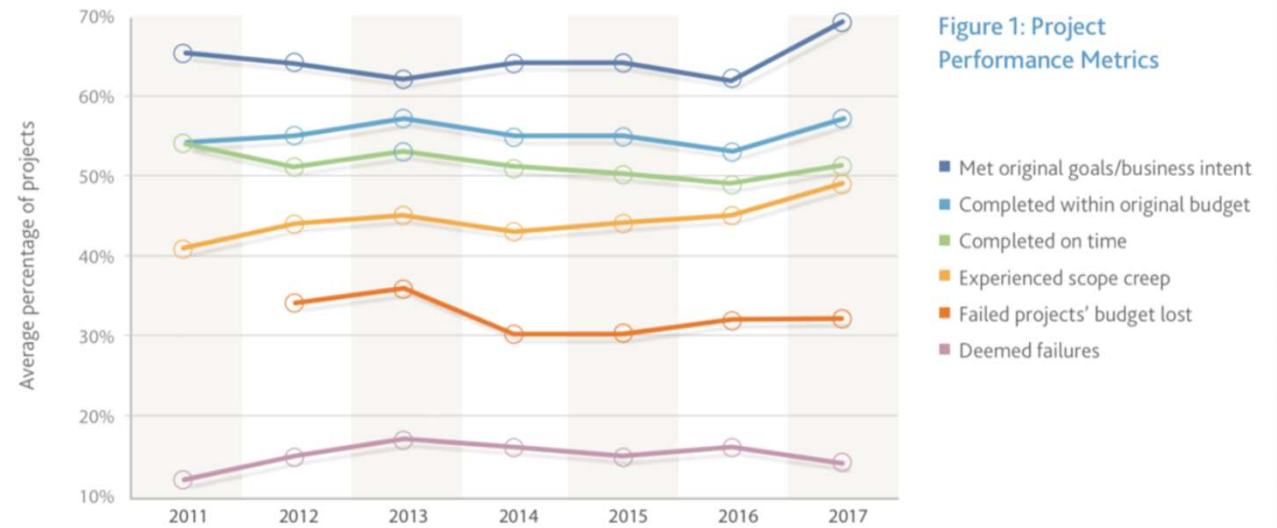
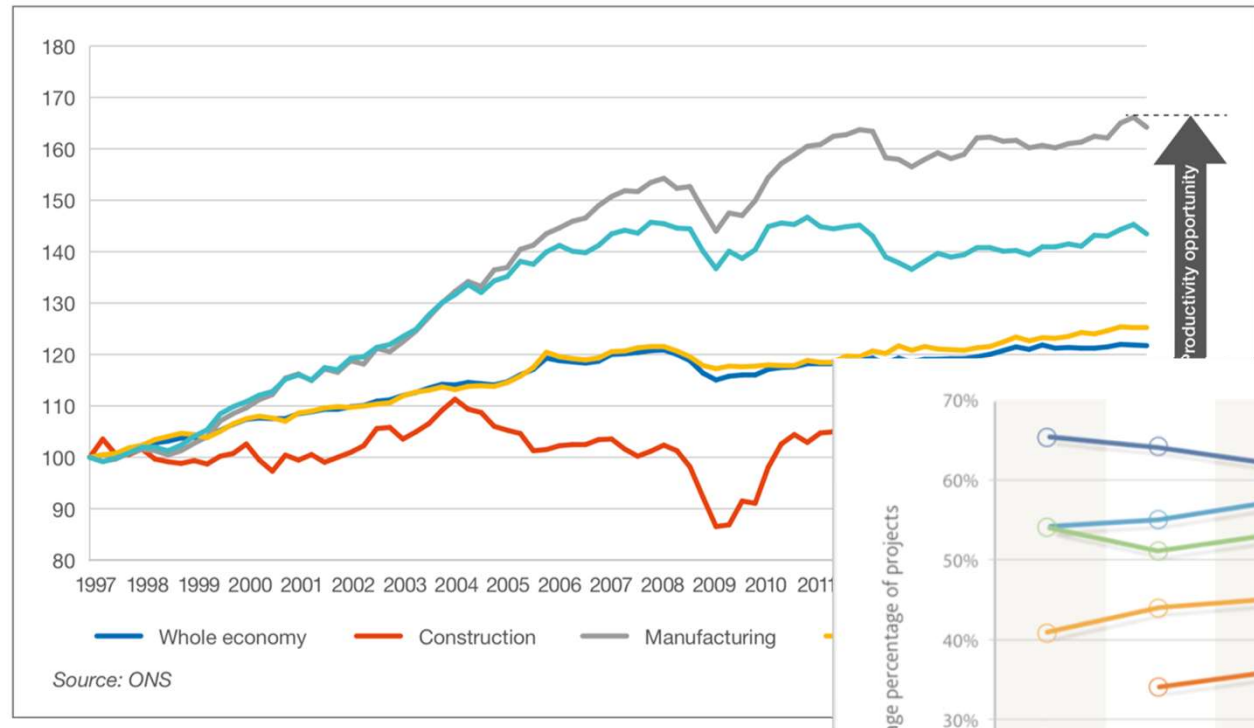
I've always struggled to leverage the broad experience that I know exists.

## The Stark Reality of Not Leveraging Experience

>£20,000,000,000

# Stagnating Productivity

Chart 1: Productivity Growth – Output per worker (1997=100)



# Capacity to Learn From Experience

Home Office Government Major Projects Portfolio 2016

Communications Capabilities Development (CCD) Programme	National Law Enforcement Data Programme	Adelphi Modernisation Programme	Cyclamen Programme	Disclosure and Barring Service (DBS) Programme	Digital Services at the Border (DSaB)	Emergency Services Mobile Communications Programme (ESMCP)	Home Office Biometrics (HOB) Programme	Immigration Platform Technologies (IPT)	Smarter Working Programme	Technology Platforms for Tomorrow (TPT)
Amber/Green	Amber/Red	Reset	Amber/Red	Amber/Red	Amber/Red	Amber	Amber/Green	Amber	Amber	Amber

Ministry of Justice Government Major Projects Portfolio 2016

North Wales Prison (NWP) Programme	Common Platform (CP)	CJS Efficiency Programme (CJS Efficiency)	Electronic Monitoring (EM)	Future IT Sourcing Programme (FITS)	Her Majesty's Courts and Tribunals Services (HMCTS) Reform Programme	Integrated Delivery Programme (IDP)	MoJ Future FM	NOMS Digital Transformation Programme	NOMS ICTS Services (NICTS) Programme (formerly part of Quantum Re-compete Project)	Prison Estate Transformation Programme (PETP)	MoJ Shared Services Evolve (SS Evolve) Programme	Secure Training centre (STC) Retendering Project
Amber	Amber	Green	Amber/Red	Amber/Red	Amber/Red	Amber/Green	Amber	Amber	Green	Amber	Amber/Red	Amber/Red

Dept of Health Government Major Projects Portfolio 2016

Childhood Flu	CSC Local Service Provider	Electronic Prescription	General Practice System of	Health & Social Care	Liaison and Diversion	National Data Services	National Pandemic Flu	National Proton Beam	NHS Electronic Staff Record	NHS e-Referral Service	NHSmail 2	NHS Pension Re-let	NHS UK	PHIS Science Hub	Procurement	Visitor and Migrant NHS	100,000 Genomes Project
Amber/Green	Amber/Green	Amber	Amber	Amber/Red	Amber	Amber/Red	Amber/Green	Amber	Amber/Green	Amber	Amber	Amber	Amber	Amber	Amber	Amber/Red	Amber/Red

