

Development of leadership capacities as a strategic factor for sustainability

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Abstract: Building capacities of sustainability change agents is primordial to increase the effectiveness and to accelerate the process towards a sustainable society. This research investigates the current challenges and practices of sustainability change agents and analyses current research in the field of leadership development. A Framework for Strategic Sustainable Development is described as a means to overcome and address the complex challenges that society faces today. Furthermore the development of leadership capacities of sustainability change agents is suggested as a strategic factor for the process of sustainable development. A literature study highlights the new dimension to leadership development and defines its characteristics. Interviews and focus groups with sustainability practitioners and students are analysed. From this analysis a set of methods and approaches to professional and personal development is derived. The research points to the need of developing leadership capacities, of sustaining them and of having the ability to be self-aware. It is mentioned that the development of these capacities will depend on the supporting environment, the methods employed and on the candidate itself in order to achieve best results.

Keywords: Strategic sustainable development, Sustainability change agents, leadership, capacity building.

Statement of contribution

This research was sparked by a shared interest in self-development and sustainable development. Taking an action research approach as well as a reflexive approach made our work very personal and brought us through moments of motivation and inspiration, and moments of loss and despair. This paper is an expression of part of that journey.

Following an initial process of intense, lengthy, deep dialogues, we found our individual passions for research direction and pursued those. We were each involved in all stages of the research to varying degrees. Through external and internal practice, we explored concepts of mindfulness, presence, deep listening, self-balance and worked to understand how these can contribute to the work of sustainability change agents.

A new way of thinking will require new ways of working together. Our group explored new ways of working together that challenged our mental models and “business as usual” methods. It became critical that we find our own ways to be comfortable with ‘not knowing’ and the unknown. Trust was also vital in our group process, as was patience and compassion. Our levels of motivation and self-efficacy also came in individual waves.

It was enriching to balance speaking of the theoretical shift in consciousness required to live sustainably and enacting it. We as researchers underwent a profound change process and will remember this thesis period in Karlskrona for years to come.

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Executive summary

This research addresses the urgent need for leadership to help overcome the sustainability challenge that society currently faces. More than ever, collective effort is necessary to overcome these systemic challenges, which affect every human being.

The degrading state of the environment and the accompanying uncertain future of society is a topic of conversation, headlines, top stories and scientific discourse. Alongside the facts, figures and expressions of concern is a call for leaders who are able to handle the complexity of the sustainability challenge. This challenge takes the shape of three forms of complexity, from dynamic to social to emerging complexity.

The Framework for Strategic Sustainable Development (FSSD) applied in this research is a scientific based method that works to address sustainability challenges with a whole systems perspective. It applies a generic five-level framework for planning in complex systems using backcasting from a principled definition of success.

This paper proposes that, in addition to using the FSSD to guide action, developing the capacities of sustainability change agents (SCAs) is a key strategic guideline to help move society towards a sustainable future that is defined within the constraints of the four system conditions. The paper explored the following research questions:

In what ways can sustainability change agents' capacities be developed in order to help global society strategically move towards sustainability?

To answer the above question, the following questions were posed:

What are the current challenges and opportunities facing sustainability change agents?

What are the personal and professional practices and approaches of sustainability change agents that sustain and increase their capacity to carry out their work?

The methods of this research were steered by an iterative research design process and included 19 interviews, 3 focus groups and a literature review.

A background research highlighted leadership capacities for sustainability change agents. The complexity of the sustainability challenge and the need for collective action emphasizes the necessity for leaders with a shared leadership approach compared to the classical authoritative approach. The key findings from this background research are that:

- Leadership skills and capacities can be developed and learned
- Emotional intelligence is a key factor for effective leadership
- New leadership focuses on processes, communication, dialogue and inquiry
- Systems thinking and dialogical abilities are key to deal with the current complexities
- In order to sustain leadership effectiveness and continuous change, leaders need to renew their own energy and the one of others around them
- Leaders can make conscious choice of the place from which they operate

Focus groups conducted with three groups of current MSLS change agents revealed a desire for increased personal development within their existing program participation. These participants found value in quieting the mind, finding balance, listening to oneself and seeing things from a new perspective. All of the groups found self-reflection a challenging exercise in a variety of ways and said that the most valuable part of the focus group was having the space to dialogue on meaningful ideas and explore them in a comfortable space.

Findings from interviews conducted with 19 sustainability change agents who are currently active and experienced in the field found common themes. Current challenges that they faced from external sources were time, complexity of the sustainability message, limits of others' capacities, the current paradigm, limited resources, information overload, finding the best leverage point, and finding personal balance. These challenges were addressed by seeking the support of others, finding meaning in work, seeing the bigger picture, having access to resources and by drawing from personal

experience. Change agents who are currently enacting positive change have many unique approaches and methods, however share certain practices such as meeting people where they are at, co-creating, practicing self-balance, continuously learning, being inspired, serving something greater and seeing a bigger picture. At the heart of the work of effective change agents is finding meaning in their work, working to shift perspectives and feeling a sense of urgency.

In response to the primary research question, the focus groups and interviews revealed the need for SCAs to develop their leadership capacities. There is little emphasis placed on this aspect of work in the field and few support systems and environments are in place. The literature however, expresses the need for the work of self-development by SCAs to be valued and encouraged in order to effectively move towards a sustainable society. The challenges expressed by SCAs illuminate that the development of SCAs capacity is a place of opportunity and perhaps a new leverage point in the field of sustainability. Approaches and methods in practice and theory demonstrated a need for renewal in order to be effective at enacting positive change. Throughout the research, it became apparent through practice and application that processes of self and group reflection are beneficial to sustainability related work. Change agents need to be able to recognize a need for change within themselves before being able to facilitate that process in others. Incorporating a discussion of self-development into all levels and roles in life would greatly enhance our collective capacity to move strategically towards a sustainable future

This research applies the developmental perspective to leaders in the sustainability field. At the least, the development of SCAs will result in actions and decisions based on better behavioural flexibility and reasoning capacity. Furthermore, these increased abilities make it easier for someone to deal with complexity. The sustainability challenge society currently faces is complex. Therefore, the development of leaders' capacities contributes to the movement of global society towards sustainability. It is then concluded that the development of SCAs helps global society move strategically towards sustainability.

Abilities to help SCAs lead more efficiently towards sustainability are explored. *Systems thinking* and *multi-stakeholder* approaches are key to deal with the current complexities. Furthermore, the use of experiential

approach taking part in the immediate context of a sustainability initiative is more effective than advocacy for creating long lasting change. Developing the ability to focus and allocate the right amount of resources on the task performed is essential for overcoming the various challenges that SCAs face in their work.

SCAs must be able to hold a space for co-creation as a way to build shared intention among a group of people willing to take initiatives towards new ways of doing things and as a way to develop a better understanding of the context in which they evolve. For this they need to develop abilities to support, facilitate and help create change among others. And in order to do so, sustainability leaders need to develop the capacity to listen, coach, connect with others in a meaningful way and meet people where they are.

The varied results indicated that methods and approaches used are personal to each change agent. A common principle of all the methods was to create new ones or modify existing ones. In order to keep sustainable leadership, renewing or refuelling emerged from the interview results and is described in the literature study. Furthermore, the research indicates the need for strategies to facilitate the assessment and development of each individual.

This research contributes to the field by emphasizing and demonstrating that development of people making use of the FSSD and other related tools is a much needed and equally valuable investment of resources. To reach a state of sustainability, we require a combination of capacities to linearly think, plan and do, and to think systematically by stepping back and thinking about our actions, processes and their place in the bigger systems.

Further recommendations are to integrate hard and soft skills in the field of sustainability and to develop learning approaches to assist change agents in identifying and exploring their developmental needs.

Glossary

Backcasting: A planning method by which success in the future is envisioned to look backwards at today and ask ‘what do we need to do to get from here to there?’ (Dreborg 1996; Holmberg and Robèrt 2000)

Biosphere: The parts of the earth on land, in water, and in air where life takes place

Brundtland definition of Sustainable Development: Meeting the needs of today without compromising the ability of future generations to meet their needs. (World Commission on Environment and Development 1987)

Capacity building: The "process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world." (Philbin 1996)

Deep listening: Hearing beyond words for an underlying or deeper meaning

Dynamic Complexity: A situation where there is a systematic distance or delay between cause and effect in space or time that can be dealt with using a whole systems approach

Emerging Complexity: A situation that deals with change so complex to understand that it becomes very difficult to make concise decisions without risking further problems down the road. It is at the interplay of dynamic and social complexity

Framework for Strategic Sustainable Development (FSSD): Describes the generic Five Level Framework used to understand and plan progress towards a sustainable society specifically, with Level 2 (Success) minimally defined as adherence to the four sustainability principles and backcasting (Ny and others 2006) (Robèrt and others 2002; Robèrt 2000; Holmberg and Robèrt 2000)

Generic 5 Level Planning Framework: A generic framework for planning

and decision- making in complex systems utilizing 5 distinct, non-overlapping levels: (1) System, (2) Success, (3) Strategy, (4) Actions, and (5) Tools (Robèrt and others 2002; Robèrt 2000; Holmberg and Robèrt 2000)

Intergovernmental Panel on Climate Change (IPCC): A scientific intergovernmental body set up by the World Meteorological Organization and by the United Nations Environment Programme (UNEP)

Masters in Strategic Leadership towards Sustainability (MSLS): A programme focussed on the premise that a “whole-system” and trans-disciplinary approach is needed to address the sustainability challenge of meeting the needs of today’s society and that of the future, using the FSSD and a holistic non-traditional educational setting

Social Complexity: A situation that deals with the interplay between many stakeholders having different worldviews and diverse interests that can be dealt with using a multi stakeholder approach

Strategic Sustainable Development (SSD): A way of planning sustainable development designed to help bring clarity, rigor, and insight to planning and decision making to achieve a sustainable society in the biosphere. Grounded in a ‘*backcasting from sustainability principles*’ approach, whereby a vision of a sustainable future is set as the reference point for developing strategic actions (Robèrt 2000)

Sustainability Change Agent (SCA): Someone who has the intention of acting more sustainably and engages others to develop their capacity to make change for the purpose of reaching socio-ecological sustainability

System Conditions for Sustainability (SCs): Refers to four basic principles for socio-ecological sustainability derived by scientific consensus to define the minimum requirements of a sustainable society. The principles are derived from basic laws of science and have been published and peer-reviewed by the international scientific community and promoted by The Natural Step

Systems view: A perspective that looks at and considers all of the interrelated parts, relationships and patterns that form an integrated whole,

often encompassing things that seem isolated

The Natural Step (TNS): An international non-governmental organization of Swedish origin which developed and promotes The Natural Step Framework for strategic planning towards sustainability

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List of abbreviations

FSSD: Framework for Strategic Sustainable Development
IPCC: Intergovernmental Panel on Climate Change
SCA: Sustainability Change Agent
SCs: System Conditions for Sustainability

1 Introduction

"The question of reaching sustainability is not about if we will have enough energy, enough food, or other tangible resources - those we have. The question is: will there be enough leaders in time?"

- Dr. Göran Broman¹ and Dr. Karl-Henrik Robèrt²,
Founders, Master in Strategic Leadership Towards Sustainability Programme

The question that the two founders of the ‘Strategic Leadership Towards Sustainability’ master’s programme (MSLS) pose is at the foreground of this research. They refer to the urgent need for leadership in overcoming the sustainability challenge. More than ever, collective effort is necessary to overcome the current systemic challenges, which affect every human being. On the one hand, it is a matter of effectively and fairly distributing global natural resources. On the other hand, the only way this can happen is through co-operation between all stakeholders of society. The question then becomes: how to develop the necessary leadership to address the sustainability challenge in time? And what kind of leadership is needed to face the complexity this challenge presents?

1.1 The sustainability challenge

“The outer boundary of what we currently believe is feasible is still far short of what we actually must do.”

– Al Gore, Nobel Acceptance, December 10, 2007

In 2007 the Nobel Foundation honored Al Gore and the scientists of the Intergovernmental Panel on Climate Change (IPCC) with the Nobel Peace Prize "for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change" (Nobel Prize Archives 2007). Some questioned why the peace prize was awarded to a group of scientists and a former politician. In response, the Norwegian Nobel Committee

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² Associate Professor at the Blekinge Institute of Technology and founder of The Natural Step

commented that Gore and the IPCC had focused “on the processes and decisions that appear to be necessary to protect the world's future climate, and thereby to reduce the threat to the security of mankind. Action is necessary now, before climate change moves beyond man's control” (Anon. Norwegian Nobel Committee 2007). Whether the prize was rightfully awarded, one message was clear: climate change was a serious threat to the world’s future.

Climate change is one side of the story. Every day the predictions and catastrophic scenarios become more serious and pressing. As mentioned by Mohamed T. El-Ashry, Chief Executive Officer and Chairman of Director of Global Environment Facility, in a 2002 report:

“We have, in the last decade, seen environmental problems mount—from extreme weather patterns and melting glaciers that point to a changing climate, to air and water pollution that threatens human health, to deforestation and land degradation that are undermining the earth’s capacity to sustain humanity.” (The Challenge of Sustainability 2002, x)

In their 2006 edition of *State of the World*, the Worldwatch Institute reported that two-thirds of ecosystem services on which human society depends are being degraded or used in ways that cannot be sustained (Worldwatch Institute 2006). The gravity of today’s problems was also referred to in Forum for the Future’s second Future Leaders Survey, suggesting that:

“Today’s university entrants truly have the hand of history on their shoulders: the first generation to face seemingly intractable global environmental problems right at the beginning of their careers, and the last with a chance to solve them.” (Future Leaders Survey 2008, 2)

As shown by the various sources above, global society faces an unprecedented developmental crisis. From a scientific and empirical perspective, change is necessary to address the un-sustainable state of society today. In order to undergo this change, organizations and individuals composing them, would benefit from strategic guidelines that can help them act accordingly within the system they operate as a way to reach a sustainable state.

To facilitate the comprehension of the socio-ecological reality that leaders and organizations face, three different types of complexity are described in the following paragraphs. Afterwards, an approach to deal with these complexities and reach sustainability is introduced. Then, finally, as the main part of this thesis, the role of leaders is explored as a way to facilitate and sustain the change that the current levels of complexity require.

1.2 Three types of complexity leaders face in current society

As Scharmer discusses in his book *Theory U*, “leaders in all organizations and institutions face new levels of complexity and change” (Scharmer 2007, 59). Inspired by the work of Roth and Senge (Roth and Senge 1996) and their distinction between dynamic and behavioural complexity, Scharmer depicts three different types of complexity leaders have to deal with: dynamic, social, and emerging complexity.

