

creating strong communities – measuring social sustainability in new housing development

Tim Dixon and Saffron Woodcraft look at the importance of social sustainability for housebuilders, present a framework for its measurement, report the results of applying the framework in practice, and discuss the policy and practice implications of such an approach

Since the emergence of the Brundtland Report in 1987, it has been customary to see sustainable development as a 'triple bottom-line approach' which attempts to deliver economic growth while maintaining social inclusion and minimising environmental impact. However, despite the relative equivalence with which these dimensions have been treated – certainly within the academic literature and in the majority of empirical research – there has often been a focus on environmental and economic issues rather than on social issues.^{1,2}

This is partly the result of the difficulties of defining what social sustainability actually is, and assessing and measuring it, but it is also due to a perceived 'trade-off' between social progress and environmental issues. This is, in many ways, surprising, given the strong historical traditions of 'social town planning' in the UK, tracing back to the social entrepreneurs of the 19th century such as Titus Salt and, later on, to Patrick Geddes' focus on 'place-work-folk' and Ebenezer Howard's Garden City concepts – all of which placed a strong emphasis on people and jobs, and providing housing for them in an attractive environment.^{3,4}

However, over the past decade social sustainability has started to emerge as a field of research, policy and practice, with a particular focus on the social

outcomes of urban development, housing and regeneration. For example, global actors such as the World Bank, the United Nations Environment Programme, the European Investment Bank, and the European Bank for Reconstruction and Development are all involved in programmes, policy and research that focus explicitly on social sustainability at a variety of scales (as distinct from the social implications of environmental management and the social outcomes of economic development). Cross-sector strategies focusing on social sustainability and urban development and involving central and local government, state agencies, universities and public and private housing providers can also be found in the UK, Australia, Canada, Israel and Sweden.

Moreover, other initiatives connect social sustainability to work on labour rights, ethical tourism and socially responsible finance, while a small but growing number of tools for measuring and reporting on social sustainability have been created for policy-makers and practitioners.^{2,5}

This shift is being driven by a number of forces in the property development industry (which includes housebuilding). First, at an organisational level, the industry is striving to better understand its wider social and economic 'footprint', driven primarily by

Table 1
Urban social sustainability – contributory factors as identified in a literature review

Non-physical factors	Predominantly physical factors
<ul style="list-style-type: none"> ● Education and training ● Social justice – inter- and intra-generational ● Participation and local democracy ● Health, quality of life and wellbeing ● Social inclusion (and eradication of social exclusion) ● Social capital ● Community ● Safety ● Mixed tenure ● Fair distribution of income ● Social order ● Social cohesion ● Community cohesion (i.e. between and among different groups) ● Social networks ● Social interaction ● Sense of community and belonging ● Employment ● Residential stability (versus turnover) ● Active community organisations ● Cultural traditions 	<ul style="list-style-type: none"> ● Urbanity ● Attractive public realm ● Decent housing ● Local environmental quality and amenity ● Accessibility (for example to local services and facilities/ employment/green space) ● Sustainable urban design ● Neighbourhood ● Walkable neighbourhood – pedestrian-friendly

The above factors are set out in no particular order

Source: 'The social dimension of sustainable development: defining urban social sustainability'¹⁴

stakeholder reporting requirements in relation to corporate responsibility. For example, the housebuilding industry has a sustainability benchmark measure, developed through NextGeneration, which is designed to assess and monitor housebuilders' sustainability strategy, governance and risk management, and their impact on the environment and on society.⁶

Secondly, within the UK we are looking at a changed planning landscape, brought about by a drive towards 'decentralisation' through the localism agenda and, at the same time, the continued 'centralism' of planning (albeit in reduced extent), through the introduction of the National Planning Policy Framework (NPPF) in 2012.^{7,8} Indeed, the NPPF places the issue of sustainable development centre stage within planning, and raises important questions on how we define and measure social sustainability. For developers, this means understanding how new housing can help to create strong communities, set in the context of a presumption in favour of sustainable development. As the NPPF states (in paragraph 7), the 'social' role of development is defined as:

