

Knowledge Box

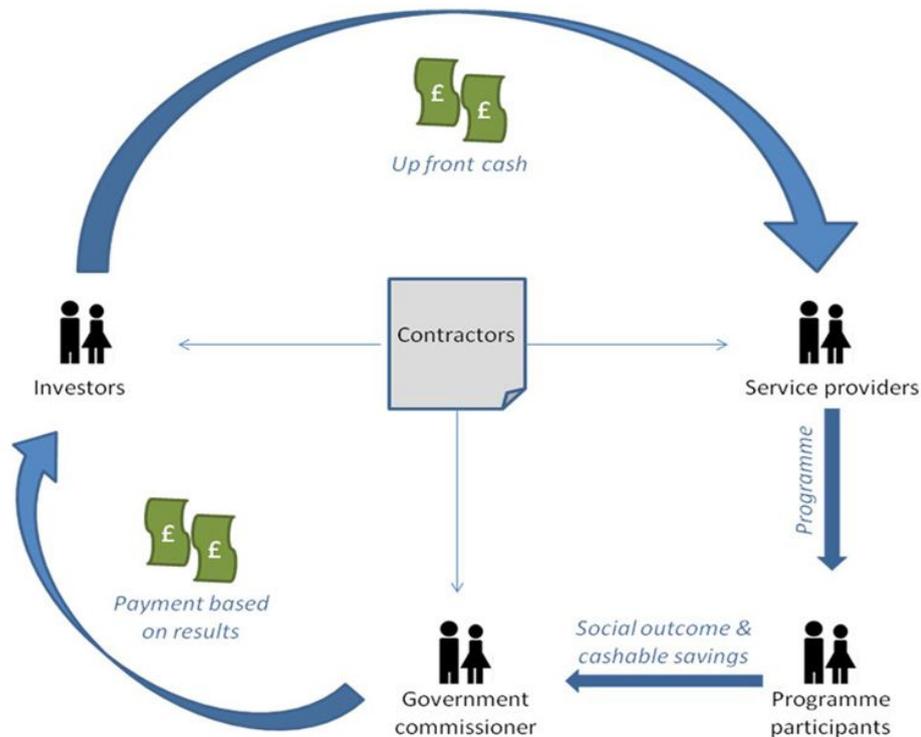
Guidance on developing a Social Impact Bond

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1. What are Social Impact Bonds?

There are a range of entrenched social problems that government has consistently struggled to address, including children in care, homelessness, youth unemployment or long-term health issues. Social Impact Bonds (SIBs) bring together the public, private and voluntary sectors to solve these challenges by having a clear and relentless focus upon delivering the outcomes we want to see. They incentivise service providers to deliver the best possible outcomes by making government funding conditional on achieving results. Service providers receive upfront funding to deliver the project from Social Investors.

There are now more than 30 Social Impact Bonds across the UK, supporting tens of thousands of beneficiaries in areas like youth unemployment, mental health and homelessness.



2. What is Outcomes Based Commissioning?

Outcomes-based commissioning can help governments achieve better results. Traditionally, governments have contracted third-party service providers on a 'fee for service' basis. Under this type of contract, commissioners prescribe and pay for a particular service that they believe will lead to a desired social outcome.

More recently, governments have stated to introduce elements of 'payment by results' (PbR) when commissioning services. PbR seeks to improve the productivity of public service spending by paying only when specific outcomes are achieved by a service provider. In these instances, providers are free to undertake the activities that they think will best deliver the required outcomes.

Payment by results is intended to:

1. Improve service quality by offering higher payments for better performance
2. Improve transparency around spend by specifying how much will be paid for different results
3. Ease pressure on public spending budgets by staggering payments over longer time periods.

Outcomes-based contracting is a subset of payment by results, which involves payments based on social outcomes achieved, rather than broader output measures. SIBs are a tool to help impact-driven providers deliver these 'outcomes contracts', by giving them access to project financing and management support from socially-minded investors.

3. Developing a Social Impact Bond

3.1 Carrying out a pre-feasibility and feasibility assessments

The process of considering a Social Impact Bond begins with a pre-feasibility assessment, which evaluates whether:

- the desired outcome is clear and measurable (eg homelessness)
- the quality of outcomes can improve
- there is a desire to increase evidence of effective programs
- government commissioners are looking to transfer financial risk
- there is a desire to catalyse the market for innovative financing
- a large proportion of savings are cashable or funding is available for this outcome

If the pre-feasibility conditions are in place, further work will be required to test whether a model is feasible. There are two promising approaches to assessing such feasibility. One approach is to undertake a full feasibility study. The purpose of such a study is to consider, in detail, whether it is necessary and possible to establish a Social Impact Bond. This is likely to involve:

- Assessing whether there are promising interventions that could deliver the desired outcome if investment were forthcoming;
- Analysing public sector costs and identifying where savings might be generated by early interventions;
- Developing key criteria for an outcomes-based contract, such as attribution mechanisms;
- Confirming that social investors are required because many or all potentially good providers would be unwilling or unable to enter into the contract at their own risk; and
- Assessing the level of risk transfer to investors, gauging interest from investors and potential rates of return that they may require.

Commissioners should make sure that any perverse incentives - elements of the contract that encourage behaviour that would undermine the overall aims of the project or service – are properly considered and managed.

The Government Outcomes Lab has published a [How-to-Guide](#) on Feasibility Assessments.

3.2 Defining measurable intended outcomes for the project

What is an outcome?

An 'outcome' is a measurable result of a social intervention. In a SIB, the outcome needs to be set relative to a specific population over a defined period of time and against a historical benchmark, average, or trend. An outcome by definition involves making a real improvement in people's lives.

While many programmes are designed to have specific impacts on the populations they serve, government typically measures their performance based on easily defined activities. Measures such as the number of people served or time waiting in line, for example, provide important data for programme management but do little to tell us whether the programme is working. Outcomes, on the other hand, are measures that tell us whether the programme is working. Workforce programmes, for instance, are designed to help people re-enter the workforce and obtain meaningful employment, and as such, the desired outcomes would include employment statistics, pay rates, and retention.

For purposes of measuring success, an outcome needs to be more specific than a typical public policy platitude such as 'reduce poverty' or 'improve school achievement,' both of which are difficult to measure. An outcome in a SIB targeting recidivism, for instance, might seek to reduce the rate of re-offense by at least 10 percent over five years among nonviolent offenders in a certain age group discharged from a given prison or prison system.

Answering the question of what an outcome, should it be achieved, is 'worth' requires considering both objective and subjective metrics. Successful preventive programmes will often result in future government savings. But government budgets are complex, and savings may accrue to budgets in different agencies or at different levels of government. What's more, a much-improved outcome for a population may not generate sufficient near-term savings to cover the cost of delivering the intervention, but governments may nevertheless want to improve outcomes in that group for non-fiduciary reasons. Agencies may want to examine how much other city or state governments pay to provide, for instance, early childhood programmes to at-risk populations and any available data on the effectiveness of those programmes, and then base outcome values in part on that information and in part on anticipated future savings.

