

Co-creation for Sustainability as a Societal Learning Journey

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Abstract Lifelong learning underpins economic, ecological, and social wellbeing, and provides the foundation for citizens to shape the future of societies collectively. The 2030 Agenda for Sustainable Development, ‘Transforming our World’, outlines a sustainable future in various dimensions. Cities are an example of learning communities that can benefit from looking at lifelong learning not only as an individual capacity, but the capacity of a collective of actors. This chapter explores the relationship between lifelong individual and collective learning with particular focus on learning in multi-stakeholder collaboration that enhances systemic change towards sustainability. It argues that new competencies are needed, such as collaboration, trust-building, genuine dialogue, and the ability to see learning as an integral element of working towards more sustainable societies. The last decade has seen a proliferation of collaboration efforts for sustainability initiatives in multi-stakeholder settings, which can be seen as one way of advancing both individual and collective learning. More structured methodological approaches to collective learning are needed. The chapter suggests one such methodology—the *Collective Leadership Compass*—a guiding tool for transformational change processes in multi-stakeholder collaboration. Derived from 20 years of practice in complex multi-stakeholder settings around system’s change for sustainability as well as scientific exploration into living systems theory, the compass functions as diagnosis tool and a process methodology. It enhances the collective learning capacity of a system of diverse actors engaged in societal change initiatives. The application suggests that multi-stakeholder collaboration for sustainability issues is an interesting laboratory for understanding what accelerates collective learning as a core element of the long-term flourishing of human societies and the planet as a whole. Further research could include exploring how institutional actors could make use of such methodologies in societal change for sustainability.

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1 Introduction

Education and lifelong learning are key to the long-term flourishing of human societies and to the planet that hosts them. Education underpins economic, ecological, and social wellbeing, and provides the foundation for growth, evolution, democracy, and the full participation of citizens in exercising their civil rights. Ongoing learning throughout life offers learners psychological, intellectual, and emotional tools leading to greater life satisfaction (Hof 2009), as well as providing values to individuals that support responsible change towards sustainability (Sterling and Huckle 2014). In the year 2015, the 2030 Agenda for Sustainable Development, ‘Transforming our World’, has been adopted at the United Nations (UN) level. It outlines a sustainable future in various dimensions, e.g. food security, peace, security, safe and healthy environments (United Nations 2016). Cities are one element of safe and healthy environments and are an example of various voluntary and non-voluntary learning communities that can benefit from looking at lifelong learning not only as an individual capacity, but the capacity of a collective of actors (Kuenkel 2016).

This chapter explores the relationship between lifelong individual and collective learning with particular focus on learning in multi-stakeholder collaboration that enhances systemic change towards sustainability in socio-ecological systems. Transformation to sustainability is here understood as a change in human social and economic behavior that ensures livable conditions for nature and humankind. It has been widely acknowledged that the impact of humanly induced change on the Earth has become so profound that this can potentially endanger the biosphere balance (Steffens et al. 2007). Hence learning for sustainability, individually and collectively, becomes increasingly important. New competencies are needed, such as collaboration, trust-building, genuine dialogue, and the ability to see learning as an integral element of working towards a society that better balances the interests of the individual with the interests of the planet as a whole. Lifelong learning and agency for a better world are intrinsically connected. Shaping future together in response to larger goals and the common good helps people grow their potential beyond their limitations. When people feel they are part of a collaborative change endeavour and a meaning-making contribution, they strengthen their learning capacity in relation to the task or challenges ahead.

