

# Connected Communities

## ICT use and connectivity of minority communities in Wales

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## **Executive Summary**

This project has aimed to gain an understanding of the impact of Information and Communication Technologies (ICTs) on changing cultures and patterns of connectivity *within* and *between* minority communities and the potential of multifaceted digital divides in constraining or shaping these forms of connectivity. It has used Wales as a test-bed and focused on ethnic communities (and their language and cultural attributes) and people with disabilities. The project activities ranged from reviewing the literature and existing research to undertaking stakeholder engagement activities. The project findings highlight that ICTs and the Internet are perceived as being key to promoting community connectivity in contemporary society and that the minority communities are at risk of both social and digital exclusion. There is clear anecdotal evidence that these communities require bespoke policy which reflects their specific needs and requirements. However, the evidence provided in existing (mostly quantitative) research data **fails to adequately explore these issues and 'grey data' is both difficult to identify and access**. Therefore there is a clear rationale for developing more qualitative, fine grained, community-based studies in order to explore the barriers to digital inclusion and impact of digital inclusion/exclusion within minority groups.

## Researchers and Project Partners

Swansea University  
University of Glamorgan  
Cardiff University  
Wales institute of Social & Economic Research, Data & Methods (WISERD)



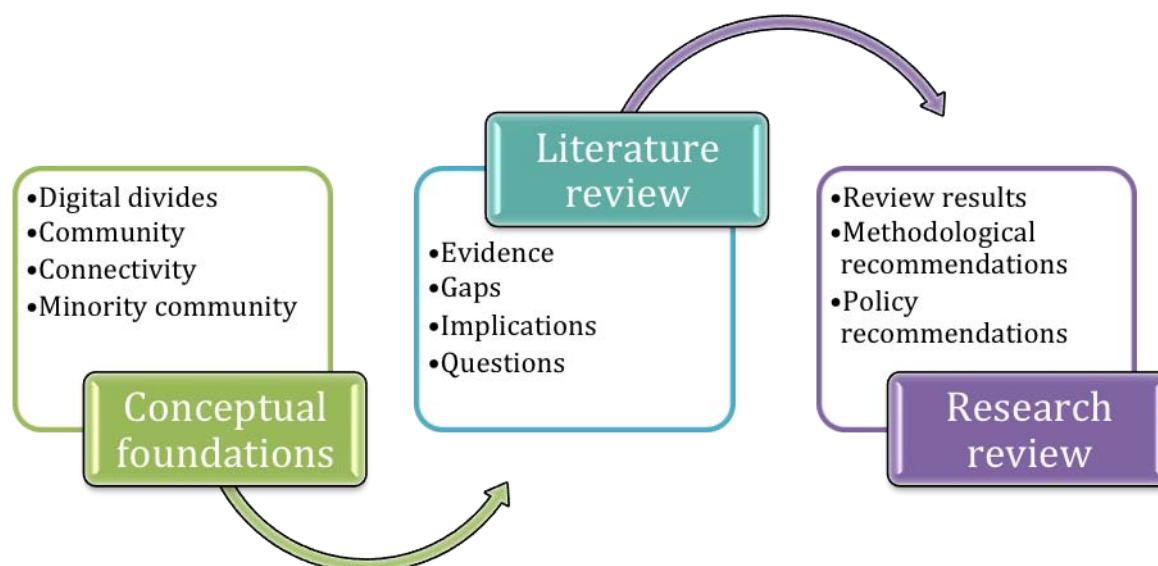
## Key words

Information and Communication Technologies, Internet, community, minority, disability, ethnicity, language, connectivity, digital divides

## Introduction

This project has aimed to gain an understanding of the impact of Information and Communication Technologies (ICTs) on changing cultures and patterns of connectivity *within* and *between* minority communities and the potential of multifaceted digital divides in constraining or shaping these forms of connectivity. It has used Wales as a test-bed and focused on the following categories of minority communities within Wales: ethnic communities (and their language and cultural attributes) and people with disabilities.

**Figure 1: Research map**



As shown in Fig. 1, the project involved three phases of work.

