This paper offers a definition of the type of leadership that is necessary for creating sustainable organisations: sustainable leadership. After exploring shifts in economic and organisational theory caused by new insights from fields such as (social) neuroscience, and mega-trends in the macro-economic and business context, in particular the mega-trend of sustainability, it shows that a new paradigm for business leadership is emerging. The paper then explores the question: what are the leadership mind-sets that leaders need to develop in order to empower their organisations towards the creation of sustainable value? It concludes by proposing a new leadership model (the 6C-model).

Sander Tideman is Assistant Professor at Nyenrode Business University, specialised in sustainable leadership and governance. He is also co-director of SEAL Institute and director of the Global Leaders Academy in the Netherlands. After a career in international banking, his work focuses on how leadership of companies can transform to better serve the needs of present and future generations, taking principles of sustainable well-being of people and ecosystems into account. Sander holds degrees in International Law (University of Utrecht) and Asian Affairs (School of Oriental and African Studies, University of London).

Muriel Arts is specialised in sustainable marketing strategy and organisational development. She is a partner of Global Leaders Academy and co-founder/director of SEAL Institute, in cooperation with Nyenrode Business University. After an international marketing career with Unilever, Grolsch and KPN, her work focuses on creating shared value. She researches the question ‘How can commercial organisations realise social value and have meaningful impact for their outer world and at the same time create value for themselves, their employees and their customers?’ She received an MSc in dentistry from the University of Utrecht.

Danielle Zandee is Professor of Sustainable Organisational Development at Nyenrode Business University in Breukelen, the Netherlands. She received her PhD in Organisational Behavior from Case Western Reserve University. Danielle holds a Chair in Nyenrode’s Center for Sustainability where she studies and facilitates organisational change processes that enable the emergence of sustainable enterprise. She explores how organisational settings can nurture the innovative and collaborative capacities that help create sustainable value for all stakeholders. Danielle designs and facilitates Organizational Development processes in which action learning and action research approaches are often combined with an appreciative stance.
Sustainable development is aimed at transforming the correlation between economic growth, the environment and society from negative to positive (World Bank 2012). This can be achieved when business organisations fully accept the challenges of sustainability as a business development opportunity and transform their business models. This is increasingly the case; leading companies are embarking on a transformational process with multi-stakeholders in their value chains and in doing so transform into sustainable business organisations. This is supported by a trend in science that places the human being in social context back at the centre of economic and business theory and practice. Sustainability has become a business mega-trend that changes the demands placed on business leadership in various fundamental ways, thus creating the need for a new type of leadership—sustainable leadership (SL).

By exploring the literature on trends in economics, organisational change, sustainability and leadership, and outcomes of a series of interviews with leading sustainability thinkers and practitioners, this paper will identify a number of key features of SL. SL requires a redefinition of core concepts that underpin current mainstream business leadership practice. Foremost is the concept of creating value, which cannot be equated with mere profits or price. Profits are derived from shared value, which in turn is the result of a process of intentional collaboration and long-term interests with a collective purpose of stakeholders in a particular value chain. The features of SL can be divided into six categories of leadership attributes, which all start with a C—context, consciousness, continuity, connected, creative and collective—hence these are referred to as the 6C-model. This model will be compared with a number of other recent leadership models designed for sustainability.

The changing context towards sustainability

Sustainability as mega-trend

It is abundantly clear that profound changes are happening affecting business leadership, on all levels of society and on a global scale: global poverty, global disease, global violence, biodiversity decline and climate change continue unabated. The world’s economic and political structures seem increasingly incapable of protecting our ecosystems, managing our resources or preventing rising social inequality. As a result, there is now a business imperative for rapid, non-linear change. Business leadership will need to take up the challenge of creating sustainable economic systems.