Term	Definition	Example
Inputs	What goes in - Public sector resources required to achieve the policy objectives.	Resources used to deliver the policy.
Activities	What happens - What is delivered on behalf of the public sector to the recipient.	Provision of seminars, training events, consultations etc.
Outputs	Immediate results - What the recipient does with the resources, advice/ training received, or intervention relevant to them.	The number of completed training courses.
Outcomes	Medium to long term results - The change experienced by the recipient.	Sustained employment and improved financial stability.
Impacts	Sustained change - Wider economic and social outcomes.	Number, range and salaries of employment opportunities in a local area improve.

Table 1: From Inputs to Impact

Measurement period

The measurement period of a SIB has to balance desire for both a short repayment period and evidence of long-term change. A short measurement period allows earlier results and repayments, which appeals to investors. A longer measurement period affords additional information available over a longer timeframe, providing stronger evidence of outcomes achieved. Longer measurement periods allow for larger cohorts to receive an intervention, which may be necessary in order to achieve statistical power.

For example, in the Peterborough SIB it takes about two years for each cohort of 1000 men to be released from prison, a further year for measurement, six months for offences to go through the courts and up to six months for data to be matched with comparisons from the Police National Computer (PNC). Measurement is a prerequisite for payment, so the payment period must be longer than the measurement period.

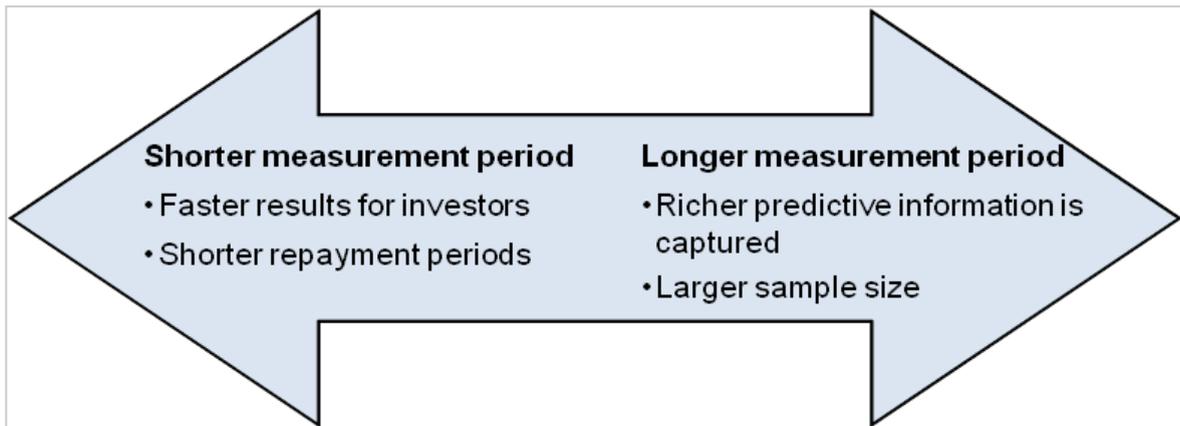


Table 2: Advantages of shorter and longer measurement periods

Increasing the length of measurement period may be required to achieve the required statistical power – the ability to find a significant difference between groups when one exists. A longer measurement period may also be desired if there are concerns about ‘drop off’ – the extent to which the effect of the intervention lessens over time. ‘Measurement period’ in this section refers to the measurement to which payments are related. It would be highly valuable, however, to continue measurement over a much longer period of time (5,10 or 20 years) to determine the sustained, and additional effects of the intervention, to inform the calculation of long-term savings.

