



The Challenge

Dynamic, dramatic and unpredictable changes are part of the new operating landscape for business and government as the impacts of energy, climate, resource, biodiversity and justice-related issues make themselves felt. Coupled with an increasing realisation by leaders that sticking to business models and strategies from the past is no longer an option, there is recognition that if organizations want to thrive in times of change, they must learn to adapt or face the consequences.

The Opportunity

Just as dynamic and unpredictable changes can pose significant challenges, they also present significant opportunities for adaptive organisations and the communities they serve. As organisations start to find their way towards replacing goods with services, eliminating waste and placing value back into the core of decision-making, many of the old assumptions about what made sense will be left behind and replaced by new views on success, wealth, and well-being.

“Organizations have 3 options:

- (1) Hit the Wall,
- (2) Optimize and delay hitting the wall, or
- (3) Redesign for Resilience – simultaneously optimizing existing networks whilst creating disruptive innovations and working collaboratively with partners”.

~ Dawn Vance, Nike: Global Head of Supply Chain

“At times of great winds, some build bunkers, whilst others build windmills.”

~Chinese Proverb

Understanding the Operating System

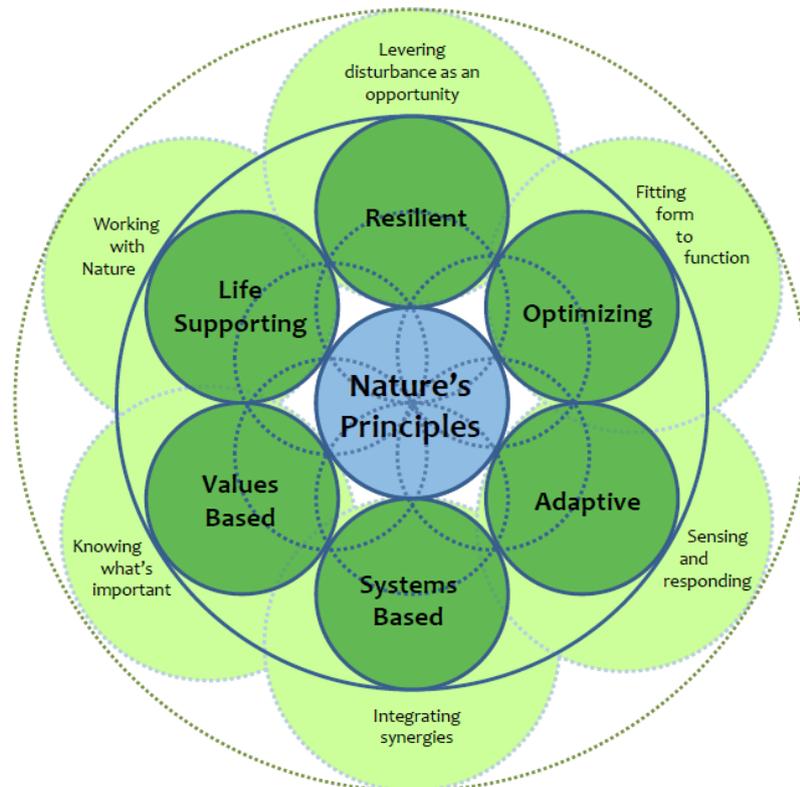
For nearly 4 billion years, all organisms living on earth have faced the same basic conditions, and to survive have followed three basic rules:

1. Sense, respond, and adapt to changing conditions.
2. Live within the limits of Earth's systems.
3. Support their ecosystems while supporting themselves.

Through the process of evolution, nature has evolved a set of 'principles' that allow organisms to follow these rules, live sustainably, and survive times of radical upheaval. Successful organisms in nature are resilient, optimising, adaptive, systems-based, values-based, and life-supporting.

Organisations operating on earth face the same conditions as all other living things, as well as the unique complexities of human-based systems. Organisations inspired by nature learn how to embed nature's strategies in their products, processes, policies, and practices to survive and flourish, seeking out emerging opportunities, and creating greater abundance for themselves and their ecosystems in times of rapid change. Organisations inspired by nature are resilient, optimising, adaptive, systems-based, values-based, and life-supporting.

