The DECA:
Understanding challenges
in delivering project objectives

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Contents

About the Delivery Environment Complexity Analytic (DECA)

The Delivery Environment Complexity Analytic (DECA) is a tool developed by the National Audit Office (NAO) to provide a high level overview of the challenges, complexity and risks to delivery of a project, programme, policy or area of work.

It provides a focus for discussion and consolidation of existing knowledge through consideration of the likely impact of 12 factors which are key influencers of success or failure. These can then be shaped to enable the creation of a delivery environment that is more likely to result in a successful outcome.

Users decide whether the potential impact from each factor is high, medium or low to build an overall picture of the delivery environment and its complexity. The completed DECA gives users a better understanding of the challenges the organisation faces in realising its policy aims and/or delivering a project.[1] It does this by considering areas of challenge, drawing out where the potential risks are, their likely consequences and potential opportunities.

The DECA can be used to develop a broad, high-level understanding of an organisation for assessing the challenges surrounding the implementation of major projects. It is also a useful tool for wider strategic planning and checking whether risk registers appropriately capture and address these factors.

1   Throughout this guidance, the term 'project' is used to describe both individual projects and programmes.

How the DECA was created

The work of the NAO has consistently demonstrated that the quality of a project's initiation often dictates the likelihood of its success. Following the publication of our report *A guide to initiating successful projects*,[2] we set out to try and establish why project teams do not consistently follow good practice in setting up projects. Using data from around 5,000 projects and organisations we found that indicators of failure can often be found at an early stage in the project's life cycle – at its very conception.

We found striking patterns in the reasons for projects failing, which all related to the importance of understanding the delivery environment and complexity of the project when making a decision whether to proceed. Organisations which really understood the inherent challenges of their project were able to create an environment for success at the earliest stages of its design, while those which did not set themselves up for failure at a later stage. These 'patterns' were themed into 12 factors, which we used to create the Delivery Environment Complexity Analytic (DECA).[3]

It is designed to help audit teams, sponsors and clients shape their understanding of the challenges and opportunities faced in delivering objectives and outcomes, and the steps needed to address the complexities associated with these risks. Although every project is unique and requires its own delivery plan, the factors which need to be considered in deciding how to shape that bespoke delivery plan are constant. The DECA provides a framework for describing and assessing the context in which outcomes are being delivered.

NAO teams have trialled the DECA on their value-for-money (VFM) work during 2012 and 2013. The Infrastructure UK unit in HM Treasury has included the NAO's DECA in its *Infrastructure Procurement Routemap*[4] which comprises a best practice guide and toolkit. The DECA can also be used outside a project delivery context. It is useful to clients, sponsors and NAO teams as the basis for understanding the challenges faced in delivering objectives and outcomes.

We hope you enjoy using this tool, and would welcome any feedback you have.

Alison Hood
September 2013

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2   Available at: www.nao.org.uk/nao-guide-initiating-successful-projects-3/
3   In addition to our own work, we looked at academic approaches to understanding the environmental impact on projects, including Global Alliance for Project Performance Standards (GAPPS) and the approaches taken by the Major Project Authority to assess likely risks in projects. We were given assistance from the Engineering Project Academy at the University of Leeds in finalising the tool.
4   The government is developing the Routemap, a guide to improving delivery capability, in collaboration with the Engineering Project Academy at the University of Leeds and industry. It aims to support public and private sector infrastructure providers to optimise the delivery environment for projects and programmes. It does this by providing a structured approach to assessing and improving sponsor, client and supply chain capability and integration – in order to match these to the needs of the project.

How to use the DECA

The DECA assesses 12 factors, each of which have an impact on the successful delivery of objectives and outcomes. Our evidence base has shown these to be recurring predictors of delivery success or failure, and discussion of the factors will help identify where the challenges and the potential areas of risk are. The 12 factors are:

- **Strategic importance.** How significant is the client/project to the delivery of the sponsoring body's key strategic objectives and/or legal obligations?

- **Stakeholders/Influencers.** Who are the stakeholders and how much interest/ influence/support do they have for the planned objectives?

- **Requirements and benefit articulation.** Are the sponsoring body and delivery team clear about their requirements and what benefits achieving the objectives will bring?

- **Stability of overall context.** Is there likely to be a change in scope in the future? Is the delivery plan reliable?

- **Financial impact and value for money.** How significant is the investment in the client/project to the sponsor/delivery body?

- **Execution complexity (including technology).** Are the approaches/technologies planned for use in achieving objectives new to the delivery body and/or untested?

- **Interfaces/Relationships.** How many separate bodies/teams are involved in delivery?

- **Range of disciplines and skills.** Are specialist skills necessary to achieve objectives, and are these available in-house?

- **Dependencies.** Is anyone else's work dependent on the success of the project/ client, and is it dependent on others?

- **Extent of change.** Will current working patterns need to change to deliver the expected outcomes and benefits?

- **Organisational capability: performance to date.** What experience does the delivery body have in delivering similar objectives or work of a similar complexity?

- **Interconnectedness.** What work has been done to understand the connections between factors affecting the client/project?

The DECA includes a description of what both low and high complexity would look like for each factor. More detailed descriptions can be found later in this guidance. These descriptions are examples only: users should apply their knowledge and understanding to form a view on the complexity level of each factor. We recommend the reasons for assessments are documented in the comments box on the DECA, including any evidence that has been used to inform this assessment.

When/how to complete the DECA

We recommend that the DECA be used as early as possible in any piece of work, as the questions it asks and the risks it helps identify give you a good insight for designing your work. The DECA can also be used later to help' to 'identify any changes in the delivery environment of the project, or retrospectively as part of a 'lessons learned' exercise.

One of the DECA's key strengths is increasing team understanding by working through the DECA together and gaining agreement over areas of key focus and what factors are most important to the team's work.

The DECA is also a useful portfolio management tool. An overall project or programme complexity rating can be determined either by the predominance of factor ratings or by the rating associated with the most critical factors related to a specific project or programme. Completing the assessment generates a profile that the sponsor and project team can use to sanity check risk and readiness at various project or programme junctures.

Potential approaches to completing the DECA include:

- team meetings to share existing knowledge and complete the DECA together;

- team members each completing a DECA separately and then comparing their thoughts;

- a single team member completing the DECA, with other team members then adding their own thoughts and comments; and

- meet with the NAO to complete a DECA with their help.

The DECA is available as a template on the NAO website

All versions include a 'Comments' box and an 'Actions' box. We suggest that the Comments box is used to record evidence and observations while the Actions box is used to record expectations and next steps to be taken.

For further guidance, or for support in completing a DECA, please contact the **Project Delivery Team at the NAO: Alison Hood and Naomi Flood**.