After setting the conceptual foundations of the work, a Literature Review<sup>1</sup> examined the key concepts of digital divides and ICT use/non-use, on the one hand, and community connectivity and its various and continuously expanding forms in minority communities, **on the other** (See 'External Links' section, No. 1). **It found that** the concepts of community and connectivity both appear in the literature as highly nebulous concepts, with ICTs adding both conceptual and real life complexity to them. It also found that ICTs and community connectivity set critical questions for connectivity needs and fulfilments within and between minority communities in particular. However, the concept of minority communities is the subject of much debate in the literature, posing the **question of how we distinguish minorities from the 'mainstream majority'**. **On the other**

<sup>1</sup> The 'References' section lists the main body of the literature reviewed.

hand, there is conflicting evidence regarding the significance of ethnicity, language and disability as standalone explanatory factors influencing variations in Internet access and/or use. Literature in the field often provides conflicting and overall insufficient evidence about the possible links of ethnicity, disability and language with socio-demographic and other population-wide factors of digital inclusion and connectedness.

The literature evidence and gaps in the evidence raised, as an implication, the need for a systematic review of empirical research data on ICT/Internet adoption in Wales (See **'External Links' section**, No. 2). The Research Review reflected on what quantitative and qualitative data exists in Wales, while addressing some of the gaps identified in the literature so as to better evaluate existing research and make recommendations for researchers and policy-makers in this area.

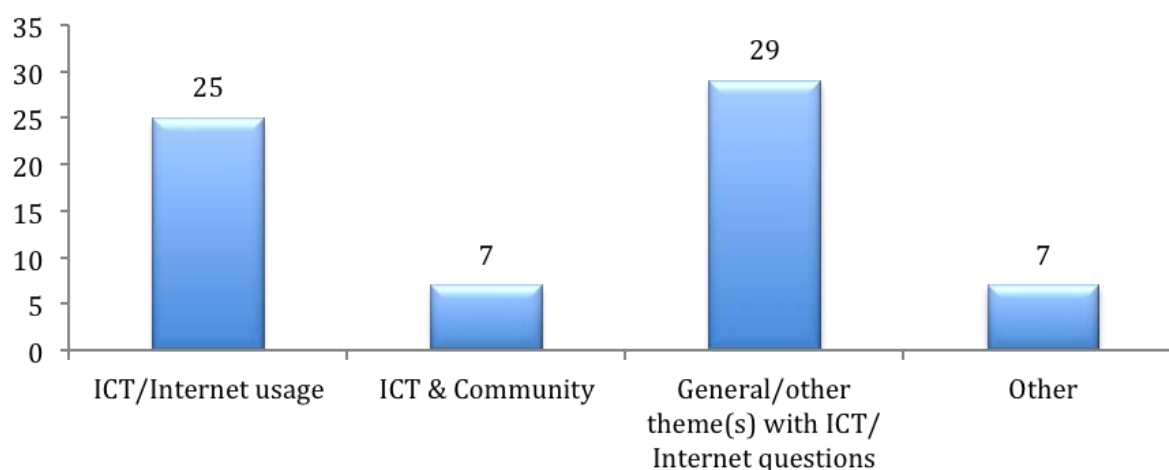
The findings of the Research Review are briefly presented below. They are discussed in the **'Discussion' section** alongside the Literature Review and the Stakeholder Engagement activity in the project. The paper concludes with a note on implications for future research (See **'External Links' section**, No. 3).

## Research Review

### General characteristics of research

As shown in Fig. 2, most of the research either address general themes involving questions about ICT/Internet or is entirely focused on ICT/Internet usage. On the contrary, a small number of studies explore ICT/Internet in a community context. Regarding spatial coverage (Table 1), most research has a UK-wide scope (e.g. Ofcom, ONS), while slightly less than half has a Wales-specific focus (e.g. Bevan Foundation, Welsh Assembly Government).

**Figure 2: Research topics**



Sample: 61 research studies/projects

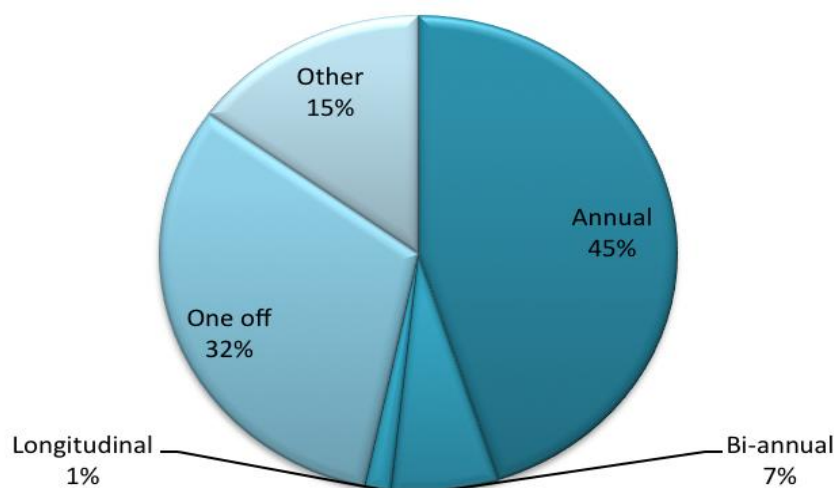
**Table 1: Spatial coverage of research**

