To cite this article: J. Lyytimäki, S. Vikström & E. Furman (2019) Voluntary participation for sustainability transition: experiences from the 'Commitment to Sustainable Development 2050', International Journal of Sustainable Development & World Ecology, 26:1, 25-36, DOI: 10.1080/13504509.2018.1460632 To link to this article: https://doi.org/10.1080/13504509.2018.1460632

Voluntary participation for sustainability transition: experiences from the 'Commitment to Sustainable Development 2050'

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Abstract

Voluntary and active participation by a wide variety of actors is a prerequisite for successful societal transitions towards sustainability. The 'Commitment to Sustainable Development 2050' is a national-level initiative in Finland, aiming to mobilise a large-scale transition involving various societal actors through openly-communicated commitments to concrete actions. Each commitment should focus on at least one of the eight nationally-defined sustainability objectives connected to the global Sustainable Development Goals. This article assesses the implementation and the development needs of the commitment process based on a range of materials. The results highlight the importance of securing adequate resources for long-term coordination and continuous development of the commitment process, trust creation through long-term and open communication, and flexibility allowing for experimentation aimed at finding new modes of interaction between the public and private sectors.

Keywords:

Agenda 2030, multi-stakeholder partnerships, sustainable development goals, sustainability, transition management, voluntary participation

1 Introduction

'The world's most powerful countries have failed to make significant progress, putting the Sustainable Development Goals at stake' Snapshot message from the Social Progress Index 2017 (SPI 2017)

Humankind is still waiting for a truly successful societal transition towards sustainable development, as indicated by the Social Progress Index 2017 (SPI 2017) and various other international assessments demonstrating that global policy initiatives striving for sustainability have so far been unsuccessful or insufficient (Figueres et al. 2017, Steffen et al. 2015, UN 2016). National-level comparisons strongly suggest that even the best performing nations have only partially or temporarily achieved sustainability targets (Sachs et al. 2016, SSI 2016), and many of the best scoring countries are doing so partly at the expense of other countries (Peters et al. 2011). However, the overall picture is not entirely and uniformly bleak. As shown by all of these assessments, remarkable differences in sustainability performance exist between different geographical areas, societal sectors and types of sustainability goals.

Some paths to sustainability are already well paved, others remain obstructed and some probably still remain completely hidden. The paths can also intersect with each other, creating possibilities both for collisions and companionships (ICSU 2017). In many cases, positive progress towards achieving economic goals has been accompanied by overuse of natural resources and increasing social inequality (Diesendorf 2014, Malik 2014). There are several attempts underway to tackle such interdependencies, including the concepts of green growth and circular economy favoured by policy and business elites (COM 2015, GGKP 2017) and academic initiatives aiming to identify co-benefits and trade-offs between different sustainability targets (ICSU 2017, Nilsson et al. 2016).

The establishment of a societal transition process that fully realises the co-benefits and avoids unwanted side-effects between different targets is being hampered by several factors. Potential conflicts and contestations may be hidden under overly positive narratives emphasising the importance of common goal-setting and win-win-solutions (Lazarevic and Valve 2017). Potential solutions may be buried under overly pessimistic messages of doom and gloom (Knowlton 2017). A lack of knowledge about the interactions between sustainability goals is often emphasised (Nilsson et al. 2016) while at the same time the existing relevant knowledge may be misunderstood or omitted (Lyytimäki et al. 2014, Lyytimäki et al. 2013). Other factors include sectoral silos, the inter-connectedness of countries and regions, deeply rooted institutional arrangements, cultural conventions, and – perhaps most importantly – insufficient bottom-up participation by actors actually responsible for the myriad of concrete decisions and actions influencing sustainability transition (Cash et al. 2003, Hajer et al. 2015, Leal Filho et al. 2018).

The general aim of this study is to discuss the opportunities for and obstacles to voluntary participation in societal transition. This study introduces a novel participatory commitment model for national level implementation of sustainability goals. The multi-level perspective (MLP) framework is taken as an overall conceptual background for assessing the implementation and the development needs of this model. First, the conceptual background and the case of voluntary sustainability commitments in Finland are introduced and the material and methods of the study described. Second, experiences from the participatory process are evaluated. Third, implications for sustainability transitions are discussed. Finally, recommendations focusing especially on the potentials and perils of voluntary commitments are put forward.