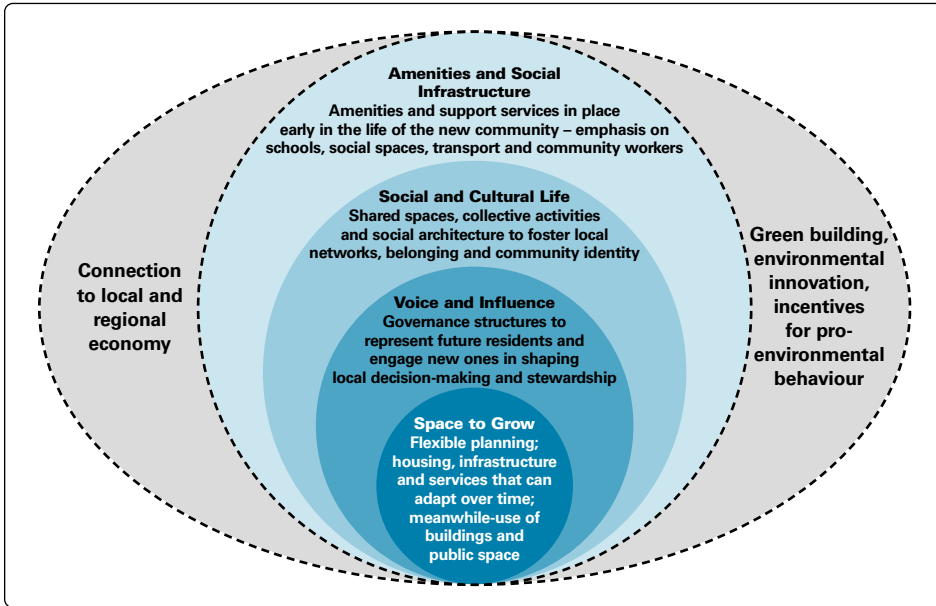
*'supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being.'*⁹

Some 18 months on from the introduction of the NPPF, it is clear that judicial review will play an important role in deciding on its precise connotations, but a key issue for housebuilders who subscribe to creating well designed new places is how they can articulate the concept of social sustainability and explain how it can be measured. Assessing social sustainability pre- and post-development will therefore be increasingly important for developers and housebuilders seeking to engage with local authorities and communities.

This independent article describes a social sustainability measurement framework developed jointly in a project carried out by Social Life and the University of Reading, commissioned by the Berkeley Group.¹⁰ The article sets out in detail how social sustainability can be defined, how it can be measured, and the resultant implications of the research findings for policy and practice.

What is social sustainability, and why is it important to the housebuilding industry?

Previous academic work has identified that social sustainability brings together a number of different ideas about social equity, social needs and the sustainability of communities (see Table 1), often described in terms of social capital, social cohesion and wellbeing.^{2, 11-13} Housing and urban regeneration are strong themes throughout this work, as is the idea that the neighbourhood or local community is an appropriate scale for measurement.¹⁴ Importantly,



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Fig. 1 Future communities – a framework for creating socially sustainable new communities

Source: Living at Kidbrooke Village²⁰

this work acknowledges that the practical and operational aspects of social sustainability are not well explored, clearly defined or well integrated in the policy and practice of urban planning and housing.¹⁵

For housebuilders, any definition of social sustainability should focus not only on neighbourhood and community, but also on physical environment and social capital. Social sustainability can thus be seen as a life-enhancing condition, which also highlights the importance of ‘place-making’. A forward-thinking approach should to try to capture a longer-term ‘stewardship’ (‘place-keeping’) role.¹⁶ This is important given that many large-scale new UK developments have had a chequered and controversial history.

