

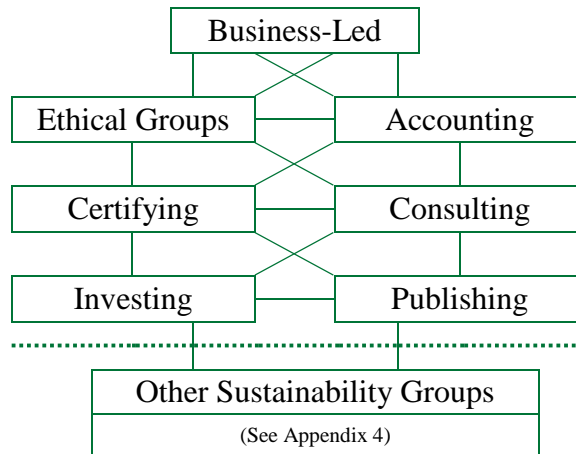
GREENING CAPITALISM, QUIETLY:
Seven Types of Organizations Driving the “Necessary Revolution”

by *Michael Marien* and *Michael Sales*

{A Report Derived from **The Security & Sustainability Guide**}

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EXECUTIVE SUMMARY

In 2008, MIT’s Peter Senge *et al.* wrote that the Industrial Age bubble was ending and that, especially due to climate change, a “Necessary Revolution” was needed to create a sustainable flourishing world in the decades ahead. Since then, many business organizations have moved toward sustainability to some degree, and many other organizations have emerged, mostly non-profits, to help business and/or prod them to pursue ethical strategies. This report explains *how* the revolution is unfolding, by briefly mapping some 140 organizations that are driving the greening of capitalism, and grouping them in several meaningful categories: Business-Led Groups, Ethical Groups, Broadened Accounting Groups, Certifying Organizations, Green Investing Groups, Sustainability Consultants, and Green Business Publishing. Each of these groups is important in facilitating the revolution, especially those promoting corporate social responsibility, broader accounting practices, certification, and green investing. Among groups that list their beginning, the median start-up date was 2003—thus a doubling in 13 years.

This revolution certainly appears to be well underway, leading to a contest between 21st Century Green (or Sustainable) Capitalism, valuing the triple bottom line of People/Planet/Profit to some degree vs. 20th Century Industrial Era Capitalism that adheres to a single bottom line and narrow accounting measures. But the revolution is a quiet one that is underappreciated, due to fragmentation and lack of leadership. Hopefully, if well-publicized and widely discussed, the January 2017 **Better Business, Better World** report of the Business and Sustainable Development Commission, making a strong all-win business case for pursuing the UN’s 17 Sustainable Development Goals, could provide a large boost to the necessary revolution. In turn, this could energize the larger system of more than 1000 sustainability-related organizations that are identified in the August 2016 Interim Draft of **The Security & Sustainability Guide**. We are not yet winning the struggle for sustainability in our era of great and intensifying uncertainty and danger. But with cities and responsible business taking the lead, and with more horizontal thinking that includes broad consideration of security issues, the necessary revolution can become more visible and thus accelerate.

INTRODUCTION

In his thoughtful and important 2008 work, *The Necessary Revolution: Working Together to Create a Sustainable World*,¹ MIT’s Peter Senge and four colleagues argued that the “extended bubble” of the Industrial Age is coming to an end, as concerns energy, food, wasted materials, growth measured as GDP, and societal organization and priorities. The only question, they conclude, is when and how, recognizing that collapse could occur rapidly. Reducing greenhouse emissions and creating a sustainable flourishing world for life beyond the Industrial Age in the decades ahead is “perhaps the greatest learning challenge humans have ever faced.”

Senge, an expert on systems thinking,² management, and learning organizations, goes on to discuss how we got into our predicament, thinking together about the larger system, the business rationale for sustainability, getting people engaged, cross-sector collaborations, purposeful networking, innovation inspired by living systems, new strategic possibilities, the future of corporations and leadership and much more. Several dozen illustrative organizations are mentioned in passing, but the authors modestly note that “we are at the beginning of the beginning.”³

Nearly a decade has passed since this inspiring work, and many business organizations have moved toward sustainability to some degree, and many other organizations, mostly non-profits, have emerged to help business and/or prod them to pursue ethical strategies. As Senge *et al.* note, “The watchdog role of countless NGOs is now a feature of the business landscape.”⁴

The purpose of this report is to explain *how* the necessary revolution is unfolding, by briefly mapping a system of some 150 organizations that are driving the greening of capitalism, and to cluster them in several meaningful categories or sub-systems: Business-Led Groups, Ethical Groups, Broadened Accounting Groups, Certifying Organizations, Green Investing Groups, Sustainability Consultants, and Green Business Publishing. In short, business leaders are themselves pursuing the “necessary revolution,” but there are many organizations driving them and supporting them. We believe that this important and positive development in a time of great uncertainty and danger is not adequately recognized, if at all. A broad mapping overview, even if necessarily imperfect, can enhance the understanding of this profound but quiet revolution, well under way, and hopefully speed it along.

Several caveats are needed. *First*, all of this information has been collected from organization websites. Some of the information may involve inflated promises or numbers; on the other hand, some information may be outdated and understated, in that organizations have added more staff or members, issued new and useful publications, and developed even more initiatives and alliances that seek to do good at a time when such is needed.

Second, the number of organizations covered here is constantly expanding. We hope that the most important players have been identified, but we have doubtlessly overlooked organizations that deserve to be listed. And, due to limited space, activities of organizations that are identified may not be fully represented.

Third, we apologize for the extensive name-dropping, which may assume mind-numbing proportions. But that is the point: to briefly illustrate the range and diversity of green organizations related to post-industrial-era business. If readers discover just one organization

that closely fits their interest and needs, it will more than repay their investment in scanning this list. However, in many instances, there will be several organizations that deserve to be checked out by the readers. We have assigned an asterisk to organizations that seem to be more important, but this can easily be overridden by other considerations. We also include the date of founding, location of main offices, and number of staff if this information is provided on the website (in many instances it is not).

Fourth, this profusion of organizations makes a strong case that the greening of capitalism is underway, but not that green capitalism has arrived, nor will it fully arrive anytime soon. Unfortunately, many businesses have yet to make efforts related to sustainability, and many that have “gone green” have done so consciously or unconsciously in superficial ways. And many will not embrace greening, for a variety of reasons. And definitions of “green” and “sustainability” vary, while overlapping. Thinking “green” is generally narrower, suggesting energy efficiency and/or renewable energy sources, but can be broad, as in the “green growth” concept. “Sustainability” and “Sustainable Development” are generally broader, notably as articulated in the 17 UN Sustainable Development Goals. Overall, and most important, the many organizations embracing green and/or sustainable pathways point to an emerging bi-furcation in the world of capitalism. The sooner this is seen, and debated, the better.

SEVEN TYPES OF ORGANIZATIONS

Business-Led Groups

There are a number of corporate-led groups that are well aware of emerging sustainability challenges and have been taking a leadership role in addressing these risks. Perhaps the two best-known groups are the **World Business Council for Sustainable Development* (1992, Geneva) and the **World Economic Forum* (1971, Geneva; 400 staff). The WBCSD has 200 corporate members from 35 countries, and has issued an *Action 2020* platform and a *Vision 2050* best-case scenario. The WBCSD Chair is Paul Polman, CEO of Unilever, which initiated the Unilever Sustainable Living Plan in 2010, “to make sustainable living commonplace.”

The World Economic Forum, much older and larger, is widely known for its annual January meeting of business and government leaders in Davos, but also issues many reports on such topics as sustainability, global risks, human capital, food security, the circular economy, health for all, and the water/food/energy nexus. The **Business and Sustainable Development Commission* (Jan 2016, London; 12 staff), launched in Davos by Paul Polman and Mark Malloch-Brown (former UN Deputy Secretary-General), makes the business case for a new economy based on the UN’s Sustainable Development Goals. Its outstanding “flagship report,” **Better Business, Better World** (Jan 2017, 121p), offers a compelling growth strategy for business and the world economy, arguing that achieving the Global Goals will create more than 380 million new jobs by 2030, 70 million of them in affordable housing.⁵

Other similar groups are **Ceres* (1989, Boston), a very active coalition of 130 organizations to mobilize investor and business leaders for a sustainable world, the *Corporate Eco-Forum* (2008, 5 staff) for executives in 67 large corporations in 18 industries, the

Responsible Business Forum on Sustainable Development (2012, Singapore) to build prosperity with economic, social, and natural capital, the *American Sustainable Business Council* (Washington; 12 staff) claiming >200,000 businesses and holding an annual Sustainable Business Summit, **Business for Social Responsibility* (1994, San Francisco; 100 staff in 8 offices) which networks >250 member companies, *Environmental Entrepreneurs* (2000, Washington) with 850 business leaders for sustainability, *Sustainable America* (Stamford CT, 5 staff) for entrepreneurial solutions, and *Sustainable Value Creation* (2008, Uxbridge UK) for sustainable business.

Small business is represented by the *Business Alliance for Local Living Economies* (Oakland CA) which claims 500,000 businesses supporting localist values and resilient communities, and the *Climate Action Business Association* (Boston, 6 staff), which helps small business leaders with climate action business plans. Focus on a specific industry is demonstrated by the *Global Alliance for Action on Banking Values* (2009, Zeist, Netherlands) assembling 27 banks for Principles of a Sustainable Banking Culture, and the *Copenhagen Fashion Summit* (2009, Denmark) which drew >1,200 participants to “the world’s largest meeting on sustainability in fashion” and promotes new business models.

The impact of these various entities is not clear, and further research is needed. But the number of these associations and their ambitions is growing, presumably with at least some positive results.

Ethics-Driven Groups

Many groups explicitly stress ethics, responsibility or corporate social responsibility (CSR), and leadership, and organizational ratings and performance reports reinforce these virtues. The best-known ethical driver is probably the **UN Global Compact* (2000, Geneva), which has 12,000 business signatories in 170 countries to 10 Principles regarding human rights, labor standards, environment, and corruption. The *UN Global Compact Cities Programme* (2003, Melbourne) encourages urban innovation and local businesses joining the Compact. Unfortunately, the Compact lacks any effective monitoring and compliance machinery.

Explicit mention of ethics is found in *Ethical Corporation* (London), which publishes a *State of Responsible Business Report*, Hazel Henderson’s **Ethical Markets Media* (St. Augustine FL), which publishes a *Green Transition Scoreboard* on swelling corporate investments and the *Ethical Money Directory* of 200 asset management firms, *Ethical Trading Initiative* (1998, London; 30 staff) promoting improved working conditions in global supply chains, and the *Ethos Institute of Business and Social Responsibility* (1998, Sao Paulo, Brazil), which pursues a CSR strategy for a fair and sustainable society.

Responsibility is the focus of the **CSR360 Global Partner Network* (1999, London) which claims 133 organizations from 64 countries reaching 6,000 companies, “to mobilize business for good.” The *CSRwire* (1999, Northampton MA) offers books, reports, and press releases on corporate social responsibility. The *ICCR Corporate Examiner* is published 3 times/year by the *Interfaith Center on Corporate Responsibility* (1971, New York), which encourages “sustainable and just practices.” Since 2002, the *Corporate Responsibility Index* has

been compiled by *Business in the Community: The Prince’s Responsible Business Network* (1982, London; 9 staff), to build “a fairer society and more sustainable future.” *Business Fights Poverty* (2008, c/o Inspirus, London; 17 staff) promotes “responsible investing” to bring the SDGs into reality. The *Center for International Environmental Law* (1989, Washington; 15 staff) pursues legal levers for systemic change including “transboundary corporate accountability.” *Tomorrow’s Company* (1996, London; 15 staff) enables business to be “a force for good.”

Leadership is emphasized by the **Cambridge Institute for Sustainability Leadership* (1989, Cambridge University; 132 staff), which offers executive education and graduate degree programs and promotes business action, and the *IMD Global Center for Sustainable Leadership* (1990, Lausanne, Switzerland), developing leaders to create best practices for future sustainability institutions and supply chains. And many individual business school professors, such as Sandra Waddock of Boston College, are promoting corporate responsibility and sustainability leadership. The *Center for Environmental Leadership in Business*, one of three major programs at *Conservation International* (1987, Arlington VA; 900 staff in 30 offices), works with corporate partners for improve industry responsibility in mining and energy, promote sustainable sourcing, and invest in conservation innovations. Individual companies touting their leadership include *LafargeHolcim* (115,000 staff in 90 countries), “a new leader for a new world” of building materials for sustainable development, and *Acciona* (1997, Madrid; 33,000 staff in >30 countries) a Spanish conglomerate aspiring to leading in renewable energy, and sustainable water and infrastructure.

Ratings of business organizations are provided by the **Dow Jones Sustainability Index* (1999, New York), which evaluates sustainability performance of 2,500 large companies in 24 industry groups. *Insight 360* (7 staff) provides a dashboard for >8000 companies showing rank in sector and performance on sustainability and ESG (environmental/social/governance) factors. The *Global Cleantech 100* list of top companies is issued by the *Cleantech Group* (2002, Oakland and London; 14 staff) which seeks to accelerate sustainability innovation and help corporations and investors. *Game Changers 500* (2013, San Francisco) ranks the world’s “top for-benefit companies.” The **Global Initiative for Sustainability Ratings* (2011, Washington), sponsored by Ceres and the Tellus Institute, rates the raters of corporate sustainability activism and engagement, and seeks a single standard. Standards are also developed by the **Global Reporting Initiative* (1997, Amsterdam) which issues *Sustainability Reporting Guidelines* for corporate sustainability reports; their *GRI Sustainability Disclosure Database* has 37,000 reports for >10,000 companies.

Ethics, responsibility, leadership, and sustainability are not necessarily defined in the same way, but the similarities in definitions may well outweigh the differences. This area, too, requires further research. Listings of the bad actors, past and present (e.g. Koch Industries), do not appear to be nearly as prevalent, but would also be helpful.

Broadened Accounting

The traditional image of accounting as dull number-crunching is quickly fading. As argued by Jane Gleeson-White in **Six Capitals, or Can Accountants Save the Planet? Rethinking Capitalism for the 21st Century**,⁶ the “language of business” is increasingly learning to speak in multiple tongues reflecting the “triple bottom line.” Modern corporate accounting, she argues, should assess the condition of six states of capital: traditional financial assets, physical assets, intellectual (idea) capital, human capital (well-being and engagement of staff), social capital (relationships with various communities), and natural capital.

Various groups are working to establish this broader picture. In addition to **GRI**, mentioned above, the **Sustainable Accounting Standards Board* (2011, San Francisco; 26 staff), chaired by Michael Bloomberg, is developing standards for more than 80 industries. The *International Integrated Reporting Council* (2012, London) encourages business to “think holistically” about sustainable development and value creation over time. **Ceres* (1989, Boston; 65 staff), a coalition of >130 organizations, advocates accounting standards that abolish the concept of free pollution and accelerates policies that reward sustainability performance. Ceres serves as a linking node between some of these organizations. **Measure What Matters*, a three-year program led by the Green Economy Coalition (2012) of 150 global leaders, seeks to align global, national, and business indicators, to measure success beyond profit alone to include human wellbeing and health of the planet, proclaiming that “a data revolution is underway.” *GIST Advisory* (2004, Mumbai; 6 staff), the Green Indian State Trust, offers sustainability consulting and encourages green accounting for Indian states. *Accounting for Sustainability* (2004, London; 11 staff), set up by HRH The Prince of Wales, convenes senior finance leaders to shift toward a sustainable economy and resilient business models. The *Climate Disclosure Standards Board* (2007, London; 8 staff), catalyzed by the World Economic Forum, supports a framework for business information in corporate reports. The *American Carbon Registry* (1996, Winrock International, Arlington VA) provides tools for greenhouse gas reporting and promoting carbon offsets. The **Carbon Disclosure Project* (2000, London; 34 major staff) seeks to “transform the way the world does business,” working with corporations and investors to disclose greenhouse gases and water usage.

Complementing these efforts for a broader view, several other groups have a specific focus on natural resources. The **Natural Capital Finance Alliance* (Oct 2016) of >90 institutions, sponsored by the UNEP Finance Initiative and the Global Canopy Alliance, builds on the Natural Capital Declaration of the Rio+20 summit and encourages consideration of natural capital in loans, equity, and accounting and disclosure frameworks. The *Natural Capital Coalition* (2012, Amsterdam) seeks standardized accounting for business using their Natural Capital Protocol. **Wealth Accounting and Valuation of Ecosystem Services* or WAVES (2010, World Bank Group) is a coalition to promote Natural Resources Accounting for sustainable development. *Trucost* (2003, London/NYC/Paris/Hong Kong) helps companies and investors to understand the economic consequences of natural capital dependency and issues a stranded assets report. *Sustainable World Initiative* (2008, Washington) promotes natural resource accounting and managing ecological footprints. Ecological footprint accounting tools have been

highly developed by the **Global Footprint Network* (2003, Oakland CA and Geneva; 47 staff), founded by Mathis Wackernagel.

