

Editors
Francis Quinn
Roland Schatz

CSR Index



Preface by Michael Møller

Director-General of the
United Nations Office at Geneva

Contributors
Steven Bacon
Francesco de Leo
Călin Georgescu
Arnfried Ossen
Bruno Rebelle
Jevan Tan
Matthias Vollbracht

2016

United Nations
Global Sustainability Index
Report 2016

Editors:

Francis Quinn & Roland Schatz

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ISBN: 978-3-906501-14-7

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Preface

Michael Møller

United Nations Office at Geneva

The global feedback on the Sustainable Development Goals (SDG) last fall was inspiring in two ways. First, the qualitative process within which the individual goals were agreed upon by all United Nations member states gives reason for optimism that we will manage to progress beyond the achievements of Millennium Development Goals (MDG) over the past 15 years. As that initiative came to an end in 2015, the 70th Anniversary of the United Nations, a lot of people – myself included – were surprised about how much progress was actually made.

The second reason for optimism, as we start 2016, is the level of ownership shown by each member state and their determination to deliver on the SDGs. Naturally, the United Nations will be providing support, but the successful implementation of the 17 SDGs will first and foremost be the responsibility of all member states. It is incredibly uplifting and gives reason for hope that those in charge on the ground are taking the challenge seriously.

The Paris Climate Conference in December 2015 sustained the positive momentum and showed that world leaders have been listening and worked hard to find a compromise that only few had dared to hope could be achieved. For these reasons, and several other concrete developments emanating from International Geneva, our unique global hub for peace, rights and well-being, I remain steadfastly optimistic – despite the constant headlines alerting us to new and unsolved challenges.

As I have pointed out repeatedly, without a better understanding of agreed principles, standards and, most importantly, laws, our lives are made more difficult than necessary. Indeed, those in the limelight bear a special responsibility to lead by example and be a source of inspiration for future generations.

For this reason, I am very happy to see, that our Global Sustainability Index (GSI) initiative has made significant progress. The GSI Foundation will be registered in the first part of 2016 and in Dr. Calin Georgescu we have found an Executive Director

who will put all his energy into having a first version of the Index ready for discussion at the various UN agencies, including UN Academic Impact and UNCTAD, and beyond as soon as possible. I am especially grateful for the support to that effect offered by the Geneva-based International Standards Organization (ISO), a recognized leader in developing standards that are accepted on a global scale.

The GSI will operate as a multi-stakeholder, non-profit, initiative whose goal is to provide an estimate of companies' sustainability performance in a transparent and pertinent manner. Recognizing that 'Standards' based approaches are cumbersome and insufficient on their own, GSI will develop tools that will provide guidance and benchmarking to companies and stakeholders, including investors. KPI's will be used to estimate the level of sustainability of a company's activities which may involve the use of taxonomies and a sustainability currency. Indeed, the GSI will examine how to create a well-defined market for sustainability as a tradable good, across regions and industries as well as the entire stakeholder spectrum.

Bottom line success will be the driving force of the GSI. The prognosis is that sustainable corporates will be the ones aiming at win-win, rather than win-lose, relationships with their customers, employees and other stakeholders, which is the basis for creating sustainable value and being successful over the long run. That said, existing assessment and measurement approaches and tools will of course be a place to look for inspiration for this initiative.

Aligning all of these within the GSI will not only generate huge synergies, but also ensure that all efforts are focused on one common goal: the development of one generally accepted CR reporting standard. And this will naturally include the all-important challenge of including intangible assets in accounting and integrated reporting. Research suggests that 50% or more of corporate value is attributable to intangible assets. At the same time, the ability to incorporate intangible assets in current accounting frameworks appears to be limited and hence, the value and relevance of accounting information has deteriorated considerably.