Although the Garden City and Garden Suburb projects of the past, and other recent projects such as Granary Wharf in Leeds and Tibby’s Triangle in Southwold, took the ideas of Geddes and Howard seriously, and continue to flourish, other high-profile developments continue to attract controversy. In this respect, the linkages between good design and people’s wellbeing and sense of place are well understood. Our research therefore defined social sustainability as follows:

‘Social sustainability [is] about people’s quality of life, now and in the future. Social sustainability describes the extent to which a neighbourhood supports individual and collective well-being. It combines design of the physical environment with a focus on how the people who live in and use a space relate to each other and function as a community. It is enhanced by development which provides the right infrastructure to support a strong social and cultural life, opportunities for people to get involved, and scope for the place and the community to evolve.’¹⁷

Social sustainability – a framework for measurement

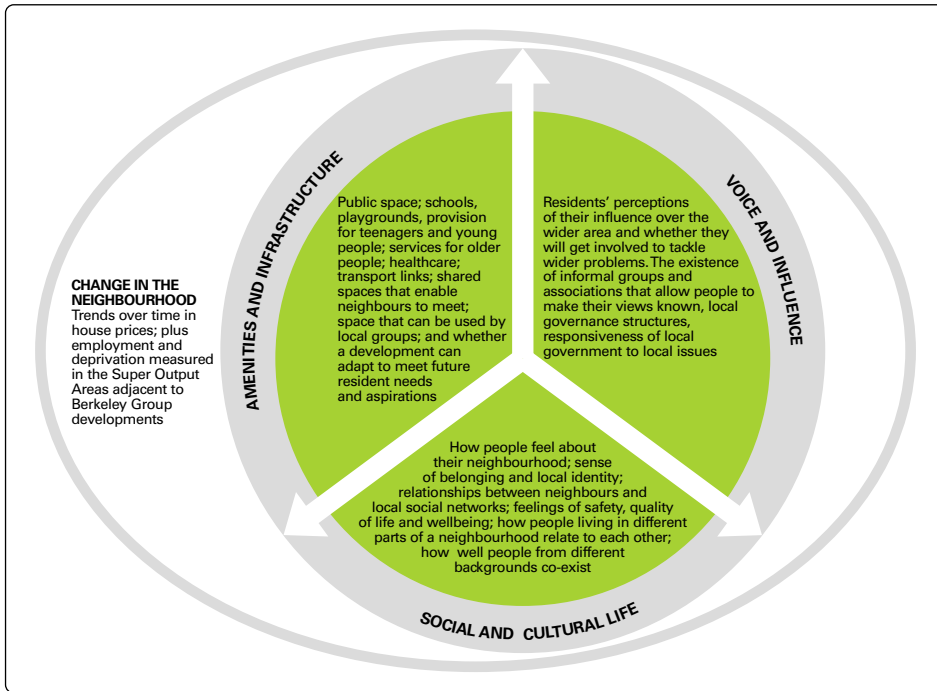
Using this definition, and building on previous work by Social Life¹⁸ and other research,¹⁹ the aim of the project was to create a practical and cost-effective way of measuring peoples’ quality of life and the strength of community across the Berkeley portfolio.

The starting point for the project was a practical framework developed by Social Life, with the Homes and Communities Agency, to aid understanding of social sustainability in new communities (see Fig. 1).

This work was adapted for the Berkeley Group, and a framework and a set of metrics were developed to measure the experience of residents living in new housing developments against the definition of social sustainability. The final framework consists of three dimensions (see Fig. 2, overleaf):

- ‘Amenities and infrastructure’ captures past attempts to lay the foundations for a thriving community through housing mix, public realm, landscaping, transport connections and community infrastructure.
- ‘Social and cultural life’ illustrates the present – how people experience the development and how this contributes to their quality of life, perceptions of safety, feelings of belonging and interaction with neighbours.
- ‘Voice and influence’ illustrates residents’ potential to shape their future through opportunities to engage.