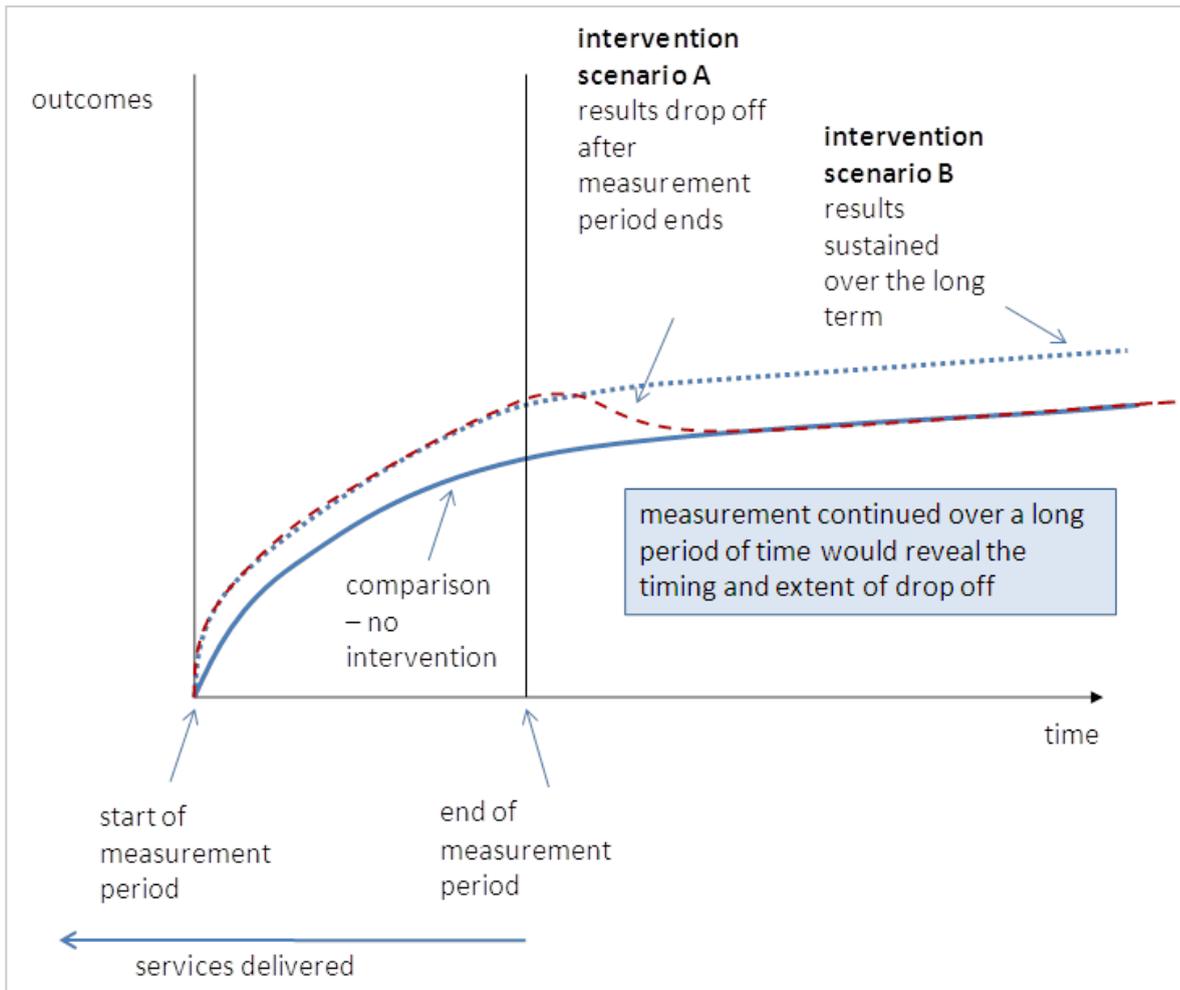


Table 3: Benefits of continuing measurements over a long period of time

3.3 Identifying a cohort and the Counterfactual

It's important that the performance of the project is accurately measured. This involves carefully identifying the characteristics of the group of people who should participate in the programme ('the cohort'), and a source of comparison data – either a control group or baseline data.

In a SIB, payments from the commissioner are triggered by the achievement of a particular outcome or outcomes. These payments reward the positive difference an intervention makes to the outcomes of a cohort. The process of establishing this difference is referred to as an impact evaluation. When conducting an impact evaluation, it is best practice to compare the outcomes of the intervention to an estimate of what outcomes would have been without the intervention. This estimate is sometimes referred to as the counterfactual. Estimating the counterfactual usually means comparing outcomes with a different group of people with similar characteristics who have not received the intervention. The difference in outcome between the intervention group and the comparison group can be inferred to be

caused by the intervention. In a Social Impact Bond the measurement of this difference will trigger payments. A simple diagram of how this works in the Peterborough SIB is below.

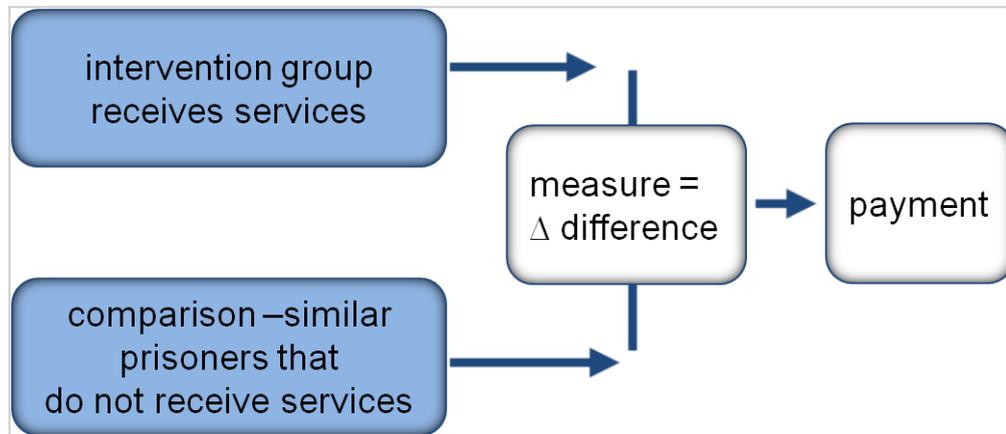


Table 4: Peterborough SIB impact evaluation model

There are several methods by which a comparison can be constructed. The method matters: different methods might reveal different results. The more similar the comparison group is to the intervention group, the more accurate the impact assessment will be. These groups should ideally have similar background characteristics (e.g. age, ability, environment) and drivers of participation (people who choose to take part in an intervention might have the potential for better outcomes than those who don't). In other words, the more similar the groups, the better the chance of detecting the true impact of an intervention.

Are all counterfactuals equal?

In the diagram below, the top line illustrates some measure of the outcomes of a successful intervention. The higher the outcome measure, the better it is. In comparison to a control group that did not receive the intervention, the effect of the intervention increased every year. However, if the intervention had been compared, to a historical baseline, its effect would have looked large in the first year, declining in the years after that. This example illustrates how changes to the environment may be captured by a control group, but not a historical baseline. All counterfactuals will have advantages and disadvantages, which vary depending on the context.

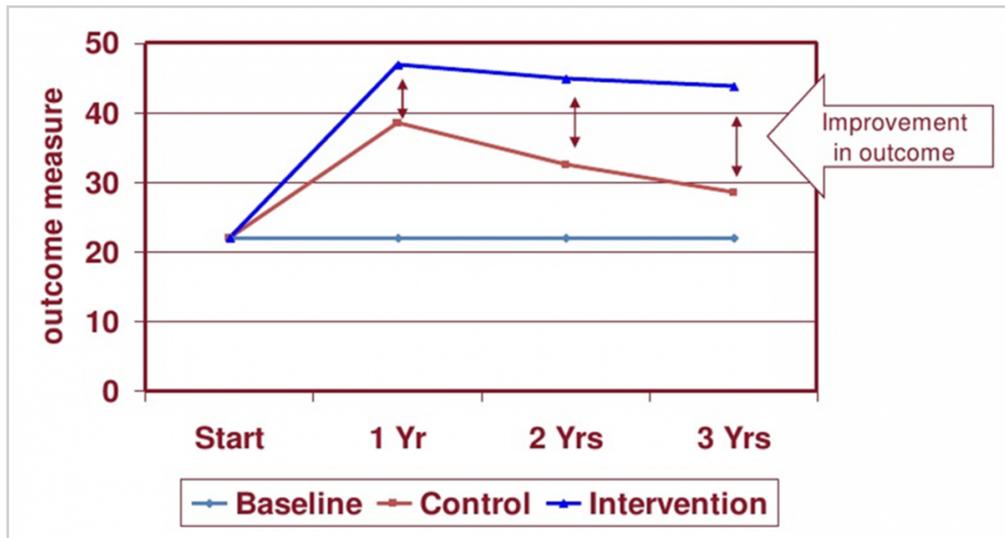


Table 5: Measuring the improvement in outcome

Hierarchy of evidence

The evidence hierarchy below illustrates broad categories of options available to SIB developers when establishing a comparison. The table below refers to measurement of outcomes that will trigger payments.