These efforts to broaden accounting, even though they appear to have some differences, are important steps in reforming economic thinking that is appropriate to the 21st century. Criticism of the Gross National Product measure of economic progress has been made by numerous observers over several decades,⁷ with little or no impact. One reason for this failure, despite increasing obsolescence of the GNP, is that the measure is deeply entrenched in economic thinking and not easily displaced or even supplemented by a more accurate and appropriate measure such as the Genuine Progress Indicator. Secondly, the critics of GNP are fragmented and largely non-activist academics, whereas organizations promoting broadened accounting are activists, and more prone to forming alliances. Thirdly, reforming business accounting, especially as concerns natural resources, can be a significant bottom-up step toward reforming systems of national accounts, as suggested by the Measure What Matters program, which seeks to align global, national, and business indicators.

Certifying Organizations

The internet, trade, and global travel are frequently cited as forces for globalization. Certifying organizations seeking global, regional, or national standardization of best practices are another driver, albeit a quiet one. The **International Organization for Standards* (1947, Geneva; 135 staff), comprising 163 national standards bodies, has issued many ISO standards, including Environmental Management, Energy Management, Risk Management, Food Safety, Information Security, and Social Responsibility.

But the world of global certification is far broader, as reflected by the **ISEAL Alliance* (2002, London; 25 staff), the International Social and Environmental Labelling Alliance of 19 standard-setting organizations and certifying systems, to distinguish and promote credible sustainable standards for products and services. ISEAL publishes an Annual Report, and sponsors Codes of Good Practice and the ISEAL Credibility Principles. Six ISEAL members have formed the **Global Living Wage Coalition* (2013), partnering with the UN Global Compact, to improve wage levels in certified supply chains. GLWC includes **Social Accountability International* (1997, New York), which issues the SA8000 Standard for decent work, used in 3,500 certified factories in 72 countries and 65 industrial sectors. SAI promotes its Social Fingerprint rating system for companies and supply chains.

Other specialized organizations certifying for sustainability and human rights:

- EXTRACTIVE RESOURCES: **Extractive Industries Transparency Initiative* (2002, Oslo) claims to be the leading global standard for extractive resource wealth as a key engine for sustainable growth and reduced poverty. See *EITI Standard Progress Report 2015*.
- DIAMONDS: **Kimberly Process Certification Scheme* (2002) involves 54 participants from 81 countries certifying conflict-free diamonds that do not finance rebel movements.

- SEAFOOD: *Marine Stewardship Council* (1996, London + 18 offices) certifies responsibly caught fish with the blue MSC label; it now covers 281 fisheries with almost 10% of the global seafood catch, plus 97 others being assessed.
- FORESTS: the *Sustainable Forestry Initiative* (1994, Washington & Ottawa; 18 staff) promotes the FSI Forest Certification Standard, Chain of Custody Standard, and Certified Sourcing labels. *Forest Stewardship Council International* (2003, Bonn) provides FSC Certification and publishes a 32-page *2015-2020 Global Strategic Plan*. *Programme for the Endorsement of Forest Certification* (1999, Geneva) is an umbrella organization of 35 national forest certification systems for small forest owners.
- AGRICULTURE: **IFOAM – Organics International* (1972, Bonn), the International Federation of Organic Agriculture Movements, has some 800 affiliates in >100 countries and sponsors the Organic Guarantee System to certify organic labels. *UTZ: Better Farming Better Future* (1999, Amsterdam) certifies sustainable cultivation of coffee, tea, and cocoa, covering >1 million farmers and farm workers in 36 countries. *Animal Welfare Approved* (2013? Marion VA; 29 staff) certifies family farms with high welfare methods. The *Roundtable on Sustainable Palm Oil* (2004, Kuala Lumpur) offers RSPO certification of sustainability claims based on RSPO Principles and Criteria. Similarly, the *Roundtable on Renewable Soy* (2006, Buenos Aires) offers certification based on the RTRS Standard.
- FAIR TRADE: *Fairtrade International* (1997, Bonn; c70 staff), formerly Fairtrade International Labelling Organization, sponsors the FLOCERT certifying organization to reduce poverty and increase sustainable development. The *World Fair Trade Organization* (1989, Amsterdam) promotes the Fair Trade Guarantee System and 10 Fair Trade Principles.
- PRODUCTS: *Cradle to Cradle Products Innovation Institute* (2010, San Francisco) has a Product Standards Guide and products registry for 2,500 products. *McDonough Braungart Design Chemistry* (1999, Charlottesville VA) provides “cradle to cradle” certification for sustainability companies. *GoodWeave* (1986, Washington) sponsors Child-Labor-Free Certification for the carpet industry and the GoodWeave standard of no forced or bonded labor.
- WASTE: the *Zero Waste Business Council* (2011, Corona Del Mar CA; 4 staff) provides facility certification.
- PROFESSIONALS: the *International Society of Sustainability Professionals* (2007, Portland OR) certifies core competencies for individuals and has 1000 members in 10 chapters. The *Association of Climate Change Officers* (2008, Washington) began a CCO Certification program in 2015 to advance professional skills in public and private sectors worldwide. *Chartered Institution of Water and Environmental Management* (1987, London) provides training and academic accreditation.
- CORPORATIONS: **B Lab* (2006, Wayne PA), promoting Business as a Source for Good, has certified 1,996 beneficial “B-Corps” in 50 countries and 130 industries as of Dec 2016.

Some of these certifying organization are larger and better established than others, but, considered together, they represent a powerful non-government governance force for sustainability, conservation, and human rights.

Green Investing

Three broad indicator clusters suggest the robust turn toward green or sustainability investing, arguably the most potent of the seven groups of organizations surveyed here, because it is based not only on ethics but on increasingly strong economic arguments. First, the **Sustainable Stock Exchanges Initiative* (2009), facilitated by the UN Global Compact, UNCTAD, UNEP Finance Initiative, and Principles for Responsible Investment, now has 60 partner exchanges on board to promote sustainable business practices and responsible investment. Their “flagship event” is the bi-annual SSE Global Dialogue. The *UN Environment Programme Finance Initiative* (1992, Geneva) seeks systemic change in banking, insurance, investment practice, real estate finance, and valuing ecosystem services. *Principles for Responsible Investment* (2006, London) claims to be the “world’s leading proponent of responsible investment,” and offers online training via the PRI Academy and transparency reports of asset owners and investment managers.

Second, based on corporate reports, the *Green Transition Scoreboard*, published annually by Hazel Henderson’s **Ethical Markets Media* (St. Augustine, FL), calculates \$7.13 trillion in non-government green investments and commitments since 2007, divided in five categories: Renewable Energy (\$3.2 trillion), Energy Efficiency (\$1.7 trillion), Life Systems such as water and waste management (\$1.0 trillion), Green Construction (\$745 billion), and Corporate Green R&D powered by the auto industry (\$489 billion). Extrapolating an upward trend, the *Scoreboard* sees private investors “on track to reach \$10 trillion in green sector investments by 2020.” EMM, a Certified B-Corporation, has also published the *Ethical Markets Directory* (2016), with 200 brief entries describing green asset managers, investment advisors, banks, consultants, and NGOs.

A third indicator is provided by the **Morgan Stanley Institute for Sustainable Investing* (2013, New York), which notes that “sustainable investments have more than doubled since 2012,” while “divestment in fossil fuels reached c.\$3.4 trillion globally in 2016” (likely prodded by the *DivestInvest Philanthropy* of >500 organizations). Joining with Bloomberg LP, MSISI recently conducted a survey of 402 asset management professionals, concluding that “sustainable investing has entered the mainstream,” with two-thirds of asset managers practicing sustainable investing and believing that its adoption will grow.⁸ The report also cites a survey from *US SIF: The Forum for Sustainable and Responsible Investment* (Washington, 7 staff), finding that professionally managed US assets utilizing sustainable investment criteria grew from \$3.7 trillion in 2010 to \$8.7 trillion at the start of 2016. The US SIF is part of the six-member *Global Sustainable Investment Alliance*, which seeks “to deepen the impact and visibility of sustainable investment organizations at the global level.

Some of the larger and more interesting investment organizations include the following:

- **Breakthrough Energy Ventures** (2016) of 20 mega-rich investors such as Bill Gates and Jack Ma forming a billion-dollar investment fund to transform energy R&D and “the landscape of innovation” in electricity, agriculture, manufacturing, and buildings.
- **Carbon Tracker Initiative** (2010? London; 20 staff) where financial specialists make “carbon investment risk real” with reports on the carbon bubble, stranded assets, etc.
- **Climate Bonds Initiative** (2012, London), an investor-focused non-profit to mobilize the \$100 trillion bond market for climate solutions.
- **De Tao Group** (2014, Shanghai and Beijing), a think tank sponsoring the De Tao Institute of Green Investment and a Master Academy for future new energy.
- **Generate Capital** (San Francisco; 11 staff), “The Capital Partner for the Resource Revolution” of renewable energy, food, water, and materials, which has lined up \$500 million for sustainable infrastructure projects in two years.
- **Generation Investment Management LLP** (2004, London & New York), co-founded by Al Gore and David Blood to advance “sustainability investing for the long term.” The non-profit **Generation Foundation** (2015) seeks to mobilize asset owners and investors around the business case for Sustainable Capitalism, and supports the Sustainable Accounting Standards Board and the International Integrated Reporting Council.
- **Insight 360** (San Francisco, 7 staff), “Sustainability Meets Big Data,” with the Insight 360 app to analyze sustainability performance and ESG factors (environmental /social /governance) of >8,000 companies for investment experts.
- **Investor Network on Climate Risk** (2003, Boston), a Ceres initiative of 110 institutional investors representing >\$13 trillion in assets to promote sustainable leadership, parallel to the **Institutional Investors Group on Climate Change** (2005, London; 5 staff).
- **RobecoSAM** (1995, Zurich +4 offices), “We Are Sustainability Investing” for an increasingly resource-constrained world; it assesses 3,400 companies and partners with Dow Jones in *Sustainability Yearbook 2016*, listing leaders in 59 industries.
- **Trucost** (London, New York, Paris, Hong Kong), helping companies and investors to understand impacts of natural capital dependency and stranded assets.
- **We Mean Business Coalition** (2015), assembling 677 companies and investors as of Dec 2016 to “create a low-carbon revolution.”

Other investing-related organizations deserving mention include **Asset Owners Disclosure Project** (2012, London) to protect owners against climate risks by improving disclosure, **Association for Sustainable and Responsible Investment in Asia** (2002, Hong Kong) to promote corporate responsibility, **Billion Dollar Green Challenge** (2011, New York) to encourage universities and other nonprofits to invest in energy efficiency, **Capital Institute** (2010, Greenwich CT, 7 staff) which publishes *Guide to Investing in a Regenerative Economy* for pension funds, **Clean Path Ventures LLC** (1987, San Francisco) investing in solar PV projects, **European Sustainable Investment Forum** (2003, Brussels) to champion sustainability in European financial markets, **Global Investor Coalition on Climate Change** (2014?) with four

regional groups in Europe, North America, Asia, and Australia/NZ, *Green Alpha Advisors* (2007, Boulder CO; 6 staff) to invest in the “inevitable economic/technological transition to sustainability,” *Green America* (1982, Washington; 50 staff) publishing the *National Green Pages* and a guide to socially responsible investing, *Green Century Funds* (1990, Boston) owned by environmental non-profits to promote fossil-fuel-free investing, *Kleiner Perkins Caufield Byers* (1972, Palo Alto CA) investing “heavily in green start-ups” and “world-changing ideas” with Al Gore on the Board; *Marion Institute* (1993, Marion MA; 12 staff) to incubate “Serindipity Projects” in sustainability and social justice, *Omidyar Network* (2004, Redwood City CA; c.100 staff) for “philanthropic investment” and global innovation, *Pegasus Capital Advisors* (1995, Greenwich CT; 20 staff) applying Environmental/Social/Governance leadership principles, and *SRI World Group* (1999, Brattleboro VT; formerly *Social Funds*), “the largest personal finance site devoted to social responsibility investing, with >10,000 pages of information.

Surely there are many more similar groups that could be added to the above listings, motivated by ethics and/or the increasingly compelling “business case” for green investing in companies. In turn, mention should also be made of individual company investing. Perhaps the most notable example is Elon Musk’s *Tesla*, which seeks to “accelerate the world’s transition to sustainable energy through affordable electric vehicles and renewable energy generation and storage.” To this end, its “Gigafactory” near Reno, Nevada, began mass production of lithium-ion battery cells in January 2017; full production is expected by 2018 in what they claim will be “the biggest building in the world.”

Green Consulting

In addition to investment advisors, green consultants large and small offer their services to companies, cities, and other public and private entities.

Large groups include the **Carbon Disclosure Project* (2000, London + 14 offices; 34 major staff) with consulting services such as corporate footprints to promote sustainable business, products and cities, *Ecology and Environment Inc.* (1970, Lancaster NY + 50 offices) consulting on environmental management, *Environmental Resources Management* (1971, London; 5,000 staff in 160 offices) claiming “world’s leading sustainability consultancy,” *Gerding Edlen* (1996, Portland OR) consultants on green development, transformational buildings, and Principles of Place, *GlobeScan* (1987, Toronto + 5 offices) providing evidence-based strategy consulting” and Sustain/Ability Survey of challenges and opportunities, and *Natural Step* (1989, Stockholm + 10 offices) helping business and communities to accelerate transition to sustainable society and future-fit business.

Smaller organizations include *Clean Energy Solutions* (Boston; 4 staff) on energy efficiency and local energy alliances, *Common Current* (San Anselmo CA; 2 staff) on urban sustainability for government/business/non-profits, *ENEA Consulting* (2007, Paris & Melbourne; 22 staff) on actors in the energy value chain, *Global Climate Adaptation Partnership* (Oxford UK, 9 staff) on local adaptation approaches, *Green Guru Network* (2010, Hastings-on-Hudson NY) to share sustainability ideas in the Hudson Valley, *International*

Synergies (2005, Birmingham UK) on industrial ecology solutions for the circular economy and zero waste, *Natural Capitalism Solutions* (Longmont CO, 9 staff; headed by Hunter Lovins, formerly of Rocky Mountain Institute) on the business case and tools for regenerative solutions, *Natural Marketing Institute* (1990, Harleysville PA) consulting on wellness and sustainability, *Strategic Sustainability Consulting* (2005, Lynchburg VA, 10 staff), and *Sustainable Solutions Corporation* (Royersford PA, 10 staff) consulting on sustainable buildings and corporate sustainability.

Special mention should be made of *SustainAbility* (1987, London/New York/San Francisco; 21 staff) to define the role of business in the sustainable development agenda. It was co-founded by John Elkington, who originated the “Triple Bottom Line” concept of People/Planet/Profit in 1994. Elkington is now “Chairman and Chief Pollinator” of *Volans* (2008, London; 4 staff) to help leaders to systemic solutions and breakthrough business models in collaboration with the UN Global Compact, “for sustainable growth in an exponential world.”

Green Business Publishers

Similar to the wide variety of green consultants, large and small, green business publishers offer a broad range of books, journals, reports, and newsletters.

The newly-formed and aggressive *Business and Sustainable Development Commission* (Jan 2016, London; 12 staff) promises a January 2017 “flagship” global report on accelerating the shift to a sustainable economy. Two recent downloadable reports suggest the thinking that they are promoting: *Breakthrough Business Models: Exponentially More Social, Lean, Integrated and Circular* (Sept 2016, 39p), co-authored by John Elkington of *Volans*, and *Valuing the SDG Prize in Food and Agriculture: Unlocking Business Opportunities to Accelerate Sustainable and Inclusive Growth* (Oct 2016, 47p).

**Cleantech Group* (2002, Oakland & London; 14 staff), which seeks to accelerate sustainability innovation, provides a free bi-weekly *Cleantech Newsletter* on key trends, companies, and people in sustainability innovation and investment, *CTG Insights* bi-monthly report on the global innovation community, a *Quarterly Investment Monitor*, specialized intelligence briefs, and an annual *Global Cleantech 100* list of promising companies. *Eco-Business* (2014, Singapore; 18 staff) is a media company serving Asia Pacific’s cleantech, smart cities, responsible business, and sustainable development communities. *Environmental Business International* (1988, San Diego) has produced some 20 market research reports and publishes a free weekly newsletter, *Environmental Business Journal* (1988, monthly; \$995 individual sub) providing strategic information in 14 business segments, and *Climate Change Business Journal* (2007, quarterly; \$495 individual sub) for firms providing services or technology, and investors in renewable energy, energy storage, green buildings, carbon markets, or consulting. **GreenBiz Group* (1991, Oakland CA; 20 staff headed by Joel Makower) offers videos, *GreenBuzz* daily newsletter, *VERGE* weekly newsletter, various reports, monthly surveys of the 3000-member GreenBiz Intelligence Panel, a *State of the Profession* report for sustainability executives, and an annual *State of Green Business Report* on the circular economy, green infrastructure, and corporate practices. *Sustainable Brands* (2006, San Francisco; 27

staff), produced by Sustainable Life Media, provides six newsletters, videos, and complementary downloads of reports such as *22 Research Studies Proving the ROI of Sustainability*.