Spatial Coverage	No of studies
Europe (UK +)	2
UK	34
Wales	27
Local (areas within Wales)	4

Sample: 61 research studies/projects

As shown in Fig. 3, most research is annual or one-off. A small percentage of it is conducted bi-annually or more frequently.

**Figure 3: Research frequency (%)**



Missing: 1 study

Sample: 61 research studies/projects

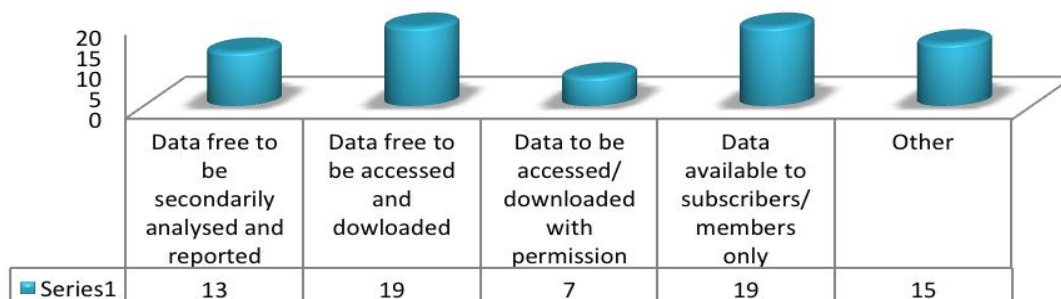
As regards research methodologies, the majority of research studies employ quantitative methodologies and just a few use qualitative methods (Table 2). Alike, most research outputs report primary quantitative results and far fewer offer secondary quantitative or primary qualitative findings (Table 3).

<b>Table 2: Research methodology</b>		<b>Table 3: Type of research</b>	
Methodology	No of studies	Type of research	No of studies
Qualitative	8	Primary quantitative	42
Quantitative	37	Secondary quantitative	18
Mixed	15	Primary qualitative	16
Missing	1	Secondary qualitative	3
Missing: 1 study		Other	9
Sample: 61 research studies/projects		Sample: 67 research outputs	

Fig. 4 shows that the relative majority of research data was either broadly accessible and downloadable or available to subscribers/members. On the other hand, only 13 studies allowed secondary analysis and reporting of data, whereas for a number of studies (15) either it was difficult to discern copyright rules or their data was completely non-accessible.



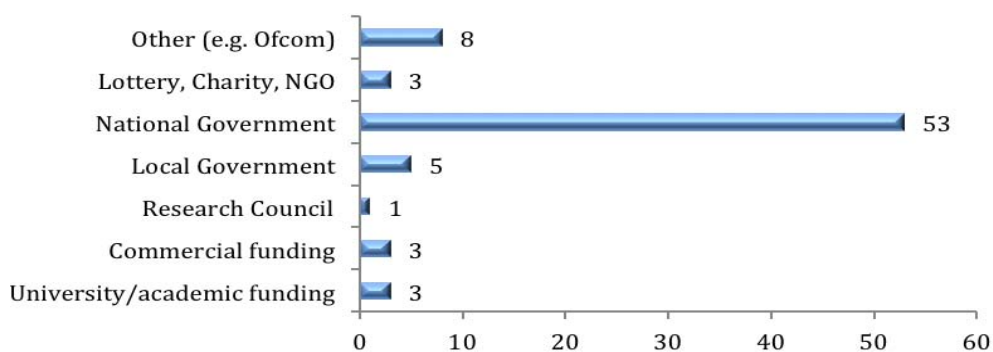
**Figure 4: Research data accessibility**



Sample: 61 research studies/projects

As shown in Fig. 5, most research is funded by the UK government, with a relatively small number of research studies being funded by other sources such as local government, research councils or the third sector.