A fourth dimension, ‘change in the neighbourhood’, captures the impact over time of a new community on the surrounding neighbourhoods and wider area. It was identified as important to a practical assessment of social sustainability at the local level, in particular for understanding how new development changes the demographic profile of a neighbourhood and



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Fig. 2 The four dimensions of the social sustainability framework

Source: *Creating Strong Communities*¹⁷

**Box 1
National surveys included in the analysis**

**British Household Panel Survey/
Understanding Society study (BHPS/US)**

Institute for Social and Economic Research: 1996 to the present

- 100,000 individuals in 40,000 British households
- Data used from Understanding Society: Innovation Panel, Waves 1-2, 2008-09

Taking Part survey

Department for Culture Media and Sport: 2005 to the present

- 14,000 participants
- Data taken from the 2010-11 survey

**Crime Survey for England and Wales
(formerly the British Crime Survey)**

Home Office: 1986 to the present

- 51,000 participants
- Data taken from the 2010-11 survey

Citizenship Survey

Department for Communities and Local Government: 2001 to 2011 (biannual to 2007, annual 2008 to 2011)

- 11,000 participants
- Data taken from the 2009-10 survey

housing affordability. However, this dimension was not included in the final framework for the Berkeley Group because the chosen research method involved benchmarking primary survey data against the 2011 Census, which was not available at the time. This data is now available for analysis and the Social Life team is exploring how this data could be applied.

The three different dimensions of the framework contain 13 different indicators. Each indicator is informed by a number of different questions, drawn primarily from pre-existing national datasets or industry-standard assessment tools (see Box 1). In total, 45 different questions were used to inform the indicators. This approach was chosen because the research team wanted, where possible, to develop a resident survey and site survey that used pre-tested and validated questions, and to be able to benchmark the resident survey findings against national datasets.

The indicators for the 'social and cultural life' and 'voice and influence' dimensions were created by selecting questions from four national datasets: the Understanding Society study, the Taking Part survey, the Crime Survey for England and Wales, and the Citizenship Survey. A number of questions were created for the 'social and cultural life' dimension where appropriate questions did not already exist.

The indicators from the 'amenities and infrastructure' dimension of the framework were created by selecting questions from the Building for Life²¹ assessment tool, an industry standard that is endorsed by the UK Government; from the Public Transport Accessibility Level (PTAL) tool (an assessment used widely in London); and from

Table 2
The six framework test sites

Name of development/ Typology/ Period of study	Location	Brief description*
Empire Square Regeneration 2011-12	Inner city: In the London Borough of Southwark, South London	Former warehouse site. 567 homes – 30% affordable
The Hamptons Suburban dwellings 2011-12	Suburban: In the London Borough of Sutton, South West London	Former sewage works. 645 homes – 33% affordable
Imperial Wharf Urban 2011-12	Inner city: In the London Borough of Hammersmith and Fulham	Former gas works. 1,428 homes – 47% affordable
Knowle Village Rural/semi-rural 2011-12	Rural: In the Winchester City Council area, Hampshire	Former hospital for the mentally ill. 701 homes – 31% affordable
Beaufort Park Area regeneration 2012-13	Suburban: In the London Borough of Barnet, North London	Former RAF site. 1,150 homes completed (of a total of 2,990 planned) – 30% affordable (approximately 50% socially rented, 25% shared ownership, 25% discount market sale)
Kidbrooke Village Regeneration 2012-2013	Suburban: In the London Borough of Greenwich, South London	Site of former Ferrier Estate. 519 homes completed (of a total of 4,800 planned) – 50% affordable in the early stages of development; on completion 38% affordable

* Figures accurate at the time of research

sources of secondary data about residents' travel habits. Additionally, a number of questions were created for this dimension where appropriate questions did not already exist.

The framework was tested initially during 2011-12 on four different housing developments that had been completed in the past five years (see Table 2 for summary details). On each of the four sites independent resident survey and site surveys were carried out, and a small number of contextual interviews with local stakeholders (such as the estate manager, community representatives or residents associations, local businesses, one or more housing associations, a ward councillor, and council officers) provided additional qualitative insights to aid interpretation of the survey results. In total, 598 face-to-face interviews were carried out with residents of the four housing developments. A quota sampling method was used to ensure that the survey responses reflected the tenure mix for each of the developments.

