18 Indicators for social innovation

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1. INTRODUCTION

Over the last few decades, much work has gone into attempting to measure what is sometimes called social, public or civic value – the value created by NGOs, social enterprises and social ventures, and the related value associated with social programmes and policies. Much of this assessment is by its nature retrospective. But it has also become important to assess and even measure future value, the potential social impact of new ideas, ventures and programmes, and more broadly the socially innovative capacity of different societies.

It is widely accepted that 50–80 per cent of economic growth comes from innovation in its widest sense – the creation and use of new knowledge – and this awareness has spurred improvements in the measurement and assessment of innovative capacity in the economy.¹ There is probably a comparable relationship between social innovation and social progress, although there are even fewer accepted measures to test this assumption. There are also links between economic innovation and social progress on the one hand, and social innovation and economic growth on the other. Research by William Nordhaus (2003), for example, has shown that health gain accounts for as much of the gain in human welfare over the last century as economic growth. But we still lack robust theories, let alone measures, that can map the ways in which societies seek and adopt novel ideas to address challenges such as those associated with ageing populations, youth unemployment, social conflict and climate change.

The acuteness of the fiscal crises faced by many countries explains why many are turning their attention to public sector productivity, with growing recognition that the only plausible ways to increase productivity sustainably will involve much more intensive and systematic innovation.² Data for public services show productivity to be at best stagnant, and perversely, OECD data show that the countries that spend the most on health suffer more rather than less mortality, and even that those that have increased spending most have experienced the poorest improvements in mortality (Reeder 2011). In education too there is little correlation between spending and results. In short there is an urgent need for much more disciplined innovation to drive up productivity.

For philanthropists the pressures are less acute. But they too want to know where their money can achieve the biggest impact, whether by backing the spread of already-proven models, or by encouraging creative experiment in new ones.

Yet at the moment there are few usable indicators to guide decision makers. There are no reliable measures of spending on social innovation; no indicators of its scale; and no measures of its impact. The field is roughly where the world of R&D was in the middle of the last century, before the sustained attention of governments, foundations, economists and statisticians started to fill in the gaps.

There is now a great deal of experimentation under way to raise standards of measurement and evaluation. As always with indicators, the greatest challenge is to be clear about what they are for. Five different goals can be distinguished:

1. to measure the scale and nature of innovation activity at the level of nations, regions or enterprises in order to generate more knowledge about its dynamics;
2. to measure innovative capacity, within nations, regions, sectors or organizations;
3. to account to stakeholders, and in particular funders, investors and commissioners allocating scarce resources between organizations;
4. to guide managers allocating scarce resources within organizations; and
5. to assess the impact of actions on broader social and economic outcomes.

Not surprisingly, these require rather different approaches: a family of related approaches with some shared architecture needs to evolve, rather than a single indicator of social innovation. Ideally a common architecture should share some conceptual underpinnings, and some consistent language, while also allowing sufficient flexibility to fit widely divergent goals.

2. THE LANDSCAPE OF TOOLS AND APPROACHES

Many available tools have been used to help measure social innovation and could be adapted. These can be broadly classified into those that measure the specific impact of a particular initiative, those that measure broader social outcomes, a smaller number that aim to measure levels of innovation, and an emerging field looking to measure civil society activity.

Tools to Measure Impact

The majority of the tools available are designed to measure the impact of particular projects and programmes, the third of the goals outlined above. There is a large number of specific tools, of which the different variations can be clustered into broadly similar approaches:

