

A Social Innovation Investment Appraisal Method and Tool

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Abstract

This paper describes a methodology, and its implementation in a tool, that is designed to make it easier to produce an investment appraisal and business case for projects with social outcomes and longer-term benefits external to the primary project initiator. This meets a need common to innovative public and charity sector projects which typically focus on a wide range of outcomes that extend beyond financial return on investment. It was designed specifically to support ICT-enabled innovation in social services to disadvantaged groups, but has more general applicability.

The approach brings together established public sector methods for business case development, emerging concepts such as public value and social return on investment, principles of multi-criteria decision making analysis, innovative methods for commercial investment appraisal and approaches for project evaluation employing the theory of change. The method comprises a number of steps that progressively build up the analysis necessary to support a management choice between alternative solutions to a defined problem.

An interactive tool, now available as a web-based application, was built alongside the development of the methodology. It was developed iteratively with field testing on UK local government projects and now offers a unique means of conducting project evaluations and appraisals in the non-commercial sectors, simplifying and standardizing the process, based on current best practice.

The method represents a shift in paradigm for public sector investment appraisal, from that of a sterile drafting exercise to an interactive and engaging management decision process reflecting a comprehensive stakeholder value perspective.

Introduction

This paper describes a methodology, and its implementation in a tool, that is designed to make it easier to produce an investment appraisal and business case for projects with social outcomes and longer-term benefits external to the primary project initiator. This meets a need common to innovative public and charity sector projects which typically focus on a wide range of outcomes that extend beyond financial return on investment. It was designed specifically to support ICT-enabled innovation in social services to disadvantaged groups, but has more general applicability.

The Social and Economic Business Case Method and Tool described in this paper helps produce a concise case to inform the initial decision about a project — to answer “is this worth doing?” — and provide the business justification for doing it. It is sufficient to provide the strategic case for change for most projects, but for smaller or simpler projects within public organisations it provides enough analysis to support a robust investment decision.

The method and tool were developed between 2009 and 2011 by the government-funded Delivery Innovation Team (DIT) based at the City of London local authority. It combined a number of established and emerging approaches to investment appraisal and decision-making:

- the HM Treasury (the UK finance ministry) guidance on economic appraisal and business case development (the “Green Book”)
- the HM Treasury Five Case Model for development of business cases, and other published guides and templates for public sector business cases
- contemporary thinking on predictive social return on investment (SROI) and public value
- a proprietary methodology for investment appraisal of commercial innovations consistent with multi criteria decision making analysis used in the public sector.

The approach embodied in the tool and its recommended practical application, also reflects the principles of the theory of change¹ and some conclusions latterly articulated by Ormerod (2012) regarding the unpredictability of outcomes, the impact of the personal knowledge of decision-makers, and the significance of assessing what can be assumed about stakeholders. Key relevant features include an interactive stage for key decision-makers, a tight focus on a specific problem, desired outcomes and measures, the use of a relative, ordinal-scale technique for initial option comparison, and a rigorous assessment of the impact on stakeholders.

The tool is now available online and licensed for use on non-commercial projects.

¹ See for example www.theoryofchange.org and <https://www.gov.uk/government/publications/the-magenta-book> p57

In this paper descriptions of the tool apply equally to the method and vice versa.

The Challenge and Solution — Summary

The DIT was set up in 2006 and ran a programme for five years to investigate how information and communication technologies (ICT) could be used to improve the lives and life chances of disadvantaged groups of people and the communities in which they live, working in partnership with local public bodies and charities. In contrast to traditional approaches which tend to focus on equipping ‘excluded’ groups with technology the starting point was always a clearly defined social issue or need. To address these needs the DIT designed and developed, through practical experience, a comprehensive social innovation process (now available at www.esd.org.uk/innovationtoolkit). The process was applied to a range of significant public service problems, each application being owned and led by a local public body.

In each case, stimulated by the diverse perspectives of multiple stakeholders (including users) and combined with the ‘disruptive’ influence that technology can have, the process generated a large number of ideas for projects. These were progressively reduced in number to a shortlist of two to five against transparent and agreed success criteria selected in advance of idea generation. It was then a matter for the managers of the local public body that would be investing time and money in the project’s delivery to decide which initiative to pursue. The decision was supported by the DIT’s commissioning of business cases² for the strongest candidates.

It became clear that there was no method available to support the investment appraisal, management choice and business case development in such circumstances where there were many stakeholders with differing perceptions of value, often unquantifiable. In a competition for scarce resources, projects of this nature were at a disadvantage relative to those which demonstrated clear financial savings to the investing organisation, and in practice the majority of financial decision processes in local public bodies were limited to a focus on such savings.

As Irani and Love (2001) point out, “investment proposals are classified and prioritised under appropriate headings; cost reductions, equipment replacement, competitive advantage, etc” and this serves further to exclude projects with more diverse benefits. They go on to report the observation that “many managers view project appraisal as a financial hurdle that has to be overcome and not as a technique for evaluating the project’s worth. This has significant implications during the preparation of a project’s proposal, where managers spend much time and effort investigating its technical aspects and thus become committed to the belief that the project is essential”. This distorts behaviour, creating risk to implementation or benefit realization, and neatly sums up the situation found by the DIT.

There was no evidence found in this sector of practice or methodology that went beyond the traditional financial assessment of a public sector business

² A business case is the document that pulls together all the information necessary to support an investment decision.

case that looks solely at internal financial costs and benefits. The DIT innovation process required the explicit inclusion and valuation of non-financial factors and external burdens and benefits, in order to embrace the value of the change that the project causes to others outside the range of internal accounts.

By a process of research, discovery, experiment, iteration and refinement, the DIT developed such a method and embedded it in an interactive decision-support tool, now included within the innovation toolkit and available as an online application at www.esd-toolkit.org.uk and also as a stand alone application.

Method Structure & Use

The method is based on the in HM Treasury's model and guidance on developing public sector business cases. There are three Phases to developing the business case using the method.

- Phase 1 establishes the strategic and economic arguments for a deliverable project. It assesses how compelling the proposed project is, in relation to solving a specified problem, before getting into detailed analytical work
- Phase 2 briefly covers risk, dependencies, and project planning to the level necessary at this stage of the business case development
- Phase 3 completes the case development, addressing the quantification of costs and benefits (economic case), and the affordability of the project to the investing body (financial case).