Milton Friedman (1970) famously said: ‘the only business of business is business’. If this were true, business leadership would continue to operate with a mind-set that is predominantly geared towards creating short-term profit and value for their shareholders, employees and consumers, while ignoring social
and ecological well-being. This mind-set, that was the cornerstone of the industrial age when resources seemed abundant and inexpensive, is now increasingly recognised as the prime driver behind the emerging ‘tragedy of the commons’, in which producers, consumers and financiers hold each other in a ‘prisoner’s dilemma’, a race to the bottom of over-production/consumption/borrowing and consequential ecological overshoot and social unfairness. Given the fact that we have finite common resources for a rapidly growing population, by continuing to focus primarily on our own short-term self-interests, we collectively end up as losers (Gilding 2011).

The ‘business as usual’ approach, in which the short-term financial interests of shareholders tend to take precedence over long-term interests of stakeholders, is no longer an option from a long-term survival viewpoint. Indeed, leading companies have recognised sustainability as the next business ‘mega-trend’, just like IT, globalisation and the quality movement earlier, determining their long-term viability as a business (Senge 2008; Lubin and Esty 2010). Or in the words of Frank Horwitz (Horwitz and Grayson 2010): ‘The only business of business is sustainable business’.

The hypothesis in this paper is that the global problems have been created (and persist) because political and economic leadership employs flawed and increasingly outdated economic and business systems, based on limited assumptions about the nature of economic, social and ecological reality and the drivers of human behaviour. These assumptions were derived from Newtonian physics and Darwinian biology, in which economy, society, environment and wildlife were seen as separate worlds that humans—the ‘fittest’ among competing species—hold dominion over in order to extract value from, against as low as possible cost, and utilise it for their human agendas (or liquidate it to maximise GDP or quarterly profit margins). In this worldview individuals and companies regard themselves as autonomous, individual agents who make their own rational choices—the image of Homo clausus or Homo economicus (Gintis 2000). But this worldview, which has left human psychology, sociology, biology and ecology outside the picture, is no longer fit for purpose.

The new worldview is one in which business, economy, environment and society are no longer separate worlds that meet tangentially, but a single, inseparable entity: as they are interconnected and interdependent, decisions need to be made with an eye to the complete picture. This matches with the view of sociologist Norbert Elias who said that humanity should see itself as homines aperti, so that people are in open connection with each other and their environment, being formed by and dependent on others and nature (Aya 1978). This view has meanwhile been confirmed by findings from psychology and social neuroscience (Seligman 2002; Siegel 2009).

Before exploring what this worldview shift means for business leadership—a change we refer to as from ‘business leadership as usual’ to ‘sustainable leadership’ (SL)—we will review some trends in economics and business thinking that form part of the changing context, while pointing to aspects of a new, more
accurate world-view that could underpin efforts to create sustainable economic systems.

**New paradigm economics**

In order to explain the growing tension between economic theory and practice, the new field of behavioural and neuro-economics is increasingly called on to explain economic reality. This field has arisen over the last 30 years based on empirical findings from many experiments involving real people. It has gained considerable traction thanks to the financial crisis, which made it obvious that classical notions of rationality and equilibrium of markets were mere theoretical constructs and had little to do with how markets behave in reality (Taleb 2007).

Several recent publications have popularised these new insights (Akerlof and Schiller 2008; Ariely 2009, 2012; Sunstein and Thaler 2009). A central insight of behavioural economics is that of fairness and trust as prime human drivers (Camerer 2004). Neuro-economics, founded by Daniel Kahneman, who received the 2003 Nobel prize in Economics for his studies on intuitive judgement and decision-making, explores the same territory of real behaviour. The significance of this work lies in its ability—for the first time in the history of economics—to describe the neuro-biological basis of economic behaviour. This work is bridging the heretofore-distinct disciplines of psychology and economics (Kahneman 1979; Glimcher 2009).