Further work was then also conducted on two additional developments – Beaufort Park in Colindale, North London, and Kidbrooke Village in Greenwich, South London, during 2012-13 (see Table 2).

In all the case study sites the results of the resident surveys were benchmarked against geo-demographic classifications. The Office for National Statistics'

Output Area Classification (OAC) was used for questions taken from the Understanding Society study and Taking Part survey, and the Index of Multiple Deprivation (IMD) was used for the Crime Survey for England and Wales and the Citizenship Survey. This enabled comparisons to be made between the responses of people living on the four Berkeley housing developments and the average responses that would be expected from people from comparable social groups in comparable areas.

The differences between the actual and expected scores were subjected to statistical testing. These results were then used to populate the 'voice and influence' and 'social and cultural life' dimensions of the framework. These benchmarks are referred to as the 'benchmarks for comparable places'. A small number of questions underpinning the 'social and cultural life' dimension were created specifically for the framework to fill gaps where there were no appropriate pre-existing questions from national surveys. Consequently, it was not possible to benchmark the results of these questions, so an assessment was generated by comparing results across the four sites.

The results for the 'amenities and infrastructure' dimension of the framework were based on the site survey, which followed the structure and scoring system of the original Building for Life survey, and

on a combination of PTAL scores and assessments of secondary data about residents' travel patterns and transport provision on the developments.

A RAG (red-amber-green) rating system was developed to provide a simple graphic representation of the results – where green indicates a positive result which is higher or better than would be expected; amber a satisfactory result in line with the benchmark for a comparable place; and red a negative response, lower than would be expected (see the example in Fig. 3). The RAG rating system was adopted to present the results in a form that is practical and meaningful for different audiences, and to enable presentation of a range of responses rather than a single social sustainability 'score'.

Interpreting the results – a case study example of Kidbrooke Village

Kidbrooke Village in the Royal Borough of Greenwich, South East London is the most recent Berkeley Group development to be assessed using this method. The development is a £1 billion regeneration project which, over the next 15-20 years, will create a new suburban community on the site of the former Ferrier Estate. It is currently one of the largest regeneration projects in the UK and has been planned to provide a new mixed-tenure, mixed-used community with 4,800 homes, plus schools, shops, health facilities, restaurants, offices, community facilities and open spaces.

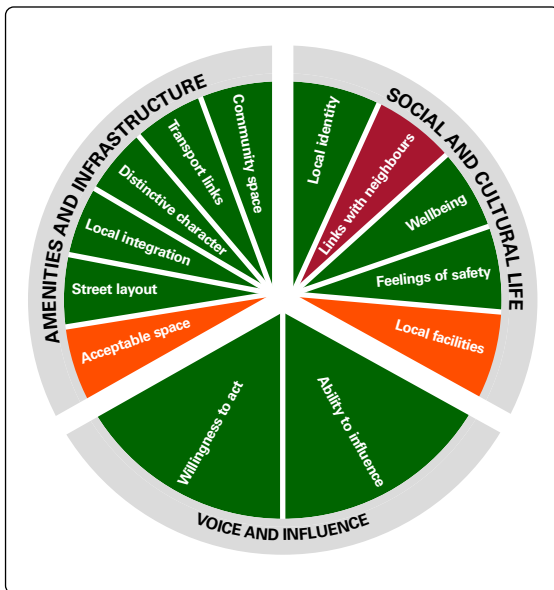
A social sustainability assessment was undertaken at the beginning of 2013. An independent site

survey was also carried out, and 125 residents (24% of occupied households) were interviewed using random sampling and tenure-based quotas. Fig. 3 shows the resulting RAG ratings (derived from statistical comparisons with national benchmarks) against the 13 indicators in the framework.