1.2.1 Dynamic complexity

Dynamic complexity means there is a systematic distance or delay between cause and effect in space or time. Such complexity can be found in many types of system such as biological, economic, technological, etc. It can be dealt with through system thinking, an approach to problem solving that provides a “whole system” perspective which helps to address greater levels of dynamic complexity. System thinking focuses on the interrelations between the parts and the whole of a dynamic system in order to fully understand why a problem or element occurs and persists within a system (Capra 2006).

1.2.2 Social complexity

Social complexity deals with the interplay between many stakeholders having different worldviews and diverse interests while addressing complexity. It is the social dimension of problem solving and it requires a different approach than the one used to resolve dynamic complexity. As social complexity increases, it becomes more important to use a multi stakeholder approach to ensure problem solving that includes all of the relevant stakeholders’ points of view. Not doing so can contribute to the creation of conflicts and misunderstanding between the actors of any given

situation. Therefore performance and the ability to reach objectives can be greatly diminished.

R. Edward Freeman (Freeman 1984), initially developed stakeholder theory to identify the groups which are stakeholders of an organization. A general definition of a stakeholder is one who holds an interest or concern in something. Further development of this theory by scholars and practitioners has led to multi stakeholder approaches. As an example, Mitchell and others (1997) have derived typology of stakeholders based on the attributes of power, legitimacy and urgency.

1.2.3 Emerging complexity

Emerging complexity deals with change so complex to understand that it becomes very difficult to make concise decisions without risking further problems in the future. It is at the interplay of dynamic and social complexity. Scharmer mentions three characteristics that correspond to emerging complexity situations:

1. The solution to the problem is unknown.
2. The problem statement is still unfolding.
3. The key stakeholders involved are not clear.

In short, the greater the emerging complexity, the less we can depend on past experiences to resolve issues at stake. Methods like the Deming cycle (Deming 1986) become inappropriate to improve the process or to solve the problems faced at this level of complexity. New approaches are necessary to deal with disruptive change such as the one that individuals and organizations face today. Such an approach is presented in the next section and is then extended with the introduction of strategic principles for the development of leadership capacities of ‘sustainability change agents’.

1.3 Strategic sustainable development

In response to the systemic sustainability challenge and as a way to address the current complexities, such as the ones discussed above, a Framework for Strategic Sustainable Development (FSSD) was elaborated over many years of pioneered work (Robèrt 2000; Robèrt and others 2002). The FSSD facilitates the use of a systems view and shared way of thinking to plan more effectively in complex systems (i.e. society in the biosphere) towards

sustainability. The FSSD is structured according to a Generic Five-Level Planning Framework (Robèrt 2000). The framework, which this research was structured within, is briefly described below (see Figure 1.1).

1.3.1 Generic five-level planning framework

The generic five-level planning framework is intended to facilitate comprehensive planning in any complex system. It is structured in such a way to delineate five hierarchically different “levels” and to maintain distinction between the levels in planning (see figure 1.1). These levels consist of: (1) the System level, (2) the Success level, (3) the Strategic Guidelines level, (4) the Actions level and (5) the Tools level.

The *System* level focuses on the understanding and awareness of the dynamic at play within any specific system we choose to analyse or plan for. The *Success* level focuses on defining a desired outcome within the specific system. The third level is the *Strategic Guidelines* level. At this level, guidelines for selecting actions and tools in order to support the creation of strategies to achieve success

(level 2) in the system (level 1) are presented. The fourth level describes the *Actions* that can be implemented following the Strategic Guidelines (level 3) to attain success (level 2) in the system we choose to focus on (level 1). Finally the fifth level describes various *Tools* (for examples tools useful in strategy development, capacity building, systems analysis, etc.) that can be of support to the other levels.

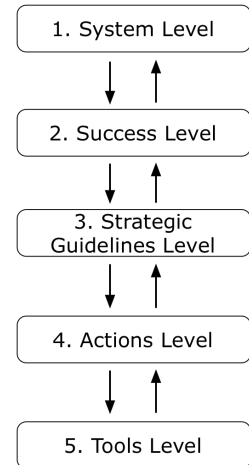


Figure 1.1. Generic five-level planning framework

1.3.2 Framework for strategic sustainable development

A key particularity of the FSSD is the incorporation of a principled definition of sustainability at the *Success* level (level 2) and backcasting at the *Strategic Guidelines* level (level 3) into the Generic Five-Level Planning Framework described above. Another important aspect, when using the FSSD, is the contextualisation of the sub-system (e.g. society, organization, etc.) within the whole system (i.e. the biosphere) at the system

level, and the use of prioritization principles at level 3. Following, is a more in-depth description of the FSSD.

Application of the FSSD for a sustainable society: In this research the FSSD is used to bring clarity, rigor and insight to planning and decision-making towards a sustainable society. Here it is specifically applied to society in the biosphere (see figure 1.2) as a way to inform a method for global sustainable development. The framework can also be used to inform the process of reaching sustainability for projects, organizations, communities, etc. and as an analytical instrument for comparing tools and concept for sustainable development.

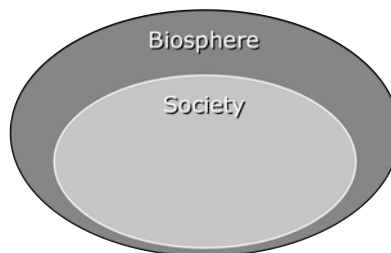


Figure 1.2. Nested system representing society in the biosphere

1.3.3 System level: Society in the biosphere

The FSSD system level provides awareness of the current reality inherent to the system under study, through rigorous analysis and understanding of the dynamic relationships between ecological and social systems. Immediate factors in relation to the system being analyzed are considered within the larger context of a sustainable society in the biosphere. Among factors to consider at this level are the laws of thermodynamics, natural cycles and social systems.

This analysis brings empiric grounding to subsequent planning and decision-making phases and supports social actors in taking appropriate actions that will lead towards desired outcomes. To facilitate and structure further analysis of a system, it is also necessary to look at the desired outcome, in this case a principled definition of sustainability.

1.3.4 Success level: A global sustainable society

The second (success) level is defined by basic conditions necessary for a sustainable society to sustain its capacity within the biosphere. The FSSD suggests that society cannot be sustainable unless it designs and pursue its activities in a way that at least does not systematically violate these basic conditions. This is so because the four conditions for sustainability

emphasize system boundaries that society cannot transgress without being subject to negative consequences and their impacts on the welfare of society (e.g. pollution, social inequity, etc.).

Basic Sustainability Principles: The principled definition of sustainability mentioned above and used within the FSSD was developed over many years through a process of scientific consensus initiated by Dr. Karl-Henrik Robèrt (Holmberg and others 1996; Ny and others 2006). The System Conditions for Sustainability (SCs) provide four scientifically based *first order principles* that can be applied under the Brundtland definition of sustainable development³. In figure 1.3 the Brundtland definition of Sustainable Development is stated as a value statement and it is transferred into a scientific, non-value based method to achieve “sustainability.” After several revisions, the current wording of the SCs is:

In the sustainable society, nature is *not* subject to systematically increasing...

1. Concentrations of substances extracted from the Earth's crust
2. Concentrations of substances produced by society
3. Degradation by physical means,
and in that society...
4. People are not subject to conditions that systematically undermine their capacity to meet their needs.

³ (World Commission on Environment and Development 1987)

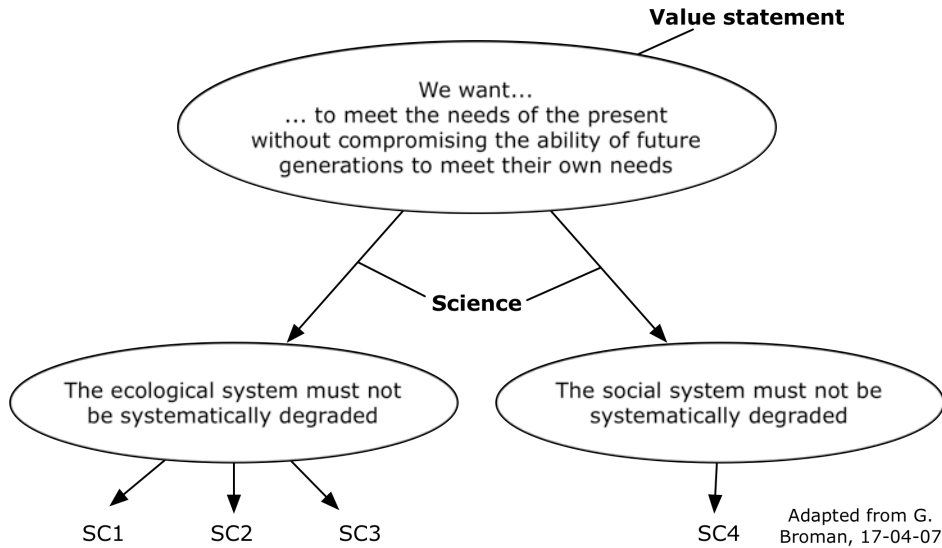


Figure 1.3. Definitions of sustainable development

The logic behind the formulation in the negative is that *sustainability* becomes relevant only as we understand the un-sustainability inherent in the current activities of society (Holmberg and Robèrt 2000). Therefore principles for sustainability are designed as restrictions that bring an understanding of the *system's* boundaries in order to avoid its destruction (they can also be framed as the 4 root causes of un-sustainability). This logic is grounded in system thinking as it provides a methodology to look upstream – in cause-effect chains – in order to avoid basic societal design errors that can later generate a multitude of negative impacts downstream.

Once success has been defined it becomes important for society to find *how* it can reach sustainability. It becomes essential to define strategy in order to reach the desired outcome (i.e. a sustainable society). The next level of the framework informs this process by defining strategic principles for sustainable development.

1.3.5 Strategic guidelines level: Backcasting from sustainability principles

Backcasting from principles of success is used at the third (strategic guidelines) level as a primary strategic parameter.

Backcasting is a planning or foresight approach that is referred to as an alternative to traditional forecasting (Robinson 1990). Whereas forecasting is the process of predicting the future based on current trend analysis, backcasting approaches the challenges of envisioning the future from the opposite direction. As Holmberg & Robèrt describes “ it is a method in which the future desired conditions are envisioned and steps are then defined to attain those conditions, rather than to take steps that are merely a continuum of present methods extrapolated into the future” (Holmberg and Robèrt 2000, 294). According to Dreborg (Dreborg 1996) backcasting can be particularly useful when:

- The problem to be studied is complex.
- There is a need for major change.
- Dominant trends are part of the problem.
- The problem to a great extent is a matter of externalities.
- The scope is wide enough and the time horizon long enough to leave considerable room for deliberate choice.

The illustration below (figure 1.4) differentiates forecasting from backcasting. Forecasting can be seen as projecting current trend into the future and backcasting can be explained as envisioning a desired future and taking action in the present that will lead toward this vision.

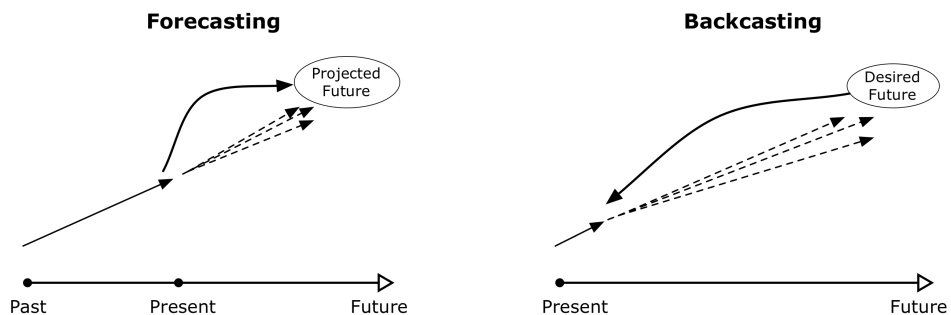


Figure 1.4. Difference between forecasting and backcasting

Carlsson-Kanyama and others (2008) provide an example of a participatory application of backcasting for sustainable development within communities. Quist and Vergragt (2006) have identified many varieties of backcasting and have highlighted its utility as a stakeholder participatory approach for planning. Among other uses of backcasting, one common use

is for future scenarios planning. In the case of the FSSD backcasting is applied in conjunction with a desired future defined as a principled definition of sustainability (see section 1.3.4). This application of backcasting from basic sustainability principles has been designed to allow and encourage creativity within defined sustainability constraints (Robèrt and others 2007). This approach is a complementary addition to backcasting from future scenarios. It can enable a shared understanding of what sustainability is without having to describe the details, which is often technically impossible and sometimes irrelevant since innovation and change can occur during the progress towards the desired outcomes. In other words, it allows for creative envisioning within delimited constraints.

The FSSD also provides three questions that assist organizations (e.g. society, businesses, communities, etc.) in prioritizing the actions or measure to implement in order to move strategically towards sustainability (i.e. strategic guidelines that can lead global society towards compliance with the basic SCs).

1. Do the actions/measures bring the project/organization and society closer to sustainability? In other words, is the action going in the right direction, towards compliance with the SCs or is it contributing to further transgression of them?
2. Do the actions/measures avoid blind alleys? In other words, is the choice a flexible platform that could lead to further improvement and development or will it lead to a dead end that offers no possibility for improvement?
3. Do the actions/measures generate sufficient resources (economic, social/political, ecological) for sustaining the process? In other words, does the decision compromise the capacity of the project/organization and society to sustain its activities or does it give adequate return for the continuation and the advancement of the process?

1.3.6 Actions level: Activities that lead towards sustainability

At the fourth (actions) level, the FSSD informs all the actions/measures that comply with the overall strategic principles and that will effectively move the global socio-ecological system towards success. This level is about

taking actions that can be implemented following a proactive method to attain sustainability in global society.

1.3.7 Tools level: Tools to support the process of sustainable development

At the fifth (tools) level, the FSSD informs of all the tools, measurements, techniques, management approaches, etc. that can support the process of moving global society towards fulfillment of the basic socio-ecological principles. In other words this level is about selecting and developing tools that will help at any system level of the framework. This includes tools and methods to measure, assess and understand the current reality within the system as well as techniques to deploy strategy and capacity building. Tools can be categorized into the subsequent key categories:

- **Strategic Tools** ensure that actions are in line with strategic guidelines to improve the possibility of achieving success in the system. These types of tools become highly relevant as the margin for action within the system (i.e. society within the biosphere) is diminishing at an increasingly higher rate.
- **Systems Tools** measure and assess the system to learn about the current reality or to analyze damage or improvement in the system. These types of tools are important to assess the impact of human activities within the biosphere as well as within social structures. It is important to develop and use appropriate indicators that provide accurate and pertinent data for decision-making.
- **Capacity Tools** are learning techniques, training approaches and development processes that aim to develop skills or competences, or improving general performance. They are commonly called ‘Capacity Building’ and are often referred to as training and assistive tools. ‘Capacity Building’ consists of many approaches such as human resource development, organizational development and institutional and legal framework development. Ann Philbin (1996) defined ‘Capacity Building’ as the “process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world”.