The new neuro- and behavioural science is revelatory because it provides empirical evidence derived from a biological basis for the notion that human nature is not driven by greed and egoism alone; at least equally important are principles of fairness, cooperation and altruism, which can express themselves in non-rational behaviour, or ‘bounded rationality’ (Simon 1972; 1982; 1997; Kahneman 1979). Since neoclassical economics considers itself to be a science concerned with ‘hard data’, the fact that there is a hard biological basis for these principles helps to uproot the long held yet untested assumptions of classical economics on selfishness, individuality and rationality (Beinhocker 2006; Gowdy 2009). The wiring of the human brain indicates that motives of fairness and degrees of altruism are more natural to the human mind than selfishness and individuality. Most significantly, neuro- and behavioural economics have established that the so-called ‘rational self-regarding actor model’ needs to be replaced by a framework that accounts for our irrational, emotional and pro-social behaviours (Gintis 2000; Beinhocker 2006; Gowdy 2008).

By extension, our view of markets as a neutral mechanism that efficiently processes our collective rational choices into collective well-being and a state of equilibrium has become obsolete. We now know that the minds of market players are continuously subjected to emotional and social influences (Zak 2008). Thus, the theory of market equilibrium needs to be replaced by a view of markets as a dynamic, evolutionary process that is both shaped by our choices and shaping our choices, mostly on an unconscious basis.

In summary, the economic theoretical paradigm is changing. Table 1 shows the existing and new theoretical principles.
Table 1 Economic theoretical paradigm

<table>
<thead>
<tr>
<th>Existing</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply and demand: The purpose of economics is to match material needs (demands) with material resources (supplies), which are scarce by nature</td>
<td>Economics belong to social science which has established that humans are driven by more than functional and rational needs; supply/demand laws do not apply to all facets of life</td>
</tr>
<tr>
<td>The theory of efficient markets: markets tend towards equilibrium</td>
<td>Markets are manifestations of social human behaviour, so they are constantly developing and evolve over time</td>
</tr>
<tr>
<td>The rational agent theory: people are rational and individualistic agents</td>
<td>People are more than rational and functional agents: they are also emotional, social and spiritual beings, with concordant needs</td>
</tr>
</tbody>
</table>

In short, in new economic theory it is no longer only important to know what we produce and consume; equally important is the understanding of the way we think and our awareness of the social context. Given the central role of human thinking and interacting in the new economic paradigm, markets should be viewed as a community where stakeholders are engaged in a continuous interdependent process of dynamic co-creation of shared value fulfilling functional, rational, emotional and spiritual need, both short and long term.

Business transformation towards sustainability

The field of organisational theory has seen similar shifts in paradigm, from the image of an organisation as a hierarchically structured machine (Taylor 1909) to one of a living network guided by purpose and values. Contributions to this shift came from Senge (1990), who took inspiration from psychology and introduced the field of organisational learning, De Geus (1997) with the notion of a ‘living company’, Collins and Porras (1997) who looked at firms ‘built to last’ and Sisodia et al. (2007) who created the term ‘firms of endearment’ to describe companies who create profits by following purpose and passion. Sustainability provides additional fuel to this shift.

The initial calls for sustainable development came from concerned environmentalists and visionary social and public leaders, such Carson (1962), Meadows et al. (1972) and WCED (1987), typically projecting a vision of sustainability as a desired utopian ‘end point’, while putting the business community on the defensive as they were perceived to be the major threat to this desired state of sustainability. In the years that followed, sustainability has been defined more as a change process in which business has gradually taken on a participatory role. The definition of sustainability evolved, in the words of Peter Senge (2008), from being ‘a problem to be solved, to a future to be created’. When the bubble of financial capitalism burst in 2008, mainstream business leaders began to question the wisdom of the status quo. With the growing environmental
resource crisis in the background, the creative search for sustainable economic models has intensified. In almost any sector one can now find leading companies engaged in sustainability initiatives that Eccles et al. (2012) has defined as ‘high sustainability organisations’ (HSOs). Several are listed on the Dow Jones Sustainability Index and are earmarked by sustainability monitors and investors (Krosinsky 2012; Generation Investment Management 2012). They include Unilever (food), Akzo Nobel and DSM (chemicals), Puma and Nike (footwear), Ikea (furniture), Coca-Cola (refreshment) and Google (Internet).