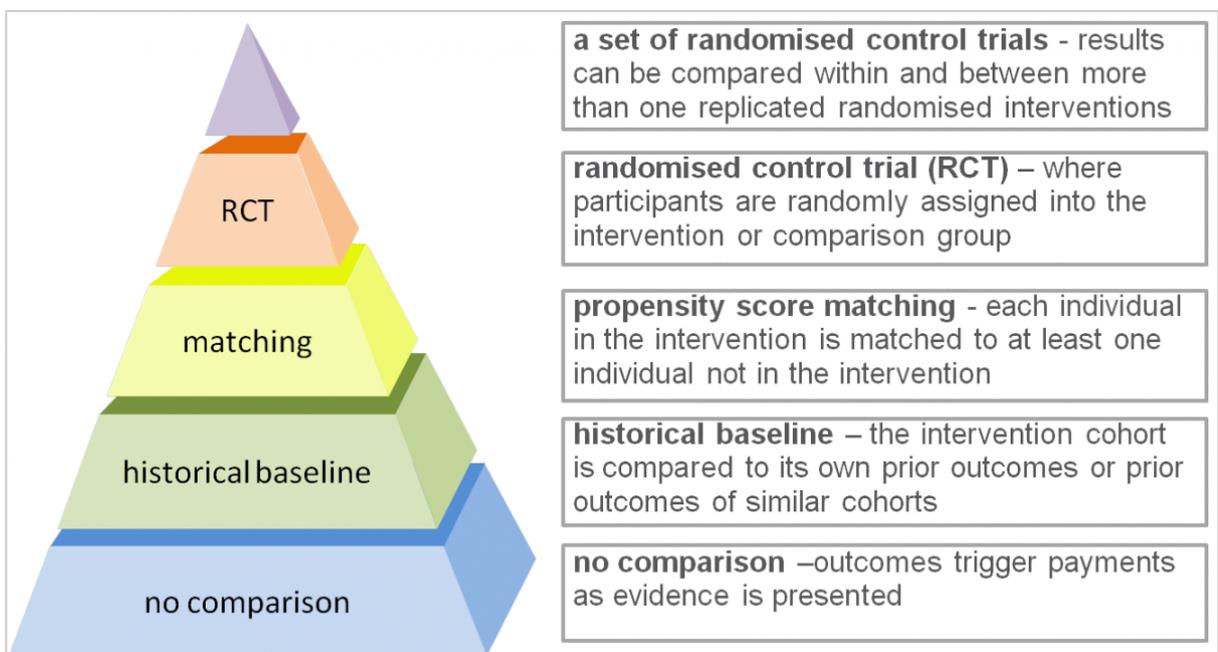


Table 6: The Hierachy of evidence

Policy adjustments to create comparison groups

Phased introduction and intermittent operation

A variant of randomised allocation is phased introduction, whereby all participants in the pilot receive the intervention, but sequentially over some period of time. The periods of time when some participants have received the intervention and others have not can then serve to generate a comparison group (though you still need to control in some way for other factors ongoing during the time delay). It is still preferable to use randomisation to determine the order in which participants receive the intervention, to avoid a situation where “the most deserving” or “most prepared” receive it first – this might be considered more acceptable within a pilot in which all participants are planned to receive the intervention eventually. Obviously, phased introduction need not be limited to pilots and can also be used for the roll-out of general (e.g. national) policies.

A further variant of the phased introduction approach might be termed intermittent operation, where interventions that are short term in nature are applied in bursts. This approach is only likely to be suitable for particular types of intervention which are appropriately flexible (advertising campaigns might be one example).

Objective allocation rules

Where policies are targeted towards individuals, institutions or areas that have the greatest need (for example, prolific offenders, “failing” schools or deprived neighbourhoods), evaluation can be made much stronger (and the policy more transparent) by employing objective allocation rules (e.g. scoring systems or funding formulae) to determine who receives the policy. These policies can be evaluated effectively if these rules are well documented and applied. One approach is to assign a score to each offender, school, and so on, based on their level of need, so that those above a certain score then receive the policy, and those below do not. Comparison might then be made between subjects who received similar scores but who were just above and just below the threshold, or perhaps comparing those in just in scope of a policy with those just out of scope.² Waiting lists are an administrative approach to allocation which can combine the features of phased introduction and objective allocations rules (e.g. a scoring system to assess needs and hence treatment priority).

Measures of relative effectiveness

If a policy must be introduced everywhere simultaneously then it will not always be possible to obtain an estimate of the full policy impact. However, some modifications might allow an estimate to be made of the impact on effectiveness of changes in the level or intensity of policy exposure – that is, of one extent of implementation relative to another. In these cases, the level of exposure which a subject receives needs to be decided in a way similar to the approaches discussed here (e.g. randomly, or through a scoring system), to ensure that exposure is not tailored by the policy maker to match needs of the intervention target or participant.

4. Evaluation

There are four broad questions that evaluation might be used to answer:

- What difference did the services make?
- How were the services delivered?
- Did the benefits of the Social Impact Bond justify the costs?
- What was the effect of using a payment by results, and more specifically the Social Impact Bond, model?

In most cases, there will also be considerable value in understanding why the services were delivered in the ways they were, why the services made the difference they did (or not), how the costs and benefits were generated and how the Social Impact Bond model contributed to any of these.

4.1 What difference did the services make? Impact evaluation

SIB payments from commissioners are the result of an impact evaluation. This may also be referred to as an impact assessment or audit of results. Impact evaluation attempts to provide a definitive answer to the question of to what extent an intervention was effective in meeting its objectives. Impact can include any of the outcomes affected by an intervention, but is likely to focus on the outcome to which payment is tied. SIBs may employ an independent assessor for this evaluation. For more detailed information on impact evaluation see Comparisons and the counterfactual.

Additionally, it may be beneficial for a commissioner or central government department to evaluate the impact of the intervention on outcomes other than those related to payment. This will give a more holistic picture of the results of the programme and inform the allocation of benefits to other public sector bodies. Understanding the relationship between outcomes will make it easier to move towards co-commissioning SIBs and as part of this process, calculating the proportion of benefit falling to agencies across government.

4.2 How were the services delivered? Process evaluation

Questions relating to how a SIB was delivered cover the processes by which the SIB was developed and implemented. This is referred to as process evaluation. Process evaluations can employ a wide range of data collection and analysis techniques, covering multiple topics and participants, tailored to the processes specific to the services in question.

Process evaluations are particularly valuable for new policy ideas like SIBs that can entail untested commissioning mechanisms, as well as new interventions. Publishing evaluations on SIBs disseminates learning and thus improves the development of future SIBs. More available information should lower both transaction costs and the time needed to develop new SIBs.

Process evaluations will often include the collection of qualitative and quantitative data from different stakeholders, using, for example, group interview, one to one interviews and surveys. These might cover subjective issues (such as perceptions of how well a service has operated) or objective aspects (perhaps the factual details of how a service has operated).

They might also be used to collect organisational information (for instance, how much time was spent on particular activities), although 'administrative' sources (timesheets and personnel data, for instance) might be more reliable, if available. Although essentially descriptive, these types of information can be vital to measuring the inputs of an intervention (which might not be limited to simple financial budgets, but might also include staff and other resources "levered in" from elsewhere) as well as the outcomes (surveys might be used to measure aspects of a scheme's participants' quality of life, for instance).