The tool helps to make the development of a business case an interactive and inclusive management decision process as opposed to an isolated drafting exercise, adding value to the investing organisation and improving the likelihood of project success by embodying principles from the theory of change³. It is thus designed to be used by a facilitator working with key stakeholders in the problem and solution, notably the problem/project owner and the managers of the services affected. It can also be used effectively by a facilitator with just the project owner, but that loses the benefit of diverse viewpoints, wider knowledge, and stakeholder buy-in, so a later step to validate the output with stakeholders is likely to be necessary. The role of the facilitator is particularly important to avoiding the potential distortions highlighted early. A facilitator ideally sits outside the immediate project team structure and has no stake in the delivery of the project or its outcomes.

The tool provides prompts and checklists to ease and speed up the process of creating business cases. The outputs are designed to promote a robust analysis and discussion of the relative merits of alternative options to achieving clearly stated aims and objectives. It is also designed to get to a clear strategic case for the project in a short amount of time, to support an early milestone decision to proceed to a more detailed financial case. In this respect it is designed to provide all stakeholders clarity on the fundamental foundations of the project, before committing any more time or resource to more detailed appraisal and options analysis.

³ op cit

It is important that the key stakeholders who are impacted by the business case, and/or are vital to project delivery, are encouraged to actively participate in the process. This includes attending the facilitated workshops, seeing and commenting on drafts, agreeing the final business case and validating the costs and benefits associated with them.

Background

Public Sector Projects and Business Cases

Bannister (2001) argues that there is a considerable difference between the commercial sector and the public sector in their perception of value and benefits arising from a project, caused primarily by fundamental differences in motivation and complexity. Non-material wealth creation is central to the public sector mission; public sector decisions tend to have many more stakeholders, and the citizen as user of public services is in a completely different position (and judge of value) to a customer of a commercial service.

He postulates that this poor formulation of “value” is one cause of the frequently cited “failure” of public sector IT projects. There have been several studies of why public sector IT projects fail⁴, that have tended in contrast to cite a number of other reasons for failure, at the implementation stage. These reasons have subsequently been embodied in the government’s best practice guidance on managing major projects⁵, which includes a checklist of necessary (but not sufficient) preconditions for successful project delivery.

Subsequently, thinking on “public value” was developed, notably by Kelly et al (2002), as a broader, more appropriate means of measuring the value of a public investment or policy initiative. Codagnone and Undheim (2008) summarise well its approach to measurement: “the public value concept strongly prioritises the needs and interest of the constituencies, including their participation and engagement. Hence, it implies a ‘softening’ of methods and data; it mostly relies on qualitative metrics and accepts a fair degree of subjectivity”.

These two dimensions, public value and preconditions for successful project delivery, were seldom observed by the DIT in public sector project appraisal and decision making, but are crucial to choosing between innovations to implement. This did not appear to be due to a lack of existing guidance. HM Treasury’s Green Book – the Guide to Appraisal in Central Government⁶ is indeed comprehensive on the appraisal of value for money. However, its title, size, and depth of detail were by all accounts off-putting to all but experienced policy civil servants and government economists.

Likewise, HM Treasury guidance on business case development ‘using the Five Case Model’⁷, while more easily understood and adopted, was little

⁴ See for example www.parliament.uk/briefing-papers/POST-PN-200.pdf

⁵ Now at

http://webarchive.nationalarchives.gov.uk/20100503135839/ogc.gov.uk/resource_toolkit.asp

⁶ See <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

⁷ See <https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-government>

known outside major government departments. This lack of knowledge is unfortunate as the guidance highlights both a staged development of a business case in line with the scale and lifecycle of a project, and a five-part structure for it — two frameworks that are valuable aids to developing appropriate and well-structured cases.

The model says a business case should have 5 sections:

- The Strategic Case (focusing on rationale for the proposal)
- The Economic Case (Public Value/ Value for Money)
- The Commercial Case (Commercial viability)
- The Financial Case (Affordability)
- The Management Case (Programme and project management arrangements).

It also sets out the several iterations that a business case must go through to reflect the development stage of the proposal: Strategic Outline Plan, Strategic Outline Case, Outline Business Case, and Full Business Case.

Despite there being a number of templates for business case development provided by central support bodies in the public sector, active management decision-making supported by robust project appraisal to lay the foundation for successful project delivery was seldom observed except for the largest public investments. Implementation would also be made challenging by the widely-reported lack of project and programme management skills in the public sector at the time.

Concepts in evaluating ICT investment cases

Renkema & Berghout (1997) introduce the concept of *consequences* of an IT project, that is in fact applicable to any change not just IT-related. They stress the importance of considering both financial and non-financial consequences to arrive at the overall value. They introduce the complementary terms *benefits* (positive consequences) and *sacrifices* (negative consequences) in a manner usable in evaluation and thus business cases. This provides a structure to help achieve an equal emphasis on negative effects as positive ones (to which there is often a natural bias in case development).

Braaksma, Commandeur & Berghout (2006) describe an evaluation method for ICT business cases in a non-profit context, highlighting the differences in the approach appropriate for this as opposed to a profit context. They describe a value framework that gives a structure for the components of public value that might enable the derivation of a set of factors to score, and thus compare, alternative options for action. In relation to public services, the framework leads to considering three elements of value:

- **Service user value** with respect to their needs and wants (Braaksma et al categorise this as Service within the framework).
- **Service provider value** such as efficiency, meeting targets, performance management, strategic fit (the match to main aims and objectives), or positive correlation with other projects in the provider's portfolio (Braaksma et al: Foundational, Internal, Policy categories).

- **External value** such as benefits elsewhere and in the future, public image, fit with local development strategy, national policy alignment, or environmental impact (Braaksma et al: Democratic, External categories).

They recast *sacrifices* as *burdens* and say “Ultimately, the benefits and burdens will flow to the stakeholders” — so the value of a project to a stakeholder will be a balance between the benefit and the burden experienced — and that “public value creation is based on an extensive stakeholder analysis”. Consequently, a key source of input to the business case is a thorough stakeholder analysis, and a valuation of their view of the benefit and burden arising from the project.