***Greenleaf Publishing** (1992, Saltaire UK) issues a wide variety of books on sustainability, and journals such as *Journal of Corporate Citizenship* (2001, quarterly), *Building Sustainable Legacies* (2013, 3/year) on societal value co-creation, and *Business, Peace, and Sustainable Development* (2013, 2/year) on reducing violence as part of business strategy. The giant **Springer** academic publisher (1842, Berlin) issues the *International Journal of Corporate Social Responsibility*, on CSR, sustainability, ethics, and governance, charging a \$980 “article processing fee” for authors! **CSRwire** (1999, Northampton MA) is a media platform for news and views on corporate social responsibility, with books, reports, and press releases. **Triple Pundit** (San Francisco; 6 staff) reports on the “triple bottom line” of People/Planet/Profit with a daily and weekly newsletter. **Ethical Markets Media** (St. Augustine FL, headed by Hazel Henderson) publishes the annual *Green Transition Scoreboard* of burgeoning green investments by the private sector, and the *Ethical Money Directory* of some 200 asset management firms, investment advisors, consultants, and relevant NGOs and banks.

As with each of the sub-systems we have identified, our inventory of Green Publishing is incomplete. In addition to organizations focused on publishing, there are many think tanks and action groups (e.g. OECD, IUCN, United Nations) that publish books, reports, pamphlets, factsheets, and newsletters on sustainability-related topics, as identified in *The Security & Sustainability Guide*. Unfortunately, there is no detailed consumer guide to where to get the best information on what topics, including the greening of business. At this point, we can only provide a listing of relevant organizations, with tentative suggestions as to which information sources may be most deserving of attention.

LESSONS LEARNED AND QUESTIONS RAISED

1. The Necessary Revolution is Underway. It certainly appears that the revolution is no longer at “the beginning of the beginning.” But whether it is at the middle of the beginning or somewhere beyond is difficult to estimate. And, due to recent political developments favoring “retro regimes,” especially in the US, the revolution may be reversed to some degree, before continuing.

But the quiet trend to more and bigger groups seems sure to continue. As a rough measure, of the 140 groups noted here (several are mentioned more than once), 108 of them posted a founding date, with median start-up in 2003, thus a doubling in 13 years.

A proclaimed “data revolution” is underway led by the UN Sustainable Development Goals and the Measure What Matters program of the Green Economy Coalition, so better indicators should be available in the next few years, not only of how far we have come, but how far we have yet to go to meet the 17 SDGs, and whether greening companies are a small part of the capitalist world, say 5-10%, a large minority, or a majority. The Jan 2017 **Better Business, Better World** report (see footnote 5), building on the Global Goals, could go a long way in boosting the necessary revolution.

2. The Two Capitalisms. It may still be too early to note a contest between two forms of capitalism: the 21st Century Green (or Sustainable) Capitalism, valuing the triple bottom line of People/Planet/Profit and seeking to act responsibly, vs. the 20th Century Industrial-Era Capitalism that adheres to a single bottom line of maximum profit, often at any cost, and satisfying only stockholders. It is increasingly inappropriate to view capitalism and multinationals as one large monolithic entity. At some point, perhaps soon, Green Capitalism will be seen as a separate phase, and not an oxymoron, to be contrasted with Industrial-Era Capitalism. This could well be hastened by the new retro Trump regime in the United States, with its nationalistic “America First” stance that could lead to ruinous trade wars (or worse), and should invite embrace of a green alternative in response. Serious debates are needed as to which option best serves American and global interests.

3. But Why is the Revolution So Quiet? Several reasons can be offered as to why Green Capitalism has yet to emerge as a truly viable, science-based, and attractive alternative. First, development of the Necessary Revolution has been gradual, similar to global warming and other environmental insults. Second, and probably most important, fragmentation and competition in the Green Capitalist system is profound, as illustrated by the many different organizations identified here, most of which have little or nothing to do with each other. There are few visible leaders, such as Al Gore, who tries to make the business case for “Sustainable Capitalism” through the Generation Foundation. Thirdly, the Green Capitalist system, as sketched here, is composed not only of individual companies, NGOs, and Global Action Networks.⁹ Rather, it also includes components of the UN (notably the UN Global Compact, the UNEP Finance Initiative, and the UN-inspired Sustainable Stock Exchanges Initiative), for-profit consultants, and green investment advisors and publishers. All of these organization types are essential to understanding and driving the unfolding Necessary Revolution.

4. The Larger Context of Sustainability Organizations. The Green Capitalist “system,” however defined, is only a small part of a larger system of more than a thousand sustainability organizations, most of them international, as identified in *The Security & Sustainability Guide*. These organizations are devoted to such topics as climate change, energy, public finance, food and agriculture, forests, oceans, population, biodiversity, water, cities, etc. And, in turn, this “sustainability system” increasingly overlaps the broad system of security organizations (including human security, peace, terrorism, corruption, migration, cyber-security, and arms control), in that we cannot have sustainability without security, nor security without sustainability. These two large and overlapping domains could form a Global Action Network that puts the growing interpenetration of security and sustainability concerns at the center of all corporate and government strategic planning. However, those engaged in all domains of security have acknowledged that climate change is a “threat multiplier,” whereas those engaged in

promoting sustainability are virtually silent on security as a trend and driver of its context, and have yet to recognize that sustainability seen as a national and global security issue would advance their interests.

5. So Are We Winning the Struggle for Sustainability? Probably not. It seems difficult to grasp the simple paradox of “improvement but growing inadequacy,” but this seems to be the proper assessment at this moment. As argued by environmental critic Peter Dauvergne:

“most multinational corporations have become more proactive in managing critics, avoiding obvious greenwash, and instead partnering with NGOs, offering eco-products and sponsoring third-party certification of production processes and consumer products...(which) can make it seem as if rapid progress is now being made toward global sustainability. However, the efficiency gains of eco-business are largely lost as firms reinvest energy and cost savings to stimulate even more unsustainable growth and consumption—a rebound effect that’s at the heart of the failure of environmentalism of the rich to slow the escalating global sustainability crisis.”¹⁰

Dauvergne advocates “an energetic, critical questioning of the slight-of-hand illusions of sustainable development, corporate social responsibility, business-NGO partnerships, and market solutions.”¹¹ Corporations now have two games to play, and must decide how much to devote to each road. Ongoing criticism and prodding is thus important, but should not foreclose the possibilities of serious and sincere progress on many fronts. But even if climate change is confined to the goal of less than 2°C, which seems unlikely under the present Paris climate accord,¹² there is much more to be done, as outlined in the UN’s 17 Sustainable Development Goals.¹³

6. Cities Take the Lead. On a more upbeat note, Michael Bloomberg, former mayor of New York and chair of the Global Covenant of Mayors for Climate & Energy (Jan 2017), argues that “the new Trump administration will dominate headlines in 2017, but the biggest changes in the way we live will be driven not by Washington but by cities.”¹⁴ This ongoing trend will accelerate, he asserts, because power will continue to shift away from Washington, where partisan warfare kills off good ideas. Rather, cities and businesses will continue to reduce emissions, save on energy, build modern infrastructure, and protect themselves from extreme weather. This is confirmed by **The Security & Sustainability Guide**, which lists 37 urban groups, such as the C40 Cities Climate Leadership Group of 80 megacities and ICLEI—Local Governments for Sustainability, virtually all of them strongly advocating many sustainability-related actions. And most big businesses have headquarters in big cities and are equally concerned.
7. The Need for More Horizontal Thinking. This report is an exercise in horizontal thinking, which seeks to take a broad integrated view of systems and emerging trends, in

contrast to the vertical thinking that is widely inculcated by academic institutions and proliferating scholarly journals that look at individual trees and not the forest ecosystem. Such thinking in depth and detail is not necessarily bad, but needs to be balanced by many more explicit efforts to fashion larger views, and to integrate the growing number of transdisciplinary integrators. Otherwise, fragmentation of knowledge and advocacy will continue to seriously inhibit progress toward sustainability and human well-being.

8. How Can the Revolution Become More Visible? This report argues that the Necessary Revolution is surely underway, but not visible to the general public or even, fully, to its participants. Illustrative of this overly quiet development is the recent US presidential election, where only the Democratic candidates mentioned climate change and only in passing, “sustainability” was never mentioned at all, and the moderators of the presidential debates never asked any questions about climate or sustainability. “Green Growth,”¹⁵ advocated by OECD, UNEP, and the World Bank, does not appear to be mentioned anywhere in North America, at least. Another indicator is that three “Year Ahead” overviews for 2017 from *Time* magazine, *Bloomberg Businessweek*, and *The Economist* make no mention of sustainability.

Efforts should be made, preferably collectively,¹⁶ to encourage these annual publications to have a section on sustainability, and for *The New York Times* to publish a weekly section, rather than only occasional scattered mention of climate and energy issues in the news features and the weekly Science section. If the major media are unwilling to report on this major development, business leaders might purchase full-page advertisements reporting on the progress of Green Capitalism and inviting a wide-ranging and on-going debate on its merits. Many other ideas can be offered to enhance visibility of the Necessary Revolution, and we hope that this initial survey will elicit them.

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NOTES

1. Peter Senge and four others, **The Necessary Revolution: Working Together to Create a Sustainable World**. New York: Broadway Books, 2010, p.12 (first published “in slightly different form” by Doubleday, 2008).
2. Peter Senge, **The Fifth Discipline: The Art & Practice of the Learning Organization**. New York: Doubleday Currency, 1990; revised edition “with 100 new pages,” 2006. The fifth discipline is systems thinking, which integrates the other disciplines of personal mastery of seeing reality, mental models of how to take action, building shared vision, and team learning for genuine thinking together. The cover of the 2006 paper edition claims “more than 1 million copies in print.”
3. **The Necessary Revolution**, p.iv.
4. **The Necessary Revolution**, p.359.
5. **Better Business, Better World: The Report of the Business & Sustainable Development Commission** (London, Jan 2017, 121p.), chaired by Lord Mark Malloch-

Brown, asserts that achieving the SDGs opens up at least US\$12 trillion of 60 market opportunities in four economic systems: Food/Agriculture (e.g. urban agriculture, sustainable aquaculture, micro-irrigation, land restoration, reduced food and packaging waste), Cities (e.g. affordable housing, energy-efficient buildings, public transport, smart metering, car sharing, municipal water leakage), Energy/Materials (e.g. circular models, renewables, energy efficiency/storage, CCS, green chemicals), and Health (risk pooling, telehealth, counterfeit drug detection, electronic records, healthcare training). Achieving these Global Goals would create >380 million new jobs by 2030.

6. Jane Gleeson-White, **Six Capitals, or Can Accountants Save the Planet? Rethinking Capitalism for the 21st Century**. New York: W.W. Norton, 2015.
7. Michael Marien, “New and Appropriate Economics for the 21st Century: A Survey of Critical Books, 1978-2013,” *CADMUS*, 1:5, October 2012, pp.86-102, covering 118 books in six categories. Available online from www.cadmusjournal.org.
8. Morgan Stanley Institute for Sustainable Investing, **Sustainability Signals: The Asset Manager Perspective**, Nov 2016, 20p.
9. Steve Waddell, **Global Action Networks: Creating Our Future Together**. New York: Palgrave Macmillan, 2011. GANS are seen as a “critical organizing innovation,” in that they involve multi-stakeholder networks of people in government, business, and NGOs of all sizes who seek a sustainable globalization that works for all. Also see Steve Waddell, **Change for the Audacious: A Doer’s Guide. Large Systems Change for a Flourishing Future**. Boston: Networking Action Publishing, 2016. See Chapter 6 on “Creating Societal Change Systems” and Chapter 9 on systems mapping and learning.
10. Peter Dauvergne, **Environmentalism of the Rich**. Cambridge MA: MIT Press, 2016, pp.11-12.
11. **Environmentalism of the Rich**, p.152.
12. John Schwartz, “Climate Deal Called Too Weak to Meet Goals,” *The New York Times*, November 17, 2016, A12, citing the latest **World Energy Outlook** of the authoritative International Energy Agency on the 2015 climate change accord in Paris.
13. Jeffrey D. Sachs, **The Age of Sustainable Development**. Foreword by Ban Ki-Moon. New York: Columbia University Press, 2015. Especially see chapter on planetary boundaries. Also see Simon Nicholson and Sikina Jinnah (eds), **New Earth Politics: Essays from the Anthropocene** (MIT Press, 2016) for a broader view on “Earth 2.0.”
14. Michael Bloomberg, “Where Washington Fails to Drive Progress, Cities will Act,” *Time*, December 26, 2016. Also see Michael Bloomberg, “City Century: Why Municipalities Are the Key to Fighting Climate Change,” *Foreign Affairs*, Sept-Oct 2015. In the US, many states are also taking the lead. See “On Climate Change, Look to the States,” *The New York Times* editorial, December 26, 2016, A20.
15. See *Global Green Growth Institute* (2010, Seoul, 115 staff), *Global Green Growth Forum* (2011, Copenhagen), and *Green Growth Knowledge Platform* (2012, 8 staff), established by GGGI, OECD, UNEP, and the World Bank.

16. Petra Kuenkel, **The Art of Leading Collectively: Co-Creating a Sustainable, Socially Just Future.** White River Junction VT, Chelsea Green Publishing, 2016. Parallel to the overly quiet Necessary Revolution, Kuenkel writes that her book is about the “underappreciated” collective side of leadership, in contrast to the traditional leadership paradigm that refers only to individuals. Most challenges of sustainability require building the capacity of groups and systems to move issues of common concern forward. “We cannot travel the path toward sustainability in silos; instead we need to harness collective intelligence and let it complement individual expertise.” (p.34)

* * * *

ABOUT THE AUTHORS AND THE S&S GUIDE

Michael Marien and **Michael Sales**, along with **David Harries**, are Co-Principals of *The Security & Sustainability Guide: 1500+ Organizations Pursuing Essential Global Goals*, on the global transformation toward sustainability, impeded by inadequate state and human security. This project of the World Academy of Art & Science (www.worldacademy.org) has been in preparation since 2013. An August 2016 Interim Draft of 277 pages, listing 1,531 organizations with a 71 page Subject Index, is available on request. An updated Interim Draft listing some 1,800 organizations will be available in Spring 2017 at www.securesustain.org, in development.

Michael Marien (LaFayette NY; mmarien@twcny.rr.com) holds a Ph.D. in social science and national planning from Syracuse University. He founded and edited *Future Survey*, a monthly publication of the World Future Society (1979-2008), where he prepared more than 20,000 abstracts of futures-relevant books, reports, and articles. After nominal retirement, he created a website, www.GlobalForesightBooks.org, which has posted some 5,000 brief abstracts of recent books (it is currently dormant so as to pursue the S&S Guide to organizations).

Michael Sales (Newburyport MA; mjsales@comcast.net) has an Ed.D from Harvard University, where he studied under leading organization theorist Chris Argyris. He is co-founder of Art of the Future consultants for uncertain times, co-creator of the Structural Dynamics Strategic Leadership Development Process, co-author of *Life-Sustaining Organizations*, and former co-chair of the Society for Organizational Learning, North America, founded by MIT’s Peter Senge, author of *The Necessary Revolution*.

David Harries (Kingston, Ontario) earned a Ph.D. in nuclear engineering from the University of London. He served in the Canadian military for several decades, was Director of Curriculum Planning and Deputy Commandant at the National Defense College of Canada, and has directed a MA program at the Royal Military College in Kingston. He has lived in 20 countries and traveled to another 93 countries, and is current Chair of the Canadian affiliate of The Pugwash Conference on Science and Global Affairs, a major peace-promoting organization with 50 affiliates, and Associate Director of Foresight Canada.