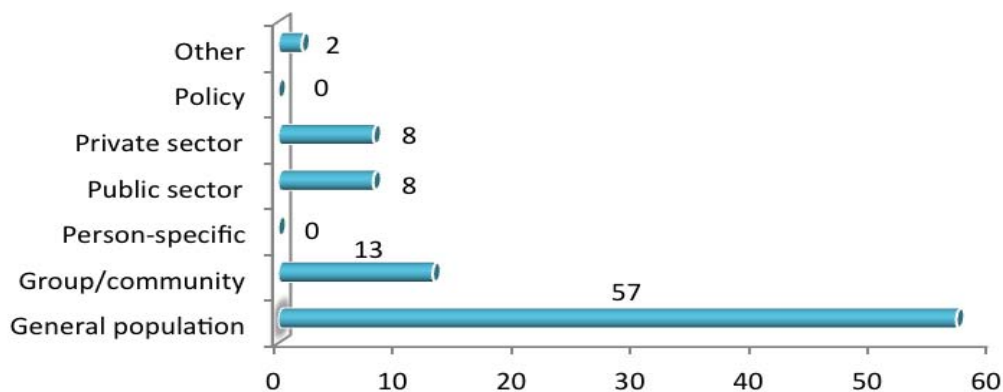
**Figure 5: Research funding**



Sample: 67 research outputs

Finally, most of the research outputs reviewed report on the general population and only a limited number are concerned with specific population groups or communities.

**Figure 6: Research subjects**



Sample: 67 research outputs



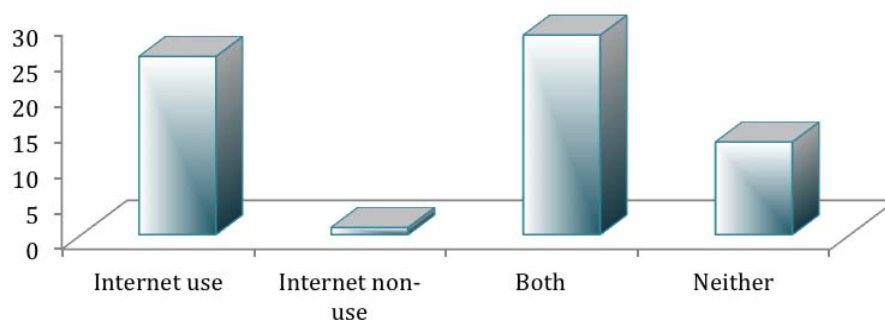
Regarding minority communities in particular, among the research outputs reporting on groups or communities:

- One output reported on people with learning disabilities.
- Two outputs reported on people with upper-body mobility or dexterity impairment.
- Two outputs reported on Welsh or bilingual speaking groups.
- A few outputs reported on local, rural and (socio-economically) deprived communities.

### Internet use/non use

Regarding patterns of Internet use and non-use, most research outputs report on Internet use or on both Internet use and non-use, with one research output reporting on Internet non-use only.

**Figure 7: Research and Internet use/non-use**



Sample: 67 research outputs

#### Internet use:

- Personal and work-related reasons for Internet use are those reported most, followed by community and family reasons.
- A relatively small number of research outputs (16) report community reasons for use.
- Skills-related or technical difficulties are reported more often than Internet connection or infrastructure problems in use. Accessibility problems – of concern to disabled people – are reported in 10 research outputs.
- Effects of Internet use are mainly positive or mixed, with only two research outputs reporting negative effects (e.g. sociability, time and confidence).

#### Internet non-use:

- Lack of interest, lack of skills and high cost are the main reasons for non-use.
- Disability is the fourth most important reason for non-use.

- There is little research (9) around non-users’ desire and/or likelihood to use the Internet.
- Only half of the research outputs report effects of non-use. About the same number of outputs report negative or mixed effects, and no output reports purely positive effects.
- Regarding positive effects, research refers to avoidance of harmful online content, protection from security/privacy risks, nurturing of offline sociability etc.

### Internet use/non-use and connectivity

Regarding Internet use/non-use and connectivity, only a small volume of research explores the impact of the Internet on the various facets of connectivity. The great majority of research outputs do not look at ‘connectivity’ effects of the Internet.

**Table 4: Internet use/non-use and connectivity**

Does this Research discuss the impact of Internet use on connectivity (Yes)	
Does this Research discuss the impact of Internet non-use on connectivity (No)?	
Yes	10
No	5
Both	2
Neither	50

Sample: 67 research outputs

#### Internet use:

- Only 12 research outputs report effects of use on connectivity.
- These outputs usually report positive effects and only rarely mixed effects. The effects concern the following aspects of user connectivity:
  - ◆ Information, sociability, community engagement, political engagement, mobilisation, participation, personal development, and social inclusion.
- There is no research evidence of purely negative effects of Internet use on user connectivity.
- Overall we found very limited data on Internet use effects on connectivity.