Ministry of Defence Government Major Projects Portfolio 2016

ASD	Arctic	Arctic 2017	Arctic 2018	Arctic 2019	Arctic 2020	Arctic 2021	Arctic 2022	Arctic 2023	Arctic 2024	Arctic 2025	Arctic 2026	Arctic 2027	Arctic 2028	Arctic 2029	Arctic 2030	Arctic 2031	Arctic 2032	Arctic 2033	Arctic 2034	Arctic 2035	Arctic 2036	Arctic 2037	Arctic 2038	Arctic 2039	Arctic 2040	Arctic 2041	Arctic 2042	Arctic 2043	Arctic 2044	Arctic 2045	Arctic 2046	Arctic 2047	Arctic 2048	Arctic 2049	Arctic 2050	
Amber	Amber/Green	Amber	Amber	Amber/Red	Amber	Amber	Amber/Red	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber	Amber

With so many projects not delivering to plan there should be a rich opportunity for leveraging experience for the collective benefit of UK PLC....

.....but there is limited evidence of this happening.

# Digging a Little Deeper

Future IT Sourcing Programme (FITS)	
MoJ	MoJ
Amber/Red	

Year	RAG	Forecast End	Forecast Who Costs £m
2012	Amber	31/12/2014	138
2013	Amber	01/04/2016	1375
2014	Amber	01/09/2016	1205
2015	Red	30/11/2017	1706
2016	Red	30/11/2017	2879

Source: GMPP Reports

Here was the lessons learnt commentary from NAO relating to FITS.

#### Initiation of programmes

At the start of future programmes, the Ministry should consider all approaches to meeting the programme's objectives and select the one that is most appropriate to its risk appetite and capability, particularly if it is novel or complex. This includes clearly understanding the requirements and consequences of its chosen approach, such as capacity and capabilities, and set out appropriate risk mitigations

#### Capacity and capability

The Ministry should:

- Develop a long term strategy to build up digital and technology programme delivery capabilities, in particular in systems integration, to support its future approach to managing its IT services. This includes reducing its reliance on contractors, within the constraints of the market demand for specialist skills.
- Develop a clear understanding of the capacity demands of its programmes, so it can identify the impact on programme delivery arising from changing priorities or new programmes.

#### Contracting

The Ministry should ensure that for future contracts there are effective incentives for:

- Suppliers awarded the contract(s) to meet the transition timetable; and
- Existing suppliers to facilitate smooth transition to new suppliers.

#### Delivering the programme

The Ministry should clearly communicate its rationale for its fast-paced roll out down to local site level to help manage expectations and operational implications of the rollout, especially should further delays arise.

The programme team should further improve its governance structure to avoid duplication between boards and resolve issues at the right levels to enable timely and effective decision making.

#### Managing full service

As part of determining its future approach to managing its IT services, the Ministry should:

- Define its role in managing its IT services once they are operating, in particular its role as the systems integrator, for managing additions and changes to the services.
- Decide what services it wishes to run itself in the future and develop the capability to do so before the contracts expire.
- In its next procurement, the Ministry should contract for a period that reflects the commercial and technical effort required to move to new suppliers.

## FOI Response in May 2018

32. Details of the Marginal benefits, as at Oct 15, can be seen at Annex B. This shows that net benefits estimated across the 25 years of the Investment Appraisal are £2382.379M, which increases the variance against the original target to £406.350M. It includes additional

43. The major learning points identified following the delivery of the were:

- a. A suitably constructed Project Team with clear objectives and top level management support is vital to successful project delivery.
- b. A clear understanding of the end user requirements from the outset is important if subsequent costly alterations are to be avoided.
- c. Constant communication with all stakeholders and contractors to ensure compliance with project requirements and to effect expectation management is essential.

# Lessons Learned Processes



Department of Health

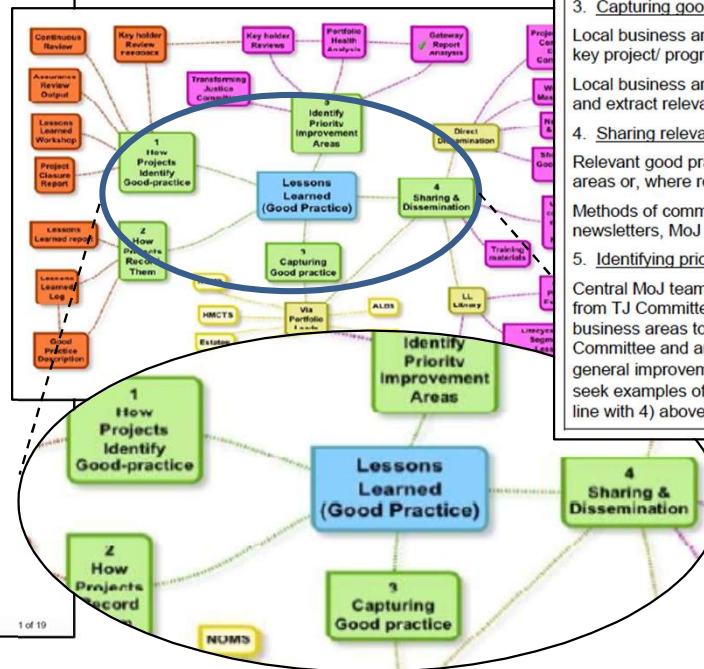
DH does not have any policies or processes on lessons learned. Lesson learned methodology is standard Programme and Project Management practice which programmes and projects deploy as they see fit.

Ministry of Justice

**Lessons Learned Guidance**

Document Ref:	
Version:	
Classification:	Protective Marking (please refer to guidance on protective markings here - <a href="http://intranet.pojice.gsi.gov.uk/guidance-non-support/security/informationsecurity/protectively-marked/information">http://intranet.pojice.gsi.gov.uk/guidance-non-support/security/informationsecurity/protectively-marked/information</a> )
Issue Date:	
Status:	Draft / Approved
Produced by:	
Contact details:	

1 of 19



## KEY STEPS

### 1. Identifying lessons learned and good practice

Individual projects and programmes identify lessons learned/ good practice from continuous review (including standard items on board agendas), assurance review output, lessons learned workshops etc

### 2. Recording lessons learned and good practice

Individual projects and programmes record lessons learned/ good practice in lessons learned logs throughout the lifecycle, and in lessons learned reports at closure

### 3. Capturing good practice

Local business areas capture lessons learned logs and reports in local repositories at key project/ programme stages

Local business areas analyse project/ programme lessons learned reports/ information and extract relevant items for sharing either locally, centrally or both

### 4. Sharing relevant good practice

Relevant good practice examples are shared appropriately either by local business areas or, where relevant, centrally across MoJ.

Methods of communication to include project delivery community events, workshops, newsletters, MoJ intranet etc

### 5. Identifying priority improvement areas

Central MoJ team analyse gateway reports, healthchecks, keyholder reviews, feedback from TJ Committee etc, and where appropriate seek examples of good practice from business areas to share with the project delivery community. For example, if TJ Committee and analysis of recent gateway reports indicate that we need to make some general improvement in, say, stakeholder management, the central MoJ team would seek examples of good practice in business areas that could be shared across MoJ in line with 4) above.