4.3 Planning process and impact evaluations together

Clearly, there is overlap between the types of questions addressed by impact evaluation and those answered through process evaluation. The two evaluations may be performed together, by one evaluator, or may be performed by different evaluators at different points in the SIB. Service delivery can be described in terms of output quantities such as the numbers and characteristics of individuals that were recruited, how many training seminars were provided and how many individuals were in gainful employment after the training programme completed. This means that process evaluations often need to be designed with the objectives and data needs of impact evaluation in mind and vice versa. Using and planning the two types of evaluation together will, therefore, help to ensure that any such interdependencies are accounted for. It may be useful to have the people who will perform these evaluations involved in the design of SIB measurement systems. Establishing systems for data collection from the beginning produces better quality data at a lower cost.

4.4 Did the benefits justify the costs? Economic evaluation

A reliable impact evaluation might be able to demonstrate and quantify the outcomes generated by an intervention, but will not on its own be able to show whether those outcomes justified that intervention. Economic evaluation is able to consider such issues, including whether the costs of the SIB have been outweighed by the benefits.

Chapter 5 will provide more information on economic evaluation.

4.5 What was the effect of using a payment by results or the Social Impact Bond model?

Finally, there is the additional question of why a Social Impact Bond's processes or outcomes occurred the way they did. In particular, how much of these were due to the

payment by results contract with the commissioner, and the Social Impact Bond addition of investors. This may be of particular interest as the models and their variations emerge. An understanding of why the Social Impact Bond generated the processes and outcomes it did is useful for a number of reasons, including:

- effectiveness and value for money can be improved by emphasising the most successful parts of the programme and minimising (and maybe stopping) those which work less well. The understanding can also permit any factors which are hindering effectiveness to be addressed, including improving services for those individuals or areas who benefited less than others, and avoiding any undesirable unintended consequences;
- intervention scope and coverage can be successfully and effectively extended (e.g. through the national roll-out of a regional pilot). Future policy-making can be informed and improved through contribution to the evidence base around “what works”; and
- added credibility to claims that a SIB has been value for money as a more detailed explanation of how and why it worked is possible. This also improves transparency and decision-making.

More information on evaluation can be found in HM Treasury's [Magenta Book](#), (2011).

5. Economic Evaluation - Costs, benefits and potential savings

It is important for all stakeholders to understand the costs and benefits of being involved in a SIB, but they may assess these differently depending on their perspective. For example, an economic evaluation usually values all costs and benefits to all stakeholders as if they are of equal weighting. Commissioners in a SIB should be interested in the social value of SIB interventions, but their decision to be involved may give greater weight to the impact of the SIB on their budgets. The ability of an intervention to produce savings to a budget is sometimes referred to as cashability. Those performing economic evaluations should keep the commissioner's perspective in mind and produce evaluations that clearly separate and show:

- cashable savings to the commissioner;
- non-cashable benefits to the commissioner;
- cashable savings to other public sector bodies;
- non-cashable benefits to other public sector bodies; and
- social value.

A common mistake in presenting costs and benefits is to evaluate the costs for one stakeholder and the benefits for many. Evaluations should include the costs of SIB programmes to parties other than the commissioner. This may include the costs of persons displaced to other public services and the cost to participants of being involved in the programme. It should not be assumed that these are negligible without justification.

5.1 Types of economic evaluation

- **social return on investment (SROI)**, which values the material costs and benefits to all key stakeholders on a single monetary scale. This is the most holistic and participatory method of measurement and quantifies outcomes beyond those deemed valuable to the commissioner.
- **cost-effectiveness analysis (CEA)**, which values the costs of implementing and delivering the SIB, and relates this amount to the total quantity of outcome generated, to produce a “cost per unit of outcome” estimate (e.g. cost per additional individual placed in employment); and
- **cost-benefit analysis (CBA)**, which goes further than CEA in placing a monetary value on the changes in outcomes as well (e.g. the value of placing an additional individual in employment). This means that CBA can examine the overall justification for a SIB (“Do the benefits outweigh the costs?”), as well as compare policies which are associated with quite different types of outcome. CBAs quantify as many of the costs and benefits of a SIB as possible, including wider social and environmental impacts (such as crime, air pollution, traffic accidents and so on) where feasible.

5.2 Cashable savings to the commissioner

Some stakeholders predict government will participate in SIBs only if financial savings can be captured. Others believe government will embrace SIBs based on the social impact they can deliver, even if the financial savings cannot specifically be aggregated across agencies and realized. (The inability to capture savings when a less expensive preventive programme replaces a more expensive remedial programme has been characterized by Steve Goldberg at Social Finance US as an accounting problem rather than a savings problem) (Callanan, Law & Mendonca, 2012, P. 37).

Cashable savings are those savings that are reflected on a budget line. For small changes in outcomes there are likely to be low levels of cashable savings. The fixed costs will not change. Although the variable costs might reduce it might be difficult to realise or cash this saving in practice. For example if an outcome reduces the work load of a social worker by 10% it is in most cases impractical to change the contracted hours of the employee to make the saving.

If there is a large change in outcomes the cashable savings could be significant and could include both fixed and variable costs. For example, if an intervention reduced youth offending to the extent where a youth offending institution could be closed this would generate cashable savings from both fixed (selling the building) and variable (utilities) costs.

Commissioners need to use their own judgement to determine whether and to what extent any saving can be cashed. Factors that will affect the level of cashability include such issues as:

- **whether the saving reduces current costs** (through an immediate drop in service demand) or avoids future costs (by preventing or reducing future demand). For example, interventions that reduce the number of children going into care will avoid cost if they enable the LA to avoid the need to invest in additional capacity. However interventions which enable children currently in care safely to return home, will reduce current costs;
- **whether costs are fixed** (e.g. a fixed contract for services, or the costs of a fixed asset such as accommodation) or variable (e.g. spot purchased services, or legal fees paid to third parties). For the most part, it is easier to reduce variable costs than fixed ones, although in theory any fixed cost can be reduced if demand reaches sufficient scale;
- **whether a service is provided in-house or contracted out.** In general, a contracted service can be more directly reduced since it is likely that there will be clauses in the contract allowing for variations in volume. However the threshold at which such changes apply, and other conditions within the contract, may limit both the scope of cashability and its timing, even for contracted services;
- **whether a service comprises all or parts of in-house staff.** There are obvious challenges in achieving any reduction in the cost of a service which comprises estimates of time from a number of individuals, rather than whole units of staff and other resources. However reductions in staff are themselves hard to achieve, not only because of the obvious challenges of reducing staff but also any such savings, even if achievable, will be eroded by the costs of their achievement (unless they can be achieved by natural wastage);
- **the degree of “backfill” and the extent to which it can be controlled.** For example, reduced need for health services among a certain population of families may be ‘backfilled’ by previously unmet demand from elsewhere; and
- **the political acceptability of decommissioning services.**

The reason that the distinction between a cashable and non-cashable saving is important when thinking about outcomes based commissioning is that it may be possible to use cashable savings made as part of a PbR/SIB to pay the outcomes payments. This would occur through reallocation of budgets and thus is more likely when the SIB intervention and savings to be made accrue to the same operational budget.