Nature's Principles



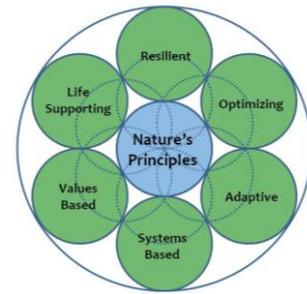
Nature's Principles

Build Resilience

It's more effective to build resilience than to correct poor risk-based decisions that were made with partial information.

Nature builds resilience by:

- Using change and disturbance as opportunities rather than fearing them as threats
- Decentralizing, distributing, and diversifying knowledge, resources, decision-making, and actions
- Fostering diversity in people, relationships, ideas and approaches



Optimize

Optimising delivers better results than maximizing or minimizing. Nature does this by:

- Creating forms that fit functions, not the other way around
- Embedding multiplicity into both functions and responses
- Creating complexity and diversity using simple components and patterns

Adapt

Being adaptive pays back better than “staying a fixed course”. Nature adapts by:

- Creating feedback loops to sense and respond at all levels of the system
- Anticipating and integrating cyclic processes
- Being resourceful and opportunistic when resource availability changes

Integrate Systems

With limited resources and a changing environment, it's better to be systems-based rather independent. Nature works with whole systems by:

- Fostering synergies within communities
- Fostering synergies within energy, information and communication networks
- Creating extended systems to continuously recycle wastes into resources

Navigate by Values

In uncertain times, it's better to be based on a compass of values than a fixed destination point or set of pre-defined metrics. Nature reflects values by:

- Knowing what's really important to the communities in which you live, interact, and impact
- Using values as the core driver towards positive outcomes
- Measuring what is valued rather than valuing what is measured

Support Life

In the long run, it takes less effort and less resource to support life-building activities than to be damaging or toxic and pick up the cost later. Nature supports life-building activity by:

- Leveraging information and innovation rather than energy and materials
- Creating support for individual components that can support the whole ecosystem, and support the ecosystem so that it can support the individual.
- Making products water-based, renewable, bio-based, and biodegradable