# But aren't the NAO fixing the problem?

We agree that there is insufficient learning from past failures in project delivery

We agree that there is insufficient learning from past failures in project delivery, that's why identifying and applying lessons is one of the topic areas in our Framework. By publishing this document we hope we are making a small contribution by making it easier to find and access our previous work on the range of project delivery issues we tend to highlight.

Sandy Gordon, Audit Manager, Project Delivery Team



National Audit Office

**It is the role of Departments to leverage the experience, not the NAO**

<https://www.nao.org.uk/naoblog/a-systematic-look-at-major-programmes/>

## A systematic look at major programmes

Posted on October 10, 2017 by [Sandy Gordon](#)



Major programmes are expensive, high profile and carry great uncertainties and risks. For most government bodies, undertaking a major programme will involve doing something new, with relatively little organisational experience. Many fall short of their objectives, in terms of cost and/or outcomes. So it's not surprising that they are the focus of many NAO reports – about 100 since 2010. Our new [Framework to review programmes](#) shows the questions we typically ask, and brings together many of our recent findings. We hope it will show what

we are looking for and what we expect to see when we examine major programmes.

Our reports illustrate how risky programmes can be. If they're innovative, those risks are higher, and it's harder to learn from past experience. If they're complex they are affected by many unpredictable factors. And the scale of challenge is increasing as government bodies support major new infrastructure projects, introduce new technology and reorganise to make the most of scarce resources as well as implementing the changes necessary as a result of leaving the European Union.

We tend to look at the biggest and riskiest programmes at key points during their life, or when a particular event prompts a review. Our examinations may seek to address different questions depending on the context, but our [Framework to review programmes](#) sets out 18 key questions that are likely to be important, with links to examples from our past work and to further more detailed guidance on specific issues.

### Learning from successes and failures

Our framework of questions is based on lessons we've learnt from our previous reports. These are just some of the examples highlighted in our Framework.



**Managing interdependencies:** In our review, [Modernising the Great Western railway](#), we found that Network Rail had not worked out the minimum feasible schedule for the work, including dependencies between key stages. This led us to focus our questions more how on interdependencies are managed within programmes.

**Learning from early experience:** Some of our examples highlight progress made in projects after we identified problems at the early stages. For instance our report on [Progress with preparations for High Speed 2](#) said the Department for Transport had taken steps to address weaknesses in the business case we [reported on in 2013](#), and had learned from High Speed 1, where the benefits had not materialised as expected, as we reported in [The completion and sale of HS1](#).



**Sharing lessons across a portfolio:** In our report [Welfare reform – lessons learned](#), we found that the Department for Work and Pensions (DWP) implemented around 30 distinct programmes over five years with few operational problems. This was largely because DWP learnt from early failings such as: sticking too rigidly to fixed deadlines; thinking too late about the management information and the leading indicators it needed to understand progress and

performance, and relying too much on dealing with difficulties as they emerged rather than

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# Over 15,000 Lessons..... Overview



**>50** Organisations



**>1,000** Projects



Estimated Portfolio **~\$30** bn



**>2** Years of effort to collate



Covering **3** Continents

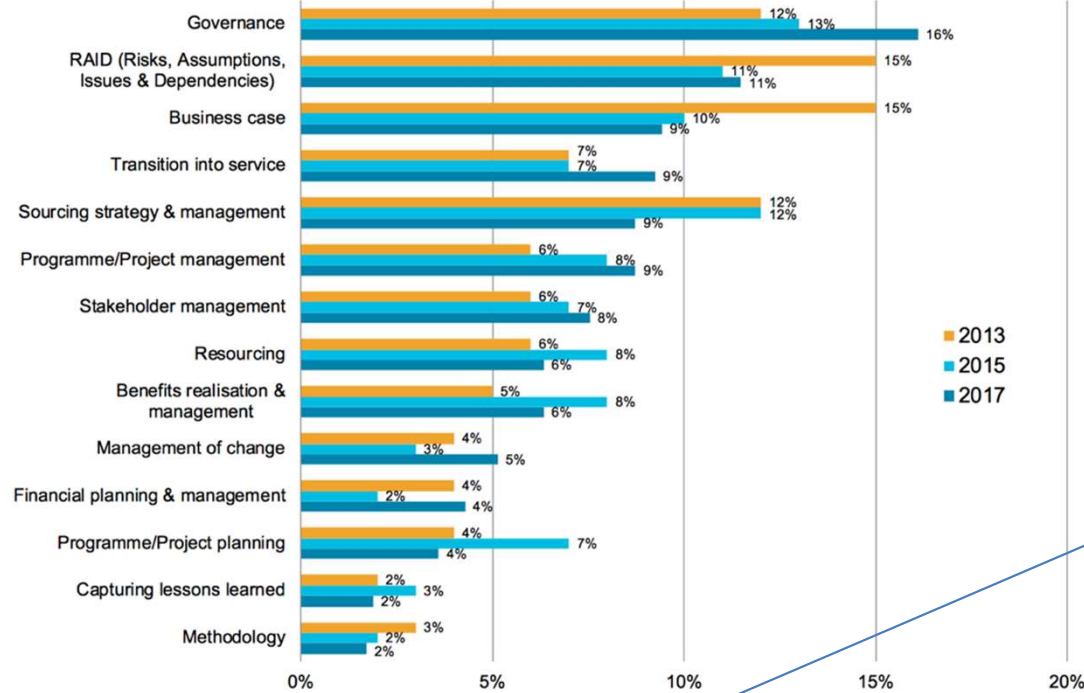
From ....

*"Benefits clearer"*

*to ..."There was insufficient clarity about accountability for each budget line, reflecting a centralised approach to budget management. Poor links between the Finance Team and key programmes compounded this lack of accountability, which meant that forecasting, monitoring and budget discussions, as well as early planning of procurement strategies, did not take place in a sufficiently timely manner to identify and address the key risks".*

# Existing Lessons Learned Analysis

Gateway Review Recommendations by Theme



<http://www.treasury.govt.nz>

The lessons learned provided in this document are a subset of all recommendations and are grouped into the Gate 3 Key Focus Areas. The percentage distribution for all recommendations is as follows: Business Case and Stakeholders (21 per cent); Assessment of the Proposed Solution (15 per cent); Review of Current Phase (29 per cent); Risk Management (14 per cent); and Readiness for Next Phase (21 per cent).

The purpose of this document is to share lessons learned to support agencies to better identify opportunities to improve productivity and efficiency and to help make project teams more aware of alternative approaches to project delivery that may increase the realisation of benefits.

This document presents the lessons learned from Gate 3 – Investment Decision Reviews held since the Australian Government's implementation of the Gateway Review Process in 2006 and are drawn from the three project types: ICT, Procurement and Infrastructure. Regardless of their origin, the lessons learned are beneficial and provide good practice that can be applied across all project types.

The Gate 3 – Investment Decision Review provides assurance on the supplier selection and that the business needs are likely to be met through the project and contract management controls. It also assures that processes are in place for contract delivery and that benefits management strategies and plans have been incorporated.