5.3 Non-cashable benefits to the commissioner

This section offers guidance on how to build the value to government of better outcomes, time and enabling other policy agenda into the ‘savings’ or benefits calculation for the feasibility study.

Valuing Time

Within central government, the Department for Transport's (DfT) approach to valuing time in the appraisal of road schemes and other projects is well established. This approach uses different values for 'employers' time and 'own' time (or working and non-working time).

The value of employees' time-savings (working) is the opportunity cost of the time to the employer. This will be equal at the margin to the cost of labour to the employer: the gross wage rate plus non-wage labour costs such as national insurance, pensions and other costs that vary with hours worked.

The New Earnings Survey provides estimates of the earnings of drivers of commercial and public service vehicles. In theory, it is possible to collect data on the earnings of those who would use the project being appraised, although this is rarely practical.

It is accepted practice to use a national average standard value of non-working time (equity value of time savings).

5.4 Other non-cashable benefits

It may be worth valuing the following inform the decisions involved in a SIB:

- **a reduction in future demand:** a SIB intervention might reduce demand within a target population, allowing a commissioner to meet otherwise increasing demand for services, within existing budgets. While this does not produce savings, it does produce valuable benefits;
- **the avoidance of future expenditure:** the reduction in demand for public services as a result of a SIB intervention might mean that projected future expenditure does not need to occur. Future expenditure should be discounted at the appropriate discount rates;
- **an improvement in outcome:** a SIB intervention might allow a commissioner to deliver more to their citizens within existing budgets. While this does not produce savings, it does produce valuable benefits;
- **innovation:** a commissioner may feel that programmes to address certain complex social issues have potential for development or improvement, that a SIB encourages innovation in this area and the value of this innovation is broader than simply savings; and
- **a proportion of cashable savings that would only occur at scale:** if the SIB intervention is being piloted before being scaled up, it may be worth considering the cashable savings the future scaled up programmes and using some proportion to represent the value a pilot SIB in the area.

5.5 Discounting

Discounting is a technique used to compare costs and benefits that occur in different time periods. It is a separate concept from inflation, and is based on the principle that, generally, people prefer to receive goods and services now rather than later. This is known as 'time preference'.

For individuals, time preference can be measured by the real interest rate on money lent or borrowed. Amongst other investments, people invest at fixed, low risk rates, hoping to receive more in the future (net of tax) to compensate for the deferral of consumption now. These real rates of return give some indication of their individual pure time preference rate. Society as a whole also prefers to receive goods and services sooner rather than later, and to defer costs to future generations. This is known as 'social time preference'; the 'social time preference rate' (STPR) is the rate at which society values the present compared to the future.

The mathematical expressions used to calculate discounted present values are set out below.

Year 0 is the present. Accordingly, the present value, at the middle of year 0, of a payment of £1 made at the middle of year n is given by:

$$D_n = \frac{1}{(1+r)^n}$$

where r is the discount rate and D_n is the discount factor. The discount rate is used to convert all costs and benefits to 'present values', so that they can be compared. The recommended UK public service discount rate is 3.5%. For example, a payment of £150 at the middle of year 5 has a present value at the middle of year 0 of:

$$£150 \times \frac{1}{1.035^5} = £150 \times 0.8420 = £126.30$$

Present values and discount rate

Calculating the present value of the differences between the streams of costs and benefits provides the net present value (NPV) of an option. The NPV is the primary criterion for deciding whether government action can be justified. The following table shows how the present value of £1,000 declines in future years with a discount rate of 3.5 per cent.

Time (mid year)	PV of payment (mid year)
0	£1,000
1	£966
2	£934
3	£902
4	£871
5	£842
6	£814
7	£786
8	£759
9	£734
10	£709

Long-term discount rates

For projects with very long-term impacts, over thirty years, a declining schedule of discount rates should be used rather than the standard discount rate. The schedule of long term discount rates is shown below.

The declining long term discount rate

Period of years	Discount rate
0–30	3.5%
31–75	3.0%
76–125	2.5%
126–200	2.0%
201–300	1.5%
301+	1.0%

Exceptions to the discount rate schedule

The standard schedule of discount rates may not be appropriate in the following circumstances.

For international development assistance projects, a discount rate derived from estimates of the social time preference rate appropriate to the recipient economy should be used. When undertaking sensitivity analysis, the impact of changing the precise value of the discount rate can be analysed in the same way as for other parameters in the appraisal. The rationale for undertaking sensitivity analysis on the discount rate should be clearly explained.

More information is available in HM Treasury's [The Green Book](#) (2003).

5.6 Outcome valuation

When developing a SIB it is important to value the change in outcome as a discrete unit, to understand the potential cost saving that may accrue per unit of change. The basic calculation is shown below:

$$\text{Number of outcomes avoided (improvement due to SIB) X unit cost per outcome} = \text{potential savings to commissioners}$$

Whereas economic evaluation considers the costs and benefits of an entire SIB intervention, this module looks at the costs and benefits of a unit of outcome change to the commissioner only. The first part of this process is to determine the how changes in outcomes can be observed (through changes in output indicators) assigned a monetary

value. This requires analysis of unit costs - defined as the expenditure incurred in providing one unit of a service, for example, the cost of providing one care placement or one case assessment. Unit costs are often referred to as the 'average cost' of providing a service or activity.

The second part is to determine what proportion of that unit cost can be avoided or reduced as a result of the SIB funded intervention and the extent to which it will lead to a reduction in demand and improved outcomes. The third part is to discount costs avoided over time. The final part of the process is to use this cost per unit and calculate the financial effect of the program to the commissioner, which is presented in the module [commissioner savings per person](#). This process – defining outcomes, assigning unit costs to outcomes and estimating avoided future costs as a result of changes in outcomes – is described in more detail below:

- define the cohort of service users and the basket of outcomes to be addressed by the SIB funded intervention;
- identify the range of (unit) cost estimates associated with a service user's pathway and decide which and how much should be included;
- determine the duration (per hour, per minute), frequency (per day or week) and intensity (e.g. direct contact with client or indirect) of the activity or event associated with the provision of a service. Where robust data on these measures is unavailable assumptions will have to be made;
- determine whether there is variation in the frequency or duration of service usage within the selected cohort and decide whether the unit cost estimates should be adjusted to take this into account or how this variation might be represented.
- calculate the average cost per individual for a given outcome by aggregating the unit costs or multiplying them by the frequency (or duration) of the event;
- once the values for each outcome have been estimated, they are summed to produce an 'average cost' of an individual service user or group of individuals (e.g. a rough sleeper or troubled family);
- identify the agencies (and cost centres) to whom the costs accrue and decide which costs should be included and excluded and decide a time period over which costs will be aggregated and discount future costs appropriately and
- identify the proportion of these costs that can be avoided should demand be reduced by a unit of one person and how this should be represented.