Factor	Impact statement – Level 1 complexity	1 Low	2 Med	3 High	Impact statement – Level 3 complexity	Comments	Actions
1 Strategic importance	Low priority operational level project/programme. Expected benefits are necessary but low in value relative to organisation's/government's overall ambitions. Externally there is little political, media or public interest and failure would not have significant impact outside the organisation.				Critical to delivery of policy, key strategic objectives or legal obligations, with very high expectation of benefits. High level political or public interest with strong media attention. Failure would have major impacts and consequences outside the organisation.		
2 Stakeholders/Influencers	Low number of stakeholders or level of influence. Stakeholders are aligned with the business objectives, supporting the project and agreeing on the expected outcomes. Key stakeholders and influencers are unlikely to change.				Significant number of stakeholders with high levels of influence and differing or misaligned objectives/expectations. Stakeholders/influencers may change.		
3 Requirements and benefit articulation	Requirements and expected benefits are clear and linked to business policy. Key performance measurements link to goals, vision and values.				Ambiguity around requirements and how the expected benefits contribute to the realisation of the goals, vision and values. High uncertainty on project impact.		
4 Stability of overall context	Requirements, governance and delivery modes are clear and unlikely to change. No significant risk of change in scope, structure, external requirements or economic/political landscapes. High degree of confidence in planning, estimates and/or governance. Necessary approvals/investment already received or guaranteed.				High risk of scope, structure, external requirements or economic/political landscapes changing. Low level of certainty within key estimates, planning and/or governance. Uncertainty over whether necessary authorisations will be received.		
5 Financial impact and value for money	Investment is not significant relative to sponsoring body's capital expenditure, or comparable investments. Project/programme is not material to key suppliers. Anticipated revenues, efficiencies or returns on investment are not fundamental to the business. High level of assurance over key estimates.				Investment is significant for the sponsoring body. Investment expected to deliver significant value for money, efficiencies or returns. Highly involved type/source of investment anticipated. Low level of assurance over key estimates.		

Factor	Impact statement – Level 1 complexity	1 Low	2 Med	3 High	Impact statement – Level 3 complexity	Comments	Actions
6 Execution complexity (including technology)	No new or untested business practices or technologies form part of the scope. There is front end loading for phased implementation and piloting if required. Organisation or its partners has past experience of all practices, key technologies and methods used.				New/untested business practices or technology is required. Wide scope and challenging objectives with limited scope for risk management such as phased implementation or piloting due to immovable deadlines and demanding targets.		
7 Interfaces/ Relationships	Project/programme spans few boundaries (organisational, political, regional) and success is not dependent on relationships. Governance is not complex and supports decision-making and reporting. Success is not dependent on factors outside control of the organisation.				Project/programme spans many boundaries with internal and external partners. Success is dependent on factors mainly outside control of the organisation and is dependent on relationship management. Governance is complex.		
8 Range of disciplines and skills	Delivery involves few specialist disciplines or skill requirements. Acquiring the skills for implementation is straightforward and readily available in the market.				Large number of disciplines and skills and/or potential for strain on the supply chain capacity and capability.		
9 Dependencies	Project/programme is not critical to delivery of other projects.				Project/programme is critical to the delivery of other projects.		
10 Extent of change	Business as usual.				Large amount of organisational change required to deliver desired outcomes and benefits. Delivery represents a fundamental change to the organisation.		
11 Organisational capability: performance to date	Demonstrated capability to deliver project/programme through delivery of similar successful projects/programmes. Culture promotes 'intelligent client' attributes.				Has not demonstrated key capabilities in delivering major projects/programmes and/or has not delivered under similar arrangements in the past.		
12 Interconnectedness	Consideration of the required alignment and relationships between policy, culture, practices, technology, people, processes and procedures. Interrelationships inform decision-making and risk management.				Consideration of the relationships between policy, culture, practices, technology, people, processes and procedure has not been investigated, captured or communicated.		

The DECA factors

This section provides more detail for each DECA factor, including:

- A description.

- A list of implications for the Accounting Officer, indicating possible impacts of the factor being assessed as high risk.

- A list of mitigating actions that could be taken in response to the factor being assessed as high risk. This list is not exhaustive: teams should use their own knowledge and understanding of their body to agree on the actions which would be appropriate to specific circumstances.

- Examples from government projects that illustrate the potential impact of the factor.

1 Strategic importance

The extent to which the project supports delivery of the department's objectives, the level of Ministerial and wider public interest: can the Accounting Officer choose not to carry out the project?

This factor is about understanding the strategic importance of the project or body, and the level of external interest in it, particularly from Ministers and the wider public. It includes its position in the pecking order of government and the potential effect on reputation of a high level of success or failure. Important aspects of this factor include understanding aspirations, particularly in respect of strategic direction and approval, and engagement.

Defining particular areas of influence or interest at the start of the project will help to understand the level of attention and scrutiny that the project is likely to attract. Awareness of this can assist in shaping key areas of delivery such as communication plans for senior officials. Significant difficulties can arise where political influence is very strong and is not constructively addressed.

Indicators of high strategic importance

- Critical to delivery of sponsoring body's delivery of policy, key strategic objectives or legal obligations.

- Very high expectation of benefits.

- High level of political interest (especially from the Secretary of State, a specific Minister, or as part of a political party manifesto commitment).

- High level of impact on, or likely to be of great interest to, the general public.

- Strong media attention.

- Level of success/failure will have major impacts and consequences outside the organisation.

- Implications outside the UK (i.e. part of a global agreement, required by EU).

What does this mean for the Accounting Officer?

- A project with high strategic importance must be delivered and delivered well – there is less opportunity to say no and suboptimal delivery will have large impacts to the detriment of the Accounting Officer.

- High political interest may heighten tension in relationships. Expectations of what is realistic and feasible will need to be carefully managed.

- Accounting Officers should be prepared to challenge or compromise where necessary – strong and convincing challenge requires robust and well analysed information.

- If the project is in the public eye, there will be no escape from failure.

What actions can mitigate this?

- Carry out portfolio analysis to gain agreement on the relative priority of this and the other projects the Accounting Officer is responsible for.

- Undertake resource, flexibility and contingency mapping to understand where trade-offs can be made between projects if they go off track.

- Prepare engagement and communication plans to inform work with politicians and the media.

- Invest in an ongoing dialogue with politicians to provide realistic expectations, keep them informed on progress and secure support for the project.

- Negotiate a better balance between political aspirations and what is feasible within realistic cost and time parameters.

- Request a Ministerial direction if necessary.

Examples

A good understanding of strategic importance helps to manage expectations

The Department of Health's project to put in place a new Advanced Purchase Agreement to be able to procure pandemic influenza vaccine at the time of a pandemic had to be completed within tight timescales, and at the same time, the Department needed to secure approval across the devolved administrations. Prior to entering a competitive dialogue process, it set out in detail the timescales and likely costs for the contract negotiation, based on previous experience. This paper was submitted for Ministerial approval, explaining the assumptions for what could be delivered and the estimates for the price and the likely timescales. This gave the Department a set of parameters to operate within and supported expedient contract negotiation.

Political aspirations can impact on the outcome of a project

In *Mobile technology in policing*,[5] we highlighted that the business case was constrained by announced deadlines. Government announced in 2007 that 10,000 mobile devices would be provided to police officers within 12 months, even though earlier trials showed that it had taken around 30 months to introduce mobile devices effectively. Adherence to such short timescales prevented the project from realising its full potential.