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APPENDIX 1

A-Z Listing of 140 Organizations Mentioned, with Websites

(Underlined organizations in blue are linked to abstracts in Appendix 3)

(* = especially important)

- Acciona (1997, Madrid; 33,000 staff in >30 countries; www.acciona.com) [Ethics]
- Accounting for Sustainability (2004, London; 11 staff; www.accountingforsustainability.org) [Accounting]
- American Carbon Registry (1996, Winrock International, Arlington VA; americancarbonregistry.org) [Accounting]
- American Sustainable Business Council (Washington; 12 staff; asbcouncil.org) [Business-Led]
- Animal Welfare Approved (2013? Marion VA; 29 staff; animalwelfareapproved.us) [Certifying]
- Asset Owners Disclosure Project (2012, London; aodproject.net) [Investing]
- Association for Sustainable and Responsible Investment in Asia (2002, Hong Kong) [Investing]
- Association of Climate Change Officers (2008, Washington; www.aconline.org) [Certifying]
- *B Lab (2006, Wayne PA; www.bcorporation.net) [Certifying]
- Billion Dollar Green Challenge (2011, New York; greenbillion.org) [Investing]
- Breakthrough Energy Ventures (2016; www.b-energy/ventures) [Investing]
- Business Alliance for Local Living Economies (Oakland CA; bealocalist.org) [Business-Led]
- *Business and Sustainable Development Commission (Jan 2016, London; 12 staff; businesscommission.org) [Business-Led]
- Business Fights Poverty (2008, c/o Inspirus, London; 17 staff; businessfightspoverty.org) [Ethics]
- *Business for Social Responsibility (1994, San Francisco; 100 staff in 8 offices; www.bsr.org) [Business-Led]
- Business in the Community: The Prince’s Responsible Business Network (1982, London; 9 staff; www.bitc.org.uk) [Ethics]
- *Cambridge Institute for Sustainability Leadership (1989, Cambridge University; 132 staff; www.cisl.cam.ac.uk) [Ethics]
- Capital Institute (2010, Greenwich CT, 7 staff; www.capitalinstitute.org)
- *Carbon Disclosure Project (London + 14 offices; 21 executive staff; www.cdp.net) [Consulting]
- Carbon Tracker Initiative (2010? London; 20 staff; www.carbontracker.org) [Investing]
- Center for International Environmental Law (1989, Washington; 15 staff; www.ciel.org) [Ethics]
- *Ceres (1989, Boston; 65 staff; www.ceres.org) [Accounting, Business-Led]
- Chartered Institution of Water and Environmental Management (1987, London; www.ciwem.org) [Certifying]
- Clean Energy Solutions (Boston; 4 staff; www.cleanenergysol.com) [Consulting]
- Clean Path Ventures LLC (1987, San Francisco; www.cleanpath.com) [Investing]
- *Cleantech Group (2002, Oakland and London; 14 staff; www.cleantech.com) [Ethics, Publishing]
- Climate Action Business Association (Boston, 6 staff; cabaus.org) [Business-Led]
- Climate Bonds Initiative (2012, London; www.climatebonds.net) [Investing]
- Climate Disclosure Standards Board (2007, London; 8 staff; www.cdsb.net) [Accounting]
- Common Current (San Anselmo CA; 2 staff; www.commoncurrent.com) [Consulting]
- Conservation International (1987, Arlington VA; 900 staff in 30 offices; www.conservation.org) [Ethics]
- Copenhagen Fashion Summit (2009, Denmark; www.copenhagenfashionsummit.com) [Business-Led]
- Corporate Eco Forum (2008, 5 staff; www.corporateecoforum.com) [Business-Led]
- Cradle to Cradle Products Innovation Institute (2010, San Francisco; www.c2ccertified.org) [Certifying]
- *CSR360 Global Partner Network (1999, London; www.csr360gpn.org) [Ethics]
- CSRwire (1999, Northhampton MA; www.csrwire.com) [Ethics, Publishing]
- De Tao Group (2014, Shanghai and Beijing; www.detaogroup.com) [Investing]
- *Dow Jones Sustainability Index (1999, New York; www.sustainability-indices.com) [Ethics]
- Eco-Business (2014, Singapore; 18 staff; www.eco-business.com) [Publishing]
- Ecology and Environment Inc. (1970, Lancaster NY + 50 offices; www.ene.com) [Consulting]

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- ENEA Consulting (2007, Paris & Melbourne; 22 staff; www.enea-consulting.com) [Consulting]
- Environmental Business International (1988, San Diego; www.ebiresearch.com) [Publishing]
- Environmental Entrepreneurs (2000, Washington; www.e2.org) [Business-Led]
- Environmental Resources Management (1971, London; 5,000 staff in 160 offices; www.erm.com) [Consulting]
- Ethical Corporation (London; www.ethicalcorp.com) [Ethics]
- *Ethical Markets Media (St. Augustine FL, headed by Hazel Henderson; www.ethicalmarkets.com) [Ethics, Investing, Publishing]
- Ethical Trading Initiative (1998, London; 30 staff; <http://www.ethicaltrade.org>) [Ethics]
- Ethos Institute of Business and Social Responsibility (1998, Sao Paulo, Brazil; www.csr360gpn.org/partners/profile/ethos-institute-of-business-and-social-responsibility/) [Ethics]
- European Sustainable Investment Forum (2003, Brussels; www.eurosif.org) [Investing]
- *Extractive Industries Transparency Initiative (2002, Oslo; eti.org) [Certifying]
- Fairtrade International (1997, Bonn; c70 staff; www.fairtrade.net) [Certifying]
- Forest Stewardship Council International (2003, Bonn; ic.fsc.org) [Certifying]
- Game Changers 500 (2013, San Francisco; gamechangers500.com) [Ethics]
- Generate Capital (San Francisco; 11 staff; generatecapital.com) [Investing]
- Generation Foundation (2015; www.genfound.org) [Investing]
- Generation Investment Management LLP (2004, London & New York; www.generationim.com) [Investing]
- Gerding Edlen (1996, Portland OR; www.gerdingedlen.com) [Consulting]
- GIST Advisory (2004, Mumbai; 6 staff; gistadvisory.com) [Accounting]
- Global Alliance for Action on Banking Values (2009, Zeist, Netherlands; www.gabv.org) [Business-Led]
- Global Climate Adaptation Partnership (Oxford UK, 9 staff; www.climateadaptation.cc) [Consulting]
- *Global Footprint Network (2003, Oakland CA and Geneva; 47 staff; www.footprintnetwork.org) [Accounting]
- *Global Initiative for Sustainability Ratings (2011, Washington; ratesustainability.org) [Ethics]
- Global Investor Coalition on Climate Change (2014?; globalinvestorcoalition.org) [Investing]
- Global Living Wage Coalition (2013; www.isealalliance.org) [Certifying]
- *Global Reporting Initiative (1997, Amsterdam; www.globalreporting.org) [Ethics]
- Global Sustainable Investment Alliance; www.gsi-alliance.org [Investing]
- GlobeScan (1987, Toronto + 5 offices; www.globescan.com) [Consulting]
- GoodWeave (1986, Washington; www.goodweave.org) [Certifying]
- Green Alpha Advisors (2007, Boulder CO; 6 staff; greenalphaadvisors.com) [Investing]
- Green America (1982, Washington; 50 staff; www.greenamerica.org) [Investing]
- Green Century Funds (1990, Boston; greencentury.com) [Investing]
- Green Guru Network (2010, Hastings-on-Hudson NY; greengurunetwork.com) [Consulting]
- *GreenBiz Group (1991, Oakland CA; 20 staff headed by Joel Makower; www.greenbiz.com) [Publishing]
- *Greenleaf Publishing (1992, Saltaire UK; www.greenleaf-publishing.com) [Publishing]
- *IFOAM – Organics International (1972, Bonn; www.ifoam.bio/en) [Certifying]
- IMD Global Center for Sustainable Leadership (1990, Lausanne, Switzerland; www.imd.org/research-knowledge/global-centers/sustainability-leadership) [Ethics]
- Insight 360 (San Francisco, 7 staff; insight360.autodesk.com) [Ethics, Investing]
- Institutional Investors Group on Climate Change (2005, London; 5 staff; www.iigcc.org) [Investing]
- Interfaith Center on Corporate Responsibility (1971, New York; www.iccr.org) [Ethics]
- International Integrated Reporting Council (2012, London; integratedreporting.org) [Accounting]
- *International Organization for Standards (1947, Geneva; 135 staff; www.iso.org/iso) [Certifying]
- International Society of Sustainability Professionals (2007, Portland OR;) www.sustainabilityprofessionals.org [Certifying]
- International Synergies (2005, Birmingham UK; www.international-synergies.com) [Consulting]
- Investor Network on Climate Risk (2003, Boston; www.ceres.org/investor-network/incr) [Investing]
- *ISEAL Alliance (2002, London; 25 staff; www.isealalliance.org) [Certifying]
- Kimberly Process Certification Scheme (2002; www.kimberlyprocess.com) [Certifying]
- Kleiner Perkins Caufield Byers (1972, Palo Alto CA; www.kpcb.com) [Investing]

GREENING CAPITALISM, QUIETLY: SEVEN TYPES OF ORGANIZATIONS DRIVING THE “NECESSARY REVOLUTION”

- LafargeHolcim (115,000 staff in 90 countries; www.lafargeholcim.com) [Ethics]
- Marine Stewardship Council (1996, London + 18 offices; www.msc.org) [Certifying]
- Marion Institute (1993, Marion MA; 12 staff; www.marioninstitute.org) [Investing]
- McDonough Braungart Design Chemistry (1999, Charlottesville VA; mbdc.com) [Certifying]
- *Measure What Matters, a three-year program led by the Green Economy Coalition (2012; measurewhatmatters.info) [Accounting]
- *Morgan Stanley Smith Barney Institute for Sustainable Investing (2013, New York; www.morganstanley.com) [Investing]
- Natural Capital Coalition (2012, Amsterdam; www.naturalcapitalcoalition.org) [Accounting]
- *Natural Capital Finance Alliance (Oct 2016; www.naturalcapitaldeclaration.org) [Accounting]
- Natural Capitalism Solutions (Longmont CO, 9 staff; headed by Hunter Lovins, formerly of Rocky Mountain Institute; natcapsolutions.org) [Consulting]
- Natural Marketing Institute (1990, Harleysville PA; www.nmisolutions.com) [Consulting]
- Natural Step (1989, Stockholm + 10 offices; www.thenaturalstep.org) [Consulting]
- Omidyar Network (2004, Redwood City CA; c.100 staff; www.omidyar.com) [Investing]
- Pegasus Capital Advisors (1995, Greenwich CT; 20 staff; www.pcalp.com) [Investing]
- Principles for Responsible Investment (2006, London; www.unpri.org) [Investing]
- Programme for the Endorsement of Forest Certification (1999, Geneva; www.pefc.co.uk) [Certifying]
- Responsible Business Forum on Sustainable Development (2012, Singapore; sdg.responsiblebusiness.com) [Business-Led]
- RobecoSAM (1995, Zurich +4 offices; www.robecosam.com) [Investing]
- Roundtable on Renewable Soy (2006, Buenos Aires; wvf.panda.org) [Certifying]
- Roundtable on Sustainable Palm Oil (2004, Kuala Lumpur; www.rspo.org) [Certifying]
- *Social Accountability International (1997, New York; www.sa-intl.org) [Certifying]
- SRI World Group (1999, Brattleboro VT; formerly Social Funds; www.ceres.org/about-us/coalition/coalition-members/sri-worldgroup) [Investing]
- Strategic Sustainability Consulting (2005, Lynchburg VA, 10 staff; www.sustainabilityconsulting.com) [Consulting]
- SustainAbility (1987, London/New York/San Francisco; 21 staff; sustainability.com) [Consulting]
- *Sustainable Accounting Standards Board (2011, San Francisco; 26 staff; www.sasb.org) [Accounting]
- Sustainable America (Stamford CT, 5 staff; www.sustainableamerica.org) [Business-Led]
- Sustainable Brands (2006, San Francisco; 27 staff; www.sustainablebrands.com) [Publishing]
- Sustainable Forestry Initiative (1994, Washington & Ottawa; 18 staff; www.sfiprogram.org) [Certifying]
- Sustainable Solutions Corporation (Royersford PA, www.sustainable-solutions.com; 10 staff) [Consulting]
- *Sustainable Stock Exchanges Initiative (2009; www.sseinitiative.org) [Investing]
- Sustainable Value Creation (2008, Uxbridge UK; sustainablevaluecreation.com) [Business-Led]
- Sustainable World Initiative (2008, Washington; www.swinitiative.com) [Accounting]
- Tomorrow’s Company (1996, London; 15 staff; tomorrowscompany.com) [Ethics]
- Triple Pundit (San Francisco; 6 staff; www.triplepundit.com) [Publishing]
- Trucost (2003, London, New York, Paris, Hong Kong; www.trucost.com) [Accounting, Investing]
- *UN Environment Programme Finance Initiative (1992, Geneva; www.unepfi.org) [Investing]
- *UN Global Compact (2000, Geneva; www.unglobalcompact.org) [Ethics]
- UN Global Compact Cities Programme (2003, Melbourne; citiesprogramme.org) [Ethics]
- US SIF: The Forum for Sustainable and Responsible Investment (Washington, 7 staff; www.ussif.org) [Investing]
- UTZ: Better Farming Better Future (1999, Amsterdam; www.utz.org) [Certifying]
- Volans (2008, London; 4 staff; volans.com) [Consulting]
- We Mean Business Coalition (2015; www.wemeanbusinesscoalition.org) [Investing]
- *Wealth Accounting and Valuation of Ecosystem Services or WAVES (2010, World Bank Group; www.wavespartnership.org) [Accounting]
- *World Business Council for Sustainable Development (1992, Geneva; www.wbcsd.org) [Business-Led]
- *World Economic Forum (1971, Geneva; 400 staff; www.weforum.org) [Business-Led]
- World Fair Trade Organization (1989, Amsterdam; wfto.com) [Certifying]
- Zero Waste Business Council (2011, Corona Del Mar CA; 4 staff; uszwbc.org) [Certifying]

APPENDIX 2

Brief Descriptions of Organizations, by Type

(* = especially important)

(**Note:** a few groups are mentioned in two or more categories, or not listed in the essay)

Business-Led (23)

Ethics-Led (23)

Broadened Accounting (17)

Certifying (23)

Investing (39)

Consultants (18)

Green Business Publishing (10)

(“Carve-Out” from Part 4 Subject Index of *The S&S Guide*)

1. BUSINESS-LED

American Sustainable Business Council
(Washington; 12 staff; >200,000 businesses;
ASB Institute education programs; annual
Sustainable Business Summit)

Business Alliance for Local Living Economies
(Oakland CA; for equitable, resilient,
Regenerative communities; localist driving
sust growth; 500,000 businesses)

*Business and Sustainable Development
Commission (Jan 2016, London; 12 staff;
Issued “flagship report” on *Better Business,
Better World* (Jan 2017, 121p), presenting
business case for the UN’s 17 SDGs.

Business for Social Responsibility (1994, San
Francisco; 100 staff in 8 offices; for
sustainability reporting, supply chain sust.,
human rights standards; nonprofit network of
>250 member companies)

Center for Climate and Energy Solutions (1998,
Arlington VA; helps companies and investors;
Clean Power Plan; Carbon Footprint
Assessment)

*Ceres (1989, Boston; coalition of 130 orgs to
mobilize investor and business leaders for a
sustainable world)

Climate Action Business Association (Boston; 6
staff; helps small business leaders with climate
action bus plans for mitigation/ adaptation)

Copenhagen Fashion Summit (2009, Denmark; 2016
Summit with >1200 participants, “the world’s
largest meeting on sustainability in fashion,”
promotes new business models)

Corporate EcoForum (2008, 5 staff; for executives
in 67 large corporations in 18 industries with
serious commitment to sust.; Valuing Natural
Capital Initiative)

Environmental Entrepreneurs (2000, Washington;
850 business leaders for sustainability)

European Coalition for Corporate Justice (2005; 21
groups)

Generation Foundation (2015, New York and
London; Al Gore; mobilizes asset owners and
investors for Sustainable Capitalism; support
to Sust Accounting Standards Board and Inat.
Integrated Reporting Council)

Global Alliance for Action on Banking Values
(2009, Zeist, Netherlands; 27 banks for
Principles of a Sustainable Banking Culture
and a “Triple Bottom Line” approach)

Global Compact Cities Programme (2003, UN;
Melbourne; encourages local business to join
the UN Global Compact and city innovation)

Green Alliance (Greenland NH; 3 staff encourages
sust business practice in Maine, Mass, and
New Hampshire)

Responsible Business Forum on Sust Devel (2012,
Singapore; “to accelerate solutions for a more
sust. world...building prosperity with
economic, social & natural capital”)

Social Enterprise Alliance (1998, Nashville TN;
1500 members; annual meeting)

Social Enterprise World Forum (CEIS, 1984,
Glasgow; sust procurement)

Sustainable America (Stamford CT; 5 staff;
entrepreneurial solutions)

Sustainable Value Creation (2008, Uxbridge UK;
sustainable business)

*World Business Council for Sustainable
Development (1992, Geneva; 200 corporate
members from 35 countries; *Action 2020*
platform; *WBCSD Toolbox* on methods and
principles, *Vision 2050* best-case scenario for
incorporating costs of externalities, etc.)

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- World Climate Ltd (2010, Copenhagen; “Green business generation” to accelerate the green economy; seeks to bridge climate negotiators, country efforts, and business; cosponsor of World Green Economy Summit (Dubai, Oct 2016) to encourage partnerships)
- *World Economic Forum (1971, Geneva; 400 staff; known for annual meeting in Davos; reports on global risks, human capital, sustainability, food security, health for all, circular economy, water/food/energy, etc.)