This is not to say that these companies are sustainable in all aspects of their business. For example, Unilever, which is rated among peers as the leading sustainability company with regard to its food business, is still struggling with the transformation of various detergent categories. But most of these corporations are engaged in a process of transforming themselves into organisations that deliver sustainable value—beyond mere financial growth—and thus contribute to the larger process of sustainable development (WBCSD 2011; Nidumolu et al. 2012; Kiron et al. 2013).

In efforts to gain sustainability objectives such as reducing ecological footprint, energy inefficiency and waste, HSOs are redefining and restructuring their production process and supply chains. These changes typically imply a process of increased collaboration among stakeholders along the entire value chain, in order to meet existing and future needs. These needs are not merely material, but include social and environmental needs, specifically those of local communities in supplier countries who are particularly vulnerable to social and ecological pressures. Bob Doppelt (2003) speaks of a new production paradigm: from ‘take-make-waste’, which was common practice in the industrial era, to ‘borrow-use-return’, which respects both the cyclicity of nature and social equity needed for a truly sustainable production process.

Michael Porter and Mark Kramer (2006; 2011) have described this dynamic process as ‘creating shared value’ (CSV), a concept that emerged on the basis of transforming the coffee value chain of Nestlé, in which the various players in a value chain collaboratively create more value than they would do when pursuing individual financial objectives. Interestingly, HSOs have started to expand the value chain concept to include parties such as financiers and end-consumers. Without involving the financial industry, many sustainability investments that are critically needed cannot be made. Likewise, without changing consumer behaviour by stimulating sustainable consumption, with the projected population growth on this planet in the decades to come, sustainability efforts will fall short of reaching the necessary scale and impact. In any sustainability scenario, planetary boundaries will soon be crossed if we fail to adjust current consumption levels in developed nations downward. In other words, sustainability requires scale up and collective consumer participation (Gilding 2011).

Importantly, this requires a shift in the marketing paradigm, where there is no longer exclusive focus on enhancing demand from consumers but instead a more balanced focus on serving their needs. Demand thinking tends to confuse needs with wants. While wants are limitless yet largely unnecessary for
life satisfaction, needs tend to be more modest yet are critical for well-being and happiness. Unilever is actively experimenting with changing consumer behaviour: it has launched a new shampoo that can be used without taking a shower, thus substantially lowering water usage (Unilever Sustainable Living Report 2012). In this case Unilever distinguished between the need for hygiene and sustainable water and the want for daily showers.

Finally, leading HSOs are also actively creating new measurement models to capture sustainable value to complement standard business performance indicators, which on their own do not reflect a fair price for the value created or destroyed (Porter et al. 2012). Footwear company Puma, for example, is a pioneer in accounting for impacts on water supplies from its production process and has created an Environmental P&L (Nidumolu et al. 2012). Taken together, these sustainability changes present the expansion of the concept of value, which is expanding in both time (from short to long term) and space (from shareholders to stakeholders). While this paper does not allow for exploring the sustainable business transformation in depth, it is fair to conclude that the sustainability challenges present a major transformation in business practice. Specifically, they present a challenge to traditional business concepts and thinking.

This is illustrated by a comment made by Paul Polman, CEO of Unilever, explaining how he put sustainability on top of his business agenda:

Most businesses operate and say how can I use society and the environment to be successful? We are saying the opposite—how can we contribute to the society and the environment to be successful? So it starts with asking the right question to yourself, which will change the way you think (Forum for the Future 2011).

Business thinker Gary Hamel (Hamel and Breen 2007) goes one step further by specifically addressing the beliefs we hold in our minds:

The biggest barrier towards the transformation of capitalism cannot be found within the observable realm of org charts, strategic plans and quarterly reports, but rather within the human mind itself... The true enemy of our times is a matrix of deeply held beliefs about what business is actually for, who it serves and how it creates value.

Sustainability thinkers agree that sustainable development requires a change in the way we think (Marshall et al. 2011). In the words of David Orr: ‘The crisis we face is first and foremost one of mind, perceptions and values’ (Orr 1992: 27).