Fig. 3 shows that 10 of the 13 indicators are positive for Kidbrooke Village, which means that residents' experiences were above the benchmarks for comparable places. Two of the indicators – adaptable space and local facilities – are rated as satisfactory, which means a comparable experience to the benchmarks. One of the indicators – links with neighbours – is red, meaning that the residents reported experiences below the benchmarks for comparable places.

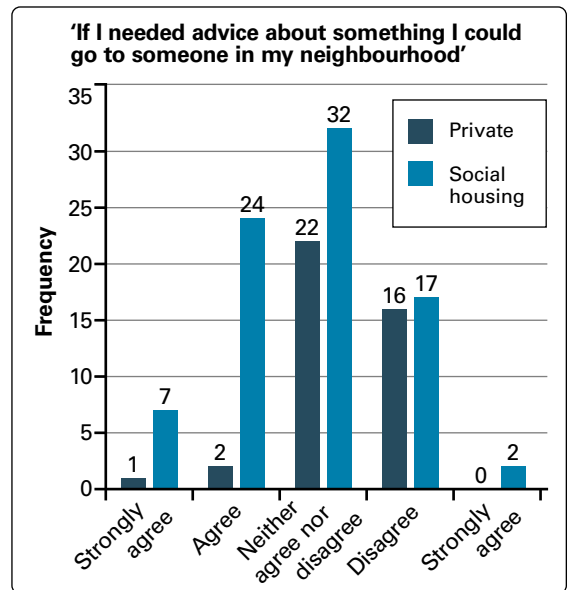
Analysis of the qualitative interviews and the resident and site surveys behind the RAG ratings suggest that the majority of people currently living at Kidbrooke Village already feel settled and secure and feel that they 'belong' in the community.

Although Kidbrooke Village is a new community, many of the first residents are returning to the neighbourhood, having previously lived on the Ferrier Estate. The research shows that 'old and new' residents are getting along well, and social housing providers report that returning residents are very happy with the quality of their new homes and with the improvements to the public realm. Much work has been done by housing providers and others to make sure that residents who are returning to Kidbrooke Village are housed close to



Above

Fig. 3 Kidbrooke Village social sustainability assessment using the indicators in the Berkeley Group framework
Source: *Living at Kidbrooke Village*²⁰



Above

Fig. 4 Links with neighbours - responses by tenure type
Source: Kidbrooke Village Residents Survey, conducted by Social Life/ComRes, 2012



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Kidbrooke Village
– before and after
redevelopment
(left and right,
respectively)

people they know. Arguably, this is reflected in the high levels of belonging and satisfaction that many residents report, which translate into positive indicators for wellbeing and local identity.

However, Kidbrooke Village residents report relatively low levels of interaction with their neighbours compared with the benchmark, which is why the 'links with neighbours' indicator is red (see Fig. 4). This result is not surprising given that almost 77% of survey respondents had lived in their homes for a year or less. This indicator includes six separate questions, three of which are about regularly talking to neighbours, exchanging favours with neighbours, and seeking advice from neighbours. Residents living in social or affordable housing reported higher rates of neighbourly behaviour than private residents: they were more likely to regularly speak to other neighbours, to have local support networks to call on, and to feel that people could be trusted – again reflecting the return of previous residents.

Both of the indicators measuring 'voice and influence' were rated as positive, which reflects high levels of consultation on environment and success in achieving change. Over 71% agree they can influence decisions affecting the local area.

Five of the indicators measuring 'amenities and infrastructure' were positive and one was satisfactory. These indicators are assessed through an independent site survey. The architecture and high-quality materials used in the residential and public areas were felt to be important in giving Kidbrooke Village a distinctive character. Spatial planning and design have also been used to create streets and open spaces that are intended to be friendly, and to encourage interaction between neighbours. Particular attention has been paid to making sure that the same high standards of design and materials are used in all housing types, so that there is no visible difference between different tenures.

Kidbrooke Village also received a satisfactory rating for the adaptable space indicator. All family homes have small back gardens, which provide

residents with the possibility of undertaking small future building extensions/adaptations. The development includes a variety of open spaces that could be seen as opportunities to involve residents in making decisions about the use, design and long-term management of the public realm.