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**Business Case and Stakeholders**

*Update the Business Case and manage benefits – ensure that the proposed solution continues to meet business needs and will realise the previously outlined benefits.*

*Proactively manage stakeholders – update Stakeholder Management Plans and provide feedback to stakeholders on consultations.*

Effectively updating the Business Case and managing benefits involves:

- updating the Business Case to reflect the Project's progression, key milestones, revised benefits (if applicable), risks and task level objectives;
- reflecting any changes to the Business Case in all relevant project documentation;
- seeking, where appropriate, that the Project Steering Committee formally affirm the Business Case including validation of revised costs, budget, benefits, risks and contingencies prior to recommending entering into a contract with a supplier;
- maturing the Benefits Management Plan, particularly relating to baseline establishment, benefits profiling (including key non-financial outcomes), measurement processes and assigning ownership for benefits realisation activities;

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22 COMMENT ►► LESSONS LEARNED

### You can't afford to neglect data

MARTIN PAVER argues that, in addressing the reasons for project failure, forensic insight is key



Recall my frustration, while leading a large project, at reviewing a database of hundreds of generic, partially relevant lessons and having to confirm that I would not repeat the mistakes of the past. Despite my reservations, as project manager, it was my job to confirm that I had taken the lessons on board. Although I liked the box, I felt uncomfortable. My daily quest was to get under the skin of some of those lessons, but it was harder than it should have been.

In another role, I was presented with a lessons-learned document from a multinational project. Without board-level commitment to learn from those lessons, and limited organisational appetite to address the underlying challenge, the report was filed away. We lost these insights, and all enthusiasm to share lessons quickly fell away.

I have since collated a dataset of more than 10,000 lessons. From this, it is clear that organisations' ability to learn from lessons varies dramatically.

There is a huge body of work on the reasons for project failure. In 1995, Martin Gabb wrote: "We know why projects fail, we know how to prevent their failure – so why do they still fail?" Reports have been published globally on how to address this paradox, but the same themes still haunt us.

Taking a small subset of recent public projects – H16C contract, Edinburgh Trams, eCare, Registeries of Scotland, BBC Digital Media and NIS 24 – the cost of failure amounts to around £1bn. Themes are similar, and despite assurances that lessons were learned, the evidence suggests otherwise. In the current economic climate, are we not obligated to revisit this challenge? Does this require transformational change?

Many organisations lack the evidence to justify this change. By looking at the challenge through a data lens, we have an opportunity to bring transparency, establish trends, identify correlations, discover how lessons snowball, and, more importantly,

shine a light on the cost of failure to learn from lessons. It is too easy to tick the box that lessons have been learned.

Lessons tend to be managed in one basket, yet segmentation holds the key to success. Many lessons are about the failure to follow the accepted body of knowledge, specific details relating to technical know-how or the results of 'test fail' experiments. The solution to each of these is different. For example, not following the APM Body of Knowledge may be an issue of priorities and motivational factors, rather than knowledge management.

Some projects are once-in-a-career events. NIS 24 is a good example. In the report from the Public Accounts Committee, its chief executive commented: "This is a once-in-a-decade event. It is not something that we do regularly." But, in reality, NIS 24 is a complex call centre. Call centres are being delivered across the world on a regular basis, creating insights, recipes, challenges and lessons. The frequency and relevance of lessons depend on perspective. For many organisations, the impact of not acting on lessons isn't evident, which makes it difficult to prioritise and create the business case for change. Organisations don't tend to assess the degree to which negative lessons are available. Some lessons emerge because of 'black swans', which are argued to be unknowable events, but as the sample size grows, the unknown becomes more knowable.

Lessons often lack forensic insight; for example, on first inspection, the lesson may be attributed to the quality of the plan, but on further examination, it may be an issue of complexity and emergence. If lessons identified lack rigour, they also lack insight. Data holds the key to creating momentum from which change and knowledge management methods can be applied. Imagine it is 2030 and a project manager can look three to six months ahead and visualise how their project will unfold. It may not be that far into the future that project managers are judged on performance based on managing events before they unfold.

It's a future that is unrealistic, but the challenge will be how we engage with it. **2**



MARTIN PAVER is founder of Project Success, an APM Registered Project Professional and a chartered engineer

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20 COMMENT ►► VIEWPOINT

### How can government learn more from project delivery data?

An industry commentator offers his opinion on this issue's big question

I've spent the last 12 months on a quest to discover how government manages the experience acquired from project delivery. Terry Williams (2008) collated many of the arguments that help to illustrate the challenges with learning lessons from project delivery, summarising that "It is not clear that current techniques actually achieve their purpose". He found "a range of issues, that need addressing". Has anything changed?

I have submitted a series of freedom of information (FOI) requests in an attempt to gain access to this experience and share it beyond organisational stoppages for the benefit of society. I appreciate that this is a costly process at a time when government can least afford it, but these costs are inconsequential when compared to the costs of not leveraging experience. The benefits of sharing these lessons are not limited to the departments that identify them; they extend across organisational boundaries, into the supply chain and across industry. If government can shave five per cent off project delivery costs as a consequence of these lessons, then maybe many of the cuts to social care can be reversed. It is a cause worth fighting for.

So, what have I discovered so far? Although there are pockets of good practice, there are only a handful of organisations that commit tangible effort to leveraging their experience. Even then, the product of their effort is difficult to measure. The return on investment (ROI) is difficult to quantify, which results in initiatives losing momentum over time – particularly when compared to competing priorities. The process of managing lessons learned remains a significant challenge for most departments.

**PROCESSES**  
Four departments replied regarding their lessons learned procedures. For some, the process is mandated and policed, but for others, it isn't enforced. For one

department, it is left to the discretion of individual projects.

"The department does not have any policies or processes on lessons learned. Lessons learned methodology is standard programme and project management practice which programmes and projects deploy as they see fit."

For government, the ultimate lessons learned review is a public inquiry. The inquiry into Edinburgh Trams is reported to have cost £7.2m, increasing to £100,000 per week. If there is a justification to "establish why the project incurred delays, cost considerably more than originally budgeted for, and delivered significantly less than was projected", then there is an obligation to conduct a similar review on other projects?

The next level down is a review by the National Audit Office, but as found with the South East Flexible Ticketing Programme, although the highlight report is published, the results of the underlying forensic examination of the programme tend to be limited to a small circle of people.

**I AM INCREASINGLY CONVINCED THAT THE ANSWER LIES IN THE DATA**

The third level down is driven by departmental policy, which is variable. If public money is being spent, is there an obligation on the public sector to leverage this experience for public benefit? Does the same argument apply to private-sector projects, particularly where shareholder capital is at risk?

**IDENTIFICATION AND ACCESS**  
The underlying principle of lessons learned is that the lessons are discoverable in a form for others to do something with. Three responses to my FOI requests illustrate the magnitude of the challenge:

• Department one "...our estimation is that locating, reviewing and extracting the lessons data from centrally held information on projects' programmes (more than 50 in number) will take more than 100 hours of work."

• Department two "...would require [the department] to go through seven years of SharePoint records and then identify the necessary reports which contained the lessons learned information. There are also other change and transformational programmes that have been undertaken by other teams across [the department] which will have similar paper and electronic records."

I asked for the lessons learned on a major IT project and its two successors – a project reported to be one of the government's top 10 project failures. It took the department nearly four months to provide an answer, citing the need to conduct a lengthy public-interest test. Department three finally reported:

"Department staff have already spent approximately 124 hours on the handling of your request."

It was eventually rejected on cost grounds the Freedom of Information Act 2000 allows requests for responses requiring more than 24 hours of effort and no information was made available. It felt like a scene from Yes, Minister. Yet this is a project that regularly featured in the national press for cost and schedule overruns.

I acknowledge that some departments seek to reduce the burden of FOI requests by highlighting the work involved, but how can public bodies leverage this information when it takes up to four weeks to extract it? Wouldn't the public expect this information to be available within a matter of minutes to the relevant departmental website?