The GSI has the potential of becoming a powerful and practical platform helping to overcome this issue and foster integrated reporting as it provides for a common sustainability reporting standard— acknowledging that environmental, social and governance (ESG) factors account for a substantial part of thus far un-disclosed

corporate value. The need and importance of addressing this challenge with a truly holistic approach is demonstrated by two recent developments: (a) The launch of the International Integrated Reporting Framework, and (b) The European Union Commission proposal for mandatory CSR reporting.

The former is an important milestone designed specifically for investors and whose output is a concise communication about how an organization's strategy, governance, performance and prospects can lead to value creation over the medium and long term. The proposal for mandatory CSR reporting would require large companies operating in the EU (over 500 employees) to include CSR disclosures in their management reports – information on their environmental and social impacts, including human rights, corruption and bribery. In addition, the proposal also states that large, listed companies should publish information on the diversity policies of their boards with regards to age, gender, ethnic origin and educational, as well professional, background of their members.

There is no other institutional body than the UN that has the convening power and credibility to bring all the relevant stakeholders to the table in order to align interests and overcome the limitations and shortcomings of current CR evaluation systems.

1. Introduction

UNGSi – what has been achieved and what needs to be done

Francis Quinn

Workiva, Iowa

To any (in)action there is always an opposite and equal reaction¹

Trust and win-win

Companies play a central role in determining the size and shape of the global economy, and through it, directly impact the environment and society at large. Under these circumstances it is hardly surprising that the economic, environmental and societal challenges that we face are also global. Clearly the economic crisis that began in 2008 continues to challenge us today in part due to the diminished sense of trust between businesses and their stakeholders, and also because of the lack of trust in the data on which businesses report performance and make decisions. Today's trust is cautionary: the public opinion slogan says: "We will trust you if you let us verify". And this adds a certain tension to negotiations between companies and stakeholders who are considering entering into partnerships that (hopefully) will benefit all concerned.

Companies are therefore part of the problem and, thankfully, they are also part of the solution. That said, companies cannot, and should not, tackle these global challenges alone - in order to succeed they must work with their stakeholders in an organized and concerted manner. In other words, they must develop the mindset of "win-win".

So are there companies that have already embraced the "win-win" approach? And if so, how do they achieve it? How big are their win-wins? How are stakeholder relations managed in win-win scenarios? How are they spreading the word and inspiring/challenging others to do even better?

¹ After Isaac Newton *Philosophiæ Naturalis Principia Mathematica* (1687)

It turns out that answering these questions is much more difficult than one would imagine.

The performance of companies in the area of sustainable development are currently evaluated using the data provided on their website, in their Annual Report and in their Sustainability/Corporate Social Responsibility (CSR) Report – with an underlying trend to merge these into an integrated report that discloses in one reference document the company's financial and extra-financial information².

Companies are facing a growing demand for material and transparent data on corporate CSR from stakeholders, including financial markets. That said, Media Tenor research suggests that the corporate sector has been inconsistent in keeping stakeholders, including investors, on track³. Companies have failed to consistently highlight their vision and progress towards realizing their CSR goals. Indeed, Chairpersons, CEO's and CFO's seldom take advantage of opportunities to discuss the latest progress (or risks) in the field of sustainability in their annual reports. Furthermore, among Blue Chip companies, less than 10 percent report on materiality from a societal perspective preferring to focus almost exclusively on the company itself.

Annual Reports talk about the topics that companies feel are important and Media Tenor has shown that CSR activities typically only represent 5-10 percent of total content. Specificity in annual reports is also a real challenge for many companies. CSR performance is a good example and companies are rarely specific as to where their CSR activities occur. Clearly, this lack of specificity impacts the credibility and level of transparency of these initiatives. When location is specific, it is predominantly in the home country. While CSR activities in the home market are key and can be drivers for growth, this is the era of globalization – with the majority of economic growth currently concentrated in emerging nations – many stakeholders, in particular local stakeholders, want to know about CSR activities in their locality.

