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Piloting Innovative Approaches in Sustainable Communities towards Achieving the United Nations Sustainable Development Goals in Ireland

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www.epa.ie

Rialtas na hÉireann
Government of Ireland

ENVIRONMENTAL PROTECTION AGENCY
The Environmental Protection Agency (EPA) is responsible for protecting and improving the environment as a valuable asset for the people of Ireland. We are committed to protecting people and the environment from the harmful effects of radiation and pollution.

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Advocacy: *We work with others to advocate for a clean, productive and well protected environment and for sustainable environmental behaviour.*

Our Responsibilities

Licensing
We regulate the following activities so that they do not endanger human health or harm the environment:
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- large scale industrial activities (*e.g. pharmaceutical, cement manufacturing, power plants)*;
- intensive agriculture *(e.g. pigs, poultry)*;
- the contained use and controlled release of Genetically Modified Organisms *(GMOs)*;
- sources of ionising radiation *(e.g. x-ray and radiotherapy equipment, industrial sources)*;
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- Supervising the supply of drinking water by public water suppliers.
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- Monitoring radiation levels, assessing exposure of people in Ireland to ionising radiation.
- Assisting in developing national plans for emergencies arising from nuclear accidents.
- Monitoring developments abroad relating to nuclear installations and radiological safety.
- Providing, or overseeing the provision of, specialist radiation protection services.

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- Providing advice and guidance to industry and the public on environmental and radiological protection topics.
- Providing timely and easily accessible environmental information to encourage public participation in environmental decision-making *(e.g. My Local Environment, Radon Maps)*.
- Advising Government on matters relating to radiological safety and emergency response.
- Developing a National Hazardous Waste Management Plan to prevent and manage hazardous waste.

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- Generating greater environmental awareness and influencing positive behavioural change by supporting businesses, communities and householders to become more resource efficient.
- Promoting radon testing in homes and workplaces and encouraging remediation where necessary.

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The EPA is managed by a full time Board, consisting of a Director General and five Directors. The work is carried out across five Offices:
- Office of Environmental Sustainability
- Office of Environmental Enforcement
- Office of Evidence and Assessment
- Office of Radiation Protection and Environmental Monitoring
- Office of Communications and Corporate Services

The EPA is assisted by an Advisory Committee of twelve members who meet regularly to discuss issues of concern and provide advice to the Board.

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EPA Research Report

Prepared for the Environmental Protection Agency

by

Trinity College Dublin and The Wheel

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DISCLAIMER

The EPA Research Programme addresses the need for research in Ireland to inform policymakers and other stakeholders on a range of questions in relation to environmental protection. These reports are intended as contributions to the necessary debate on the protection of the environment.

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Contents

List of Figures

List of Tables

Executive Summary

This research set out to catalyse the sustainability transition of communities in Ireland using the United Nations (UN) Sustainable Development Goals (SDGs) as a framework. It consisted of a public-facing campaign, branded as Spark Change (www.sparkchange.ie), which recruited communities to an SDG challenge, effectively asking them to progress their sustainability transition and related SDGs.

Given the cross-cutting nature of the UN 2030 Agenda for Sustainable Development and its SDGs, governments need to work with civil society and the private sector to enable coordinated implementation. Both of these sectors comprise communities and groups, as does the public sector, and this research sought to engage these and their individual members in sustainability action.

This research, like previous Irish research, found that trusted interlocutors are effective conduits for sustainability information and its exchange at this scale. For this reason, a story-harvesting platform (www.sparkchange.ie/success-stories) was established so that communities with sustainability achievements could exchange actionable information.

This research set out to catalyse the sustainability transition of communities over a period of 18 months, and SDG indicators were adapted to measure increases in sustainability. Previous Irish research has usefully identified and tested drivers or enhancers of sustainability transition; these include profiling, monitoring sustainability achievements, ascription of responsibility, norms, measurement, commitment, local narrative and storytelling, incentives, rivalry, customised sustainability literature, skilled facilitation, application of discourse-based approaches, community engagement and ownership.

The sustainability appraisal included shortlisting 18 of the 68 Spark Change communities, followed by an evaluation using the UN SDG Action Campaign format by four expert judges. A total of six successful communities were unanimously selected by the judges from the 18 shortlisted communities. All shortlisted communities were recognised by and invited to attend the Spark Change Awards held in Dublin Castle on 18 October 2019.

It was originally envisaged that the Spark Change Challenge and engagement period would be for 12 months; however, this was reduced to 5 months because of key timescale challenges:

- The limiting reality for representative bodies of grassroots community organisations such as The Wheel is multiple projects and busy environments.
- The period in which a community can act is specific and often limited, so supporting projects may need to be paused at certain stages, mainly because of uncertainties over volunteer time and application.

It was the view of the Spark Change finalists that all the drivers they used supported and motivated their sustainability transition. The Spark Change communities have implemented, or are implementing, sustainability measurement, which is critical to sustainability monitoring and management. Good examples of the results of this action research are demonstrated by the 18 shortlisted projects and their breadth of sustainability. Impacts were observed in all of the SDGs across global human welfare, rights, solidarity and environment, and predominantly in SDGs 3 (Good Health and Well-being), 4 (Quality Education), 11 (Sustainable Cities and Communities), 14 (Life below Water) and 17 (Partnerships for the Goals).

Although the communities that progressed furthest measured their sustainability starting point, they will need more time to implement SDG action that can be registered at the SDG indicator scale. A key recommendation of this research is that the period for which projects are funded should be extended to 48–60 months to achieve baseline measurement, sustainability transition and measurement of the SDG actions in relation to, inter alia, customised resource and intelligence provision. Where funding timeframes are shorter, consecutive funding calls and their award should be directly linked.

Spark Change provided essential SDG guidance, leadership and literacy, and its awards exemplify this. Communities often feel detached and unsupported, but Spark Change added a visibility, recognition and legitimacy to their action. As well as focusing public attention on the SDGs, this also recognises the achievements of community. Given the successes of Spark Change, funding for this type of action research should be continued to drive future SDG action and measurement and to achieve SDG targets. Underlining the importance of maintaining such supports, one of the participating communities stated that "sustainability is a lifetime commitment".

In leveraging the Spark Change drivers, governments can further capitalise on the economies of scale offered by community involvement and support the advancement of exemplar communities. Given the funds used, this is cost-effective and scalable support that will allow communities to share learning and to network. Such "beacon" communities can act as sustainability guides, enhancing self-efficacy, collective agency, the development of norms and other communities' potential to achieve sustainability transition.

1   Introduction

The research set out to drive and measure sustainability in Irish communities using predefined drivers and adaptations of the United Nations (UN) Sustainable Development Goal (SDG) indicators applicable at the community scale (UN, 2020). There were five main objectives in this research:

1. To review the literature and current practice.

2. To explore what Irish communities are contributing to the SDGs.

3. To define which sustainability drivers, SDGs and SDG indicators are being met by communities, and to develop stories and/or case studies to define where strong sustainability practice is evident.

4. To trial an innovative approach to driving sustainable behaviour and practice change, and to achieve sustainability transition and SDG progress in Irish communities.

5. To use the case studies, best practice knowledge and monitoring of the SDG indicators (at a community scale) to inform policymaking and solutions.

The literature review in Chapter 2 first focuses on community sustainability and community SDG action. Subsequently, it moves on to explore the conditions necessary in communities to support sustainability transition using several frameworks uncovered by this research. It first defines these conditions and then discusses them with respect to a number of Irish communities to provide practical examples of how these conditions are relevant to sustainability transition.

Chapter 3 presents the methods used in this study. The research project was branded and presented to the public as Spark Change. The mixed methods approaches used in this study fall mainly into three sections: (1) the Spark Change Challenge; (2) the Spark Change story-harvesting method; and (3) the recording methods. Action research was extensively used (as outlined in the Spark Change Challenge in section 3.1), and involved discourse-based approaches and facilitation, SDG indicator measurement, community stakeholder profiling, the ethnographic method and an innovation approach.

Chapter 4 outlines the results of the stories, SDG assessment, Spark Change winners and their case studies, SDG community action and SDG actors. Case studies of the shortlisted projects then define who the participants felt was responsible for helping them achieve the SDGs. Lastly, we discuss the impacts of Spark Change, our communities' perspective of it, SDG achievements, sustainability drivers, community recommendations and innovation results.

Chapter 5 discusses the final conclusions and recommendations of this research, informing policy and providing a pathway to meet Ireland's commitments to implementing the SDGs.

2   Literature Review

This literature review focuses on sustainability and the SDGs and explores the conditions necessary in communities to support sustainability transition. It defines these conditions and then discusses them with respect to a number of Irish communities, attempting to provide practical examples of how these conditions are relevant to sustainability transition.

2.1   Sustainability and the SDGs

In 1987, the World Commission on Environment and Development defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987). Agenda 21 trumpeted local action on sustainability, introducing the "think global, act local" concept at the Rio Summit in 1992. Core to Agenda 21 is that action should be carried out at all levels – international, national, regional and local – but that "the participation and cooperation of local authorities will be a determining factor in fulfilling its objectives" (UN, 1992). Local Agenda 21 has developed as a strategy for sustainability transition, and it subscribes to local participation in decision-making and endorses local

engagement in actions on sustainability issues. It considers that many sustainability benefits can be achieved at the community level.

Figure 2.1, from research at DePaul University, shows a sustainability framework that explores the various levels that have an impact on sustainability. Appropriately, the system is defined by the environmental level and housed within this we can see the social system or society. Within this, the economic system functions, and further deconstruction leads to our institutions, our organisations and finally at the core of sustainability are our personal values (Tavanti, 2010). Early expectancy-value constructs state that attitudes are central in shaping behaviour. Moreover, Stern's value–belief–norm theory defines a chain of impact stretching from the individual's value sets through to ascription of responsibility and the emergence of a personal norm for a behaviour (Stern *et al*., 1999). Tribbia posits that these value orientations form early in an individual's life and deeply affect a person's belief system and attitudes to performing said behaviours (Tribbia, 2007). This early value orientation provides a critical clue on how we can drive sustainability and reach the SDGs.
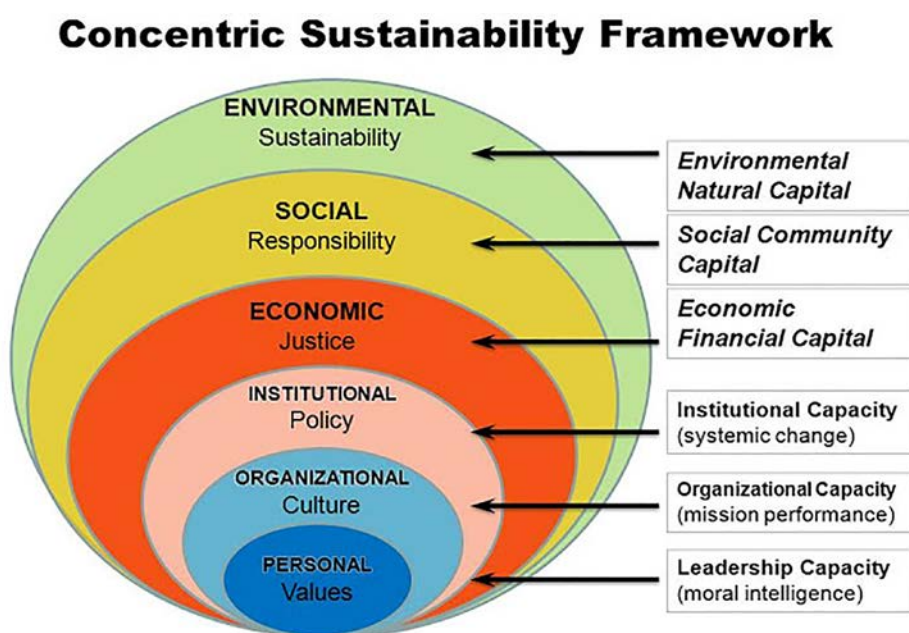
Figure 2.1. Concentric Sustainability Framework. Source: Tavanti (2010).

Education in the formative years, before the value systems of our citizens are set, is a critical and often forgotten step in sustainability transition.

At the UN Sustainable Development Summit held in September 2015 in New York, world leaders adopted the document *Transforming Our World: The 2030 Agenda for Sustainable Development*. It includes a list of 17 SDGs based on 169 targets that the subscribing national governments committed to pursue. The UN described them as "the blueprint to achieve a better and more sustainable future for all". They are voluntary and not legally binding, and the aim is that progress in their implementation will be monitored through the UN High-Level Political Forum on Sustainable Development (this is the main UN platform on sustainable development, and it has a central role in following up and reviewing the 2030 Agenda). The SDGs aim to tackle specific areas of global challenge, such as poverty, inequality, climate and peace, and build on the work of the Millennium Development Goals. They call for action by countries to promote prosperity while protecting the planet. They recommend a cross-pollination and integration of multiple strategies to end poverty, to cater for economic growth, to educate, to provide health, social protection and job opportunities, and to protect the planet and its climate. Figure 2.2 shows the 17 SDGs and the view of the European Union (EU) on its progress towards them.

This research was conducted in response to an Environmental Protection Agency (EPA) SDG Research Call, which adopted the prevailing and uncritical assumption that the SDGs are necessarily coherent, consistent and a good basis for building the intended values of global human welfare, rights, solidarity and sustainability. It is worth noting, however, that there is also a significant, long-standing, academic literature interrogating and critiquing "sustainable development" as both a concept and a global political project. The role of growth in particular is highly contested, most clearly through the emergence of "degrowth" as a distinct academic domain of study (https://degrowth.org/). Various issues beyond degrowth have also been reviewed for the SDGs, including the lack of formal instruments for their international enforcement, the voluntary commitment of government signatories, the considerable national diversity in their implementation, the informal national accountability systems and integration challenges
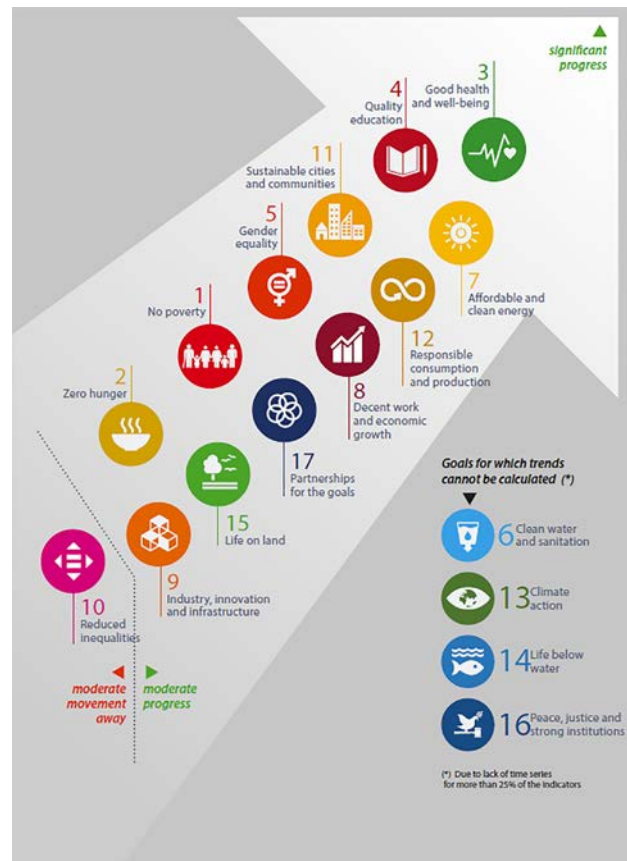
Figure 2.2. European Union progress on the 17 SDGs (Eurostat, 2017a).

across their diversity (Karlsson-Vinkhuysen *et al*., 2018).

2.1.1 Sustainability indicators

To measure and monitor progress towards achieving the SDGs, the UN and the EU have devised targets (169) and indicators. Targets under SDG 1 "No Poverty", for example, include reducing by at least half the number of people living in poverty by 2030 and eradicating extreme poverty (people living on less than US$1.25 a day).

There are 230 UN SDG indicators and 100 EU SDG indicators. Drucker suggests that "what gets measured gets managed" (Drucker, 1954) and so, to convey an understanding of progress on sustainability issues, the SDG indicators are critical. Since late 2017, the SDG indicators have offered some measurement, monitoring and recognition of sustainability issues at the international level, and this should be of great value in raising awareness of the issues and prompting public, government and cross-sectoral

action. The ambition is to have all indicators measured for all countries; given their number, this is a work in progress. The SDGs are a top-down device, meaning that many are not necessarily translatable and/or meaningful at the community or local scale.

The Central Statistics Office (CSO) and Ordnance Survey Ireland (OSi) have developed an SDG platform for Ireland, known as GeoHive, where interested parties can freely access, visualise, download and explore data in a graphic form. The aim is that the information contained on this portal will inform Ireland's progress against each SDG for the Department of the Environment, Climate and Communications (DECC). This is a work in progress, and in 2018 CSO and OSi had sourced information for approximately 50 indicators. The platform's Story Map is a useful tool that explores elements of sustainability at a national level, for example *The Changing Patterns of Unemployment and Poverty in Ireland, 2011–2017* (GeoHive, 2018). This is a useful resource for communicating the SDGs and their achievement in Ireland.

2.1.2   *Irish government action*

Ireland has adopted a whole-of-government approach to the SDGs, whereby each government minister and department has been assigned specific responsibilities in relation to one or more of the Goals. DECC established and is responsible for the first national SDG Implementation Plan, which promised, inter alia, mainstreaming of the SDGs in each department's Statement of Strategy (each department's Statement of Strategy defines its mandate, mission and strategies for a 3-year period and sets out the key outcomes and indicators that it will use to measure performance) and SDG tagging (a process in which each budget line is labelled with its related SDG(s)) in each department's budget. A Senior Officials Group, chaired by the Department of the Taoiseach, has been established to oversee, coordinate and monitor the progress of SDG implementation. DECC has also established its own SDG unit and an SDG Interdepartmental Working Group; the latter comprises representatives from all government departments. The national SDG Implementation Plan was prepared by this group, as was Ireland's first Voluntary National Review for delivery to the UN in July 2018 (DCCAE, 2018a).