Conversely, a £50m failed project had produced a 96-page report that formatikally examined the lessons learned. The initial FOI request to access this report was refused,

but access not granted following an appeal. It is an excellent report that has value far beyond the boundaries of the project or the department. This report would otherwise have remained buried within the project, or constrained to a very small circle of people.

How many more examples like this exist? I also wrote to the Infrastructure and Projects Authority to gain access to assurance reports, but this was rejected outright. While I empathise with its need to have a safe space to discuss project issues, should these reports be embargoed in perpetuity? They provide not only insights into how experience could be leveraged, but also valuable findings for the supply chain on risks to delivery, which for some could be catastrophic. I agree that it's a delicate subject, but I'm not convinced that the answer is to lock everything away.

The Information Commissioner will rule on that one.

**QUALITY**  
Where lessons have been recorded, they vary significantly in quality. In one instance, a failed £100m project, a lesson on stakeholders was documented as 'stakeholders'. Another project described a lesson as 'benefits clearer'. A department that had a project with a documented cost overrun of £2.5bn provided a set of lessons, amounting to a page of A4. Very few consider the use case and how the experience will be leveraged, which often means that it can degrade into a box-ticking process. This results in anecdotal statements of the obvious that are difficult to exploit, something that Williams commented on in 2008. The lessons are some notable exceptions, but not many.

#### PERSPECTIVE

Many of the lessons are retrospective, viewed through the perspective of the person writing the document. The bulk of the investment is delivered through the project, yet the majority of lessons are aimed at procurement officials rather than delivery organisations. I acknowledge that if suppliers share lessons then they may lose their competitive advantage, but with the appropriate controls and incentives, middle ground can surely be found. If suppliers wish to engage in the delivery of public contracts, then they have an obligation to ensure that they are contributing to improvements in delivery productivity.

#### EXPLORATION

There is a significant variation in how experience is leveraged. I haven't yet been able to identify an organisation that is able to demonstrate the ROI in such a capability, which ultimately influences the extent to which it endorses. One of the best organisations I identified has recently reduced its central team by 75 per cent because of cost reductions and parallel priorities. Another organisation contractually mandated its suppliers to conduct a lessons learned review at the end of a project. They ended up with cabinets and SharePoint folders full of documentation that they struggled to leverage. The way that technical experience is leveraged often differs to portfolio, programme and project management experience, yet processes suggest a one-size-fits-all solution.

I appreciate that some practitioners favour a community-of-interest approach to sharing knowledge, believing that lessons learned databases do not work. Although

Government invests a huge amount of money in programmes and projects. The £450bn cost of the Major Projects Portfolio represents the tip of a very large and expensive iceberg of publicly funded investments. With continual cutbacks, there is pressure to focus on delivering projects, rather than the luxury of project reflection. If this is the consensus, then we should stop the lessons learned processes because they aren't delivering the value we expect from them. But public resistance to this would be significant. Ultimately, government has a duty to ensure that lessons are being captured from this investment and used to improve the productivity of future delivery. The same could be said for the private sector, which has a duty to shareholders and other stakeholders.

I have collated more than 15,000 lessons, and read hundreds of research papers on the subject. I am increasingly convinced that the answer lies in the data, building on the excellent work by NASA and others – providing balanced evidence, at the point of need, and helping to nudge people towards leveraging the pool of project delivery experience. It is the data that enables senior-level decisions to be taken on how to prioritise investment on improvements.

The skill is in configuring the data to reflect the use case and having a large enough pool of data to provide relevant insights. Some of the tools emerging in data science help us to tackle this challenge, but they only form part of an end-to-end solution. By leveraging project delivery experience, we have an opportunity to transform our profession.

It's a challenge we must grasp with both hands. Can we afford to do otherwise? **12**



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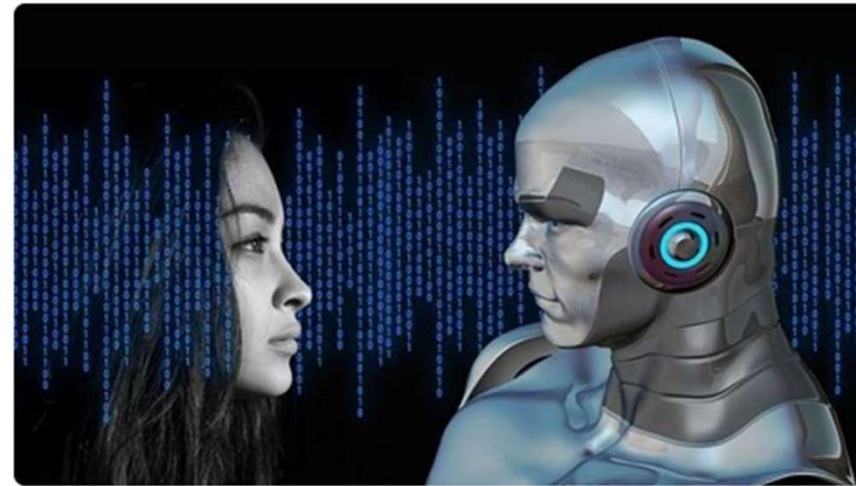
# Pursuing the case for change

Improve understanding  
of methods

Demonstrate the art of  
the possible

Community to share  
experience and up-skill

Develop new capabilities



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# Nature & Quality of the Lessons

The SRO and Project Team should develop a robust and comprehensive Stakeholder Management and Communication Plan.

Review and implement project governance arrangements.

Project reporting format should be reviewed.

The project should consider a workshop to capture all Lessons Learned to date and ensure that the learning is embedded within all future development

Observation?

Something to consider in the next phase?

Missing the basics and don't know better

Should know better

Fundamental shortfall with minor impact

Fundamental shortfall with major impact



# '(Un)Avoidability' of lessons

## Unavoidable lesson

*But may be aware of emerging environmental conditions*

## Strategic lesson

*Organisation proceeded knowing that strategic decisions may/will likely impact the project. Lesson learned was foreseeable and wasn't mitigated.*