2 Conceptual background and context

2.1 Sustainability transition and the multi-level perspective

The term sustainability transition is here understood as a purposeful, long-term and large-scale structural socio-technological change. Defining characteristics of sustainability transition include different types of uncertainties and a high degree of complexity, long timeframes with strong path-dependencies and lock-ins, and a need for participation by different types of actors (Kemp et al. 2007, Markard et al. 2012, Parris and Kates 2003). Sustainability transitions have been conceptualised under various frameworks and approaches (Chang et al. 2017, Jørgensen 2012, Markard et al. 2012). The multi-level perspective (MLP) approach offers a widely-used general-level conceptual framework to tackle accelerators of and impediments to transitions towards sustainability. What makes the MLP interesting for this study is the central role given to differentiation between the levels of landscape, regime and niche (Geels et al. 2017, Markard et al. 2012).

Landscape provides an exogenous environment for socio-technical changes (Geels 2002). The landscape level can occasionally provide the system with exogenous shocks, such as earthquake or war, but typical changes at landscape level are slow, such as climate change or demographic changes unfolding over decades or centuries. All of these changes are beyond of direct influence of an individual actor. Both the abrupt and gradual landscape level changes may provide a window of opportunity for niche innovations to break through. Regimes can be characterised as a set of cognitive, regulatory or normative rules, routines and institutions that actively stabilise sociotechnical structures (Geels 2002). Regimes include the dominant technologies and administrative structures as well as networks and institutionalised socio-cultural settings. Changes in existing regimes are often gradual and innovation is mostly incremental because of various political, social and economic lock-in mechanisms and path dependencies (Geels 2014). Regime-level rules, practices and institutions favour continuity over change but they can also favour certain types of changes over others.

Niches serve as 'incubation rooms' or 'nurturing spaces' for radical innovations with potential to destabilise the system (Geels 2002). Niches also provide a space for social networking. The pace of change is fast at niche level as different innovations emerge and develop or disappear. Overall, the MLP framework presents how systemic reconfigurations toward sustainability may be induced through the complicated interplay of continuity and disruption at different scales.

2.2 The Finnish context

Finland provides an illustrative national-level example of the challenges and opportunities of attempts to induce transitions towards sustainability. The country has been recognised as one of the forerunners in the implementation of sustainable development policies (Lyytimäki et al. 2016, Sachs et al. 2016, SSI 2016). The key actor in the Finnish model has been the Finnish National Commission on Sustainable Development (FNCSD), which has been running continuously since its establishment in 1993 (Kaaronen 2016, Rouhinen 2014). It is currently headed by the Prime Minister and consists of over one hundred representatives of ministries, public administration, business organisations, trade unions, non-governmental organisations, research institutions and even religious organisations. The FNCSD provides a unique discussion and collaboration forum for sustainable development and is supported by a coordination network of different ministries. In addition, the independent Expert Panel on Sustainable Development, consisting of nine experts and established in 2013, contributes to public discussions and supports the FNCSD by providing critical science-based evaluations and statements (EPSD 2016). All actors participate on a voluntary basis and only limited resources have been reserved for the coordination work within the state budget. The FNCSD's secretariat, responsible for coordination and all practical matters, generally consists of about two to three persons.

The first Finnish sustainable development strategy was launched in 1998 (MoE 1998). The current national definition of policy to achieve sustainable development is a charter entitled 'The Finland we want by 2050 – Society's commitment to sustainable development' (hereafter: Commitment 2050). It was launched by the FNCSD in 2013 and revised in 2016 in order to ensure compatibility

with the United Nations' Agenda 2030 (FNCSD 2016). Commitment 2050 was not intended to be an officially approved government strategy in the traditional sense, even though it was designed to replace the previous strategy (PMO 2006). However, the government approved it as a basis for action in the Government Report on the implementation of the 2030 Agenda for Sustainable Development (PMO 2017).