1.4 The role of leaders for sustainability

While the FSSD is designed to help overcome the complexities inherent in the global challenges presented to us today, it is, of course, inherently dependent on the ability of people to facilitate the use and garner the masses around this movement. It necessitates effective leadership and the ability to sustain it.

A statement made by Carl Pope, Executive Director of the Sierra Club, communicated that the award of the Nobel Peace Prize to Al Gore and the IPCC emphasized one thing - “the need for more of our leaders to take a stand and meet the challenge of global warming head-on” (Pope 2007). The Avastone Corporate Sustainability Study (ACSS) looked at how organizations are currently positioned and how they are planning their move into a sustainable future (McEwan and Schmidt 2007). The research involved speaking with executives and leaders from ten prominent global companies with sustainability experience. The outcome of the study was that participants singled out leadership as one of the essential theme in the progress of organizations towards sustainability.

In addition, a survey conducted by the Natural Step⁴, capacity to lead change efforts, communication, and internal leadership were identified as the top three abilities as necessary for achieving a vision of society moving towards sustainability. The respondents to this survey were taking part in sustainability initiatives around the world and familiar with the application of the FSSD.

The results show an apparent need for progressive leaders capable of decision making in complex situations. The range and number of complexities leaders have to manage are continually increasing. Therefore, leaders need to be able to find solutions that do not repeat patterns of the past. As Philbin points out, this ability requires the capacity to continually let go of and renew thoughts, habits, and ways of doing. We therefore need leaders that understand the current socio-ecological challenge, are capable of the above and believe in human potential and capacity to grow change towards a better future for society.

⁴ An international non-governmental organization of Swedish origin which developed and promotes The Natural Step Framework for strategic planning towards sustainability.

If we want to make a timely shift towards sustainability, three things should happen in the area of leadership: the engagement of presently highly developed leaders, the development of moderately developed leaders, and the reshaping of leadership development programs to focus on expanding capacities. The question then becomes: how to develop such leadership capacity amongst current and future leaders and sustainability change agents that will help and facilitate the movement of society towards sustainability?

1.4.1 Development of sustainability change agents

New approaches to education for sustainable development of professional are necessary (Senge and others 2006). It has been highlighted that only about 10 percent to 15 percent of learning from traditional classroom style training is transferred to sustained behavioural change within work practice (Broad and Newstrom 1992; Buckingham and Coffman 1999; Facticeau and others 1995; Cromwell and Kolb 2004). By extrapolating this data to the current necessity of change within organizations and society, the need for developing appropriate leadership training of sustainability change agents (SCA) is clearly understood.

A SCA is someone who has intention of acting more sustainably for the purpose of reaching socio-ecological sustainability. This definition of SCA is broad and covers everyone who takes small steps to improve his or her socio-ecological impact as well as inspires others to do so. The scope here is mainly on individuals who have intent or wish to develop intent of acting strategically for the betterment of society. More specifically it is presupposed that these individuals wish to help individuals, organizations, and communities in a process of change towards sustainability. SCAs can be teachers, business and community leaders, organizational development practitioners, sustainability practitioners, etc. They represent a great pool of talent that can increase society's effectiveness to reach sustainability.

1.5 Aim and scope

The proposition of this research is that by developing capacities of SCAs and by increasing this development, global society will increase its chance of success to face the current sustainability challenges.

This proposition is structured within the application of the FSSD to global society in the biosphere explained more in detail in section 1.3. Figure 1.5 illustrates the focus of this research in grey. It shows that development of SCA leadership capacities is a strategic guideline that will help society move from today's current complex challenges towards a sustainable society in compliance with the four SCs. From there capacity tools are necessary to support the development of the necessary capacities in SCA and to inform the concrete actions that need to be taken to develop these capacities.

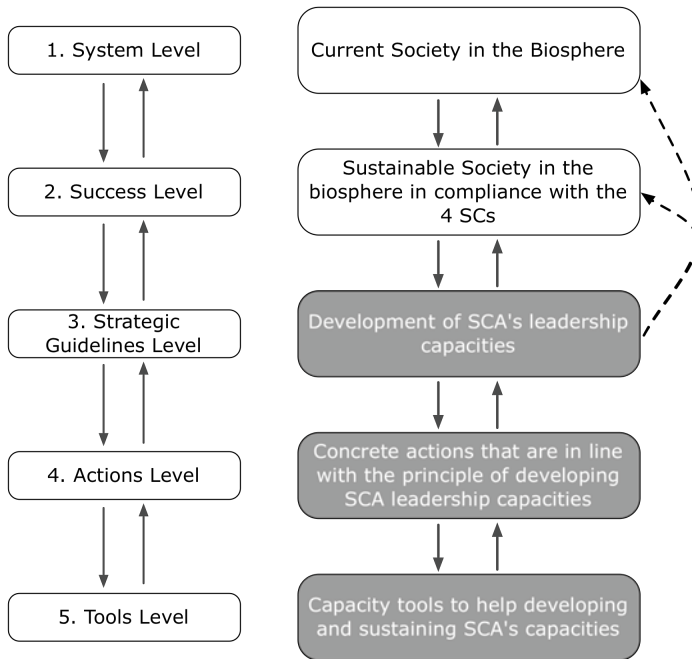


Figure 1.5. FSSD for global society and strategic guidelines for developing leadership capacities of SCAs

1.6 Research questions

The authors developed the following questions to explore the concept of leadership for sustainability and the current reality of sustainability change agents as a way to comply with the four SCs.

In what ways can sustainability change agents' capacities be developed in order to help global society strategically move towards sustainability?

To answer the above question, the following questions were posed:

What are the current challenges and opportunities facing sustainability change agents?

What are the personal and professional practices and approaches of sustainability change agents that sustain and increase their capacity to carry out their work?

1.7 Limitations

In order to highlight strategic guidance for the development of SCAs, a theoretical analysis is combined with in depth interviews and focus groups of SCAs. This serves to highlight similar patterns in the background research and in the first hand data collected throughout this research.

The current research in the field of leadership presented in this paper is based on a selection of specific resources concerning the development of leadership and of SCAs. Therefore, it does not cover the whole field of research and is not intended to do so. This approach was preferred due to time constraints.

The focus groups look at the point of views of students taking part in the same master's programme, which is intended to teach about the FSSD explained above. It does not cover the point of view coming from students taking part in different sustainability related programmes. The interviews cover the point of view of SCAs working mostly in North America and Western Europe. These two groups represent a small simple and are not covering the broad spectrum of sustainability change agents that are taking action across the globe.

2 Methods

This section details the methods of this research. The overall research was guided by Maxwell's qualitative research design (Figure 2.1) and the FSSD. Through application of these methods, the authors conducted semi-structured interviews with sustainability change agents, focus groups with participants of the 2008 Masters in Strategic Leadership towards Sustainability class, and a focused background study on what makes leaders effective. This section presents these different activities.

2.1 Model for qualitative research design

The research process was steered by an interactive qualitative research design method by Maxwell, where all parts of the research were reconsidered or modified in response to findings or developments that affected any research components (Maxwell 2005). This method, as guided by the diagram below, brought a reflexive and living quality to the process. Due to the ongoing development and evolution of the design, the methods overlapped and were not carried out linearly.

An initial completion of the qualitative research design assisted in clarifying and presenting the role of each component of this research. The initial process also formed a starting point for the exploration into existing research and ideas around self-sustainability.

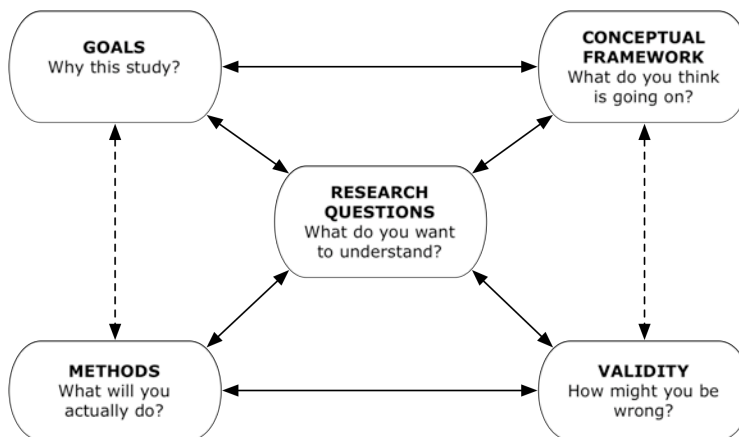


Figure 2.1. Maxwell's qualitative research design

2.2 Background study

The authors concentrated early efforts on sourcing literature to support and frame the research ideas. Due to the intangible nature of the ideas, the background review focused how to proceed further. Going through the qualitative research design described in section 3.1 was helpful to define the areas of focus of the research and look into applicable articles at the same time. Relevant articles and journals were found through a variety of search methods, including the local library database, the electronic journal database and web searches.

Key word searches included: consciousness and self-reflection, self-development, action learning, self and sustainability, self-culture, motivation, paradigms, societal transformation, presence, leadership, self-growth, self-renewal, leadership, leadership development, leadership training, education for sustainable development, self-actualisation, emotional intelligence.

This method was used mainly to answer the research question concerning how leaders develop and maintain their effectiveness. This is in direct relation to the development of leadership capacities of sustainability change agents.

2.3 Focus groups

Three focus groups were conducted to engage MSLS students in discussions exploring concepts and ideas emerging from the interviews (explained in section 2.4) and background review, receive feedback on the focus group delivery, and possibly enhance participants' capacities through a reflection activity.

2.3.1 Participant selection

The pool of potential candidates was composed of MSLS and Swedish Spatial Planning students at BTH. Focus group methodology advised grouping participants with something in common to make them more comfortable sharing personal views and experiences (Litosseliti 2003). Therefore, MSLS students were divided according to regional nationality.

Six candidate pools were created (Appendix 1). Personalized emails and a one-page description of this research were sent to each group. Individuals could elect to take part provided they met the following requirements:

- 1) Interested in exploring concepts of reflection, deep listening, the individual as a system, and their place with respect to agents of change and a sustainable future.
- 2) Comfortable discussing the concepts above in English
- 3) Little or no experience in the team building activity: The Leadership Field Dance and/or Hatha Yoga
- 4) Available for proposed date and time
- 5) Completed reflection activity

Resources and participant availability allowed for three focus groups, as detailed by Table 1.

Group	Region	Participants	Team Building Activity
Group 1	Brazil	Two women, two men	Field Dance of Leadership
Group 2	Europe, New Zealand, and Australia	Three women, three men	Field Dance of Leadership
Group 3	United States	One woman, three men	Hatha Yoga

Table 2.1. Focus groups

2.3.2 Design

Prior to the focus groups, participants were asked to complete a reflection activity (Appendix 2). They were invited to do the reflection activity at a weekly class meeting. Research participants were invited via email and details of the activity were also posted on a shared class calendar.

Focus groups were scheduled as follows:

- 1) 30-45 minute team building activity
- 2) 45-60 minute moderator guided group discussion
- 3) 30 minute lunch
- 4) 30 minute focus group feedback

One researcher moderated the discussion of the groups and another researcher was present as an “observer” to take field notes, as recommended by focus group literature (Litosseliti 2003). The authors recorded all focus groups with approval by participants.

The focus groups were guided by a moderators guide (Appendix 3), that described the introduction that participants were given, core questions to be posed, and supporting or redirecting questions. Focus groups were guided by the research questions in section 1.5, with the following additional questions:

- How does a better understanding of one’s own system enhance the work of a change agent?
- How do you create a space/environment to nurture change in individuals?
- What barriers in your life limit engagement in self-awareness activities?

2.3.3 Analysis

The first two focus groups were analysed by pulling significant points from the observer’s notes while listening to the recordings, then recording these points in a spreadsheet. This process was time consuming and therefore modified in following the iterative nature of the Model for Qualitative Research Design. The third focus group was analysed by listening once to the recording, reading the observer’s notes, and simultaneously composing the results section. Results of the focus groups are expressed in section 3.2.

2.4 Interviews

The second phase of the research process was spent designing interviews. Some sources used for inspiration and guidance in designing questions for the interviews included: a Theory U personal journaling activity, existing research on reflective style interviews, existing survey and interview questions, interview and focus group reference books, and the researchers’ inner knowledge. To support the research questions in section 1.5, objectives of the interviews were to discover:

- if self-development was essential to the effectiveness of sustainability change agents

- the current challenges and opportunities facing sustainability change agents
- the personal and professional practices and approaches of sustainability change agents

To best satisfy the objectives and allow for emergent style dialogue, semi-structured interviews were designed centred around three discussion themes: External Influences, Personal and Professional Practices, and Your Journey.

2.4.1 Interviewee selection

Potential interviewees were contacted in parallel with designing the interview format and questions. Interviewees meeting the criteria of successful sustainability change agents (Appendix 4) were contacted through referrals and personal and professional contacts. Approximately seventy potential interviewees were contacted with a goal of securing twenty interviews.

2.4.2 Design

Interviews were designed in two steps: a pre-interview reflection and the interview. Two corresponding documents were created: a pre-interview reflection exercise and guiding interview questions. The use of reflective, open-ended questions aided in soliciting personal answers. Interview questions were tested with BTH students and outside contacts. Modifications were made accordingly to satisfy the interview objectives. The pre-interview reflection can be found in Appendix 5 and the guiding interview questions in Appendix 6.

Interviews were conducted and recorded over Skype or telephone. Time permitting, each interviewee was asked to spend five to ten minutes on the pre-interview reflection exercise. Focus questions under each of the three themes guided the interviews. However, there was time and room for interviewees to share other information and stories within the overall context of the interview.

2.4.3 Analysis

After conducting interviews, the interview material was structured as guided by Kvale (Kvale 1996, 190). Main points were documented while

listening to the interview. Due to time and resource constraints interviews were not transcribed. Next, the interview material was clarified by eliminating any repetition or digressions. At this point the researchers also distinguished between essential and non-essential material, as guided by the themes and focus questions.

Condensation and deep listening were used to analyze the interviews. Condensation involves five steps. First, the researcher reads through the whole interview to get a sense of the whole. Since interviews were not transcribed, this step involved listening to the interview in its entirety to get a sense of the bigger picture. Once the entire interview is listened to, the interpreter groups what was said by the interviewee into “meaning units.” Third, the researcher states the theme dominating each meaning unit as clearly and concisely as possible. After drawing themes out of each meaning unit, the interpreter looks at each meaning unit again, but this time through the lens of the specific purpose of the study. The fifth step is another level of condensation, where the interpreter draws out the non-redundant and essential themes of all the meaning units. The researcher attempts to go through all of the above steps without prejudice (Kvale 1996, 194).