This conclusion is reflected in later work on Social Return on Investment (SROI), notably by the New Economics Foundation (nef) (2008). This states that “stakeholders are central” to an SROI analysis and that “understanding how organisations create value for their stakeholders is an important part of understanding the potential SROI of an investment”. It categorises stakeholders as direct beneficiaries, indirect beneficiaries (including for example the wider community or the State), those involved in the project and those affected by it, even peripherally.

Foley (2005) considers in more detail the value of public sector projects from the citizen, or public, perspective. He gives useful categories and component lists that contribute to value, that might form checklist or stimuli in assessing value to stakeholders. He introduces the concept of the public sector scorecard as a performance measurement and management framework specifically designed for the public and voluntary sectors (based on the balanced scorecard of Kaplan and Norton 1992).

Ormerod (2012) reflects extensively on the reality of decision making in organisations drawing on research into behavioural economics, concluding that an “optimal” decision is neither feasible nor indeed a useful concept. He quotes John Maynard Keynes as saying “we have, as a rule, only the vaguest idea of any but the most direct consequences of our acts... how do we manage in such circumstances to behave in a manner which saves our faces as rational economic men?”

The approach of the methodology builds on all the prior work but accepts Ormerod’s reality in a number of ways, not least in the recommended practical use in which the managers most knowledgeable about the problem area and committed to its solution are collectively engaged in the decision, but also in the approach of forcing consideration of the impact on (and hence likely reaction of) all affected stakeholders. Its aim is to arrive at a decision that has a good chance of successful implementation and positive outcomes.

From drafting exercises to active management decisions

The requirement for a public value-based investment appraisal methodology is thus to bring all these elements together, but in a manner that enables a real-time decision on a course of action to be made by managers responsible for the investment — recognising Ormerod’s point that neither in advance nor after the event can any decision be certain to be optimal, nor exact outcomes foreseeable. An approach to meeting this requirement was found in an interactive technique for investment appraisal of commercial propositions by

venture capital investors: the Automated Concept Evaluator (ACE), the intellectual property of Innovationlaunch Limited⁸. This provides:

- a challenging process to narrow down the problem to be addressed by the proposed investment
- a rapid initial and interactive assessment of proposed course of action against alternatives
- an assessment of “compellingness” against two dimensions with key strengths, weaknesses and differences between options presented in a visual format
- further stages to expand on financial, implementation and risk management aspects of a business case.

A key factor in ACE is that benefits and burdens as experienced by the target beneficiaries are specific to the problem and comparative between options as opposed to absolute. Relative scoring using an ordinal scale against impacts and success criteria, as opposed to seeking hard or impossible to determine absolute measures, enables quick and interactive comparative assessment.

Nothing similar to ACE could be found in the public sector. Perhaps the nearest is the "Scorecard" on the NHS National Innovation Centre (NIC) site⁹ which is a high level qualitative assessment of concept, value and viability of medical innovations using 46 questions. It gives a choice of automated or manual assessment. It evaluates whether something is a good idea or not: almost a preliminary to ACE as it requires less detail or critical thought.

The method

To adapt ACE to the public sector context required changing the dimensions of the assessment from market-orientated (product uniqueness and market size/share) to public value and achievability — judged from the previous work described above to be the crucial criteria for selecting projects in a public service context. The components assessing value, deliverability and risk were also adapted to suit the context, while preserving the phased step-by-step approach of ACE. The resulting method comprised three phases covering between four and seven steps each. These are summarized below; for further detail see Annex 1, and also the document giving guidance for those acting as facilitators of the method and the use in practice of the tool¹⁰ from which much of this description is sourced.

Phase 1 Step 1: Project Definition – define the problem to be solved, the strategic context, the success measures that show the problem is solved, the proposed project and alternative options for solutions, and the evidence and rationale for these choices.

Phase 1 Step 2: Stakeholder Identification – list all of the stakeholders in the problem and all of the alternative solutions.

⁸ See www.innovationlaunch.com and US Patent reference US2005240511

⁹ See <http://scorecard.nic.nhs.uk/login.aspx>; registration required

¹⁰ See <http://www.esd.org.uk/esdtoolkit/Documents.ashx?doc=3507&agency=573>

Phase 1 Step 3: Benefits and Burdens Analysis – identify the benefits and burdens of all the services or products created by the proposed project and alternatives, and Do Nothing, for each stakeholder, assessing the scale of the impact on the stakeholder in question of each alternative course of action.

Phase 1 Step 4: Effectiveness – assess how well each option does in delivering against the chosen success criterion from the Problem Definition stage.

Phase 1 Step 5: Achievability – assess the chances of actually succeeding in delivering each of the alternative projects.

Phase 1 Step 6: Options Comparison Summary – at the end of Step 5, four charts are available for review, which compare the proposed project against the alternatives.

Phase 1 Step 7: Options Analysis Narrative – the creation of a narrative concludes the first Phase and should provide a clear and robust summary of all the thinking that has gone into the options analysis during the decision-making discussion.

Phase 2 Step 1: Define Scope of Business Case – collect the information about the intended analysis: the evaluation period, start date, and test discount rate, and identify funding sources and participating organisations.

Phase 2 Step 2: High Level Project Plan – set out the range and sequence of activities to be carried out in implementing the proposal.

Phase 2 Step 3: Project Risk and Dependency Analysis – focus on the high-level business and operational risks to the project and resulting service, and the critical dependencies for the project.

Phase 2 Step 4: Stakeholder Analysis – a summary of whether benefits or burdens have been identified for each stakeholder

Phase 3 Step 1: Project Costs – drive out the full costs of doing the project, both one-off and continuing into the future.

Phase 3 Step 2: Quantify Benefits and Burdens – set actual numbers against the benefits and burdens identified in Phase 1.

Phase 3 Step 3: Quantify Additional Economic and Social Effects – include benefits that are broader and potentially more longer term than those previously accounted for.

Phase 3 Step 4: Summary Strategic Outline Business Case – this final step creates an executive summary of the case, building on all the previous steps.