Some projects have managed to strike a good compromise between political aspirations and realism of delivery. Government extended the deadline for the completion of digital TV switchover from 2010 to 2012 in response to expert advice.[6] In 2004, after extensive discussions with the Public Service Broadcasters and Ofcom, a paper was produced for Ministers presenting the options for delivery. These ranged from 2010, which realised greatest financial benefit, to 2014 which presented fewer risks. Based on this information the date for completing switchover was changed to 2012.

2 Stakeholders/Influencers

The groups or individuals with an interest in the project and the level of influence they have on it. Who does the project affect? How much do they care about it and can they make a difference?

Influencers are groups of people outside the control of the organisation who can impact on the design and delivery of the project and its outcomes. The support of influencers can provide greater insight, or their opposition could delay or derail the project. Each may have a different perception of what success is. Identifying and understanding these groups or individuals, their level of influence, range of opinions and ways to engage with them can be crucial to a project delivering its objectives.

Common stakeholders likely to be relevant to government bodies include politicians,[7] departmental staff, the general public and businesses working in the sector. Understanding the number of these groups or individuals, the level of their influence, ways to engage with them and their range of opinions will support successful project delivery.

5   Comptroller and Auditor General, *Home Office and National Policing Improvement Agency: Mobile Technology in Policing*, Session 2010–2012, HC 1765, National Audit Office, January 2012.
6   Comptroller and Auditor General, *Preparations for Digital Switchover*, Session 2007-08, HC 306, National Audit Office, February 2008.
7   Senior politicians such as Secretaries of State and Members of the Cabinet, who are responsible for introducing specific policies/promoting projects are considered within the 'Strategic importance' section. Politicians here relates to wider government.

Indicators of stakeholder/influencer impact

- High number of stakeholders.

- Buy-in necessary for success.

- Significant stakeholder influence on aspects of project.

- Differing or misaligned objectives/expectations between interested parties.

- High risk of change in identities of stakeholders/influencers due to change of scope or social factors.

- Stakeholders difficult to identify and communicate with.

What does this mean for the Accounting Officer?

- High volume of influencers or individual parties with very strong influence over the project or outcomes are more difficult to manage.

- The most influential may require personal contact or management by the Accounting Officer.

- Low levels of cohesion between parties will result in more varied opinions about the success of the project and potentially make it more difficult to declare it a success.

What actions can an organisation take to mitigate this?

- Take time and invest resources to really understand who has an interest in the work.

- Map influencers to understand which parties will require highest levels of management.

- Examine whether the users of a policy/project are likely to behave in a way which brings about the change you need.

- Develop communication plans and events to engage with and understand influencing parties.

- Prepare action plans to mitigate difficulties or delays to the project as a result of these parties.

Examples

Failure to engage with stakeholders can disrupt delivery

In the early 1980s, the Department for Transport's plans to build the M40 motorway through Otmoor in Oxfordshire were disrupted when the Department did not engage effectively with the local community. The local Friends of the Earth group purchased a field on part of the proposed route and subdivided it into 3,500 plots which it sold for £3 each. All the plot owners were anonymous and each owner could, in theory, have forced a public inquiry and taken the case to the High Court if the government had subsequently tried to compulsorily purchase the land. The Friends of the Earth group was successful in getting the route changed.[8]

Active engagement with those affected by the project can have positive consequences

In the digital switchover programme, the organisation leading the implementation and programme management, Digital UK, identified risks associated with failure to communicate effectively with people who might not understand the change. Digital UK worked with charities to set up a new consortium and used existing charity networks to spread switchover advice and information. The approach was successful and Digital UK told us that this outreach model is now being used in other areas of public policy, including the drive to increase broadband take-up.

Engagement with stakeholders ensures that deliverables match the user's needs

In 2012, we reported on *Improving the criminal justice system – lessons from local change projects*.[9] The Warwickshire Justice Centre is a new multi-agency justice centre, bringing together all the agencies under one roof. A key risk was that the judiciary might feel that they should resist involvement in the Justice Centre, due to concerns about public perceptions of their role and whether they would maintain their independence when co-located with the other agencies. The risk was mitigated by encouraging discussion between the Senior Presiding Judge and the Lord Chancellor, who worked to reassure the judiciary that their position would not be compromised. The Resident Judge and three magistrates were involved in the design of the courts, which was permitted to diverge from the standard design guide. As a result, the courts are more open and yet vulnerable individuals can leave the court without being seen, where appropriate.

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8   The Guardian, *Diversionary tactics – the imaginative campaigns protecting the countryside from developers,* 1 April 2009.
9   National Audit Office, HM Inspectorate of Constabulary, HM Inspectorate of Probation and HM Crown Prosecution Service Inspectorate (2012), *Improving the criminal justice system – lessons from local change projects*, May 2012.

3 Requirements and benefit articulation

Are the sponsoring body and delivery team clear about their requirements and how these requirements will lead to the objectives being met? What benefits will achieving the objectives bring?

Delivery teams should be able to articulate how the project fits with the organisation's strategic aims, the benefits it is expected to deliver, what success will look like and how this can be managed. They should then be able to specify what their work needs to look like in order to deliver this. A failure to articulate requirements or benefits, or internal disagreement over them, can threaten delivery. Only when decision-makers are satisfied that there is a clear and well thought out description of what success looks like and how it will be achieved should approval for a project/area of work go ahead.

A well-articulated vision of requirements and benefits improves team performance and reduces the risk of a project running out of control. The definition of success should be realistic, easy to understand and measurable, with consideration of output (what will be delivered, when and at what cost), outcomes (how the output will be used and what behaviours it will produce) and the delivery of policy aims (what benefits are delivered and how they will add value to society).

Indicators of high impact associated with requirements and benefit articulation

- Ambiguity around requirements beyond the broad objectives.

- Uncertainty about how work contributes to the realisation of wider goals, vision and values.

- High uncertainty on project impact (either number of people affected or the level of impact upon them).

- Unclear measures of success.

- Stakeholders, and indeed people within the same organisation, may have differing perspectives on what success looks like.

What does this mean for the Accounting Officer?

- An articulation of the benefits and a clear vision of success provide a convincing rationale for taking on a project. If it is not possible to articulate a rationale in this way, Accounting Officers should question why the project is proceeding.

- Requirements, outcomes and benefits are the benchmark against which Accounting Officers will be held accountable.

- Ill-defined or immeasurable benefits mean that the Accounting Officer will not be able to prove that a project has been successful. Projects may also fail to deliver the expected results.

- Uncertainty over project impact may make it difficult to manage other factors, such as Stakeholders/Influencers.

What actions can an organisation take to mitigate this?

- Clear documentation and understanding of how benefits link to outcomes, how outcomes link to requirements and how requirements fulfil policy aims.

- Benefit realisation plans that show what the benefits are, who is responsible for delivering them and how they will be monitored and measured.