- Cost–benefit analysis (and its variant, cost-effectiveness analysis) remains the most widely used family of tools. Cost–benefit analysis has been applied particularly in transport (where it is often linked to environmental appraisals) and for big capital projects (where it is notorious for underestimating costs) (Flyvbjerg et al. 2003).
- Another common approach uses methods that seek to monetize social value by asking people what they would pay for a service or outcome ('stated preference methods').³ Another set of methods, coming from economics, focuses on the choices people have actually made in related fields ('revealed preference').⁴ The burgeoning field of environmental economics has spawned methods for measuring everything from wetlands to emissions, usually using a combination of these revealed and stated preference methods.
- Social impact assessment methods have been in use since the 1960s, trying to capture all the dimensions of value that are produced by a new policy or programme. These attempt to estimate the direct costs of an action (e.g. a drug treatment programme), its probability of, and the likely impact on future crime rates, hospital admissions or welfare payments. Within the non-profit world, social return on investment (SROI) methods (first developed by REDF)⁵ translated the methods of the social impact tradition into the language of rates of return. There are many variants in use around the world. The EU's €2 billion 'EQUAL Programme', for example, advocated use of SROI and encouraged countries to develop variants, such as Finland's methods for assessing social enterprises.⁶
- NGOs and foundations have used many similar methods to assess social impact, all variants of the social impact model.⁷ These include the Acumen Fund's Best Available Charitable Option (BACO) ratio methodology (Acumen Fund 2007), various methods developed by the Center for High Impact Philanthropy (CHIP)⁸ and 'blended value' methods (associated with Jed Emerson).⁹
- Within the public sector a parallel body of work has looked at the public value created by public agencies and policies (see, e.g. Moore 1995); these methods have been looking at the value associated with public policy.¹⁰ They have been used by organizations such as the

British Broadcasting Corporation (BBC) to explain what they do and the value they offer the public (Coyle 2010).

- Within any particular field there will also be many specific methods. A Young Foundation study of methods for measuring value in the built environment, for example, identified nearly 30 in use (Mulgan et al. 2006). Some were designed to guide investors, and some for developers, running the gamut from methods using artificial neural networks and ‘hedonic’ price models to fuzzy logic methods and, for the eager, ‘auto-regressive integrated moving averages methods’ and ‘triple bottom line property appraisal methods’.¹¹

Tools to Measure Broad Social Outcomes

There are also many indicators that can be used to measure broader social impacts.

- Measurements of QALYS and DALYS (quality and disability adjusted life years) have become a common way to judge health policies and clinical interventions (e.g. showing that smoking cessation programmes are far more cost-effective than most drugs). Health has also developed other measures including PROMs (patient reported outcome measurements),¹² EQ-5D (a measure of health status)¹³ and the Health Utility Indexes developed at McMaster University¹⁴ to track how people feel.
- In education, ‘value-added’ measures assess how much individual schools ‘add’ to the quality of pupils they take in – some schools might achieve very good exam results simply because of the quality of their intake (Ray 2006).
- Within academia creative new methods are being used. One approach draws on surveys of life satisfaction and income to judge social projects and programmes by how much extra income people would need to achieve an equivalent gain in life satisfaction. An imaginative study of a regeneration scheme employed this method and showed that modest investments in home safety, costing about 3 per cent as much as home repairs, generated four times as much value in terms of life satisfaction (Dolan and Metcalfe 2008).
- Many accounting methods are used at the level of national governments and regions. France’s ‘bilan sociétal’ requires companies employing over 300 people to report on how their work affects society using a set of 100 indicators.¹⁵ Italy has a similar ‘bilancio sociale’.¹⁶ Others have measured time. For example, Australia’s

statistics office estimates unpaid work at around 48 per cent of GDP (Willis 2005).

- The OECD's 'Beyond GDP' programme, started in 2004, has mobilized many of the world's finest statisticians and economists to develop better indicators of social progress and well-being,¹⁷ bearing fruit in the Stiglitz Commission's work for President Sarkozy in France which has led to a radical overhaul of GDP measures (Stiglitz et al. 2009). The UK has now introduced a large-scale survey on well-being, while the OECD's Wikiprogress website now offers a huge range of indicators, and allows users to customize indices.

Tools to Measure Innovation

The methods used to measure social innovation itself are less developed. There are adaptations of the survey techniques used for business – usually asking managers to comment on innovation investment and activity. However, traditional measures of innovation, which tend to focus on science and technology, are not able to account for all the innovation that is taking place. In practice much innovation is taking place through developing new contractual relationships, novel combinations of existing technology and processes (Nesta 2007, 2009). The *Oslo Manual*, widely recognized as a standard framework for business innovation measurement (OECD/Eurostat 2005), makes the key distinction between product (good or service), process, marketing and organizational innovation. In many ways the process and organizational innovations come closest to encapsulating social innovation.