DECC has also established a national SDG Stakeholder Forum, aimed at including civil society

and supporting the role of stakeholders in the SDG process (Figure 2.3). Stakeholder groups include non-governmental organisations (NGOs), the private sector, community organisations, young workers' trade unions, academia, the education sector, the agricultural sector and local government. The Forum, through its stakeholders will discuss, inter alia, national implementation and progress reporting, discuss challenges, share examples of SDG best practice and raise public awareness of the SDGs. It is proposed that the SDG Interdepartmental Working Group will engage with the Forum in developing a national SDG communication awareness strategy (DCCAE, 2018a).

2.1.3   *Ireland and the SDGs*

The EU's performance on the SDG indicators has been assessed by Eurostat (2017b, 2019). Ireland's performance on the SDG indicators has been mixed, with significant improvement on SDGs 3 (Good Health and Well-being), 6 (Clean Water and Sanitation), 8 (Decent Work and Economic Growth), 11 (Sustainable Cities and Communities) and 16 (Peace, Justice and Strong Institutions), whereas performance on SDGs 13 (Climate Action), 15 (Life on Land) and 17 (Partnership for the Goals) shows movement away from SDG targets. Ireland's performance on the remaining SDGs has shown a moderate improvement, but significant data gaps exist on SDGs such as 11 (Sustainable Cities and Communities) (parts of this SDG showed

Figure 2.3. SDG forum sector representatives (DCCAE, 2018a).

improvements and other parts of the SDG did not), 12 (Responsible Consumption and Production) and 13 (Climate Action).

The following example identifies sustainable consumption and waste issues in Ireland and underlines how the indicators can measure and challenge these issues. SDG 12 (Responsible Consumption and Production) defines sustainable consumption and production patterns. Ireland has the third highest greenhouse gas emissions per capita in the EU; they are 45% higher than the EU average (CSO, 2016) and significantly overshoot Ireland's 2020 emissions targets (EPA, 2017), making financial penalties all but inevitable. The latest projections show that Ireland needs to shift away from fossil fuels; at best, it will achieve only a 1% reduction by 2020 compared with the 20% reduction target. It has been estimated that Ireland will exceed its 2030 targets by between 47–52 million tonnes (Mt) CO_2 (EPA, 2018).

In the EU, the municipal waste generated per person in 2016 amounted to 480 kg. The municipal waste chart shows Ireland to be well above the EU average and among the top producers of waste (Figure 2.4). We are also the EU country with the most significant data gap and the only one using 2012 figures to approximate 2016 waste generation. As far back as 2012, *Our Sustainable Future* underlined Ireland's consumption dilemma and estimated that three planets were required to support Irish lifestyles (DECLG,

2012). Natural resources underpin Ireland's economy and quality of life, but Ireland's extensive use of resources is the chief reason for it overshooting its emissions targets. The intent is not to single out Ireland as a waste laggard; Denmark, for example, despite its strong performance in many elements of sustainability, performs the worst in Europe with respect to municipal solid waste (MSW) at 759 kg MSW per capita in 2016.

The SDG indicators recognise and track these issues, providing an international comparative scale and qualified awareness of them. The SDGs are interoperable and not exclusive, and this is simply shown by two SDGs with four indicators directly related to Ireland's unsustainable waste assimilation issue:

1. EU SDG indicator 11.52 *Recycling rates of municipal waste* (SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable);

2. EU SDG indicator 12.10 *Generation of waste excluding major mineral wastes* (SDG 12: Ensure sustainable consumption and production patterns);

3. EU SDG indicator 12.11 *Recycling and landfill rate of waste excluding major mineral wastes*;

4. UN SDG indicator 12.5.1 *National recycling rate*.

In summary, the Irish government and its public and societal sectors have had a significant waste issue for

Figure 2.4. Municipal waste generation (kg per person).

some time now. The international focus and the SDG indicators represent a catalyst for real and sustained action on this waste issue and on other elements of Ireland's SDG performance.

2.1.4 *SDG action*

Public awareness of the SDGs has been low in Ireland (DCCAE, 2018b), and this has been a concern for many working in sustainability and in government. Given the cross-cutting nature of the 2030 Agenda and its goals, the Irish government needs to work with civil society and the private sector to create strong awareness of and reflection on the SDGs and enable their coordinated implementation. Spark Change first championed SDG advocacy by influential members in each of its communities, and, subsequently, this has been adopted by government through its societal SDG Champions. The 12 SDG Champions have been charged with raising awareness of the SDGs and, anecdotally, this is said to be having some effect. Communities will be an important feature in successful SDG implementation owing to the aggregation of their individual actions and the economy of scales they offer. Ascription of responsibility and personal norms are central to the norm activation theory (which proposes that appointing a responsibility to the subject influences their personal norm(s) and in turn their behaviour (Stern *et al.*, 1999)), sustainable behaviour change and sustainability transition. Measurement (and indicators) is critical to ascription of responsibility and the setting of subjective and personal norms (Stern, 2000; Abrahamse and Steg, 2009). Ascription of responsibility for an SDG and measurement of its indicator(s) are critical for the SDG's progress at the individual, social and national scales and lead to an intention and motivation to act more sustainably and, finally and most importantly, to SDG action. The following sections discuss the role of communities in such action and include behavioural determinants and drivers (enablers) of sustainability action and transition. The following discussion includes material allowing the reader to understand and conceptualise the conditions required for sustainability transition in communities.

2.2 Community and Sustainability

There are many definitions of the terms "sustainable" and "community" and of their combination, "sustainable community". These definitions are highly contested,

and pivotal to this is how to define a sustainable community when sustainability is such a broad concept. The term sustainable community is too often used to describe strong performance on elements of sustainability within a community and where (1) sustainability change has not been measured and (2) a range of sustainability has not been achieved. This study looks to enhance sustainability transition in communities of place, intention and interest. It prefers not to use the term sustainable community, but instead determine how one can measure, catalyse and improve the sustainability of communities.

One can conclude from the Concentric Sustainability Framework in Figure 2.1 that the sustainability of a community is contingent on building and sustaining economic health, environmental health and social equity, and on engaging and participating with its organisations, surrounding institutions and citizens. Sustainability requires a systematic perspective including job creation, energy use, environmental performance, social justice, housing, transport, education, personal health, equality and quality of life. In relation to community, an earlier review underlined the importance of a collective vision, of communication using storytelling and local narrative, of an awareness and record of assets, competencies, stakeholders, capacities, resources and services, and measurement with measurable goals (Carragher and McCormack, 2018).

Figure 2.5 shows that sustainability has several growth or degrowth stages, depending on its success, and that these arrive at various states of stabilisation, lock-in, back-lash or system breakdown. While transition can lead towards stabilisation following the "S-curve", it can also leave the system stuck at lock-in or even breakdown (Vandevyvere and Nevens, 2015). In relation to the social context, transitioning sustainability presents huge difficulties for understanding inter-relatedness that requires multiple drivers (enablers) and nuanced and complex processes (Carragher and McCormack, 2018). There are considerable governance and practitioner challenges in the navigation of sustainable transition, and it is intended that this research will bring insight for policymakers based on sustainability and the SDGs.

The following section conceptualises the conditions required for sustainability transition from both the practitioner and the academic perspective. There are
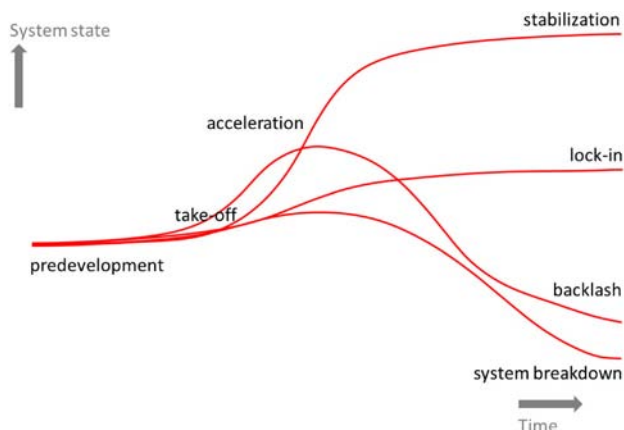
Figure 2.5. Transition states. Reproduced from Vandevyvere and Nevens, 2015; licensed under CC BY 4.0 (https://creativecommons.org/licenses/by/4.0/).

a number of relevant conditions that are discussed below as assets, characteristics and processes, which are not mutually exclusive. These are simply useful divisions that aim to explore sustainability transition and SDG action.

The following section reviews both academic and grey literature (government and third sector material) for evidence of the conditions relevant to sustainability transition at the community scale. Field action research conducted by the authors with communities dating back 20 years also provided evidence. The literature search provided results from journals, reviews, articles and books in both electronic and paper formats. The reviewed grey literature included material from grassroots programmes and community-based interventions, such as:

- Sustainable Energy Authority of Ireland's (SEAI) Sustainable Energy Communities programme;
- Doug McKenzie-Mohr's Community-based Social Marketing platform and its Listserv;
- The Tools of Change initiative;
- The electronic platform of the European Commission's Directorate-General for Energy and Transport and its ManagEnergy and Intelligent Energy Europe initiatives (available online: https://ec.europa.eu/energy/home_en (accessed 22 March 2021));
- The Transition Towns website;
- Tidy Towns;
- Local Agenda 21 projects.

This research is informed by these grassroots programmes and community-based interventions and looks at conditions or properties within a community favourable to sustainability transition, through the revealing work of those in the field, both academics and practitioners. The Centre for Sustainable Community Development, SEAI, eTowns and the Sustainable Communities Research Group, Trinity College Dublin, have all produced work that casts light and perspective on the area and is used here.

2.2.1 Community capital

The categorisation of capacity by the Centre for Sustainable Community Development, a Dutch–Canadian collaboration, is useful in conceptualising resources essential in the development of community sustainability. It has proposed six categories that define important resource layers: natural, physical, economic, human, social and cultural capital (Table 2.1) as the backbone of its Community Capitals Framework. Furthermore, Table 2.1 shows 21 stocks associated with the six capitals that attempt to explore the breadth of sustainability (CSCD, 2012).

2.2.2 Competencies assessment

Communities are mentored by the SEAI Energy Communities Programme to use or generate energy more sustainably. SEAI terms these mentored communities Sustainable Energy Communities and uses a competency assessment that allows conceptualisation of abilities that are critical to their sustainability (Table 2.2). SEAI uses the term "competencies", but an equally valid term would be characteristics. The three bedrock competencies are listed in Table 2.2 and together with four others – energy efficiency, sustainable transport, renewable energy and smart energy – make up the assessed community competencies. These provide a useful insight into the status and progress of Sustainable Energy Communities in Ireland. The integrated planning competency looks at the integrated approach across projects and within the wider policy and planning context. It assesses where communities are in relation to synergies, stakeholder strategy and policy. The partnerships and engagement competency evaluates the community's relational development internally, locally, regionally and nationally. It identifies and underlines the importance of engagement,

Table 2.1. Six capitals and 21 associated stocks of the Community Capitals Framework

Capital	Stock
Natural	Land
	Soil
	Groundwater
	Surface water
	Air
	Natural
	Minerals and non-renewable resources
Physical	Infrastructure
	Land
	Public facilities
	Housing and living conditions
	Transport
Economic	Labour
	Financial resources
	Economic structure
Human	Education
	Health and well-being
Social	Citizenship
	Safety
Cultural	Cultural heritage
	Identity and diversity

Table 2.2. SEAI bedrock competencies

Competency	Indicator
Integrated planning	Project roadmap
	Policy coordination
	Stakeholder strategy
	Synergy
	Data collection/analysis
Partnerships and engagement	Cross-sectoral representatives
	Local partners
	Regional/national partners
	Community engagement
	Network involvement
Strategic financing	Foundation
	Strategy
	Innovation
	Sustainability
	Impact

collaboration and partnership with supportive stakeholders. The strategic financing competency assesses the status, development and execution of the project in a financially sustainable and innovative manner.

2.2.3   eTowns framework

eTowns is an Irish social enterprise collaborating with the third sector; its experts and stakeholders developed a framework for more effective approaches to both community planning in the medium to long term and community management in the short term. This framework provides a structure that can be used to create local development plans across themes such as Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning. The framework encourages communities to create a picture of the community in the past, present and future through bite-size pieces of information related to their community, called records. Each record is attributed to a relevant theme and type (Figure 2.6):

1. Theme: eTowns provides a three-tiered list of themes to select from; the top-level themes are Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning.

2. Type: including Assets/Stakeholders (Clubs, Businesses, Public Services)/Goals/Projects (Past, Present, Future).

These records are then used as the building blocks for local action plans. eTowns has developed an online platform to facilitate the community development framework, which allows the community to co-create its local plan by inputting records. The plan automatically updates as members of the community add information to it. The framework and platform together benefit communities through local collaboration, effective volunteer management,

Figure 2.6. Platform categorisation in eTowns.

contributing to an evidence-based approach to local planning, open data and potentially regional collaboration (eTowns, 2020).

2.2.4 Stakeholder mapping of relational assets – relationships

Carragher and McCormack (2018) identified 17 types of stakeholder with which communities working on sustainability engage. A community's sustainability stakeholder profile is the unique and specific set of stakeholders engaged with the community on sustainability transition. The profile is measured in a focus group with the subject community. These stakeholders comprise government, international bodies, regional organisations, and local organisations, groups and people. Abbeyleix in County Laois has had a number of sustainability achievements at the community scale; good examples of this are the Abbeyleix Bog Project and the Abbeyleix Sustainable Communities Plan (LCC, 2011). The importance of profiling in exploring which stakeholders are participating in sustainability transition is highlighted briefly here for Abbeyleix (Figure 2.7), but the main aim is to provide a conceptualisation of who is involved in sustainability at the community scale using Abbeyleix as an example (Carragher and McCormack, 2018). Figure 2.7 shows the Abbeyleix community engaged in sustainability transition with its local groups, local authority, environmental champions, skilled facilitators

and, to a lesser degree, government and schools. The chart clearly shows not only where there has been engagement, but also, importantly, where it is lacking, and this enables communities to strategically plan their relational work and engagement going forward (Carragher and McCormack, 2018).

Like the SEAI competency assessment, the stakeholder mapping profiling is a continuous process, and the profile should grow as the community reaches more stakeholders and progresses further along its sustainability transition (Carragher and McCormack, 2018). Effectively, more relationships with these stakeholders increases the capital levels in Table 2.1 and competency levels in Table 2.2, and drives sustainability. Additionally, Energy Co-operatives Ireland (ECI), an Irish initiative fostering cooperative formation and sustainable energy transition in communities, has developed a stakeholder mapping tool with instructional videos to support this mapping and profiling for communities in Ireland (ECI, 2018).

2.2.5 Sustainability processes

In addition to the mapping of assets presented in the previous section, processes that are prevalent within communities on sustainability transition have also been identified, mapped and reviewed elsewhere (Carragher and McCormack, 2018). These processes are a series of actions or steps that aim to achieve a particular endpoint and include experiential learning,
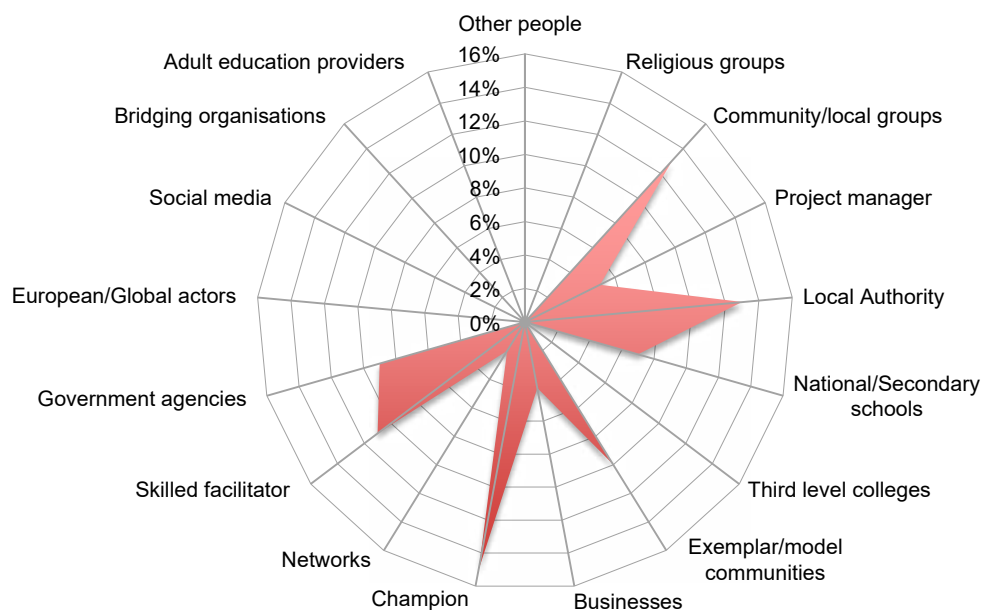

Figure 2.7. Abbeyleix stakeholder map (Carragher and McCormack, 2018).

confidence building/agency, recognition, and citizen approach, participation and commitment.

In summary, this research is bottom-up in nature and it aims to catalyse sustainability transition at the community or group scales. The various conditions for sustainability transition in groups or communities discussed above can be described differently as community resources, competencies, assets, stakeholder relationships and sustainability processes. There are also characteristics, previously reviewed, which are commonly present in communities or groups engaged in sustainability transition. These characteristics are present to various degrees in the conditions discussed above and include strong vision, identity, pride, community spirit, leadership, organisational management, social capital, presence of environmental champions, strong ownership of endeavour and local circumstances (Carragher and McCormack, 2018).

2.3 Communities Based in Sustainability Action

The following section presents an academic and practitioner review of sustainability transition in Irish communities. The subsequent section aims to apply the previously mentioned conceptual framework and conditions to genuine community examples of sustainability transition.