The above is a simplified description of a complex process. The next module outlines how savings may be estimated from the perspective of a commissioner.

5.7 Using unit costs to value and price outcomes

Cost data and unit cost estimates are required to provide the analytical base upon which a SIB can be developed. Generally, an appraisal or business case is required to estimate costs and benefits of current service provision, and how they will change as a result of introducing a SIB-funded intervention. Unit cost estimates may be required at several stages during the development of a SIB including:

- Business cases where commissioners may explore the indicative costs and benefits of a SIB;
- Feasibility studies where outcomes are defined and a detailed assessment of the costs and benefits of a SIB is undertaken and
- Specifications where maximum prices for outcome payments are determined and providers are invited to submit bids.

Learning from existing SIBs

Approaches to outcome valuation and to setting prices will vary according to the specific context in which a SIB is developed, the nature of the negotiation process and the commissioning model. The technical case studies describe how existing SIBs have used cost data and unit cost estimates to place a monetary value on outcomes.

Valuing outcomes

Valuing outcomes is an important process in the development of a SIB that may require unit cost data. Unit cost estimates can be aggregated to place a value on outcomes and estimate the 'average' cost of an individual who falls within a specific cohort of services users based on their expected future outcomes and use of public services and resources. This 'average cost' may be used to calibrate outcome payments rather than set a price for them. This means that they can be used to set maximum prices that a commissioner is willing to pay for a service i.e. set a price ceiling that reflects the value of an outcome.

Pricing outcomes

Setting prices for outcomes is a complex process and raises a number of questions: what price is a commissioner willing to pay for an improved outcome? What price will ensure competitive bids from a range of providers and provide sufficient returns to investors? Responding to such questions requires setting prices for outcome payments through negotiation rather than precise cost estimation. A [recent report by the Center for Global Development and Social Finance](#) identifies several approaches to setting prices that are outlined below.

- Cost plus pricing: the price floor of an outcome is equal to the current costs of service provision. A percentage, based on maximum rate of return for investors, is added to this floor to set a price ceiling.
- Quantified social value: the price floor of an outcome is equal to the current costs of service provision. A premium, based on the estimated social value of the identified outcomes, is added to this floor to set a price ceiling. The exact value of this premium may be informed by valuing outcomes through valuation techniques - these techniques are described in the calculating social value module.
- Market determined: prices are determined through a procurement process whereby a commissioner specifies the price ceiling for a basket of outcomes and invites bids from providers, allowing the market to set the ultimate price to be paid for outcomes. This approach was successfully used for the Department for Work and Pensions' Innovation Fund.

- Cashable benefits: the starting point for most existing SIBs is to estimate the cost savings (or avoided future costs) that will accrue as a result of improvements in outcomes. However, cashability is based on the presumption that the flow of expenditure to pay for public services can be easily regulated (for example, through spot contracts) or that services can be decommissioned as a result of improvements in outcomes. It is, therefore, important to estimate the 'non-cash releasing' benefits that a SIB may deliver.

5.8 What does a good unit cost estimate look like?

When developing a SIB cost information should be examined alongside information on outcomes. This is essential for understanding the relationship between the costs and benefits of a service (or intervention) and changes in service user outcomes. Assessing unit costs requires exploring the drivers of cost variation and determining what is included and excluded in a cost estimate. Generally, a unit cost estimate should:

- include all of the constituent costs associated with the provision of a service. Usually these will include: direct costs that can be attributed to a specific activity, function or output; indirect costs that are shared across several activities or functions (e.g. heating and lighting); and overheads which are the costs associated with the day to day operations of an organisation (e.g. finance). Indirect costs include the costs of time and travel.
- include the costs of 'intention to treat'. The costs and time associated with assessing individuals who are ineligible for the service, choose not to engage, drop out or switch to another service should be included in the overall cost of a service.
- use appropriate units of measurement that correspond with the way that services are used. This means that unit costs should tally with the way that individuals use a service. For example, just as foster care placements are measured in resident-days (or weeks) so hospitals record in-patient care in bed days. Using the most appropriate activity measure for each service is vital as it determines how and whether costs are recorded and hence has a significant bearing on their estimation. Services that include a form of case management should measure minutes and hours (rather than days) of contact time and the nature of the contact time (face-to-face or telephone).
- aggregate so that the total costs of, for example, social services in a given area can be added up. Where unit costs are capable of (dis)aggregation, organisations can identify variation in the costs associated within and between groups of service users. Ensuring that unit costs can be aggregated enables the costs of service users 'pathways' to be explored and the generation of cost profiles for specific cohorts or groups of service users. It also enables organisations to determine, for example, whether few service users account for a disproportionate share of costs.

6. Procurement

For detailed guidance, view the Government Outcomes Lab's [How-To Guide on Procurement](#)

Through engaging with potential providers and investors prior to procurement, commissioners should have a broad understanding of the market prior to commencing a procurement process.

The Peterborough Social Impact Bond to reduce reoffending was not procured through a competitive process. It was undertaken as a 'proof-of-concept' pilot, with value for money assessed through internal analysis and signed-off by the Treasury.

If there is only one provider, commissioners are not obliged to undertake a competitive process. As markets develop, we expect there will be other contracts procured in a similar way to Peterborough. However, we envisage that a number of potential providers are likely to emerge after each first Social Impact Bond is established in a new field.

In the instance of finding only one provider, commissioners will also need to develop other ways to ensure value for money. For example, in the Peterborough Social Impact Bond, maximum returns to investors are capped. Similarly, it will be important for commissioners to ensure that any contracts build the market and encourage new entrants. For example, information about the project, such as evaluation reports, should be placed in the public domain, so that others can learn from the process. Again, the Peterborough pilot is subject to a detailed public external evaluation process.

6.1 EU Procurement regulation

Procurement regulations are in place to ensure cross-border competition within the European Union. The key principles are equal treatment, proportionality and non-discrimination. These regulations relate to procurement by public sector bodies only.

Services are broken into two types in EU procurement regulations:

Part A – These are services deemed to be of particular cross-border interest, such as consultancy work. There are clear requirements for procuring this type of service, including notification of contract, timescales etc.