Analysis of each interview was performed by the two researchers that did not conduct the interview. The two researchers conducting analysis met to discuss the outcomes of their analysis findings. If different meanings were presented, the researchers either came to agreement through discussing the discrepancy or the differing interpretations were presented. Using multiple interpreters gives a certain amount of control and reduces subjectivity (Kvale 1996, 206). The use of two interpreters also enriches analysis by presenting and considering more than one perspective.

For the purposes of this research, deep listening was defined as hearing beyond words for an underlying or deeper meaning. Some trigger questions to guide this definition of deep listening included:

- What is the interviewee essentially communicating? What is the person really saying?
- What is the underlying meaning of this communication?

After individually analyzing the interviews, the three researchers met to explore and discuss common themes arising from the interviews. These are presented in section 3.3.

2.5 Validity

2.5.1 Background study

The background study for this research was non-exhaustive as limited resources allowed only a fraction of the literature available to be explored. Therefore, the researchers focused on leading edge concepts coming out of the fields of management and leadership development. Researchers reduced the influence of their personal interests through keeping a systems view and regularly revisiting the Model for Qualitative Research Design.

2.5.2 Focus groups

There were a few factors that may have biased the focus groups. First, participants self-selected, so they already displayed interested in the discussion concepts. Another factor influencing the validity of focus group outcomes was the skill of the moderator to objectively facilitate and of the observer to record. The design of the focus groups may have also biased responses, through creation of a relaxed, informal discussion space.

2.5.3 Interviews

The semi-structured design of the interviews made it difficult to control the order and flow of questions. Each interview took its own direction, allowing each interviewee to share points that emerged for them during the conversation. Another factor that influenced the validity of responses was the nature of posing personal, reflective questions that were not easily answered. An additional aspect that may have influenced the interview process and data is the skill of the interviewers. The three researchers were new to interviewing techniques and each researcher brought their personal style to conducting interviews. Whether the interview was conducted by Skype, phone, or in person may have also influenced the quality of rapport between interviewer and interviewee. However, having three different perspectives contributed to the validity of the interview process and analysis conducted in this research.

3 Current research in the field

The American College Personnel Association's (ACPA) Presidential Taskforce on Sustainability developed a specific definition of SCA (ACPA 2008). They have identified change agent abilities that are required to help create a sustainable future. In order to be a successful sustainability change agent, their findings show an individual should have:

1. Knowledge of the environmental, economic, and social issues related to sustainability (understanding);
2. A value system and self-concept to support and under gird the actions of a change agent (motivation); and
3. Change agent abilities (skills shown in the following table).

Resilient	Optimistic	Tenacious
Committed	Passionate	Patient
Emotionally intelligent	Assertive	Persuasive
Empathetic	Authentic	Ethical
Self-Aware	Competent	Curious

Table 3.1. Sustainability change agents skills

The necessary SCA skills are similar to ones recognized as leadership skills. The following section explores different approaches to develop and sustain leadership skills.

3.1 Leadership in organizations

According to Yukl (2006), leadership as a field of scientific study has been in a state of turmoil and confusion for decades. Nevertheless, substantial progress has been made in learning about effective leadership. As Yukl describes in an extensive review of leadership studies, the major findings from different lines of leadership research can be summarized as follows:

- The leadership situation
- Leadership behaviour
- Power and influence
- Traits and skills

The focus of this section is on the personal characteristics and attributes of leadership and what makes leaders effective and successful in their work. Table 3 illustrates some of the different leadership styles described by researchers over the last century. Many authors have identified two main styles of leadership in their research and have described the attributes of each as being more or less effective depending on the situation. In other cases, a particular style has been identified as more effective in adapting to many or any particular situation (e.g. servant leaders).

Different types of leadership styles
•The Bureaucratic leader and the Charismatic leader (Weber 1905)
•The Autocratic leader and the Democratic leader (Lewin, Lippit, and White 1939)
•The Task Oriented Leader and The People Oriented Leader (Fiedler 1967)
•The Servant leader (Greenleaf 1977)
•The Transactional leader and Transformational leader (Burns 1978)
•The Situation leader (Hersey, Blanchard, and Johnson 2008)

Table 3.2. Different types of leadership styles

Leadership has historically been associated with positions of authority rather than with the capacity of leading (Carlyle 1861). Today this distinction is understood as the difference between leadership position and leadership ability. As society developed, so did the perspectives on the concept of leadership. The need for authoritarian leaders has changed to become less formal and more oriented towards its informal aspects as the work and habits of man transformed (Knowles & Saxberg 1971). The distinction between classical and shared leadership is shown in Table 4 (Nemerowicz and Rosi 1997).

Classical leadership	Shared leadership
Displayed by a person’s position in a group or hierarchy.	Identified by the quality of people’s interactions rather than their position.
Leadership evaluated by whether the leader solves problems.	Leadership evaluated by how people are working together.
Leaders provide solutions and answers.	All work to enhance the process and to make it more fulfilling.
Distinct differences between leaders and	People are interdependent. All are

followers: character, skill, etc.	active participants in the process of leadership.
Communication is often formal.	Communication is crucial with a stress on conversation.
Can often rely on secrecy, deception and payoffs.	Values democratic processes, honesty and shared ethics. Seeks a common good.

Table 3.3. A distinction between classical and shared leadership drawing from material in Nemerowicz and Rosi (1997).

The shared and informal aspect of leadership has become an important focus of current leadership literature. In their continuous work on leadership development based on a survey of over 75 000 leaders, Kouzes and Posner (2007) have identified what constitutes the common perception of leadership qualities. Their work shows that most people feel leadership is centred around 4 qualities – honesty, forward-looking, competent, and inspiring. They also insist that leadership can be learned; that it is not about charisma and innate talent. They focus on the importance of credibility and have developed a model to help individuals become better leaders. The model consists of 5 practices:

- Model the way
- Challenge the process
- Encourage the heart
- Inspire a Shared vision
- Enable others to act

Other authors also suggest that leadership capacities can be developed and that individuals can increase their leadership effectiveness through practices and learning activities. This is not only applicable to those occupying leadership positions but also to those helping and supporting others through processes of change such as strategic sustainable development.

In the Avastone Corporate Sustainability Study mentioned in section 1.4, leadership was categorized into two parts: “translation” and “transformation.” Translation is a leader’s ability to communicate or frame the sustainability message so others understand it from their mindsets or points of view while at the same time enhancing the leader’s own capabilities to take effective action. Transformation is about the potential of leaders to develop their perspectives and capacities. A key finding on

transformation was that exterior changes such as sustainability activities are direct reflections of the interior mindsets and abilities of the parties involved in the initiatives.

This idea of inner world reflecting the outer is discussed from a slightly different perspective in the book *Leadership Agility*. It presents and discusses the inner characteristics that contribute to agility, or the ability to adapt again and again to constantly changing conditions. It states that the importance of a leader's agility "is directly analogous to organizational agility. It's the ability to take wise and effective action amid complex, rapidly changing conditions" (Joiner and Josephs 2007, 6).

A Harvard Business Review article, "Seven Transformations of Leadership" boldly takes the stance that "leaders are made, not born, and how they develop is critical for organizational change" (Rooke and Torbert 2005, 1). Similar to what is said by *Leadership Agility* and the ACSS, this article explains that leaders who "undertake a voyage of personal understanding and development can transform not only their own capabilities but also those of their companies" (Ibid, 1). It further adds that those willing to embark on this voyage of development can ameliorate their ability to lead. The following section explores the developmental aspect of leadership and highlights some of the barriers that individuals seeking to become more effective must overcome.

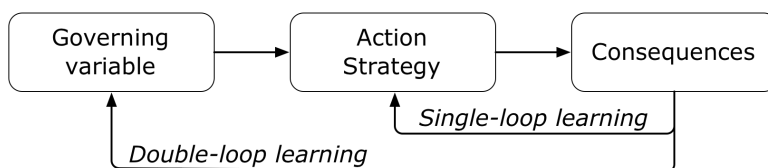
3.2 Leadership and professional training

The success of leadership and professional training efforts has been linked to three variables: trainee characteristics, training design, and work-environment factors (Baldwin and Ford 1988). These three variables greatly differ between individuals, organizational contexts, and cultures within society. Therefore it is highly recommended to consider these variables in their context as a way to increase the quality of leadership capacity building when designing leadership development training. The focus of this research is mainly on individuals' characteristics but also looks into the others aspects as they are interrelated when it comes to increasing effectiveness and leadership capacity.

Different psychological assessments and insights about what constitutes professional effectiveness and effective leadership, personal fulfilment and improved teamwork have been around for a long time. New approaches and

theories are developed every year, mostly looking into personality traits and how they differ among leaders and individuals. For example, assessments of people's type (MBTI, Enneagram), career preferences, teamwork ability, leadership, interpersonal or learning style are common approaches to help people understand their own and others' preferences. All these approaches inform individuals about their capacity to fit the context and task at work and read and interact with people who have different preferences and styles.

Another aspect of professional and leadership effectiveness is the developmental stages of a person. This aspect is sometimes more important than identifying different personality types and preferences when it comes to capacities to lead and excel in a teamwork environment (Cook-Greuter 2004). Early supporters of organizational learning brought the concept of mental models to the field of management (Argyris and Schön 1974). They proposed a two level approach to adult reasoning, consisting of Model I and II. Model I has been identified as inhibiting double-loop learning, or the capacity to question and eventually transform the governing variables that drive an individual's action strategy (see figure 3.1). Model I as been described as being predominantly competitive and defensive (Dick and Dalmau 1990). The orientation and practice of Model II fosters double loop learning and can be seen as dialogical. Model II combines advocacy with inquiry (Argyris and Schön 1996). This reasoning has been argued to be better than Model I and more adequate in dealing with complexity and continuous change.



*Figure 3.1. Single-loop and double-loop learning
- adapted from Argyris and Schön (1974)*

Senge introduced another two-level model which distinguished between conventional linear thought and system thinking (Senge 1990). This distinction resembles Argyris and Schön's in many ways. Both Model II and system thinking emerge after Model I and linear thought have been mastered. Both Argyris and Schön and Senge make the case for the development of professionals towards more complex modes of thinking.

They argue that the more complex modes of thinking provide better behavioural flexibility and reasoning capacity than their predecessors.

Goleman's work regarding emotional intelligence also differentiates between individuals' levels of competence and capacity to be self and socially aware (Goleman 1995). He has identified that some people are more aware of their own behaviour and more artful at dealing with their own and other's interior landscapes. It is argued that emotional intelligence increases an individual's ability to manage relationships and themselves effectively. It consists of four fundamental capabilities (Goleman 2000):

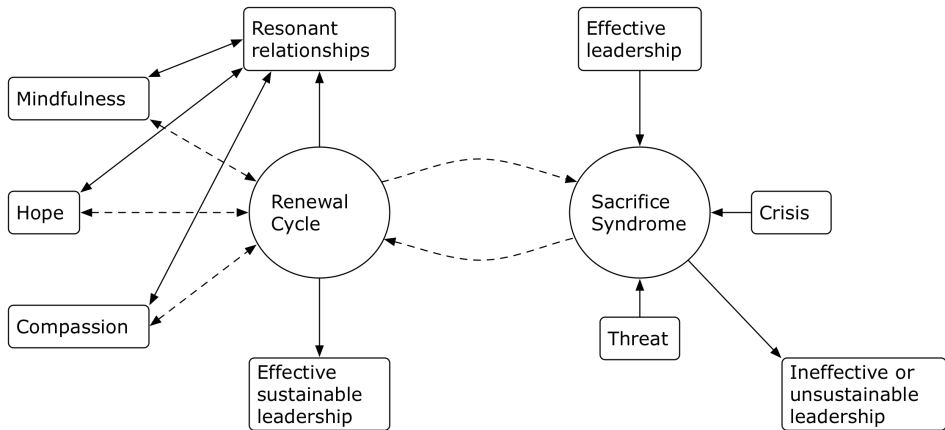
- Self-Awareness
- Self-management
- Social Awareness
- Social Skills

Goleman's research found that leaders use six styles, each stemming from different levels of emotional intelligence. These six styles have different impacts on an organization's climate and thus its performance. An individual's capacity to manoeuvre between these styles as necessary can greatly influence their leadership effectiveness. Among the six styles, four of them (shown in bold) have been identified in enabling the best climate and organizational performance. More in depth explanation of each these styles can be found in "Leadership that gets results" (Goleman 2000).

- Coercive
- Authoritative**
- Affiliative
- Democratic**
- Pacesetting
- Coaching**

3.3 Barriers to effectiveness

Based on the work of Goleman on emotional intelligence, Boyatzis and McKee (Boyatzis and McKee 2004) highlight how "resonant" leaders employ emotional intelligence to create effective teams and positive organizational culture. They argue that such resonance can be exhausting to maintain and that even outstanding leaders can become dissonant or ineffective under the pressure of chronic organizational stress. Their research highlights the Cycle of Sacrifice and Renewal, which demonstrates how a leader can sustain resonance and effectiveness, as shown in figure 3.2.



*Figure 3.2. Cycle of sacrifice and renewal
 – adapted from Boyatzis and McKee (2004)*

The Cycle of Sacrifice and Renewal addresses the constant balance that leaders need to preserve in order to sustain their effectiveness and reduce the risk of getting trapped in the Sacrifice Syndrome. If not consciously and appropriately dealt with, this trap can be a vicious circle leading to mental and physical distress and a consequent decrease in effectiveness. Therefore, Boyatzis and McKee argue that leaders facing the complexity of today’s organizations (as described in section 1.1) need to maintain their effectiveness through a constant cycle of renewal. It is also demonstrated that successful leaders have developed these abilities as a way to cope and thrive in the current reality of increasingly complex business and organizational operations.

3.4 Levels of attention

Scharmer’s work regarding the blind spot of leadership serves to highlight the different places from which individuals can choose to operate from (2007). His extensive research concerning the source of leadership elucidates four structure of attention that individuals can choose to operate from and learn to master as they practice them. These structures of attention are referred to as levels of listening from which individuals perceive reality and act upon it. Following is a brief description of each level of listening that Scharmer describes:

- The first level of attention is called *downloading* and it is guided by patterns of the past. It refers to individual habits of thought and judgement. At this level, the source of attention originates from the individual's own internal organization consisting of previously gained knowledge. No new knowledge is gained at this level as everything being perceived is filtered from past experiences and ways of seeing the world.
- The second level of attention is called *factual listening* and it is guided by noticing the difference between previously gained knowledge and disconfirming data. In this case the source of attention originates from the periphery of ones own organization as it brings new information and perspective to already gained knowledge.
- The third level of attention is called *empathic listening* and it is guided by observations from outside an individual's own organization. This type of attention represents an important shift from the place individuals operate in compared with the two first levels of listening. At this level, an individual sees themselves taking part in the system and sees the dynamic influence exerted from both entities (the individual and the system). In this case the source of attention originates from the situation the person is attending to.
- The fourth level of attention is called *generative listening* and it is guided by the observation one can make when attending from the emerging whole. This capacity of listening differentiates itself from the others as it brings a shift in identity and self. At this level, someone can see from the future wanting to emerge. In this case the source of attention originates from the emerging whole that the person is attending to.