2 Lifelong Learning as an Activity not Only of Individuals, but also Collectives

Learning does not take place in isolation. It is a collective phenomenon and a socially constructed activity of meaning-making from experience and information by sharing beliefs, desires and intentions that engage cooperative behavior (Searle 1995). It is an ongoing interrelated interaction between people by “[...] listening, expression, decision-making, evaluation, organization, connection, and vision [...]” (Lévy 1997, p. 70). The thought processes of individuals are influenced by the collective thought processes in groups, organisations, and society (Laat and Simons 2002). Hence, the role of collaboration as a way of accelerating learning capacity needs to move to the centre of attention. This does not only apply to the social sphere. Corporations have seen a significant increase of attention to learning as a collaborative activity, in the form of inner- and inter-organizational cooperation (Vyas et al. 1995) to overcome the fast-paced and increasingly complex economic development. Technological advances and new media have spurred global communication and information networks so that new forms of collaboration became possible. To be able to operate successfully in what has been termed the Volatility, Uncertainty, Complexity, Ambiguity (VUCA) world both individual actors and organizations need to foster collaboration, networking and innovative thinking (Polman 2014). Working together with different actors in a creative and solution-oriented manner and learning from each other is increasingly seen as an advantage for all parties involved.

Additionally, the radical changes in technology make it possible for people to participate in global communications, consume and share information from a variety of sources. People can critically observe and react to their environment evaluating events, institutions, persons, products or services. Moreover, undeniably unsustainable megatrends (Horx 2011) such as climate change and biodiversity loss have moved into the awareness of many more people. Even though the shift in consciousness has not yet been sufficiently translated into more responsible collective action, it is clear that long-term sustainability requires an acceleration of collective learning structures. With this background, the importance of education, and lifelong learning as a collaborative capacity moves to the foreground. This suggests a conceptual shift in the approach to learning: from the focus on individuals and their skills and capacity to understanding learning as a collaborative feature of collectives of actors (Lévy 1997). Exemplary shifts are suggested in Table 1.

3 The Route to Sustainability: A Collective Learning Journey

The author Laloux (2014) argues that fundamental change in societies requires both the evolution of individual consciousness and collective collaborative learning settings. A widely acknowledged approach to learning is Senge’s (1990) concept of

Table 1 The shift in learning as a result of complex collaborative change (own representation, 2017)

From: Learning is seen as the capacity of the individual with the purpose of maintaining and expanding personal and professional growth	To: Learning is seen as the capacity of a collective with the purpose of sustainability transformation, and enrichment of the common good
Silo-approaches and competitive thinking dominate	Collaboration and co-opetition become the norm
Learning takes place in hierarchical contexts with learner and conveyer of knowledge clearly distinguished where	Collective learning takes place in non-hierarchical and co-operation contexts. Actors have multiple forms of expertise
Learning achievements are driven by the urge to ensure advantages; the common good is not necessarily the focus of learning	Learning is seen as a continuous individual and collective process to improve the contribution to the common good
Dialogue and co-operation are side-issues for learning	Outcome-oriented dialogue and future-oriented collective action are key factors of for the collective learning capacity

“personal mastery”. He emphasizes that our past learning approach has been one of fragmentation, of assuming that the knowledge of the pieces is enough to create an integral whole. Yet, his notion of “learning organizations” aims at re-creating a learning approach which allows the whole to become visible in a process of continuous growth (ibid., 1990, p. 14). With personal mastery Senge refers to the development of life and leadership proficiency that includes the development of the whole person in the societal context. He states: “Real learning gets to the heart of what it means to be human, through learning we re-create ourselves. [...] we re-perceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life” (Senge 1990, p. 14). In that way he assumes that personal mastery is not a state to be achieved, something one owns after disciplined effort, but a continuous process, a discipline, which always needs attention (Senge 1990). The perception of reality then, becomes the perception of multiple realities, various possibilities and more than the one right way ahead. Looking at sustainability transformation from the perspective of a discipline of “mastery” sheds a new light on understanding it not only as an individual, but also a collective learning journey that requires continuous attention.

The last decade has seen a proliferation of collaboration efforts for sustainability initiatives in multi-stakeholder settings (Kuenkel and Aitken 2015). Increasingly governments embark on consultation processes with various stakeholders, civil society organizations get into partnership with business to increase their impact, or many different stakeholders join together to partner for certain issues of common concern (Kuenkel 2016). Collaboration between different societal sectors has moved onto the agenda of most institutions (Kuenkel 2015). Multi-stakeholder settings can be seen as laboratories for leading societal change collectively, and for finding new ways of continuous collective learning processes. Hence, the above explored approaches are not only essential for lifelong learning, but are also crucial

for collective learning in sustainability transformation initiatives that aim at long-term solutions in cities and local societies to create a healthy environment and a sustainable urban future.