2.3.1 Review of sustainability transition

The numbers of Irish communities undergoing sustainability transition over several years, identified from the review for this research, are relatively few. Dundalk has received significant funding for a top-down initiative that focused on some of its residential, local authority, business and school buildings. This area, Dundalk Sustainable Energy Zone (DSEZ), set targets of 40% energy efficiency, 20% renewable energy and 20% renewable heat to be achieved between 2005 and 2010. Through the HOLISTIC project, an EU Sixth Framework Programme, this zone was given significant funds to act as a demonstration for the Sustainable Energy Community Programme (DSEZ, 2008). The total HOLISTIC project expenditure was €31.66 million (DCENR, 2009). Ireland's National Energy Efficiency Plan (DCENR, 2009) described the DSEZ as a paradigm shift and stated that "increasing

energy efficiency and increasing the proportion of electricity and heat from renewable sources will reduce the CO_2 emissions from the Dundalk Sustainable Energy Zone by 10,000 tonnes every year from 2010". Despite Ireland submitting a National Energy Efficiency Action Programme (NEEAP) every 3 years to the EU, none of the NEEAPs since have measured or reported on whether the DSEZ met its targets. There is a significant challenge in scaling up top-down projects that have not incorporated transparent monitoring and that cost significant sums. SEAI has since launched the more cost-effective Sustainable Energy Communities Programme, and some examples are outlined below. Many of the Sustainable Energy Communities are still in a pre-development phase, with approximately 20% at the planning stage (SEAI, 2020).

The Irish government's national Power of One awareness campaign (DCENR, 2008) created and engaged a community of interest. It was composed of a small number of schools, one business, one Gaelic Athletic Association (GAA) club and approximately 13 households. No attempt was made to measure the indirect savings, and estimates of the cost of this campaign therefore equate to a prohibitive CO_2 mitigation cost of €336,000 per tonne of CO_2 (DCENR, 2008; Carragher, 2011). In this case, and in that of DSEZ, the community established was artificial and, at best, short lived.

To signpost more replicable sustainability transition, this research aimed to identify bottom-up examples of communities in which longitudinal measurement of sustainability transition was present. The review for this research identified studies on numerous social enterprises that are bottom up, but these generally engage a far smaller proportion of a community than the more encompassing community projects. The review found a paucity of examples of sustainability transition in Irish communities over longitudinal timescales. Examples were, however, found that attempt to record the sustainability of Irish communities, or portions of their residents, in a more cross-sectional (snapshot) manner (Foley, 2006; Morrissey, 2006; Ryan, 2006; Fahy and Davies, 2007; Byrne and O'Regan, 2016; O'Rafferty, 2018). The first three of these were major contributions in the bottom-up assessment of the sustainability of settlements, and, of these, just Ryan (2006) used discourse-based approaches (DBAs), which are approaches that identify the opinion of others both

individually and as part of a collective; two common examples are interviews and focus groups. Based on this review, these three authors (Foley, 2006; Morrissey, 2006; Ryan, 2006) did not attempt to catalyse, measure and record sustainability transition on a longitudinal basis in their test communities. More recently, the Trinity College Dublin EPA-funded Consensus project has attempted to assess the sustainability changes maintained through, inter alia, food and washing home-labs. Its *ex post* survey was carried out over relatively short timeframes and for a small number of households, but not for communities (Consensus, 2013). Despite this, two academic examples of action research with Irish communities, which record sustainability transition on a longitudinal basis, are outlined; we review Ballina and its sustainability campaign (see Table 2.3), and Belturbet and its zero waste project (see Table 4.2).

Abundant examples exist in practitioner literature and portals, but this is not peer reviewed and often does not include measurement. Given Drucker's earlier assertion, this creates a significant challenge for grassroots and bottom-up community projects (Drucker, 1954). Generally, these communities engage in sustainability transition without measurement.

Critically, Spark Change provides action research that overcomes the issues of the lack of measurement in grassroots projects, and the paucity of fostering and measuring sustainability transition, across longitudinal timescales, in the academic examples reviewed.

2.3.2 *Application of community frameworks to sustainability transition in Irish communities*

Having conceptualised sustainability transition in communities above using conditions such as resources, assets, competencies, stakeholders and processes, we now include examples of communities where sustainability transition has been established across all 17 SDGs. This usefully develops a practical discussion of these conditions and where they exist differently in communities undergoing sustainability transition. The discussion here focuses on the following communities: Ballina, Bere Island, Clonakilty, Inis Mór, Polecat Springs and Templederry. Additional community-based evidence relating to this project can be sought from The Wheel and report authors. The introductory illustration for Ballina is more expansive and aims to provide a clear illustration of the sustainability transition through the conditions and conceptualisation frameworks discussed previously.

The analysis of the previously outlined frameworks and conditions shows that the Ballina community project (Table 2.3) possesses all six of the elements of the Concentric Sustainability Framework (see Figure 2.1) and enhances all capitals within the Community Capitals Framework. In the latter, the project had impacts on stocks across all capitals, such as air, use of non-renewable resources, infrastructure, housing, transport, financial savings/resources, education, health, citizenship, identity and diversity. This was enabled through extensive use of participatory methods (DBAs) facilitating the community to measure its CO_2 emissions and its ecological footprint, and then fostering local conversations on these measurements and ways to reduce them. In doing so, the project awarded a UN Environment Programme Diploma in Ecological Footprinting to those who completed training in footprinting. It enhanced indicators for each of the three core competencies in the SEAI competency assessment. For example, the indicator Stakeholder Strategy and Synergy was enhanced through stakeholder profiling and a communication and engagement plan managed by its academic partner, the University of Limerick. The engagement plan enhanced relational assets with cross-sectoral representatives, local partners, regional/national partners, community engagement and network involvement. The academic collaboration with the University of Limerick also facilitated the collection/ analysis of consumption data, strategy and innovation. The Ballina project also achieves in the renewable energy, energy efficiency and sustainable transport competencies. It covers the above themes of the eTowns framework and exhibits value in the themes Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning. Stakeholder mapping shows that the Ballina project engages 16 of the 17 sustainability stakeholders; stakeholders at all levels were engaged with, although social media did not feature. In relation to the common characteristics of sustainability transition discussed above, the Ballina community project had strong vision, identity, community spirit, leadership and organisational management. It leveraged social capital, fostered local environmental champions and engendered strong ownership of the

Table 2.3. The Ballina community project and its sustainability campaign

Information detail	Community detail
Name	Ballina
Location	Tipperary, Ireland
Population	Approximately 2600
Project summary outline	Sustainable consumption
	Co-creation research with local university
	Strong commitment – longitudinal scale
	Surveying and measuring ecological footprint of residents
	Local dialogue and storytelling
	Reducing ecological footprint by 28% over 4 years
	Established as an IGES and SEI sustainability blueprint case study
SDGs addressed	2, 3, 4, 6, 7, 9, 11, 12, 13, 14, 15 and 17
Timescale	>5 years (approx. 2005–2009)
Community participation	Strong engagement method, local dialogue and storytelling
Sustainability achievements	36% reduction in community's energy EF
	50% reduction in community's waste EF
	28% reduction in car transport EF
	Introduction of commuter shuttle train
Links/references	https://www.tandfonline.com/doi/abs/10.1080/13549839.2018.1434493
	https://ulir.ul.ie/bitstream/handle/10344/1955/2011_Carragher,%20Vincent.pdf?sequence=6
	http://youtu.be/beJ5Q2GuA_o
	https://www.youtube.com/watch?v=fOnDZ2gUXM8&list=LL&index=15
	http://erc.epa.ie/safer/iso19115/displayISO19115.jsp?isoID=3024
	https://www.tandfonline.com/doi/abs/10.1080/13549839.2018.1481021
	https://iges.or.jp/en/pub/sustainablelifestylespolicyandpractice/en?fbclid=IwAR3Aky_iOGib0AVMsKKL5qssXrmBKkpNigpSRrF9dhsb17O9SDVVjUuCbdo

EF, ecological footprint; IGES, Institute for Global Environmental Strategy; SEI, Stockholm Environment Institute.

endeavour. Local circumstances also played their part, as Ballina is a commuter town and this provided a certain lock-in to car use and recycling waste.

Our process mapping of the sustainability transition in Ballina applies the method of Carragher and McCormack (2018) and shows 36 of the 39 drivers of sustainability.

Our analysis for Bere Island (Table 2.4) shows impacts across the six elements of the Concentric Sustainability Framework – economic, social, environmental, institutional, organisational and leadership/values. The full range of community capitals, namely natural, physical, economic, human, social and cultural, are affected by it. Indicators of the three core competencies are also illustrated, with synergy, waste data collection/analysis, local partners, regional/national partners, community engagement and network involvement. It follows that it scores well in the eTowns framework. Common characteristics

that this research identifies, which are discussed by Carragher and McCormack (2018), are strong vision, identity, pride, leadership, organisational management, social capital, presence of environmental champions, strong ownership of the endeavour and local circumstances, all of which play a strong part in driving this island initiative. Our stakeholder profiling shows that nine of the 17 stakeholders are active, namely residents, community/local groups, environmental champion(s), project manager, local authority, exemplar/model communities, networks, bridging organisations, and government agencies through, inter alia, the Heritage Council.

Our analysis of the Clonakilty project (Table 2.5) illustrates impacts across five out of the six elements of the Concentric Sustainability Framework – economic, social, environmental, organisational and leadership/values. Five of the community capitals, namely natural, physical, economic, human and cultural, are enhanced by it. Through the lens of

Table 2.4. Bere Island and waste management

Information detail	Community detail
Name	Bere Island
Location	Cork, Ireland
Population	Approximately 180
Project summary outline	Waste management, transport reduction and encouraging reuse
	Heritage and conservation plan
	Waste, glass – reuse
	Waste, tins and cans – baler reducing transport impacts off the island
	Waste, paper/cardboard – baler reducing transport impacts off the island
	Waste, newsprint – shredded then baled into animal bedding
	Waste, plastic – baler reducing transport impacts off the island
	Created 2 jobs in waste management
SDGs addressed	1, 8, 9, 11, 12, 13, 14, 15 and 17
Timescale	>10 years (from *c*.2009)
Community participation	All islanders engaged and taking waste to the recycling centre on the island
Sustainability achievements	Reduced transport impacts (reduced export of waste by ferry)
	90% reduction in many waste streams leaving the island
	Reusing 100% of glass
	Reusing 100% of newsprint
Links/references	https://m.youtube.com/watch?v=NBgJVRog4Ws&list=PLIKs_D-MJSUkp6GnyanjSJl4YA2quVcWv&index=6&fbclid=IwAR2uWrCB9ikvoOMUnlbXloB0pwCCfT7B1SVheItrYGHg_rQSdy3D2svgVbY
	https://www.youtube.com/watch?v=Rk8BNPvwQtM

Table 2.5. Clonakilty and sustainability in transport

Information detail	Community detail
Name	Clonakilty
Location	Cork, Ireland
Population	Approximately 4500
Project summary outline	Transport sustainability programme – social, environmental and economic impacts
	Community bike hire scheme
	Eco-tourism
	Cycling Without Age – trishaw service for nursing home residents
	Initially and significantly self-funded
	Bike festivals and nature tours
	Free bike maintenance classes
SDGs addressed	1, 3, 8, 9, 10, 11, 12, 13 and 17
Timescale	>5 years (from *c*.2014)
Community participation	Strong business community engagement and reaching out to the public and tourists
Sustainability achievements	60 bikes, with induction, maps, information, etc.
	Free capacity training once a week
	Social outlet for the elderly and other age groups
	Economic benefits to local business
Links/references	https://www.youtube.com/watch?v=HQxKsn1PG3U
	http://www.clonbike.com
	http://www.clonbike.com/?s=station_status

SEAI's competency assessment, the project scores well on integrated planning, partnerships and engagement, strategic financing, and sustainable transport. Using the eTowns framework, the themes of Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning are all illustrated by the Clonakilty project. The common characteristics of strong vision, identity, pride, community spirit, leadership, organisational management, social capital, presence of environmental champions, strong ownership of endeavour and local circumstances are all exhibited. Eight of the 17 stakeholders, namely residents/people, community/local groups, project manager, local authority, businesses, networks, bridging organisations and government agencies, were engaged by this project.

Our analysis of the Inis Mór project (Table 2.6) shows engagement and impacts across all six elements of the Concentric Sustainability Framework and six capitals of the Community Capital Framework. It scores significantly well across SEAI's competencies assessment, demonstrated by half of the houses being retrofitted, heat pump use, its solar photovoltaic (PV) and solar thermal installations, and its sustainable transport efforts. The above indicates that it features

well in the eTowns framework, and, of the common characteristics of communities in sustainability transition, Inis Mór possesses them all: strong vision, identity, pride, community spirit, leadership, organisational management, social capital, presence of environmental champions, strong ownership of endeavour and local circumstances. Sustainability stakeholders number 15 and comprise residents/people, community/local groups, energy and environmental champions, project manager, local authority, schools, third level colleges, adult education providers, exemplar/model communities, businesses, networks, bridging organisations, government agencies, European funders and skilled facilitators.

The Polecat Springs project features in Table 2.7, and our analysis illustrates engagement and the impacts of the project across five out of the six elements of the Concentric Sustainability Framework; the institutional element is not evident. The six capitals of the Community Capitals Framework feature strongly. It is a Sustainable Energy Community, with plans to provide its energy needs from solar PV. It therefore scores significantly well in SEAI's competency assessment; in its core competencies, indicators, synergy, data collection/analysis, local partners, regional/national partners, community engagement, network

Table 2.6. Inis Mór and sustainable energy, waste, water and transport management

Information detail	Community detail
Name	Inis Mór (Aran Islands)
Location	Galway, Ireland
Population	Approximately 845
Project summary outline	Sustainable energy, waste, water and transport use
	Surveyed and engaged residents
	Strategic energy master plan
	Waste cooperative and an energy cooperative
	Energy efficiency retrofit, heat pumps and renewables
	Reduced transport and water impacts
SDGs addressed	2, 6, 7, 8, 9, 11, 12, 13, 14 and 17
Timescale	>10 years (from *c*.2009)
Community participation	Over 80 members in energy cooperative
Sustainability achievements	12 electric vehicles
	Retrofit of approximately 50% of the homes
	Recycled waste is sorted and sold
	Rainwater harvesting supplies its needs
Links/references	https://www.youtube.com/watch?v=KenG6XDsDjQ&list=LL&index=9
	www.aranislandsenergycoop.ie
	https://www.facebook.com/AranIslandsenergy
	https://www.youtube.com/channel/UC54SnXKjHsWL2MupvjOt1eg

Table 2.7. Polecat Springs and water management

Information detail	Community detail
Name	Polecat Springs
Location	Lissavilla and environs, Roscommon, Ireland
Population	Approximately 880
Project summary outline	Water management for and by this community
	Water treatment plant
	Supply to 400 houses and 200 farms
	Vision to supply power needs using minimum 51 kW solar PV
SDGs addressed	1, 6, 7, 8, 9, 11, 12, 13, 14, 15 and 17
Timescale	> 10 years (from *c*.2009)
Community participation	Cooperative of community members who are also customers. Cooperative Society Ltd
Sustainability achievements	Co-sufficiency in water treatment and supply
	Resilience
	Average of 450 m^3 treated water pumped per day
Links/references	https://www.energyco-ops.ie/wp-content/uploads/2019/05/Polecat-SEC.pdf
	https://www.wateronline.com/doc/veolia-help-group-water-scheme-launch-solar-energy-project-0001

involvement, strategy, innovation and sustainability all score well. The sustainability transport element is not present. It exhibits value in the eTowns framework themes of Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning. Of the common characteristics of communities in sustainability transition, it possesses strong vision, identity, pride, leadership, organisational management, social capital, presence of environmental champions, strong ownership of endeavour and local circumstances. Sustainability stakeholders number 10 out of 17 and include community/local groups, environmental champion, project manager, local authority, exemplar/model communities, businesses, networks, bridging organisations, government agencies and residents/people.

From our analysis, the Templederry project (presented in Table 2.8) shows engagement and impacts

Table 2.8. Templederry renewable energy and community power

Information detail	Community detail
Name	Templederry
Location	Tipperary, Ireland
Population	Approximately 490
Project summary outline	Ireland's only community-owned windfarm, with 2 × 2.3 MW turbines or a 4.6 MW installation
	Strong collaboration with stakeholders such as Tipperary Energy Agency and Tipperary Institute
	Local resilience
	Established a utility company called Community Power
	Utility works with renewable electricity suppliers and community electricity purchasers
SDGs addressed	1, 4, 7, 8, 9, 11, 12, 13, 16 and 17
Timescale	> 20 years (from *c*.1999)
Community participation	Strong participation. Local committee and ownership in 32 shares. Significant equity invested by shareholders
Sustainability achievements	4.6 MW wind installation
	Formed a utility platform that buys small-scale renewable electricity from small Irish suppliers
	Utility also sells power to community initiatives
	28% of money flows into local costs (tax and rates), 46% flows into local revenue (Ryan *et al*., 2014).
Links/references	https://www.youtube.com/watch?v=shqL3yltqHw&list=LLttl8fr_cw6Ypcu4jaxWOYQ&index=5&t=0s
	http://communitypower.ie

across five elements of the Concentric Sustainability Framework, as there is no evidence of the institutional/policy impacts, engagement or capacity. The six capitals of the Community Capitals Framework are evident. It scores significantly well across SEAI's competency assessment, shown by it being Ireland's only community-owned wind farm, its utility platform (community power) and its multiple solar farm planning applications. It does not score on SEAI's sustainable transport competency. It features well in the eTowns framework and exhibits the common characteristics of strong vision, identity, community spirit, leadership, organisational management, social capital, presence of energy champions, strong ownership of endeavour and local circumstances. Ten out of the 17 stakeholders feature in its development, namely exemplar/model communities, businesses, networks, bridging organisations, residents/people, community/local groups, energy champions, project manager, third level colleges and adult education providers such as Tipperary Institute.

2.4   Summary

Our analysis above explores community conditions such as capitals, competencies, assets, processes, relationships and services, and applies these to the communities reviewed. It presents a picture of "the who" and "the what", casting light on community action, community actors and outside stakeholders prevalent in driving sustainability transition and engaging in the 17 SDGs. It also serves to visualise the competencies within community and the services offered by community that are important in such transition towards achieving the SDGs. The lens and conceptualisation applied to real community projects above provides an understanding of the diversity and complexity of sustainability transition across the 17 SDGs.