As Scharmer describes, to master these levels of listening individuals and groups of individuals need to develop self and collective practices that enhance their structure of attention. He argues that these four levels of attention can be practiced at the individual, interpersonal, institutional, and even global level. Figure 3.3 illustrates the structures of attention (row), which according to Scharmer, determine the path of social emergence in all four *meta-processes* (columns) of the social fields.

Field Structure of Attention	Micro: THINKING /LISTENING	Meso: CONVERSING /LANGUAGING	Macro: ORGANIZING /STRUCTURING	Mundo: Mechanism of COORDINATING
Field 1: Operating from the old me-world	Listening 1: Downloading habits of thought	Downloading: Talking nice, politeness rule-reenacting	Centralized: Machine bureaucracy	Hierarchy: Central plan
Field 2: Operating from the current it-world	Listening 2: Factual, object-focused	Debate: Talking tough rule-revealing	Decentralized: divisionalized	Market: competition
Field 3: Operating from the current you-world	Listening 3: Empathic listening	Dialogue inquiry rule-reflecting	Networked relational	Dialogue: (mutual adjustment)
Field 4: Operating from the highest future possibility that is wanting to emerge	Listening 4: Generative listening	Presencing: Collective creativity, flow rule-generating	Ecosystem Ba	Collective Presence: Operating from the emerging Whole

Figure 3.3. Structure of attention

SOURCE: C.O. Scharmer

From this perspective, Scharmer argues that to address today's major societal challenges, extending the ways of operating across all system levels is necessary. This means moving from Fields 1 or 2 to Fields 3 or 4 across all four *meta-processes*: Micro, Meso, Macro and Mundo.

This practice can start with developing the four ways of listening mentioned above at the individual level. In other words, if more individuals practice listening 3 and 4, the ability to influence the meso, macro, and mundo level to Fields 3 and 4 increases. The question then becomes how to increase these capacities at the individual level. Scharmer has developed a social technology called *presencing* to help in moving from Field 1 or 2 to Field 3 or 4 ways of operating. This technology will not be addressed as it is out of the focus of this research.

Scharmer also points out barriers that individuals need to face and overcome to be more effective and creative in their ways of working. He talks about the voice of judgement, the voice of cynicism, and the voice of fear as interior complexes that reduce the abilities of individuals and groups to fully practice the four ways of listening that he developed in his work on Theory U.

4 Results

This section presents a summary of the background theories presented in section 3 and results compiled from focus groups and interviews. Section 5 then discusses the implication and relevance of the results as related to the research questions in section 1.6.

4.1 Key findings from current research in the field

The first idea presented in the current research in the field section was that many types of leaders have been presented in the field of leadership. The field has seen a progression and evolution from an authoritative leader to leadership that is shared and more informal. The next section presented evidence for increasing leaders' behavioural flexibility and reasoning capacity to deal with complex situations through training. The third main point presented was about supporting and maintaining sustainable leadership, or a leader's ability to sustain and renew their energy. The last section presented the different structure of attention and their importance in moving towards a sustainable society. The following table illustrates the main findings from the background study detailed in section 3.

Main findings	Details/rationale
Leadership skills and capacities can be developed and learned.	Trough practices, disciplines and experiential learning processes, individuals can improve their leadership capacities.
Emotional intelligence is a key factor for effective leadership	It increases an individual ability to manage relationships and themselves effectively. It includes these four characteristics: Self-awareness, self-management, social-awareness and social skills.
New leadership focuses on processes, communication, dialogue and inquiry	These abilities have been shown to be more adequate in dealing with complexity and continuous change
Systems Thinking and multi-stakeholder approaches are key to deal with the current	These ways of thinking offer better behavioural flexibility and reasoning capacity for dealing with the emerging complexity that leaders face

complexities	today
In order to sustain leadership effectiveness and continuous change, leaders need to renew their own energy and the one of others around them	By engaging in resonant relationship leaders can renew their energies by sourcing renewal into mindfulness, hope and compassion.
Leaders can make conscious choice of the place from which they operate (level of attention)	Leaders can choose to listen from the past or from the future that wants to emerge. This capacity can greatly influence leaders to make the right decision at the right moment.

Table 4.1. Main findings from research in the field of leadership

The following section describes the results from the focus groups the authors facilitated as a way to explore the challenges, opportunities, and personal and professional practices of students from the Strategic Leadership Towards Sustainability Master’s programme.

4.2 Focus groups

Three focus groups were conducted with MSLS students, as detailed in section 3.3.1. The results are presented by discussion topic. Due to the amount and detail of information gathered, thoughts and ideas that emerged across all groups are presented.

4.2.1 Pre-focus group reflection

The pre-focus group reflection was completed by most participants at a weekly MSLS club meeting. One of the researchers was present to introduce and explain the activity to participants. Participants were asked to take thirty minutes to reflect on the questions posed to them (Appendix 2). Participants unable to attend the meeting were given the activity and asked to complete it prior to attending the focus group. The pre-focus group reflection was revisited at the beginning of each focus group.

In general, participants considered the self-reflection questions challenging and not simply answered. Reasons included taking more than thirty minutes to get to true answers, the difficulty in asking “why” questions and that it might be more useful to let things emerge than to ask why. Some participants contributed:

“I struggle with self-reflections. It’s hard to define the bigger picture aspect.”

“I am over sensitized to this type of activity, I was deeply involved in a spiritual group with weekly meetings where we talked about these questions a lot...to the point of answering from memory...self-reflection is well known territory, is there a next step?”

“What came to my mind a lot was my family, a lot related to family and friends how they influenced me to do whatever I want.”

One participant stated that a reflective activity could either be used to justify what you do or test if you are being true to yourself. Another participant felt he was not doing enough and that he could do more. While reflective questions were not new for participants, most enjoyed the opportunity to discuss them and found both the questions and discussion valuable.

Another participant shared, *“I haven’t got a plan of where (life) is going, do people know exactly how they’re going to do this to get there? I don’t follow the framework (FSSD); I haven’t got a plan in my life as to where I’m going. It’s based on happiness, as opposed to success.”*

It was discussed that not following a vision might indicate comfort with change, *“like a vagabond.”* A participant proposed the idea of people needing a vision to help them fulfil qualities in themselves and that maybe visioning was a way of fooling themselves while always being driven by external forces.

4.2.2 Self-sustainability

When participants were asked how they worked towards self-sustainability or balance in their lives the ability to quiet the mind emerged as a key capacity and practice. A few participants talked about how to quiet the mind before bed and expressed that it was very individual.

A participant shared the metaphor of opening and closing his window; ‘opening’ his window to interact with the world and going between opening and closing to keep ‘balanced’. Knowing what renews your energy and takes you out of balance was identified and that this awareness was very different for every individual.

The issue of reflecting upon one's life too much arose frequently and seemed to hinder participants' self-sustainability. On that, a participant expressed the value in both joy and sadness and that she felt out of balance when she could not understand her sadness and learn from it. To do things you like, see the good things, and learn from them was important to another participant. Another participant spoke about keeping equal "output with input" in terms of reading, writing, and physical activity.

One participant remarked that others observed him as balanced, but that he had a hard time stopping and doing nothing or "doing less." This was echoed by another participant, who said she practiced balance "poorly, I want to take every opportunity I have which in fact decreases my happiness." The opposing perspective was shared by a participant who felt he was able to do nothing too easily, that he needed to be pulled to do work, and would like to find that "push" within himself.

- *"The more your life is in control the more balance you feel you have. With commitments you give up some of that control, your self-sustainability changes because it involves others...it goes beyond your control – that's exciting"*
- *"I've come to define my self-sustainability as meeting minimum requirements for survival...there are periods when I'm more aware of how I eat, the sports I play, and when I'm more capable of having relationships with the people around me, it comes and goes and I think I'm on the right track, I just keep telling myself that"*
- *"Maybe we should consider it to be more than meeting minimum requirements, it is more like walking the talk, sometimes I judge myself and wonder if I could do more"*
- *"Changing behaviour takes a lot of time, the more I am aware the more I push myself (to change)"*
- *"People who are aware of these issues (self balance and unbalance) are less likely to take action because they feel a sense of defeat"*

Participants were asked how they worked to understand their individual systems. A number of participants did not work to understand themselves, as shown by the following quotes.

- *"I don't take enough time out to understand myself"*

- *“If I had more time to reflect, I fear it would bring more questions...I don’t focus on the system very much, I have a very happy lifestyle”*
- *“I’m really deep into the reflection stage, but it’s not to do with understanding the system”*
- *“When I was younger it was more intuitive – understanding myself - ... it became more complicated and more trial and error”*

A common method that enabled MSLS change agents to better understand their own system was through challenging themselves in a variety of ways. This idea was echoed in challenging and exercising your system to know what you are still capable of. Having the ability to turn a difficult situation into a learning opportunity was what enabled participants to move forward from a moment of loss or deep pain. Participants found the capacity to be aware of their state important in enacting positive change within themselves. Other responses included challenging yourself, stepping outside of yourself to analyze your own feelings with a goal of being happy, being open to learning, quieting the mind, interacting with others, and putting yourself in another’s shoes.

The discussion in one group moved on to how to enact positive change within yourself. Participants felt that experiencing moments of crisis, uncomfortable situations, and extreme challenges enabled them to change or see how they had changed. To motivate himself in a challenging situation when he feared failure, one participant would pretend he could already do whatever the situation demanded of him. Another participant felt her young age enabled her to challenge herself and risk failure at a time when the consequences in her life were not as large as they would be later in life. A question of how to ensure learning from these experiences was asked. One strategy shared was to acknowledge the situation, accept it, and make a meaningful conversation about it to close the learning loop.

4.2.3 Listening

When asked about how they listened to themselves, all groups expressed a need to be alone with their thoughts either through silence, speaking, or writing. A few participants talked about the ease of engaging in these listening activities when there were many people around. Examples of concerts, parties, and city squares were provided.

Groups felt that the capacity to stop and ask “is this what I want/need to be doing?” enabled them to listen to themselves. The metaphor of the window arose again with one participant ‘opening’ his window to listen to others and ‘closing’ his window for 30 seconds to listen to himself before deciding if an event would contribute to his ‘self-sustainability.’ More discussion followed around the window metaphor. A participant felt she would at times get caught in reflection when opening and closing her window and stop listening to someone.

To listen to others, all participants expressed that they first needed the intention or want to listen. This idea of genuinely wanting to listen was based on trust. The feeling that MSLS students did not access their openness and trust in each other was expressed, adding that the opportunity for feedback was not taken advantage of enough. Participants also discussed about listening more when the other person speaking was authentic, or had meaning and passion behind their words. Another participant said that she tried to be fully present with her heart when listening to others.

It was discussed that everyone had something valuable to offer, but that participants did not apply this idea to listen to themselves enough. Adding to that, one participant felt it easier to listen to others than to listen to himself. Other ideas for listening to yourself and others included:

- *“Talking to someone else helps, when they aren’t re-loading but really listening”*
- Getting your imagination going
- Motivating yourself from hope rather than fear
- Having meaning behind words

When participants were asked about how they worked to see the whole picture and different perspectives within it, the idea of making yourself see something else arose. One participant shared, “If I get stuck, I find things that inspire me and I look at the same things, but try to see (in it) things I haven’t seen” while another contributed, “I go into nature and I imagine, I travel in my mind.” One participant would “search the internet to read about people’s perspectives, critics of books etc.”

Others talked about putting themselves in other people's shoes and experiencing how other people live. Some participants felt this was an intellectual exercise and did not bring understanding of experiencing the perspective yourself. One person expressed the impossibility of experiencing everything to have complete understanding but that you could attempt to understand with time.

Understanding what is fixed and flexible in the whole picture to then ask and frame what we agree on also arose. This idea was expected as it reflected 2 core concepts of the MSLS programme: understanding the system you are working within and finding what can be agreed on to move towards a common vision.

Other contributions centred around acknowledging and understanding diversity, whether through looking for another way of thinking if you don't understand something, asking questions to get enough perspectives to see the whole, or valuing how others do things successfully in the everyday world. The question of whether or not it is good to reflect arose.

"I wonder, is it (self-reflection) fantastic or is it a curse? Who really understands the philosophy of life? Us who are sitting around here philosophizing about it or people who are out there working in the field every day so they can put dinner on the table? While we're working so hard to understand the system, they're just being the system."

"I was put in counselling for a while and the reflection got too intense and I asked too many questions and I got to a low point...I'm very aware of not reflecting too much...I ask people to give me their feedback"

Another participant doubted in the value of reflection and now related reflecting to learning. This participant had previously sought learning by travelling around the world, and now saw education as making an official study of the journey inside her. She shared that the difference between sitting and talking about the system and acting as a part of the system, was having the choice to ask "is this what I want to be doing?" In response, one participant expressed that he felt a part of the world when he stopped to see the whole system, for example the solar system.

"I got the same sensation from Obama as I did from Hitler, these guys are truly passionate about something and that is what I think is lacking in a lot

of people's lives is passion...it desensitizes what existence really is these days, I think we've distanced ourselves from what life is all about."

4.2.4 Reflection on seminar

Participants were asked to reflect on the entire focus group discussion and to share what they felt was the most important part for them. All groups appreciated the opportunity to share and interact in a unique and meaningful way. Being reminded that learning comes from others, the opportunity to find common understanding, and to share with others were also significant aspects for participants. Another key reflection was the value of taking the time to stop, have a break, talk about relations rather than content, and get to know others through a different set of questions. Participants valued talking "on" questions rather than seeking conclusions, taking time for reflection, and the process itself. As one participant reflected,

"(we're) not really having a discussion, it's far more in depth, it's more of an effective and compassionate way of reviewing something...it could create a completely different way of understanding...that we wouldn't otherwise have in the pub; a completely different level of thought and if we're already in a different plane of thinking, a deeper way of thinking, then it's seeing how you can actually harness that and develop on that on a pretty fundamental level."

The majority of participants thought the non-traditional space created was an important feature of the focus groups. Several participants expressed the need to have more of these spaces created in the MSLS programme. None of the participants had anything to share when asked if anything had been missed. Some explained having no initial expectations and that it was nice to have someone else run the show. Several participants expressed interest in reading the final presentation of synthesized results.