Use of the method and tool

To achieve best overall outcomes for the project overall, not just case development and decision making, the method and its associated tool are designed to be used by a facilitator working with key stakeholders in the problem and solution, notably the problem/project owner. It can also be used effectively by a facilitator with just the project owner, but that loses the benefit of diverse viewpoints, wider knowledge, and stakeholder buy-in, so a later step to validate the output with stakeholders is likely to be necessary.

It is important that the key stakeholders who are impacted by the business case, and/or are vital to project delivery, see drafts, are able to comment, can agree the final business case and are able to validate the costs and benefits associated with them.

In practice, Phase 1 is best completed in an interactive meeting of 3 – 5 of the main stakeholders, including the owner, led by the facilitator. The information requirements of this phase are deliberately light to avoid distraction on unnecessary detail and to allow complete focus on the high level case for the project. Phase 2 benefits from some conversations with specific stakeholders, on risk and project planning for example, but could be treated in correspondence. Some background work and desk research is then likely to be necessary to assemble the detailed figures for Phase 3.

The assumption is that there has been a prior process (such as the DIT innovation process) to arrive at a shortlist of candidate projects to which to apply the method.

Testing, validation and examples

The method and tool were developed in parallel, iteratively. The development followed repeated cycles of design, prototyping, field testing, modification, retesting and further enhancement. Phase 1 took the most significant effort, being the most original element and most in need of calibration of built-in lists and parameters. Projects on which to test it were drawn mainly from contemporary programmes of ICT-related initiatives in the local government sector.

The method was subsequently applied to active decision making in DIT's project portfolio. On the closure of the DIT programme and release of the tool for public use, a number of example studies of its use were published and can be found at <http://www.esd.org.uk/esdtoolkit/publications.aspx#BusinessCase>.

Supporting material and data

The tool contains a taxonomy of potential benefits and beneficiaries of socially-orientated innovation projects, used in drop-down lists as prompts to ease its use. The taxonomy is based on a research project the DIT with Tech4i2 Ltd undertook in 2010 to identify the key benefits and beneficiaries of social innovation projects, which use technology. A research report, Delivery Innovation Team (2010), was produced presenting a benefits-beneficiary framework common to the hundreds of projects it was validated against.

To support Phase 3 Step 3, there is a built-in table of example economic costs, based on research commissioned for the purpose by the DIT, Sorrell (2011).

All DIT materials and tools are hosted for public sector use on the Local Government Association's esd-toolkit, at www.esd.org.uk/innovationtoolkit, including the Social and Economic Business Case Tool described in this paper.

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Share-alike licence. Most of the tools built by the DIT have similar licences for open use, but specific terms and conditions apply to some, such as the Business Case Tool, and these are embedded in the tools.

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References

- Bannister F (2001), Citizen Centricity: A Model of IS Value In Public Administration, *The Electronic Journal of Information Systems Evaluation*, Volume 5 Issue 2
- Braaksma J, Commandeur A & Berghout EW (2006), The Business Case for ICT Investment Evaluation in Nonprofit Organisations, *Sprouts: Working Papers on Information Systems* Volume 6 Article 60 (<http://sprouts.aisnet.org/6-60/>)
- Codagnone C and Undheim TA (2008), Benchmarking eGovernment: tools, theory, and practice, *European Journal of ePractice* N° 4 (www.epracticejournal.eu)
- Delivery Innovation Team and Tech4i2 Ltd (2010), *A Benefits Framework for Social Inclusion Initiatives*, City of London (<http://www.esd.org.uk/esdtoolkit/Documents.ashx?doc=ESD03338g&agency=573>)
- Foley P (2005), *Evaluating eGovernment: Identifying non-financial benefits – A project funded by the Organisation for Economic Co-Operation and Development undertaken by De Montfort University*
- Irani Z and Love PED (2001), Developing a frame of reference for ex-ante IT/IS investment evaluation, *European Journal of Information Systems*
- Kaplan R and D Norton (1992), The balanced scorecard: measures that drive performance, *Harvard Business Review* 70, 1 71-79
- Kelly G, Mulgan G, & Muers S (2002). *Creating Public Value: An analytical framework for public service reform*, Strategy Unit, UK Cabinet Office
- New Economics Foundation (nef) (2008) *Measuring Value: a guide to Social Return on Investment to SROI* (http://www.sroi-uk.org/publications-uk/doc_details/42-nef-measuring-value)
- Ormerod P (2012), *Positive Linking — How Networks Can Revolutionise the World*, Faber and Faber

Renkema TJW and Berghout EW (1997), Methodologies for information-systems investment evaluation at the proposal stage—a comparative review, *Information and Software Technology* 39(1), 1–13.

Sorrel D (2011), *Unit economic social costs examples research*, for City of London Delivery Innovation Team

<http://www.esd.org.uk/EsdEconomicCostsAndBenefits/List.aspx>

Annex 1 – The Method: Detail of Steps

Phase 1 Step 1: Project Definition

This step defines the problem to be solved, the strategic context, the measures that show the problem is solved, the proposed project and alternative options for solutions, and the evidence and rationale for these choices. It is in two parts: problem definition and project definition. When complete, this is a concise summing up of the proposition and has enduring value in communications about the project. Experience has shown that this is the most exhausting but valuable stage, as it is continually surprising how frequently an apparently well thought through proposal contains inconsistencies or vague elements. Prompting questions drive towards narrowing down to specifics, which enable the construction of a robust and well-defined case — and flushes out inconsistencies — through being able to show a clear linkage between intervention and outcome. The problem definition must be completely independent of the solution being proposed and the indicators of success must be outcome measures that relate to solving the problem, not success in relation to the proposed project.

Phase 1 Step 2: Stakeholder Identification

At the heart of the assessment of public value lies an assessment of the impact on stakeholders and thus early identification of stakeholders forms the foundation for the method. The process of driving out benefits and burdens, particularly in relation to projects with social outcomes, is done by taking the perspective of each stakeholder, one by one, on the impact on them of the problem and the solutions. Stakeholders are identified both as individuals (e.g. Head of Children's services"), groups of individuals (e.g. "looked after children") and as organisations/systems (e.g. "criminal justice system"). Each will be either or both benefitted or burdened, possibly in a number of ways that are explicitly identified.