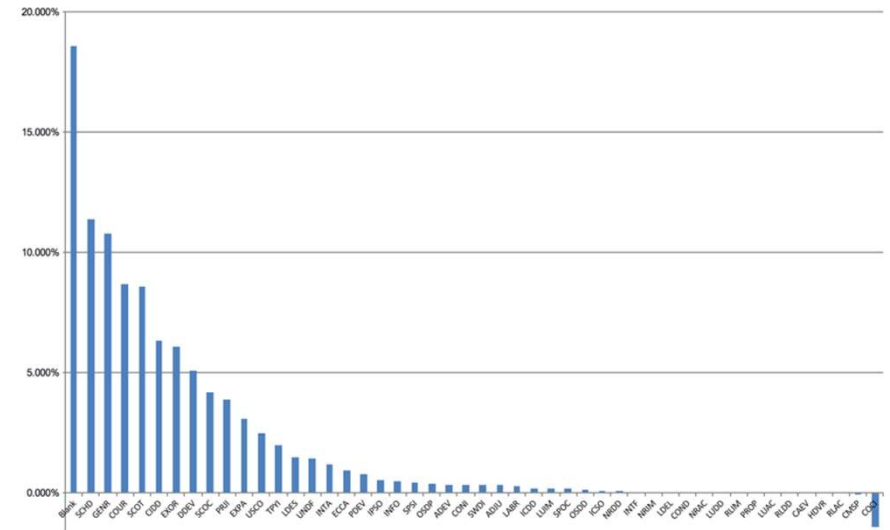
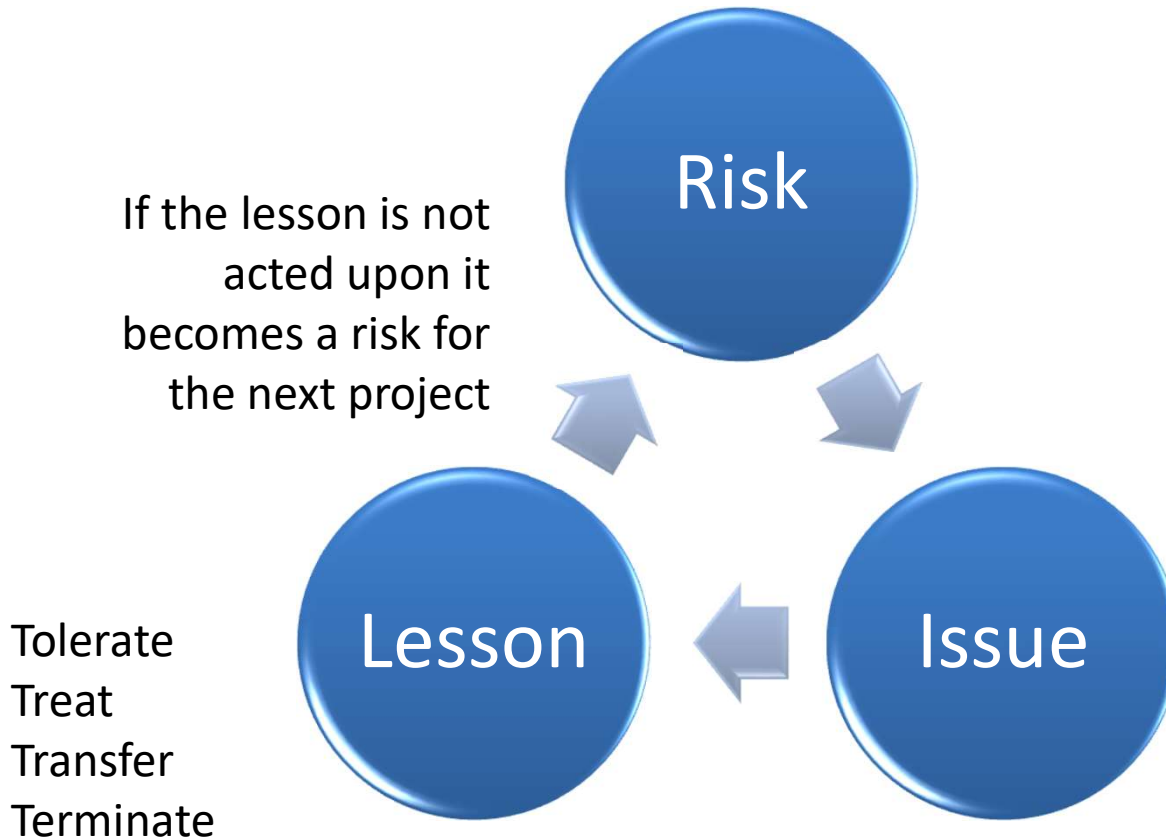
## Avoidable lesson

*Priority, resourcing, SQEP or judgment call*

- Act of God, environmental factors
- Unknown/unknowable external event
- Unknown/knowable external event
- Known external event
- Internal decision or organisational constraint
- Lesson identified or known but deemed irrelevant
- Lesson identified or known but ignored due to other priorities/resourcing

# The Link Between Risk and Lessons

How many organisations link lessons learned and risk management?



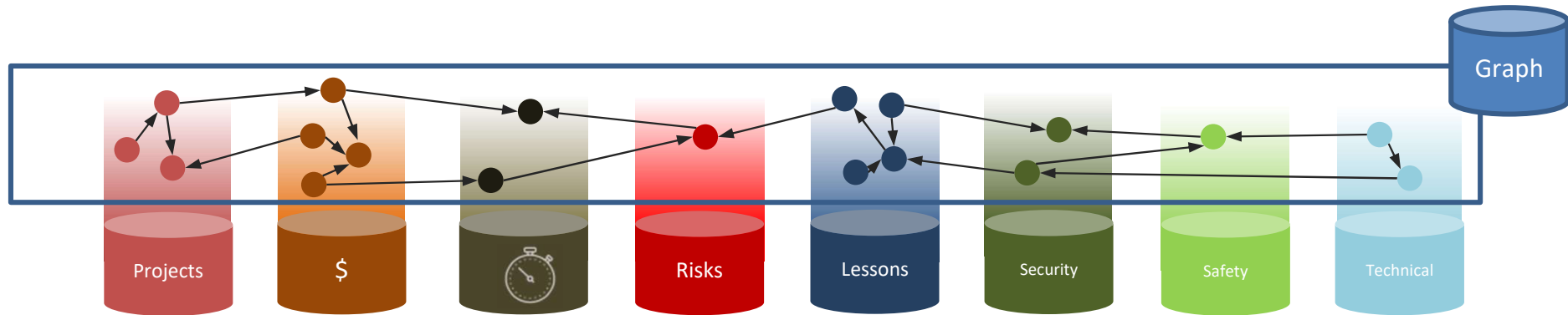
What is the correlation between risk drawdown and lessons learned?



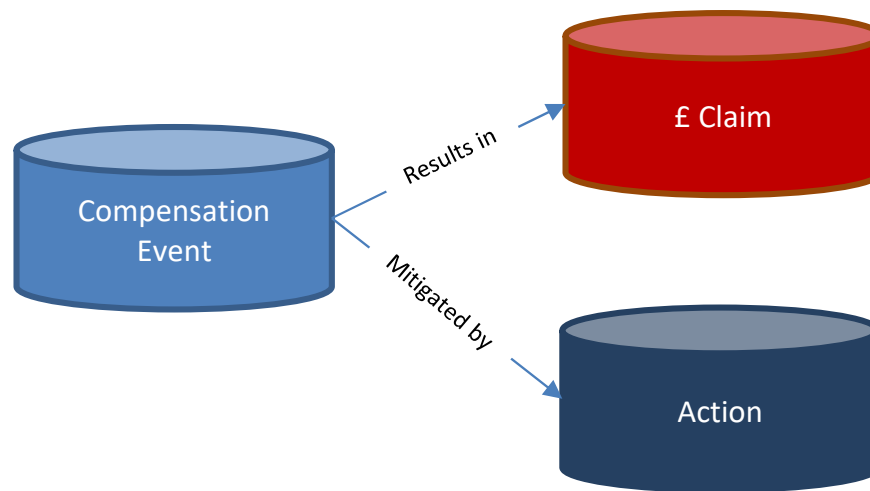
# A Glimpse into the Future



# Leveraging the Connected Data



Data Stored in Silos

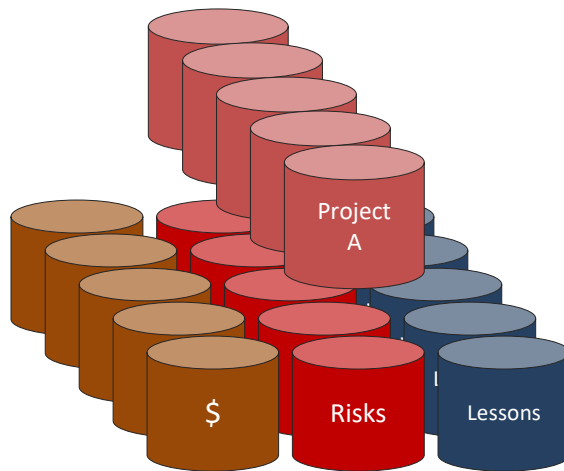


- Properties:
- Process change
  - Workflow escalation
  - Cost of mitigation action
  - Due date
  - Future contracts