Tables 2.3, 2.6 and 2.8, and later Table 4.2, illustrate the communities of Ballina, Inis Mór, Templederry and Belturbet, respectively, in strong academic collaboration and show that these communities identify academic collaboration as being important in their sustainability transition.

3   Methods

The research project was branded as Spark Change and is referred to as this throughout this report. Action research is typified by three recurring stages: enquiry, action and reflection. Through iteration, these form the basis for continous improvement. Through enquiry, researchers and stakeholders initially identify a shared practical problem and agree corrective methods. A planned and structured intervention is executed in the action phase and any changes are closely monitored. The reflection stage involves both the observation of,

and reflection on, the impact and effects of this action on the situation/problem (Carragher *et al*., 2018). The application of mixed methods here falls mainly into three sections in the discussion below: the Spark Change Challenge (section 3.1), the Spark Change story harvesting (section 3.2) and the recording methods (section 3.3). The action research method was extensively used for the communities (Figure 3.1) and is outlined in the Spark Change Challenge (see section 3.1) below. The mixed methods adopted are

Figure 3.1. Map of Spark Change Challenge community locations.

DBAs and facilitation, SDG indicator measurement, community stakeholder profiling and ethnographic methods.

3.1 The Spark Change Challenge (Methods)

The main sustainability drivers used in the research design of the Spark Change Challenge were rivalry, measurement, ascription of responsibility, fostering local narrative on sustainability, recognition, commitment, incentives and norm setting. By enlivening these where possible, the research aims to support and enhance sustainability change in the participants (Carragher and McCormack, 2018). Using a customised version of the SDG indicators, the aim is to measure the sustainability change through the increase in sustainability caused.

3.1.1 Challenge format

Timelines are critical to sustainability transition and SDG action, so it was important that communities would be given enough time to implement change. The research plan was designed with a 4-month set-up period, a 12-month facilitated challenge period and 2-month reporting period.

Communities self-selected for the Spark Change Challenge in response to an awareness-raising and recruitment campaign. Communities participating in the Spark Change Challenge needed first to register and complete an expression of interest form by 31 January 2019. Second, the communities completed an *ex ante* survey assessing pre-intervention SDG action, and, third, they completed an *ex post* survey assessing SDG action after the Spark Change Challenge (final completion date 30 June 2019). In the

second survey respondents were asked to choose at least one out of seven award categories to compete in and to agree to the Spark Change Awards' terms and conditions. Only projects that met all of the above criteria were considered for shortlisting.

3.1.2 Compilation and review of SDG indicators

As previously discussed, the SDGs are a top-down framework, so it was necessary, where possible, to compile bottom-up versions of the SDG indicators that could be included in the surveys to assess levels of SDG activity. In total, 100 EU and 230 UN SDG indicators were pooled and bottom-up derivatives were fashioned (see EPA Research Data Archive). Participants were consulted about their opinions on these questions, and examples are presented in Table 3.1, with the full lists uploaded to the EPA Research Data Archive. Qualitative methods, although often sacrificing the representative nature of national data, allow the researcher to obtain rich, in-depth information about action and issues (Bright *et al*., 2003; Allen *et al*., 2009). The quantitative approach allows us to document the "what" and "how much", while the qualitative approach provides deeper understanding about the "how" and "why" (Miles and Huberman, 2003; Wyatt *et al*., 2011). The methods support the qualitative data acquisition in the study with desktop review of local/regional/national data, local surveillance, interview and survey.

Public awareness of the SDGs in Ireland is increasing, but, at 36%, remains below the EU average (DCCAE, 2018b). This study aimed to raise this awareness with active Spark Change communities and through dissemination post project. Given Spark Change leadership and guidance on the SDGs, and the

Table 3.1. Sample of UN and SDG indicators and their adapted queries

SDG	UN or EU SDG indicator	Adapted query
1	What proportion of the local population live below the national poverty line, by sex and age? (UN indicator)	Do you think the proportion of people in your community living below the poverty line (receiving/earning €230 per week or less) is above, equal to or below the average for most other communities in Ireland?
2	What are the levels of obesity in your area compared to the national average? (EU indicator)	Would you say most people in your community are above, equal to or below their ideal weight?
3	How does the death rate due to chronic diseases (cardiovascular, respiratory disease, cancer or diabetes) compare to the national average?	Do you think the number of deaths in your community due to chronic diseases (like heart or respiratory disease, cancer or diabetes) is above, equal to or below the average for most communities in Ireland?

active engagement methods and DBAs, the SDG awareness among the participant communities was significant. Ariely (2009), inter alia, argues that the single perception of a subject can be flawed, but in this study the queried perceptions provide a good measure of SDG action. The reasons for this are that (1) the subject is familiar with and active in the SDG action, and (2) their perception(s) are qualified by the experience of their community's SDG action. It is considered that there are therefore relatively low levels of bias arising from the methods and that they present significant resource efficiency, given the considerable costs of alternatives such as subject or project observation. This study therefore argues that the responses received provide a good measure of SDG action at the local scale, which national data arguably cannot provide. These questions (see Table 3.1 for a small sample) were provided across all 17 SDGs. The *ex ante* version provided an assessment of SDG action prior to the Spark Change Challenge, and the *ex post* version provided this after the intervention.

3.1.3 Awards, categories, evaluation and shortlisting

As comparative assessment of SDG achievement across 17 SDGs is not feasible, this research adopted the UN SDG Action Awards approach (SDG Action Awards, 2017). Seven categories were used (Mobiliser, Storyteller, Campaigner, Visualiser, Creator, Connector and Includer) and no more than three community projects were to be short-listed to each category. One advantage of adopting this awards approach was that the Spark Change Challenge winners could be entered into the 2020 UN SDG Action Awards.

The National Spark Change Awards ceremony took place on 18 October 2019 in Dublin Castle (Figure 3.2). The winner in each category, as selected by the judges, was announced at this Gala Ceremony (video at https://www.youtube.com/watch?v=15EslxRF3FU).

Figure 3.2. National Spark Change Awards.

3.1.4   Community supports

The locations of the communities self-selected for the Spark Change initiative are shown in Figure 3.1. Within the challenge, communities opted for different levels of engagement based on their needs and readiness. First, in what was designed to be a remote and shallow intervention, the research team provided general and customised email support, meeting incentives, and support in competency analysis and stakeholder mapping, training, networking and SDG demonstration. This research employed incentives to catalyse local conversations and establish norms locally: as participant views are exchanged, so are norms. Training opportunities existed here (https://www.wheel.ie/training), while training webinars existed here (https://www.wheel.ie/training/webinars). A deeper intervention was provided in the challenge for those communities with difficulties to solve and a readiness to solve them. For these, various DBAs were offered to animate local action through co-design and co-production (Figure 3.3). DBAs foster conversation and include a broad spectrum of methods such as workshops, focus groups, design charettes and the Delphi technique. DBAs are a variety of investigative methods that sample the views of participants (Sloman, 2003; Beckley *et al*., 2006). The green arrows relate to the challenge part of Spark Change, whereas the orange arrows relate to the storytelling part. In this way all communities received soft supports, but specific supports and services were dedicated to communities that were requiring them and ready to receive them. Soft supports included the resources below and are described in Figure 3.3 as shallow intervention. Those communities opting for deep intervention used these supports and also DBAs (Figure 3.3).

3.1.5   Resources

A number of online resources were made available to communities as part of the Spark Change intervention and more information is available from The Wheel. In general, the research team engendered commitment using the Spark Change challenge itself, but also the chartering of various campaigns. An example is the coordination of the Belturbet Zero Waste campaign and the residents' signing of a charter committing to a 50% waste reduction within 5 years. Customised information and support through email and verbal communication provided specific information relevant to progressing the development of each Spark Change community. Spark Change provided funding support and coordinated networking possibilities for a critical mass of local and regional events. The facilitation service fostered, supported and drove transition
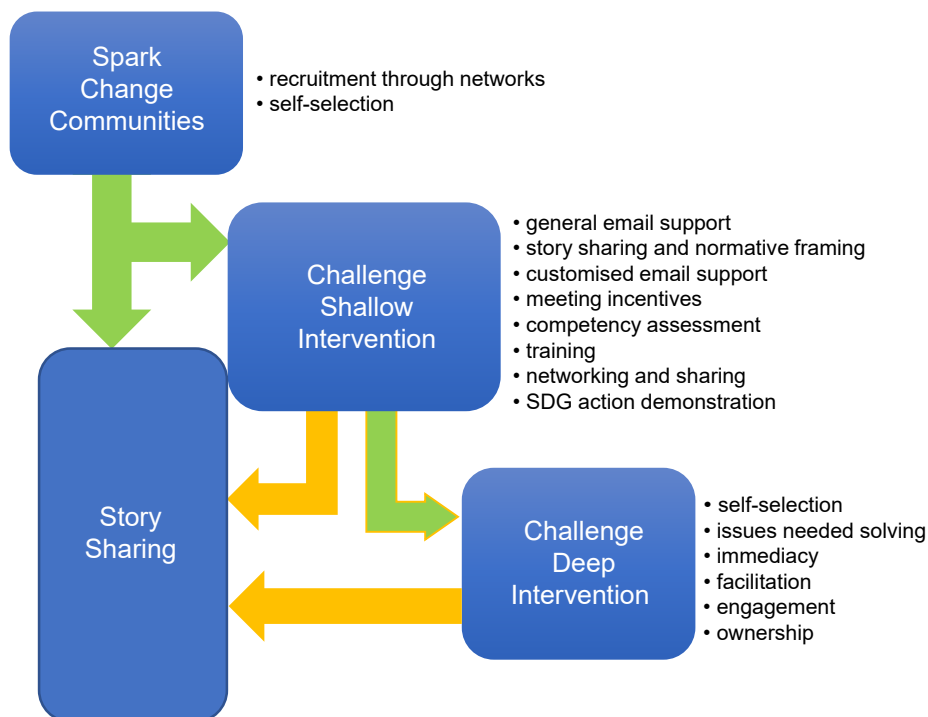
Figure 3.3. Spark Change services diagram.

within communities on sustainability action. It utilised the DBAs reviewed next and visited the locations in Figure 3.4.

3.1.6   *Action research*

Through inquiry using action research methods, researchers and stakeholders initially identify a shared practical problem and agree corrective methods. A planned and structured intervention is executed in the action phase and any changes are closely monitored. The reflection stage involves both the observation of, and reflection on, the impact and effects of this action

on the situation/problem (Carragher *et al*., 2018). The conditions of sustainability transition discussed in the literature review (see Chapter 2) supported an understanding of the levels of sustainability in each community.

The conditions provided a formative lens through which to judge each community. It allowed a structured scrutiny of the sustainability in each community through the Centre for Sustainable Community Development's natural, physical, economic, human, social and cultural capitals. Similarly, three of the SEAI competencies – Integrated Planning, Partnerships and

Figure 3.4. Spark Change locations for outreach and engagement.

Engagement, and Strategic Financing – together with the deconstruction offered by the eTowns framework, stakeholder mapping and process mapping, provided frameworks for robust scrutiny.

Discourse-based approaches (action research method)

The engagement and support methods used in Spark Change were adaptive and not prescriptive, exploring knowledge and practice that can be applied to projects given different contexts. In this action research with Spark Change communities, participants were not mere subjects, but partners engaged with and immersed in the research process. The research emerges as a shared process of reflection between the researcher and the participants (Figure 3.5), and the aim is that the findings and learning are transferrable and can potentially be applied to other communities to accelerate sustainability transition. The central tenet of such action research is that it uses a cyclical process, which alternates between action and critical reflection and ideation. Through the use of skilled facilitation and participatory processes, such methods aim to include and empower communities, solve issues and support a reciprocal two-way flow of information supporting decision-making processes (Figure 3.5). A recent Irish review of action research and its facilitation was useful in developing the DBAs that best suited the diverse
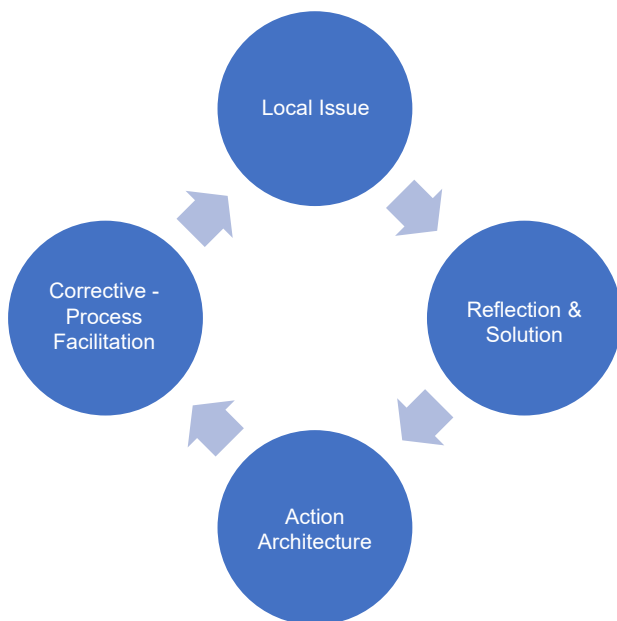
Figure 3.5. Action research and process.

issues facing Spark Change communities (Carragher and McCormack, 2018). Interestingly, DBAs are also capable of including community-based methods. The methods used included:

- Interviews: semi-structured and narrative-style interviews were used, conducted both by phone and face to face.
- Surveys assessing sustainability transition and SDG action included *ex ante* and *ex post* surveys relative to the Spark Change Challenge.
- Focus groups were generally used to identify specific issues, challenges, barriers and solutions within communities.
- Workshops were used to generate specific work outputs within communities.
- The Delphi method was used.

Ethnographic method

Ethnographic research helps assess the perspective of the citizen/actor *in situ*, exploring the thoughts behind, and also the context of, their actions. Too often, the exploration of behaviour and practice change uses a reductionist approach narrowing to the individual and personal level. Although this line of enquiry has value, humans are social animals, and the wealth of interconnections within and between social groups adds layers of complexity to this subject area. Relationships, interactions, discourses and effects within social networks are diverse. Viewing behaviour or practice through the prism of this research means that any behaviour or practice change has multiple drivers that act differently depending on the subject and temporal order. It is precisely in these circumstances that a holistic or systems approach to analysis is essential, because the components cannot easily be separated, or their order identified, as conventional study often argues (Carragher, 2011). Although this makes investigation complex and potentially fraught with ambiguity, ethnographic approaches are of great value and support a better understanding of people in the context of their lives, their work, their options, thoughts, choices and actions. For these reasons the following ethnographic data collection methods were used: contextual interviews, informal conversational interviews and participant observation. The data were collected using field notes, a reflexive journal and photographs.

Innovation approach

Many of the resources provided to Spark Change communities, which have been mentioned previously, assessed the capacity of the community and provided information, facilitation and training representing innovation-type support. The stakeholder mapping device, visioning tool and the DBAs look to assess relationships with appropriate stakeholders to build on existing relationships and nourish new ones. Importantly, approaches and strategy were co-designed with Spark Change communities using DBAs. These innovation methods drive the circular process in Figure 3.5. Klewits and Hansen (2014) argued that innovation is dependent on the innovator's approach, their strategy and their capacity. In relation to capacity they note that the innovator's skills, competencies and capabilities are important. They review the importance of collaboration with external actors and the benefits offered by differences in perspective, knowledge, resources and problem-solving approaches. In accordance with this the innovation approaches here utilise the previously mentioned resources and DBAs to gain innovation progress for the Spark Change communities.

Innovation supports were offered to communities mainly through a bespoke innovation service. Specific innovations of product, process and organisational structure were requested by Spark Change communities and, by way of example, individual case studies are available in the next section and further information on these is available from The Wheel.

3.2   Story Harvesting (Methods)

Narratives and stories are potent brokers of meaningful communication and are an important vehicle for communication in our information-rich lives. Importantly, they reduce jargon, gather and translate information, provide insight, reframe evidence and engage audiences. They are a critical means by which knowledge is exchanged and consolidated (Beckman and Barry, 2009). Recent Irish research points to the salience and potency of storytelling – as part of a co-creation process – with regard to galvanising local action in the generation of sustainable models of lifestyle practice for residents (IGES, 2019). In this study the power of stories is based on their ability to translate technical information and its constructs

for citizens, making them more understandable and actionable and thereby offering a promising opportunity for catalysing sustainability transition, peer to peer (Carragher *et al.*, 2018).

3.2.1   *Method of gathering stories*

The story form revolves around a person, in a specific setting or community, with a specific issue, concern or goal, and it details what has been done to solve this. The process of gathering the story and its various statements is extremely important and must be completed in a systematic and verifiable manner. Key to this are the concepts of truthfulness, verification, representativeness and confidentiality (Krueger, 2015). The story template allowed the participant to describe their experience, providing space under various headings to do so. It captured their contact details so that interested readers could contact them to fill in any missing gaps and to gain confidence in potential transfer opportunities. The story template was designed to enable the person to tell their story, capturing the sustainability actions and guiding content input with leading questions. Using a formatted template rather than an open format fulfils the requirements of disciplined enquiry. The story submission tool is open for a 5-year period to build a story database that details and supports sustainability transition and SDG progress in Irish communities (the submission link is here: https://www.sparkchange.ie/submit-a-story/). Publishing the stories on the page requires moderation of the submitted templates beyond the funding period.

Storytelling could lead to considerable participant investment, so to reduce submission time the story template is a shortened version of the more open narrative stories. In line with methods reviewed by others, the research team verified the story submissions by establishing that the oral version was equivalent to the submitted story and that the latter was an accurate rendition. The research team's verification also checked for representativeness and safeguarded confidentiality, as advised by Krueger (2015). To catalyse sustainability transition elsewhere the story informant's details are included and permission to do so is granted by them.