John Mackay (Mackay and Sisodia 2013), CEO of Whole Foods Market and one of the pioneers in sustainable business, recently launched a network on the principles of ‘Conscious Capitalism’. He writes: ‘Conscious [capitalism consists of] businesses [that] think caringly, creatively, and strategically about the environment. They consider it one of the company’s key stakeholders and treat it with the same respect and attention they give to the others’.

These trends have put the mind—the way we think—back at the centre of our economic and business world-view. So we should also put the mind at the centre of business leadership. Our minds hold both the cause of the current unsustainable economic models and the key for transforming them.
Consequences for leadership

New mind-sets and skill sets

The contextual changes on macro- and micro-levels imply that ‘business leadership as usual’ will not suffice in creating sustainable economic structures. In particular, as our review of best practices of HSOs indicates, the new leadership requires a shift in business thinking, mind-sets and awareness, hence an evolved type of consciousness, with an appropriate skill set derived from this consciousness.

These observations correspond to findings by a recent study undertaken by researchers from Ashridge University and EABIS on the mind-set and skill set of the global leaders of tomorrow (Gitsham 2009). This report is based on a global survey of 194 CEOs and senior executives at companies participating in the UN Global Compact meetings conducted in 2008, complemented by in-depth interviews with 33 individuals, including HR and sustainability executives and other thought leaders. We complemented this with 25 interviews with leading sustainability thinkers and practitioners in 2010–2011.

With regard to mind-sets, leaders of tomorrow need to understand the changing business context: 82% of those polled say senior executives need to understand the business risks and opportunities of social, political, cultural and environmental trends; 70% say the global leader of tomorrow needs to be able to factor social and environmental trends into strategic decision-making. The challenges and opportunities that these issues and trends present tend, by definition, to be complex—there is often little certainty and little agreement both about their precise nature and about the response that is required. Leadership in these circumstances requires a range of discrete mind-sets: 88% of those polled say senior executives need the ability to be flexible and responsive to change; 90% the ability to learn from mistakes—in other words, they need to be open-minded—and 77% say the future leaders need to have the ability to balance shorter- and longer-term considerations. The global leader of tomorrow also needs to be able to understand the interdependence of actions and the range of global implications that local-level decisions can have and to understand the ethical basis on which business decisions are being made, according to the Ashridge/EABIS report. Mackay and Sisodia (2013) describe these leaders as follows: ‘Conscious leaders are usually strong individuals who possess exceptional moral courage and are able to withstand constant scrutiny and criticism from those who view business in a more traditional and narrow manner’.

In short, the future leader’s mind-set recognises the changing context with trends towards increasing complexity and interdependence among stakeholders. In addition, this type of leadership employs a long-term view, a sense of continuity, while exhibiting open-mindedness, moral courage and a high degree of self-knowledge. We summarise this mind-set as three Cs: context, consciousness and continuity.

With regard to the skill set that is associated with this mind-set, the Ashridge/EABIS report refers to the ability of connectedness—the ability to understand
the actors in the wider political landscape and to engage and build effective relationships with new kinds of external partners. For different businesses this can mean regulators, competitors, NGOs or local communities. To quote the report:

The mind-set with which our current leaders are groomed does not encourage productive engagement with partners outside the organisation—leaders receive plenty of training in negotiation skills, for example, but on the whole lack the skills for engaging for effective dialogue and partnership.

To survive in the future, 73% of senior executives say the leader needs to be able to identify key stakeholders that have an influence on the organisation; 74% say they need to understand how the organisation impacts on these stakeholders, both positively and negatively; 75% say senior executives need to have the ability to engage in effective dialogue; and 80% say they need to have the ability to build partnerships with internal and external stakeholders.