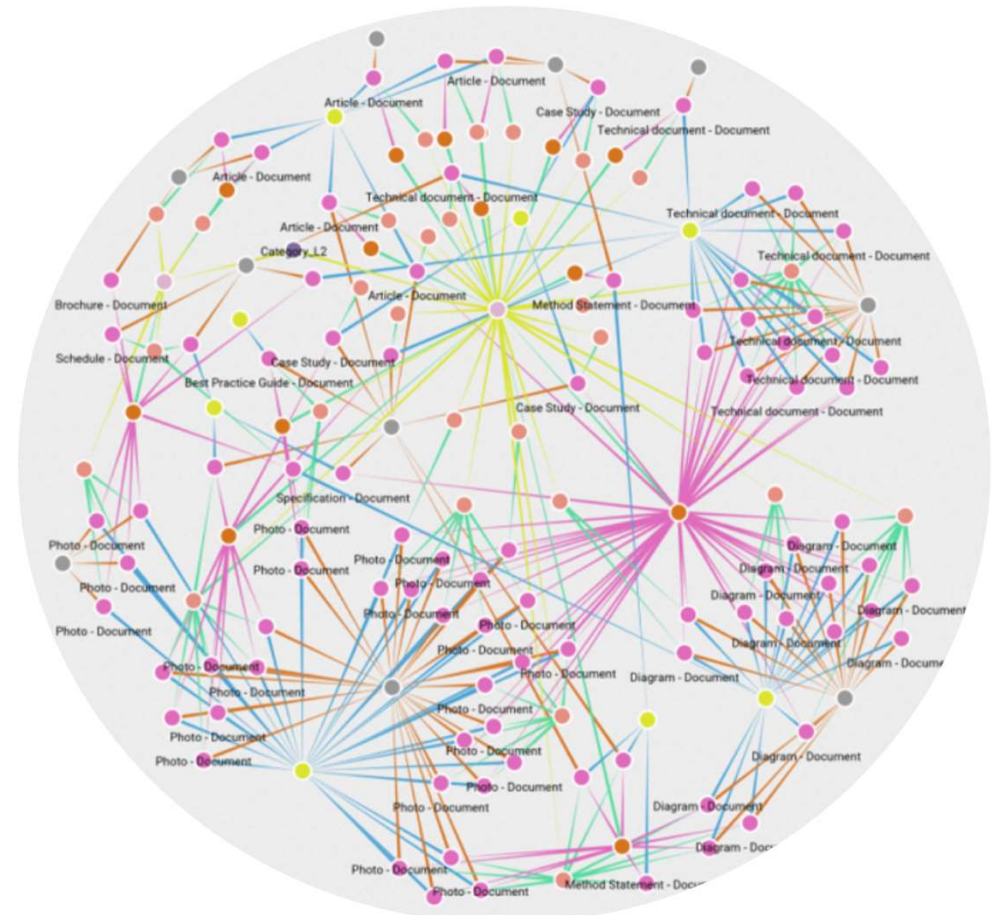
# Leveraging the Connected Data

NI Gateway / Assurance Review Emergent Lessons		2016-17
<p>Lessons are routinely extracted from Gateway and other Assurance Review final reports and published via the CoE web portal. These lessons are intended to support and assist those involved in current Programmes and Projects, as well as those embarking on new initiatives, by learning from the experience of others.</p> <p>The lessons below have been extracted from the final reports of reviews conducted during 2016-17. These lessons have been anonymised and edited in order to recast any constructive criticism, focusing less on the particulars of the programme or project involved, and more on programme and project management best practice.</p> <p>Lessons are listed under the following themes:</p>		
Benefits	Communications	Planning
Business Case	Configuration Management	Procurement
Change	Governance	Programme & Project Management
		Resourcing
		Risk
		Roles & Responsibilities
		Scope
		Stakeholders
		Value for Money
<p>The lessons associated with each theme are also stored as a separate PDF file, for ease of reference.</p>		
Benefits:	Key Lesson	Additional Detail
	The Post Project Evaluation (PPE) clearly shows that the new managed service is delivering on most of the anticipated benefits, and has ensured that staff are freed up from previously time consuming routine tasks, to engage directly with service users...	...now that the service has been running in steady state for over 12 months, the time is right to consider re-measuring against anticipated benefits.
	An outcome of further delay to the project is that realisation of efficiency benefits will be delayed, and planned staffing reductions this year will not be met...	...the Business Case and the continued viability of the project should be reviewed, to give assurances that: it still meets the business need; it is affordable, and after re-planning, is achievable; and the benefits achievement profile is re-defined.
	The Outline Business Case (OBC) includes a number of benefit profiles however, some of the baselines have yet to be completed, there is little in the way of financial information, and there does not appear to be a separate Benefits Realisation Strategy or plans...	...the organisation has recently, as part of new Business Improvement processes being put in place, established ways in which to measure the key targets that are relevant to a successful operation... ...applying these processes and measurement techniques to the identified Benefits Profiles for the Project would help to ensure that they are measurable, and to establish how this will be done from the outset.

## Northern Ireland Lessons Learned



Silos of data



Connected data

# Predisposition, Symptoms & Early Warnings

## Indicate a predisposition to Diabetes



Images courtesy of diabetes UK

A genetic predisposition is an increased likelihood of developing a particular disease based on a person's genetic makeup.

## The common symptoms of diabetes

- Going to the toilet a lot, especially at night.
- Being really thirsty.
- Feeling more tired than usual.
- Losing weight without trying to.
- Genital itching or thrush.
- Cuts and wounds take longer to heal.
- Blurred vision.