4 The Entry Point of Lifelong Learning: Leveraging Collective Intelligence

Learning in multi-stakeholder settings rests on the assumption that diversity in experience, expertise and perspectives benefits better solution. Collective intelligence emerges in structured discourses that acknowledge disagreement and different opinions. However, the more people see themselves as separated and fragmented from the capacity to shape future collectively the more they feel disconnected from collective actions. This perception of separation disguises the intuitive knowing about the essential human connectedness. It also leads to the ignorance of the interdependence between life and people. This mind-set can be assumed a one possible factor for preventing learning and seeking simple solution, often cause for e.g. radicalisation of political thinking and unwanted success of radical populism (Schneider 2015). Multi-stakeholder initiatives for societal change, however, contribute to increasing awareness and acknowledgement of multiple realities. Such collective learning settings that expose actors to different world-views help to develop self-reflective personalities. Collaboration for an issue of common concern as well as exposure to different realities often changes attitudes towards contribution. The question: “How can I excel or what will I achieve? Or, what is in it for me?” will shift towards the question: “What can I best contribute to further this processes of change? Which direction would serve the collective good?” (Kuenkel 2008). Focussing on these questions, shifts individual and collective thinking into future orientation, where everyone can bring in their own unique potential (Kuenkel 2016).

5 An Approach to Learning Collectively: The Collective Leadership Compass

The above elaborations have argued that collaboration for sustainability transformation in multi-stakeholder settings can be seen as one way of advancing both individual and collective learning. However, if Senge’s notion of mastery could be transferred to collective learning settings, it would be helpful to make use of methodologies that enable actors to learn faster together. One such methodology should be presented here.

The Collective Leadership Compass is a guiding tool for transformational change processes that take place in multi-stakeholder collaboration (Kuenkel and

Aitken 2015). It enhances both individual and collective learning processes. Derived from 20 years of practice in complex multi-stakeholder settings around system's change for sustainability as well as scientific exploration into living systems theory (Capra and Luisi 2014), the compass is both a diagnose tool and a process methodology. It focuses on invigorating human interaction and learning systems as core drivers of transition processes and helps to assess, plan and enact the collaborative change required for sustainability. It supports actors to navigate complex challenges by introducing a guiding structure, which becomes a fractal of the learning and collaboration patterns that are needed for the change envisaged. It draws attention to human competencies in six dimensions: *Future Possibilities, Engagement, Innovation, Humanity, Collective Intelligence, and Wholeness* (Kuenkel 2016).

Initiatives aiming at sustainability transformation can be seen as complex change endeavors. They start with people who consider *future possibilities*. Individuals sense a potential future and a vision for a future is usually developed by a group of people. Over time the potential grows into a more structured change initiative or even a movement. The dimension of *future possibilities* refers to the human competency to take responsibility and consciously shape reality towards a sustainable future. However, even the greatest visions for change are futile if not enough stakeholders are prepared to commit to action. Effective multi-actor settings therefore require sufficient *engagement* of stakeholders—the powerful and the less powerful, the influential and the affected. Meaningful stakeholder engagement processes create trust and cohesion, invigorate network connections, and foster collective action that leads to tangible outcomes. The dimension of *engagement* refers to the human competence to create step-by-step engagement towards building effective collaboration eco-systems. However, if novelty does not also enter a collaboration system, the process might not move forward, if actions and behaviors that led to the current situation are re-created. Although learning from the past is valuable, it should not limit actors to create new variations of existing solutions. The dimension of *innovation* refers to the human competency to create novelty and find intelligent solutions. However, innovation that does not take the shared *humanity* into account can create unsafe environments. Awareness of the human story has both an individual and a collective perspective. Collaboration systems are able to shift towards constructive solutions when there is mutual respect and acknowledgment of the intrinsic value of all people, regardless of different opinions and viewpoints. The dimension of *humanity* refers to the ability of each person to connect to their unique human competency in order to reach out to each other's shared humanity. Increasing awareness, however, requires exchange with others about the actions to be taken. It is evidenced that life thrives on diversity, and so do human collectives. Meaning-making frameworks—offline or online—rooted in dialogue between human beings are essential to collective learning in multi-stakeholder collaboration—if balanced with all other dimensions. The dimension of *collective intelligence* refers to the human competency to harvest differences for progress. However, all collective moves towards sustainability need to be embedded in people's ability to sense *wholeness*, and attend to the needs of