Another particular skill set that is required is referred to as creativity; 91% stress the ability to find creative, innovative and original ways of solving problems, according to the Ashridge/EABIS report. Our review of HSOs’ best practices points to the importance of applying this skill towards value creation by meeting the present and future needs of all stakeholders in the value chain. Finally, all these efforts should be designed from the perspective of scaling up so as to achieve collective sustainable impact. This includes the creation of measurement models that account for sustainable, shared value and embedding sustainability practices in business structures and systems. This can be framed as an ability to create collectiveness, complementing the abilities of connectedness and creativity.

In other words, SL implies the development of three new mind-sets and three new skill sets, each starting with a C. We call this the 6C Sustainable Leadership model and summarise the key new leadership elements in Table 2.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Elements of sustainable leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SL elements</strong></td>
<td><strong>Concepts used in economics and business</strong></td>
</tr>
<tr>
<td>Context</td>
<td>Recognising interdependence; complexity; ambiguity; interconnectedness; resource constraint; regulators; mega-trends</td>
</tr>
<tr>
<td>Consciousness</td>
<td>Mind-sets; world-views; beliefs; mental models; attitudes</td>
</tr>
<tr>
<td>Continuity</td>
<td>Long-term horizon; courage; strength; common purpose; centredness; change processes</td>
</tr>
<tr>
<td>Connectedness</td>
<td>Serving needs of all stakeholders; both long and short term influencing; collaboration; trust; fairness; altruism; relatedness; needs instead of wants</td>
</tr>
<tr>
<td>Creativity</td>
<td>Innovation for sustainable shared value creation; sustainable business models; new value measurement models; flow</td>
</tr>
<tr>
<td>Collectiveness</td>
<td>Scale up for collective impact; embedding sustainability in business structures; sustainable consumption</td>
</tr>
</tbody>
</table>
Comparing sustainable leadership with transformational leadership

There are parallels to many schools, most specifically transformational leadership, which, like SL, is aimed at transforming systems. The theory of transformational leadership (TL) was developed by James Macgregor Burns (1978), who distinguished TL from transactional leadership. While the latter defines leadership as skills and knowledge aimed at making people work effectively within the current status quo, Burns defined transformational leadership as a process in which leaders and followers help each other advance to a stronger intrinsic motivation with a view of addressing unmet social needs by transforming the status quo. He found that transformational leaders offer followers something more than just working for self-gain; they provide followers with an inspiring mission and vision and give them a renewed identity. In addition, this type of leader encourages followers to come up with new creative ways to challenge the status quo and to alter the environment to support people in successfully meeting their needs.

In an attempt to make TL more specific, in 1994 Bernard M. Bass further developed the concept. Bass discovered that transformational leaders consistently demonstrate four major skills and aptitudes (which correspond to various SL elements):

- **Individualised consideration.** Such leaders make their followers feel important, bringing about others’ best efforts and fostering a sense of intrinsic motivation (*connectedness*)
- **Intellectual stimulation.** They are excellent at taking risks, challenging followers’ assumptions about the world and fostering creativity by stimulating independent thought (*continuity/creativity*)
- **Inspirational motivation.** They communicate a vision that is appealing, hopeful and inspiring, instilling others with a deep sense of purpose and meaning (*consciousness/connectedness*)
- **Idealised influence.** They have integrity. They consistently model the very changes that they seek to create, acting as solid, trustworthy and ethical role models for their followers (*consciousness*)

The definition of Bass corresponds to 4 of the 6Cs; context and collectiveness are not explicitly mentioned. Given the context shift presented by the mega-trend of sustainability, one can ask: is the Bass definition of TL enough? Is the TL model still relevant in today’s context where the very cornerstones of capitalism are themselves being transformed? Will the current understanding of transformational leadership be sufficient to help us find and train leaders capable of creating the large-scale system change that sustainability calls for?

Our review concludes that the answer to these questions is negative. While the TL abilities can be found in the 6C Sustainable Leadership model, SL offers a framework that is somewhat broader in both scope
(context shift, interdependency among multiple stakeholders, long term) and depth (serving needs of all stakeholders, shared value creation and collective scale-up). In order to determine the relevance of SL for solving tomorrow’s challenges, we have compared SL attributes with a number of recent business leadership approaches developed from different backgrounds and disciplines.