The direction of travel of broader innovation measures has relevance to social innovation, as it moves away from the narrow emphasis on R&D spends and counting patents. These approaches are beginning to be applied in the social field. The Measuring Public Innovation in the Nordic countries (MEPIN) survey, for example, reviewed product, process, organizational and communications innovation across the public sector organizations (see Chapter 17 by Carter Bloch, this volume). It captures data about the number of staff involved, prevalence of ICT-led innovation, information channels for innovation, and use of procurement practices to drive innovation (Bugge et al. 2011). The European Commission is supporting much more extensive work on measures of public sector innovation, starting with a pilot European Public Sector Innovation Scoreboard which will, it is hoped, bear fruit before long. There are also more reflective survey tools that can be used within organizations to ask employees about their perceptions of how open the organization is to new ideas and their development.

Tools to Measure Civil Society

A very different body of work is under way on the measurement of civil society activity – pioneered by figures such as Lester Salamon at Johns Hopkins University. This is obviously not a measure of social innovation, since much social innovation happens within the public sector and in business, and much civil society activity is not innovative. But it is bringing a sharper statistical insight into patterns of activity among NGOs and social enterprises that used to be rather difficult to discern. Some of these data point to the size of the sector. By the end of the twentieth century, a study in 26 countries for which data were available showed that non-profit organizations accounted for only 6.8 per cent of the non-agricultural workforce (Salamon et al. 2007). The EU estimates that 11 million work in the broadly defined social economy (CIRIEC 2007) and another study showed that in the USA in the middle of the first decade of the 2000s charities alone employed nearly 10 million paid workers and engaged just under 5 million full-time equivalent volunteer workers, equivalent to about 10 per cent of the total workforce (Salamon and Sokolowski 2006). Other estimates show that including estimates of the value added by volunteers, non-profits accounted for an average of 5 per cent of GDP in the countries for which satellite account data are available (Salamon et al. 2007).¹⁸ Related measures capture the size of social enterprises, the cooperative and mutual sector and traditional charity. Some of the survey tools make it possible to assess rates of start-up, survival rates and growth rates. The rise of a field of social investment is also bringing with it much more analysis of the capital needs of the sector, and more classic market analyses looking at patterns of demand.¹⁹

3. LIMITATIONS OF THE CURRENT TOOLS

So how useful are any of these indicators? The short answer is that the collection of data has not yet had much impact on decision making or action. The main reasons relate to those surrounding any kind of indicator. Indicators are most useful when they connect to a plausible model of causation, such that changes in one indicator may lead to changes in others. Without theories, indicators risk becoming just clutter. However imperfect they are, measures of R&D spending and patents at least connect to plausible theoretical claims, such as those claiming that R&D spending will contribute over time to economic growth.

By contrast, there is no settled theory of social innovation. The field of social innovation is theoretically underdeveloped, with few, if any,

accepted concepts or causal relationships.²⁰ This is of course related to the lack of indicators since there are no usable data sets or time series to draw on to test hypotheses. There is a great deal of interesting theoretical work feeding into social innovation, including from innovation studies, the study of entrepreneurship, complexity theory, the theories of techno-economic paradigms as well as resilience theories of sociology-ecological systems, and others. The proliferation of academic centres attending to social innovation also means that much more brainpower is being applied to the field than before. But for now there are few frameworks to make use of data, and little agreement about fundamental issues such as how much social change is driven by entrepreneurial individuals, by movements, teams or networks, or for that matter by political parties and governments. Why do some ideas travel well and others poorly? Will there be any common patterns as to where the most influential ideas come from? Can the experimental methods of natural science be transplanted to social change? Do social innovations scale in the same way as business innovations, or does the path better mirror how novel change manifests in ecological systems?