Therefore, despite the fact that trust in companies is currently particularly low, the Media Tenor research suggests that many firms are missing out on a real

² FEE *The Future of Corporate Reporting – creating the dynamics for change*
http://www.fee.be/images/FEECogitoPaper_-_TheFutureofCorporateReporting.pdf ;
<http://integratedreporting.org>

³ Stefano Radaelli and Roland Schatz *Creating a truly global index that maps sustainability*. Media Tenor Reputation Lab Davos, 24th January 2014.

opportunity to engage their stakeholders in a transparent and meaningful dialogue and, by default, leaving it to others to tell their stories with all the risks that this inevitably entails⁴. Companies are not making a convincing case about who they are, their values and how they operate in their annual reports. News media are forming their own opinions, and the lack of clarity on successes, failures, and risks in these reports has led to a situation where the media largely ignore these documents that should be central to corporate image, as well as reputation and trust building with stakeholders, including investors.

New Paradigms

Today it is widely recognised that human civilization faces several formidable challenges in order to improve the living standards and the quality of life for all, and that climate change is only one of those challenges⁵. According to the Carbon Disclosure Project (CDP), in 2010, 1799 companies disclosed on their carbon footprint through the CDP reporting framework and 1997 did so in 2015⁶.

This begs a number of questions: If there are over 42000 listed companies in the world, why are less than 2000 reporting to the CDP on their carbon emissions? Why is the increase in the number reporting from 2010 to 2015 so modest – less than 10 percent? It is certainly not because the threat posed by climate change has diminished over that time period – on the contrary, scientists think the situation is getting worse⁷. Again, according to the CDP “The companies that disclosed through CDP’s climate change program [in 2015] were requested to do so by 822 investors representing US\$95 trillion in assets. They span 51 countries and represent 55% of the market capitalization of listed companies globally”. So if some investors are starting to get it, why is it that so many companies still don’t get it?

Why so many businesses apparently choose to ignore the evidence is indeed curious, but for shareholders and investors it is quite simply risk taking with their money on the line. Is it pressure for short-term gain from certain shareholders and

⁴ <http://www.edelman.com/insights/intellectual-property/2015-edelman-trust-barometer/>

⁵ <https://sustainabledevelopment.un.org/post2015/transformingourworld>

⁶ CDP Global Climate Change Report 2015 available at <https://www.cdp.net/CDPResults/CDP-global-climate-change-report-2015.pdf>

⁷ http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_ALL_FINAL.pdf ;
<http://www.scientificamerican.com/article/co2-levels-hit-record-high-for-30th-year-in-a-row/>

investors that pushes company executives and the board of directors to be short sighted, to the point of putting the entire business at risk? And if this attitude is generalised could it threaten the stability and security of even the largest national economies?⁸

It may seem out of place to talk of benefits for investors and sustainable growth against the backdrop of a world obsessed with global crisis, recession in Europe, debt and the insurmountable burden it represents for our children's generation, global climate disturbances and even a possible economic slowdown in emerging countries.

And yet, looking carefully, it is clear that new paradigms are starting to take hold in our fast-changing world and that new opportunities are emerging.

What are these new paradigms?

The first paradigm is evident or at least it should be for all: Companies do not simply operate in markets – they also operate in societies. Today, if a company's societal contribution is not up to mark they run the risk of losing their license to operate.

Customers and consumers who buy products and services are the wellspring of business success. That said, it is also true that citizens and their representatives – both official/mandated and those representing civil society – influence the acceptability of a company's growth in the communities in which they operate and hope to prosper. Today there is no longer an airtight firewall between what a citizen thinks and what a consumer thinks in the mind of the same individual. For the citizen-consumer, business is seen as being part of society's problems. That said the good news is that, for most members of the public, companies can also be part of the solution⁹.