Comparing SL with recent leadership models directed towards sustainability

In the context of this paper, we have focused on those approaches that specifically orient themselves towards the challenge of sustainable transformation and development. These approaches are not exhaustive. They have been selected because of their apparent relevance for sustainability and systems change. Roberts (2012) has specifically attempted to upgrade transformational leadership skills to deal with the current crisis in capitalism. Likewise, Peter Senge (2008) has taken a holistic leadership view on the need for changing the larger economic system. Lueneberger and Goleman (2010) have looked at what it takes for leaders to drive sustainability initiatives in organisations. These three approaches represent different academic backgrounds—transformational leadership, systems thinking and emotional intelligence, respectively—which will enrich the comparison.

Marshall Roberts (2012)
According to Roberts, in order to be successful in the current context, transformational leaders typically exhibit the following five competences:

- **Holistic thinking.** They tend to see the ‘whole’ or big picture and avoid getting bogged down in siloed thinking
- **Systems thinking.** They see relationships between parts of the organisation that others miss, fostering breakthrough innovation
- **Humanistic thinking.** They are able to sense the emotions of others and connect on a ‘heart’ level when dealing with groups and teams
- **Social optimism.** They can authentically envision today’s big problems being solved, and use this vision to overcome cynicism
- **Authentic filtering.** They quickly discern others’ motives and react appropriately in complex social situations

Peter Senge (2008)
Senge, in his book *The Necessary Revolution: Working Together to Create a Sustainable World*, presents a new mind map that today’s leaders must embrace. It has three core elements:
Systems thinking. Yesterday’s leaders thought in terms of parts and boxes. Today’s leaders must be systems thinkers able to see the big picture relationships between parts of a system, and how these parts combine to create the emergent properties of the whole.

Collaboration—across boundaries. Yesterday’s leaders embraced zero-sum thinking within the context of a scarcity-oriented, competitive framework. Today’s leaders must be able to think from a larger, more expansive ‘thrive and help thrive’ mind-set, which allows them to collaborate across conventional business and social boundaries.

Adaptivity—through creating and adjusting. Yesterday’s leaders focused on linear problem-solving and disciplined execution of detailed plans. Today’s leaders must have a more creative orientation in which they re-contextualise old problems, allowing the inherent structural tension between their future vision and current reality to pull important goals into fruition.

According to Senge, who defines leadership as ‘how we shape futures that we truly desire’, these three parts work together to create an effective and self-reinforcing leadership paradigm for top learning organisations of tomorrow.

Goleman and Lueneberger (2009)
Goleman and Lueneberger have looked at how leadership within companies that are engaged in sustainability initiatives manifests and evolves. They found that sustainability initiatives could not be driven through an organisation the way other changes can. They have three distinct stages, and each requires different organisational capabilities and leadership competences.

Phase 1: making the case for change. When an organisation is largely unprepared to address sustainability, the key challenge is to make a clear and compelling case for change. Because the organisation is at best reactive to the challenges of sustainability (and usually unaware of the opportunities), the sustainability leader must be adept at collaborating and influencing others in the course of the transition from unconscious to conscious reactivity. At the end of Phase 1, sustainability emerges as a powerful mandate that is pervasive throughout the organisation.

Phase 2: translating vision into action. When companies emerge from Phase 1, commercial orientation becomes the key competence in aligning sustainability initiatives and value creation, a point that cannot be emphasised strongly enough. Now the task is to translate high-level commitments into a comprehensive change programme with clearly defined initiatives and hard commercial targets. To make this happen, sustainability leaders in Phase 2 must excel at delivering results, and they must have a strong commercial awareness. At the end of this phase, the organisation is consciously proactive on sustainability across its footprint and tracks economic, environmental and social metrics over the business planning cycle.
Phase 3: expanding boundaries. The need for commercial orientation continues unabated but is now matched by a strong strategic orientation. As the organisation continuously raises the bar and leverages sustainability to create competitive advantage, it increasingly views sustainability as a strategic opportunity and gauges its progress with metrics that reach beyond the short and medium term. As such, the sustainability leader must be adept at anticipating and evaluating long-term sustainability trends, spotting new opportunities and developing strategies to reposition the organisation to benefit from them. The goal is to embed sustainability in the organisation’s DNA, much like quality or financial control, such that it is a core value and the organisation is unconsciously proactive about it.