Unlike previous extensive and detailed national sustainability strategies, Commitment 2050 is a brief, seven-page document serving primarily as an easy-to-read expression of general level societal priorities. It includes a very concise national-level vision statement: 'a prosperous Finland within the limits of the carrying capacity of nature'. In order to achieve this vision, eight interlinked objectives have been defined to be reached by 2050 at the latest. The key links between national objectives and the sustainable development goals defined by Agenda 2030 have been outlined by the FNCSD (Table 1).

Table 1. Links between the Finnish Commitment 2050 goals and the Sustainable Development Goals (modified from (PMO 2017); illustrative quotations in the left column from the (FNCSD 2016)).

Eight objectives of the Finnish Commitment 2050	Interactions with the 17 Sustainable Development Goals		
	Primary connection	Secondary connection	
1 Equal prospects for well-being 'All members of society will be guaranteed equal prospects in terms of health, education and employment.'	4. Quality education 10. Reduced inequalities	 No poverty Zero hunger Good health and well-being Gender equality Decent work and economic growth Peace, justice and strong institutions Partnerships for the goals 	
2 A participatory society for citizens 'We will strengthen democracy and promote equal opportunities to enable all people to have a say in public affairs and matters that affect their own lives, in the global context as well. All people should feel that they are valuable and a part of society.'	16. Peace, justice and strong institutions	4. Quality education10. Reduced inequalities17. Partnerships for the goals	
3 Sustainable work 'To achieve a more sustainable economy, measures will be taken to create jobs and improve productivity, profitability and quality of work.'	8. Decent work and economic growth	 4. Quality education 9. Industry, innovation and infrastructure 12. Responsible consumption and production 16. Peace, justice and strong institutions 	

		17. Partnerships for the goals
4 Sustainable local communities 'We will create sustainable and safe communities where jobs, housing, comprehensive services, sustainable transport systems, the use of information and communications technology, and green areas support economic, social and cultural wellbeing, as well as the wellbeing of the environment.'	3.Good health and well-being 11. Sustainable cities and communities	 10. Reduced inequalities 13. Climate action 16. Peace, justice and strong institutions 17. Partnerships for the goals
5 A carbon-neutral society 'Our objective is a carbon-neutral society. To achieve it, we will implement the national roadmap towards a carbon- neutral society and the Paris Climate Change Agreement.'	7. Affordable and clean energy13. Climate action	 Zero hunger Industry, innovation and infrastructure Life on land Partnerships for the goals
6 A resource-wise economy 'Finland and Finns will promote and offer sustainable and competitive solutions, both nationally and globally.'	 B. Decent work and economic growth 9. Industry, innovation and infrastructure 	 Zero hunger Clean water and sanitation Affordable and clean energy Responsible consumption and production Life on land Partnerships for the goals
7 Lifestyles that respect the carrying capacity of nature 'We will contribute to the efforts to bring the global consumption of natural resources to an environmentally sustainable level.'	12. Responsible consumption and production	 4. Quality education 8. Decent work and economic growth 9. Industry, innovation and infrastructure 17. Partnerships for the goals
8 Decision-making that respects nature 'We will increase people's respect for biodiversity and raise their awareness of its importance in order to persuade administration, municipalities, companies and the public to give due consideration to sustainability issues in their decision- making and actions.'	15. Life on land 16. Peace, justice and strong institutions	 3.Good health and well-being 6. Clean water and sanitation 12. Responsible consumption and production 14. Life below water 17. Partnerships for the goals

2.3 The case: operational commitments for sustainable development

The so-called operational commitments were introduced as a new tool for the implementation of national objectives in 2014. Operational commitments are voluntary and publicly presented promises of concrete action with measurable results that are being publicly monitored. They can be outlined and implemented by any actor, including public and private organisations, networks of actors, non-governmental organisations or even individuals. Operational commitments are one form of multi-stakeholder partnership that can be defined as institutionalised interactions between public and private actors aiming at the provision of collective goods (Pattberg and Widerberg 2016).