- Testing of scenarios, detailed analysis and validation of the assumptions which are key to delivering benefits.

Examples

Clarity over objectives is a recurring feature in both high performing private sector projects and in our reports

Independent research found that 70 per cent of high performing private sector project teams had very clear project objectives. Research by Saïd Business School found that "clear goals, business case and success criteria for the project" has the second highest impact in reducing the risk of a project running out of control.[10]

Almost a third of our 106 reports on major projects published in the past four years have raised concerns about success definition. Eight of fifteen projects we looked at in depth during 2012 did not define success well.

Failure to define benefits and requirements presents problems when assessing value for money

The Committee of Public Accounts raised concerns in its hearings on private finance initiatives (PFI) in Housing and Hospitals that it could not assess whether value for money had been achieved, due to a lack of robust evaluation.[11] At its hearing on Ofcom, the Committee noted that Ofcom did not specify its intended outcomes, explain how its activities would achieve these outcomes, or set out how it would measure success.[12]

In our examination of three BBC major estate projects, we found that none of the three projects laid out intended benefits at the outset with sufficient clarity to provide a basis for a meaningful measurement of subsequent achievements.[13] In a subsequent report on one of these projects – the move to Salford – we found that the BBC had made good progress in setting out the future benefits it expects to achieve and how it will measure them.[14]

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10   Budzier, A. April 2012 Analysis by the BT Centre for Major Programme Management, Saïd Business School review of c. 2,200 large-scale ICT projects.

11   HC Committee of Public Accounts, *PFI in Housing and Hospitals*, Fourteenth Report of Session 2010-11, HC 631, January 2011; www.publications.parliament.uk/pa/cm201011/cmselect/cmpubacc/631/63102.htm

12   HC Committee of Public Accounts, *Ofcom: the effectiveness of converged regulation*, Twentieth Report of Session 2010-11, HC 688, February 2011; www.publications.parliament.uk/pa/cm201011/cmselect/cmpubacc/688/68802.htm

13   Comptroller and Auditor General and BBC Trust, *The BBC's management of three major estate projects*, January 2010.

14   Comptroller and Auditor General and BBC Trust, *The BBC's move to Salford*, May 2013.

4 Stability of overall context

Will the requirements and environment remain stable for the foreseeable future?

Projects can be affected by a range of factors outside the delivery team's control. This factor is about appreciating the level of uncertainty and introducing flexibility to respond to and manage change.

Long-term projects are likely to experience more instability than short-term ones, especially where projects span more than one political cycle or spending review period. In the public sector, the elapsed time between project design and contract tendering may span more than one public spending period, thereby creating uncertainties around approval to proceed and funding. The degree of uncertainty in the assumptions made at the design stage of the project can have financial consequences. Over-optimism in terms of how quickly a project can be designed and implemented can be costly.

Indicators of high impact associated with stability

- Potential for significant change in the economic environment.

- Potential for change in the political environment.

- High risk of change in scope, structure or external requirements (either due to mission creep or reduction in objectives).

- A level of uncertainty in key estimates.

- Lack of certainty over requirements, governance and delivery models.

- Necessary authorisations not received at time project given go ahead, or a risk they might not be given as milestone approaches.

- Instability within the supply chain.

- Objectives to be delivered over several years, spanning more than one political cycle or spending review period.

What does this mean for the Accounting Officer?

- Projects with likely changes or areas of uncertainty are more complex to manage. They are likely to require more management time, a greater awareness and readiness to react positively and even call in to question the feasibility of the project.

- These projects may need prior HM Treasury approval to proceed, such that existing departmental management and reporting procedures may not be sufficient to oversee them.

What actions can an organisation take to mitigate this?

- Ongoing risk assessment which identifies the risks and links them to appropriate ownership and action plans.

- Contracts that offer appropriate flexibility to allow alteration for more uncertain or changeable environments.

- Management plans and structures which allow appropriate time and experienced staff to manage the project.

- Plans and means to 'horizon scan' fast-paced markets.

- Understanding of decision points where alternative options can be taken if changes necessitate.

- Better portfolio management.

Examples

Changes in the delivery environment can be predicted and planned for

Before entering into a commercial arrangement to secure the pandemic influenza vaccine, the Department of Health researched the likely timeframes for new vaccine technology to emerge. It introduced relevant clauses in its contract to ensure that it would be in a position to benefit from breakthroughs in technology in the future, while also allowing for the Advanced Purchase Agreement to be extended if the contract continues to offer the most appropriate way to ensure access to pandemic influenza vaccines.

Changes in policy environment and working patterns can reduce economic viability

In November 2007, we reported on the cancellation of Bicester Accommodation Centre.[15] In 2001, Ministers announced a major policy overhaul of the asylum system to speed up the processing of applications from asylum-seekers. In response, the Home Office spent some £28 million on plans to create a purpose-built asylum centre in Bicester, Oxfordshire. In planning for the Centre, the Home Office was working in a dynamic external policy environment, whereby the number of people applying for asylum could fall and the demand for such facilities would therefore reduce. The number of applicants seeking asylum in the UK halved between October 2002 and September 2003. Also from 2004, another policy initiative was being developed to speed up asylum applications. In 2005, the Department cancelled the Bicester project because it was no longer economically viable in the light of the improvements to the handling of asylum applications, reduced numbers of asylum applications and the rising costs of the project.

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15 Comptroller and Auditor General, *The cancellation of Bicester Accommodation Centre*, Session 2007-08, HC 19, National Audit Office, November 2007.

Embarking on projects in advance of finalising a programme of work can waste time and resources

In 1999 the NAO reported on the Highways Agency's progress in Getting Best Value from the Disposal of Property. The report found that "three quarters of recent disposals have been the result of scheme cancellations, where the threat of roadbuilding and the extent of blight will have greatly diminished. But even in these cases the average fall in property values was 27 per cent, perhaps partly reflecting buyers fears that road plans may be reinstated." Although this loss was less than that on continuing schemes, the loss of value represents a cost that could have been avoided altogether had plans been more stable.[16]

5 Financial impact and value for money

How significant is the project financially to the sponsoring body/supplier, and are the expected benefits proportional to the projected costs?

This factor is about establishing how significant the cost of the project or investment is to the organisation(s) responsible for delivery. It includes understanding whether a project will provide value for money and whether it is founded on robust estimates of cost and time, as well as appreciating how the change in the cost of one project could adversely impact on the wider portfolio. The delivery team needs to consider whether the sponsoring body can afford a worst case scenario situation and how likely such a situation is to occur.

The financial impact on both the sponsoring body and suppliers needs to be considered. Projects which represent a significant investment relative to capital expenditure or comparable investments have a greater risk of causing wider problems for the organisation if things go wrong, but can also be expected to have a greater impact if completed successfully. The projected costs should be proportional to the expected deliverables and benefits of the project, and should represent value for money. A complex delivery environment may also be created by a source of investment which requires stronger management, such as a PFI contract.