Key drivers elicited by the story database of Spark Change are storytelling itself, establishing norms,

experiential learning, affecting the reader's agency and confidence, emotive message framing, providing customised information, recognition/visibility, effective communication and the fact that stories often identify barriers and explore ways to overcome them (Carragher and McCormack, 2018).

3.3   Recording Methods

Quantitative data were gathered using desktop review, workshops and survey forms, and analysed using Excel and Statistical Package for Social Scientists (SPSS). Qualitative data were collected using survey forms, interviews, field notes, audio recording, reflexive journals and photographs. Where appropriate, qualitative data were sorted and grouped into themes. The data were used and stored on a secure, encrypted and password-protected personal computer. Personal data provided by individuals and communities were assigned a unique identification number and anonymised.

3.4   Limitations

The Spark Change Challenge period started on 11 November 2018 and ended on 30 June 2019, but in reality most communities were recruited into the challenge in January 2019, which provided no more than 5 months to engage, facilitate, measure and support transition on the SDGs and their indicators. The proposed Challenge period had been 12 months, and this was considered the minimum time required to show some impact on the SDG indicators at the community level. Owing to the short timeframes, both the SDG indicators and the underlying actions to achieve them were inconclusive.

4   Results and Discussion

4.1   Introduction

Given the cross-cutting nature of the 2030 Agenda and its goals, government needs to work with civil society and the private sector to enable coordinated implementation. Both of these sectors comprise communities and groups, and this study sought to engage them and individuals in sustainability action supporting government in achieving the SDGs. This chapter presents the results of this research in the following order: first stories and then SDG assessment, Spark Change winners and their case studies, SDG community action, and SDG actors as rated by the Spark Change participants. The Spark Change winners then define who in society is responsible for meeting the SDGs. Subsequently, we discuss the results for the Spark Change impacts, the communities' perspective of Spark Change, SDG achievements, sustainability drivers, community recommendations and innovation.

4.2   Story Results

It is clear that all of our shortlisted communities below felt that stories and storytelling are significant drivers of sustainability action (see Figure 4.10).

At the time of writing, Spark Change has dealt with over 130 communities, and, of these, 42 communities have submitted stories on the website story page. Although all 42 stories can easily be perused on the story database (visit https://www.sparkchange.ie/success-stories/) one story by Secret Street Tours is provided (Figure 4.1) as an example.

In total, 18 of the 42 stories selected the social category, four the economic category and 19 the environmental category, with one selecting both the environmental and social categories. Two examples in the economic category are Knocklyon Sustainable Energy Community and Secret Street Tours, while two social category examples are The Gab and Cycling Without Age. Swift Conservation in Mayo and Comharchumann Fuinnimh Oileáin Árann Teoranta (Aran Islands Energy Co-operative Limited) are two examples in the environmental category.

4.3   Spark Change Campaign Results

The awards were modelled on the UN SDG Action Campaign Awards (https://sdgactionawards.org) and had seven categories, but, as no communities entered for Visualiser, that category was removed, leaving six award categories.

A total of 68 projects registered for the Spark Change Challenge at the beginning of the programme. Of these, 56 completed the first survey and 39 of these completed the second (final) survey (Figure 4.2). Spark Change also received enquiries from numerous communities that were not ready to engage.

The evaluators selected projects for 18 shortlisted places, displayed in Table 4.1, which shows 11 communities occupying these places, and all were recognised at the Spark Change Awards. The Family Addiction Support Network was shortlisted four times, with four others shortlisted twice and the remaining six communities shortlisted once. Table 4.1 shows the winner in each category; in each case, the decision of the judges was unanimous.

The judges were very impressed with the shortlisted projects, as highlighted by two of their comments:

> This judging has inspired me, let's stop talking so much about the problems, and focus on the solutions.
>
> These communities are exceptional. I am impressed by reading the applications in ways that I did not expect; they have inspired me, and challenged my preconceptions about what communities do. In future, I will be much more careful how I judge communities.

4.4   Spark Change Community Results

The 11 communities that were shortlisted for 18 places are diverse in their ambitions, visions, aims, objectives and actions. This report mainly focuses on the six winning communities.

Project name	Secret Street Tours
Contact person	Tom Austin
Email address and number	Provided (not displayed here)
Location of project	Dublin
Website	https://www.secretstreettours.org/

Social media
https://www.youtube.com/watch?v=PLjl693Hu4M   https://www.facebook.com/secretstreettours/ https://twitter.com/street_tours   https://www.instagram.com/secretstreettours/

1. In your own words, tell us about your project.

> We are a nonprofit social enterprise that trains those affected by homelessness to become walking tour guides of their neighbourhoods, empowering them with skills and a platform to tell their story.
> In doing so, we offer the public an accessible and human channel to engage with the issue of homelessness, whilst giving a voice to a community that is so often talked about, rather than listened to.
> Our training focuses on developing the confidence of our guides through workshops on public speaking and customer service.
> Each of our tours is unique and is developed in partnership with our guides to reflect their passions and experiences. We hope to welcome you on a Secret Street Tour soon.
> You can book your place here.

2. Why did you do this work?

> Our founder, Tom Austin, first came across the concept of homeless walking tours in Vienna. There, he heard first hand the incredible impact the tour had in building confidence and providing a sense of purpose and enjoyment for the guide.
> We were inspired to bring the idea to Dublin and determined to empower our guides on their journey to independent living. Partnering with them to develop the skills they need to pursue the jobs they want.
> We are equally determined to promote awareness of the issue of homelessness and provide an accessible channel for the public to become more engaged with this critical social issue.

3. What was the impact or outcome of your project?

> Our guides develop into excellent public speakers who **control their own narrative**. Our first guide and co-founder, Derek McGuire, recently shared his story on stage, to a room of over 100 people. Something he couldn't have imagined doing before.
> Our guides **develop the skills they need for the careers they want.** As a startup, we're uniquely placed to provide real-world experience in the running of a business. From sales to marketing, from service to technology, we partner with our guides to build relevant skills and experience.
> As well as **providing an income**, our revenue model allows our guides to save towards long term goals that they decide on (examples include rental deposits and educational courses).
> We **change perceptions**. We've welcomed over 250 people on our tours so far and we ask them all two simple questions:
> Do you feel more aware and engaged on the issue of homelessness? - 92% said yes*
> Have your perceptions of homelessness changed? - 84% said yes*

4. Do you have any tips or advice for similar projects?* (200 words)

> Start with the why. As a social enterprise, you are bound to face numerous setbacks and challenges. At those times it's important to focus on your mission and keep moving forward, however small the steps may be.

5. Which Sustainable Development Goals does your work link to?

> Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
> Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
> Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

6. Please attach a video: https://youtu.be/PLjl693Hu4M

Figure 4.1. Secret Street Tours story.

4.4.1   Community case studies

The following section contains short case studies for each of the six communities, summarising context and containing the purpose and related SDGs identified by the projects. A stakeholder engagement map is included to define the actors that each has worked with until now. This aims to provide an understanding of what the communities are doing, where they are having an impact and who they have worked with to date. Speech marks are used to denote direct quotes.

Table 4.2 provides context and the case study for Belturbet Zero Waste project. The stakeholder mapping for Belturbet Zero Waste (Figure 4.3) shows

Figure 4.2. Spark Change entrant progress.

Table 4.1. Shortlistings for six categories

Categorised shortlisted communities	Score
Mobiliser	
Community Wetlands Forum	68.2
Go Greener with Grangecon	67.8
Athbags	67.3
Campaigner – Communicator	
Belturbet Zero Waste	80.2
Go Greener with Grangecon	75.6
Family Addiction Support Network	70.8
Storyteller	
Family Addiction Support Network	71.2
Saint Patrick's Cathedral	65.8
Foodture	65.6
Creator – Innovator	
Galway Cheshire House Band	69.0
Take Apart Carlow	67.2
Mayo Dark Skies	64.0
Includer	
Family Addiction Support Network	83.0
Moneygall Community Garden	82.0
Saint Patrick's Cathedral	81.0
Connector	
Community Wetlands Forum	93.8
Family Addiction Support Network	93.2
Galway Cheshire House Band	86.2

partnership on sustainability with local authority, schools, local environmental champions, skilled facilitation and, to a lesser extent, government, business, social media and bridging organisations. Stakeholder mapping follows the methods set by Carragher and McCormack (2018). The community engagement with 17 community stakeholders (identified by Carragher and McCormack, 2018) is ranked in a workshop by the community and its members, groups and residents. In the stakeholder maps, *n* denotes the number of community participants to which the stakeholder map applies. There is clear, strong opportunity in the future in relation to partnerships with European and global actors, and skilled facilitation could be used to bring such partnerships together.

Table 4.3 provides context and the case study for the Cheshire Homes project. The Cheshire Homes stakeholder map (Figure 4.4) shows engagement with other community and local groups, local authority, local environmental champions, networks and bridging organisations. To a lesser extent partnership is evident, including adult education providers, schools, skilled facilitation and government agencies. The map shows potential for partnership in the future with faith groups, a project manager, third level colleges, exemplar communities, businesses, and European or global actors.

Table 4.4 provides context and the case study for the Community Wetlands project. The stakeholder map (Figure 4.5) for Community Wetlands shows strong engagement with community and local groups, exemplar communities and networks and, to a lesser extent, skilled facilitation, government agencies, schools, local environmental champions, local authority and adult education providers. There is potential for engagement with faith groups, businesses, European and global actors, social media and bridging organisations in the future. There is also the opportunity to further engage with local authority, schools, government agencies and bridging organisations. Given the needs of Bord na Móna and its staff for diversification from peat extraction, it appears that collaboration with Community Wetlands could be beneficial. The Spark Change view is that a project manager and environmental champions have been very important to this community, and this is at odds with the community assessment in the chart. It may be the case that the opinions sought were those

Table 4.2. Belturbet case study

Belturbet Zero Waste	
Description	A rural town with approximately 1300 residents
Location	County Cavan, Ireland
Website	http://www.discoverbelturbet.ie/living-in-belturbet/belturbet-zero-waste/?fbclid=IwAR1s2yEEBrB_9tvgs3T6ecv9 6wBVybwgvCDCGG4s5_C5ejMEExJ_Mi59Amc
Social media	https://www.facebook.com/belturbetzerowaste/
Purpose	Belturbet Zero Waste emerged from a Tidy Towns group in Belturbet, and its vision, which is set out in a charter, is reducing the waste impacts of its citizens and its businesses. It has committed to reducing its waste volumes by 50% over 5 years by 2024. Belturbet Zero Waste engaged comprehensively with Spark Change, and multiple focus groups and workshops, together with measurement of the residents' ecological footprint, have taken place. Its sustainability efforts and the diverse initiatives it has adopted have been impressive. Its capitals are evident across the Community Capitals Framework, with significant capacities in natural, economic, human, social and cultural capital. It also scores well on the SEAI competencies in relation to partnerships and engagement and strategic financing. It used the Spark Change engagement to provide support for integrated planning and enhancing its campaigning. The eTowns framework themes are active in this project, which focuses on Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning.
SDGs (broad)[a]	7, 8, 9, 11, 12, 13, 14, 15, 17
SDGs (top three)[a]	12, 13, 14

[a]**Self-reported by communities.**

Figure 4.3. Stakeholder map: Belturbet Zero Waste (*n* = 63).

of the project manager and Community Wetlands member groups, and they may not have wanted to underline their own importance in the sustainability achievements of their organisation.

Table 4.5 provides context and the case study for the Family Addiction Support Network (FASN). Its stakeholder map (Figure 4.6) demonstrates engagement with a project manager and local champions, and it appears that the latter have been critical to the organisation's successes to date. To a lesser extent the project has engaged European and

global actors, social media, adult education providers, faith groups, other community and local groups, local authority, schools, colleges, business and networks. The findings suggest that more could be done to engage with all or some of these in the future and that using skilled facilitation could help the strength of the partnerships, actions and management. It is evident that exemplar communities have not featured; it may be that the FASN is a unique initiative, and none exist here, although international examples may exist. This research points to the benefits of government engaging with the FASN and others. The FASN

Table 4.3. Cheshire Homes case study

Cheshire Homes Residents Band (Cheshire House Elastic Band)	
Description	The project is based in Cheshire House, where residents live with both physical and neurological conditions and often cope with very complex and high support needs. Residents have formed a music group with the support of the social supports facilitator and have played at events
Location	Galway City, County Galway, Ireland
Website	N/A
Social media	Facebook: https://www.facebook.com/cheshirehouseelasticband/
	YouTube: https://www.youtube.com/watch?v=vXxWdLwVzkI&feature=player_embedded&fbclid= IwAR057wPrOO5neEIP5kSm0DnOzms3jzJBOx9YC8bNo7UVo4W1klIYSgDaXCE
Purpose	There are four elements to the project's purpose. (1) Education and healthy living – band members aim to develop their musical ability and the creative aspect of their lives, expressing themselves musically, becoming positive role models for people of all abilities. Their aim is that their lives will become more socially sustainable as they grow in confidence and gain personal fulfilment through being part of a band, practising and creating music together, meeting people from outside Cheshire House, such as music tutors, trainers, new band members and the general public. (2) Inclusivity and gender equality – members aim for gender balance and currently there are four in-house members. The band is inclusive and invites members from outside Cheshire House to join and play. Including "elastic" in the band's name signifies this flexibility. (3) Healthy lives – members aim to have an impact in the community sector by playing at community events and acting as creative ambassadors, showing how people of all abilities can get out, be creative, play music, create performances and entertain in a public setting. (4) Just, peaceful and inclusive society – the band aims to spark change and be a positive influence on people of all abilities. The band's ethos is one of inclusivity and integration. As a band member said, "It was never about one person, it was always about the group and teamwork." It strives for excellence, remembering that taking part is the important part, and its motto is "Together we can" – "Le chéile, is féidir linn."
	Adopting the Community Capitals Framework demonstrates that strong physical, human, social, and cultural capital is evident in this project. In relation to the SEAI competencies it scores well on partnership and engagement, and given the range of difficulties with access the band faces, this is a significant achievement. In the eTowns framework themes, Cheshire Homes Residents Band focuses on Health and Well-being, and, to a lesser extent, Environment and Sustainability.
SDGs (broad)[a]	1, 3, 4, 5, 11, 16
SDGs (top three)[a]	3, 4, 16

[a]**Self-reported by communities.**

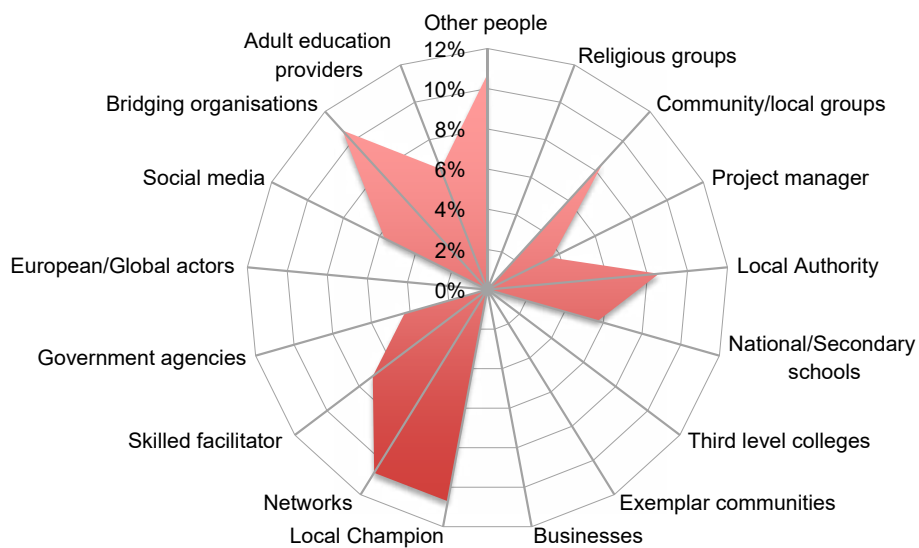**Figure 4.4. Stakeholder map: Cheshire House Elastic Band (*n* = 15).**

Table 4.4. Community Wetlands case study

Community Wetlands	
Description	Umbrella organisation supporting 21 community organisations; community of interest
Location	Moate, County Westmeath, and Tullamore, County Offaly, Ireland
Website	https://www.communitywetlandsforum.ie
Social media	Twitter: @forum_wetlands; https://www.facebook.com/communitywetlandsforum/
Purpose	This project encourages local engagement and collaboration, promotes the benefits and services of the natural environment and builds greater capacity and resilience in the wider community. Established in September 2013 as a representative platform for community-led wetland conservation groups, it is based on the principles of community development, namely empowerment, participation, inclusion, self-determination and partnership. Its part-time development officer, funded by what was then the Department of Culture, Heritage and the Gaeltacht (DCHG), implements the actions outlined in its Strategic Plan, as well as raising awareness of the forum and providing support and advice to current and new members. These actions are covered under the following headings: growing membership, developing partnerships, community engagement with wetlands, communications and awareness raising, capacity building and funding, ecosystem services research, conservation and biodiversity, education and interpretation, site management, recreation and amenity, and implementation, monitoring and evaluation. In 2019 it aimed to increase awareness of the importance of wetlands for biodiversity and, with respect to counteracting climate change, to increase the number of community group members trained as wetland guides through training workshops, to improve community resilience through capacity-building workshops for community group members, to increase the number of community and other stakeholder members, and to complete or start at least two collaborative projects related to either citizen science or visual arts.
	It engages with its communities in two ways: (1) on a one-to-one basis where engagement is through the individual community group members who organise events, workshops, walks, projects and related activities in their respective communities; and (2) on a general level by focusing on its communities of similar interest. Support here is through general member meetings, collaborative information events, capacity-building workshops and joint projects. By providing a representative platform and through collaboration and synergy, it is collectively working towards a society where wetlands are valued by local communities, and community engagement is valued as a means of protecting and managing wetlands for present and future generations.
	Community Wetlands possesses all the capitals of the Community Capitals Framework, and it works impressively on natural and physical capital based in and around peatlands. It also scores well on economic, human and social capitals. Its work on cultural capital is not as evident but, given the unique preservation quality of peatland, its bogs and work also possess cultural capital. Its partnership with Irish Rural Link helps it score on the SEAI competencies of integrated planning, partnerships and engagement and, to a lesser extent, strategic financing. The project also advances the themes of the eTowns framework such as Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning.
SDGs (broad)[a]	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 17
SDGs (top three)[a]	13, 15, 16

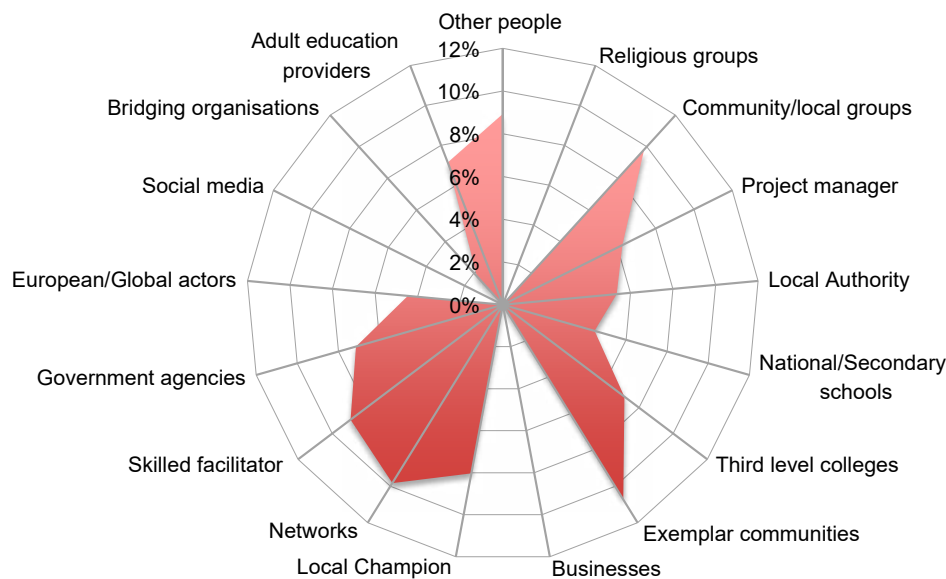[a]**Self-reported by communities.**

Figure 4.5. Stakeholder map: Community Wetlands (*n* = 103).