This step lists all of the stakeholders in the problem and all of the alternative solutions. To help, the tool provides a pictorial model of stakeholder categories (see Figure 1), with each category having a suggested list of potential stakeholders, accessed via a drop down list based on a taxonomy (see Annex 2, and section on Supporting Materials and Data for source). The stakeholder list does not include those solely involved in a project itself (so not the funder of the project or the project team) — as it is assumed that they will just be doing their day job as without a personal stake in the problem or its solution.

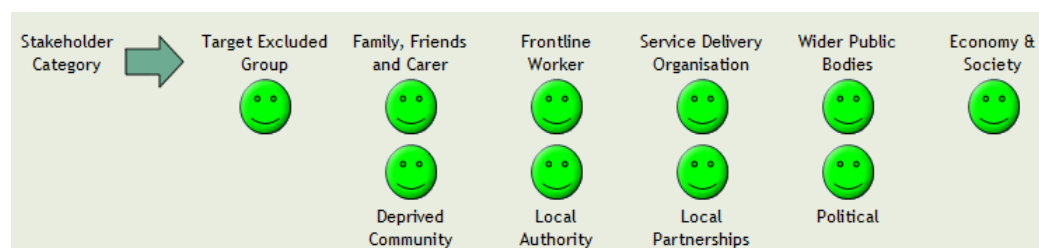


Figure 1

Phase 1 Step 3: Benefits and Burdens Analysis

This step has two important parts that aim to identify the benefits and burdens of all the services or products created by the proposed project and alternatives, and Do Nothing. First, for each stakeholder, the full range of possible benefits and burdens arising from the possible interventions are identified, aided by a benefits taxonomy (see Delivery Innovation Team (2010) and Annex 3). Then, weighting can be applied if required to differentiate the significance of the benefits and burdens. Secondly, a relative scoring process works through each benefit and burden assessing the scale of its impact on the stakeholder in question of each alternative course of action. This is done using a relative, ordinal (zero to five) scale for speed and ease.

Phase 1 Step 4: Effectiveness

This step assesses how well each option does in delivering against the chosen success criterion from the Problem Definition stage. Criteria can be weighted: the default option is for all indicators to be weighted equally. However if it is clear that some indicators are more important than others then the weights can be adjusted accordingly. The final analysis of the relative compellingness of the alternative options is quite robust to the choice of weights here, but the identification of the relative strengths and weaknesses of the options is dependent on the weighting of importance of the outcomes.

The scoring of the effectiveness of each alternative is again a relative scale, reflecting the assessment of whether the options will do better or worse than each other in achieving the particular outcome. Overall scores are normalised.

Phase 1 Step 5: Achievability

This step assesses the chances of actually succeeding in delivering each of the alternative projects. The criteria are preset and are widely used indicators of success for a project, derived from government analyses of why projects fail and such sources as the Office of Government Commerce's Successful Delivery Toolkit¹¹.

Again there is the opportunity to assign weights to the criteria. The first two criteria (there is a pervasive enthusiasm for change and someone with authority is ready to lead that change) relate to solving the problem so are allocated common scores (and have a default top weight) for all candidate projects. Do Nothing scores the complement of the common score of the candidates. The other criteria are:

- Strategic & policy fit
- People to deliver project
- Money available
- Feasible process change
- Enough time
- Fit with current ICT

¹¹ Now at http://webarchive.nationalarchives.gov.uk/20100503135839/ogc.gov.uk/resource_toolkit.asp

- Products & services available
- Receptive stakeholders

As with Effectiveness, each is scored for each option on the relative scale and scores normalised. The tool has built-in guidance to help scoring.

Phase 1 Step 6: Options Comparison Summary

At the end of Step 5, four charts are available for review, which compare the proposed project against the alternatives. The first chart is an overall summary, and essentially a composite of the other three charts. It illustrates Compellingness against Achievability for all the options (see Figure 2). Compellingness is a summary score calculated from individual Benefit, Burden and Effectiveness scores¹² and is a number between +100 and -100. The other charts plot Effectiveness vs Achievability, Benefit vs Burden, and Benefit vs Achievability.

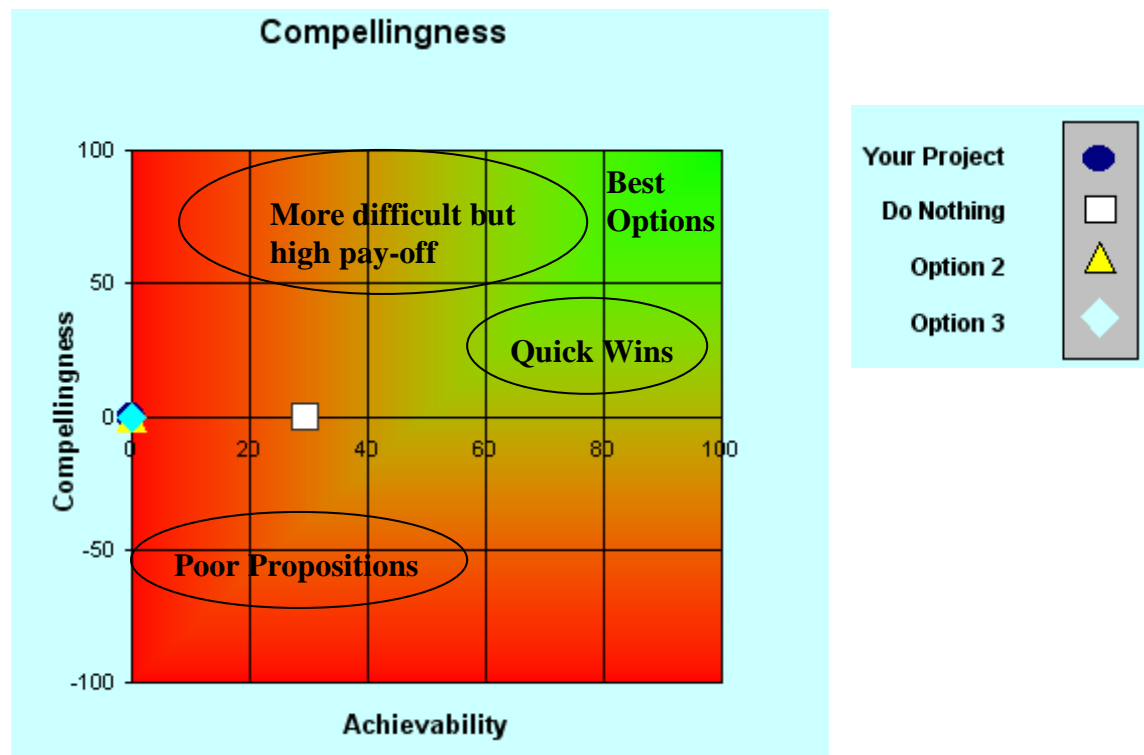


Figure 2

A final table provides a simple Strengths–Weaknesses–Opportunities analysis of the proposed project against the *Effectiveness* indicators and also the *Achievability* criteria (see Figure 3).