A small increase in the costs of a large project can adversely impact on other work, particularly in the current climate of constrained resources. A high level of assurance over the key estimates is therefore important, as we have found that projects are seldom cancelled once they are underway. Rather, they are delayed, de-scoped or savings are found elsewhere which can adversely affect other priorities.

Decision-makers must also understand the risks associated with projects that have a large liability or obligation attached (for example, the government agreed to guarantee debt relating to HS1) and how this might expose the taxpayer to significant risk.

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16   Comptroller and Auditor General, *Getting Best Value for the Disposal of Property*, Session 1999-00, HC 58, National Audit Office, December 1999.

Indicators of high impact relating to financial impact and value for money

- Investment is significant relative to sponsoring body's budget (either due to proportion of spend or in relation to other projects).

- Low level of assurance over the basis of key estimates.

- Project is financially significant to key suppliers.

- Investment expected to deliver significant value for money, efficiencies or returns.

- Financial expectations for project are fundamental to funding completion of wider objectives.

- Reliant on complicated or highly involved sources of funding.

What does this mean for the Accounting Officer?

- Projects should have a positive and realistic cost–benefit ratio, or there is little justification for undertaking the project.

- Understanding the costs, benefits and liabilities will help to generate the best decisions about wider portfolio and resource prioritisation.

- Projects with high costs, high benefits or small cost–benefit ratios require careful management owing to their importance or sensitivity to changes.

What actions can an organisation take to mitigate this?

- Robust cost–benefit analysis where data has been independently validated and sensitivity analysis has been conducted.

- Check the realism of estimates by benchmarking against similar projects/areas of work, and make use of historical data.

- Review how well optimism bias has been considered and validated as appropriate.

- Identify and validate contingencies provision with clear allocation and criteria for its use.

- Clear methods and ways to calculate the cashable and non-cashable savings.[17]

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17 Cashable savings are direct financial savings which release cash to be used elsewhere. Non-cashable savings are efficiency savings that do not directly release cash, but cause lower future costs.

Examples

Delays in a project can have a financial impact

In our 2011 Major Projects Report,[18] we reported that in the 2010 Strategic Defence and Security review, the Ministry of Defence took the decision to extend the build programme of the Astute submarines by 96 months. This was due to the need to save costs in the short term and address delays in the programme for the replacement of the nuclear deterrent submarine – thereby avoiding a production gap in the submarine construction industry. This decision to extend the Astute build added a further £200 million to forecast costs, contributing to a total programme cost increase of £1.9 billion on Astute submarines since 1997.

The decision to slow the production of the Aircraft Carriers in 2010 to ease short-term cashflow meant cost reduction opportunities with industry to save £337 million were not possible. As of 2012, total costs on the Aircraft Carrier project had increased by £1.8 billion.

Overly optimistic forecasts result in higher costs

In March 2012 we reported that the High Speed 1 project "demonstrates the impact that over-optimistic key assumptions at project initiation, in this case demand forecasts for international passengers, can have if the business case and financing are dependent upon them. The cost to the taxpayer is higher than originally expected because the Department is now responsible for servicing and repaying the project debt. We estimate that net taxpayer support may reach £10,200 million (present value to 2070, in 2010 prices).

The Department for Children, Schools and Families and Partnerships for Schools were overly optimistic in 2004, in their assumptions of how quickly the first schools in the Building Schools for the Future Programme could be delivered, leading to unrealistic expectations.[19] Delays in various areas meant the programme fell behind. By 2009, estimated total costs had risen by 16 to 23 per cent. The programme was cancelled in 2010.

6 Execution complexity (including technology)

How complex are the objectives to deliver, due to factors including technology, approach and tight timeframes? How difficult is the project to deliver?

This factor is about having a realistic view of the level of difficulty in delivering a project. These levels increase when using novel or untested technology, if there are immovable deadlines or if a 'big bang' implementation is required. Other difficulties may relate to business practices or the form of delivery; whether the team are adopting new ways of working or if they are restricted to specific approaches to deliver the project. The NAO

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18 Comptroller and Auditor General, *The Major Projects Report 2011*, Session 2010–2012, HC 1520-I, National Audit Office, November 2011.

19 Comptroller and Auditor General, *The Building Schools for the Future Programme: renewing the secondary school estate*, Session 2008-09, HC 135, National Audit Office, February 2009.

back catalogue includes many projects which went ahead without a full appreciation of the complexities of the tasks being undertaken. This led to unrealistic expectations of what could be delivered. Understanding the risks of execution complexity is especially important when evaluating different options for delivery of objectives.

Indicators of high impact associated with execution complexity

- Requirement for new or untested approach, including tested approaches which are new to staff.

- Requirement for new or untested technology, including tested technologies which are new to staff.

- Wide scope and challenging objectives.

- Tight timescale for delivery due to immovable deadlines, limiting use of risk mitigating actions such as phased implementation or piloting.

- Demanding benefit/quality targets.

- Long delivery chains comprising several bodies.

What does this mean for the Accounting Officer?

- Project teams with limited technical experience of the project may fail to appreciate its complexity.

- Too often, these projects do not have a 'Plan B' in reserve, making it more likely that the body will be reluctant to cancel the project.

- Estimates may suffer from optimism bias and ignore key risks due to lack of understanding of the planned approach.

- Novel or complex projects may require additional contingency, be this cost, time or staffing.

- There should be greater emphasis on getting things right first time if there is limited scope for changing options or delaying the project.

- Restricted or prescribed ways of delivering the project may require the Accounting Officer to challenge the project's feasibility.

What actions can an organisation take to mitigate this?

- Pilots, trials or testing of the complex or new elements of the project to identify risks, modifications and likely results.

- Bring in subject matter experts to advise on potential sources of complexity of areas of technological difficulties.

- Talk to others who have delivered similar types of work.

- Critical path analysis to understand where there is flexibility in delivery, where overruns can be absorbed and where savings can be made.

- Investing in expertise or additional staff training in the new approaches or technology.

- Identifying a 'Plan B' and developing an exit strategy at the outset, such that cancelling the project is an option.

Examples

Failure to foresee scale and complexity can lead to substantial delays

In 2010, we reported on delivering multi-role tanker capability, where it took the Ministry of Defence ten years to sign the contract.[20] After a five-year competition, the Department was unable to close a deal and it took another four years of non-competitive negotiation to reach an acceptable agreement. The over-arching cause of delay was the unforeseen scale and complexity of the deal, which in turn contributed to many of the problems encountered on the project. Specific difficulties stemmed from the limited competition; specifications continuing to evolve until late in the procurement; poor access to full cost data; poor project resourcing and governance; insufficient staff with PFI experience and frequent changes of team leader.

New approaches can lead to additional time and cost

In our *Major Projects Report 2011*, we highlighted a programme cost increase of £1.9 billion on the Astute submarine programme. The Ministry of Defence experienced technical difficulties in the first six years of the programme. This was the first UK submarine programme to use computer-aided design techniques, and the Department underestimated the complexities, which contributed to a cost increase of £886 million and a time delay of 43 months.