Table 4.5. Family Addiction Support Network case study

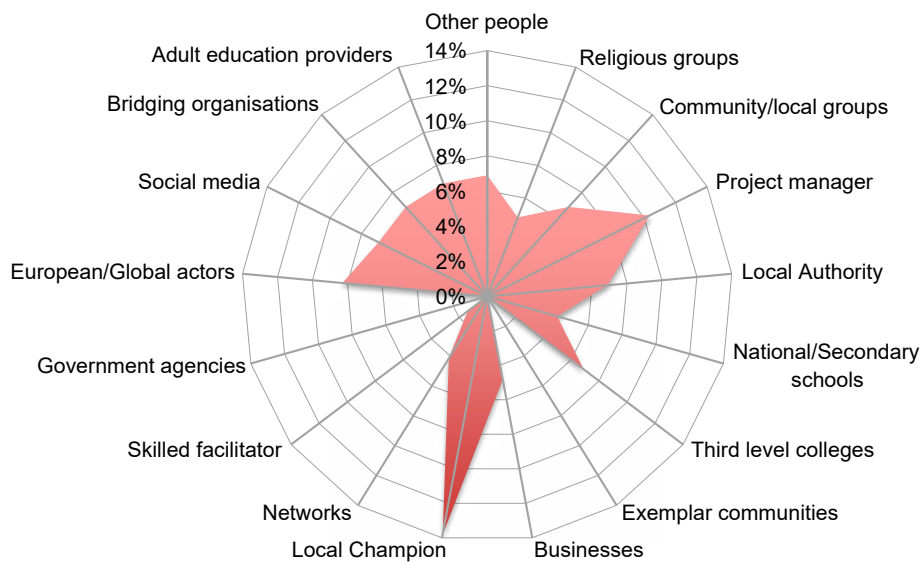| Family Addiction Support Network	
Description	An organisation supporting the needs of families affected by addiction in the counties of Cavan, Monaghan, Meath and Louth
Location	Dundalk, County Louth, Ireland
Website	www.fasn.ie
Social media	https://www.facebook.com/fasnsupport/
Purpose	FASN emerged organically from the needs of family members who were affected by a loved one's addiction behaviour. This helped them to understand the impact of addiction, and to improve their current living situation and coping skills. FASN has thus been developed, managed and serviced by service users. Its goal is to assist families in achieving a greater understanding of addiction, help them improve their quality of life and help them fulfil a positive role in the recovery of their loved one, should they choose to. Today, the network is led and run by volunteers who have lived with addiction. These peers act to support families affected by drugs and alcohol and believe that no one should have to live with the isolation and stigma that problem drug use can bring. Through their own development the volunteers have progressed through the seven stages of addiction behaviour and have gained enough expertise and experience to be in a position to give something back to their community or to other family members in relation to drug use. This, in turn, builds social capital within communities in relation to volunteering and creating caring communities. This is an example of bricolage entrepreneurship, because families affected by addiction develop solutions themselves, which are all created in response to a lack of services, resources, creativity and innovation. FASN said: "We need to break down stigma and isolation to be able to feel compassion and love for another human being instead of judgement, abandonment and isolation", and "We hope to influence policymakers at local, regional and national levels in the development of a multidisciplinary approach guiding addiction services". FASN, as the voice of families affected by addiction, has brought issues affecting communities to the table of policymakers for inclusion at government level.
	The resource layers of the Community Capitals Framework are evident in this community. Physical, human, social and cultural capitals are affected by its work. It also scores on the SEAI competencies of integrated planning and partnerships and engagement. Its impact on the former in relation to policy in the area and gaining a space in society's fabric for its important and unique work is impressive. In relation to the eTowns framework, Health and Well-being, Sustainability, and Management and Planning all feature well.
SDGs (broad)[a]	3, 5, 11
SDGs (top three)[a]	3, 5, 11

[a]**Self-reported by communities.**

Figure 4.6. Stakeholder map: Family Addiction Support Network (*n*=12).

has not engaged with a skilled facilitator and this is something that should happen as needs arise in the future.

Table 4.6 provides context and the case study for Go Greener with Grangecon. Others/residents, community and local groups, skilled facilitation, social media and local environmental champions feature strongly on the stakeholder engagement map (Figure 4.7). Other stakeholders that the project has engaged with are a

project manager, local authority, schools, exemplar communities, businesses and networks, and it was agreed by the community that more could be done in the future with these partnerships. Good opportunities exist in the future for more engagement with these stakeholders and with faith groups, colleges, government agencies, European/global actors, bridging organisations and adult education providers in the sustainability transition of this community. Given Go Greener with Grangecon's progress, more

Table 4.6. Go Greener with Grangecon case study

Go Greener with Grangecon	
Description	Rural settlement of about 200 residents
Location	Grangecon, County Wicklow, Ireland
Social media	https://www.facebook.com/gogreenerwithgrangecon/
Purpose	The initial purpose was to measure and reduce the waste produced by the school's parent association and its events. Through this the project aimed to educate the children and community on waste issues and solutions. This evolved into a community ecological footprint campaign in which the waste, water, household energy, food and transport impacts of the residents were measured, disseminated, discussed and reinterpreted. The aim is to reduce Grangecon's ecological footprint by working together. Significant numbers of workshops and focus groups have been facilitated by Spark Change, supporting its ecological footprint measurement and reinterpretation and providing advice about low-carbon options.
	This project has had impacts on the various capitals of the Community Capitals Framework, namely natural, physical, economic, human, social and cultural capitals. Efforts are mainly focused on the natural, human and social capitals, but the impacts are broader. Spark Change has helped the community score on the Integrated Planning element of the SEAI competencies, while the project has scored strongly on the partnership and engagement elements.
	Regarding the eTowns framework, Go Greener with Grangecon has had impacts in the themes of Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning. Again, the last theme was by virtue of the Spark Change collaboration and strong engagement from the community.
SDGs (broad)[a]	1, 2, 7, 8, 9, 11, 12, 13, 14, 15, 17
SDGs (top three)[a]	11, 12, 13

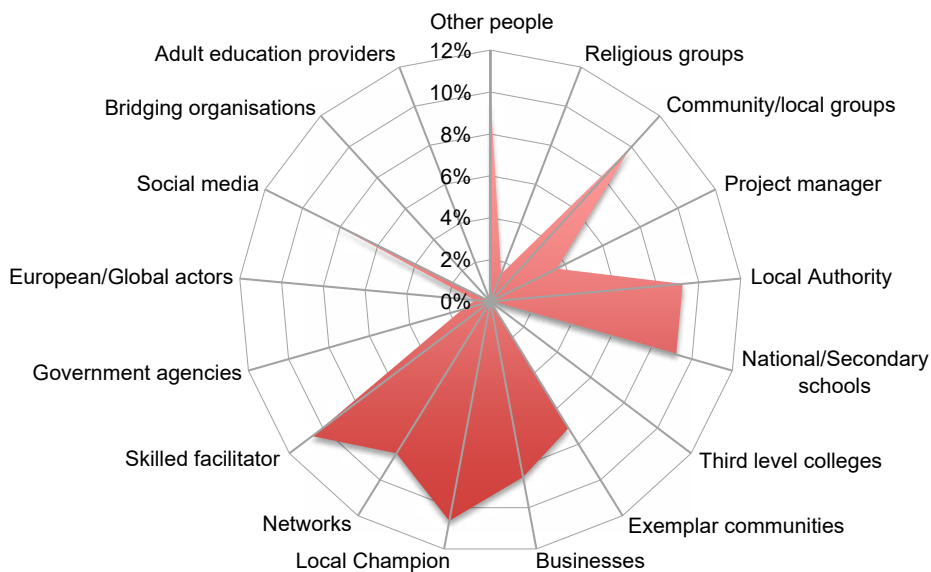[a]**Self-reported by communities.**

Figure 4.7. Stakeholder map: Go Greener with Grangecon (*n* = 19).

engagement with skilled facilitation could help it build partnerships and also grow organisationally.

Table 4.7 provides context and the case study for St Patrick's Cathedral. The systematic impacts can be seen in the stakeholder map (Figure 4.8), which, compared with the others presented here, is relatively full. The cathedral's major engagement is with bridging organisations, European/global actors, skilled facilitation, networks, local sustainability champions, adult education providers and exemplar communities. Engagement also exists with faith groups, other volunteers, community and local groups, a project manager, local authority, schools and colleges, but to a lesser extent than with the other stakeholders. However, the significant communication with and support from this community to communities well

beyond its faith community is demonstrated. Where engagement could improve is with government actors and businesses, and this may present a strategic long-term opportunity for this community. As it has been successful in engaging skilled facilitation, it would be beneficial to use this further to build strong partnership in these areas.

4.5   SDG Actions of Communities

The SDGs related to the actions of each of the 18 shortlisted communities are collated in the chart in Figure 4.9. The findings suggest that all 17 SDGs feature in the actions of our shortlisted communities and that eight of the shortlisted projects considered that their actions related to SDG 11 (Make cities inclusive, safe, resilient and sustainable).

Table 4.7. St Patrick's Cathedral case study

St Patrick's Cathedral	
Description	A community-based organisation advocating SDG community action
Location	Dublin, Ireland
Website	https://www.ireland.anglican.org/news/8391/st-patricks-cathedral-community-and%20-%20Community%20Fund%202018%20Invitation%20to%20apply
	https://www.stpatrickscathedral.ie/plastic-snake-in-saint-patricks/
Social media	https://www.youtube.com/watch?v=jQWIThZ3e-A&feature=share++World+Refugee+Day+-+inclusivity+-+sustainable+community+-+equality
Purpose	Saint Patrick's Cathedral is the national cathedral of the Church of Ireland and serves the community on the whole island of Ireland. Through the distribution of the annual funds and cooperation throughout the year, the impact of the Cathedral is as an empowering SDG conduit. It wants to build awareness of the SDGs and spread the vision that collective, seemingly small actions can create a collaborative impact larger than if we each act alone. So many charitable and community organisations operate on a small scale achieving great things. Using the clearly outlined and agreed goals, it wants to assist the people directing these good works to articulate their stories of collective impact. Through its Charitable and Community Fund, applicants are asked to choose the SDG that applies to their chosen project and describe the impact that they hope to achieve with the funds should they succeed. The Cathedral has seven categories of organisations who receive funding annually: Christian Faith in Action, Education, Community Support, Alleviation of Suffering, Conservation and Restoration, Health and Well-being, and Inclusivity. In 2017, the Cathedral distributed €127,000 to 53 charities locally, nationally and internationally. Over the past decade the Cathedral has contributed €700,000 in direct awards as well as another €0.5 million of in-kind contributions, providing event space at cost as well as other forms of support. These contributions to organisations assist in the achievement of the SDGs and in creating a more harmonious, healthy and sustainable world now and for future generations. Examples of the campaigns supported are Love D8, the Plastic Snake Project, the Welcome Dinner for World Refugee Day, Bake Bread for Peace and a young people's mural in the cabbage garden. In relation to inclusivity, it has an annual programme called "Nothing about me, without me". In 2017 it focused on mental health, in 2018 it focused on addiction and in 2019 it worked with people who are visually impaired. Each year the Cathedral invites a cohort of people who may be excluded from society to engage with the Cathedral, to reflect on the experience and to share those reflections.
	This community has built significant resource layers across the Community Capitals Framework, building natural, physical, economic, human, social and cultural capital. It scores well on the SEAI competencies, with integrated planning, partnerships and engagement and strategic financing all scoring well. The themes of the eTowns framework are all evident too, namely Health and Well-being, Environment and Sustainability, Business and Economy, and Management and Planning.
SDGs (broad)[a]	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17
SDGs (top three)[a]	1, 3, 16

[a]Self-reported by communities.

Figure 4.8. Stakeholder map: St Patrick's Cathedral.
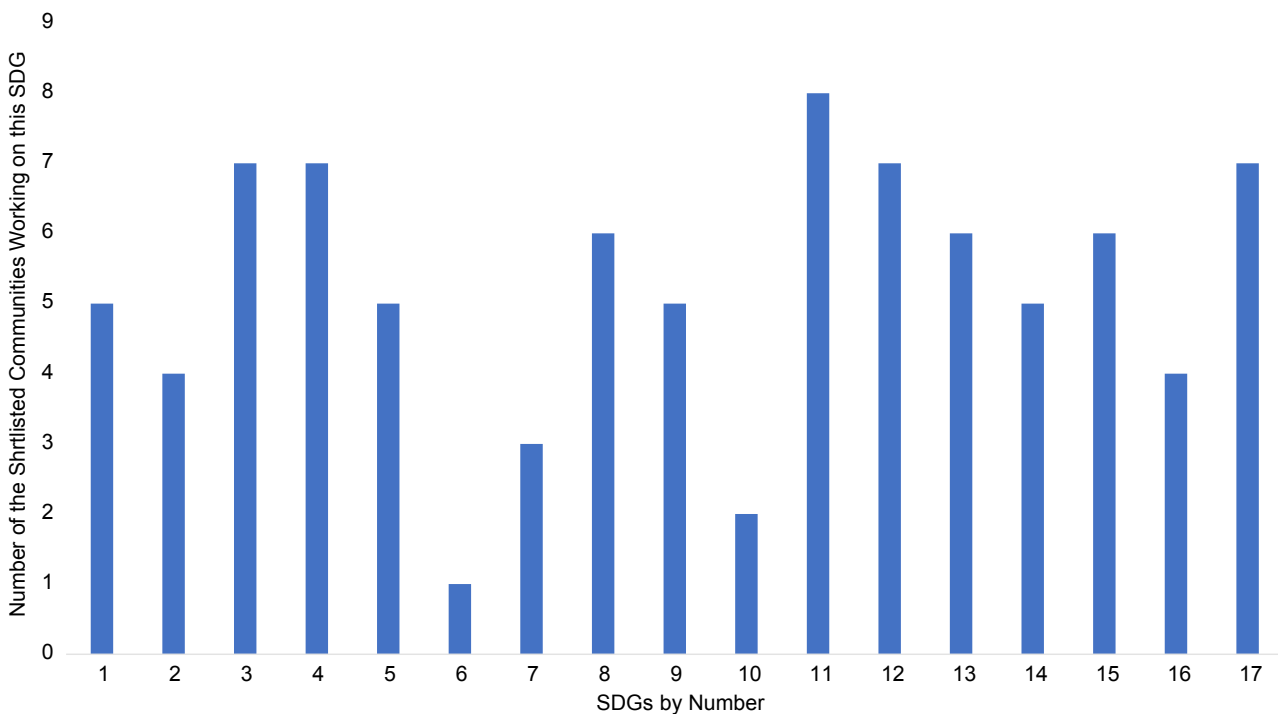
Figure 4.9. SDG focus of the shortlisted communities. The titles of the SDGs are available online: https://www.undp.org/content/undp/en/home/sustainable-development-goals.html (accessed 4 February 2021).

4.6   SDG Actors and Responsibilities

The shortlisted communities were surveyed to establish who in society, in their opinion, is responsible for achieving the SDGs. All societal actors were defined as the Irish government, the EU, local authorities, business, industry, the UN, the international community, themselves and all citizens. The FASN added that this is a "worldwide responsibility". It is clear from our sample of SDG-active communities that total and whole of society action is essential.

It was agreed by the majority of our shortlisted communities that:

> All societal actors are not doing enough to achieve the SDGs.

The FASN commented:

> [...] policies often look well but have poor
> depth, there has been no increase in funding,
> and on the ground, things are not working.
> Communities are trying very hard, there is a
> big reliance on the community and voluntary
> sector by government who take advantage,
> there are big gaps. Our research on valuing
> family support uses Social Return on
> Investment and defies this trend, as for every
> €1 invested in family support there is social
> return of over €5 for government.

4.7 Spark Change Impacts

The following section discusses the impacts of Spark
Change and first reports on the communities' views
on Spark Change in relation to its SDG guidance
and leadership, related recognition and legitimacy,
organisation supports offered to them and third-party
measurement of sustainability transition. The section
then describes Spark Change participants' views on
the potency of the sustainability drivers used, and then
lays out their recommendations.

