Architecting the Regenerative Enterprise

Lorne Mitchell
Co-Chair BCS EASG
Agenda - Three Points

1. What Does Sustainability Mean to You?

2. Towards Regenerative Industry Architectures

3. What Are You Going To Do Next?
What does Sustainability Mean to You?
Key Sustainability Initiatives

CSR

[se, es, är]
A self-regulating business model that helps a company stay socially accountable to itself, its shareholders, and the public.

Scope 1
- Direct
- Reporting company

Scope 2
- Indirect
- Upstream activities

Scope 3
- CO₂
- CH₄
- N₂O
- F保定

ESG reporting and preparation of a Sustainability Report

Report on Responsible Business Conduct / Sustainability Report

Boards can lead the way on ESG. We share the why, what, and how of effectively overseeing ESG.

5000
B Corps

Businesses working together for a more inclusive, equitable, and regenerative economic system.

Objective Designers
CSR - Corporate Social Responsibility

CSR

[ˈsē, ˈes, ˈær]

A self-regulating business model that helps a company stay socially accountable to itself, its shareholders, and the public
The 17 Sustainable Development Goals
SCOPE 1, 2 & 3 Emissions

Scope 1
DIRECT
- company facilities
- company vehicles

Scope 2
INDIRECT
- purchased electricity, steam, heating & cooling for own use

Scope 3
INDIRECT
- DOWNSTREAM ACTIVITIES
  - investments
  - franchises
  - leased assets
  - end-of-life treatment of sold products
  - use of sold products
  - processing of sold products
  - transportation & distribution

- REPORTING COMPANY
- UPSTREAM ACTIVITIES
  - purchased goods & services
  - capital goods
  - fuel & energy related
  - transportation & distribution
  - waste from operations
  - business travel
  - employee commute
  - leased assets

CO₂, PFCs, CH₄, SF₆, N₂O, HFCs

Scheme 1,2,3 scope emissions Credit: Plan A based on GHG protocol
The Global ICT Industry now has up to 2x of the Carbon Footprint of the Global Aviation Industry
The Rise of ESG Reporting

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Example from PwC Website
The Rise of ESG Reporting

ESG

Environmental (Planet)

Social (People)

Governance (Practices)
It’s easier (and frankly lazier) to think in old ways. We can fight these issues and make sustainability fit into a normal model of seeking a good return on investment. But let’s step back a moment. Why exactly do we have to stick with traditional terms? It’s increasingly absurd and surreal to have to justify investing in our very survival — or have to prove that we should stop funding what’s killing us. At the macro level we’ve long passed the point where the cost of action is far lower than the cost of inaction — i.e., huge swaths of the planet becoming uninhabitable, which, again, is kind of bad for business. It definitely pays to invest in our shared future.

As of December 2021, assets under management at global exchange-traded ‘sustainable’ funds that publicly set environmental, social, and governance (ESG) investment objectives amounted to more than $2.7 trillion; 81% were in European based funds, and 13% in U.S. based funds. In the fourth quarter of 2021 alone, $143 billion in new capital flowed into these ESG funds.

How have investors fared? Not that...
We’re introducing a new way to invest sustainably. Here’s how it works.
5000 B Corps

Businesses working together for a more inclusive, equitable, and regenerative economic system.
Patagonia founder is giving away his billion dollar company and ensuring that all profits go towards fighting climate change.

Patagonia founder Yvon Chouinard, his wife and their two adult children have irrevocably transferred their ownership of the outdoor apparel company to a set of trusts and nonprofit organizations.

From now on, the corporation’s profits will fund efforts to deal with climate change as well as to protect wilderness areas. It will, however, remain a privately held enterprise. According to initial reports about this unusual approach to philanthropy that ran on September 15, 2022, Patagonia is worth about $3 billion, and its profits, which will be donated in perpetuity, could total $100 million every year.

The Conversation U.S. asked Indiana University’s Ash Enrici — a scholar who studies how philanthropy affects the environment — to explain why this arrangement is so significant.
What does Zero Waste really mean?