In short, sustainability leaders have the following six competences:

- Collaborating
- Influencing
- Delivering results
- Commercial awareness
- Anticipating long-term trends
- Evaluating long-term trends

Sustainable leadership attributes framework

Taken together, the leadership attributes mentioned in the other sustainable leadership model systems generally correspond to the abilities of the 6C model. This is shown in Table 3.

<table>
<thead>
<tr>
<th>6C SL</th>
<th>Roberts</th>
<th>Senge</th>
<th>Goleman and Lueneberger</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context</td>
<td>Holistic and systems thinking</td>
<td>Systems thinking</td>
<td>Evaluating long-term trends</td>
</tr>
<tr>
<td>Consciousness</td>
<td>Authentic filtering</td>
<td>Adapitivity</td>
<td>Anticipating long-term trends</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Commercial awareness</td>
</tr>
<tr>
<td>Continuity</td>
<td>Social optimism</td>
<td>Systems thinking</td>
<td>Anticipating long-term trends</td>
</tr>
<tr>
<td>Connectedness</td>
<td>Humanistic thinking</td>
<td>Collaboration</td>
<td>Collaborating</td>
</tr>
<tr>
<td>Creativity</td>
<td>Social optimism</td>
<td>Adapativity</td>
<td>Influencing</td>
</tr>
<tr>
<td>Collectiveness</td>
<td>Systems thinking Collaboration</td>
<td></td>
<td>Driving results</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Anticipating long-term trends</td>
</tr>
</tbody>
</table>
Conclusion: towards a workable definition of sustainable leadership

The leadership models reviewed in the context of this paper confirm that while SL builds on TL, SL is broader in scope given the modern context of complexity and interdependence of stakeholder needs.

In particular, the review of sustainable business practices and the comparison of leadership theories confirm that tomorrow’s leaders must fundamentally change the way they think, i.e. their mind-set or consciousness. The emphasis on consciousness corresponds with certain trends in economic science (such as pointing to the shortcoming of classical economical thinking of supply/demand, market equilibrium and rationality, which ignores psychological, social and ecological realities).

SL is distinct in that it starts with recognising the disruptive and transformational changes that occur in the context of business and society today, while many other leadership approaches start from the viewpoint of the leaders and/or the current status quo of their organisation. By recognising the importance of world-views, mind-sets and attitudes of both leaders and followers, SL implies the need for leadership transformation as the driver and necessary condition for sustainable transformation and development. From this it follows that future leaders will need to take up practices through which they can discover and adjust new mind-sets, beliefs and attitudes and develop the relevant skill set for the unprecedented transformational sustainability journey ahead.

In essence, success in sustainable business transformation rests on the interplay between leadership consciousness and contextual awareness, in both space and time. Therefore, among the 6Cs of sustainable leadership the mind-set of context, conscious and continuity are the main drivers of sustainable leadership. Combined with the skills of connected and creative leadership, they enable the emergence of collective leadership necessary for sustainable value chain transformation and large-scale social sustainable impact. There is much research on the practices for connected and creative leadership that should form SL elements. However, SL recognises the relationship between context, consciousness and continuity as the fundament for sustainable leadership transformation and thus provides a new context and purpose for the connected, creative and collective leadership abilities.

More research will be needed to verify the SL model in business practice, while defining each SL leadership attribute in more detail. The next step is to determine the best way for leaders to develop these attributes. The ultimate aim of the 6C model lies in using it as a model for leadership development for those organisations intent on succeeding in sustainable business transformation and contributing to building sustainable economic systems.
References