4.7.1 Communities' perspectives of Spark Change, SDG achievements

Owing to the available timeframes, SDG achievements
could not be measured using the SDG indicators (see
section 3.4); nonetheless, the answers to our final
interview with each of the shortlisted communities
provides a window to some of its activities. The
following provides some examples of the comments
and views gathered and contains a mixture of the
community's perspective on the difference Spark
Change made and the community's perspectives on its
achievements. The comments have been sorted and
grouped under six themes as follows here.

SDG guidance and leadership

A typical response, illustrated here by St Patrick's
Cathedral, was:

> Spark Change gave us essential guidance
> and leadership for the SDGs. It supported
> us in [the] consolidation of our vision and
> targeting actions linked to the SDGs. It

> motivated people to take part, and we
> found the networking was very good. It was
> important to have a third-party reference
> point – a nationally based benchmark for SDG
> actions.

Recognition and legitimacy

Cheshire House Elastic Band, the FASN and other
communities agree that the recognition and visibility
provided by Spark Change highlighted the importance
of their community work and that this was important to
them.

Organisational management and implementation

Spark Change supported the sustainability aims,
actions, campaigns and progress of the communities.
All communities have been profiled at various levels,
including stakeholder, process and competency
assessment, depending on their stage and needs.
Community Wetlands, among others, mentioned the
value of the early profiling support and the skilled
facilitation (skilled use of DBAs). Cheshire House
Elastic Band related how Spark Change fostered
discussions on its ethos, vision and goals:

> It provided the SDG framework to educate our
> decisions and gave an impetus and added
> to improving our confidence and agency, it
> enabled local discussion and narrative and
> provided a method and discipline with which
> to tackle these things.

Charters are an important way of agreeing visions and
committing to them, and, as mentioned, Belturbet Zero
Waste is now a chartered waste reduction programme.
We chartered a number of campaigns, including the
Mayo Dark Skies campaign, in which Spark Change
facilitated locals to agree a vision and to commit,
through signing, to a set of underlying timelined and
monitored actions. Grangecon and Athbags are in the
process of setting up a charter.

Measurement

Measurement is a key factor in focusing and guiding
community action according to Go Greener with
Grangecon, Belturbet Zero Waste and Cheshire House
Elastic Band.

Sustainability drivers

Sustainability drivers were queried in the *ex post* Spark Change Challenge survey and then by interview with each of the shortlisted communities. The survey question was presented in a closed format, providing drivers for selection by respondents. The interview then presented an open question on the drivers and built on the *ex post* survey responses. When asked about the factors influencing people in local communities to be more sustainable, the shortlisted communities answered as detailed in Figure 4.10. It is clear that trusted interlocutors are the most effective drivers of sustainability, and they include friends, children and neighbours. Local conversations

are also effective, with outputs such as stories and local narrative scoring highest on the driver scale. Recognition also gains a significant score, and this was provided by the Spark Change campaign participation and its awards. Virtually all communities acknowledged that changing norms are a sustainability driver, effectively increasing the performance of all those in a community towards a particular SDG. The impact of direct funding is not rated as highly as most of the other drivers, showing that, for community action, animation and facilitation are more critical. Funders therefore need to make sure that other drivers are in play when funding is granted if they value sustainability achievement and the SDGs. To be
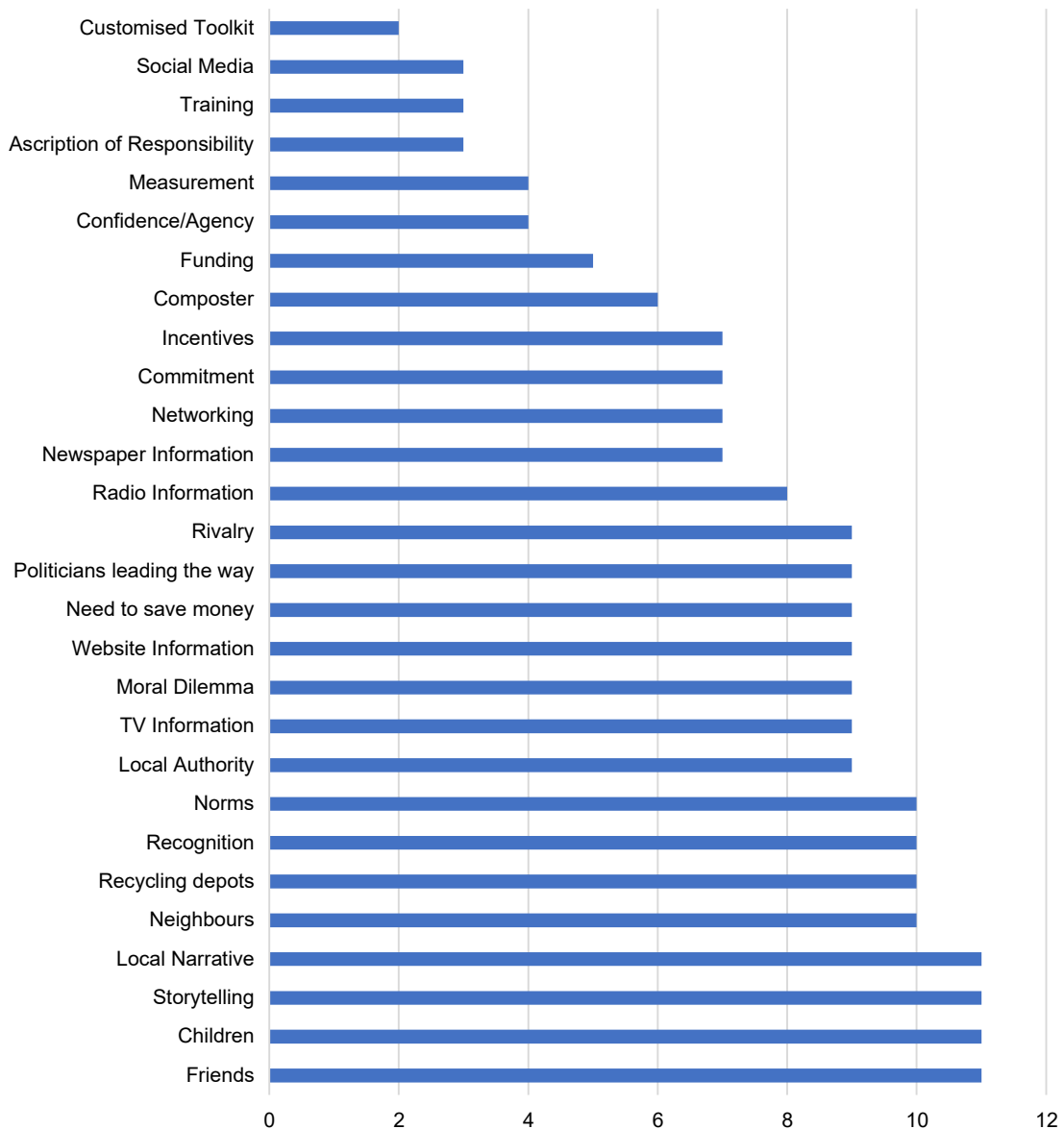

Figure 4.10. Sustainability driver scale as ranked by our 11 finalists.

effective the drivers used must fit the need, and this need changes with time, underlining the importance of community profiling. Our community activists believe that a clear focus on the sustainability drivers that receive higher scores than social media, training and prescriptive toolkits is beneficial.

Community recommendations

It is the opinion of all of our Spark Change participants that such a project is essential to animate policy on the ground and facilitate behaviour, practice change and action. The sole recommendation of St Patrick's Cathedral, for example, is to:

> [...] make Spark Change longer, sustainability is a lifetime commitment.

Belturbet Zero Waste recommends, and mirrors Go Greener with Grangecon's views, that:

> [...] baseline and then continual measurement is key.

They felt that measurement should stand up to scrutiny and that the validation by the Institute for Global Environmental Strategy, Stockholm Environment Institute and One Planet added legitimacy to the measurement for them. Community Wetlands is an umbrella organisation of community members and so distinctly understands that communities are diverse and that profiling is essential to provide qualified support at varying levels. Community Wetlands also provides advice for funders:

> Funding should be more flexible and less prescriptive, as much time is wasted in the application and reporting stages.

4.8   Innovation Results

Spark Change and its action research offered support and enhanced the impacts of sustainability actions, driving innovation across the SDGs, as shown in the individual case studies produced from the project.

5   Conclusion and Recommendations

5.1   To SDG or not to SDG?

Our finalists achieved impacts across a range of sustainability actions, including global human welfare, rights, solidarity and sustainability. The SDG actions of our finalists embraced all SDGs and were predominantly focused on SDGs 3 (Good Health and Well-being), 4 (Quality Education), 11 (Sustainable Cities and Communities), 14 (Life below Water) and 17 (Partnerships for the Goals). There is, however, also a significant, long-standing, academic literature interrogating and critiquing "sustainable development" both as a concept and as a global political project. In relation to follow-on research, calls for further consideration of these issues would be beneficial. A contribution to the following would be of benefit: (1) sustainable development's wider academic discussion; and (2) facilitating individuals and communities in formulating their own, more localised, critical understanding of development in general than specifically that of the SDG formulation.

5.2   Review

The readiness of the Irish government to cooperate is illustrated by its National SDG Implementation Plan (DCCAE, 2018a), its National SDG Forum and its recent establishment of 12 SDG Champions. The SDG National Stakeholder Forum necessarily works with and recognises aggregator or umbrella-type representatives of the community and voluntary sector, such as The Wheel and the Irish Environmental Network. It is important, however, that the focus of and recognition by the Forum should at least be partially centred on community groups within the sector. Identifying both umbrella organisations and individual groups for support and recognition is critical to proportioning the impact, benefit and resources of the Forum. Although working with umbrella-type organisations can enhance multiplier effects, a greater impact is more likely when working with individual groups and communities. This is critical in the authors' view because, although the public participatory networks have significant membership, significant numbers of community-based organisations are not members of national representative bodies. In relation

to the Spark Change Awards and its community feedback, the Forum needs to build relationships and partnerships on the ground, learning from, recognising and incentivising SDG implementation by community groups (echoing SDG 17, Partnerships for the Goals).

Good examples of sustainability action at the community scale exist in practitioner literature, but this is not peer reviewed and often does not include measurement. The Irish academic examples reviewed attempt to record the sustainability of Irish communities over short timeframes. They do not foster sustainability transition or use action research. There is a pressing need to research, measure and drive sustainability using academics in partnership with Irish communities (echoing SDG 17, Partnerships for the Goals). Research funding for action research in communities should be prioritised because of the economy of scale and the potential sustainability gain. Although research such as the Consensus project (Consensus, 2013) sheds light on individual-scale solutions, it has impacts on very few households and its real value is informing future policy measures based on a relatively small sample of the diversity of behaviour and practice.

DCCAE, through the EPA, SEAI and local authorities, has a number of relatively small funds that communities can access. DCCAE, through SEAI and the EPA, however, has championed some one-off large community projects with significant funds. The Dundalk Sustainable Energy Zone is one example that attracted relatively large levels of funding and was trumpeted by successive National Energy Efficiency Action Plans to reach substantial energy targets by 2010. Despite this, subsequent National Energy Efficiency Action Plans do not mention achievements for this zone nor have the authors of this study been able to identify any records that detail monitored achievements in this Dundalk zone. Given that this work was publicly funded, its learning should be more transparent and publicly available. It is the opinion of the authors that such top-down projects with a single focus on a relatively small location trigger significant financial challenges if they are ever to scale up. Added to this, our shortlisted Spark Change communities

provide evidence of low levels of engagement with and by the Irish government compared with their engagement with and by other stakeholders. Those shortlisted also expressed their dissatisfaction with the gap that exists between government and themselves in relation to policy fit and its impact in their communities. Our communities reported that information provision is not enough, that policy needs animation in communities, that sustainability conversations need catalysis, that agreement on their SDG action needs to be fostered and that SDG action delivery needs management. Such animation and support are essential for community-led local development and can ensure a progressive shift towards more resilient and sustainable communities (echoing SDG 17, Partnerships for the Goals). This can also aid government in reaching its SDG targets and needs to be included in future funding calls.

A positive step for communities focused on energy is that, since 2015, SEAI has launched the Sustainable Energy Communities programme and has funded sustainable energy plans in about 50 communities. This type of support, whereby communities can share and learning can be networked, is key to qualified, cost-effective and scalable transition (echoing SDG 17, Partnerships for the Goals). In 2020, the Electricity Policy unit of DCCAE also made positive progress with the first auction of its Renewable Electricity Support Scheme, offering support to eight communities. In just 5 months, Spark Change engaged 42 communities in creating and sharing their SDG stories, allowing substantial sharing and cross-pollination of SDG awareness and action. It also engaged 68 communities with facilitated and customised campaigns, co-creating solutions and driving sustainability action at the grassroots level with levels of funding that are low relative to the top-down examples that exist. Spark Change resources were put on hold for many other communities that were not quite ready to engage during this study. Compared with other examples reviewed, this type of research guarantees efficient use of funding and future-proofs policy from its evidence base.

5.3   Action Research

Quantitative methods usually allow documentation of the "what" and the "how much" (Miles and Huberman, 2003; Wyatt *et al*., 2011), while the action research

methods adopted here have also allowed us to obtain rich, in-depth information about sustainability transition that relates to the "who", the "how" and the "why". These methods have provided a depth of context over relatively short timeframes regarding sustainability transition in our communities. The Community Capitals Framework and its stock of capital has allowed us to discuss the resources present in our communities and this casts light on the "how" and "why" of sustainability transition. Equally, SEAI's competency assessment has allowed us to focus on and identify significant competencies that drive communities on sustainability transition; this again relates to the "how" and "why" of transition. Likewise, the eTowns framework allowed us to identify and explore themes, action, planning and organisational capacity in our communities. The sustainability stakeholder assessment deepens the context by identifying partners (the "who") capable of driving transition both from within and from outside the communities. Action research is uniquely capable of exploring and driving sustainability across a diversity of residents, communities, behaviours and practices.

This study explores the benefits of a number of sustainability drivers or enablers at the community scale. It was the view of the shortlisted Spark Change projects that all sustainability drivers tested in this research supported and motivated sustainability transition (see Figure 4.10). These communities were identified by our awards evaluation as being exceptional in the various ways that they drove SDG action, so this is qualified advocacy of the sustainability drivers. Trusted interlocutors, local conversations, stories and local narrative were rated as significant drivers unanimously by our shortlisted communities. Normative framing and recognition of (1) achievements and (2) the sustainability processes adopted were also significant drivers. Information media, such as websites, radio, television, newspapers and, to a lesser extent, social media, also featured, and infrastructural factors, such as composters and recycling depots, were judged as enabling sustainability. Rivalry and the moral dilemma were rated as important by nine out of our 11 finalists, while commitment was important for seven of them. Local authorities and politicians leading by example were also reported to play their part. Although this research developed a toolkit of its own (https://www.sparkchange.ie/resources-events/), a subsequent finding of this research is that toolkits

and prescriptive-type supports offered as a general panacea to the sector are not necessarily valuable and that communities find it difficult to extract the value from these, given, among other things, volunteer time constraints. The toolkit and its resources developed by this research did, however, serve to support profiling, communication and skilled facilitation of our Spark Change communities.

The Spark Change community actors based in sustainability action within one or even a set of SDGs were specialised, focused and appropriate arbiters of where sustainability is in relation to the SDGs they work on. Their awareness of, and investment in, the SDGs is greater than that of the average citizen, and their perceptions provide an appropriate attempt at querying SDG action at the local scale – that which national-level data can never hope to do. The communities self-selected for Spark Change and represent communities all over Ireland, exemplifying urban, suburban and rural settlements, with just a handful knowledgeable in the SDGs prior to Spark Change. This means that communities all over Ireland are just 5 months or less away from similar levels of SDG awareness and action should they engage in focused and skilled facilitation as practised by Spark Change.

5.4   Qualified Support

Given the challenges the government faces in taking action to achieve the SDGs and their related indicators and to meet the 2030 Agenda deadlines, it is now urgent that communities are given good opportunities to take SDG action across appropriate timescales. The 12-month period permitted by the funding in this case was certainly the minimum required if SDG targets are to be met. The reality for bodies representing communities and civil society, such as The Wheel, is multiple projects and busy environments. This meant that the practical launch of the challenge and its SDG measurement were different from that planned and reduced the potential period of transition from 12 months to 5 months. The 5-month window permitted to engage, facilitate, measure, monitor and support transition towards achieving the SDGs and their indicators, across multiple communities, was not sufficient. It permitted self-reporting, at best, of SDG achievement, and, although the first and second measurements required for monitoring SDG action were taken, there was not time for sustainability

transition between the time points. The timeframes need to be a minimum of 48–60 months to achieve baseline measurement, SDG action and repeated measurements of the sustainability transition. The community-scale SDG indicators developed by this study could be used to measure SDG action at this scale. These longer timescales would also allow third parties the time to capture change, such as CSO and OSi, for example, in their GeoHive project (https://irelandsdg.geohive.ie). An exciting collaboration beckons between bottom-up SDG action and the regional and top-down measurement of such action. The CSO and OSi mapping of SDG success stories would be an extraordinary validation of the bottom-up progress achievable by communities across appropriate timescales and regions. Through accumulation this dual action and monitoring could also validate the Irish government's voluntary reporting.

Our evidence illustrates that longer timescales are also beneficial because the period in which a community can act is specific and often limited. This means that projects may need to be paused until the community is ready to progress. This is mainly due to the uncertainties surrounding volunteer time and application. In short, communities most need support when they are ready to act. This again means that top-down support should be less prescriptive and more open and flexible if community-based SDG action is to be achieved. Current structures and supports run counter to this, with the result that significant potential is lost. As an example, the research team had planned and designed a focus group to help progress wind farm acceptance in one of the Spark Change communities. At the time of writing, the focus group had not taken place, and this demonstrates the value of longer timescales. By not flexibly supporting the action and process architecture fully, we run the risk of both wasting already committed resources and not reaching SDG targets.