planet as a whole. When people are able to take a larger perspective, they are often able to shift to new insights, better understand the coherence of a situation or at least attend to the needs of the next level system they belong to. Gaining perspective and seeing a collaborative change effort from within a larger context is a relative, yet important step, in developing ‘collective mastery’. People aiming at changing a situation are often trained to focus on fragments of reality, on a small fraction of a larger story, or on their own field of expertise. The dimension of *wholeness* refers to the competency to see a larger picture and stay connected to the common good.

These six dimensions are interlinked and related. Rather than simply adding to one another they lead to results through their interconnectedness as a recurring pattern of human competencies. The application shows that, once this pattern emerges in complex collaborative sustainability initiatives, people learn faster. They are more forthcoming, conflicts can be laid to rest with an acknowledgement of difference, and generally collaboration is leading to better results in less time. This gave rise to developing the compass (see Fig. 1) as a navigating framework to enhance collective learning and collaboration effectiveness based on both observation and research (Kuenkel and Aitken 2015).

The compass in Fig. 1 helps human competences to surface through a meta-structure that does not prescribe action, but helps fruitful options to emerge. It strengthens individual leadership and learning, enhances the learning capacity of a collective to lead complex change (Kuenkel 2016). Table 2 shows the overview of the six compass dimensions and their competencies.

6 Enhancing Collective Learning: The Conceptual and Experiential Background of the Compass

Apart from the experiential observations regarding learning capacities of stakeholders in 20 years practice of supporting international multi-actor collaboration processes, the compass dimensions have been developed on the basis of research into knowledge streams relevant for the understanding of co-creative human evolution. They have been refined following qualitative interviews with change practitioners in multi-stakeholder collaborations addressing sustainability issues (Kuenkel 2016). The following selected conceptual thought had the most significant influence on developing the *Collective Leadership Compass*.