The preparation of the Commitment 2050 and operational commitments process was motivated by experiences highlighting the low ability of the previous sustainable development strategies to make an impact across different sectors (Lyytimäki 2014, Patosaari 2003, Ramboll 2009). In addition to the perceived need to improve the effectiveness of sustainable development policies, public and policy priorities increasingly favouring voluntary actions and deregulation gave an impetus for the commitment process. Encouraging experiences from other national and international initiatives gave a further impetus. A recent related example of a cross-national process initiated by a private foundation backed up by Finnish business entrepreneurs was the 'Commitment to act for the Baltic Sea' by the Baltic Sea Action Group (BSAG 2017).

In practice, the formulation of operational commitments is strongly guided by the principles of the bottom-up approach, voluntary participation and openness of communication and networking. Each commitment is expected to fulfil six criteria, according to which they must:

- 1) support the national sustainable development vision;
- 2) promote one or more of the shared objectives of Commitment 2050;
- 3) comply with the principles of sustainable development;

4) be concrete;

- 5) be capable of being measured and monitored;
- 6) create something new.

The procedure for creating an operational commitment comprises a number of steps. During the preparation phase an actor must first select one or more of the eight national sustainability goals that they perceive as relevant and identify concrete measures that will contribute to reaching those goals. Then, the actor sets the target and defines appropriate indicators for the measurement. During the publication phase, the operational commitment is openly published on a website

(www.sitoumus2050.fi) serving as communication hub and interface for the database of commitments. Before publication, the commitment is screened and approved by the secretariat of the FNCSD. Finally, the online database and website is used to report on the progress of the commitment. The secretariat of the FNCSD promotes, coordinates and monitors the realisation of the commitments.

3 Materials and methods

3.1 Data sources

This research is based on the case study approach, with the aim of capturing a rich understanding of a single phenomenon by utilising various data sources (Table 2). Most of the data were originally collected for a separate R&D project which focused on identifying concrete recommendations to support the implementation of Commitment 2050. The detailed results of this project are published in Finnish in a separate technical report (Lyytimäki et al. 2017).

Type of material	Description of data
Descriptions of actions	Self-reported descriptions of 615 individual commitments as available on 30 April 2017.
Reports on actions	562 progress reports on commitments as available on 30 April 2017.
Electronic survey	Results from an online survey conducted between 20 March and 4 April 2017, charting the experiences of actors that had made or considered making operational commitment (N=135).
Participatory workshops	Two participatory workshops involving 45 stakeholders, held on 24 April 2017 in Helsinki and 1 June 2017 simultaneously in Helsinki, Oulu and Jyväskylä (with online connection).
Expert interviews	Recorded interview data describing the views of three sustainability experts deeply involved in the development and implementation of the Commitment 2050 process. Interviews carried out on 28 February and 1 April 2017.
Documents	Public documents, web pages, and reports describing national sustainable development priorities.
Media coverage	Press, online and social media representations of sustainable development commitments at national and local level. The main data sources included the ePress service (about 220 newspapers), ARTO- database (350 magazines), online searches using Google and Metacrawler search engines.

Table 2. Description of the data.

3.2. Research methods

Both quantitative and qualitative methods of content analysis were used to analyse the data (Krippendorff 2004, Silverman 2001). The document analysis aimed to provide an overview of the Commitment 2050 process and related policy priorities. The media analysis charted public visibility of the operational commitments (Krippendorff 2004). A quantitative content analysis screened the volume of the coverage and societal salience of the commitments across different media and social media arenas. Various keywords (in Finnish: "toimenpidesitoumus", "yhteiskuntasitoumu*") were as used to generate an overall picture of the media coverage (Lyytimäki et al. 2017). An analysis of the descriptions of operational commitments and reports provided by the actors themselves gave information on the quantitative development and key focus areas of the commitments. The qualitative analysis of the data from workshops and interviews focused on gaining an in-depth picture of the factors influencing participation. Analysis requiring subjective coding or valuation was performed by at least two independent researchers and potential disagreements of interpretation were resolved through iterative discussions. Data of the descriptions and status reports of the commitments is continuously updated and it is openly available through the online portal (www.sitoumus2050.fi).