- Mined
- Elements Sourced
- Energy used to Create Product
- Product Packaged
- Traded Up
- Served Up
- Ready for Use
- Being Used
- Used Up & Thrown Out
- Removed & Consolidated
- Sold On
- Further Sorted
- Waste to Energy
- Ground to Dust
- Landfill
- Objective Designers

Energy used to Create Product

- Sourced
- Mined

Further Sorted

- Energy to Create Product
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Objective Designers
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- PACKOSPHERE
- MAKEOSPHERE
- TRADEOSPHERE
- SERVOSPHERE
- USOSPHERE

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- Energy used to Create Product

- Makeosphere

- Tradeosphere

- Servosphere

- Biosphere

- Packosphere

- USosphere
What does Zero Waste really mean?

The Seven Layers of Reusability

- Mined
- Elements Sourced
- Energy used to Create Product
- Product Packaged
- Traded Up
- Served Up
- Ready for Use

Being Used
- USOSPHERE
- SERVOSPHERE
- TRADEOSPHERE
- PACKOSPHERE
- MAKEOSPHERE
- TECHNOOSPHERE
- PACKOSPHERE

Used Up & Thrown Out
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Being Used
The Doughnut Model by Kate Raworth
**Sustainability (SUST)**

Providing advice, assistance and leadership to enable the organisation to minimise negative environmental impact.

<table>
<thead>
<tr>
<th>Skill Levels</th>
<th>Skill Guidance</th>
<th>Related Skills</th>
<th>Skill Resources</th>
<th>Components Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4</strong></td>
<td><strong>5</strong></td>
<td><strong>6</strong></td>
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Develops and promotes organisational strategies, policies, standards, and guidelines for sustainability. Leads the introduction and use of sustainability techniques, methodologies and tools.

<table>
<thead>
<tr>
<th>Background</th>
<th>Work Activity</th>
<th>Knowledge / Skills</th>
<th>Training</th>
<th>PDAs</th>
<th>Qualifications</th>
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<tbody>
<tr>
<td><strong>Title</strong></td>
<td><strong>Description</strong></td>
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<tr>
<td>Strategy development</td>
<td>Develops and promotes organisational strategy for sustainability. Works with senior management within the organisation to review the effectiveness of the current strategies in supporting IT sustainability objectives, including IT resources. Contributes to corporate strategy. Leads the creation of strategies, overseeing feasibility studies to identify the sustainability benefits of alternative strategies, and strategic models of the organisation's energy and material usage needs.</td>
<td><strong>SUST601</strong></td>
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</tr>
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</table>
ICT as an Enabler to a Greener Economy

Helping businesses create a greener, more sustainable future through ICT

An industry guide by Defra in collaboration with our ICT (information and communication technology) industry suppliers & partners

October 2019
## Summary of Key Initiatives

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**Your Sustainability Initiatives**

TIME FOR ACTION!
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Your Sustainability Initiatives

TIME FOR ACTION!
From Sustainable to Regenerative Systems

Steps to the Regeneration of Living Systems

- **Degenerative**
- **Fragmented**
- **Green(washing)**
- **Sustainable**
- **Restorative**
- **Reconciliatory**
- **Regenerative**

**Figures**
- **Figure 1**: Trajectory of Environmentally Responsible Design

**Source**
- "Shifting from 'sustainability' to regeneration" by Bill Reed
Time for a Revolution in EA

• Many of our EA Frameworks are old and designed for a different age and set of (Zachman, TOGAF etc.)

• Enterprise Architecture and Business Design has a unique perspective to make a real difference on Sustainability Initiatives

• The Real Action needs to happen across Industry sectors, not so much within

• However, the business case still needs to make sense

• The leaders are already showing the way (e.g. Patagonia, Apple, BCorp etc.)

• A lot of work in the next year is in educating and encouraging experiments across industries and taking individual action to embrace the revolution
What Are You Going To Do Next?