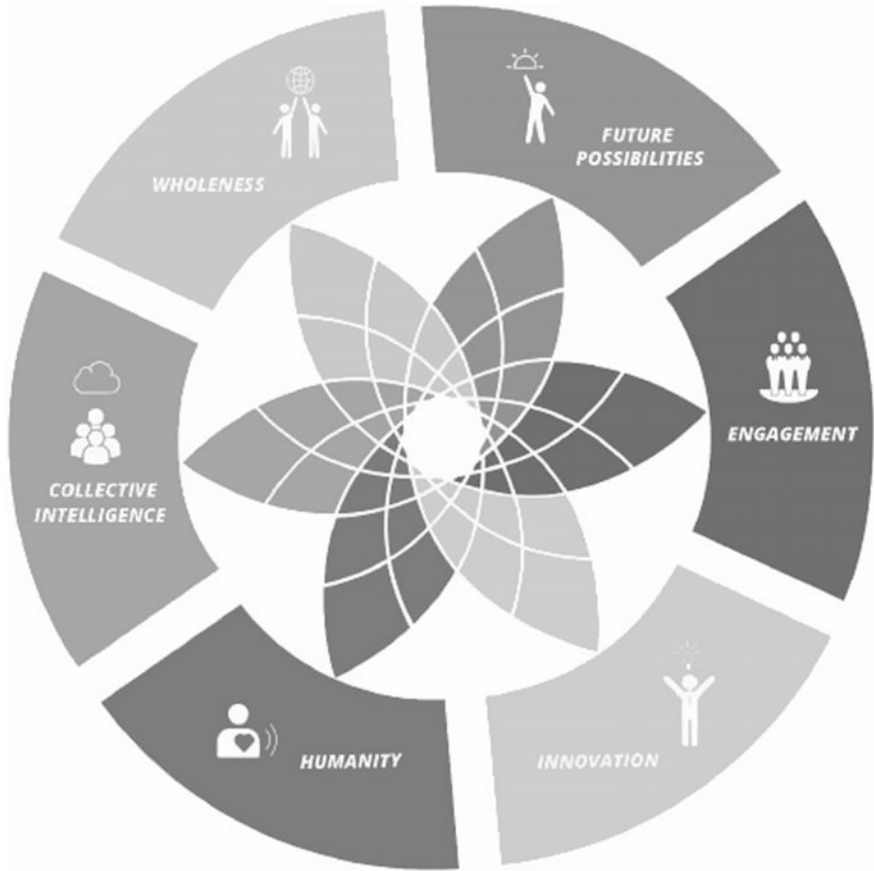


Fig. 1 The Collective Leadership Compass (own representation by Kuenkel 2016)

Table 2 The six dimensions of the compass and their competencies (own representation by Kuenkel 2016)

Dimension	Competency
Future Possibilities	Take responsibility and consciously shape reality toward a sustainable future
Engagement	Create step-by-step engagement toward building effective collaboration systems
Innovation	Create novelty and find intelligent solutions
Humanity	Reach into one another’s humanness
Collective Intelligence	Harvest difference for progress
Wholeness	See a larger picture and stay connected to the common good

7 Living Systems Theory, Complexity Theory, and Chaos Theory

An important feature of natural (including human) systems is their characteristic of relationship patterns ordered in the form of networks with constant internal communication (Capra and Luisi 2014). Although systems can be organisationally closed (e.g. institutions) and have visible boundaries (e.g. legal form), when viewed in a larger context it is almost arbitrary where to draw the boundaries of a system. Each boundary merely becomes a threshold to the next level of the whole, the larger system (Sahtouris and Lovelock 2000). This leads to the conclusion that a methodology that should guide collective learning in collaboration systems needs to mirror such a referential relationship patterned order. The key to a negotiated balance in collaborative change is diversity, in nature—and also in social systems—a crucial requirement for the resilience of a system (ibid., 2000). The greater the diversity, the more sustainable a system becomes in the long run. This also applies to multi-stakeholder collaboration initiatives. They are built on internal relationship patterns and a shared context of meaning (Luhmann 1990) sustained by continuous conversations. Multi-stakeholder collaboration for sustainability can be captured as a way of forming temporary, goal-oriented systems of collective human learning. Because of their temporary nature and—in contrast with institutions—their loose structure, they can be seen as catalyzing societal learning processes that go beyond those of institutions and individuals. They are laboratories for what Senge (1990, p. 16) suggests as “[...] the capacity of a human community to shape its future and specifically to sustain the significant processes of change required to do so”. The *Collective Leadership Compass* guides attention to a relational pattern of dimensions that, if appropriately balanced in interaction enhances the effectiveness of collaboration. The dynamic, yet consciously balanced actions become a fractal of the resilience of the collaboration system. While all dimensions resemble important dimensions for collective learning systems, the dimension of *collective intelligence* is the entry point to enact resilience through diversity of perspectives, expertise and experience.

8 Conceptual Approaches Around Dialogue and Ethical Know-How

In the *The Future of Humanity* the Western physicist David Bohm and the Eastern metaphysician J. Krishnamurti (1986) have a conversation about the basic assumption that human thought creates divisions—between ‘me’ and ‘you’ and between ‘me’ and ‘the world’. It then acts on these divisions as if they were facts. To nobody’s surprise, the human mental activity shows up as polarisation in the world: difference, disparity, and conflict. Each person struggles alone, trying to achieve peace, happiness, and security. And yet, the very attempt to separate one’s