- Weaknesses are areas where the project scores poorly relative to other options, on important criteria. These are areas that should be considered for a change of scope or approach to strengthen the project.

¹² Compellingness is the average Impact (Average of Benefit and Effectiveness scores) from which the burden score is subtracted.

- Strengths are areas where the project scores particularly highly relative to other options, on important criteria. These are key selling points to convince stakeholder of the value of the project.
- Opportunities are areas where none of the options score particularly well on important criteria, or areas of high importance where there might be high payoff in strengthening the proposed project.

Opportunities	Strengths/ Weaknesses	
15	0	Indicator 1
15	0	Indicator 2
15	0	Indicator 3
15	0	Indicator 4
15	0	Indicator 5
0	-25	Sense of Urgency
0	-25	Committed leadership
15	0	Strategic & policy fit
15	0	People to deliver project
15	0	Money available
15	0	Feasible process change
15	0	Enough time
15	0	Fit with current ICT
15	0	Products & services available
15	0	Receptive stakeholders

Figure 3

These charts and the table provide a visual and stimulating starting point for a discussion between the decision makers about the relative options. The discussion at this stage may well lead to revision of the thinking about the project and options, and that is the unique value and purpose of the method and its interactive usage by decision makers. The tool allows real-time reworking of the analysis to reflect changes in approach, before settling on a conclusion. This happens before detailed work on quantitative analysis takes place, unlike traditional approaches to business cases.

Phase 1 Step 7: Options Analysis Narrative

The creation of a narrative concludes the first Phase and should provide a clear and robust summary of all the thinking that has gone into the options analysis during the decision-making discussion. All the graphs, scores and charts should enable a simple narrative to be developed which answers the questions:

- Is the project more effective at delivering against the indicators of success than the other options? In what way?
- Is the project more deliverable than the other options? In what way?
- How do the benefits and burdens compare?
- Overall how compelling is the proposition?

- What are the weaknesses of the project compared to the alternatives?
- What are the opportunities for strengthening the proposition/ what strong features of the alternative options could be added to the project to make it even more compelling?
- Who are the winners and losers among the stakeholders? Who may be a barrier to delivery and how can the project be made more compelling to them? Who may be a champion for the project? (See Phase 2 Step 4, the output of which is included in the Phase 1 report as well)

At this stage there is also the opportunity to provide an early indication of relative value for money of each of the options — to give a high level view of cost differences between the options to set against their compellingness. The point is to check that no alternative option is just as compelling as the proposal but much cheaper.

At this time there is a milestone decision on how and when to proceed to the next step in either the business case development Phases 2 and 3, or whether or not to proceed with the project, on the basis of the work done so far. Phases 2 and 3 complete the remaining parts needed for this level of business case. Phase 2 covers what Treasury calls the Management Case, and Phase 3 the more detailed cost and benefit (Economic) analysis and the assembly of a financial affordability analysis.

Phase 2 Step 1: Define Scope of Business Case

This step simply collects the information about the intended analysis and uses it to format the input and output tables in the following steps. It covers the evaluation period, start date, and test discount rate, and identifies funding sources and other stakeholder organisations (as opposed to people in the earlier stakeholder analysis).

Phase 2 Step 2: High Level Project Plan

The purpose of this step is to clarify thinking on the range and sequence of activities to be carried out in implementing the proposal, and add to the understanding on the achievability of the project, the role of the actors in it, and the timescales involved. It is better done in a group setting, ideally involving some participants in the project delivery process, and/or people with experience of similar projects.

A high-level breakdown of the typical components of an ICT-enabled business change project is provided in the tool, with a column for each year of the business case evaluation period (divided into quarters). It will inform project costing.

Phase 2 Step 3: Project Risk and Dependency Analysis

The focus needs to be on the high-level business and operational risks to the project and resulting service, as opposed to ones internal to the project. Categories of risks are provided as prompts in a drop-down list, as is a list of the previously identified stakeholders for the risk owner entry. Severity and probability are entered both on a scale from 1 to 5, with 5 being high. These

are in drop-down lists in the tool and each risk is plotted on a graph, highlighting the main ones to give concern.

This step also enables the identification and recording of the critical dependencies for the project — the important external influences. These may well be related to the risks. This step will benefit from a group discussion between the key stakeholders.

Phase 2 Step 4: Stakeholder Analysis

This step uses earlier data. The Stakeholder Analysis table provides a simple summary of whether benefits or burdens have been identified for each stakeholder. It uses this information to highlight the potential attitudes towards the project among the stakeholders identified.

Those for whom the no benefits or burdens have been identified are categorised as potentially 'disinterested' in the project. Those for whom benefits have been identified but no burdens are potential champions and 'enthusiasts' for the project — although it is worth re-checking they aren't burdened in some way by the project. They are highlighted in green. Those stakeholders for whom only burdens have been identified are potential 'resistors' to the project and are highlighted in red. Finally, those stakeholders for whom both benefits and burdens have been identified are potentially 'confused' as to whether the benefit they get from the project outweighs the burden and effort they put into it, and they are also highlighted in red.

This table provides a simple, early analysis for debate, and potentially highlights any potential stakeholder problems at a very early stage.

Phase 3 Step 1: Project Costs

The aim of this stage is to drive out the full costs of doing the project, both one-off and continuing into the future.