#### Internet non-use:

- Only seven research outputs report effects of non-use on connectivity.
- Almost all outputs report negative effects. The effects concern the following aspects of non-user connectivity:

- ◆ Information, sociability, community engagement, political engagement, mobilisation, participation, personal development, and social inclusion.
- There is no research output reporting purely positive effects of non-use.
- Overall we found very limited data on non-use and connectivity, precluding thorough conclusions about the influence of non-use on community connectivity in particular.

### General views of the Internet: implications for connectivity

Just 13 of the 67 research outputs provide evidence of people’s general views of the Internet.

**Table 5: General views of the Internet**

General views about the Internet	TRUE	FALSE	Not mentioned
The Internet is important for people's lives	12	0	1
The Internet promotes people's participation in politics	5	0	8
The Internet risks community life	5	1	7
The Internet is important for communication	11	0	2
Minority groups need more support from policy makers in order to use the Internet	4	0	9
The Internet infrastructure is inadequate	4	0	9
The Internet allows people to join/form new communities more easily	6	0	7
The Internet enhances a person's connectivity	7	0	6

Sample: 67 research outputs

As Table 5 shows, **the majority of general statements confirm that:**

- The Internet is important for people’s lives and participation in politics, as well as for community life and communication.
- Minority groups need more support from policy-makers in order to use the Internet.
- Internet infrastructure is inadequate.
- The Internet allows people to join new communities as it enhances a person’s connectivity.

Nevertheless, the amount of ‘Internet in Wales’ research that reports such general views is particularly small, suggesting that more systematic and consistent research is needed in relation to ICTs/Internet and community connectivity.

## Discussion

This section draws on the findings of the Literature and Research Reviews and the stakeholder engagement activities carried out as part of the project. The stakeholder engagement activities centred on three workshops and a number of one-to-one meetings and communications with key stakeholders, such as the Welsh Government, and BT (See **'External Links'** section, No 4).

### **The limitations of existing research**

Perhaps the clearest theme highlighted by the Literature and Research Reviews are the limitations of existing datasets and research in terms of understanding digital inclusion and community connectivity in Welsh context. These limitations relate to the following aspects of the scope and focus of existing research.

Firstly, the majority of studies draw on UK-level data, for example, the Oxford Internet Survey and Ofcom research. Although this data provides a useful picture of trends across the UK and potential variations at the sub-national level, the Welsh sample size is generally too small for anything but the broadest level of analysis. Therefore the sample size is inadequate if further divided to reflect the specific experiences and perceptions of the minority communities within the study. Even where data is collected specifically for Wales, such as the National Survey for Wales and its predecessor Living in Wales, the sample size for minority groups is prohibitively small, particularly if one wishes to do further analysis based on spatial location and so on.

**Secondly, few existing studies explore the nuances within 'minority communities'.** A key theme highlighted by the stakeholder engagement events was that each of the three **'minority communities' identified by the project are by no means homogeneous and that the barriers to digital inclusion and experiences of Internet use within these communities are likely to diverge significantly.** The broad **'catch-all' categories of 'ethnic minority', 'disabled' or 'language minority'** groups fail to provide data for a more fine-grained analysis of the needs and experiences faced by different people within these groups.

### **The challenges of navigating the fog of 'grey data'**

Early discussions with stakeholders highlighted that a key challenge for the Research Review was the identification and collection of **'grey data'** within public, private and third sector organisations, such as unpublished internal reports, evaluations and surveys.

Whilst this data was theoretically available, much was not in the public domain and therefore carrying out a systematic review of what research had been carried out and what datasets existed was highly challenging. However, to an extent in considering these issues we begin to explore Rumsfeld-**esque avenues of 'known unknowns' and 'unknown unknowns' or put in another way** grey data we know about but cannot get access to and grey data we do not know about and we do not know if we can get access to. The scope and level of 'grey data' is difficult to clarify and therefore it is difficult to judge the degree to which the Research Review missed this data. However, a clear finding of the project has been that accessing this type of data is largely dependent on building up high quality, interpersonal relationships with stakeholders and organisations based on trust and common interests.