Part B - Services not deemed to be of cross-border interest are not subject to the detailed rules governing most public procurement, but still have to abide by the principles. In practice, the majority of SIBs are likely to fall into this category.

There are broadly four main procurement processes for Part A Services:

Open - In this procedure all interested parties are asked to return tenders by a set date. These are evaluated and contract(s) awarded to the winning party/parties. This procedure is often used by local authorities.

Restricted procedure - This procedure is a two-stage process. In the first selection stage (often involving a Pre-Qualification Questionnaire) a shortlist of suppliers is identified. In the second stage, suppliers are invited to respond to an Invitation to Tender (ITT) and the tenders evaluated. Finally, the contract(s) is/are awarded.

Competitive dialogue - This procedure is used for more complex procurements. Following the Official Journal of the European Union Contract Notice and a selection process, the authority negotiates with companies to develop suitable solution(s) and on which chosen companies will be invited to tender. After the ITT is issued no further negotiation is allowed, only discussion about clarifying or fine-tuning the tender. An award is subsequently made.

Negotiated - This procedure is only used in limited circumstances. In this procedure the public sector body may enter into contract negotiations with one or more suppliers (only really used for national security procurements).

In practice, Part B Services do not need to follow any of the four procurement processes set out above. However, as these processes are tried and tested (and the distinction between Part A and Part B Services is not always clear), they tend to use the Part A processes to avoid legal challenge.

6.2 Timescales

The selection of specific procurement processes is perceived to affect the timescales for procurement.

Part A vs. Part B – There are minimum timescales under Part A services, but not Part B. Commissioners should determine the timescale for a Part B service that is appropriate. In practice timescales are generally determined by the needs of the various parties (how long a bidder needs in order to make an appropriate bid).

Part A procurement processes are: open; restricted; competitive dialogue; and negotiated. In theory they go from quickest (open) to slowest (negotiation). Subject to sufficient market engagement, procurements should be completed within 120 working days (from the publication of the OJEU contract notice to contract award decision date).

7. Identifying and working with potential investors

Investors risk losing money if the service doesn't achieve its outcomes. SIBs are not traditional bonds - they carry equity-like risk. This means the investor can be exposed to all the downside risk: eg they can risk losing the initial investment.

Any non-government organisation can become an investor in a SIB. Investors in SIBs in the UK have mainly been charitable trusts and other social investors.

The commissioner should be prepared for questions from investors, which may include:

- does the proposed social outcome match the investor's ideals?
- does the project meet the specified investment criteria?
- what's the risk of them having to provide extra money during the contract?
- where's the evidence that this proposed solution works?
- how good is the provider's track record in this area?
- how trustworthy is the provider?
- what risk will be taken on? (they will use this to decide the rate of return they expect on their investment)
- what controls will there be over delivery?

7.1 Performance management

Social investors and intermediaries may want some influence over the way the project is delivered, given that they're taking much of the risk. This can be achieved in a number of ways, like:

- buying a share in the provider organisation and/or taking a seat on the board
- attaching a number of conditions to an investment, such as rights to take control of or terminate the project in the event of sustained under-performance
- engaging an intermediary to manage provider performance throughout the contract

Social investors may use performance management techniques to make sure projects are rigorously managed according to strong social values. This may include:

- a rigorous data collection system
- basing decisions on data
- tracking and reporting impact
- detailed periodic financial and performance reporting

If providers are not achieving outcomes, there are several potential ways commissioners can intervene:

- providing training and support to help the provider develop their skills and systems
- redistributing the workload to share with another provider

- replacing providers if outcomes aren't being achieved (depending on the terms of the contract)

8. Case Study

8.1 Youth Employment

Preventing young people from dropping out of school has been shown to significantly improve their life chances. The term NEET refers to young people who are no longer in education and not working or being trained for work.

SIBs have enabled the development of services that re-engage young people at risk of becoming NEET. These have included the Innovation Fund and the Youth Engagement Fund, both developed by the UK Government's Department for Work and Pensions.

The Innovation Fund aimed to test new social investment and delivery models to support disadvantaged young people, and those at risk of disadvantage, aged 14 to 24 years. It paid for outcomes that were directly related to increasing future employment prospects. The Innovation Fund was commissioned over two rounds via an open competition. This resulted in ten SIBs in total, testing a range of social investment and innovative delivery models. The total investment from external investors was approximately £10m and the total maximum payments for outcomes amount to £28.4m.

Features

- **Partner:** Various social investment models including single investor, multiple investor and intermediary models
- **Cohort:** up to 17,000 disadvantaged young people over a three year period. Disadvantage was not defined by DWP, but demonstrated by bidders in their proposals. Round one supported young people aged 14 to 24 years of age and round two supports disadvantaged young people aged 14 and 15 year olds only.
- **Size:** Ten separate SIBs, varying in size and scale
- **Timeframe:** Three Years
- **Measure:** Re-engagement in education and ultimately employment - more detail in measurement and payment section below. Outcome metrics and pricing were informed by a review of the available evidence and included an assessment of deadweight.
- **Target:** Disadvantaged young people, and those at risk of disadvantage.
- **Comparison:** a counterfactual group for each SIB will be established using a matched area comparison design in order to estimate the impact of the programme. This involves data sharing with the DfE.
- **Evaluator:** National Centre for Social Research and Insite Research and Consulting

- **Payment by Government:** Monthly payments made by DWP on successful completion of one or more proxy outcome measures. It is 100% Payments by Results programme.
- **Investor return:** Multiple investors involved, with various rates of return

Measurement and payment model

The Department of Work and Pensions (DWP) developed a range of proxy outcomes for gaining and sustaining future employment. Outcomes include re-engaging with education, such as addressing truancy and behavioural issues; gaining educational qualifications; and entering apprenticeships and employment. The DWP specified a maximum amount they were willing to pay per outcome, which represented a proportion of the benefit savings associated with moving a disadvantaged young person into work. There was also a cap of £8200 per participant in round one and £11,700 in round two.

A list of payable outcomes was published in the specifications for each round. Bidders were invited to pick and mix from this list and work toward outcomes appropriate for their particular group of young people. Bidders also proposed the payments they expected for each proxy outcome, up to the maximum amount set by the DWP.

Lessons learnt

- Important to warm up and engage the social investment market prior to launch of the competition
- Ensure projects are of a sufficient size and scale to facilitate evaluation
- Social Investment Partnerships take time to form and be agreed upon. Commissioning provision over two rounds enabled those more developed in their thinking to bid for round one, whilst round two ensured there was enough time for new partnerships to form and come forward at a later stage
- Important to be flexible in the commissioning and contractual process

Performance

To date the Innovation Fund has supported over 5000 disadvantaged young people and achieved over 1500 successful outcomes.

9. References

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