The tool provides a taxonomy of prompts to help achieve a comprehensive coverage of costs. In this case it comprises cost categories, each of which is subdivided into cost types. These are provided in drop-down lists, as are the previously entered organisations, to help complete the relevant columns.

Costs are categorised as either “cash-consuming” or “non-cash-consuming”. The first means that there is a specific payment made (e.g. you buy a widget), the second that a resource is consumed that has a monetary cost (e.g. existing staff) but no money changes hands in respect to its consumption by the project.

Finally for each cost, there is a column set up to receive an actual figure for the cost in each financial year for the period over which the project is evaluated. There is no prescription for the degree of accuracy or precision to be applied here: that has to be a local pragmatic decision based on what is judged to be necessary and sufficient and practical in the particular circumstances.

Phase 3 Step 2: Quantify Benefits and Burdens

This is the stage at which actual numbers are set against the benefits and burdens identified in Phase 1. The tool provides a table pre-populated with

stakeholders, benefits and burdens from Phase 1 Step 3: Benefits and Burdens Analysis. Each benefit is then classified according to the Treasury categories:

- Financial: Cash Releasing/ Consuming; direct cash benefits/costs e.g. operating cost reduction, revenue increase etc.
- Financial: Non Cash Releasing/ Consuming; indirect cash benefits/costs e.g. staff time savings which can be quantified financially but don't release or spend cash.
- Non-Financial: Quantifiable; non-financial performance indicators e.g. reduction in number of customer complaints, reduction in road accidents.
- Non-Financial: Non-Quantifiable; softer, more qualitative benefits e.g. staff morale and staff skills.

Example financial data of the sort required to complete this section are available (see section on Supporting Materials and Data).

Phase 3 Step 3: Quantify Additional Economic and Social Effects

This step enables the inclusion of benefits that are broader and potentially more longer term than those previously accounted for. These are benefits that are likely to be more difficult to show exact cause and effect, because it is not possible to disentangle the influence of other initiatives that also contribute to the same goal and also because of the longer period of time over which the benefit is delivered. However, they are also benefits with a clear delivery logic chain and which can be expressed as a plausible fraction or percentage of the client group (see Figure 4).

The fundamental logic chain used to quantify these benefits is as below:

- If one of my client group: e.g. gains employment
- The financial benefit will be: e.g. £12,400
- But the size of my client group is: e.g. 1000
- My project could plausibly support x% in this way: e.g. 1%
- Delivering a total economic benefit of: e.g. £124k

Long Term Macro Economic Benefit Logic Chain						
	If one of my client group ...	The financial benefit will be (in £000s)...	But the size of my client group is ...	My project could plausibly support x% in this way...	Delivering a total economic benefit of...	The source for the baseline economic data is:
	gains employment	£12,400k	1000	1%	£124,000k	The Economic Case for Digital Inclusion, PwC (2009)
1		£0,000k	0	1%	£0,000k	
2		£0,000k	0	1%	£0,000k	
3		£0,000k	0	1%	£0,000k	
4		£0,000k	0	1%	£0,000k	
5		£0,000k	0	1%	£0,000k	
TOTAL BENEFIT					£0,000k	

Figure 4

The tool provides some example unit economic social costs and benefits but generally obtaining these figures requires desk research on a case by case basis.

Phase 3 Step 4: Summary Strategic Outline Business Case

The economic and financial case figures are now calculated (see Figure 5).

Economic Case: 5 years

Total Set Up Cost	<input type="text" value="£1.0k"/> (£1.0k)	Total Financial Benefit	<input type="text" value="£0.0k"/> (£0.0k)
Total Running Cost	<input type="text" value="£0.0k"/> (£0.0k)		
Total Project Cost (incl burdens)	<input type="text" value="£1.0k"/> (£1.0k)		
	<i>(Cash element in Brackets)</i>		
Net Present Cost	<input type="text" value="-£1.0k"/>	Net Present Benefit	<input type="text" value="£0.0k"/>
Net Present Value (NPV)	<input type="text" value="-£1.0k"/>		

Additional Economic Cost and Benefit Information:

The approximate social cost of the problem that this project addresses per year is:

The potential wider economic benefit of this project is:

Financial Case: 5 years

Total Set Up Cost (cash)	<input type="text" value="£0.0k"/>	Total Financial Benefit	<input type="text" value="£0.0k"/>
Total Running Cost (cash)	<input type="text" value="£0.0k"/>		
Total Project Cost (incl burdens)	<input type="text" value="£0.0k"/>		
The estimated current budget per year for current operations to deal with the underlying issue:	<input type="text" value="£0.0k"/>		

Net Cash Requirement per Year

	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
Costs (Cash)	£0k	£0k	£0k	£0k	£0k
Benefits (Cash)	£0k	£0k	£0k	£0k	£0k
Net Cash Requirement	£0k	£0k	£0k	£0k	£0k

Figure 5

The final step then creates an executive summary of the case, building on all the previous steps. The focus at this level of case is on the strategic fit and economic dimensions of the Treasury Five Case Model for which extensive analysis is now available, but all of the other three need to be covered as follows:

- Commercial case – commercial viability
 - assessment of the likely attractiveness of the project to potential service providers, taking into account any potential for private capital funding and/or risk transfer as required.
- Financial case - affordability
 - a statement of the organisation’s financial situation
 - resources available for the project, including assessment of the resource holder’s ability to provide support
 - capital and revenue constraints

- statements of strategic (or in principle) support from the stakeholders.
- Management case – achievability
 - who is involved in the project, both inside and outside of the organisation, including users, commissioners and other key stakeholders
 - achievability of the project, taking into account the organisation's readiness and resources
 - how the project is to be managed
 - other key managerial considerations, including: change management, training, evaluation and timetable
 - nature of further work needed to develop management proposals.