The next challenge is that social science simply is not robust enough to make any firm predictions about what causes will lead to what effects, and thus about the potential value or use of particular social innovations – far too many variables are usually involved. The state of evidence on crime reduction shows that well-implemented policies can cut reoffending rates by a few per cent. But there are no actions that can reliably achieve the much larger impact claimed by some NGOs (possibly because the truly exceptional NGOs really are exceptional – the qualities that make them so good cannot easily be replicated). Indeed there are not really any ‘laws’ in social science or economics in the way that there are in physics.²¹ Even in a field such as medicine, which has much stronger evidence than social action, bitter experience shows that it is only wise to believe that x causes y when many research studies using varied methods have all pointed in the same direction. Even many influential randomized control trials (still seen as the gold standard of evidence) have been dramatically overturned by subsequent research. Many would love the social field to be more like natural science, where evidence would definitely tell you that if you invested \$10 million or \$100 million in a particular programme it would have predictable effects. There is a strong case for introducing a much more orchestrated experimental approach into fields such as education. But even with a much greater pool of evidence it will still be hard to be certain about causation simply because of the sheer number of variables involved in social issues. Molecules obey the laws of physics; the people involved in social projects generally have minds of their own.

Another important limitation is that in many of the most important fields for social action – such as crime, childcare or schooling – the public are divided over values as well as value. For most people, for example, there is an intrinsic virtue in punishing criminals regardless of the costs and benefits of alternatives to prison. Psychologists have shown the prevalence of what is called ‘altruistic punishment’, our willingness to sacrifice a great deal to see others punished. As a result the standard social value assessments of more progressive approaches to crime risk missing the point: they are describing one view of crime, and often provide important insights about the folly of current programmes, but they cannot pretend to reflect the views or values of society.

Even without these problems, the monetized values generated by cost-benefit analysis (CBA), social return on investment (SROI) and other methods generally have very large variances, and are highly sensitive to the particular weights given to estimates of costs and paybacks. They can point in the round to potential paybacks – but they are rarely useful for making decisions at the margins, in the way that ROI methods can. Revealed preference and stated preference methods are also notoriously unreliable. They confuse rigour and precision: because they try to provide precise numbers, they end up being less rigorous about the means of deriving them (a point increasingly recognized by REDF and others in the SROI field).

Methods such as SROI generally apply discount rates taken from commercial markets. But it is not clear why social organizations should adopt time preferences from commercial markets that radically devalue the future: a 5 per cent discount rate values \$100 after 30 years at \$35.85 today, and after 50 years at \$7.69. An alternative might be to copy governments that try to reflect both time preferences and, in the more sophisticated versions, take account of the fact that extra income in the future will be worth less than income today because future populations will be richer (the UK Treasury currently applies a 1.5 per cent rate to reflect time preferences and 2 per cent to reflect these income effects). But even this is misleading. A closer analysis of discount rates shows that very different ones apply in different sectors. In health, many countries apply a very low or zero rate, on the grounds that today’s young people should not be disadvantaged relative to the old. Governments ignore discount rates in their investment in education and defence technologies. In climate change a furious debate has raged about what discount rates should apply – again in part a moral argument about what weight to give to future generations. Often governments – and foundations – behave more like a guardian or steward who is charged with sustaining or growing capital, rather than the strictly rational consumers of economic theory who always value present

consumption more than future consumption. This makes it somewhat ironic to find many foundations routinely applying discount rates from commercial markets when it comes to social returns.²²

These problems explain why, despite often complex architectures of analysis, the great majority of methods are both unreliable and largely unused.

4. A POTENTIAL ROUTE FORWARD TO DEVELOP A FAMILY OF RELATED METHODS

So what should be done? Are these problems inevitable? Is it just impossible to measure social value in a meaningful way, and therefore impossible to measure social innovation?

It is possible both to measure and map social innovation activity, and to link this to the measurement of outcomes achieved or not achieved. The indicators of social innovation activity are likely to include the following elements:

- measures of investment: these will start off as self-reported, but may over time become more reliable, as has happened with commercial R&D investment;
- measures of activity, such as numbers employed, or time committed;
- subjective assessments of innovation culture: surveys of staff perceptions of how open the organization is to ideas, its capacity to adopt and adapt;
- managerial assessments of numbers of new goods and services, and their share of turnover.

None of these is perfect but it is possible that over time some of them will become more reliable and start building up a more detailed composite picture of activity across different types of organization and sector. The bigger challenge is to link measures of innovation activity or investment to value or impact achieved.

Measuring Social Value

A good starting point is to be clear what value is, and what it is not. Although economics has made many mistakes in measurement, it offers some important lessons for the social field. For much of human history economists believed that value was an objective fact. Aristotle thought that there was a 'just price' for everything. Karl Marx thought that value

came from labour. Neoclassical economics argued instead that the only meaningful concept of value sees it as coming from the interaction of demand and supply in markets. Something is valuable only if someone is willing to pay for it.