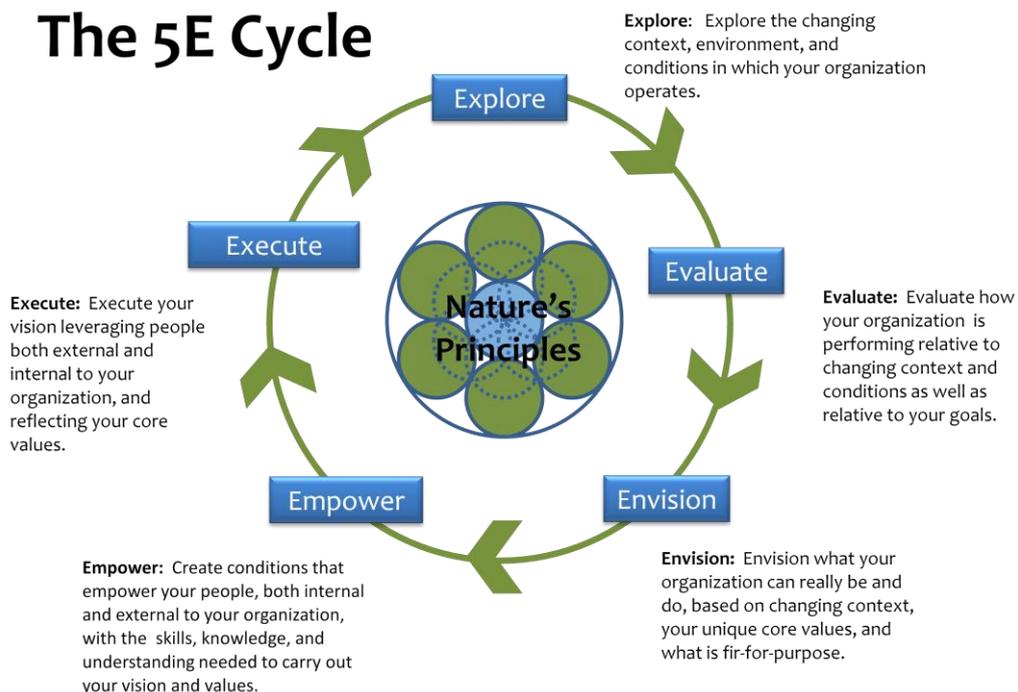
The 5E Cycle

BCI's 5E Cycle is a dynamic continuous process that helps businesses, teams and public sector organisations transform themselves with processes and products inspired by nature – and then keep changing. The E5 Cycle, and each step within it, is based on Nature's Principles; we recognize that Nature sets the rules for sustainability and also provides guidance and inspiration that organizations can use to succeed under dynamic change and within the limits of the Earth. BCI guides clients through the cycle and works with them to embed Nature's Principals for lasting resilience and better results with less input.

The E5 Cycle starts with an exploration and inquiry into the complexity, dynamics, and reality of the context in which organisations operate – seeing the world as it is and without blinders on. Continuously exploring and understanding the changing face of reality helps people more accurately evaluate how their organization is performing now and what changes may be needed to make it fit for the future.

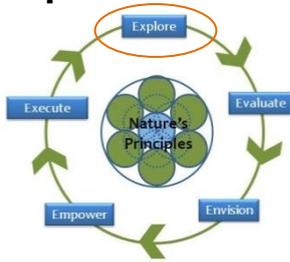
Understanding reality and how good performance actually is when measured against a 'true scale' helps people start to envision what is really possible for their organization – with far more possibility than most imagine – working with core values and risks, and finding new possibilities from change. Leaders of the future will empower people, internal and external to the organization, to execute a vision that they've helped shape and create conditions conducive to optimal performance. As in nature, the successful processes are a never-ending dynamic cycle of feedback and response, continuously adapting and evolving.

The 5E Cycle



The 5E Cycle

Explore



Every organisation operates within a complex and constantly changing context – one in which conditions of both human and natural systems are continuously changing and increasingly dynamic and unpredictable. Many organisations work with limited light on the path they walk, unaware of the complexities and changes that are occurring around them – with an incomplete view of reality which leaves them vulnerable to

disruption and unable to see opportunities. In times of rapid change, organisations have a fundamental choice: explore the full complexity and dynamics of their context and adapt - or face the tough consequences.

An organisation inspired by nature continuously explores, senses, responds, leverages, and aligns itself with the human and natural systems within which it operates. Human systems include trends and disruptions (both positive and negative) in the areas of developing technologies, globalization, diversity, social responsibility, and transparency. Natural systems include resource and energy availability, climate change, and environmental responsibility.

Systems can be difficult for most of us to understand, however, nature operates and provides myriad successful models for sensing, understanding, and working with the complex and dynamic arena in which we operate.

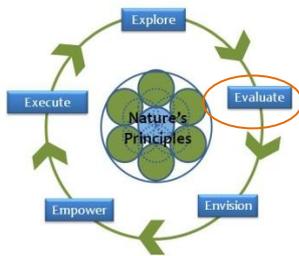
BCI introduces leaders and teams to an enlightening process of exploration that looks at how performance can be inspired by nature rather than by a quality of thinking that is no longer fit for purpose.

Exploring can start with insight into the full breadth of external factors that do or have the potential to affect your organisation, its business environment, and ecosystem within the next year and within your planning horizon.

Example from nature: The human body

Your body is continuously exploring changes in your context and conditions. As you read this, for example, your body is exploring your external context for changes in temperature, light, UV radiation, passage of diurnal and biological time, possible threats, and innumerable other conditions. You are also continuously exploring your own internal conditions such as blood sugar and hunger, hydration and thirst, salinity, pH, temperature. This continual exploration provides the information you need for the next step in the cycle: evaluate.

Evaluate



Organisms in nature survive by constantly evaluating how well they fit relative to the constantly changing conditions around them. Based on the feedback they get at different time scales, they respond and adapt accordingly, constantly moving towards positive outcomes.

Organizations inspired by nature are constantly evaluating how well they are performing in, and aligning with, the context in which they operate. Organizations inspired by nature measure what they value and value what they measure. Evaluating what's important in the long as well as the short run allows them to make the most of emerging opportunities, recover from disruptions, and operate sustainably within all systems.