If 48- to 60-month funding periods are a challenge for government, then projects funded for shorter periods (a minimum of 2 years) should overlap more strongly with previous research projects (also a minimum of 2 years) to drive sustainability transition in communities and meet SDG goals over appropriately long timeframes (at least 48 months). This should include meetings between the research teams so that previous stakeholder contacts and relationships,

research findings, context and data can be signed off fully to the incumbents. In addition, the government needs to adopt a more strategic approach to project funding to counter the existing approach, which appears to be fragmented. A clear strategy, set before any research is contracted, needs to link the original research vision with the final outputs and set realistic expectations for each of the research calls and the winning teams involved. To use a simple analogy, in a relay race each leg of the team needs to keep its eye on the vision (overall team performance), perform efficiently itself and exchange the baton (overlap) with the incumbent leg effectively.

Qualified support should include assessment and profiling of community assets, capacities, competencies and processes by skilled agencies. Customisation, and potentially reinterpretation, of support is key to driving sustainability transition at the community scale. Communities also value third-party validation and verification, and entities capable of providing this can provide measurement of SDG achievement; this was a critical service offered by Spark Change, as it motivates SDG action. Our communities have identified the gaps that they feel exist between them and government, clearly stating that, for these to be reduced, it is essential that a common language, without jargon, is developed to communicate support frameworks. This language needs to be as meaningful to communities and their groups and practitioners as it is to departments and national agencies. Frameworks and draft plans should be piloted with communities before launch so that, on being launched, their navigation has buy-in and is time-effective. Leading by example, the Draft National SDG Implementation Plan (2020) (DCCAE, 2018a) submission process should be piloted and then broadly disseminated to communities, in a format that is easy to read, navigate and reply to. Co-creation through supported conversations, agreements, action derivation and implementation can drive a consensus-based community model aimed at achieving sustainability.

Lastly, the Spark Change shortlisted communities identified the need for organisational management and implementation within the communities. The development of organisational structures and their management is essential for sustainability transition. Successful projects have used mutual structures such as industrial and provident societies, cooperatives,

community interest companies and social enterprises. Previous Irish research (Carragher and Peters, 2018; Carragher *et al.*, 2018) has shown successful application of strategic management at the community scale using co-creation.

5.5   Public Awareness

SDG stakeholder engagement is absolutely vital if Ireland is to fully achieve the SDGs by 2030, and the need to ensure appropriate engagement is a pressing need for government. Public awareness of the SDGs before and during the period of Spark Change in Ireland was low. The Spark Change communities represent communities all over Ireland, exemplifying urban, suburban and rural settlements, with just a handful knowledgeable in the SDGs before Spark Change. The initiative identified and supported SDG Champions in its communities through profiling, with the aim of increasing awareness and driving action more effectively. Subsequently, this approach has been adopted by government through its appointment of 12 societal SDG Champions who aim to raise the profile of the SDGs in Ireland. Spark Change and its SDG Champions have provided critical and cost-effective guidance, leadership and literacy on the SDGs to its communities and beyond. Community is an important mobiliser, accelerator and communicator of SDG action and awareness of it. The Spark Change Awards were a good example of the manifestation of this (Spark Change, 2019). Communities in action often feel detached and unsupported, but projects such as Spark Change add a visibility, recognition and legitimacy to their action. As well as focusing public attention on the SDGs, this also recognises the achievements of community. Our communities underlined the importance of maintaining Spark Change and similar supports because "sustainability is a lifetime commitment".

5.6   Sustainability and/or SDG Beacons

Given the cross-cutting nature of the 2030 Agenda and its goals, the Irish government needs to work with civil society and the private and public sectors to enable coordinated implementation. These sectors comprise communities and groups, and this research sought to engage them and individuals in sustainability action supporting government in achieving the SDGs.

This study has explored the benefits of a number of sustainability enablers/drivers and these are, inter alia, indicators and measurement, rivalry, norms, experiential learning, local narrative, commitment, recognition and legitimacy, incentives, customised and qualified information, agency, advocacy, customised support/skilled facilitation, DBAs, procedural justice and exploring synergies. In leveraging the Spark Change drivers, government can capitalise on the economy of scale offered by community, support the advancement of exemplar communities and more easily achieve its SDG actions. These beacon communities model sustainability action and act as sustainability guides, enhancing self-efficacy, collective agency, the development of norms and the attainment of sustainability transition in other communities.

5.7   Mobile Unit

Our shortlisted Spark Change projects are advocates for a flexible support system that facilitates exploring opportunities locally and engaging in conversations around given topics. It is clear that a mobile innovation-type unit(s) would be of huge benefit, given the diversity of communities, their time constraints and the need for SDG action. Rather than depending on manuals and other prescriptive advice, such a unit needs to first profile stakeholders, capitals, competencies, assets and processes in communities. Consensus needs to be fostered using DBAs, and process and action architecture need to be co-designed, delegated and managed or co-managed. This type of profiling of realities and then mapping of consensually designed process and action needs to be flexible, repeatable, sustainable and hence will embed ownership. Communities are given a sense of direction and operational structure that they can use to target their development regardless of their potential stakeholders, assets or competencies. Gaps in these attributes can be identified by such a mobile unit and filled as needed using available supports, resources and training. The organisational support and implementation progress provided by Spark Change were recognised by our communities as critical to their achievements. Our shortlisted Spark Change projects, which are all leading SDG action

in their specific areas, advise that prescriptive aids require adaptation time to put into practice and are unlikely to fit sustainability transition compared with the other drivers tested in this research. A good example are the co-designed charters adopted by our Spark Change communities, in which vision, direction and commitment were facilitated and co-designed by Spark Change but ratified and signed off by each community.

5.8   Replication Potential

In summary, by using sustainability drivers, government can achieve the SDGs by enhancing bottom-up action in communities using the modelling of sustainability community beacons to exemplify, inspire and motivate. It is clear that trusted interlocutors (neighbours, family, children, friends, etc.) are the most effective drivers, and stories and local narrative are also highly rated (see Figure 4.10). Our communities have verified that using skilled facilitation, provision of measurement, norm setting, a rivalry platform, subsequent recognition, and storytelling and capture, and providing opportunities for networking (echoing SDG 17, Partnerships for the Goals) would drive communities towards sustainability transition. Compared with other interventions reviewed, the approaches used in this research provide efficiency and potency. Continuing Spark Change would provide a cost-effective way of achieving sustainability transition, because it has established a successful format and a significant relational network for work on the SDGs. Echoing this, the Spark Change communities would like it extended and better resourced. The story platform or e-library is currently building as communities upload stories, but these need to be verified before being published, and resources are not currently available for that. Whether Spark Change is extended or not, its methods incorporating (1) profiling providing strategic and qualified support, (2) modelling by community beacons, (3) measuring and validating sustainability, (4) recognising achievement, (5) skilled facilitation, (6) peer-to-peer learning, (7) storytelling, (8) norm setting and (9) networking are critical to achieving the SDGs.

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Abbreviations

CSO	Central Statistics Office
DBA	Discourse-based approach
DCCAE	Department of Communications, Climate Action and Environment
DECC	Department of the Environment, Climate and Communications
DSEZ	Dundalk Sustainable Energy Zone
ECI	Energy Co-operatives Ireland
EU	European Union
FASN	Family Addiction Support Network
OSi	Ordnance Survey Ireland
SDG	Sustainable Development Goal
SEAI	Sustainable Energy Authority of Ireland
UN	United Nations

AN GHNÍOMHAIREACHT UM CHAOMHNÚ COMHSHAOIL

Tá an Ghníomhaireacht um Chaomhnú Comhshaoil (GCC) freagrach as an gcomhshaol a chaomhnú agus a fheabhsú mar shócmhainn luachmar do mhuintir na hÉireann. Táimid tiomanta do dhaoine agus don chomhshaol a chosaint ó éifeachtaí díobhálacha na radaíochta agus an truaillithe.

Is féidir obair na Gníomhaireachta a roinnt ina trí phríomhréimse:

Rialú: *Déanaimid córais éifeachtacha rialaithe agus comhlíonta comhshaoil a chur i bhfeidhm chun torthaí maithe comhshaoil a sholáthar agus chun díriú orthu siúd nach gcloíonn leis na córais sin.*

Eolas: *Soláthraímid sonraí, faisnéis agus measúnú comhshaoil atá ar ardchaighdeán, spriocdhírithe agus tráthúil chun bonn eolais a chur faoin gcinnteoireacht ar gach leibhéal.*

Tacaíocht: *Bímid ag saothrú i gcomhar le grúpaí eile chun tacú le comhshaol atá glan, táirgiúil agus cosanta go maith, agus le hiompar a chuirfidh le comhshaol inbhuanaithe.*

Ár bhFreagrachtaí

Ceadúnú

Déanaimid na gníomhaíochtaí seo a leanas a rialú ionas nach ndéanann siad dochar do shláinte an phobail ná don chomhshaol:

- saoráidí dramhaíola *(m.sh. láithreáin líonta talún, loisceoirí, stáisiúin aistrithe dramhaíola)*;
- gníomhaíochtaí tionsclaíocha ar scála mór *(m.sh. déantúsaíocht cógaisíochta, déantúsaíocht stroighne, stáisiúin chumhachta)*;
- an diantalmhaíocht *(m.sh. muca, éanlaith)*;
- úsáid shrianta agus scaoileadh rialaithe Orgánach Géinmhodhnaithe *(OGM)*;
- foinsí radaíochta ianúcháin *(m.sh. trealamh x-gha agus radaiteiripe, foinsí tionsclaíocha)*;
- áiseanna móra stórála peitril;
- scardadh dramhuisce;
- gníomhaíochtaí dumpála ar farraige.

Forfheidhmiú Náisiúnta i leith Cúrsaí Comhshaoil

- Clár náisiúnta iniúchtaí agus cigireachtaí a dhéanamh gach bliain ar shaoráidí a bhfuil ceadúnas ón nGníomhaireacht acu.
- Maoirseacht a dhéanamh ar fhreagrachtaí cosanta comhshaoil na n-údarás áitiúil.
- Caighdeán an uisce óil, arna sholáthar ag soláthraithe uisce phoiblí, a mhaoirsiú.
- Obair le húdaráis áitiúla agus le gníomhaireachtaí eile chun dul i ngleic le coireanna comhshaoil trí chomhordú a dhéanamh ar líonra forfheidhmiúcháin náisiúnta, trí dhíriú ar chiontóirí, agus trí mhaoirsiú a dhéanamh ar leasúchán.
- Cur i bhfeidhm rialachán ar nós na Rialachán um Dhramhthrealamh Leictreach agus Leictreonach (DTLL), um Shrian ar Shubstaintí Guaiseacha agus na Rialachán um rialú ar shubstaintí a ídíonn an ciseal ózóin.
- An dlí a chur orthu siúd a bhriseann dlí an chomhshaoil agus a dhéanann dochar don chomhshaol.

Bainistíocht Uisce

- Monatóireacht agus tuairisciú a dhéanamh ar cháilíocht aibhneacha, lochanna, uiscí idirchriosacha agus cósta na hÉireann, agus screamhuiscí; leibhéil uisce agus sruthanna aibhneacha a thomhas.
- Comhordú náisiúnta agus maoirsiú a dhéanamh ar an gCreat-Treoir Uisce.
- Monatóireacht agus tuairisciú a dhéanamh ar Cháilíocht an Uisce Snámha.

Monatóireacht, Anailís agus Tuairisciú ar an gComhshaol

- Monatóireacht a dhéanamh ar cháilíocht an aeir agus Treoir an AE maidir le hAer Glan don Eoraip (CAFÉ) a chur chun feidhme.
- Tuairisciú neamhspleách le cabhrú le cinnteoireacht an rialtais náisiúnta agus na n-údarás áitiúil *(m.sh. tuairisciú tréimhsiúil ar staid Chomhshaol na hÉireann agus Tuarascálacha ar Tháscairí)*.

Rialú Astaíochtaí na nGás Ceaptha Teasa in Éirinn

- Fardail agus réamh-mheastacháin na hÉireann maidir le gáis cheaptha teasa a ullmhú.
- An Treoir maidir le Trádáil Astaíochtaí a chur chun feidhme i gcomhair breis agus 100 de na táirgeoirí dé-ocsaíde carbóin is mó in Éirinn.

Taighde agus Forbairt Comhshaoil

- Taighde comhshaoil a chistiú chun brúnna a shainaithint, bonn eolais a chur faoi bheartais, agus réitigh a sholáthar i réimsí na haeráide, an uisce agus na hinbhuanaitheachta.

Measúnacht Straitéiseach Timpeallachta

- Measúnacht a dhéanamh ar thionchar pleananna agus clár beartaithe ar an gcomhshaol in Éirinn *(m.sh. mórphleananna forbartha)*.

Cosaint Raideolaíoch

- Monatóireacht a dhéanamh ar leibhéil radaíochta, measúnacht a dhéanamh ar nochtadh mhuintir na hÉireann don radaíocht ianúcháin.
- Cabhrú le pleananna náisiúnta a fhorbairt le haghaidh éigeandálaí ag eascairt as taismí núicléacha.
- Monatóireacht a dhéanamh ar fhorbairtí thar lear a bhaineann le saoráidí núicléacha agus leis an tsábháilteacht raideolaíoch.
- Sainseirbhísí cosanta ar an radaíocht a sholáthar, nó maoirsiú a dhéanamh ar sholáthar na seirbhísí sin.

Treoir, Faisnéis Inrochtana agus Oideachas

- Comhairle agus treoir a chur ar fáil d'earnáil na tionsclaíochta agus don phobal maidir le hábhair a bhaineann le caomhnú an chomhshaoil agus leis an gcosaint raideolaíoch.
- Faisnéis thráthúil ar an gcomhshaol ar a bhfuil fáil éasca a chur ar fáil chun rannpháirtíocht an phobail a spreagadh sa chinnteoireacht i ndáil leis an gcomhshaol *(m.sh. Timpeall an Tí, léarscáileanna radóin)*.
- Comhairle a chur ar fáil don Rialtas maidir le hábhair a bhaineann leis an tsábháilteacht raideolaíoch agus le cúrsaí práinnfhreagartha.
- Plean Náisiúnta Bainistíochta Dramhaíola Guaisí a fhorbairt chun dramhaíl ghuaiseach a chosc agus a bhainistiú.

Múscailt Feasachta agus Athrú Iompraíochta

- Feasacht chomhshaoil níos fearr a ghiniúint agus dul i bhfeidhm ar athrú iompraíochta dearfach trí thacú le gnóthais, le pobail agus le teaghlaigh a bheith níos éifeachtúla ar acmhainní.
- Tástáil le haghaidh radóin a chur chun cinn i dtithe agus in ionaid oibre, agus gníomhartha leasúcháin a spreagadh nuair is gá.

Bainistíocht agus struchtúr na Gníomhaireachta um Chaomhnú Comhshaoil

Tá an ghníomhaíocht á bainistiú ag Bord lánaimseartha, ar a bhfuil Ard-Stiúrthóir agus cúigear Stiúrthóirí. Déantar an obair ar fud cúig cinn d'Oifigí:

- An Oifig um Inmharthanacht Comhshaoil
- An Oifig Forfheidhmithe i leith cúrsaí Comhshaoil
- An Oifig um Fianaise is Measúnú
- Oifig um Chosaint Radaíochta agus Monatóireachta Comhshaoil
- An Oifig Cumarsáide agus Seirbhísí Corparáideacha

Tá Coiste Comhairleach ag an nGníomhaireacht le cabhrú léi. Tá dáréag comhaltaí air agus tagann siad le chéile go rialta le plé a dhéanamh ar ábhair imní agus le comhairle a chur ar an mBord.

epaResearch

Authors: Vincent Carragher and Hugh O'Reilly

This study set out to catalyse the sustainability transition of communities using the United Nations Sustainable Development Goals (SDGs) as a framework. The research had a branded, public-facing campaign, Spark Change (www.sparkchange.ie), which recruited communities to an SDG challenge, effectively asking and supporting them to progress their sustainability transition and related SDG actions.

Identifying Pressures

Building on previous Irish research examining sustainability transitions in communities, this study provides insights into local contexts and pressures in over 130 communities. Study methods included active profiling, discourse-based approaches and engagement identifying and mitigating local pressures. Mapping identified attributes, competencies, processes and stakeholders that lead to SDG action and are critical for achieving such action.

The findings of this study informed the recommendations made on the pressures identified. One example is that, although umbrella organisations have the appeal of aggregation for government, individual Spark Change communities report a growing gap between themselves and government.

Informing Policy

Diversity is a challenge for policymakers in understanding the structure and function of complex adaptive systems and catalysing more sustainable societies. Ireland's whole-of-government approach promises cross-departmental SDG action. SDG leadership from policymakers is critical to having an impact on diverse stakeholders, processes and SDG action. Working with communities, policymakers can drive SDG action by customising and implementing effective approaches using skilled facilitation, the power of norms and other drivers identified and tested in this project. This action research uniquely identified and engaged with a diversity of stakeholders, challenges and processes catalysing SDG action.

This research informed policy through building a bottom-up SDG action measurement method; examining and catalysing SDG action in communities; identifying the local context, views, needs and factors that catalyse or hinder SDG action; developing discourse-based approaches and action research that engage communities and citizens in cost-effective SDG action; and trialling an innovative and cost-effective national SDG action campaign, across 130 communities, demonstrating how government can meet its SDG commitments.

Developing Solutions

This action research co-created solutions through customised and more general SDG action campaigns with communities; catalysing sustainability using measurement, recognition, norms, rivalry, reinterpretation of technical knowledge into local narrative and storytelling; applying discourse-based approaches to identify needs and challenges and to develop solutions; creating a story-harvesting platform that demonstrates exemplar community SDG action to communities and government; and building and testing a bottom-up SDG action measurement method.

Despite the proliferation of well-meaning toolkits and e-guidance, our communities report that using such prescriptive tools is challenging because of the time involved. Instead, the results suggest a preference for customised support and the need for skilled facilitation and animation to drive community SDG action.