2. ETHICS-LED GROUPS

- Acciona (1997, Madrid, Spain; 33,500 employees in >30 countries; renewable energy, sust water/infrastructure; “committed to sust and innovation”; *Sustainability Master Plan 2015*)
- Business Fights Poverty (2008; 8 staff; env, finance, responsible investing, etc.)
- Business in the Community: The Prince’s Responsible Business Network (1982, London; 9 staff; “to build a fairer society and more sustainable future”; Corporate Responsibility Index since 2002)
- *Cambridge Institute for Sustainability Leadership (1989, Cambridge Univ; 132 staff; promotes business action; offers executive education and graduate degree programs.)
- Center for Environmental Leadership in Business (see Conservation International)
- Center for International Environmental Law (1989, Washington; 15 staff; encourages transboundary corporate accountability)
- *Cleantech Group (2002, Oakland & London; 14 staff; to accelerate sustainability innovation; programs to help corporations and investors; research reports on advanced materials, energy efficiency/storage, recycling, smart grid, wastewater; *Global Cleantech 100* list of top companies)
- Conservation International (1987, Arlington VA; 900 staff in 30 offices; programs on Environmental Leadership in Business, Environment/Peace, and Science/Oceans)
- *CSR360 Global Partner Network (1999, London; 133 orgns from 64 countries reaching 6,000 companies; CSR tools, handbook, sust devel; ethical supply chain mgt.; human rights; “to mobilize business for good”)
- *Dow Jones Sustainability Indices (1999, USA; evaluates sust performance of 2,500 large companies in 24 industry groups)

- Ethical Corporation (London; on business strategy, supply chains, sustainable business; publishes expensive 50p *State of Responsible Business Report 2016*)
- *Ethical Markets Media (St. Augustine FL; Hazel Henderson; publishes *Green Transition Scoreboard* on investments and *Ethical Money Directory* of >200 asset management firms)
- Ethical Trading Initiative (1998, London; 30 staff; “Respect for Workers Worldwide” by improved working conditions in global supply chains, living wages, ending child labor, and human rights due diligence; ETI Base Code of labor practice)
- Ethos Institute of Business & Social Responsibility (1998, Sao Paulo, Brazil; an NGO to help companies build a fair and sust. society; CSR strategy; 1,368 members)
- Game Changers 500 (2013, San Francisco?; ranks “world’s top for-benefit companies” to reinvent the world by industry; A. Hewitt)
- *Global Initiative for Sustainability Ratings (2011, Washington; Ceres and Tellus Institute sponsors; to rate the raters of corporate sust activism/engagement; seeks single standard)
- *Global Reporting Initiative (1997, Amsterdam; corporate sustainability reports; *G4 Sustainability Reporting Guidelines*; GRI Sustainability Disclosure Database for 8,800 organizations)
- IMD Global Center for Sustainable Leadership (1990, Lausanne, Switzerland; developing leaders to create best practices for future sust institutions and supply chains)
- Insight 360 (San Francisco, 7 staff) has a dashboard for >8,000 companies on rank in sector and performance on sust and ESG (env/social/governance) factors)
- Interfaith Center on Corporate Responsibility (1971, New York; encourages multinational corporations “to promote more sustainable and just practices”; publishes tri-annual *ICCR Corporate Examiner* on climate, fracking, human rights, food, water, etc.)
- LafargeHolcim.com (many locations; “a new leader for a new world”; building materials for sust devel; cement/aggregates; 115,000 employees in 90 countries; a sust strategy for entire value chain)
- Tomorrow’s Company (1996, London; 15 staff; nonprofit think tank enabling business to be “a force for good”)

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*UN Global Compact (2000, Geneva; 12,000 business signatories in 170 countries to 10 principles regarding human rights, labor, environment, and corruption)

3. BROADENED ACCOUNTING

Accounting for Sustainability (2004, UK; integrative reporting)

American Carbon Registry (1996, Winrock International, Arlington VA; tools for GHG accounting; carbon offset program)

*Carbon Disclosure Project (Germany, 35 staff; consulting services to promote sustainable business, products, and cities; life cycle assessment; corporate footprints)

*Ceres (1989, Boston; 65 staff; for higher accounting standards; mobilizes investor and business leadership for sust. economy)

Climate Disclosure Standards Board (2007, London; 8 staff; framework for reporting business info via the corporate report; catalyzed by World Economic Forum)

GIST Advisory (2004, Mumbai; Green Indian State Trust; sust consulting; Green Accounting for Indian States; 6 staff)

*Global Footprint Network (2003, Oakland, CA and Geneva; 47 staff; ecological footprint accounting tools for investors and govts; Mathis Wackernagel president)

Global Reporting Initiative (1997, Amsterdam; Sustainable Reporting Framework for all companies and organizations)

International Integrated Reporting Council (2012, London; “to help business think holistically,” to promote financial stability, value creation over time, and sust development)

*Measure What Matters (3-year global program led by Green Economy Coalition “aligning business, national, and global data on sust. Indicators for human well-being and health of planet; “a data revolution is underway”)

Measure What Matters Initiative (B Lab, Wayne PA; B Impact Assessment to measure a company’s social/environmental impact)

Natural Capital Coalition (2012, Amsterdam; standardized accounting for business using Natural Capital Protocol)

*Natural Capital Finance Alliance (Oct 2016 UNEP Finance Initiative & Global Canopy Alliance; former 2012 Natural Capital Declaration from Rio+20 summit; to consider nat cap in loans, equity, accounting and disclosure frameworks; >90 institutions)

*Sustainable Accounting Standards Board (2011, San Francisco; 26 staff; standards for >80 industries; Michael Bloomberg, chair)

Sustainable World Initiative (2008, Washington; promotes natural resource accounting and managing ecological footprints)

Trucost (2003, London/NYC, Paris, Hong Kong; to help companies and investors understand economic consequences of natural capital dependency; stranded assets rpt; webinars)

*Wealth Accounting and Valuation of Ecosystem Services (WAVES, 2010, World Bank Group; coalition to promote Natural Resources Accounting for sust. devel.)

4. CERTIFYING

Animal Welfare Approved (2013? Marion VA; 29 staff; certifies family farms with high-welfare methods; reports, brochures)

Association of Climate Change Officers (2008, Washington; to advance professional skills in Public and private sectors worldwide; CCO Certification program begun 2015)

B Lab (2006, Wayne PA; certifies beneficial B Corporations; 1824 “B Corps” in 130 Countries as of July 2016)

Chartered Institution of Water and Environmental Management (1987, London; “for a clean, green, and sustainable world”; policy reports, training; academic accreditation)

Cradle to Cradle Products Innovation Institute (2010, San Francisco; Netherlands; Product Standards Guide, 161 companies, 2,500 products; products registry; green chemistry/buildings)

Extractive Industries Transparency Initiative (2002, Oslo; leading global standard for extractive resource wealth as a key engine for sust growth/reduced poverty; *EITI Standard Progress Report 2015*)

Fairtrade International (1997, Bonn; c70 staff; partnership of producers, traders, businesses, and consumers, based on fair trade as key driver of poverty reduction and increasing sust devel; formerly Fairtrade International Labelling Organization (FLO). FLOCERT is the certifying org. Annual Report and newsletter. Also see World Fair Trade Org.)

Forest Stewardship Council International (2003, Bonn; orig. 1994 in Mexico; FSC Certification; *2015-2020 Global Strategic Plan*, 2015, 32p)

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- GoodWeave (1986, Washington; sponsors Child-Labor-Free Certification for the carpet industry and the GoodWeave Standard of no forced or bonded labor; full member of the ISEAL Alliance)
- Global Initiative for Sustainability Ratings (2011, Washington; sponsored by Cere and Tellus “to create a world-class ratings standards for transforming the definition of value and value creation by business,” based on 12 Principles of process and content)
- IFOAM – Organics International (1972, Bonn; a.k.a the International Federation of Organic Agriculture Movements has c. 800 affiliates in >100 countries; “the only umbrella organization of the organic world”; sponsors the Organic Guarantee System to certify organic labels, organic agriculture tool kit)
- International Society of Sustainability Professionals (2007, Oregon; 1000 members; 10 chapters certifies core competencies for individuals)
- *International Organization for Standards (1947, Geneva; 135 staff; 163 national standards bodies; many ISO standards, include Environmental Management, Energy Management, Risk Mgt, Food Safety, Info Security, and Social Responsibility)
- *ISEAL Alliance (2002, London; 25 staff; the International Social and Environmental Labelling Alliance has 19 full members—standard-setting organizations and certifying systems—to distinguish and promote credible sustainability standards for products and services worldwide; sponsors Codes of Good Practice, ISEAL Credibility Principles; publishes Annual Report. Six ISEAL members have formed the Global Living Wage Coalition.)
- Kimberly Process Certification Scheme (2002; involves 54 govt/industry/NGO participants from 81 countries to stem the flow of “conflict diamonds” used to finance rebel movements; KP certification guarantees conflict-free diamonds and accounts for 99.8% of global rough diamond production)
- Marine Stewardship Council (1996, London + 18 offices; c.70 staff; certified sustainable seafood: responsibly caught fish with the blue MSC label traced to a sustainable source; *Global Impacts Report 2016* (64p) notes 281 certified fisheries almost 1/10th of the global seafood catch, plus 97 others being assessed)
- McDonough Braungart Design Chemistry (1995, Charlottesville VA; “cradle to cradle” certification for sust companies)
- Programme for the Endorsement of Forest Certification (1999, Geneva; pefc.org; internat. umbrella org for 35 national forest certification systems for small forest owners)
- Social Accountability International (1997, New York; “advancing the human rights of workers around the world” with the nine elements of the SA8000 Standard for decent work, used in 3500 certified factories in 72 countries and 65 industrial sectors; promotes their Social Fingerprint rating system for companies and supply chain management)
- Sustainable Forestry Initiative (1994, Washington & Ottawa; 18 staff; promotes the SFI 2015-2019 Forest Management Standard, the FSI Forest Certification Standard, Chain of Custody Standard, Certified Sourcing labels, and annual conferences; also see Forest Stewardship Council and the Programme for the Endorsement of Forest Certification)
- UTZ: Better Farming Better Future (1999, Amsterdam; certifies sustainable cultivation of coffee, tea and cocoa covering >1m farmers and farm workers in 36 countries. NOTE: No relation to Utz potato chips in Pennsylvania)
- World Fair Trade Organization (1989, Amsterdam; 350+ organizations in >70 countries, seeking to change unfair structures and promote justice and sust devel via 10 Fair Trade Principles and the Fair Trade Guarantee System. Annual Report; also see Fairtrade International)
- Zero Waste Business Council (Corona Del Mar CA, 2011; 4 staff; facility certification)

5. INVESTING

- Asset Owners Disclosure Project (2012, London; to protect owners against climate risks by improving disclosure and industry best practice; long-term low-carbon investment; *AODP Global Climate 500 Index*)
- Association for Sustainable and Responsible Investment in Asia (2002, Hong Kong; promotes corporate responsibility and SRI Standards; now part of PRI and re-named as PRI Association (Hong Kong) Ltd.)
- Billion Dollar Green Challenge (2011, New York; encourages universities and other non-profits to invest \$1b for energy efficiency; sponsor: Sustainable Endowments Institute, etc.)

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- Breakthrough Energy Ventures (2016; “investing in a carbonless future”; 20 investors such as Bill Gates and Jack Ma forming a billion-dollar investment fund to transform energy R&D and “the landscape of innovation” in electricity, agric, mfg, transp and buildings)
- Capital Institute (2010, Greenwich CT; 7 staff; publishes *Guide to Investing in a Regenerative Economy*, Evergreen Direct Investing Model to help pension funds)
- *Carbon Tracker Initiative (2010? London; 20 staff; “financial specialists making carbon investment risk real”; reports on carbon budgets, stranded assets, the carbon bubble)
- Clean Path Ventures LLC (c.1987, San Francisco; premier solar PV project investment firm)
- Climate Bonds Initiative (2012, London; investor-focused non-profit to mobilize the \$100 trillion bond market for climate solutions)
- Climate Markets & Investment Assn (trade assn. for low-carbon investors; Climate Finance Forum)
- De Tao Group (2014, Shanghai/Beijing; think tank for Future New Energy-Sustainability Model; sponsors Master Academy and De Tao Institute of Green Investment)
- DivestInvest Philanthropy (>500 orgs worth \$3.4 trillion pledging to divest from fossil fuels and invest in climate solutions)
- *Ethical Markets Media (St. Augustine FL; issues *Green Transition Scoreboard* on green investment growth since 2007 and *Ethical Markets Directory*, 2016, with 200 brief entries: 91 Asset Managers/Investment Advisors, also Banks, Consultants, NGOs)
- European Sustainable Investment Forum (2003, Brussels; to champion sustainability in European financial markets)
- Generation Investment Management (London & New York; sustainable investing)
- *Generate Capital (San Francisco; 11 staff; “The Capital Partner for the Resource Revolution” for renewable energy, food, water, materials; Lined up c.\$500m for sust infrastructure projects in two years)
- Global Investor Coalition on Climate Change (2014? ; four regional groups: Europe, North America, Asia, Australia/NZ; *Global Investor Statement*)
- Global Sustainable Investment Alliance (Six members in US, UK, Canada, Europe, etc. “to deepen the impact and visibility of sust investment orgs at the global level”)
- Green Alpha Advisors (2007, Boulder CO; 6 staff; investing in the “inevitable economic/ technological transition to sustainability; Green Alpha Next Economy Index)
- Green America (1982, Wash; 50 staff; justice and sust society; Co-Op America to 2009; National Green Pages (green, healthy, ethical products and services); Green America mag; guide to socially responsible investing)
- Green Bond Principles (c/o Inat Capital Markets Assn; annual report for 130 institutions)
- Green Century Funds (1990, Boston; owned by environmental non-profits; fossil fuel free investing; sustainability investing strategy)
- Insight 360 (San Francisco, 7 staff; “Sustainability Meets Big Data” with the Insight 360 app to analyze sust performance and ESG— environmental/social/governance-of >8000 companies for investment experts)
- Institutional Investors Group on Climate Change (2005, London; 5 staff)
- Investor Network on Climate Risk (2003, c/o Ceres, Boston; 110 institutional investors “representing >\$13 trillion in assets” to promote sust. leadership)
- Kleiner Perkins Caufield Byers (1972, Palo Alto CA; venture capital “invests heavily in green startups”; seeks “world-changing ideas” on sustainability/security; Al Gore on Board)
- Marion Institute (1993, Marion MA; socially responsible investing; 12 staff, incubator for “Serendipity Projects” in sustainability and social justice; Future Primitive project)
- *Morgan Stanley Institute for Sustainable Investing (2015, NYC; “to help mobilize capital to sustainable enterprises”; see MSIS/Bloomberg survey of 402 asset mgt professionals, *Sustainability Signals: The Asset Manager Perspective*, Nov 2016, 20p; also MS Sust Investing Challenge, 2011)
- Oceans 5 (philanthropists seeking large projects to protect world’s 5 oceans/reserves)
- Omidyar Network (2004, Redwood City CA etc.; c.100 staff; “philanthropic investment firm” for “a world of positive returns”; supports Global Innovation Fund, property rights)
- Pegasus Capital Advisors (1995, Greenwich CT; 20 “investment professionals” applying Environment, Social and Governance leadership principles)

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- *Principles for Responsible Investment (2006, London; “world’s leading proponent of responsible investment” and ownership involving environmental and social factors; Global Network and Outreach team tailors PRI to local markets; PRI Academy has online training; transparency reports of 321 asset owners and 1,055 investment mgrs)
- *RobecoSAM (1995, Zurich + 4 offices; “We Are Sustainability Investing...for our increasingly resource-constrained world”; Assesses 3,400 companies; *Sustainability Yearbook 2016*, partnered with Dow Jones, lists leaders in 59 industries and by country)
- Social Funds (see SRI World Group, Brattleboro VT; sust reports; soc. responsibility investing info; 10,000 pages of information)
- SRI World Group (1999, Brattleboro VT; socially responsible investing; see Social Funds)
- *Sustainable Stock Exchanges Initiative (2009; driven by UN Global Compact, UNCTAD, UNEP FI, and PRI; 60 partner exchanges promote sust business practices and responsible investment; the bi-annual SSE Global Dialogue is the “flagship event”)
- Trucost (2003, London/NYC, Paris, Hong Kong; to help companies and investors understand economic impacts of natural capital dependency and stranded assets; webinars)
- UNEP Finance Initiative (1992, Geneva; seeks systemic change in banking, insurance, investment practice, valuing ecosystem services, and real estate finance)
- US SIF: The Forum for Sustainable and Responsible Investment (Washington, 7 staff; see Global Sust Investment Alliance)
- We Mean Business Coalition (2015; 677 companies and investors as of 12/16 “to create a low-carbon revolution.”)