Organizations shaped by conventional thinking tend to evaluate their performance based on simple metrics of time and money. They value what they measure and ignore the rest, calling them “externalities”.

The results of an E5 Evaluation tell leaders and teams how they are doing comparatively, relatively, and absolutely.

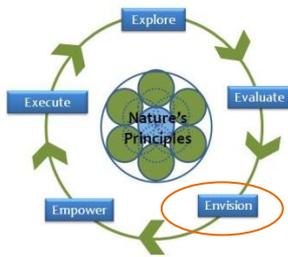
- Comparative: compared to the sector, industry, position, location
- Relative: relative to the best that any organization has to offer in any sector
- Absolute: against nature's principles

Effective evaluation starts with identifying the very real and specific challenges that already exist as well as the opportunities emerging from exploration of context. Effective evaluation of performance against reality leads into an assessment of how readily an organization is prepared to address risk and opportunity.

Example from nature: The human body

Your body uses the continual flow of information from exploration of its internal and external context to evaluate how well it is performing relative to current and potential future conditions as well as relative to its ideal state of being or “vision”. The comparison allows your body to determine what it needs and wants to do next.

Envision



Organisations inspired by nature create a vision based on a complete understanding of dynamic reality that respects fitness and speed - what is fit for purpose, and what needs to happen by when, regardless of the current position. A 'pure vision' strives to optimise abundance for the organisation, the economic ecosystem, the community, and natural ecosystems, and is uncontaminated by perceived limitations to what is possible.

Many people and organizations set goals based on an incomplete understanding of their context and limit themselves to what they think they can achieve based on partial understanding of the problems and challenges they believe they will face. For an organization shaped by conventional thinking, the main goal – sometimes the sole goal – is to maximise profit, especially in the short term. This approach will not – and cannot – lead to an innovative sustainable resilient organization.

Envisioning reflects a complete understanding of reality, the unique values of the organization, how well the organization is currently performing, and what is truly possible and fit for purpose.

As in nature, a pure vision doesn't emerge from analysing and solving perceived problems and challenges – it is based instead on knowing what 'good enough' looks like, choosing how best to continuously move towards positive outcomes. A pure vision unleashes employees' full creative potential and passion, giving them the energy and confidence to seek dynamic, engaging and innovative solutions.

"Infinite high resource intensity growth is simply not possible, and we are already living off our future capital. It may be gradual but most businesses will have to adjust to a very different reality. That reality will still be a version of capitalism, and needs to be a positive vision rather than a doom-laden return to the stone age, but it needs to rethink the point of the system. Instead of the goal of maximum linear growth in GDP, we should be thinking of maximum wellbeing for minimal planetary input."

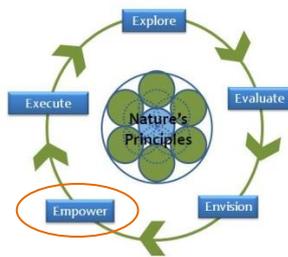
~ Ian Cheshire, Chief Executive, B&Q

Envisioning shapes a pure vision, ignoring all current constraints and focusing on how an organisation and it's ecosystem can be inspired by nature and redesigned in the most optimal way, fit for purpose, and ready to flourish within tomorrow's changed environment. With pure vision in mind, clients then overlay the realities identified in the Explore and Evaluate stages (the market, organisation, culture, etc.) to understand potential for 'quick-wins', 'systemic change' and 'radical transformation' in aiming for the pure vision within your unique reality.

Example from nature: The human body

At any given time scale your body has an ideal state or "vision". Your body's vision and goals for itself as a small child is quite different than its vision for itself now. The ideal state for you when you are outside and active in the wintertime is quite different than the ideal state for you when you are sitting inside a warm room.

Empower



For organizations shaped by conventional thinking, HR management can be seen as ‘filling the org chart’ or squeezing the most out of people for lowest cost using the latest management and leadership techniques, retaining good people through artificial status and pay structures. On the outside, traditional thinking works the supply chain, making deals to maximize revenue, minimize cost and expand market share. All relationships – including those with customers and shareholders – are competitive and are at best win-win. People wait to be controlled and managed whilst leaders think of themselves as lecturers, loners, and heroes.