An email was sent thanking participants and asking for feedback. Five participants responded and their thoughts are presented in Appendix 7.

4.2.5 Key findings of the focus groups

- Methods for self-development and self-assessment shared are very individual
- Self-reflection is valued, but challenging

- Focusing on process rather than goals help going deeper in the matter a stake and improve the quality of conversation
- Finding self-balance implies knowing yourself and being aware of your needs
- Difficult situations are opportunities for learning and growth
- Listening to yourself and others takes time and resources

4.3 Interviews

The 19 interviews conducted provided a wealth of knowledge and insight from which to present results. For ease of reading and presentation, results are presented in three areas (Refer to Appendix 6 for the specific interview questions):

- External Influences and Support Systems (Current Reality)
- Approaches and Methods (Strategic Guidelines)
- Life Journeys

4.3.1 External influences and support systems

Challenges: Eight challenges facing sustainability change agents were: Time, The Complexity of the Sustainability Message, Lack of Capacity, The Current Paradigm, Resources, Information Overload, Leverage Points, and Finding Self-Balance.

Time - Six change agents spoke about urgency, too much demand, or not having enough time. Of the six, one spoke about the high demands on her time to participate in volunteer events. Another expressed the same idea with an extra aspect: difficulty saying no as she felt it went against the charitable nature of sustainability work. Another change agent echoed this idea by speaking about the abundance of opportunities she could not capitalize on. Another talked about the increased demand for practitioners in her field of work. Three spoke of the urgency to take positive action.

The complexity of the sustainability message - Five change agents considered the complexity or unattractiveness of the sustainability message a challenge for them. One change agent spoke about the challenge in getting people's attention when delivering her message. Another talked about the need for broader communication or language around sustainability. Another felt the package or message of sustainability was

unattractive and a challenge to communicate effectively. Another change agent echoed this idea and talked about the bad reputation of sustainability, as the cousin of the environmental movement, which she felt had put greater importance in our physical environment and taken away from humans' self-love.

Lack of capacity - Five change agents referred to challenges around people's current capacities or lack thereof. One change agent talked about people not seeing the bigger picture. Another expressed a challenge around the lack of good people with whom he could take advantage of opportunities with. A challenge presented by another change agent was the lack of confidence in individuals to make sound decisions: *"People need to understand why there is a need to change behaviour and secondly they have to have the competences and confidence to do things differently."* Another change agent spoke about sustainability being a challenge around building the capacity in people to change. Another spoke of the challenge of using empathic communication, on a personal level and between people in society.

The current paradigm - Four change agents talked about the challenge of operating within current structures or paradigms of thought. One change agent saw the challenge of businesses that felt they were doing well and contributing to society by going about business as usual; she spoke of the added challenge of getting these companies to understand sustainability as a radically new approach. Another change agent spoke of the challenge of going against the current, mainstream view. Another talked about the challenge of delivering his message to short-term, shareholder centric audiences. Another spoke about the challenge of doing his work within current unsustainable social structures.

Resources - Four change agents spoke about resource-related challenges. One change agent said there was a lack of funding. The same change agent said there were more initiatives to start or organize than there was funding for; she would know exactly how to effectively put a million dollars towards moving our society towards sustainability. Another spoke about the challenge of paperwork and administration. She expressed the tradeoff between the time it took to secure attendance at certain events or make connections with influential organizations and the effectiveness and difference of her effort. Another change agent expressed not being able to

focus on the areas she is most effective in due to a lack of assistance in completing support activities.

Information overload - Three change agents gave responses centered on the amount and range of sustainability-related information. One change agent said there was simply too much information and that “*detail is beginning to blind us to the headlines.*” Another spoke about the breadth of sustainability as a field and managing to keep your bearings. Another spoke about getting overwhelmed by the continuous information stream and developments of the field.

Leverage points - Three change agents saw challenges around where to be most effective in their work. Two of these change agents asked themselves if they were working in the most leveraged areas. The third change agent saw a challenge around finding entry points to build collective confidence.

Self-balance - Three change agents saw their own sustainability or balance as a challenge to accomplishing their work. One change agent was concerned about delivering a low carbon message and was working towards this through an increased use of conferencing and virtual meeting technologies. Another spoke about the balance between maintaining her own balance while accomplishing enough. Another spoke about remaining positive and able to continue her work when there was always more to do.

Opportunities: Five themes emerged as important factors helping change agents accomplish their work: Experience, Meaning, Overview, Resources, and Support.

Experience - Direct experience working in the sustainability field or an accomplishment, such as writing a book helped change agents accomplish their work. Two change agents drew confidence and motivation from seeing the results of their work. In the case of one change agent, experience built his confidence to bring forward difficult or sensitive issues around sustainability. For another, the recognition from authoring a number of books gave credibility and weight to the message he imparted to business audiences.

Meaning - Four change agents felt a major factor helping them accomplish their work was the meaning, purpose, or value behind it. One change agent believed her passion and belief helped her accomplish what she was doing. Another spoke about the meaningful purpose of his actions helping him

accomplish his work. Another talked about his work aligning with his personal evolution and values.

Overview - Four change agents spoke about the importance of having a vision or overview of the work they were involved in helping them accomplish their purpose. One change agent highlighted the importance of keeping an overview or whole systems perspective of your effort while working on the details. One spoke of the importance of keeping the big picture in mind when sifting through information. Another saw the importance of having an overview or vision to be strategic in his work.

Resources - A few interviewees referred to resources helping them accomplish their work. One change agent credited two specific resources as important factors helping her accomplish her work. First, technology for helping her stay organized and second, an email information service that helped sift through the overwhelming information around sustainability. One change agent also talked about the importance of access to information. Another talked about how adequate financial resources helped him accomplish his ventures.

Support - Seven change agents talked about the importance of people, their team, or communities helping them accomplish their work. Of the seven, three credited a supportive team or the people in their organization as helping them accomplish their work. One person talked about having a team that nurtured an environment of co-creation. Another change agent talked about the importance of working as part of a larger team, in a “sustainability hotbed” community. Another saw the importance of belonging to a community that depended on her contribution. This same change agent credited her mentors in helping her accomplish her work. In addition to being one of the factors helping change agents accomplish their work, interviewees were specifically asked about their support networks in an effort to understand the programs and resources currently available to them.

Support and resource networks: Interviewees were asked whether they had a life coach or mentor, about their support networks, networks or organizations they were part of, and resources available to them for personal and professional development. Some change agents did not have any mentor while others had one or several. From the change agents with mentors, some expressed their mentor as someone that gave them support or push. Others saw their mentors as providing inspiration or pull. Long-

term relationships repeatedly came up. A few change agents felt the cumulative stream of inspirational people in their lives served as a source of mentorship. Two clearly stated they had no mentor. Two other change agents named their wives as their mentor and source for pursuing much of their work. Another described being pulled forward by her sustainability community mentors while being pushed and supported by her husband. Several change agents were part of informal support groups; one had been meeting with a group of colleagues from grad school for the last fifteen years, another had a mix of friends that would gather to talk about life, and another received support from two inspirational women she regularly met with. Most spoke about family support, including their partner, children, or grandchildren.

Several found support through groups of their colleagues. Three spoke about organic support networks, made up of interconnections between people they had met along their journey. Another spoke of an ad hoc or just in time network; he would reach out and connect with his pool of contacts built over years of experience as needed. Another change agent drew inspiration from sharing approaches with a group of professionals in her field. Sharing with her colleagues made her feel connected and that she was not alone in the pursuit of her work. There was a desire from one change agent for a network of women in executive positions. Another change agent considered her personal assistant vital to her support network as she freed up time for thinking and to spend time with her children.

Several change agents credited sources of information as part of their support network. One talked about the importance of keeping a clear picture of the current reality to engage people where they are at. It was important to grasp the ever-changing reality to effectively engage clients. Two change agents had created ways of staying current; one kept a document of relevant news; another kept a document of key points from the books she and her business partner would read. Another subscribed to a daily information service that she found useful in staying up to date.

The change agents interviewed were regular readers. Most were not able to name just a few books that contributed to their development. They felt their learning was a product of many different books on many topics. Responses here covered books ranging in topics. We have listed the books mentioned in Appendix 8. Three change agents spoke about the importance of speed reading, or being able to skim a book for relevant concepts and information.

The large amount of information and speed at which new information was generated related to sustainability was repeatedly discussed.

Overall, change agents did not proactively participate in conferences, but instead attended the ones they were invited to. One change agent also mentioned taking advantage of learning opportunities at conferences she attended. Another change agent admitted not being proactive in her self-development. This same change agent would at times sit in on classes at a nearby college she sometimes taught at. Another change agent spoke about attending the TNS Stockholm journey for the first time this year. Another saw her self-development as learning to make the most of her abilities and developing them from there.

4.3.2 Approaches and methods

Before being asked about the methods and approaches they used in successfully pursuing their work, change agents were asked to describe the heart of their work. Many responses centered on taking the necessary steps in time. One change agent said urgency was at the heart of his work. Two change agents spoke about execution; one talked about taking action, the other spoke about making it happen. Another saw despair and whether we would change in time at the heart of her work. Several change agents described their work having to do with passion and belief. One change agent saw himself as a passionate life participant, another felt passion and the meaning of asking why we are here were at the heart of his work, and another saw belief in each individual as a change maker.

Another idea at the heart of sustainability change agents' work was supporting, facilitating, or helping create change. One change agent spoke about her role in supporting people to act and find confidence. Another talked about supporting others in becoming self-sufficient. Another saw training and supporting sustainability champions in organizations at the heart of his work. One change agent spoke of her role in facilitating people to *“break free from the habits that you're in and reshape and morph to adapt to what's happening in your environment?”* Another change agent echoed this idea; her role was facilitating to *“give people a sense of perspective and encouragement and support.”* She would help clients by presenting them with an empowering perspective of their own life.

Change agents were asked about approaches and methods that helped them focus, be effective, and pursue their work. They were also asked about their

sources of energy, drive, and inspiration. A balanced life helped sustainability change agents pursue their work. Of the change agents paying attention to their self-balance, approaches included connecting and laughing with friends and recharging in areas outside of work, whether through art, music, sport, or reflection. Due to her emotional attachment to work, one change agent expressed needing to set time aside for thinking outside of her regular routines. It is interesting to note that several change agents did not speak about personal balance but clearly communicated a lack of it through their stories. Another idea expressed in keeping self-balance was having a strong relationship with yourself in order to listen to and apply your inner knowledge and protect your paradigm. Others spoke about exploring, connecting with, and listening to themselves. Another echoed this idea, speaking about the importance of being your authentic self.

Being open to continuous learning came up many times. A change agent spoke about learning as a journey *“cumulative and iterative throughout life, you have to be open to it, it’s actually learning really, being sort of open to be able to have new insights, new thoughts, new learning.”* Another commented on openness, suggesting operating from the source of life, the heart. Another spoke of the importance of building on your learning *“because there’s no point in having a thousand experiences of the same thing; you need to have a thousand experiences that build one on the other and learn from your experience.”* Another spoke about learning as a practice that happened through sharing and explaining; another talked about living or experiencing a theory as a form of learning. Another commented on the importance of learning where you get inspiration.

Change agents credited their families, business partners, students, and any developing relationship as sources of inspiration. One change agent felt her business partner provided support and stretch. Another change agent gave and received inspiration from his students. Many change agents spoke about service and connection to a greater cause. One felt motivated by the connection with the Earth that her work brought her. Others described similar drives: being at service to the greater picture, working towards betterment of people and humanity, nurturing self-love for humans, and feeling responsible towards future generations.

The ability to listen, coach, connect, and meet people where they are at came repeatedly out of the interviews. This idea was described in a variety of ways. One change agent talked about the patience and discipline required

of her to meet people on a blank page: *“to actually coax them through as fast a learning curve as possible so that they feel that they did it themselves – so that means sort of biting my tongue a lot, being more subtle in the way I contribute to teams or partnerships.”* A few change agents talked about deep listening, a concept explained as listening for underlying or deeper meaning. This idea was also described as coming alongside people and finding catch points to bring people along with you. One change agent would assess the motivations of the person in front of her to personalize her sustainability message. Another perspective related to this approach was connecting and caring for people: understanding connections and that we are all the same, being mindful of the balance between talking and giving others the lead, and giving space for others to create and contribute.

Co-creation was a recurrent approach suggested by sustainability change agents. There were several perspectives presented around this idea. One change agent presented language as something living and shared which facilitates people meeting each other in a space of common intention. A shared intention, she explained, facilitates a focus on creating together rather than competing to create alone and reinforce individual egos. Another idea was sharing what unites us by going deeper to strip away self-hindrances, finding the essence before adding subtleties, and communicating the source or core of a message that all parties can agree on.

Many processes and methods came out of the interviews. Two change agents said writing a book had acted as training in presenting critical aspects of an idea. Another interviewee would conduct a scoping study for clients, which included a SWOT analysis (strengths, weaknesses, opportunities, and threats) and benchmarking by looking at best practices and current lessons. The gaps between the benchmark and scoping study were then addressed in a strategic plan through the use of appropriate tools. This same interviewee would act “as if,” acting as she already had the skill or characteristic required to accomplish the task in front of her and open all possibilities. Another change agent and her business partner held yearly think tanks to boost creativity and further their personal learning. These same business partners would seek out opportunities to teach and use experiential teaching methods to relay their message. Another participant used storytelling in her speeches to engage her audience.

4.3.3 Life journeys

Interviewees shared a wide range of stories when asked about the events, moments, people, and themes along their journey. Although the stories were personal to each of their life journeys, there were a few common themes that arose. A significant number of interviewees experienced an event that brought awareness of one or several aspects relating to the sustainability challenge. This new awareness or understanding seemed to create a shift in the change agents' perspectives. One change agent described the resulting responsibility and not being able to turn his back once he was aware of and understood the sustainability cause. Another change agent's perspective shifted when the first pictures taken of Earth from space were released about thirty years ago. The pictures made her understand the system boundaries of Earth and what this meant for humanity. Two change agents experienced a shift in perspective through educational experiences; one program in journalism that brought students from all over the world and the other a water resource management program. One change agent had a shift in perspective from asking herself how to promote wellbeing and health after the death of a close family member. Another interviewee was moved by the beauty and vastness of a rainforest in South America.