own happiness from the suffering of others would be a reinforcing activity maintaining separation and creating more suffering, more disparity and more conflict. In his lectures on Ethical Know-How that he held in Italy, Francesco Varela noted that human perception is not the representation of a pre-given external world, but in itself a co-creator of reality (Varela 1999). Hence, ethical expertise, for him, is not a skill, which we acquire, but a natural state we unearth when we remove the layers of obscured consciousness and begin to see this very nature of reality. We become empathetic with humankind and the world if we enact or free this inner disposition. The six dimensions of the *Collective Leadership Compass* serve as a lens into accessing the ethical awareness Varela emphasises. Both the dimension of *humanity* and *wholeness* are entry points that enhance ethical thought and action. By supporting individuals and groups to move towards a more constructive pattern of co-creation, they free the human disposition to contribute and make a difference.

9 The Pattern Language Approach

In his pattern language, the architect Alexander (2002) suggests that the structure of elements in an architectural space creates a response in the internal structure of a person. The more the external structure is composed in a life-enhancing way with centres of attention that mutually reinforce each other, the more the person feels alive (or human). Structure can thus enhance or impede the vitality and learning capacity of a human system. The dimension of *wholeness* is an entry point into enhancing the vitality of a collective learning. The *Collective Leadership Compass* functions as a structured space with a mutually supportive pattern of centres of attention. This contributes to vitality—in the person, in groups, in collaboration initiatives, and in human systems.

10 Leadership Approaches Based on the New Science

For a long time, leadership has been looked at as the capacity of individuals (Kellermann 2012), but it is argued here that it is time to explore not only learning, but also leadership as the capacity of a collective—be it a team, the core group of a multi-stakeholder collaboration initiative, or the senior leadership group of a corporation. As individuals and teams carry more and more responsibility in complex multi-actor change initiatives, this capacity to become constructively co-creative grows in importance (Kuenkel 2016). The dimension of *future possibilities* and *innovation* are entry points to collectively create novelty.

11 Development Theory and Societal Learning

With rising global sustainability challenges, the understanding of how collective learning takes place, becomes increasingly more important. This is the cornerstone of our response to the global sustainability challenges, irrespective of whether it is about creating responsible patterns of production and consumption or improving life for all in a city. A brilliant example for this is the idea of creating shared value as outlined by Porter and Kramer (2011). They argue that in advanced economies the need for products that better meet societal needs is growing fast—be it energy saving devices, clean cars, or better nutrition. With societal needs in mind, uncounted avenues for innovation are opening for companies who think several steps ahead. Multi-stakeholder collaborations create learning advantages, for the public sector as much as for the private sector. Yet people differ as their assumptions and experiences are formed by culture, knowledge, theories, practices as well as their particular way of seeing reality. Depending on their professional background and institutional embeddedness, they favour particular strategies while they ignore or dispute others. The dimension of *engagement* functions as an entry point for societal and global change endeavours.

12 From the Individual to the Collective

Both the literature reviewed and the observations from multi-stakeholder collaboration hint to a deeply human capacity to more consciously act and reflect in a collective learning space. The global sustainability agenda requires many more actors to become more knowledgeable about how collective learning capacity can be further developed. The qualitative study with 30 practitioners from local and international stakeholder multi-stakeholder collaboration initiatives (Kuenkel 2015) that informed the development of the *Collective Leadership Compass* showed that the success of their initiatives hinged on the way collective learning processes were enabled. Four of these enabling processes could be identified:

- **Fostering trust building** through respect for difference, invigorating passion for the future and putting effort in finding common ground. This confirmed the importance of enhancing *Humanity* and *Future Possibilities*.
- **Modelling evolutionary change processes** through step-by-step engagement of stakeholders with focus on creating results collectively and ensuring a good flow of communication. This confirmed the importance of enhancing *Engagement* and *Collective Intelligence*.
- **Invigorating connectivity** through developing personal networks that grow into interconnected movements for change as a contribution to the common good. This confirmed the importance of enhancing *Engagement* and *Wholeness*.

- **Creating patterns of vitality** through enabling actions of mutual support that balanced flexible containment through agreed upon rules and structures with creativity and the capacity to learn and adapt quickly. This confirmed the importance of enhancing *Innovation* and *Wholeness*.