Fixed deadlines make a project more challenging to deliver

The fixed deadline for London 2012 Olympic and Paralympic Games created challenges. The Olympic Delivery Authority had to complete its work, test venues, and then hand them over to LOCOG well ahead of the Games, so that LOCOG could complete its preparations.[21]

20 Comptroller and Auditor General, *Ministry of Defence: Delivering multi-role tanker aircraft capability*, Session 2009-10, HC 433, National Audit Office, March 2010.
21 Comptroller and Auditor General, *The London 2012 Olympic Games and Paralympic Games: post-Games review*, Session 2012-13, HC 794, National Audit Office, December 2012.

Scale of challenge is underestimated

When the Department of Health introduced the National Programme for IT in the NHS, its scope, vision and complexity was wider and more extensive than any ongoing or planned healthcare IT programme in the world. At the time, it represented the largest single IT investment in the UK to date. One key factor affecting the local deployment of systems was the heterogeneous nature of the NHS. For example, each NHS organisation may occupy single or multiple sites, within modern or older premises, with each having different mixes of functions and specialisations. Also, each NHS organisation may employ different systems, different numbers of systems, and in some instances a number of systems to do the same thing. This meant that local solutions needed to be tailored to each organisation's requirements.[22]

7 Interfaces/Relationships

How many different bodies are involved in delivery?

Where a project is dependent on others to deliver and implement it, project sponsors need to work effectively with external parties and have a clear understanding of what motivates the delivery partner. Decision-makers also need to assess whether the delivery body has the capability and capacity to deliver. The public sector's most common delivery partners are contractors, consultants and devolved bodies such as local authorities and the third sector.

Larger projects are likely to involve several bodies working together towards delivery. As well as the sponsoring body and in-house project team, there may be one or more delivery partners responsible for aspects of the project, or other government bodies with an interest. Interfaces are also likely to exist where deliverables are planned centrally but delivered by regional teams. As work crosses more interfaces, relationship management and communication becomes more important. Sponsoring bodies should have an understanding of the challenges faced in this regard to allow for appropriate planning and governance structures.

Failure to work well with delivery partners is a common problem experienced in less successful projects. Almost two thirds of the 106 reports on major projects published by the NAO in the four years to 2013 have raised concerns about relationship management and commercial and contracting approaches.

22 Comptroller and Auditor General, *Department of Health: The National Programme for IT in the NHS*, Session 2005-06, HC 1173, National Audit Office, June 2006.

Indicators of high impact associated with interfaces/relationships

- Delivery spanning many boundaries (organisational, political, regional) with both external and internal partners.

- Success dependent on factors under the control of delivery partners, rather than the sponsoring body.

- No track record of building and maintaining constructive working relationships.

- Complex system of governance which may hinder decision making and reporting.

- Poor communication channels.

- The project is being financed, managed and/or delivered through private sector bodies who are not under contract to the public sector, as is the case in the energy and water sectors.

What does this mean for the Accounting Officer?

- Projects with complex or high numbers of delivery chains will require more management time by senior officials.

- Very long delivery chains, or projects involving multiple delivery chains are more likely to experience problems that are more difficult to resolve. Some of this might be due to cultural differences.

- Failure to address conflicts between deliverers or disciplines could lead to suboptimal or non-delivery.

What actions can an organisation take to mitigate this?

- Tailor its plans or approaches to engage with parties, encourage buy-in and avoid problems between members of the delivery chain.

- Put in place clear frameworks for parties to operate within.

- Map and communicate responsibilities, remits and dependencies clearly for delivering aspects of the project and its outcomes.

- Develop plans and means to integrate parties and, where appropriate, create an entity which drives to deliver the project and outcomes as one unit.

- Create action plans to mitigate interfaces that could cause difficulties or impede the project.

- Clearly stipulate incentives and sanctions which promote desired behaviours.

Examples

Poor working relationships hinder delivery

During the first two years of the FiReControl contract, the Department for Communities and Local Government had a poor working relationship with its contractors; there was a lack of openness on both sides and an adversarial stance towards problem solving.[23] There was a tendency by both parties to revert to the contract conditions, rather than using a more mature partnering approach. The lack of effective sharing or joint ownership of progress information, and the Department's ineffective governance and performance management of the contract compounded the poor relationship. An independent technical review in early 2009 noted suspicion and distrust on both sides.

New initiatives must be supported by those intended to deliver them

The FiReControl project did not have the support from the outset of those essential to its success – the local Fire and Rescue Services. The Department for Communities and Local Government tried to implement a national control system, without having sufficient mandatory powers and without consulting properly with the Fire and Rescue Services. In 2006, the Communities and Local Government Select Committee concluded that the Fire and Rescue Service's opposition posed the greatest risk to the project's success and warned the Department to engage with them and justify its aims for the project.

Contract variations required due to a lack of clearly defined objectives can cause disputes between parties

A survey conducted by Infrastructure UK and the Institute of Civil Engineers found that a lack of clarity and direction at project inception is a driver of higher outturn costs.[24] Our examination of three BBC major estate projects found that the scope of the first phase of the Broadcasting House refurbishment and construction project in 2006 was not sufficiently defined when the project was approved. A dispute with the developer and over 42 individual contract variations totalling £13.9 million led to the project being delivered a year later than specified. The BBC rebased the project in negotiation with the developer and agreed a fixed cost for the remainder of the work that was £58 million more than the original budget.

23 Comptroller and Auditor General, *The failure of the FiReControl project*, Session 2010–2012, HC 1272, National Audit Office, July 2011.
24 HM Treasury & Infrastructure UK, *Infrastructure Cost Review: Main Report*, 2010, p. 14.

8 Range of disciplines and skills

Are specialist skills required for delivery, and are these available within
the organisation?[25]

This factor is about understanding what resources an organisation will need to deliver its objectives and whether it can deploy the right mix of experience and skills within the team and its leadership. It includes both the adequacy of resources and management of the impact of staff turnover.

Our work repeatedly finds that project teams are not well set up to deliver projects. The common failings are a lack of experience of the subject matter, poor project management capability, weak commercial skills and insufficiently resourced project teams. Without experienced project managers, departments have limited control over project progress: we have identified this as an issue in over half of our reports on major projects.

Our November 2009 report on commercial skills in government identified significant weaknesses across government that had adversely affected the delivery of major projects.[26] The impacts of skill gaps were seen in three key areas: contract management, business acumen and commercial awareness. This continues to be an issue as government reduces staff numbers to meet savings.

Continuity in post of project leaders and key staff is an enabler of project success. It can encourage a long-term perspective in decision-making, and supports a better understanding of the specific challenges of the project. Research on commercial projects suggests a high turnover of project leaders reduces the prospect of project success to just 23 per cent.[27]

Indicators of high impact associated with disciplines and skills

- Requirement for a large number of different disciplines or skills.

- Requirement for specific, specialist skills.

- Potential to strain supply chain capability or capacity.

- Likely to need careful project management.

- High level of staff turnover, frequent change in Senior Responsible Owner (SRO).

- Plan places reliance on external consultants.