4 Results: development of the Commitment 2050

The number of operational commitments increased rapidly after the publication of the first commitments in 2014 (Figure 1). The increase in participation by municipal organisations in late 2015 was largely explained by the recruitment of several municipalities through the Carbon Neutral Municipalities project, which brings municipalities, businesses, citizens and experts together to create and implement solutions to reduce greenhouse gas emissions (HINKU 2017). Active involvement of a single municipality, Espoo, significantly increased the participation of municipal and educational organisations in particular, during 2015 and 2016. Espoo is the second largest city in Finland and it has actively challenged various organisations under the city administration and other collaborating organisations to participate. The rapid increase in participation amongst private enterprises during early 2017 is explained by a separate campaign organised under the programme to celebrate the centenary of the Republic of Finland. This campaign was targeted at Finnish small and medium sized enterprises. In order to acquire the right to use the special label related to the anniversary year, the companies were required to make at least one operational commitment.



Figure 1. The overall development of the operational commitments initiated by the type of actor.

The nature of the commitments varies considerably, from small-scale individual decisions of private persons to large-scale and long-term actions by organisations and networks (Table 3). Private enterprises accounted for 43.9%, public sector organisations 22.4% and educational organisations 15.6% of all commitments. One special form of operational commitment is based on public-private collaboration aiming to complement traditional policy measures and regulation. An example of these arrangements is the 'Cultural environment commitment', which aims to support the national Cultural Environment Strategy (2014), and which is supported by Finnish Local Heritage Federation. The 'Green Deal Agreement', aiming to fulfil EU regulations on reducing the use of plastic bags, is an example of a voluntary commitment process that has been developed instead of formulating binding new national legislation. The 'Green Deal' is based on a formal blanket agreement between the Ministry of the Environment and the Finnish Commerce Federation. It includes all major chains of grocery shops in Finland.

Title of the commitment	Responsible actor	Description of the activity	Main/secondary objective(s)
Eco efficient	City of	Development of the residential area	4. Sustainable
Peltosaari area in	Riihimäki,	into an energy efficient, sustainable	communities /
Riihimäki, Finland	Technical and	area with extensive use of renewable	2. Participatory society
	Environmental	energy in collaboration with	6. Resource-wise economy

Table 3. Examples of different operational commitments.

	Department	residents and the local school.	
Healthy and	University of	Advancing healthy and sustainable	4. Sustainable
sustainable forms	Helsinki	forms of travel. The programme will	communities /
of workplace travel		improve conditions for commuter	5. Carbon-neutral society
		cycling for students and staff	
		members and encourage the use of	
		public transport.	
Towards more	Finance Finland	Improving customer service and	1. Equality /
environmental		bringing benefits to society by	5. Carbon-neutral society
friendly society by		reducing car registration costs and	6. Resource-wise economy
combining the		environmental impacts in	8. Decision-making that
car's registration		collaboration with the Finnish	respects nature
and insurance		Transport Safety Agency and	
service processes		insurance companies.	
Responsible safety	The Defence	Implementation of the tasks set for	5. Carbon-neutral society /
	Administration	the Defence Administration in a way	1. Equality
		that is socially, financially and	2. Participatory society
		ecologically sustainable. New,	3. Sustainable work
		measurable objectives related to	4. Sustainable
		military service, staff and student	communities
		wellbeing as well as the reduction of	6. Resource-wise economy
		greenhouse gas emissions.	7. Sustainable lifestyles
		Minimisation of environmental	8. Decision-making that
		damages by military activities.	respects nature
Environmental	Finnish	All Finnish events will have the	5. Carbon-Neutral Society
friendly events	Olympic	opportunity to develop their	/
with Ekokompassi	Committee	management of environmental	1. Equality
events -system		issues with the help of the	3. Sustainable work
		Ekokompassi environmental system.	4. Sustainable
			communities
			6. Resource-wise economy
Paulig commits to	Oy Gustav	The initiative contributes to the	1. Equality /
enable coffee	Paulig Ab	sustainability of coffee supply	5. Carbon-neutral society
farmers'		chains, supports coffee growers'	6. Resource-wise economy
communities to		communities and helps them to	
improve climate		adapt to climate change.	
change resilience		_	
and to increase			
their adaptive			
capacity			