Citizens, who are also customers and consumers, are increasingly concerned with their environmental well-being. Do not believe that this is a concern only of modern

⁸ <http://corpgov.law.harvard.edu/wp-content/uploads/2015/11/Securing-Our-Nation-Intermediate-Final.pdf> ; *Conference Board Is Short-Term Behavior Jeopardizing the Future Prosperity of Business?* available at http://www.wlrk.com/docs/IsShortTermBehaviorJeopardizingTheFutureProsperityOfBusiness_CEOStrategicImplications.pdf

⁹ <http://www.globescan.com/component/edocman/?view=document&id=179&Itemid=591>

Western societies primed by a few activist NGOs. The level of anxiety concerning climate change is also high in emerging countries – Brazil, China and India – where political and social pressure in these countries is a key factor in motivating these populations to live (and consume) more sustainably¹⁰.

Furthermore, regarding the management of human resources, we must never forget that in a multinational group typically three-quarters of the staff are of very diverse nationalities and cultures. In other words, the employee, who is also a citizen in his or her own right, will, at some point raise the question of the social responsibility of the company they work for when it operates in their own country¹¹.

The second paradigm is the customisation of Western capitalism in parallel with the globalisation of markets. For instance, in Asia, the reference framework for social responsibility is inspired by national history and philosophical as well as religious traditions. As an example, the renewed interest in Confucianism in China is spearheading sharp growth in the individual life assurance market, but at the same time – and for the same reason – is questioning the nature of the social benefits offered to employees and their families¹². In Argentina and Mexico, repeated economic crises of have ushered in new attitudes to sustainability in public opinion¹³.

The third paradigm is the unsuitability, over the longer term, of universal CSR standards and existing codes of conduct for evaluating the real impact of companies on societies.

This potential incompatibility with societal and cultural realities is increasingly raising management problems on the global scale. It is better to be cautious about these certainties and avoid trying to impose CSR criteria unilaterally. Otherwise there is a real risk of not taking into account – or even destroying – the traditional fabric of obligations which for centuries have been the pillars of social stability in many regions of the world. For instance, in many non-Western societies, the preservation of group harmony is more important than individual freedoms. This must be taken

¹⁰ <http://www.globescan.com/component/edocman/?task=document.viewdoc&id=51&Itemid=0> ;
<http://www.mslgroup.com/insights/2014/the-future-of-business-citizenship.aspx>

¹¹ <http://www.oecd.org/els/emp/The-Social-Impact-of-foreign-direct-investment.pdf>

¹² <http://www.dagongeuropa.com/uploads/news/1403530484commentary-chinainsuranceindustry-24june2014.pdf>

¹³ http://www.sgi-network.org/docs/2014/country/SGI2014_Mexico.pdf ;
<http://www.fsdinternational.org/country/argentina>

into account when initiating constructive dialogue with stakeholders in this type of society. In fact, more appropriate methods for implementing and assessing the contribution made by global companies operating across a very diverse range of cultures are urgently needed¹⁴.

According to the Harvard Business Review, the following were the ten most important sustainable business stories from 2014¹⁵:

1. The bad news – climate change is now.
2. The good news – tackling climate change is getting much cheaper.
3. The utility and energy businesses are changing fundamentally (well, some of them are).
4. Serious legislation like a carbon tax – in the U.S. – seems possible again.
5. A powerful social movement on climate takes shape.
6. Strategy and mission start to gain the upper hand on short-termism.
7. Rivals embrace radical collaboration.
8. The absurd amount of food we waste gets more attention.
9. A teenager pressures Cola-Cola and Pepsi – and wins.
10. The fight against inequality finds new business allies.

Browsing through the list it is clear that environmental and societal context in which companies operate is evolving rapidly. When a broad range of investment professionals were recently queried about their use of sustainability to manage their portfolios, the responses were unequivocal: risk management and identifying business growth opportunities are the main drivers when it comes to adopting sustainability criteria for investment decisions¹⁶. Over 80 percent of respondents to the survey claim to have used sustainability criteria for investment decisions in the previous year and that figure looks set to rise in the future. Investors also expressed a strong desire to engage with companies on the issues through direct communication. In particular, they would like better information from companies on how risks and opportunities are identified and quantified in financial terms, and to be in a position to compare companies in the same sector.