6. CONSULTING

- *Carbon Disclosure Project (Germany, 35 staff; consulting services to promote sustainable business, products, and cities; life cycle assessment; corporate footprints)
- Clean Energy Solutions, Inc. (Boston; 4 staff; consults on energy efficiency, performance, contracting, grant proposals, and organizing programs, esp. for Local Energy Alliances)
- Common Current (San Anselmo CA; 2 staff; consultancy on urban sustainability planning/policy for govt/business/non-profits; “Helping the Green Economy Flow”)

- Ecology and Environment Inc. (1970, Lancaster NY; env. management consultants; 50 offices worldwide)
- ENEA Consulting (2007, Paris & Melbourne; 22 staff; advises industrial and institutional actors in the energy value chain; “holistic approach... committed to environmental, social, and energy transition”)
- Environmental Resources Management (London; 5000 staff; “world’s leading sustainability consultancy”)
- Gerding Edlen (1996, Portland OR; consultants; transformational buildings; Principles of Place; “People, Planet, Prosperity”)
- Global Climate Adaptation Partnership (Oxford UK; 9 staff; consultancy to develop local adaptation approaches; training courses at the Oxford Adaptation Academy are co-sponsored with U of Oxford Smith School of Enterprise and Environment)
- GlobeScan (1987, Toronto; 5 other offices; “evidence-based strategy consulting”; Sustain/Ability Survey of challenges/oppys)
- Green Guru Network (2010, Hastings-on-Hudson NY; shares sust ideas in Hudson Valley)
- International Synergies (2005, Birmingham UK; industrial ecology solutions for the circular economy, driving toward zero waste; “industrial symbiosis programs”)
- Natural Capitalism Solutions (Longmont CO, 9 staff; Hunter Lovins president; non-profit education and consulting on the business case and tools for regenerative solutions)
- *Natural Step (1989, Stockholm; 10 offices; helps Business and cmmys. to accelerate transition To sust society; courses; sust transition labs; Coaching; future-fit business)
- Natural Marketing Institute (1990, Harleysville PA; consulting on wellness/sustainability)
- Strategic Sustainability Consulting (2005, Lynchburg VA; 10 staff; helps orgs with soc/env impacts)
- *SustainAbility (1987, London/NY/SF, 21 staff; to define the role of business in the sust devel agenda; co-founded by John Elkington, who conceived “Triple Bottom Line” of Profit/People/Planet in 1994)
- Sustainable Solutions Corporation (Royersford PA; 10 staff; consultants on sust buildings and corporate sust; offers training for sust)

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Volans (2008, London; 4 staff; John Elkington “Chairman & Chief Pollinator”; helps leaders to systemic solutions and breakthrough business models in collaboration. with the UN Global Compact; “for sust growth in an exponential world”)

7. GREEN BUSINESS PUBLISHING

- *Cleantech Group (2002, Oakland & London; 14 staff; to accelerate sustainability innovation; programs to help corporations and investors; research reports on advanced materials, energy efficiency/storage, recycling, smart grid, wastewater; *Global Cleantech 100* list of top companies)
- CSRwire (1999, Northhampton MA; media platform for news and views on corporate social responsibility and sustainability; books, reports, press releases)
- Eco-Business (2014, Singapore; 18 staff; media company serving Asia Pacific’s cleantech, smart cities, responsible business, and sust development communities)
- Environmental Business International (1988, San Diego) publishes a free weekly newsletter, *Environmental Business Journal*, and *Climate Change Business Journal*)
- *Ethical Markets Media (St. Augustine FL; Hazel Henderson; publishes *Green Transition Scoreboard* on investments and *Ethical Money Directory* of >200 asset management firms and advisors)
- *GreenBiz Group (1991, Oakland CA; 20 staff; Joel Makower chair; *The State of Green Business 2016* is the 9th annual report on corporate sust practice, green infrastructure, circular economy)
- *Greenleaf Publishing (1992, Saltaire UK) issues *J. of Corporate Citizenship* and *Business, Peace, and Sustainable Devel.*)
- Springer (1842, Berlin; large academic publisher issues *International J. of Corporate Social Responsibility*)
- Sustainable Brands (2006, San Francisco ; 27 staff ; to inspire business to lead to a sust abundant future ; 6 newsletters, videos, meetings; also see Sustainable Life Media, Burlingame CA)
- Triple Pundit (San Francisco; 6 staff; reports on triple bottom line: people/planet/profit; social media; daily & weekly newsletter)

APPENDIX 3

Abstracts of Selected Organizations

[**Note:** Abstracts of an additional 350 organizations concerned with climate change, energy, water, food, finance, cities, sustainability, security, etc. are included in the August 2016 Interim Draft of **The Security & Sustainability Guide.**]

1. ***B Lab** (2006, Wayne PA + several global offices; 43 staff; www.bcorporation.net)
A non-profit organization that awards B Corporation Certification to for-profit organizations. The ‘B’ stands for beneficial and indicates that the certified organization voluntarily meets certain standards of transparency, accountability, sustainability, and performance, with an aim to create value for society, not just for shareholders.” As of July 2016, there are 1,824 “B Corps” in 50 countries, representing 130 Industries. The B Lab has produced a [model of legislation](#) passed in 26 states, to create a new type of corporation—the benefit corporation—that best meets the needs of entrepreneurs and investors seeking to use “business as a force for good.” Its B Analytics, available for a fee, “hosts the world’s largest database of verified social & environmental performance data for private companies (1100+ companies). It is also the exclusive source of impact data on Certified B Corporations and GIIRS Rated companies and funds.” Any business can apply online to become a B Corp. Case studies (e.g., Patagonia, Ben & Jerry’s), videos, blogs, self-assessment instruments, annual reports and other resources populate the website. Significant funding from foundations like Rockefeller (\$2.5-5M).
2. **Billion Dollar Green Challenge** (2011, Boston; <http://greenbillion.org>)
Mission: “Encourages colleges, universities, and other nonprofit institutions to invest a combined total of one billion dollars in self-managed revolving funds that finance energy efficiency improvements.” [The Sustainable Endowments Institute](#), in collaboration with [16 partner organizations](#), has launched The Challenge. Revolving funds loan money to specific projects, which then repay the loan through an internal account transfer from savings achieved in the institution’s utilities budget. 53 public and private institutions are currently participating, including Georgia Tech, Harvard, the Universities of Wyoming, Minnesota and Arizona, etc. Provides participants with access to the Green Revolving Investment Tracking System (GRITS 1.2) a [web tool](#) that helps institutions manage and analyze project-level energy, financial and carbon data. GRITS provides an intuitive interface to better track performance data from energy efficiency and other resource conservation measures. It also offers access to a Project Library, which includes the name of the institution, description, and detailed performance data for each of the more than 1,000 projects currently being shared. Subscriptions to GRITS through the Affiliates program are open to any institution, whether or not it has a revolving fund, and allows for those outside the Billion Dollar Green Challenge to access GRITS. Recordings and material from events and webinars are available on the website, e.g., “Implementation Strategies for Campus Green Revolving Funds”. At least \$114M in revolving funds have been committed to date. There are a number of significant funders, with Rockefeller

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Philanthropy Advisors, initiators of Sustainable Endowments Institute (2005, Cambridge MA) being key. An Advisory Council of c.30 includes influencers such as Blaine Collison of the U.S. Environmental Protection Agency (EPA). Mark Orłowski executive director.

3. Business for Social Responsibility (1994, San Francisco; www.bsr.org).

Mission: “to work with business to create a just and sustainable world.” Practical idealism and consulting services, with 100 employees in eight offices (in Asia, Europe, North and South America), and >250 global corporate members. BSR 2014 Conference in New York City: “Transparency and Transformation.” Published **BSR at 20: Accelerating Progress**, reports on **Business in a Climate-Constrained World**, and the journal *This Week in Business and Sustainability*. The theme of the BSR 2014 conference in New York City was “Transparency and Transformation.” President and CEO: Aron Cramer.

4. *Cambridge Institute for Sustainability Leadership (1989, Cambridge UK, Brussels, Cape Town; 132 staff; www.cisl.cam.ac.uk)

Helps influential individuals, major organizations and whole sectors develop strategies that reconcile profitability and sustainability and to work collaboratively with their peers to develop solutions to shared challenges and catalyze systems change. HRH The Prince of Wales (Prince Charles) is the Patron of CISL, and is actively involved. Works in three arenas: **1) Business Action** focuses on: *low carbon transformation* [e.g., IPCC Climate Science Business Briefings in 16 different categories]; *natural resource security* [e.g., the Natural Capital Leaders Platform that convenes companies wishing to better understand and manage their impacts and dependencies on natural capital]; *strategy and implementation* [Works with executives to develop strategy and business models, identify key operational challenges, and build organizational capacity and resilience related to sustainability]; *sustainable finance* [e.g., creating ClimateWise, a network of multiple global insurers concerned about climate change and aware of the significant resources they can contribute to finding a response]; **2) Executive Education** offers programs of varying lengths, e.g., a series of six-day seminars for 500 leaders of the African Development Bank to find ways to integrate sustainability in their practices, and support sustainability among clients; **3) Graduate Study** has five graduate degree/certification programs, e.g., the Postgraduate Certificate in Sustainable Value Chains designed for **senior and mid-career professionals and managers**. An alumni network brings together several thousand senior leaders and leading practitioners from across all sectors and regions, representing business, the public sector and civil society. Conducts a range of research, e.g., the Nexus Network, “a three-year initiative to foster debate, innovative research and practical collaborations across the linked ‘nexus’ domains of food, energy, water and the environment.”

Publishes on many topics, notably **Rewiring the Economy: Ten Tasks, Ten Years** by Dr. Jake Reynolds *et al.*, (Nov 2015; 20p; downloadable), which serves as CISL’s organizing framework. The analysis supports the 17 UN Sustainable Development grouped in six categories: *climate stability*; *satisfy basic human needs (e.g., water and food)*; *health and well-being*; *decent work*; *resource stewardship (efficient and circular use of natural resources)*; *healthy ecosystems (ecologically sound landscapes and seas)*. The ten tasks are: 1) Measure the right things and set the right targets; 2) Use fiscal policy to correct externalities; 3) Drive socially useful innovation; 4) Ensure capital acts for the long term;

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5) Price capital according to the true costs of business activities; 6) Innovate financial structures to better serve sustainable business; 7) Set a bold ambition, and innovate to deliver value; 8) Broaden the measurement and disclosure framework; 9) Grow the capacity and incentives to act; 10) Harness communications for positive change. These tasks positions CISL as uniquely qualified to support the private sector in accomplishing these tasks. Director: Polly Courtice.

5. Capital Institute (2010, Greenwich CT; 7 staff; www.capitalinstitute.org).

Seeks to explore and affect the economic transition to a more just, regenerative, and sustainable way of living on this earth through the transformation of finance. This new story must be aligned with the laws of natural systems and current scientific understanding of how the world works, which is remarkably aligned with the compassion and mindfulness embodied in all wisdom traditions. Publishes **Field Guide to Investing in a Regenerative Economy, Third Millennium Economy**, and a “Future of Finance” blog. Founder and President : John Fullerton (former JP Morgan Managing Director).

6. *Carbon Disclosure Project (2000, London + many offices; 34 major staff; www.cdp.net).

“Driving Sustainable Economies.” Seeks “to transform the way the world does business to prevent dangerous climate change and protect our natural resources.” Works with shareholders and corporations to disclose greenhouse gases and water usage. Holds the largest collection globally of self-reported climate change, water, and forest-risk data. Involves 822 large institutional investors, holding \$95 trillion in assets, to help reveal the environmental risk in their investment portfolios. Focuses on mitigating risks in the supply chains of some 75 large purchasing organizations such as Dell, PepsiCo, and Walmart. CDP's forests program acts on behalf of 298 signatory investors with \$19 trillion in assets, who wish to understand how companies address their exposure to deforestation risks.

Also involved with >200 cities to better manage their risk and increase their resiliency through more than 2,000 activities to mitigate and adapt to climate change. Engages with policy-makers, governments and international institutions with tailored research and analysis on climate change, water management, and deforestation risk, based on responses from over 5,000 companies. Catalyzes action on corporate water stewardship to safeguard water resources and address the global water crisis via data collection activities that influence the behavior of investor signatories and supply chain members. Publishes annual reports and other documents in each of its areas of interest. Founder and Executive Chair: Paul Dickinson. [Note: In 2010, CDP was called “The most powerful green NGO you've never heard of” by the *Harvard Business Review*. MS]

7. Carbon Tracker Initiative (2010? London; 14 staff; www.carbontracker.org).

A non-profit financial think tank, to enable a climate secure global energy market by aligning capital market actions with climate reality. “Financial specialists making carbon investment risk real.” CTI, the first project of *Investor Watch*, a non-profit company established by Mark Campanale, seeks to align capital markets with the goal of social and ecological sustainability. Also seeks to raise awareness among key decision makers about the risks that fossil fuel investments pose to financial stability, thereby challenging the status quo allocation of capital and shifting the financial markets system towards supporting

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a low carbon future. Eight report ‘sets’ including Carbon Bubble, Stranded Assets, CAPEX Analysis, Company/ Project Analysis, Regional Reports, Accountability, Credit Ratings, Regulatory Analysis. Publishes a Newsletter and **Unburnable Carbon 2013: Wasted Capital and Stranded Assets**. 14-member “team” of finance, energy and legal experts. Founder and Executive Director: Mark Campanele.

8. Center for Climate and Energy Solutions (1998, Arlington VA; 24 staff; www.c2es.org).
 Successor to the Pew Center for Global Climate Change. Mission: “To be an independent, nonpartisan, nonprofit organization working to advance strong policy and action to address our climate and energy challenges.” Four action domains: **1) Economics:** advancing public and private policymakers’ understanding of the complex interactions between climate change and the economy to achieve cost-effective action greenhouse gas reductions; **2) Energy and Technology:** via the C2ES Energy Portal providing a simple explanation of where our energy comes from (Source) and where it gets used (Sector); **3) Science and Impacts:** adaptation planning at the local, state, and national levels to limit the damage caused by climate change and reduce long-term costs; **4) Markets and Business:** helps companies, policymakers and investors understand how to manage carbon risks and capture new business opportunities.
 Supports various initiatives such as: 1) The Solutions Forum (events to explore market-based approaches to the Clean Power Plan, the role of information technology and energy efficiency, and best models for financing clean energy technology); 2) Make an Impact (Individual Carbon Foot Print Assessment); 3) Financing Alternative Fuel Vehicles; 4) Business Resilience (a detailed snapshot of the state of resilience planning among a cross-section of global companies); 5) ICT (application of information and communication technology solutions to reduce energy consumption); 6) National Enhanced Oil Recovery (a coalition of industry, state, environmental, and labor leaders); 7) Natural Gas (increased natural gas use can help reduce US greenhouse gas emissions, but deeper long-term reductions will require broader deployment of other low-carbon energy sources); 8) PEV Dialog (brings together automakers, electric utilities, policymakers, environmental groups and others to develop consensus approaches to accelerate electric vehicle deployment); 9) The 2015 International Climate Dialog (brought together senior officials from more than 20 countries to discuss options for the 2015 climate agreement). 125 publications beginning in 1999; wide range of video on current events; ~450 blog entries. President: Bob Perciasepe (former Deputy Administrator, US Environmental Protection Agency).
9. Center for International Environmental Law (1989, Washington; 15 staff; www.ciel.org).
 Mission: “A world where the law reflects the interconnection between humans and the environment, respects the limits of the planet, protects the dignity and equality of each person, and encourages all of earth’s inhabitants to live in balance with each other.” Strategy: “Four cross-cutting legal levers for systemic-change”: 1) *Strengthening international law to protect the environment*; 2) *Empowering communities to use international environmental law*; 3) *Establishing new global standards for international financial flows*; 4) *Increasing transboundary corporate accountability*. Efforts focused on: protecting children and families from toxic risks; accelerating the transition from fossil fuels; slowing the expansion of minerals mining and other extractive industries; and

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safeguarding forest peoples and biodiversity. 100 publications in each of these domains, e.g., *Extraterritorial Obligations in the Context of Eco-destruction and Climate Change* (Jan 2015), annual reports, and financial statements. Honors individuals and institutions through the International Environmental Law and the Frederick Anderson Climate Change Awards, the latter going in 2014 to Dr. James Hansen, formerly Director of the NASA Goddard Institute for Space Studies. 39 Advisors, including John H. Adams (Founding Director, Natural Resources Defense Council). Budget: ~\$2.5M/year. President: Carroll Muffett.

10. *Ceres (1989, Boston; 65 staff; www.ceres.org).

Founded largely in response to the Exxon Valdez oil spill. Mission: “Mobilizing investor and business leadership to build a thriving, sustainable global economy.” Advocates for: accounting standards that abolish the concept of free pollution; higher standards of business leadership; accelerating innovation policies that reward sustainability performance. Created the Ceres Coalition comprised of more than 130 organizations to promote sustainability by incorporating environmental and social factors into their decision-making. Organizations range from the AFL-CIO to the Episcopal Ecological Network to the World Wildlife Fund. Additionally, Ceres directs the Investor Network on Climate Risk (INCR), an alliance of 100 leading investors collectively managing more than \$10 trillion in assets to leverage shareholder power via shareholder resolutions, and face-to-face meetings to secure meaningful commitments on sustainability issues.