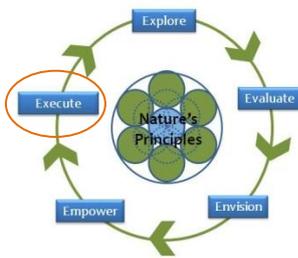
Organizations inspired by nature empower people by fostering and leveraging diversity, feedback loops, and free energy. They fit form to function, self-organise, and optimise rather than maximise. An organisation inspired by nature creates conditions to make the most of the unique capacities of each person, fostering and leveraging diversity, redundancy, and feedback loops within the collective workforce. Structures inspired by nature are fluid and dynamic, allowing self-organization that fits form to function. Relationships with employees, customers, shareholders, stakeholders and the extended business ecosystem are based on synergies designed for creating abundance and resilience. Leaders are hosts, facilitators, catalysts, and listeners.

The E5 Empowering phase focuses on creating conditions that enable people that transform vision into reality. Clients begin by asking how they can use inspiration and transformative leadership to unleash, fully empower and optimize their people (and the business’ ecosystem community) to make the change real.

Example from nature: The human body

After your body updates its vision, it empowers itself (if it is not already empowered) to carry out the vision. If it senses a drop in blood sugar, your body empowers you to take action with a sense of hunger and appetite. If you sense imminent danger, it releases adrenaline to enable fight or flight. If it is the time in your life for reproduction and the right person and circumstances come along, your body empowers you to ...do what needs doing.

Execute



Organizations execute their vision through their practices, processes, and products as well as through their interactions with - and impacts on - the human and natural systems within which they operate.

The actions of organisations shaped by conventional thinking are typically profit-driven and risk-based, which limits innovation and, in the long term, is unsustainable.

The products and processes of an organisation inspired by nature are based on nature's principles and are thus both innovative and sustainable. A business or team inspired by nature recognises the many ways it interacts with human and natural systems and takes action to align with, support, and leverage both.

The actions of organisations inspired by nature are forward-looking, continuously moving toward individual and collective positive outcomes, and create abundance for themselves and for their systems.

Execution is the implementation of dynamic, transformative change at the people, process and product levels using Nature for inspiration. The results of the actions impact and are impacted by reality, and thus the cycle continues.

Example from nature: The human body

Your body is continuously executing myriad actions at numerous scales to respond to its context and realize its vision. You shiver or sweat, your pupils shrink or dilate, you drink and eat, salivate and swallow, your heartbeat races or slows, your skin becomes darker or lighter, you grow or stop growing, you become stronger or quicker (or not...).

Examples of BCI Practices



BCI's ecosystem represents a dynamic collective of business, sustainability, and biomimicry specialists and thought leaders. We work with clients to create unique sequences of events, workshops, projects, and programmes that leverage our collective experience and toolbox to facilitate, optimise, and catalyse a transformational journey. A sample of our some of our practices follows:

Working with leaders or teams to create a **Pure Vision** that leaves conventional benchmarks of what's possible standing in their tracks releasing collective creativity to imagine what is really possible – and use this to set **Real Goals**.

In an **Opportunity Audit**, BCI works with key stakeholders to identify the trends, transitions, and disturbances most likely to impact business, and then works with employees to understand which of nature's strategies for surviving and thriving in times of dynamic unpredictable change will be most suitable.



After 3.9 billion years of evolution, nature has figured out how to make and do everything it needs using only available resources by implementing myriad sustainable, innovative, and elegant solutions. **Biomimicry for Design** helps clients turn nature's principles into design principles. Using biomimicry, they can design products and processes that benefit the environment as well as the bottom line.



By applying nature's principles to employee development, managers can use the principles of **Free my People** to create conditions in which teams and individuals can contribute their unique most to the company while meeting their own personal goals. BCI brings innovative approaches such as the use of **Applied Improv** techniques to create energizing collaborations that foster leaps of imagination and innovation. We also work with clients to find **Models from Nature** to create more dynamic productive

organizational structures.