Annex 2 – Stakeholder Taxonomy

Excluded Group	Family Friends and Carer	Deprived Community	Frontline Worker	Local Authority
Addicts and substance abusers Carers Children at risk Disabled Early school leavers Ethnic and cultural minorities Frequent movers Homeless Illiterate (Innumerate) Isolated (lonely) Lesbian, gay, bisexual Low income households Non-English Speakers Offenders Older people People on benefit Poor health Problem families Refugees and asylum seekers Rurally deprived Single parents Truants Unemployed Victims of crime Young disadvantaged	Family Friend Neighbour Unpaid Carer Unpaid Volunteer	Community Groups Resident Associations Housing Estate Youth Groups Charities (non-service providing) Voluntary Group Sheltered Housing Community	Youth Worker Adult Carer Social Worker Health Visitor Ambulance Worker Housing Officer Community Development Worker Teacher/ Trainer Neighbourhood Warden Police Probation Worker Youth Offending Team Connexions Worker Prison Officer Employment Personal Benefits Officer Family Support/ Liaison Officer Fire and Safety Environment Officer Planning Officer Contact Centre Staff Counsellor Mentor Therapist Librarian Nurse GP Pharmacist	Adult Care Services Adult Learning Team Children's Services Communications and PR Contact Centre Economic Development Departments Educational Services Environmental Services Finance Department Health Services Housing Departments HR Department IT Department Performance Management Planning Department Senior Management Team Social Services Transport Department Chief Executive

Service Delivery Organisation	Local Partnerships	Wider Public Bodies	Political	Economy and Society
Public Sector Delivery Organisation Private Sector Delivery Organisation Third Sector Delivery Organisation Academic Sector Delivery Organisation Social Enterprise Delivery Organisation	Business Organisation Community Organisation Fire Service Higher Education Institute JobCentre Plus Learning and Skill Council Primary Care Trust Police Probation Service Housing Association Religious Institution Civil Society Sector	Regional Economic Development Bodies Government Office Central Government Devolved Administrations Council for Voluntary Service Non-Governmental Organisations Non-Departmental Public Body	Councillor Member Cabinet Member Leader of Council Councillor Portfolio Holder MP Minister Euro MP	Local Economy Regional Economy National Economy Society

Annex 3 – Taxonomy of Potential Benefits

These lists of benefits are by no means exhaustive but provided for inspiration and as a prompt for those developing business cases, justifying initiatives and evaluating projects.

Finance	Education and Skills	Health and Care	Housing	Services	Crime and Safety
Save Money/ Reduce Expenditure Make Money/ Generate Revenue Increase in Benefits/ Entitlements Claimed Improve access to cheaper goods and services Free/ Subsidised Internet Access Free/ Subsidised Computers/ Equipment Alleviate Poverty Support Financial Education and Skills Improved access to financial information and debt advice Stimulate Informal economy Improved access to financial services	Enhanced School Results Improved Basic Skills (numeracy, literacy) Improved English Language Skills Enhanced ICT Skills Improved Transferable Skills Qualification(s) gained Progression Participation in Education Activity Enhanced support for special needs Enhanced Support for Teachers Enhanced Support for Trainers Increased Job Satisfaction among Educators	Enhanced health Enhanced mental health Better Prevention of ill health Faster Access to Care Faster access to Treatment and Drugs Improved Social Care Improved support for Independent living Improved satisfaction among patients Improved Effectiveness of Treatment Enhanced support for people with disabilities Improved access to Health information Improved Choice and Convenience Improved Support for those with addictions Improved Support for Health Workers Improved Support for Social Workers Increased Job Satisfaction among health and care workers	Improved Choice in Social Housing Improved Bidding Service Improved Repair and Maintenance Service Enhanced Tenant/Landlord Interaction Tenant Satisfaction Tenant Access to ICT and Support Enhanced Housing Information and Advice Enhanced Support for the Homeless	Increased Choice Increased Availability Increased Usability Increased Personalisation Faster Response Improved Information Improved Communication Improved Satisfaction Improved Employee Satisfaction Improved Reliability and Consistency Improved Security Improved Integration with other services Time Savings Improved Information Sharing Efficiency Gains - personnel Efficiency Gains - resources Efficiency Gains - cost avoidance More Efficient Use of Skills Equality Delivery/ Increased Reach Improved Awareness Improved Capability to Use Service Improved Use of Service Improved Reuse/ Retention Enhanced Involvement and Consultation Improved Transparency Reduced Risk Increased Flexibility Stronger Partnerships Improved Reputation and Trust	Reduction in Crime Reduction in Anti-social Behaviour Reduced Fear of Crime Reduced Re-offending Increased Support for Victims Improved Safety and Security Improved Support for front line workers
Environment	Community	Social Wellbeing	Equality and Empowerment	Employment and Economy	Digital Access and Skills
Increased awareness of carbon footprint Enhanced information and advice Reduction in Carbon Footprint Increased Flexible Working Enhanced Transport Information Increased Shift to Public Transport Improved resilience to environmental risks Improved envirocrime reporting services Improved envirocrime responsiveness Improved access to healthy food	Enhanced Community Cohesion Enhanced Community Participation Increased Volunteering Increased Satisfaction with Community Stronger Community and Voluntary Sector Increased ICT Capacity of Community and Voluntary Sector Enhanced Community Integration	Improved Support for Hobbies and Interests Enhanced Interaction with Family Enhanced Interaction with Friends Enhanced Interaction with Community Improved Happiness and Fulfilment Improved Self-Confidence Enhanced Self-Esteem Increased Social and Support Network Improved Quality of Life Improved Life Skills Increased Independence Improved Vision Improved Hearing Improved Speech Improved Dexterity Improved Understanding and Cognition	Improved participation in community decisions Reduced Isolation Increased feeling of being part of community Improved Accessibility of Services Improved opportunities and life chances Enhanced Self-Expression/ Advocacy Improved Accessibility of ICT Equipment Access to technology via proxy users Enhanced Communication of Information Improved Prioritisation of Services Improved Targeting of Services More inclusive channels of access Improved Take-up of services Improved Speech Equality of public services in rural areas	Enhanced Information Advice and Guidance Enhanced capability to search and apply for work Work Experience Obtain Work/ Increase in employment Commence Self-Employment/ Increase Start-ups Improve Employee ICT Skills Improve ICT Infrastructure Enhancing Local Economic Diversity Enhanced Competition and Competitiveness	Internet Access in the Community Internet Access at Home Current Generation Broadband Access Next Generation Broadband Access Access to a computer Attitudes towards the Internet Reduced Fear of Technology Training and Support Basic ICT Skills Increased Trust in Internet