Specific initiatives: 1) *The Clean Trillion*: to limit global warming to 2°C and avoid the worst effects of climate change, the world needs to invest an additional \$44 trillion in clean energy—more than \$1 trillion per year for the next 36 years; 2) *Climate Change*: working with over 70 companies; 3) *Carbon Asset Risk*: 75 global investors, representing more than \$3 trillion in assets, are addressing these vulnerabilities with the world’s largest fossil fuel companies; 4) *Energy*: spearheading investor initiatives that will reduce carbon emissions, increase energy efficiency measures and use of renewable energy sources and improve power grid technologies to deliver cleaner energy; 5) *Water*: reshaping how water utilities, oil and gas, and agriculture—responsible for >90% of US water consumption—value water; 6) *Supply Chain*: supporting collaboration through the Supplier Self-Assessment Questionnaire to advance worker well-being in such countries as Cambodia and Haiti. Resources include reports, podcasts, videos and tools e.g., the Aqua Gauge for evaluating a company’s existing approach to water risk management. Budget: ~\$8.5M/year; Board Chair: Anne Stausboll (CEO, CALPERS); Chair of the President’s Council: Marcia Bateson (former CFO, J.P. Morgan Partners); President: Mindy Lubber.

11. Climate Bonds Initiative (2012, London; 13 staff; www.climatebonds.net).

An investor-focused non-profit seeking to mobilize the \$100 trillion bond market for climate change solutions. Three workstreams: 1) market tracking and demonstration projects; 2) developing trusted standards (CB taxonomy); 3) Providing policy models and advice. Publications: **Bonds and Climate Change: The State of the Market in 2014** (reports \$36.6b green bonds issued, more than triple the 2013 issuance), **Unlocking Forest Bonds**, and **Evaluating Clean Energy Financing public Finance Mechanisms**. CEO and Founder: Sean Kidney.

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12. Cradle to Cradle Products Innovation Institute (2010, San Francisco; Netherlands; 12 staff; www.c2ccertified.org)

Administers the Cradle to Cradle Certified™ Product Standard, which was gifted to the Institute by founders William McDonough and Michael Braungart. Driving change in: 1) *Fashion*: “Fashion Positive” focuses on innovation in the supply chain, providing low-interest rate loans to suppliers, increasing transparency, and perpetual cycled materials for designers and brands; 2) *Built Environments*: products for building owners and architects, e.g., IceStone, durable surfaces made of recycled glass and concrete; 3) *Education*: courses on practical concepts and strategies for regenerative and circular design; 4) *Product Design*: using Cradle to Cradle Certified™ BASIC, PUMA launched two new collections of lifestyle apparel, footwear and accessories, called “InCycle,”; 5) *Manufacturers*: making products in fundamentally better ways, e.g., Ecover rigorously assessed all ingredients, packaging materials, processes and social practices used, testing for maximum material reutilization and biodegradability to have seven products certified Cradle to Cradle Certified SILVER. Many innovation stories provide details of each effort.

Two types of certification are offered: 1) Cradle to Cradle Certified™ provides a continuous improvement pathway toward development of quality products. Products are assessed across five quality categories, with certification awarded at five levels; 2) the Material Health Certificate provides manufacturers with a trusted way to communicate their efforts to identify and replace chemicals of concern in their products. Offers training programs for consultants and engineers who want to become assessors. The Catalyst Program is for dedicated and self-directed individuals in the manufacturing sector who wish to advance the sustainability conversation within their own companies. Provides participants with networking opportunities, e.g., the Innovation Celebration. Publishes **Product Standards Guide and a Products Registry**. 161 companies and 2,500 products presently involved. Interim President: Lewis Perkins.

13. *Dow Jones Sustainability Indices (1999, USA; www.sustainability-indices.com).

Evaluates sustainability performance of the largest 2,500 companies listed on the Dow Jones Global Total Stock Market Index, and lists leaders in 24 industry groups. Managed cooperatively by S&P Dow Jones Indices and RobecoSAM (Sustainable Asset Management). Provides a main global index, the DJSI World, and various indexes based on geographic regions such as: Europe, Nordic, North America and Asia Pacific. The DJSI also contains industry-specific indexes called “blue chip indexes”. In addition, the DJSI methodology facilitates the design, development and delivery of customized sustainability indexes; e.g., indexes covering different regions, indexes covering different segments of the leading sustainability companies, indexes covering additional exclusion criteria and indexes denominated in different currencies. Selection criteria evolve each year and companies must continue to make improvements to their long-term sustainability plans in order to remain on the Index. Indexes are updated yearly and companies are monitored throughout the year. Promotes “Corporate Sustainability” to create long-term value based on sustainable business practices and “sustainability-related megatrends changing our world.” Publishes **DJSI Annual Review 2015**.

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14. *Extractive Industries Transparency Initiative (2002, Oslo; eiti.org)

Ignited by the work of economists and social theorists such as Jeffrey Sachs, Joseph Stiglitz, Terry Lynn Karl and Paul Collier, who have detailed how the huge potential benefits of oil, gas and mining were not being realized and were associated with increased poverty, conflict and corruption. EITI presents a global standard to promote open and accountable management of natural resources by strengthening government and company systems, informing public debate, and enhancing trust. In each implementing country it is supported by a coalition of governments, companies and civil society. Countries implementing the EITI disclose information on tax payments, licenses, contracts, production and other key elements around resource extraction, which is disclosed in an annual report available to everyone. The EITI Standard contains a set of requirements that countries need to meet in order to be recognized as first an EITI Candidate and ultimately an EITI Compliant country. The standard is overseen by the international EITI Board, with members from governments, companies and civil society. EITI reports are accompanied by contextual information about the extractive industries, including a summary description of the legal framework and fiscal regime together with an overview of the extractive industries, their contribution to the economy, production data, state participation in the extractive industries, revenue allocations and the sustainability of revenues, license registers and license allocations, and any applicable provisions related to beneficial ownership and contracts. The Initiative requires production of comprehensive EITI Reports that include full government disclosure of extractive industry revenues, and disclosure of all material payments to government by oil, gas and mining companies. 49 countries are implementing the EITI standard, including the United States; 31 have been deemed compliant.

Publications include **The EITI, National Oil Companies and The Sale of the Government’s Oil** (2015?) and **EITI Standard Progress Report 2015**. Holds an annual global conference. Example: Mongolia. Minerals and crude oil accounted for 88% of exports in 2013. Mongolia’s EITI Reports are highly comprehensive. They include a good overview of the extractive sector, including number of deposits, production figures by commodity, and a map of current oil exploration and production activities. The reports disclose revenues collected at provincial and levels, including fines and environmental remediation costs, and social payments and donations. Through the Multi-Donor Trust Fund, the World Bank Group supports the EITI by administering funds to provide technical and financial assistance to countries implementing or considering implementing the EITI. This contributes to an organizational budget of about \$5m/year. Head of Secretariat: Jonas Moberg; Chair of the Board: The Rt. Hon. Clare Short, UK Secretary of State for International Development (1997-2003).

15. *Forest Stewardship Council International (2003, Bonn; orig. 1994 in Mexico; 106 staff; <https://ic.fsc.org/en>)

A platform for forest owners, timber industries, social groups and environmental organizations to promote environmentally appropriate, socially beneficial, and economically viable management of the world's forests. Several hundred individual members, many with organizational relationships, are listed on the website. The FSCI encourages forest operations that are structured and managed so as to be sufficiently

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profitable, without generating financial profit at the expense of the forest resource, the ecosystem, or affected communities, by marketing the full range of forest products and services for their best value. Programs: 1) *Forest*: developing and revising the FSC Normative Framework (which concerns 5 standards, e.g., pesticides) related to Forest Management Certification; 2) *Chain of Custody*: an information trail about products derived from forestry or from the wood reclaimed from previous use as it is moved to the consumer, including each stage of processing, transformation, manufacturing, and distribution; 3) *Social Policy*: addressing the interests and rights of small community producers, indigenous peoples, and forest workers; 4) *Monitoring and Evaluation*: measuring impacts of certification on forests, people and forest management practices through internally generated data, independent studies, and participation in the ISEAL Alliance; 5) *Controlled Wood*: only materials from acceptable sources can be used as controlled; unacceptable material includes illegally harvested wood, wood harvested in violation of traditional and civil rights, wood harvested in forests in which High Conservation Values are threatened by management activities, wood harvested in forests being converted to plantations or non-forest use, wood from forests in which genetically modified trees are planted; 6) *Ecosystem Services*: developing tools for certificate holders to access emerging markets for ecosystem services that strengthen incentives for responsible forest management and to deliver greater value for certificate holders, forest communities, and other actors along the supply chain, e.g., the FSC Marketplace, an online international platform for buyers and sellers of FSC certified products]; 7) *Supply Chain Integrity*: monitoring and enforcement tools that help ensure companies keep certified material and non-certified material sources separated throughout the supply chain. Current projects include Transparent Forests, intended to design and evaluate a web-based GIS platform employing Geographical Information Systems, GPS (covers both the US Global Positioning System and Russian Global Navigation Satellite System GNSS) and EO (Earth Observation includes satellite and airborne mapping) technologies, to support forest management certification. Multiple certification-related documents are available on the website, such as **Global Strategic Plan 2015-2020**, along with membership application forms. Kim Carstensen, Director General.

16. *Generation Foundation (2015, New York and London; <https://www.genfound.org>).

Mission: “To mobilize asset owners, asset managers, companies and other key participants in financial markets around the business case for Sustainable Capitalism, and allocate capital accordingly.” A project of Al Gore and David Blood that is an offshoot of Generation Investment Management, a boutique firm founded in 2004 “dedicated to long-term investing, integrated sustainability research, and client alignment.” As discussed in a brief introductory video, the Foundation’s point of view is grounded in the analysis Gore put forward in **The Future: Six Drivers of Global Change** (Random House, 2013; 558p; with chapters on Earth Inc, The Global Mind, Power in the Balance, Outgrowth, The Life Sciences Revolution, and The Climate Crisis). The project is designed to support “an economic system within which business and trade seek to maximize long-term value creation, accounting for all material ESG (environmental, social and governance) metrics,” i.e., total cost accounting. Sustainable Capitalism “exists at the intersection of business, science, politics and market forces. Consequently, it is necessary to coordinate across

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disciplines and sectors in order to inspire and catalyze the innovation and lasting change that we believe is urgently needed.” Sustainable businesses “do not borrow current earnings from future earnings, and provide goods and services in a manner that is consistent with the transition to a low-carbon, prosperous, equitable, healthy and safe society.

This perspective is explained in detail in **Allocating Capital for Long Term Returns** (May 2015, 29p), which lists ~55 key environmental, social, and governance factors (e.g., land use, data security and customer privacy, and ownership structure); an informative set of metrics. Activities and research are based on five recommendations to the investment community on supporting the transition to sustainable capitalism are contained in this white paper: 1) Identify and incorporate risks from stranded assets (i.e., assets that lose economic value ahead of their anticipated useful life); 2) Mandate integrated reporting that combines financial and sustainability metrics into one report; 3) End the default practice of issuing quarterly earnings guidance; 4) Align compensation structures with long-term sustainable performance; and 5) Encourage long-term investing with loyalty driven securities that reward those who hold shares for a number of years. Among other specific actions, Generation provided seed money to the Sustainability Accounting Standards Board and the International Integrated Reporting Council. A useful library of downloadable white papers, research reports issued with partners (e.g., the Aspen Institute and KKS Advisors), videos, editorials, and speeches is available on the website. The Foundation is funded by distributions from the investment management firm’s profits.

17. Global Alliance for Action on Banking Values (2009, Zeist, The Netherlands; 7 staff + advisors; www.gabv.org).

“An independent network of banks using finance to deliver sustainable economic, social and environmental development.” Principles of Sustainable Banking: 1) Triple bottom line approach at the heart of the business model; 2) Grounded in communities, serving the real economy by financing sustainable enterprises and enabling new business models to meet the needs of both; 3) Long-term relationships with clients and a direct understanding of their economic activities and the risks involved; 4) Long-term, self-sustaining, and resilient to outside disruptions; 5) Transparent and inclusive governance; 6) All of these principles embedded in the culture of the bank. 27 banks, credit unions, microfinance and community banks operating in countries across Asia, Africa, Australia, Latin America, North America and Europe; serving 20 million customers; holding up to \$100 billion of combined assets under management; and powered by a network of 30,000 co-workers. Chief Executive Officer network takes a leading role in the debate about how to build a sustainable financial future by managing joint projects among members, experts and partners. Also provides learning and development opportunities for senior executives and talented banking professionals at member banks.

Programs: 1) *Advocacy and Engagement*: a social media campaign involving more than 90% of GABV’s 30K employees who have, so far, posted 7,500+ times and viewed the #BankingOnValues hashtag 8.8 million times; 2) *Human Capital*: The Values Ambassadors where member bank employees take on roles engaging stakeholders to advance the values-based banking movement; the GABV Leadership Academy introduces participants to the concept of values-based banking; 3) *Regional Chapters*: roundtables to provide knowledge and perspective on substantive issues to CEOs in Europe, US, and Latin

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America; 4) *Impact Metrics*: a scorecard based on Basics, e.g., transparency/ Quantitative, e.g., triple bottom line focus/ Qualitative, e.g., strategic direction]; 5) *Financial Capital* has raised \$40m so far through an investment vehicle to support values-based banking. News reports dating back to 2009 highlight the activities of the Alliance and member banks. Holds many events, a number of which are archived. Issues an **Annual Report**. Expenditures in 2014: ~\$450k. Chairman of the Board: Peter Bloom (Chair, Triodos Bank).

18. Global Compact Cities Programme (2003, Global Cities Institute, RMIT University, Melbourne; 12 staff plus several interns; www.citiesprogramme.com).

The urban component of the United Nations Global Compact (GC), the world’s largest corporate responsibility initiative. Seeks to promote GC’s Ten Principles (regarding human rights, labor, environment, and anti-corruption) by cities, and provide a framework for translating the principles into day-to-day urban governance and management. The Cities Programme recognizes three levels of engagement: 1) Signatory Cities: committed to the ten Principles and encouraging local business to join the GC; 2) Leading Cities: drivers of positive urban change with a dedicated sustainability plan; 3) Innovating Cities: activities beyond the commitment of Levels 1 & 2: projects of a city or region with “a transformational quality” that are managed cross-sectorally, engaging government, business, and civil society; learning from the project is shared across the Cities Programme network. The Programme created the “Melbourne Model” and promotes the “Circles of Sustainability” urban profile process. Director: Ralph Horne.

19. *Global Footprint Network (2003, Oakland, CA and Geneva; 47 staff; www.footprintnetwork.org).

“Advancing the Science of Sustainability.” An international think tank that provides Ecological Footprint accounting tools to local and national governments, investors, and opinion leaders for the development of policy. Involves hundreds of individuals, 200 cities, 23 nations, leading business, scientists, NGO’s, academics, and >70 global Partners (academic institutions, consultancies, corporations, government agencies, and social benefit organizations). Envisions “*a future in which human demand on nature is monitored as closely as the stock market.*” The Ecological Footprint “works like a bank statements documenting our ecological expenditures and identifying if we are consuming nature’s resources faster than the planet can renew them.” Ecological Footprint Accounting addresses whether the planet is large enough to keep up with the demands of humanity. On the *asset* side, biocapacity represents the planet’s biologically productive land areas including our forests, pastures, cropland and fisheries. These areas, especially if left unharvested, can also absorb much of the waste we generate, especially our carbon emissions. Biocapacity can then be compared with humanity’s *demand* on nature – our Ecological Footprint – which represents the productive area required to provide the renewable resources humanity is using and to absorb its waste. There are world, national, city, business, carbon, and personal footprints. Results for 200 countries are updated annually.

Examples of findings: 1) humanity presently uses the equivalent of 1.5 Earths to provide the resources we use and absorb our waste; 2) the carrying capacity of the US is

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about 80% less than the resources consumed by its population; 3) urban life significantly reduces per capita footprint, but the increased affluence of city residents increases it; 4) humanity’s carbon footprint has increased 1100% since 1961 and reducing it is the most essential step that could be taken to live within the means of the planet; 5) Kuwait is #1 in living beyond its means, consuming 10 times its carrying capacity; 6) very poor countries consume the least. Details of the methodology are described extensively. Publishes **The Living Planet Report** bi-yearly (2014 is the most recent edition.) and an **Annual Report Expenditures** (2014): \$3.4M. President: Mathis Wackernagel. [Note: A powerful and extensive analysis, especially the graphic layout of the information. MS]

20. *Global Initiative for Sustainability Ratings (2011, Washington; ratesustainability.org).

Rating the raters of corporate sustainability activism and engagement. An effort by Ceres and Tellus Institute, with strong involvement from organizations like TIAA-CREF, the Calvert Group, Deloitte, and Bloomberg to bring to widespread adoption a single standard for rating sustainability performance. Mission: “to drive transparency and excellence in environmental, social, and governance (ESG) research, ratings and indices to improve business performance and investment decision-making.” Created as an information and knowledge management solution for companies, investors and raters to manage the volume of requests for data on sustainability companies receive, the information provided to investors and the particular orientation of raters. Has compiled data on hundreds of corporate ESG ratings, rankings and indices. Four components to the Center for Ratings Excellence (CORE) program: 1) *Framework*, principles for accreditation of the rating organization; 2) *Hub*, an on-line data base containing “350 ESG rankings covering more than 50,000 companies on more than 500 issues and more than 10,000 ESG indicators”; 3) *Labs* advancing ratings science; and 4) *Convenings* to share experiences and scale best practices in rating.