The probably most suitable comparison in the way the compass creates effectiveness is the balanced scorecard (Kaplan and Norton 1996). A balanced scorecard leads to results if all its elements get sufficient attention in an appropriately balanced way. It can be used as diagnostic tool, planning tool and evaluation tool. The same applies to the compass. The decisive difference, of course is, that the compass addresses collaboration competency and quality—as important contributors to complex change and the resilience of a system. It does not measure in any way the overall performance of a company, institution or even a multi-stakeholder partnership. Rather than putting key performance indicators behind the six dimensions, it makes sense to use them as a lens that guides collective learning in planning, action and reflection. An atmosphere of leading collectively becomes the natural way to create the future when these six dimensions are consciously attended to—within individuals, in groups of leaders, and in multi-actor settings (Kuenkel 2016).

13 How Working with the Compass Can Enhance Individual and Collective Learning in the Context of Sustainability Transformation

The *Collective Leadership Compass* strengthens peoples understanding of the complex journey into a more sustainable future that need to be traveled together. It can motivate people to change their behavior when they resonate with future possibilities that makes sense to them and touches their hearts. There will always be barriers in human collaboration, but strengthening the pattern of human competencies through collective learning increases the resilience of the system of actors and their capacity to better co-create a sustainable future.

The dimensions are not new, but what makes the difference is paying conscious attention to their *joint* presence. This can help actors navigate through human difficulties and enhance the vitality of individuals and collectives—and particularly collaboration systems. As a collective, collaboration systems become more *resilient*—a capacity needed in a complex, interdependent, and constantly urgent world (Kuenkel 2016, p. 49).

Depending on the issue and the context of multi-stakeholder collective learning processes for sustainability the six dimensions can be enhanced in different way. What follows are exemplary approaches to further the different dimensions.

14 Enhancing the Dimension of *Future Possibilities*

Every multi-stakeholder initiative requires a clear set of goals, expected outcomes and a stated desired impact, often accompanied by a thought-through theory of change. Yet, such collective learning and implementation efforts are not only complex, but also operate in complex environments that are volatile and unpredictable. Developing common goals and a shared vision supports this dimension, which in turn creates an emotional connection with a future state to be arrived at together. Collective learning is best enhanced when such goals function as guidance, but are not entirely fixed. Details, including interventions designs, need to be flexible and iteratively adapted.

15 Enhancing the Dimension of *Engagement*

For sustainability challenges a variety of approaches and interventions is needed, most importantly because each issue of common concern may have different stakeholders. There is no single all-effective strategy to engage all of these stakeholders in a system of collaboration. But what is important is taking a step-by-step approach to engaging stakeholders in collective learning processes. If the circle of involved is too large in the beginning, actors may shy away from any interest in collective learning. Once there is a group established that has developed learning structures, the circle can be widened and more and more actors can be invited to join. In complex change processes such as urban development collective learning needs to be organized across societal barriers. Key to learning are change designs that are implemented across institutions and form a multi-stakeholder learning system. This strengthens mutual understanding and network development.

16 Enhancing the Dimension of *Innovation*

Most logics of collaborative change initiative aim at solving a specific problem. They define deficits to be overcome. While this is important, it is only part of a reality in a complex system of actors related to societal change for sustainability. What becomes increasingly important to go beyond the focus on already existing approaches to solution finding? This could mean to search for already existing unusual ways of dealing with a problem or creating innovative spaces to approach the problem in a new way. Innovation is enhanced when actors deliberately nurture emergent ideas and practices through supporting promising initiatives or mapping good practices.

17 The Dimension of *Humanity*

Most complex multi-stakeholder initiatives that aim at sustainability transformation do not emerge in superficial harmony. On the contrary, even if a small group of like-minded pioneering actors comes together at the beginning, the more the collaboration systems grows, the more conflicts will arise. One very common human reaction to complexity is to insist that one's own way of approaching change is the only possible. Yet, transformation needs not only a multiplicity of strategies and actions, but also a variety of thought, knowledge, expertise, ideas, experience and world-views. At the same time collaboration systems among multiple stakeholders are only effective, if there is a sufficient degree of trust. Respect for difference turns out to be a crucial element in moving from conflict to cooperation. Appreciating the dignity of people as people, acknowledging different world-views, and opposing opinion without necessarily agreeing, are cornerstones for building effective collaboration. All this goes a long way to fostering trust and, above all, unleashes a dynamic of contribution that is required for achieving vision and goals.