¹⁴ <http://www.iese.edu/research/pdfs/DI-0834-E.pdf>

¹⁵ <https://hbr.org/2014/12/the-10-most-important-sustainable-business-stories-from-2014>

¹⁶ Kayla Gillan *Sustainability goes mainstream: Insights into investor views* PWC Investor Resource Institute May 2014.

The next big thing...

An increasingly large body of evidence suggesting that sustainability may be the most significant trend in financial markets for decades. For example, in their recent review of research into the impact of good sustainability practices on companies, Clark et al. concluded that¹⁷:

- 90 percent of studies on the cost of capital show that good sustainability performance lowers the cost of capital of companies
- 88 percent show that good sustainability practices result in improved operational performance
- 80 percent show that the stock price performance of companies is positively influenced by good sustainability practices.

Looking more closely at the correlation between sustainability and stock price, one study concluded that a portfolio that goes long in well governed firms and short in poorly governed firms created an alpha 10 to 15 percent annually over the time period 1990 to 2001¹⁸. Another revealed that a portfolio comprised of the '100 best companies to work for in America' yielded an alpha of 2.3 percent above industry benchmarks over the period 1984-2011¹⁹. And yet another reported that stocks of sustainable companies tend to outperform their less sustainable counterparts by 4.8 percent annually²⁰. According to other research, after having reported environmentally positive events stocks show an average alpha of 0.84 percent. Conversely, after negative events, stocks underperform by -0.65 percent²¹. Researchers from RobecoSAM have recently suggested that a sustainability investment factor can be calculated using sophisticated regression methods and that

¹⁷ Gordon Clark, Andres Feiner and Michael Viehs *From the Stockholder to the Stakeholder: How sustainability can drive financial outperformance*. University of Oxford and Arabesque Partners, September 2014.

¹⁸ Cremers, K. J. M., & Nair, V. B. (2005). *Governance Mechanisms and Equity Prices*. *Journal of Finance*, 60(6), 2859-2894

¹⁹ Edmans, A. (2012). *The Link Between Job Satisfaction and Firm Value, With Implications for Corporate Social Responsibility*. *Academy of Management Perspectives*, 26(4), 1-19

²⁰ Eccles, R. G., Ioannou, I., & Serafeim, G. (2013). *The Impact of Corporate Sustainability on Organizational Processes and Performance*. Harvard Business School Working Paper Series

²¹ Flammer, C. (2013). *Corporate social responsibility and shareholder reaction: The environmental awareness of investors*. *Academy of Management Journal*, 56(3), 758- 781.

by applying this approach to their database, portfolio risk and return can be directly attributed to the new sustainability factor²².

These correlations have not gone unnoticed. Sustainable investment has grown from a small activist niche to mainstream and is increasingly seen as a global investment strategy by some of the world's largest investment institutions²³. The global sustainable investment market is growing both in absolute and relative terms, rising from US\$13.3 trillion in 2012 to US\$21.4 trillion at the start of 2014—and 21.5 percent to 30.2 percent of the professionally managed assets²⁴. Over this two-year period, the fastest growing region has been the United States, followed by Canada and Europe. These three regions are also the largest regions in terms of assets, accounting for 99 percent of global sustainable investing assets. The largest sustainable investment strategies globally are negative screening/exclusions (US\$14.4 trillion), followed by CSR integration (US\$12.9 trillion) and corporate engagement/shareholder action (US\$7.0 trillion). Negative screening is the largest strategy in Europe, while CSR integration now dominates in the United States.

According to a report by the U.S. Forum for Sustainable and Responsible Investment, assets managed in the U.S. using sustainability criteria are rapidly increasing – 76 percent since 2012²⁵. The current US\$6.6 trillion in sustainable assets represent approximately 18 percent of the US\$36.8 trillion in total assets under management. Key financial institutions appear to be driving the increase. For example, public pension funds, foundations, educational endowments and religious institutions currently hold US\$4.0 trillion in sustainable assets, an increase of 77 percent since 2012. Private equity funds doubled in the past two years while adding 35 new funds: from 301 to 336 funds in total (US\$224 billion in assets in 2014).