Most of the primary objectives outlined for the operational commitments are related to the ecological dimension of sustainability, emphasising the need for individuals to adopt more sustainable lifestyles and for mitigation of climate change by organisations (Figure 2). The secondary objectives show a more even distribution among the eight national key targets. A secondary objective was not given for 16.9% of SD commitments, while 5.0% commitments included all seven objectives as secondary objectives in addition to one main objective. This indicates a considerable variation in how the actors perceive the interconnections of sustainability targets.



Figure 2. Number of primary and secondary objectives of the operational commitments.

Figure 3 gives an overall picture of the primary objectives of the operational commitments as interpreted through the framework of Agenda 2030 and the Sustainable Development Goals (SDG) (UN 2015). The Commitment 2050 online database automatically links each domestic objective to one or two of the 17 international goals, based on pre-defined relationships as shown in Table 1. Based on this categorisation, the international goals related to economic sustainability stand out as the most prominent ones (SDG 12 and SDG 8), even though the Finnish interpretation of sustainability emphasises the ecological dimension. Six SDGs are pre-defined as secondary goals for Finland and therefore they do not appear in Figure 3. Some stakeholders have presented criticisms that the pre-defined relationships between national and international goals do not adequately address all relevant SDGs related to certain operational commitments. However, the explanation for this could lie on the technical side of things rather than in the context, as the current version of the commitment database does not allow the user to select the SDGs independently of the domestic objectives.



Figure 3. Relative proportions of the primary objectives of operational commitments (left) and the corresponding Sustainable Development Goals (right).

According to the survey results (N=135), the main motivations for participation in the commitment process include a desire to promote sustainable development concretely through the actor's own operations and a desire to be among the forerunners of sustainability (Figure 4). Maintaining a good reputation and marketing benefits are important especially for private enterprises. Creating new domestic networks is important for small and medium sized enterprises. Using operational commitments to create international networks is a very important motivation for a small minority (5.9%) and a low priority for a considerably larger (29.7%) proportion of the respondents. This indicates strong participation by actors focusing on domestic activities, but also shows that some actors consider the commitment process a potential aid for further international activities.



Figure 4. Views of factors providing motivation to take part in the Commitment 2050 process.

A key part of the Commitment 2050 process is self-evaluation of the results achieved. The impacts of operational commitments can be easily observable and immediate, or they can be gradually emerging and somewhat obscure. Most of the actions are planned for implementation within a short- or medium-term timeframe. About one quarter (25.6%) of the commitments are planned for implementation over a one-year period, while implementation of over a fifth (22.6%) of the commitments is assumed to take five years or more. Most of the long-term commitments focus on climate change mitigation.

The survey results showed a high level of contentment regarding the progress made with the top two motivations for participation. Almost all (96.9%) respondents agreed at least partially that making a commitment has helped them with their sustainability work and 91.8% felt that the commitment process has helped them to be among industry forerunners. Several respondents noted that it was too early to evaluate the impacts of commitments due to recently started activities or a long timeframe for potential impacts. Based on the self-reported evaluation reports, implementation of most (64.1%) of the commitments was progressing as planned, while 6.8% of the commitments were reported to be progressing faster than anticipated in the planning phase. Only 2.0% of the 562 reported commitments showed no progress towards achieving the goal.

Public visibility of commitments is a key issue, as the typical aims of voluntary commitments related to sustainable development include raising awareness of sustainability issues, creation of novel dialogues and partnerships, and generation of new solution-oriented action (Cash et al. 2003, Heinrichs 2011). Public visibility of Commitment 2050 and operational commitments has been low in the traditional print media, partly because social media has been prioritised as the

main channel for outreach activities by the FNCSD secretariat. Only 27 news items mentioning the commitment process were found in a sample of 220 newspapers covering the period March 2016–March 2017. Facebook, Twitter and an electronic newsletter with about 3,000 subscribers have been used as the main communication channels. In addition, annual national events have been organised to stimulate collaboration, generate positive publicity, increase awareness of sustainable development goals and celebrate and highlight the best commitments.