Many of the interviewees shared stories about someone, most commonly in a teaching role, seeing their potential. Two change agents spoke about instructors who saw capacities in them they had not yet realized they had. Another spoke about a professor connecting with him to nurture his focus and drive to finish his PhD. All interviewees shared stories about the moments and people that contributed to their journey. However, several interviewees spoke about their journey being just that; a journey of interconnected events and people, rather than pivotal moments. These interviewees stressed the importance of their whole journey and could not place more value on one event or person over another. As said by one change agent, *“a bunch of serendipitous events that collectively point you in a direction that you would never have suspected.”*

4.3.4 Key findings of the interviews

Main findings	Details/rationale
SCAs face many <i>challenges</i> in their work	Time constraints, the complexity of the sustainability message, lack of capacity, the current paradigm, lack of resources, information overload, leverage points, and finding self-balance.
<i>Opportunities</i> : Five themes emerged as important factors helping change agents accomplish their work	<ul style="list-style-type: none"> -Experience -Meaning -Overview -Resources -Support.
SCAs use a wide range of <i>support, resources and network</i> to help them achieve their work.	Long-term relationships of sorts/mentors; informal support groups: family support, including their partner, children, or grandchildren and groups of their colleagues.
A numbers of <i>professional practices</i> where useful for SCAs in their work	Seek relevant information; practice the ability to listen, coach, connect and meet people where they are; deep listening; co-creation and shared intention;
A numbers of <i>personal practices</i> where useful for SCAs in their work	Keep self-balance and self-awareness; practice a continuous learning journey.
A number of common <i>characteristics</i> where found among SCAs	Sense of urgency and action; passion and belief; supporting, facilitating, or helping create change; experienced a pivotal moment related to the sustainability challenge.

Table 4.2. Key findings from interview with SCAs

Working towards sustainability raises passion among change agents. This passion needs to be put to use effectively to bring focus for change agents' foci on changing behaviour. Therefore to support the pursuit of their work, change agents must know themselves and where to effectively renew their energy. To enable this, there is a need for learning resources and programs – SCAs are not proactive in their own development; structured learning often comes last on their list. Methods and approaches are personal to each change agent and consequently learning approaches need to be designed to take this into consideration.

5 Discussion

CATEGORY	POINT	DETAILS
<i>Common threads</i>	Characteristics found among SCAs	Sense of urgency and action; passion and belief; supporting, facilitating, or helping create change; experienced a pivotal moment related to the sustainability challenge.
<i>Challenges</i>	Challenges in SCA work	Time constraints, the complexity of the sustainability message, lack of capacity, the current paradigm, lack of resources, information overload, leverage points, and finding self-balance.
<i>Dealing with challenges</i>	Systems thinking and multi-stakeholder approaches are key	Better behavioural flexibility and reasoning capacity for dealing with the emerging complexity
	New leadership focuses on processes, communication, dialogue and inquiry	These abilities have been shown to be more adequate in dealing with complexity and continuous change
	Emotional intelligence is a key factor for effective leadership	It increases an individual ability to manage relationships and themselves effectively. It includes these four characteristics: Self-awareness, self-management, social-awareness and social skills. Leaders can make conscious choice of the place from which they operate (level of attention)
	Professional and personal practices	Practice the ability to listen, coach, connect and meet people where they are; deep listening; co-creation and shared intention; Keep self-balance and self-awareness (methods individual); constantly challenging oneself, practice a continuous learning journey.
	Renew their own energy	Renew their energies by sourcing into mindfulness, hope and compassion.
	Support, resources and network	Long-term relationships/mentors; informal support groups: family, friends, colleagues.

Table 5.1. Synthesized results

Society needs to develop leadership to address the sustainability challenge in time. Sustainability change agents are at the forefront of a change movement and therefore the leaders discussed in this paper. This research proposed that developing leadership capacities of SCAs would increase the chance of global society to successfully face the current sustainability challenges. The literature emphasized repeatedly that leadership capacities can be developed. Understanding this is integral to helping society as it acknowledges the potential of everyone as a leader, which substantially increases the amount of people who can lead society out of its current crisis. Table 5.1 shows the synthesized results of the question in what ways SCAs' capacities can be developed. These results are discussed below. The authors also asked two secondary questions - "What are the current challenges and opportunities facing sustainability change agents?" and "What are the personal and professional practices and approaches of sustainability change agents that sustain and increase their capacity to carry out their work?" These questions were developed to assess and understand the current situation in which most SCAs evolve. From this understanding it is possible to develop strategies for further improvement in this field. The following sections explore which abilities SCAs can develop in order to lead more efficiently towards sustainability.

5.1 Common characteristics and challenges

The sustainability change agents interviewed shared many of the motivations for their work. They all felt a tremendous sense of urgency, which translated into intense passion for creating change in order to address the current challenge. They were all driven to support, help, and facilitate the change necessary. At the same time they identified many common challenges: the complexity of the sustainability message, the current paradigm, which was perceived to hinder a true move towards sustainability, and the search for real leverage points to alter the system. A major challenge, identified by almost all SCAs, was the overwhelming amount of information in a very limited amount of time, coupled with a lack of resources and capacity. In accordance, the SCAs were experiencing difficulties to not get overwhelmed and find a level of self-balance.

5.2 New ways of seeing and doing things

The developmental perspective, highlighted by the work of Argyris and Schön, Senge, Goleman and many others, implies that what emerges from more complex forms of thinking is better than the previous forms of thinking in terms of behavioural flexibility and reasoning capacity. In other words, certain individuals are capable of dealing more adequately with higher levels of complexity while being more apt to adapt to the situation that is presented to them. Such capacities are needed to deal with the current complexity of society and therefore need to be developed among sustainability change agents as a way to increase their effectiveness in leading change.

5.2.1 Systems thinking and multi-stakeholder approaches

In the literature, Systems thinking is identified as one of the advanced ways of thinking, which helps in dealing with the current complexities. System thinking allows for a broad overview of the system in focus and to take into consideration the inter-relations and influences it has with its part. This approach aids in addressing the *complexity of the sustainability message*. Sustainability is a concept that is broad and can be difficult to understand without appropriate in-depth learning. More so, many definitions, approaches and perspectives exist on this concept. The Framework for Strategic Sustainable Development (see Section 1) was developed with a whole-systems perspective precisely for this reason. The framework allows for a structured overview, based on simplicity without reductionism, which helps to navigate through the complexity in the sustainability issue.

Multi-stakeholder approaches are suggested to deal with the level of social complexity, because they allow for participative change processes while taking into consideration the many perspective at play. Using such approaches can greatly enhance the performance of any serious sustainability initiative. Therefore it is highly relevant that SCAs learn how to make use of them in accordance with the context in which they work. As an example, by talking the same language as their stakeholder, SCAs can greatly improve their ability to present the sustainability message without having to go deep in its complexities from the start. A progressive and non-prescriptive approach is favourable to an aggressive and prescriptive one in order to effectively sustain change. The use of advocacy as a main method

to implement sustainability change will often fail to bring continuous change towards sustainability. It will often fall short from bringing the actors of such initiative into the necessary process of learning and to help them discover what sustainability means to them in their own context. On the other hand, the process will be more effective from the start if the facilitators (e.g. SCAs) are able to create the space that can allow deep learning and bring insight to the participants. The skills which are needed to do so are addressed in the next section.

5.2.2 New dimensions to leadership

The literature on leadership clearly states that the emerging, more effective forms of leadership are all focused on process and communication, in the form of dialogue, inquiry, etc. These abilities can be described in many ways and they are reported here by the change agents interviewed as the ability listen, coach, connect with others in a meaningful way and meet people where they are. These are necessary for leaders to be able to hold a space for co-creation as a way to build shared intention among a group of people willing to take initiative towards new ways of doing things and as a way to develop a better understanding of the context in which they evolve. Mastering these abilities and making use of effective processes will increase a leaders' talent to empower others in taking initiative and become sustainability leaders as well. The SCAs interviewed emphasized these as their successful, professional practices.

Communicating and meeting people where they are at is not simple and there is no prescriptive way to achieve it. People are complex; it takes practice to gauge where they are at and how they are feeling, let alone knowing how to approach them effectively. Being able to speak at a similar level of knowledge as others is another part of speaking to people from their view of the world. The idea that as a person's knowledge increases, their ability to clearly communicate ideas from their field of knowledge to general audiences decreases is commonly known as the curse of knowledge. The curse normally works against individuals as the knowledge gained hinders them from communicating empathically. However, increased knowledge can be advantageous when it stirs a shift in perspective or world views as was the case for one interviewee; unable to turn his back on the sustainability cause once he understood it. The curse of knowledge and meeting people where they are becomes more complicated when the pool of potential information to communicate is overwhelming.

Several change agents spoke about the overload of sustainability information and the challenge of sifting through it all. Balancing and addressing the above factors makes it increasingly difficult for SCAs to meet people where they are; they need to select the most relevant information, communicate it empathically, and speak from the same level of knowledge as their audience. Many of these things require a high level of emotional intelligence and self-awareness.

5.3 Internal work

5.3.1 Self-awareness

The literature identifies emotional intelligence, and within that especially self-awareness, as a key factor for effective leadership because it increases an individual's ability to manage relationships and themselves effectively. An article on Authentic Leadership asked 75 members of Stanford's Graduate School of Business Advisory Council to recommend the most important capability for leaders to develop. The answer was nearly unanimous: self-awareness. However, the article continued that "many leaders, especially those early in their careers, are trying so hard to establish themselves in the world that they leave little time for self-exploration. They strive to achieve success in tangible measures" (George and others 2007, 3).

This last comment mirrors the current reality of the sustainability change agents that were interviewed and who participated in the focus groups of this research. A lack of time, space, and encouragement to develop one's own potential was revealed again and again among research participants' answers and is one of the conclusions of this research. Yet, all SCAs found the practice of increasing their self-awareness, of constantly challenging themselves and continuously develop their capacities important.

5.3.2 Self-Balance

The background study briefly addressed how leaders sustained themselves. The work of Boyatzis and McKee on Resonant Leadership highlights the importance of renewing to keep sustainable leadership. Renewing or refuelling also emerged from the interview results. Numerous interviewees talked about finding inspiration or energy to sustain them and maintain continuity in their work through a variety of sources. Others expressed the same need indirectly; several interviewees were overworked and did not

regularly renew their energy from sources outside of sustainability related work.

5.4 A nurturing environment

5.4.1 Support networks

Focus groups and interview results clearly communicated the need for a supporting and nurturing environment in order to find self-balance and to develop their sustainability knowledge and leadership abilities. One of the main findings of the focus groups was a need for space where participants felt comfortable and free to share ideas, learn, and question. Interview participants also echoed this idea. Current SCAs repeatedly spoke of the importance of having support around them, whether in the form of intimate relationships, business partners, their team, or their community. The importance of feeling supported was clearly stated as playing a role in SCAs' growth and endeavours. This suggests that creating strong networks for developing sustainability change agents in order to support them in their development, would be a helpful step.

5.4.2 Providing space

Another aspect brought forward from this research was the importance of creating space for dialogue as a way to develop this same ability. Focus group participants repeatedly gave feedback on the value of having a space where they could question and discuss through the form of meaningful conversations. Developing change agents, such as the focus group participants, requires an environment that leaves space for exploring new approaches to implementing change and sustainable development. Results of this research suggest that creating an environment of trust with an explicit intention of exploration and questioning helps nurture dialogue. Creating such environment is not accessible to everyone from the start as it necessitates the ability to practice deeper ways of listening such as empathic listening and generative listening mentioned in section 3. These require time and practice in order to be mastered succinctly and developing them will also depend of the level of self-awareness of the leader. Leadership development, therefore, is mutually dependent on the current self-actualisation abilities of individuals and the supporting environment offered and presented to them in order to further develop the former.

5.5 Continual learning and practice

Developing leadership capacities, as discussed by Goleman, Boyatzis and McKee, Scharmer, is part of a learning journey. Therefore it becomes important and relevant that individuals, like the ones interviewed in this research, have the intent of developing their potential. Change agents must be able to recognize the need to change certain behaviours in them as a way to support the same process in others. The same dynamic applies in change processes, whether at the individual, organizational, or societal level; support is needed for those changing and those initiating the change. It is a continuous learning process where each individual supports others in who they are becoming as individuals and as a group of individuals working with a shared vision. Learning to deal with emerging complexities is like learning to deal with any given circumstance. When practiced, over time, it allows a leader to master the ability to take the right decision at the right moment in a particular context. However, practice is crucial. But is there time for that?

5.6 Too much information, too little resources and time. How to prioritize?

Many of the challenges reported by the SCAs relate to the capacity to focus and the ability to make concise decision and prioritize actions in with too much information and limited resources. Developing such capacities becomes highly important as they increase abilities to apply the appropriate actions, which will in turn facilitate timely movement in the right direction. Doing so can only increase effectiveness in implementing sustainable strategies and overcomes the many challenges that limit SCAs in their current work.

The *FSSD* presented in this research is an approach that can bring focus, rigor and adequate prioritization support to sustainability initiative and also to the work of SCAs. It can do so by supporting individuals and groups in gaining a broad overview of the context in which their work takes place and also to distinguish the appropriate resources that can carry on a successful journey towards sustainability. The process of backcasting from sustainability principles is central to this approach as it can inform the design of sustainable solutions. And when used properly it can do so while avoiding the generation of further problem along the way. Furthermore it allow for

progressive change that takes into account the current reality in which the initiative takes place. This is highly important in many contexts since small step improvements are preferable to drastic change as they can create more problems than solutions at the time.

Practicing self-development requires SCAs to take time aside for that purpose as part of their continuous effort to bring change. As mentioned above, SCAs are already strained for time and often therefore feel like there is no time for self-development. It is important to mention that the use of a strategic approach to sustainable development like the FSSD can free up some time for SCAs to focus more on the development of their capacities. As demonstrated in this thesis, investing time and resources in such activities will greatly enhance one's ability to be a successful SCA. Therefore, it should provide a good return on investment in the long run, which will result in increased productivity and better outcomes towards sustainability.

6 Conclusion

This research attempted to explore in which ways sustainability change agents' capacities can be developed in order to help global society strategically move towards sustainability. It has been highlighted that the interior dimension of leadership needs to be further developed by SCAs in order to effectively sustain the change process that is necessary for a more sustainable society. There has been a lot of research around tools, frameworks, and guidelines to take the right actions towards sustainability. This research explored the softer side of how to increase the quality or effectiveness of actions taken by someone who has already developed competences for moving strategically towards sustainability.

Results and analysis provided a range of opportunities, challenges, approaches, methods, and stories that affected the lives of sustainability change agents and the work they were pursuing. This pool of insightful data reflected interviewees' personal strategies in moving society towards a sustainable future. Most sustainability change agents explored by this research use the scientifically based definition of sustainability as outlined by the FSSD. Therefore, sustainability-related competencies and knowledge were not a focus of this research. This research related to those people and how they could develop, renew, and listen to enhance the many actions they were taking.