### **Research data accessibility**

A key theme related to 'grey data' is the broader issue of research accessibility. The Research Review found three broad categories of research data in terms of accessibility. Firstly, there is data which is freely available to be downloaded in its raw form to allow secondary analysis. For example, the data of the Ofcom Communications Market Reports is freely available online and many of the surveys carried out by the UK Government and Welsh Government can be analysed using StatsWales and Nomis. Secondly, there is data which is not necessarily immediately freely available within the public domain and therefore requires a degree of negotiation or registration. The datasets for the Oxford Internet Survey, for example, or datasets held by the Welsh Government but which are not published in the public domain. Thirdly, there is data which is not available for a variety of reasons. For example, data held by private sector actors, such as Internet Service Providers (ISPs) and BT, is commercially sensitive and therefore unavailable. In addition, some data is available from private or third sector organisations but comes at a price – which may be prohibitive. Clearly the issue of data access reflects the challenges of carrying out secondary analysis in a field where datasets are held across a range of public, private and third sector organisations.

### **The balance of qualitative and quantitative research**

A key theme highlighted by the Research Review is the operationalization of primary quantitative research methods (i.e. survey) in exploring issues related to digital inclusion/exclusion. In addition, only seven of the sixty-one research studies considered in the review focused on the impact of the Internet on communities. Participants within

the stakeholder workshops argued that the broad-brush picture provided by survey data needed to be supplemented by more detailed, fine-grained qualitative analysis of **individual's and specific groups experiences**. However, actors such as the Welsh Government and Ofcom are simply unable to carry out detailed surveys or wide-ranging qualitative studies of minority groups in particular, predominantly given the funding constraints under which they are operating. Stakeholders argue that existing research provides a useful foundation for decision-making which could then be supplemented by more focused, shorter pieces of research. The Welsh Assembly Government, for example, has engaged third sector organisations in the development of focus groups to explore in more detail some of these issues. There is clear support across the academic, public, private and third sectors for developing fine-grained, community-focused qualitative analysis of digital inclusion in Wales, but pragmatic concerns about how this might be funded and carried out do prevail.

## Conclusion and implications for future research

Overall the findings of the Literature and Research Reviews and the Stakeholder Engagement activity highlight that ICTs and the internet are perceived as being key to promoting community connectivity in contemporary society and that the minority communities identified within the project are at risk of both social and digital exclusion.

There is clear anecdotal evidence from key stakeholders that these minority groups require bespoke policy which reflects their specific needs and requirements. However, the evidence provided in research (mostly quantitative) – at least in the public domain - **fails to adequately reflect or explore these issues and 'grey data' is both difficult to identify and access.** Therefore there is a clear rationale for developing more qualitative, fine grained, community-based studies in order to explore the barriers to digital inclusion and impact of digital inclusion/exclusion within minority groups.

Although there is a consensus for the need for this research, there are several caveats – i) such research is expensive and time-consuming, ii) researching minority groups such as disabled people needs to be done sensitively and with as much community buy-in and iii) robust research partnerships are required across the academic, public, private and third sectors in delivering this research agenda. Although there is clear will amongst stakeholders to collaborate and develop such research, the availability of time and resources is perhaps more uncertain.



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## External links

### 1. **LITERATURE REVIEW**

The full Literature Review (67 pages long) can be downloaded from <http://www.wiserd.ac.uk/research/connected-communities/cc/reports/>

### 2. **RESEARCH DATABASE**

A database listing the research data reviewed is available at

<http://www.wiserd.ac.uk/research/connected-communities/cc/database/>

### 3. **FINAL PROJECT REPORT**

A final project report presenting into more detail the literature and research review findings alongside the stakeholder engagement activities is available at

<http://www.wiserd.ac.uk/research/connected-communities/cc/reports/>

### 4. **STAKEHOLDER ENGAGEMENT ACTIVITIES**

For more information on the stakeholder workshops designed to bring together academic researchers and key stakeholders within the public, private and third sectors go to

<http://www.wiserd.ac.uk/research/connected-communities/cc/events/project-events/>

## The Connected Communities

Connected Communities is a cross-Council Programme being led by the AHRC in partnership with the EPSRC, ESRC, MRC and NERC and a range of external partners. The current vision for the Programme is:

*"to mobilise the potential for increasingly inter-connected, culturally diverse, communities to enhance participation, prosperity, sustainability, health & well-being by better connecting research, stakeholders and communities."*

Further details about the Programme can be found on the AHRC's Connected Communities web pages at:

[www.ahrc.ac.uk/FundingOpportunities/Pages/connectedcommunities.aspx](http://www.ahrc.ac.uk/FundingOpportunities/Pages/connectedcommunities.aspx)