This blunt approach upset many: it implies that there may be no economic value in a beautiful sunset, an endangered species or a wonderful work of art. But it liberated economics and allowed it to become a much more useful discipline, observing real behaviour rather than trying in futile ways to find a hidden reality.

The time is ripe for the social field to take an equally simple starting point as the precondition for progressing to a more sophisticated but also useful approach. In commercial markets value comes from the interaction of consumer demand and willingness to pay, and the willingness of businesses to provide goods and services. In the social field, too, value comes from the interplay of 'effective demand' and 'effective supply'. Effective demand implies that someone is willing to pay for a service or an outcome. That someone may be a public agency, a foundation or individual citizens. Effective supply implies that there is a capacity to provide the service or outcome at a reasonable price.

In some fields there are mature links between supply and demand: for example public willingness to pay through taxes for policing, or primary schools, connects to governments' ability to supply these things in familiar ways. Donors' willingness to finance children's charities in the developing world, or local churches, is also stable and mature in these senses. In these fields it is not hard to analyse social value, connecting what funders want and what providers know they can provide.

In other fields the links are missing. There may be available supply but insufficient demand – because the public, foundations or politicians do not see the need as sufficiently pressing (in some countries drug treatment or sex education would fall into this category). It is useful to note that mostly it is proxies for demand that operate in place of real demand, as in the case of school districts determining the expenditure for the implementation of new pupil programmes or foundations choosing investment of risk capital in novel promising ideas, rather than aggregated student and parent demand around new programming. In other cases there may be demand but inadequate supply at a reasonable cost (for example of methods for cutting obesity). Or there may be profound disagreement about the facts or what needs to be done (think of migration in the USA, for example).

Both sides of the equation may be complex or fragmented. In many areas of social policy demand for the better results that come from more holistic approaches is split across many different public agencies, from welfare to prisons, as well as NGOs. Equally the supply may be

fragmented: help for homeless people, for example, may depend on the contribution of many different agencies, providing therapy, alcohol treatment, skills and housing.

And with a systems lens, it is clear that the opportunity for innovation to effect significant lasting change is dependent on ripeness and readiness across scales, from the individual, community and organizational levels straight through to the institutional arrangements like legal and political systems. Each of the most promising social innovations requires a unique combination of entrepreneurship, established or institutional connectors, sufficient financing and other ways that windows of opportunity line up to translate into systems-level impact. This kind of impact or change rarely occurs from the scaling of one specific idea or organization, and is most certainly not something that can be predicted or controlled. Just as pressing social problems are complex and have interdependent solution requirements, corresponding responses that address them tend to be multifaceted and well diffused.

But the key point is that for value to be meaningful it has to be an aspect of the relationship between demand and supply. The demand may come from a foundation wanting to promote carbon reduction, or the spread of Christianity, or human rights, or from a government wanting to save money. But there is no objective measure of value that is separate from these expressions.

Practical work designing assessment tools for services funding innovation has shown that these insights can be used to shape everyday tools. In practice, any tools need to address at least three dimensions of assessment.

1. The assessment of outcomes achieved: in some fields such as health there are well-established quantitative measures such as QALYS, employment rates or education value added.
2. Economics: how much does the idea cost, how much does it save, and over what time horizon?
3. The practicalities of implementation and risk: however good the idea, can it be implemented in practice? Will powerful interests block it? Are there the capacities in place to put it into effect?

Finally, for funders we can add a fourth dimension: how well does the activity fit with the strategic priorities of the funder, whether it is a government or a foundation?

All four dimensions tend to be important to real-world decision making (Figure 18.1). The four cannot easily be added up into a single number, since they are based on a combination of some hard data and much more qualitative judgements.

Figure 18.1 Four dimensions of evaluation

If there is to be a shared architecture for measuring or assessing social value *ex ante*, frameworks of this kind are essential. For measuring value *ex post*, implementation risk no longer matters.