The contribution to the field of sustainability is made by this research by first reiterating the importance of applying a strategic framework such as the FSSD. It delivers a way to structure information in order to strategically plan and make decisions that bring society towards sustainability. However this in itself is not sufficient. The value and application of this framework is also dependent on the people using it, sustainability change agents. The FSSD is futile without the appropriate skills, tools and expertise that can nourish its use in any given context. Therefore, in order to successfully master the capacity which are intrinsic to such an approach and to sustainable change processes in general, SCAs would benefit from developing the appropriate skills that are inherent to their implementation.

This research not only highlights the importance for sustainability change agents, but also sheds light on the importance of balance between the ability to execute and deliver and the ability to do so in an effective, inclusive manner. There needs to be balance between the linear thinking of doing and

planning and the systems thinking of stepping back, reflecting, and thinking about processes. One without the other will not bring society towards sustainability. It requires the combination of structured, strategic action (based on a scientifically based definition of sustainability) and an inclusive and mindful way of acting.

The background study in this research provided excellent theories and methods of how to engage people, listen at a deeper level, and how to renew and sustain leaders' energy. However, the literature fell short of delivering the balance between the ability to relate to people and execution. A developed person capable of renewing and listening needs a strategic direction or vision to act towards. Otherwise, their actions are likely subject to contributing to an unsustainable society. This research recommends further exploration into integrating hard competencies with soft skills.

The personal nature of change agents' approaches indicates the need for overarching strategies that will facilitate the assessment and development of each individual. In fact, creating a prescriptive tool applicable to all is not desirable. Finding one solution to fit them all would follow the reactive mindset of the past and Einstein's thinking when he said "We can't solve problems by using the same kind of thinking we used when we created them." Instead, a method to let each person self-assess would be a starting point. Therefore it becomes important to develop learning approaches and methods that provide a nurturing environment for continual learning and practice. Special emphasis should be put on learning in the areas of new ways of seeing and doing, new ways of interacting with the people around us and the time to interact and learn about ourselves. The approach should be able to help individuals prioritize and discover which capacities they need to develop in order to gain effectiveness in their sustainability work.

In a sustainable future, the human race lives happily within the physical limits of Earth's natural cycles through a shared understanding of sustainability. Individuals understand the significance and power of their own actions. They continuously self reflect and deep listen on the meanings of their actions and interactions and understand their influence on the state and reality they live in. Will it be possible for society to align its efforts towards the achievement of a sustainable future? Which capacities lie in ourselves that can bring forth this necessary change?

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Appendix 1 - Focus group candidates

Region	Invited	Accepted	Attended	Date
USA	11	5	4	05/04/08
CANADA	18	3	Discontinued	
BRAZIL	8	5	4	02/04/08
EUROPE/AUSTRALIA/ NZ	11	6	6	03/04/08
CHINA	8	1	Discontinued	
SWEDEN (non-MSLS)	100+	1	Discontinued	

Appendix 2 - Focus group pre-reflection activity

We invite you to spend 20-30 minutes reflecting on the focus areas below to see what feelings or themes arise for you. We would like to hear about your reflections during the interview however you are comfortable. If some of the questions are very personal for you to share, we invite you to reflect on them for yourself. If you wish, you are also welcome to record/share your thoughts in writing and/or drawing.

External Influences

Take a minute to look at yourself working and living. Look at the bigger picture and how you fit into it. What influences what you are doing? Who is important to your work?

Professional and Personal Practices

Take a minute to think about what you do in your work. Why is it important to you? What meaning does your work bring to you? Why do you choose to do it?

Take a minute to think about your personal practices. What makes up a fulfilling day for you? What are some ways that you embrace change, perhaps a difficult moment, to help you pursue your goals?

Your Journey

Take a moment to reflect on your path in life thus far. Can you think of moments or events along your journey that were determinant for you? Think also of the people who helped or influenced you along your journey.

The Present

Take a final 10-15 minutes to let your mind wander. Feel free to find a space to wander around or to rest and let your intuition carry you—free of any goal or active thought. Loosely ponder whatever issue is most salient to you. Allow your mind to drift. Be gently aware of signs that seem meaningful. There is no rush to return to the group, we will just relax in the Learning Lab with whoever returns and share if we wish.

Appendix 3 - Focus group moderator guide

Introduction

- Welcome
- Purpose: to engage sustainability change agents in an activity that we feel will enhance their capacities, to explore concepts and ideas that have emerged from our interviews and literature review with our colleagues, to receive the group's reflections on the activity and discussion.
- After the seminar, you're welcome to ask questions about the research and our discussion.
- Common ground: all from same country
- The idea is to allow you to share your thoughts and ideas in a relaxed and informal environment

Rules/Guidelines:

- 1) You should speak freely and allow others to do the same, one at a time
- 2) Your opinions are important
- 3) There are no right or wrong answers

- 4) Don't worry about building consensus
- 5) Don't worry about being on the right track
- 6) Be yourself, with an open mind and heart

Roles of Researchers

Moderator: will ask questions to the group and anyone can answer, we are looking to have a short discussion with everyone involved

Researcher: will take notes, listen, and aid in recording and recalling

We will use names, but we ensure confidentiality.

Session procedures:

- activity (purpose)
- discussion (2 part) (purpose)
- reflection/feedback (purpose)

Group Interview Questions

Personal

- Please take 2 minutes to re-visit your pre-seminar reflection, we have copies of the questions
- What are your thoughts and comments on the activity?

Informational

- How do you work to better understand your own system?
- On self-sustainability and balance in your life, how do you keep it?
- How have you enacted positive change within yourself? Within others?
- On creative tension, how do you keep the energy and focus to move towards your goals? Methods/practices?
- How do you listen to others?
- How do you work to see the whole picture and from different perspectives?
- In working together and co-creating, how much are you willing to let go of your own expectations, to explore a new way?

Reflection/Feedback

- All things considered (try to summarize) what was the most important part/idea of the seminar for you?
- Have we missed anything?

Tips for Moderator

Probing Questions (use lots)

- could you explain further...
- how do you mean this....
- I think you're saying....
- Do you mean....
- What else.....
- What do other people think about...

Handling Dominating participants

- are there any other points of view on this question?
- Does anyone see it differently?
- Thank you, does anyone have another?
- Let's hear some different thoughts

Transition Questions

- Can you try to think of any alternatives...
- We've been talking about....can we now move on to...

Concluding Questions

- ... is this an adequate summary?
- Of all that has been discussed, which idea/concept etc is most important to you
- (give overview of purpose of study) Have we missed anything?

Avoid "why" questions

- try "what influenced your decision?"
- what would it feel like for someone...?

Be Clear – questions with one dimension, short, understandable, free of jargon and technical terms

Appendix 4 - Sustainability change agent selection criteria

We selected our interviewee candidates using the following criteria:

- They are dedicated to resolving problems and/or finding solutions to address the social, economic, or environmental issues currently faced by society.
- They inspire or initiate change in organizations, communities, and/or individuals. They participate or facilitate and are actively or passively involved in the change process.
- They demonstrate their intentions in the pursuit of their goals.

To support our selection criteria, we have come to this definition of a sustainability change agent:

- Engages or empowers people to develop their capacity to make change by creating a space for learning and personal development that moves society towards a sustainable future.

We will interview a diverse group of change agents, comprised of:

- Male and female,
- Novice to experienced,
- Grassroots or self-identified and elite or externally identified leaders,
- Local, national, and international change agents,
- Coming from a variety of fields.

Appendix 5 - Pre-interview reflection

We invite you to spend 5-10 minutes reflecting on the focus areas below to see what feelings or themes arise for you. We would like to hear about your reflections during the interview. If some of the questions are too personal for you to share, we invite you to reflect on them for yourself. If you wish, you are also welcome to share your thoughts in writing.

External Influences

Take a minute to look at yourself working. Look at the bigger picture and how you fit into it. What influences what you are doing? Who is important to your work?

Professional and Personal Practices

Take a minute to think about what you do in your work. Why is it important to you? What meaning does your work bring to you? Why do you choose to do it?

Take a minute to think about your personal practices. What makes up a fulfilling day for you? What are some habits or routines that help you pursue your goals?

Your Journey

Take a moment to reflect on your professional path in life thus far. Can you think of moments or events along your journey that were determinant for you? Think also of the people who helped or influenced you along your journey.

Appendix 6 - Guiding interview questions

This interview is divided into three parts. First, we would like to hear about your external network, how it influences you in your work and what help it provides. Next, we would like to know about your personal and professional practices that are essential for what you do in your work. Finally, we would like to hear about your journey and how you became who you are today.

External Influences

If you look at yourself from an outside perspective, as if you were another person,

- What are 2-3 important factors that help you accomplish your work?
- What are 2-3 main external challenges you currently face in your work?

I would like to talk about the current resources available for developing yourself and your professional skills.

- Are there programs, networks or organizations that support or strengthen your capacities? If so, can you tell me about them and describe how they are useful to you in your work?
- Do you have any specific resources that are essential to your professional development? If this is the case, can you tell me what they are and how they contribute to your work?
- Do you have a life coach or mentor?
- Are there any resources missing that could enhance your professional or personal development? If so, would you like to share them?

What does your support network look like? How does it help you in your work? Tell me about the people and organizations that make up your support network. Please name any external learning programs, books, or other resources that have contributed to your development.

Professional and Personal Practices

Professional Practices

- If you could capture what is at the heart of your work, what would it sound like?
- What are some approaches you have developed while practicing your work?
- If you think of yourself working in a team or with a group of people:
- What practice(s) do you use to achieve the purpose of the activity at play?
- Do you have ways of engaging or influencing others? If so, which way works best for you?
- What practices or methods help you to be effective in your work? Which of your abilities do you believe contribute to your effectiveness?

Personal Practices

- I would like to talk about how you nurture and develop your source of motivation and personal practices.

- Do you have a personal practice or method that helps you pursue your work? If you can think of one or two, would you like to share them?
- Where do you find your source of energy? What drives you? Inspires you? Makes you feel vital and alive?
- Do you have a way to define and focus on certain goals? Is there something continuous in your life that keeps focused?
- What are the conditions necessary for you to feel effective? When do you feel most effective?
- If you think of a moment or time when you felt really effective, please describe:
 - The conditions of the situation (external factors, setting, space, etc.)
 - Your internal condition and state of mind
 - The people working with you, if applicable

Your Journey

- I would like to hear about a few external factors that have nurtured your path.
- Can you tell me about a pivotal moment or event in your professional life that contributed to bringing you where you are today?
- Think of the people that may have played a key role in your journey. Who are some of the people that come to mind?
- What is at the source of your journey? Is there a theme that presents itself in your journey?
- Thank you for your time and contribution!
- Would you like to share any other thoughts or comments with me?

Appendix 7 - Focus group follow-up

Why did you choose to participate?

- I chose to participate because I knew I would have enjoyed a space for free talking, for sharing feelings instead of only ideas, and because I like opening up with my classmates.

- I participated out of curiosity and because I think you guys would do the same if I needed it.
- I like these kind of things, it's a chance to take a break and talk in a safe space. The fact that I could do that and help you guys with your thesis was great.
- To do something different, to interact, to listen & share, to help out
- I participated:
 - to support you in your thesis project
 - because I was curious to find out what you prepared
 - because I am easily interested in topics that involve personal development

What went well for you?

- You guys did a really good job in setting the space for a relaxed talk, and as you maybe have noticed it was really needed in the class! The first exercises for familiarizing ourselves, the acting, the space available for a chat with an open heart.
- It went well for me because there was no pressure.
- I really liked the flow of the conversation, and I felt like it was a very even playing field where everybody got their two cents in. The food was also very good.
- It was fun, I felt I had something to offer, I learned that I wasn't alone in my reflection and general life direction/ planning methods
- What went well:
 - the setting was very well chosen; it was good to host it at your place instead of in a room at school
 - I felt at ease with the group of people that were present
 - the listening skills of people from our class are great

- As I told during the seminar, experience of having this conversations are really great for personal and group development and I hope we could have had more of this during our time together here in K-town. Everything went well and you showed a very gentle conduction as a facilitator while bringing the questions... thank you!

What did you learn?

- I learned that one of the biggest thing that we sustainability agents share is a common passion that ties us together, that we should be more open in exchanging our feelings and motivations;
- I learned about the others, but no real significant life lessons.
- About myself: I think this was a great opportunity to talk out thoughts about myself that I had been mostly thinking about. Writing and speaking are two very effective ways for me to clarify my thoughts. Also, I really liked sharing those core beliefs that I think are most important to me. About others: when I'm in a one on one conversation, I tend to get into a groove and talk about fun, inconsequential stuff. In this conversation, I remember clearly learning something about everyone who spoke (and I spend a lot of time with male participant). Female participant: her time volunteering with the church group and how she feels that she knows what her core is and where she wants to go. Male participant: that he reads all the time and feels like there should be an input/output balance. Male participant: more of what drives him, and about his time during the surgery, and his views on terrible things showing you how precious life is.
- That I can be nervous of being the focus of attention (performing) even in open comfortable intimate situations, interesting to watch the discussion process and so looking forward to reading the results, appreciated the suggestion about 'not needing to reach a consensus in the discussion' as I could see that the sense of belonging that agreement can bring potentially creates a 'them and us' separation...and how it's also an opportunity to see and feel comfortable with ones differences.

- I cannot indicate one specific thing that I've learned during the afternoon; this conversation was just one of the little influences that shape my personality and how I look at the world, I didn't have a specific aha-moment.

What would you do differently next time?

- What I would do slightly different is about the topics/questions that you guys used in the seminar. I would use narrower concepts, maybe, and draw when necessary a distinction between realm of personal life and experiences in sustainability.
- I know you put all countries together, but it just seemed homogenous and I found myself wanting to play devil's advocate just because the opinions and points of view were so aligned, even though we are all different. But I guess our differences are really just in the details.
- From my end it was great, I'm curious to know what you guys think would have gone better, for the purposes of your thesis.
- Tried to focus on the audience more rather than my inner thoughts whilst performing, have more self-belief in my own thoughts
- Specify what you are recording for and mention that everything that is being said will be kept confidential. I assume this is the case, but it would have been good to mention it explicitly.
- After hearing your presentation to the class, I was hoping to hear some reflections of my colleagues and other sustainability leaders on the topics you raised. It'd be helpful for my self-awareness to listen to other people's thought on this. I don't think you need to do anything different. My suggestion (wearing a facilitator's hat) is for you to explore the emotions raised by the exercises you propose before everything else and while they are recent. They are usually the unconscious data people want to give you.

Appendix 8 - Resources from interviewees

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- Savitz, Andrew W., and Karl Weber. *The Triple Bottom Line : How Today's Best-Run Companies Are Achieving Economic, Social, and Environmental Success - and How You Can Too*. San Francisco, Calif.: Jossey-Bass, 2006.
- Westley, Frances, Michael Quinn Patton, and Brenda Zimmerman. *Getting to Maybe: How the World Is Changed*. Toronto: Vintage Canada, 2007.