25 If the Department does not have sufficient resources it may set up a specialist delivery body or use other ways to fill these gaps.
26 Comptroller and Auditor General, *Commercial skills for complex government projects*, Session 2008-09, HC 962, National Audit Office, November 2009.
27 Merrow, E W, Industrial Megaprojects: Concepts, Strategies and Practices for Success. John Wiley & Sons, 2011.

What does this mean for the Accounting Officer?

- A project should not start where there are insufficient staff numbers, skills cannot be brought together, or where sufficient compensation cannot be achieved by increasing budget, time or additional recruitment.

- Accounting Officer should use knowledge of organisational skill requirements to develop or change training, recruitment or behaviours.

What actions can an organisation take to mitigate this?

- Carry out staff assessment and include plans to address skills gaps and means to assess performance.

- Identify and communicate responsibilities and co-dependencies between those accountable for elements of project success.

- Establish systems to ensure continuity when a staff member leaves.

- Monitor use of consultants and consider whether their skills can be developed in-house.

Examples

High levels of turnover can increase reliance on consultants

The FiReControl project lacked consistent leadership and direction, and was characterised by a high turnover of staff and over-reliance on poorly managed consultants. During the life of the project there were five different SROs, four different project directors and five officers supervising the delivery of the technology. Only two senior managers worked on the project for its duration, one of whom, the project manager, was a consultant. There was no framework to assess consultants' performance until late 2008, despite the fact that consultants and temporary contract staff made up almost half the Department's project team during this period.

Operational team continuity can help mitigate changes in leadership

Good team continuity at an operational level enabled the Department of Health to apply lessons learned from its experience of the Swine Flu pandemic in 2009 when procuring pandemic specific influenza vaccine. The Department brought new commercial skills in to strengthen the team and used a range of experts within the department to provide scientific advice. We found that team continuity, effective project management and an agreed vision of success enabled the project to progress to plan. This meant that it was not affected by changes at the Senior Responsible Owner level during the course of the project.

High staff turnover impedes the management of long-term projects and procurements

Our report on The Cancellation of the West Coast Franchise highlighted organisational changes as a contributory factor to problems in the Intercity West Coast competition. "In 2010, the Department established its current structure. One of the objectives of the change was to provide greater segregation of duties and provide more transparency internally on the Department's work on rail … This was the first major franchise in which these complex arrangements were used. The result in this instance was that no one oversaw the whole refranchising process."

The problems were exacerbated by considerable staff changes, not all of which were in the Department's control:

- Within the Department's leadership team, there had been four permanent secretaries since 2010, and two of its four current directors general had been in post for a year or less.

- A number of senior staff with a role in rail refranchising had left in 2010-11, including the director general previously responsible for rail and the Department's head of procurement.

- As a result of the spending review the number of staff directly working in rail reduced by 20 to 30 per cent (between 50 and 70 staff members) between May 2010 and May 2011. Since January 2011, the Department had increased the number of staff working directly on franchising by 70 per cent (18 staff).[28]

28 Comptroller and Auditor General, *Lessons from cancelling the InterCity West Coast franchise competition*, Session 2012-13, HC 796, National Audit Office, December 2012.

9 Dependencies

Is the work critical to the delivery of objectives elsewhere or dependent upon other projects for its own success?

This factor takes account of work that is critical to the delivery of other projects/wider business as usual (whether in the same programme of work, portfolio, or elsewhere in the business). A dependent project is likely to have a high risk associated with the potential impact elsewhere. This factor also considers the potential impact of other projects on that being assessed by the DECA.

Your project
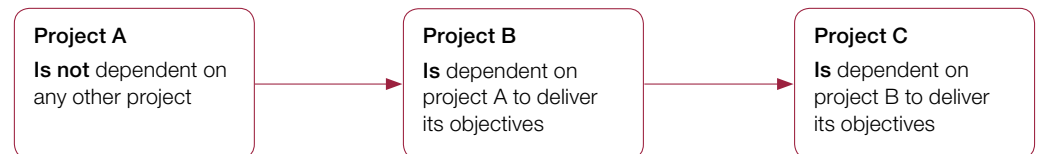
There are two types of risk to the delivery of your project B, in this situation:

1   The risk that project A does not deliver, which affects the outcome of your project.

2   The additional pressure that is put on your project to deliver on time so that project C realises its objectives.

The severity of the impact depends on how essential your project is to the other projects, and in turn how essential those other projects are to the government's objectives. If a project is completely standalone and does not affect any other work, it should be rated as low impact.

Projects don't run in silos or in a vacuum. They run in organised, yet chaotic environments where everyone is working toward the end result. There is nothing wrong with that — it is how organisations achieve multiple results in a short period of time. The key is to manage all these changes and interdependencies. Failure in one project may have wider implications, hence more attention is needed to monitor and manage progress.

Indicators of high impact associated with dependencies

- Business plans elsewhere rely on outputs from this project.

- Project is reliant on or relied on by another project with tight timescales.

- Delivery of the project's objectives are a key part of Departmental business plan.

- The project involves a significant change to business as usual.

- Plan includes use of staff currently assigned to other work.

What does this mean for the Accounting Officer?

- Delays in one project may require changes in those dependent on it, potentially including scheduling conflicts for available resources. Resolution will require strict prioritisation and rules of resource allocation.

- Where there are conflicts involving dependent projects, it may not be clear which should have priority in order to deliver final objectives, so the situation will require careful management.

What actions can an organisation take to mitigate this?

- Ensure staff have effective portfolio and programme management skills.

- Designate a project management office/business committee/unit with responsibility for project delivery.

- Align key project milestones with relevant stages in other projects.

- Use critical path analysis to identify and manage key dependencies.

Examples

Critical dependencies can also be across government

The Department for Work and Pensions (DWP) runs the Universal Credit service, but relies on HM Revenue & Customs to provide the real time information system which, as well as changing the way HMRC administers Pay as You Earn, gives DWP information about claimant earnings.

10 Extent of change

Does the project/work involve a significant change in the way the organisation conducts its work, or is it business as usual?

Although an initiative may be relatively simple from a technical perspective, its impact needs to be considered in the context of its effect on existing working approaches and patterns. Plans which require divergence from the work that the organisation is used to doing and that staff have experience with is high risk. Changes will require the understanding and acceptance of staff at an operational level in order to be effective. Conversely, an initiative which is technically highly complex may be lower risk if it requires little change in established working patterns.

The focus on implementing a project needs to be balanced with sufficient attention to the needs of the organisation and ensuring it can cope with the proposed level of change. The impact of change needs to be understood and managed so that the organisation and staff can cope effectively with it.

Indicators of high impact associated with extent of change

- Delivery represents a fundamental change to the organisation.

- An organisation taking on a completely new way of working of which it has no prior experience.

- The project requires significant structural change, for example to governance arrangements.

- The project requires significant organisational changes to the way staff work.

- Large scale changes are planned, affecting many people or organisations.

- Objectives relate to significant organisational change.

What does this mean for the Accounting Officer?