18 Enhancing the Dimension of *Collective Intelligence*

As mentioned before, collective reflection in multi-stakeholder collaboration systems is a prerequisite for collective learning. Joint reflection about the collaborative endeavour and its many facets are indispensable for achieving impact. This is the only way to prevent falling back into isolated action. Collective intelligence is the key transformative competence that emerges when good collaboration between a diversity of actors is underway. It furthers a shared understanding of the complexities presented by the challenge of sustainability, but also enhances the competence of different actors to create new ideas and spot new possibilities. For collective intelligence to emerge it is important to create structured settings for dialogue and deliberation. This can take the form of best practice exchange, market places, field trips, structured stakeholder dialogues, innovation labs, future designs, or strategic workshops—whatever is appropriate. Shifting the communication and interaction patterns between stakeholders is at the heart of collective learning.

19 Enhancing the Dimension of *Wholeness*

For collective learning to occur, it is important to locate the collaborative change effort within the larger system, and stay aware of other change efforts. This is greatly supported by conducting a context and situational analysis at the beginning of a multi-stakeholder collaboration initiative. This is often a step into creating even larger collective learning systems, such as networks of multiple actors around an

issue of common concern. Such networks can be local, national or international. It is the learning exchange at the network level that supports implementation in the individual initiative. There is an enormous fragmentation of efforts, if not competition. Initiatives operate in similar fields, often duplicating efforts or only addressing narrow solutions. Taking a systemic approach to strengthening collective learning in multi-stakeholder collaboration suggests ensuring that the connection to other initiatives is created and maintained.

The compass is built on the acceptance that societal change is not only inevitable, but can be welcomed if shaped collectively. It is anchored in the attention to human competencies. Acknowledging one another's competencies and each person's capability to shape the future by accepting different levels of experience and implementing diverse strengths at the right moment can accelerate collective learning processes that take society into a better future (Kuenkel 2016, p. 50).

20 Conclusions and Outlook

We have argued that lifelong learning needs to be seen not only as an individual, but a collective process, and have suggested that multi-stakeholder collaboration for sustainability issues is an interesting laboratory for understanding what accelerates collective learning. In our view, this is key to the long-term flourishing of human societies and to the planet as a whole. Learning always takes place in a collective by sharing information and experiences. We have presented a methodology derived from the practice of multi-stakeholder collaboration and scholarly investigation into various research backgrounds that strengthens collective learning through paying attention to human competencies. The *Collective Leadership Compass* has been described as a process-oriented methodology and a guiding tool composed of six dimensions that are based on living systems theory. Implementing the Compass in transformational processes such as multi-stakeholder collaborations helps to increase awareness and get a deeper and reflective insight into complex circumstances to be able to operate in collaboration patterns. Collective learning in multi-stakeholder collaboration can counterbalance sustainability threats and help address some of our most urgent challenges for humankind.

The need for more and better collaboration for sustainability requires scaling both research and practice into better functioning learning collectives. This chapter suggests an investment into research on how to build the capacity of groups of actors to become catalysts for large systems change in complex multi-stakeholder settings. Investing in education and lifelong learning is the most important step for leading into a sustainable future. Further research could include exploring how methodologies such as the *Collective Leadership Compass* could contribute to collective learning in online-settings, involving a wide range of stakeholders, and such processes can be supported with online tools. Further exploration should go into the foundations for positive attitudes towards collective learning in the form of collaborative setting at school and how the compass could support such processes

and anchor such an approach early enough. Similarly, research could investigate in the role of collaboration as prerequisite for collective learning in organizations, government entities, and in especially in companies that have started to embark on sustainability strategies.

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