5 Discussion: transformative potential of the Commitment 2050

The MLP framework highlights the importance of expectations and beliefs of niche-level actors (Geels and Raven 2006). These expectations are largely created and maintained by communication processes ranging from private peer-to-peer discussions to widely shared public narratives. Commitment 2050 can be interpreted as a specific type of sustainability narrative (Luederitz et al. 2017), emphasising a holistic and long-term management approach with an aim of widespread inclusion of various actors and their concrete actions. This narrative is framed in terms of shared and collective responsibility for voluntary action by niche level actors. It connects nationally defined sustainability objectives with an internationally agreed set of goals. Instead of focusing on a single issue it aims to tackle a variety of societal challenges tied loosely together by the specific national interpretation of sustainable development based on widespread consensus (FNCSD 2016, PMO 2017). In the short term, Commitment 2050 represents a reformistic rather than revolutionary approach by building on and even reinforcing the current economic system, power structures and institutions (Dahle 2007, Deacon 2016). It operates within the limits provided by existing regime but focuses on interventions aiming for changes in current practices and the search for win-win solutions. Within this institutional setting, radical societal transformation requiring major disruption is unlikely, largely corresponding with previous experiences from multistakeholder partnerships for sustainable development (Fowler and Biekart 2017, Pattberg and Widerberg 2016, Sethi and Schepers 2014).

However, in the longer term, the Commitment 2050 process has potential for widespread societal change, especially if supported by landscape level changes. This requires fulfilment of several conditions as visualised in Figure 5. First, accumulation of niche-level initiatives should continue in order to reach a critical mass. Systemic changes require interaction between actors and therefore increasing interaction that allows and encourages societal learning is also a prerequisite (Loorbach et al. 2008). The rapid increase in the number of actors involved is a promising sign, but in order to induce a large-scale transition, more actors should be involved and their peer communication enhanced. Social media channels can be increasingly utilised, including ways to express emotional

messages and normative concerns that are essential for the communication for sustainability (Newig et al. 2013). As noted by the actors already participating, a clearer design of the website used to communicate success or failure, with more symbolic visual cues is needed. Likewise, a clearer design of the database used to organise the self-assessment and reporting was highlighted. The need for simplified sustainability assessment tools has been noted by other studies as well (Myllyviita et al. 2017). The key issue for the success of the commitment process is the ability to involve and motivate new niche-level actors beyond those already committed to sustainability issues. A key risk is that the participating actors will formulate commitments that do not introduce novel action and challenge the existing regime, but merely serve as new labels for current practices. Transparent reporting with performance indicators that are presented publicly have a critical role here, as do political interest and commitment to considering the uptake of innovation in order to bring about a regime shift.





Second, continuation and strengthening of support from the FNCSD and other organisational and institutional arrangements is needed. Such a regime-level support is needed despite the active role given to participating actors and a multi-stakeholder process emphasising a network structure instead of coordination by a central hierarchy (Pattberg and Widerberg 2016). Coordination

activities are required, especially as the nationally-defined eight targets and the SDGs under Agenda 2030 allow for a very wide variety of actors and actions that can be connected to sustainability themes to be interpreted in different and even conflicting ways. The secretariat of the FNCSD has a central role as the coordinating interlocutor required for effective implementation of a multi-stakeholder partnership (Fowler and Biekart 2017, Rouhinen 2014). However, the lack of resources for activities beyond the routine maintenance of the commitment process hampers the coordination, especially as the number of individual operational commitments increases. The danger is that radical niche-level initiatives challenging the current regime remain without adequate support.