Several critical points emerge from this approach. The first is that the value of these tools is that they help to structure a discussion, and later a negotiation, between a funder and a provider. The second is that because there are no objectively right answers to the questions, it matters a great deal if the people involved in trying to make estimates can review each other's work and help to make assessments more consistent and reliable. Again the formal tools are only useful to the extent that they help a community to learn from experience about the difficult task of making decisions with uneven and limited data. Statistical measures are feedback tools, and their use depends largely on how well developed the broader systems of learning are. The third is that the tools are most useful if they help both funders and practitioners to think creatively about the links between inputs and outcomes: for example, how

to reap the very different economies of scale, scope, flow, penetration or prevention.

It then soon becomes clear that different structures of value exist in different fields. In some fields, such as in health in the UK, it is relatively straightforward because there is a single purchaser, which has great power relative to the overall health system. But in most fields where social innovation is occurring, this is not the case. Indeed every field has a different structure of value that has to influence what is measured and by whom. For example, in education, some value accrues directly to the learner (in the form of future earnings), while some accrues to the family or the wider community. Over several decades researchers have tried to distinguish the individual and social returns from different types of education. Vocational education has a different structure from generic skills. Some skills may be not only specific to an industry, but also to a location (e.g. particular language skills). A programme providing intensive support to a chaotic drug user will have a more complicated structure of value, creating some value for the individual (both financial and in terms of well-being), value to the community (for example from lower crime) as well as value for a wide range of public agencies (from hospitals, whose emergency services will be less used to police, prisons and welfare agencies).

Serious assessments of value need to start with making sense of the structure of value. But there are some simpler starting points. It is legitimate for a funder to set out what it wants to fund (for example, care for prisoners' families or action to prevent HIV/AIDs infection), and then to hold NGOs to account for what they achieve. And it is legitimate for an NGO to set out what it wants to achieve, and then to showcase what it has done, perhaps with the help of a third party. Some rough and ready measures of social impact may help managements decide to shift their resources and energy from one activity to another. However, these are bound to be sketches and should not pretend either to a spurious scientificity, or to be objective.

Within sectors, measures are expected that will increasingly emerge from peer commentary and review, whether in explicit wiki formats or through other measures of crowd-sourcing. For funders the most useful source of ideas about how to assess a project for homelessness will be other projects concerned with homelessness. Likewise, projects addressing loneliness among the elderly will often learn most from similar projects, and find out how they cope with such tricky issues as the measurement of subjective well-being or the cost savings that result at hospitals. Accumulating more good examples, with relevant comparisons, will make it possible to develop more intelligent communities of practice, balancing the generic needs of measurement with necessarily more sector- and context-specific combinations of elements.

5. CONCLUSIONS

There is a great deal of activity in the field of measurement of social innovation. But it remains an underdeveloped field. It can and should learn lessons from business, but should not be naïve. The world has learned the hard way that even in commercial markets concepts such as profit are not the objective facts they appear to be in economics textbooks. Instead, measurement tools are tools for discovery, and should be used to support discussion and negotiation between people wanting to finance social goods and those wanting to provide them. They are useful if they bring choices and trade-offs to the surface, less so if they disguise them.

For decision makers in urgent need of tools, devices are required that bring to the surface the key facts rather than simplifying them into a single number. In particular, tools are needed that cover the four key dimensions of assessment: will the right outcomes be achieved? Is the action cost-effective? Does it have a strategic fit with the priorities of the funding bodies? And is it likely to be implementable?

Within these we suggest some simple presentation devices for investment organizations. Visually and conceptually we can think of a circle representing the direct monetary value of innovation, included in a circle representing the indirect monetary value, included in circles representing other types of impact and value (Figure 18.2).

Suggestions have been made as to how the rather different field of innovation measurement could evolve, with greater use of tools for assessing cultures of innovation, measuring innovation spending and activity, and showing the proportions of goods and services in different fields that are 'new to market'. However, indicators do more than just monitor and measure. They have agency of their own; they can have a mobilizing effect, bringing attention to specific issues, allowing people to share information, provoking institutional action and so on (Davis and Kingsbury 2011). Indicators for social innovation are required to ensure that new approaches are effective, but also to ensure that the field continues to grow and develop.