Although many participants will have heard of **systems thinking**, not many understand the true scale of opportunity, let alone implement systems-scale solutions. Luckily, nature is built exclusively of layers and interplays of successful systems, with a range of scales and responses that help organisations draw on what they can see works to create insights of their own.

Business Ecosystem Innovation

Example of what a typical 2½ day programme might look like for your business:

Participants

This workshop is designed for private, public, or non-profit organisations that are:

- Companies or public sector organisations that have already started a journey of transformational change
- Well advanced on sustainability principles, recognising the need for post-conventional thinking
- Exploring and making sense of the new ground rules and what they mean for them as a leader and team members
- Working with people who intuitively know that there are new ground rules, and don't know yet how to enact them

The Experience

- A combination of indoor and outdoor teaching and experiential learning sessions that include conversation, personal and group reflection, peer learning, and framing
- Hands-on exploration of Nature's Principles
- A balance of skills, understanding, and knowledge
- Strongly outcome focused – walk away able to take SMART actions



Outcomes

- Development of a personal network of like-minded peers
- Real, tangible actions for delegates' organisations
- Exploration of the big questions in this area
- Exposure to best in class examples, across a wide range of sectors
- Ability to explain / articulate what the new rules are and discuss with confidence
- A feeling of optimism, hope and playfulness
- Familiarity with practical tools e.g. Applied Improv, biomimicry, innovation
- Knowing what potential a new organisation dashboard could look like
- New tools for observing, experiencing, and learning from nature

Example Workshop Schedule

2 ½ days: Weds noon through Friday 5pm

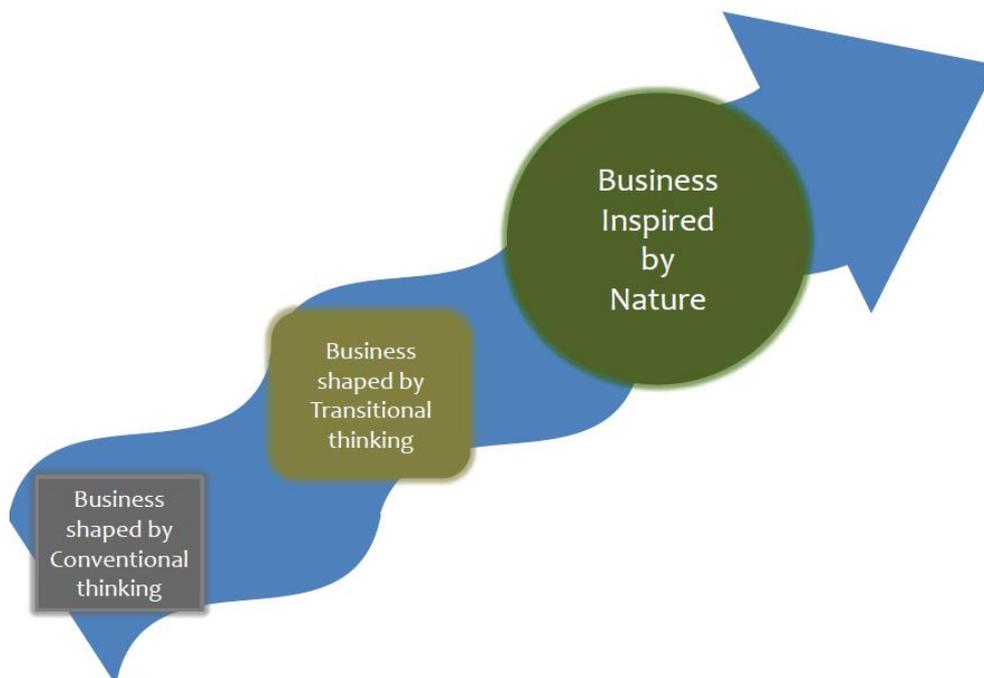
Time	Activity
Pre-work	Reading, research, reflection
Wednesday	
Afternoon	<p>>> Arrive</p> <p>>> Lunch</p> <ul style="list-style-type: none"> • Introductions • Workshop briefing • Field briefing • Exploring nature - inquiry • Group reflection, journaling <p>>> Break</p> <ul style="list-style-type: none"> • Presentation: Introduction and the BCI Process • Best practice case studies – delegate presentations <p>>> Supper</p>
Evening	<ul style="list-style-type: none"> • Drawing, storytelling, open socializing
Thursday	
Morning	<ul style="list-style-type: none"> • Experience nature – iSite • Mapping Reality –understanding of the big picture <p>>> Break</p> <ul style="list-style-type: none"> • Learning from nature • Reflection & feedback <p>>> Lunch</p>
Afternoon	<ul style="list-style-type: none"> • Communication skills– applied improv • Reality Check - personal work challenges, reflections on your performance against nature’s principles and against best in class • Communication skills– telling the story <p>>> Break</p> <p>>> Dinner</p>
Evening	<ul style="list-style-type: none"> • Drawing, storytelling, or open socializing
Friday	
Morning	<ul style="list-style-type: none"> • Experience nature- iSite • Pure Vision – blowing away the benchmarks <p>>>Break</p> <ul style="list-style-type: none"> • Learning from nature • Group- sharing your pure vision <p>>>Lunch</p>
Afternoon	<ul style="list-style-type: none"> • Releasing your People: improv activity • Leadership models from nature • Action framing <p>>> Wrap, close</p>