Third, it is likely that windows of opportunity for societal transformation opened up not only by the strengthening of supporting regimes or destabilisation of preventing regimes but also by exogenous changes at landscape level are required. Such discontinuities are notoriously difficult to foresee and manage (Hildén 2009). Therefore, it is important to build and maintain capacities for seizing opportunities when they appear. The recent transition towards an increase in plant-based protein in Finland is a good example of this, requiring pressure for change both at landscape level regarding international climate and sustainability policy, as well as changes in market demand, food culture, eating habits, process technologies, efficient retail, research, and mass and social media (Kaljonen and Lyytimäki 2016, Kuhmonen et al. 2017).

The probability of a single operational commitment initiating societal transformation is low, but the probability increases through the accumulation of actions and their impacts, as well as accumulation of experiences and social learning (Luederitz et al. 2017, Wallis et al. 2010). However, so far, such accumulation has been weak as most of the commitments can be characterised as isolated one-time actions. Individual commitments have not yet been adequately connected to create a shift from individual niche-level experiments and actions to a broader process of social change (Figure 5). Support for niche-level social learning is largely lacking, as highlighted in particular by the representatives of small-scale enterprises and actors not previously familiar with sustainability issues. However, it is likely that opportunities to learn from long-term experiences will emerge for those actors who monitor their performance over several years.

Experiences from the Commitment 2050 indicate that knock-on effects through chains of actors are relatively rare. However, they include notable examples such as a commitment related to responsible food choices made by a national-level pizza restaurant chain (Kotipizza), where the commitment influences both the providers of raw materials and restaurants owned and operated by the franchiser. Network-based involvement holds a promise of reaching several actors with a single commitment and creating synergetic ripple effects (Figure 5). However, experiences so far

show that activating the members of such networks requires highly motivated persons who have the interest and resources to market the operational commitment to the members of the network. For example, commitments made by the Federation of Finnish Financial Services (currently known as Finance Finland, see Table 3) focusing on the socio-economic and environmental benefits of digitalisation were sparked by active involvement of a few key persons.

The commitment process aims to bring together the public sector, companies, civil society actors, organisations and citizens participating on voluntary basis. Instead of a top-down process specifying targets for selected societal actors, the commitment process aims to encourage different kinds of niche level actors to identify sustainability targets that are relevant from their perspective and to develop concrete measures to achieve them (Hajer et al. 2015, Heinrichs 2011). The type of action and level of ambition is decided by the actor. Therefore, the process entails both a risk of actions with only marginal sustainability impacts and the possibility of unexpected effects and disruptions caused by the introduction and successful implementation of ambitious measures by actors willing and able to challenge current market leaders or prevailing institutional arrangements.

The adoption of blanket agreements and other arrangements that create top-down pressure for certain actors to participate may contradict the principle of voluntary participation. However, as the 'green deal' blanket agreement between state authority and business union showed, the actors are likely to be willing to participate if they can avoid regulation by law. Creation and institutionalisation of new public-private actor constellations is also a mechanism for potentially creating additional transformative potential.

6 Conclusions

The Commitment 2050 process has the potential to contribute to sustainability transitions requiring long-term multi-actor, multi-level and multi-sectoral participation (Loorbach et al. 2008). Operational commitments are a promising societal innovation to promote sustainable development and implement nationally-set sustainability goals in connection with the global Agenda 2030. The transformative potential of Commitment 2050 and operational commitments is primarily related to long-term accumulation of the effects of individual actions that may appear negligible at first, but which may create entry points for transitions by generating trust, enhancing motivation and opening windows of opportunity. A key conclusion is that multi-stakeholder participation should be organised through processes and platforms, combining virtual and face-to-face communication allowing and encouraging niche-level community creation and emotional

enthusiasm. Based on our results, one main concern is that the participation of various actors is not being effectively realised in terms of social learning and generation of shared understanding of wider systemic interactions. Differences in sustainability performance across areas, time and sectors provide ample opportunities for learning. The commitment process can bring together different actors from different societal sectors, administrative levels, types of organisations and institutional backgrounds. This variety of experiences and ideas can result in mere cacophony or concentrated action towards commonly shared sustainability goals.

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