Indicators are, of course, dynamic; like any technology, they change. The indicators for social innovation will be modified by users and develop in response to users' needs (Gault 2011). In the early stages of evolution indicators are likely to produce data that are crude and even misleading. It is easy to conclude that no data are better than misleading data. However, this is a necessary stage to be navigated through as the field develops more comprehensive, reliable and meaningful indicators, and a sophisticated body of users able to understand what they mean.

Figure 18.2 Value and outcomes of innovation

NOTES

1. The Nesta Innovation Index is one such method, endorsed by the OECD, the US Department of Commerce and the UK Office of National Statistics. A pilot in 2009 has been followed with more recent data sets, including 2012. The index measures business investment in innovation, covering not just traditional R&D but also other aspects of innovation such as software and organizational development.
2. The public sector productivity estimates produced over the last few years by the UK Office of National Statistics are, to the best of our knowledge, the most serious effort to address the many complex measurement issues faced by services such as criminal justice and eldercare.
3. These also try to estimate what non-users might value, whether through 'altruistic use' (knowing someone else might like it); 'option use' (having the opportunity to do something); 'bequest use' (leaving something for the future), and 'existence use' (satisfaction that things exist even if you do not enjoy them personally).
4. 'Travel cost method' is one example that looks at the time and travel cost expenses that people incur to visit a site as a proxy for their valuation of that site. Because travel and time costs increase with distance, it is possible to construct a 'marginal willingness to pay' curve for a particular site.
5. REDF (The Roberts Enterprise Development Fund) is a San-Francisco-based venture philanthropy organization that creates jobs and employment opportunities for people facing the greatest barriers to work: www.redf.org.

6. The Social Value Added Working Group of the EQUAL National Thematic Network for Social Entrepreneurship is developing the 'SYTA method' (SYTA-malli) of assessing the economic and the content-related outcomes of a social enterprise's activities: www.syta.fi.
7. For a more detailed survey of methods used by NGOs see Melinda Tuan's review (2008) for the Gates Foundation.
8. For more information about the Center for High Impact Philanthropy, see www.impact.upenn.edu.
9. For more information about blended value, see www.blendedvalue.org.
10. For example an opinion poll that suggests that citizens would like government to spend more money on services but fails to indicate public willingness to pay for this course of action does not constitute evidence that higher spending will increase public value.
11. These include 'multi-criteria' analysis methods such as Value in Design (VALID) or Design Quality Indicators (DQI); 'stated preference' models; and an array of choice modelling and hedonic methods, quality-of-life metrics, environmental impact assessments, environmental footprints, Placecheck, Local Environmental Quality Survey (LEQS) and landscape area characterisation methods. These and others are described in more detail in a literature review undertaken by the Young Foundation for the Commission for Architecture and the Built Environment (CABE) (Mulgan et al. 2006).
12. For further information, a range of reports is available at Patient Reported Outcomes Measurement Group, <http://phi.uhce.ox.ac.uk/oldpubs.php>.
13. EQ-5D is a standardized measure of health status developed by the EuroQol Group in order to provide a simple, generic measure of health for clinical and economic appraisal. It provides a simple descriptive profile and a single index value for health status that can be used in the clinical and economic evaluation of healthcare as well as in population health surveys. For more information, see Rabin and de Charro (2001) and www.euroqol.org.
14. For further information, see <http://fhs.mcmaster.ca/hug/>.
15. www.rsenews.com/public/dossier_social/bilan_societal.php?rub=2.
16. <http://www.bilanciosociale.it/>.
17. For more information about the Beyond GDP programme, see www.beyond-gdp.eu.
18. Varying from a high of 7.3 per cent in Canada to a low of 1.3 per cent in the Czech Republic (Salamon et al. 2007).
19. Boston Consulting Group and the Young Foundation (2011), was the first of a series of more in-depth market analyses of social investment.
20. The literature is expanding rapidly. See, for example, Nicholls and Murdock (2012).
21. Indeed, economics has no laws comparable to the laws of physics. Even apparently firm laws, such as that demand falls when prices rise, have many significant exceptions.
22. For a fuller analysis of discount rates, the roles of 'exponential' and 'hyperbolic' rates, and why their level tends to reflect social structures and the strength of social bonds, see the chapter on value in Mulgan (2009).

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