What it might look like for a client business

Business schools and the application of what's worked in the past typically lead to a set of assumptions and actions that BCI calls "business shaped by conventional thinking". Even at their best, the combination of assumptions and actions of organisations shaped by conventional thinking results in long-term unsustainability for shareholders, employees and customers – and this is the stage at which the vast majority of organisations must start.

Many organizations are beginning to 'get it' - they have goals and plans and programmes in place for CSR and reducing carbon impact, and may be hanging on despite the economic crisis, or even learning to leverage these programs for greater success. These are what we call business shaped by transitional or hybrid thinking.

The problem we are faced with is that even if every business were able to achieve all of their sustainability goals, the systems that support humanity would still be far from sustainable. We must move beyond past assumptions and actions and reach out much farther to a place where success is defined by both high performance and high sustainability – that's what we call an organisation inspired by nature.



BCI: What we are about

BCI: Biomimicry for Creative Innovation is a collective of business, biology and systems professionals who use ecological thinking to release the knowledge and insights needed for radical organizational transformation, helping clients discover myriad emerging opportunities on their way to becoming organisations inspired by nature.



Purpose: Why we are here

BCI's purpose is to transform organisations shaped by conventional thinking into organisations inspired by nature – businesses and service providers that can adapt and flourish, and are fit-for-purpose in an increasingly volatile world. BCI helps clients become positive contributors to the natural ecosystems that support them.



Principles: What we believe

Generating abundance for humanity and for nature must once again be the same thing, with humans as beneficial participants to the Earth's ecosystems rather than a force that damages their own life support systems. Nature sets the rules and scores our performance, has the answers we need, and can teach us how to play the game sustainably. As they say, 'you can't be unsustainable for ever'.



Process: What we do

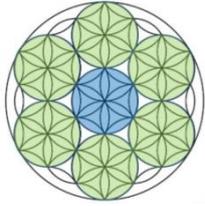
BCI has developed a dynamic process to enable clients to envision and commit their organisations to a transformation that is 'inspired by nature'. We guide leaders, teams and communities through powerful journeys of personal and collaborative discovery, working with them to embed nature's principals as a lasting tool for managing change.



Practices: How we do what we do

BCI's practices are designed to facilitate, catalyze, and embed each step of clients' transformational process into organisations shaped by nature. Our ecosystem of specialists, experts, and facilitators share knowledge, skills, understanding and tools uniquely adapted to each situation and the conditions within which our clients operate. BCI will help people re-think, re-calibrate, and re-tool to do what is needed, not just what is known.

The BCI Ecosystem



The BCI ecosystem is a growing network of synergistic relationships with individuals, not-for-profits, corporations, universities, and other organizations working together around common values and goals. A few of our partners:

- [Royal Botanical Gardens Kew](#)
- [Tomorrow's Company](#)
- [Earthwatch Institute](#)
- [Schumacher College](#)
- [Atos Origin](#)
- [World Wildlife Fund](#)
- [Plymouth University](#)
- [Exeter University](#)



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