Principles that guide the process and content aspects of sustainability ratings: 1) *Transparency*: companies provide useful information that raters respect; 2) *Impartiality*: companies do not influence raters unduly; 3) *Continuous Improvement*: raters stay up to date with best practices; 4) *Inclusiveness*: using focus groups, surveys, workshops, and advisory committees, etc. to encompass multiple points of view; 5) *Assurance*: ARISTA 3.0, ISAE 3000, and AA1000 as reference points; 6) *Materiality*: whether exclusion of an issue, e.g., product recalls, significantly alter the decisions of a rating user; 7) *Comprehensiveness*: ratings specific to climate (natural-capital focused), living wages (human-capital focused), or community impacts (social-capital focused) should be attentive to linkages across the other capitals; 8) *Sustainability Context*: whether the rating system attends to generally accepted norms of human and ecological well-being; 9) *Long-term Horizon*: long-term, mid-term, and short-term activities of a company vis-a-vis sustainability; 10) *Value Chain*: all elements of the product/service creation process that a company has influence over; 11) *Balance*: using a mix of measurement techniques, e.g., quantitative and qualitative; 12) *Comparability*: whether a company can be compared over time to itself and to others. Recent publication: **Corporate Sustainability: First Evidence on Materiality**. Cost of becoming a “core stakeholder”: \$10K. Mindy Lubber, president of Ceres, is the co-chair of GISR’s steering committee. Co-founder, Allen White, formerly of Tellus, serves on the Technical Review Committee. 30 members of the Expert Advisors

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Council (EAC) advise the Secretariat and Technical Review Committee. A Secretariat of three people directs the day-to-day activities and has primary organizational oversight. Co-chairs: Mindy Lubber and Allen White. [Note: A private sector powerhouse with a lot of input from high-level actors in the sustainability world. MS]

21. *Global Reporting Initiative (1997, Amsterdam; <https://www.globalreporting.org>).
 “Promotes the use of sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development.” Seeks to make sustainable reporting standard practice. A sustainable global economy “should combine long-term profitability with ethical behavior, social justice, and environmental care.” GRI’s “Sustainable Reporting Framework” (a family of guidance materials) enables all companies and organizations to measure, understand, and communicate this information, enabling greater transparency and accountability. The “Organizational Stakeholders Program” of core supporters involves > 600 organizations from >60 countries. Funding is large, diverse, and global, with institutional support from many governments and their agencies, including the Swedish International Development Cooperation Agency, the Norwegian Ministry of Foreign Affairs, Germany’s Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Australian government. Offices are in Australia, Brazil, China, Colombia, India, South Africa, and the US. Publications include the comprehensive Sustainability Reporting Framework (which includes the Reporting Guidelines, Sector Guidance and other resources), the fourth generation of Guidelines (G4, May 2013), and the “OS Update” newsletter. Chief Executive: Michael Meehan.

22. GlobeScan Foundation (2012, Annan, Ontario; 40 staff; <http://globescan.com>).
 “Helps clients measure, understand, and build valuable relationships with their stakeholders, and to work collaboratively in delivering a sustainable and equitable future.” Clients in 12 economic sectors include multinational and regional companies, industry associations, multilateral organizations, major NGOs, and governments. GlobeScan has been tracking trends among stakeholders and the general public across 25 countries for over two decades. It claims to “have the largest longitudinal databases in the world, providing unparalleled corporate radar for clients intent on understanding the world and their place in it.” For example, the *GlobeScan Radar Program* involves interviews with nearly 50,000 citizens across five continents each year and thousands of experts and stakeholders. GlobeScan uses its information and insight to help organizations identify, engage, and collaborate with their stakeholders through five core practice areas: Reputation, Brand, Sustainability, Engagement, and Trends to build trust and alignment on sustainability strategy. Some clients, e.g., Unilever’s Sustainable Living Lab, hire GlobeScan to run and evaluate programs, in this case an online moderated dialogue involving 1,000 sustainability experts worldwide to find tangible solutions to the challenges of reducing environmental impacts in the home. Others, like Siemens, sponsors research used by government, e.g., an analysis produced for the US Conference of Mayors of how cities can continue to make advances in sustainability in difficult economic times.
 Also funds a non-commercial arm, The GlobeScan Foundation (2012, Annan, Ontario), dedicated to applying social science to help solve humanity’s challenges through polling, convening conversations among experts, and inventing and using engagement

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processes to encourage “mass collaboration” problem solving. Founder and Chair: Doug Miller.

23. IMD Global Center for Sustainability Leadership (1990, Lausanne, Switzerland; 4 staff; www.imd.org/research-knowledge/global-centers/sustainability-leadership).

A division of the highly-rated International Institute for Management Development, formed in 1990 by merger of two business schools. The Global Center’s mission is “developing successful global leaders who will create the sustainable institutions of tomorrow.” Its corporate membership-driven CSL Learning Platform seeks to ensure that research and content reflect realities and best practices in seven areas: 1) Sustainable leadership; 2) Sustainability and innovation; 3) Sustainability in the luxury industry; 4) Assessing the efficiency of sustainability supply chains; 5) Business response to the climate change and energy challenge; 6) Sustainable agriculture, and 7) New financial business models for the sustainable enterprise. IMD publishes the annual **World Competitiveness Yearbook** that benchmarks performance of 61 countries based on >300 criteria, **Quest** (a book addressing the seven transformation journeys that are reshaping corporations today), Global Readiness Surveys on such topics as the Globalization Capability Gap, and >100 Case Studies per year. IMD seeks to “walk the talk” on sustainability by improving the sustainability performance of its entire business school. Director: Francisco Szekely.

24. *Natural Capital Coalition (2012, Amsterdam; 19 staff; www.naturalcapitalcoalition.org)

A global, multi-stakeholder, open source platform to support development of methods for natural and social capital valuation in business. Its aim is to achieve a shift in corporate behavior to preserve and enhance, rather than deplete the earth’s natural capital. It is made up of early adopters from the business, policy, accounting and NGO communities.” It develops, tests and encourages the use of a standardized Natural Capital Protocol and sector guides. Natural Capital is the stock of natural ecosystems on Earth including air, land, soil, biodiversity and geological resources. The economic impact of the degradation of natural systems is \$2-5 trillion per year. The Protocol and Sector Guides aim to provide a standardized framework for business to measure and value their direct and indirect impacts and dependencies on natural capital. Downloadable publications such as “Taking Stock: Existing Initiatives and Applications” describe valuation techniques, methodologies and case studies. The soon to be released Natural Capital Protocol being created with a variety of large corporation and NGO stakeholders will enable businesses to identify their most relevant natural capital impacts and dependencies across the value chain, including externalities, in qualitative, quantitative or monetary values; provide guidance on how to measure and value these impacts and dependencies with suggestions of available methodologies; and consider other relevant initiatives, including the Natural Capital Declaration work in the Finance Sector and the work of World Bank WAVES, UK Natural Capital Committee and UN SEEA) on national natural capital accounting. Chairman and CEO: Nanno Kleiterp.

25. *Sustainable Accounting Standards Board (2011, San Francisco; 24 staff; www.sasb.org).

“Accounting for a Sustainable Future.” Seeks to “increase the usefulness of information available to investors and improve corporate performance on the environmental, social, and

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governance issues most likely to impact value.” Through 2016, SASB is developing standards for >80 industries in 10 sectors, to help publicly-listed corporations disclose material factors in compliance with SEC requirements. A new, standardized language is being created to articulate the material, non-financial risks and opportunities facing companies today. These non-financial risks and opportunities that affect corporations’ ability to create long-term value are characterized as “sustainability” issues. CEO: Jean Rogers; Chair of the Board: Michael R. Bloomberg (former NYC Mayor).

26. *UN Global Compact (2000, Geneva; 13 executive staff; www.unglobalcompact.org).

Encourages private sector operations “to do business in a way that aligns their strategies and operations with human rights, labor, environment, and anti-corruption principles, and that take strategic actions to advance broader societal goals, such as the forthcoming UN Sustainable Development Goals, with an emphasis on collaboration and innovation.” It now has 12,000 signatories in 170 countries. Compact Principles: 1) *Human Rights* (businesses should support and respect protection of internationally proclaimed human rights, and make sure that they are not complicit in human rights abuses; 2) *Labor* (businesses should uphold freedom of association and effective recognition of the right to collective bargaining, elimination of all forms of forced and compulsory labor, effective abolition of child labor, and elimination of discrimination in employment and occupation; 3) *Environment* (businesses should support a precautionary approach to environmental challenges, undertake initiatives to promote greater environmental responsibility, and encourage development and diffusion of environmentally friendly technologies; 4) *Anti-Corruption* (businesses should work against corruption in all its forms, including extortion and bribery).

Topics and issues addressed: Supply Chain Sustainability; Sustainable Development; Financial Markets; Business and Industry Associations; Governance; Anti-Corruption; Peace; Rule of Law; Environment; Climate Change; Water and Sanitation; Human Rights; Labor; Children; Gender Equality; Indigenous Peoples, Education; Corporate Goal Setting; General Counsel; and Board of Directors. Each topic/issue has a chief manager, publications, events calendar, webinars and press releases. The Compact as a whole has a Twitter feed. The Compact’s Local Networks support local firms and subsidiaries of multinational corporations in implementing the principles and meeting the annual reporting requirement. Activities are based on local priorities and needs. They include corporate sustainability seminars, reporting trainings, issue-specific workshops, country-based consultations, policy dialogue, collective action projects, partnerships, networking events, local newsletters, and awards. A directory details network members and who to contact to inquire about membership. 5,400 downloadable “Communications of Progress” that demonstrate a commitment to the Compact’s sustainability principles were filed for 2014. 32,700 public reports are available. Board headed by the UN Secretary General with membership from Business, Civil Society, Labor, and other ex-officios. Executive Director: Georg Kell.

27. *UNEP Finance Initiative (1992, Geneva; 31 professional staff; www.unepfi.org)

A platform associating the UN and the financial sector globally “to bring about systemic change in finance to support a sustainable world”. Over 200 members have signed the Statement of Commitment. Membership includes public and private financial institutions,

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and is balanced between developed and developing countries. Banking, insurance and investment are the three main sectors. Initiatives: 1) *Capacity building and the sharing of best practices*; 2) *Pioneering research and tools*; 3) *Setting global standards and principles*; 4) *Engaging stakeholders, both public and private*; 5) *Facilitating the networking of members and stakeholders through global events and regional activities*.

Work Streams: 1) *Banking* (UNFI’s largest constituency, concentration on innovative ways of addressing sustainability issues in the banking sector, e.g., the Nigerian Sustainable Banking Principles); 2) *Climate Change* (policy and strategy, outreach, tools, and training; e.g., issuing a joint statement from 285 investors representing more than \$20 trillion in assets, stressing the urgent need for policy action addressing climate change); 3) *Insurance* (promoting global adoption and implementation of the Principles for Sustainable Insurance; 83 organizations have adopted the Principles, including insurers representing approximately 20% of world premium volume and \$14 trillion in assets under management); 4) *Investment* (exploring how material, social, environmental, and governance considerations can best be incorporated into investment practice); 5) *Property* (analyzing the role of financial institutions in promoting sustainable development in the real estate and property finance sectors); 6) *Sustainability Management and Reporting* (developing the Global Reporting Initiative Financial Services Sector Supplement on environmental performance); 7) *Biodiversity and Ecosystem Services* (turning the financial services sector’s attention to loss of biodiversity and degradation of ecosystem services); 8) *Finance and Conflict* (developing the business case for the financial sector to engage proactively in conflict prevention); 9) *Human Rights and Finance* (how human rights relate to the activities of financial institutions worldwide, so financial professionals can make responsible decisions within their spheres of influence); 10) *Water and Finance* (promoting proactivity by financial institutions through awareness raising and capacity building). A wide range of publications, events, tools and training are available to both the general public and, in greater detail, to members and signatories. Co-chairs: David Pitt-Watson (Inflection Point Capital Management) and Denise Hills (Head of Sustainability, Banco Itau Holding Financeira); Officer-in-charge: Eric Usher.

28. [Wealth Accounting and Valuation of Ecosystem Services](https://www.wavespartnership.org) (WAVES, 2010; <https://www.wavespartnership.org>).

Launched in Nagoya, Japan, this global coalition of UN agencies, governments, international institutes, NGOs, and academics aims to promote sustainable development by ensuring that natural resources are mainstreamed in development planning and national economic accounts. “By working with banks and ministries of planning and finance to integrate natural resources into development planning through Natural Resources Accounting, we hope to enable more informed decision-making that can ensure genuine green growth and long-term advances in wealth and human well-being.” Implementing countries: Botswana, Columbia, Costa Rica, Guatemala, Indonesia, Madagascar, Philippines, and Rwanda. Publishes WAVES annual report, WAVES Newsletter, and Country Reports. The Policy and Technical Experts Committee (PTEC) consists of experts in environmental accounting, economists, natural scientists, and policy experts from the World Bank, UNEP and other UN agencies, academic institutions and governments. Director: Francisco Alpizar.

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29. *World Business Council for Sustainable Development (1992, Geneva; www.wbcsd.org). “Business Solutions for a Sustainable World.” Seeks to demonstrate “environmental protection coupled with economic growth.” Some corporate 200 members are drawn from >35 countries and 20 major industrial sectors, involving some 1,000 business leaders globally. The Council also comprises a Regional Network of 60 national and regional partner organizations – called Business Councils for Sustainable Development (BCSDs) – mostly located in developing countries. The **WBCSD Tool Box** introduces “tools, methodologies and principles that aim to support member companies’ sustainability journey.” **Vision 2050**, a best-case scenario for sustainability, calls for incorporating costs of externalities, halting deforestation, low-carbon energy systems, doubling food production, and improved energy efficiency. **Action 2020** platform for action discusses Issues and Solutions regarding natural capital, financial capital, social reporting, and capacity building. President: Peter Bakker; Executive Committee Chair: Paul Polman.
30. *World Economic Forum (1971, Geneva, Beijing, New York, Tokyo; 400 staff of 55 nationalities; www.weforum.org). “Committed to improving the state of the world by engaging business, political, academic and other leaders of society to shape global, regional and industry agendas.” Best-known for its annual meeting of luminaries in Davos, Switzerland. Membership involves “1000 of the world’s top corporations.” Publishes reports on its key events and issues (e.g. **Water Security: The Water-Food-Energy-Climate Nexus**, 2011, 300p), and annual publications such as the **Human Capital Report**, **Global Competitiveness Report**, **Global Risks Report**, and the **Global Gender Gap Report**. Five Issue Areas: Economic Growth (including food security and a circular economy), Environmental Sustainability, Financial Systems, Health for All, and Social Development. Founder and Executive Chairman: Klaus Schwab.

APPENDIX 4

Other Groups in the S&S Guide

Note: The following are major categories (five or more listings) that can be found in the extensive Part 4 Subject Index to the August 2016 Interim Draft of the S&S Guide, available on request to the authors or, soon, at www.securesustain.org. The number of organizations listed to date is in parentheses. These numbers will expand as more groups are identified. Some organizations are listed in two or more categories.

Accounting (17)	Green Growth / Jobs / Economy (18)
Africa (11)	Health (8)
Agriculture (22)	Human Rights (23)
Alliances / Coalitions / Networks (76)	Human Security (16)
Arctic (19)	Indigenous People (10)
“Big Green” Organizations (10)	Information Portals (123; see Part 1E)
Biodiversity (16)	Investing (39)
Business (33)	Japan (7)
Certifying Organizations (23)	Migration (9)
Children (5)	Nuclear Disarmament (24)
China (6)	Oceans (53)
Cities (37)	Peace (51)
Climate and Security (7)	Physicians’ Groups (5)
Climate Change (75)	Population (19)
Conservation (14)	Publishers (15; also see Business)
Consultants for Sustainability (18)	Religious Groups (15)
Corruption/Crime (12)	Resource Efficiency / Protection (14)
Cyber-Security (6)	Risk (13)
Economics Rethinking (35)	Scientists’ Groups (18)
Education (19)	Security / Strategic Studies (38)
Ethics and Business (23)	Special Purpose Organizations (10)
Energy (84)	Sustainability: General (63)
Environmental Justice (7)	Systems Analysis / Thinking (10)
Environmental Law (10)	Terrorism (16)
Finance (40)	UN Agencies / Programs / Projects (35)
Food (33)	Universities (19)
Forests (27)	Water (40)
Former Leaders’ Groups (9)	Women’s Groups (19)
Foundations: Grant-Giving (75)	World Futures / Humanity / Global Affairs (48)
Governance (24)	Youth Groups (22)