- Management will only be successful in implementing a new strategic direction if they have buy-in from staff involved in the change and can deal with the associated cultural impacts/resistance.

- A failure to prepare the organisation for change will cause problems during roll-out.

- Planning may need more time, due to the need to consider the implications of undertaking something completely new to the organisation.

- Change can be unsettling, so senior management need to act as a stabilising influence.

What actions can an organisation take to mitigate this?

● Establish strong communication processes that enable all employees to learn about upcoming changes and develop a culture of dialogue between management and the workforce.

● Learn from the experiences of others undergoing change in similar circumstances.

● Deploy experienced change management staff.

● Place greater priority on piloting the changes so as to fully understand their impact.

● Build in extra contingency (both time and cost) to allow learning in response to changes.

Examples

Restructuring

The National Offender Management Service (NOMS) undertook to reduce the cost of its headquarters' functions by 37 per cent in cash terms over the 2010 spending review period. To deliver this saving, NOMS abolished its regional structure and introduced directorates for each function. In parallel, NOMS is seeking to transform offender management through new models for commissioning and delivering services, increasing the involvement of the private and voluntary sectors in both prisons and probation trusts.

We found that the planning and implementation of the restructure followed a number of good practice principles, particularly in respect of governance and risk management. In our 2012 report,[29] we found that the restructure of NOMS' headquarters had been well received by prisons and probation trusts, with the restructured board having clear lines of accountability. We concluded that savings targets had been delivered while undergoing restructuring and that performance was broadly maintained in the face of significant challenges.

Long-term structural change

In 2010, the White Paper, *Equity and excellence: Liberating the NHS* set out the Department of Health's long-term vision for the future of the NHS. To achieve the vision, a number of reforms to the structure and operating of the NHS were proposed, including fundamental changes to the way health and social care services are commissioned and delivered in England.

The proposals require new organisational structures and relationships within the NHS and in the wider Department, for example abolition of Primary Care Trusts and Strategic Health Authorities, and the creation of new Clinical Commissioning Groups and the NHS Commissioning Board, who have responsibility for commissioning. Day-to-day operation of the NHS will be more at arm's-length from the Department, which will principally be responsible for strategic direction.

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29 Comptroller and Auditor General, *The National Offender Management Information System*, Session 2008-09, HC 292, National Audit Office, March 2009.

11 Organisational capability: performance to date

Has the organisation demonstrated the capability and capacity to deliver its objectives? Has it learnt lessons from the past?

Past performance is a good indicator of current capability: the NAO back catalogue has shown the same mistakes in project delivery being made again and again. Is the organisation capable of reflecting on past mistakes/success and learning from them?

Organisations need to consider whether they have the capability and capacity to deliver their planned objectives and they will demonstrate a good understanding of the projects they are taking on. This requires honesty and realism. Factors include organisational culture – are they open to sharing and learning, will they accept mistakes, and how will they respond to incompetence?

Indicators of high impact associated with organisational capability and performance to date

- The organisation has struggled with similar scale/goal projects in the past.

- It has failed to demonstrate an appropriate culture – one which supports effective working with clients and honest reporting of progress.

- The organisation has several resource-intensive projects running concurrently.

- It does not have formalised lessons learned procedures.

What does this mean for the Accounting Officer?

- The organisation's performance may decline in other areas of its business if senior management resources have to be diverted to manage new work.

- The capacity and capability of the organisation should be considered before authorising any new initiatives.

- A culture should be fostered that encourages effective working patterns and builds on lessons learned.

What actions can an organisation take to mitigate this risk?

- Consider seconding in additional resources from elsewhere in government to address critical shortcomings.

- Carry out an honest assessment of organisational capacity to deliver.

- Lessons can be learned from past performance (whether positive or negative).

- Take positive steps to build skills within the organisation.

- Engender a culture of collaboration and openness.

- Ensure that governance structures are clearly mapped.

- Seek out best practice from other similar projects, internally and from other organisations.

- Consider past projects as part of a formal lessons learned exercise.

Examples

One third of NAO reports refer to skills gaps in government

In our 2011 report, *Identifying and meeting central government's skills requirements*,[30] we found that one third of the 184 reports published between 2008 and 2011 referred to skills gaps in government. We identified four common areas where skill shortages can have an adverse impact:

- risks to financial management;

- risks to achievement of objectives;

- risks to quality of service; and

- risks to future capability.

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30 Comptroller and Auditor General, *Identifying and meeting central government's skills requirements*, Session 2010–2012, HC 1276, National Audit Office, July 2011.
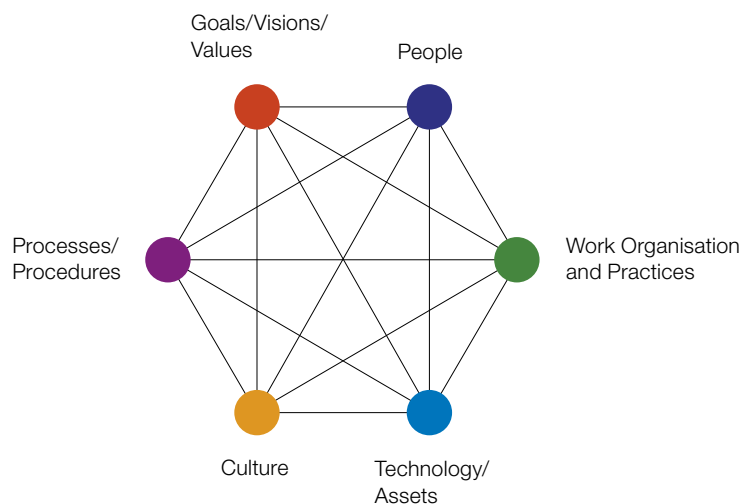
12 Interconnectedness

How well does the organisation understand the links between the elements in its external environment, the complexity and its own capability?

The factors in the DECA cannot be viewed in isolation: each will impact on the others in some way. Organisations need to understand the relationships between these elements, which can also be viewed as the relationships between policy, culture, practices, technology, people, processes and procedures.

This factor looks at how well the organisation functions. The people, culture, goals, governance, technologies and infrastructure are all part of an interdependent and interacting system and therefore need to be understood, designed and improved as a system.

A well-functioning organisation will understand this; it will have taken time to investigate the relationships, and captured and communicated this.

The concept of interconnectedness originates from the University of Leeds research into socio-technical systems, which was developed into a model showing how policy, culture, practices, technology, people, processes and procedures interact.

Indicators of high impact associated with interconnectedness

- The organisation considers its risk in isolation, without considering the likely risks to other areas of the business of a risk maturing.

- Completion of the DECA indicated a high level of interconnectedness between factors.

- There is no systematic attempt to understand the relationships and alignment between policy, culture, practices, technology, people, processes and procedures.

What does this mean for the Accounting Officer?

- There is potential for internal conflicts that adversely affect successful delivery.

- The full impact of identified risks may not be understood.

What actions can mitigate this?

- Ensure the risk register explores the links between different parts of the business.

- Map the interconnected and interdependent aspects of the operational system.

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