Implications for policy and practice

The measurement framework has been designed for a particular housing developer. The focus was therefore on the aspects of community strength and quality of life that a housebuilder could reasonably be held directly accountable for, or could influence through relationships with public agencies. Therefore measures focused on social equity and justice and access to education and employment have been excluded where they are beyond the control or influence of a housebuilder.²²

However, this research is important because it is the first time that a housebuilder in the UK has attempted to operationalise and measure social sustainability. The Berkeley Group is now intending to mainstream this approach. This work, and the Kidbrooke Village case study, demonstrates that it is possible to measure how residents experience life in a new neighbourhood, to understand how new communities start to form, and to identify how to intervene and help new places to flourish. Of course, not every development will produce a set of green indicators, but learning from the past can avoid the same mistakes in design and resident support being repeated in the future.

Moreover, this should all matter greatly to the housebuilding industry and planning authorities. The Government's wellbeing agenda and the National Planning Policy Framework both raise questions about what sustainable development means in practice, and about the role of developers, local government and public agencies in creating successful new communities. While housebuilders are increasingly good at creating safe, well maintained places, the industry as a whole lacks the tools to understand,

and therefore to support, the social fabric of the new communities they are building. Housing need and a lack of public funding, along with new policy frameworks that emphasise wellbeing and sustainability, make it increasingly important to create this knowledge. It needs to be embedded across all the organisations involved in planning, development and estate management. The industry needs to interrogate what is known about developing sustainable communities and then start to address the research gaps.

The value of creating places that are environmentally sustainable is widely accepted, and we have the evidence and the tools to act on this knowledge. Social sustainability, by contrast, is still a relatively new concept in the UK. It demands fresh evidence, new language and new tools to operationalise this crucial area of policy.

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Notes

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- 2 S. Woodcraft: 'Social sustainability and new communities: moving from concept to practice in the UK'. *Procedia – Social & Behavioral Sciences*, 2012, Vol. 68, 29-42. http://social-life.co/media/files/Woodcraft_-_2012_-_Social_Sustainability_and_New_Communities_Moving_copy.pdf
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- 5 A. Colantonio and T. Dixon: *Urban Regeneration and Social Sustainability: Best Practice from European Cities*. John Wiley & Sons, 2010
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- 8 N. Holman and Y. Rydin: 'What can social capital tell us about planning under localism?'. *Local Government Studies*, 2013, Vol. 39 (1), 71-88
- 9 *National Planning Policy Framework*. Department for Communities and Local Government, 2012. www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf
- 10 This social sustainability measurement framework was developed jointly by Social Life and Professor Tim Dixon of the School of Construction Management and Engineering at the University of Reading. Full details of the project can be found in the report

Creating Strong Communities, co-authored by Nicola Bacon, Douglas Cochrane, Saffron Woodcraft and Dr John Brown, and published by the Berkeley Group in September 2012 (see note 17, below). The research team is continuing the development and implementation of the framework in conjunction with Berkeley and other housebuilders. Further information on the research is available at www.berkeleygroup.co.uk/sustainability/social

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- 20 S. Woodcraft and N. Bacon: *Living at Kidbrooke Village*. The Berkeley Group, 2013. www.social-life.co/media/files/Living_at_Kidbrooke_Village.pdf
- 21 Building for Life is an assessment tool developed by the Commission for Architecture and the Built Environment (CABE) – see <http://webarchive.nationalarchives.gov.uk/20110107165544/http://www.buildingforlife.org/>
- 22 The research team is exploring how to incorporate the 'change in the neighbourhood' dimension into the framework. This will enable analysis of the impact of new housing developments on a wider area over time – in particular, changes in the demographic profile of surrounding neighbourhoods, in health and education outcomes, in employment and income, and in housing affordability. This information will be valuable in understanding the long-term social effects of building new housing and in developing new thinking about how to mitigate some of the challenges faced by many neighbourhoods, such as the impact of long-term disadvantage