# Predisposition, Symptoms & Early Warnings

## Predisposition of an IT project to Failure

Big Bang



Evolving scope

### Segmenting the portfolio....

**5/10** Technology Projects

**6/10** Energy Projects

**7/10** Dams

**9/10** Transport projects

**10/10** Olympics

.....Do not meet their cost targets

Source: Why do projects fail

## Symptoms

### Lack of...



Stakeholder engagement



SQEP



Executive Support



End user Involved in Requirements



Testing



Funding stability

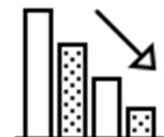
### Early Warnings



S Curve Burndown



Team churn



Benefits shortfall

# A vision



# Things are changing.... at pace

## THE CHANGING DIGITAL WORLD - HOW IS THIS GOING TO CHANGE THE WAY WE DELIVER MAJOR PROJECTS?

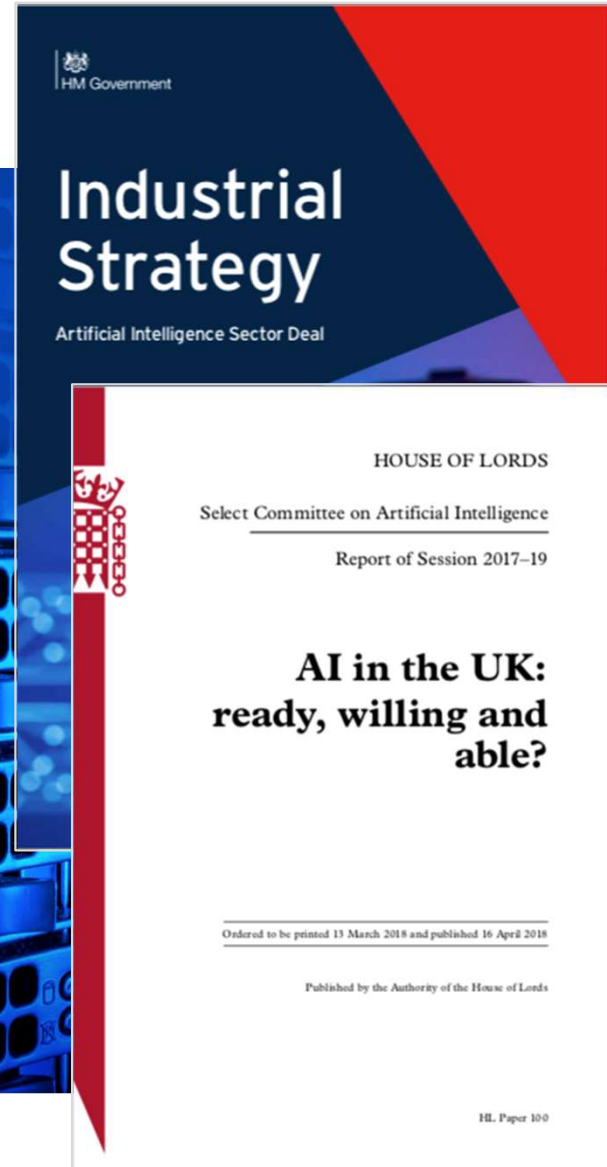


Highlights from the Major Projects Association event  
held on 8th February 2018

### IT IS ALL ABOUT THE DATA

Failure to digitise and utilise data is at the heart of the productivity gap that exists between UK infrastructure and other sectors such as manufacturing. Too often the value of data is not recognised. It is either given or thrown away as industry professionals fail to grasp the opportunity that it presents. This mindset has to change. When data is understood and given meaning it has more value, allowing asset owners to make better decisions – leading to better outcomes and greater public good.

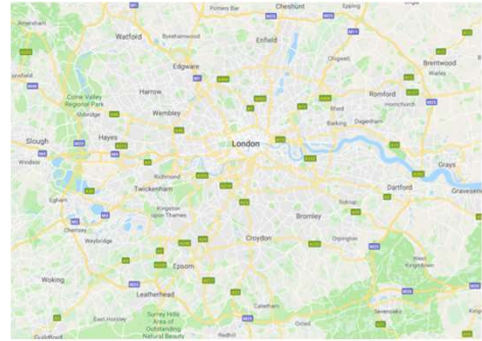
Recognising the value of data is the start. The challenge then becomes one of what to do with data, and how to take it out of silos and share it as a resource across project disciplines and activities.



# Its about perspective

- Your experience
- Your team's experience

The dataset of experience





# An example: Scheduling

Collate every construction schedule

Benchmark

Identify in-schedule variance

Identify variance in comparables

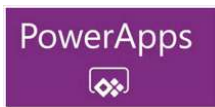
Auto-generate schedules

Adaptive scheduling

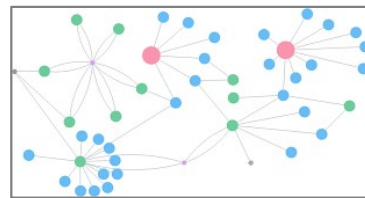
Prescriptive scheduling



Weather forecast



Assign tasks



Connect Data



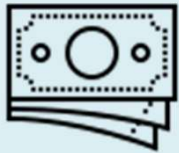
Recommendations



The ALICE Advantage

Leveraging a corpus of experience

# Is My Organisation Ready for This?



Efficiency



A thirst for data  
*Millions of data points*

"Machine Learning and AI will be bigger than the internet"  
Lance Olson 2018

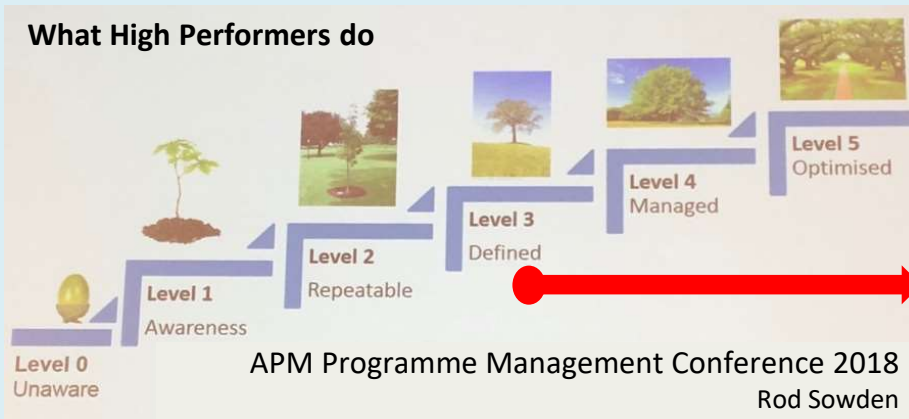
A need to respond  
*Lead times*



Reputation  
*Avoiding the avoidable*

Perspective 1: The driver for change

## What High Performers do

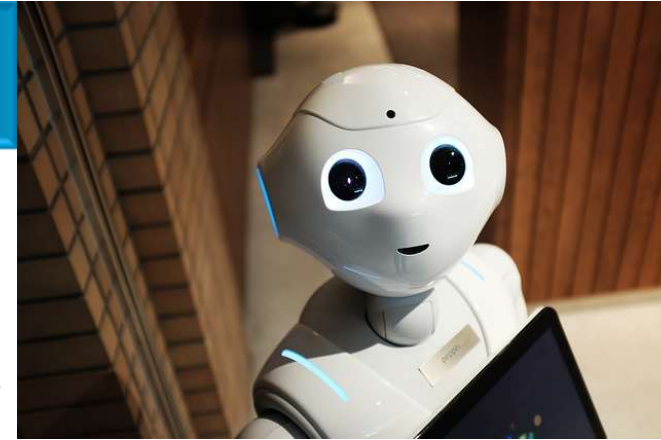


Perspective 2: The capacity for change

- Committed leadership
- Need a hunger for improvement
- Self critical/restless
- Learning organisation
- Measure performance & look for opportunities to improve
- Curate their knowledge
- Clear vision & outcomes
- Need to be at P3M3 level 3 or above

# Summary

- Lessons learned processes generally **do not deliver value**
- **Connected data** enables insights that flat data can never provide.
- Repeating avoidable problems will become indefensible.
- Decisions increasingly shaped by experience.
- Significant opportunity for cost and time saving.
- **Machine learning** is marching towards us which will be transformational.
- We need to develop a data driven approach to support it.



## Some links....



- **Challenging established thinking:** <https://projectingsuccess.co.uk/insight/>
- **LinkedIn:** <https://www.linkedin.com/in/martin-paver-51288423/>
- **Meetup:** <https://www.meetup.com/London-Project-Data-and-Analytics-meetup/>
- **Slack Group Contact:** [Clarejohnston@projectingsuccess.co.uk](mailto:Clarejohnston@projectingsuccess.co.uk)