At the same time U.S. shareholder proposals on sustainability issues are intensifying and show no signs of letting up²⁶. Indeed, in the first half of 2014, 40 percent of all shareholder proposals submitted at Russell 3000 companies were related to social &

²² <http://www.robecosam.com/en/sustainability-insights/focus-themes/smart-esg/index.jsp>

²³ Morgan Stanley *Understanding the Performance of Sustainable Investment Strategies* available at http://www.morganstanley.com/sustainableinvesting/pdf/Sustainable_Signals.pdf

²⁴ GSIA *Global Sustainable Investment Alliance Review 2014* available at http://www.gsi-alliance.org/wp-content/uploads/2015/02/GSIA_Review_download.pdf

²⁵ US SIF Foundation *Report on US Sustainable, Responsible and Impact Investing Trends 2014* available at http://www.ussif.org/blog_home.asp?Display=55

²⁶ Peter DeSimone *Board Oversight of Sustainability Issues*. Investor Responsibility Research Center Institute, 2014.

environmental policy issues²⁷. The increase in both volume and support for resolutions follows on the heels of the U.S. Supreme Court ruling that full disclosure of a company's political spending allows shareholders to "determine whether their corporation's political speech advances the corporation's interest in making profits"²⁸. This trend has impacted some of the largest companies in the world. For example, in response to shareholder pressure, ExxonMobil published a Carbon Asset Risk report detailing how it assesses the risk of stranded assets from climate change²⁹. According to media reports, Arjuna Capital and As You Sow both agreed to withdraw their shareholder resolution in exchange for ExxonMobil providing information to shareholders on the risks that stranded assets pose to the company's business model, how the company is planning for a carbon constrained world, how climate risks affect capital expenditure plans, and other related issues³⁰.

A recent survey of asset owners emphasised risks and return over reputation and ethics³¹. They want their asset managers to switch focus to long-term risks and opportunities. This issue is perhaps expressed most unambiguously when it comes to fossil fuel divestment³². Just one respondent in the study cited pressure from activist groups. The vast majority are concerned about investment risk. The same survey revealed that 78 percent of asset owners consider CSR as one of the top 5 issues when choosing an asset manager; 24 percent rank it as a top 3 priority.

²⁷ <http://www.conference-board.org/publications/publicationdetail.cfm?publicationid=2872>

²⁸ <http://dev.socialfunds.com/news/article.cgi/article2898.html>

²⁹ <http://cdn.exxonmobil.com/~media/global/files/energy-and-environment/report---energy-and-carbon---managing-the-risks.pdf>

³⁰ <http://www.marketwatch.com/story/landmark-agreement-with-shareholders-exxonmobil-agrees-to-report-on-climate-change-carbon-asset-risk-2014-03-20>

³¹ Responsible Investor *Insight: Future Trends in Responsible Investment - How asset owners are upping the ante with their agents. Asset Owner Survey 2015* available at https://www.eiseverywhere.com/file_uploads/0f90354fb44b34c7f28c84d1b8e720d0_ESG2.0_AO_Survey.pdf

³² According to Divest-Invest Campaign, by September 2015, 430 institutions and 2,040 individuals across 43 countries and representing US\$2.6 trillion in assets had committed to divesting from fossil fuel companies—a 50-fold increase in divestment over 2014. See http://www.triplepundit.com/special/climate-week-nyc-2015/global-fossil-fuel-divestment-assets-reach-2-6-trillion/?utm_source=Daily+Email+List&utm_campaign=efeea704b7-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_9dedefcee3-efeea704b7-220326049; See also UN *Trends in Private Sector Climate Finance* available at <http://www.un.org/climatechange/wp-content/uploads/2015/10/SG-TRENDS-PRIVATE-SECTOR-CLIMATE-FINANCE-AW-HI-RES-WEB1.pdf>; See also Carbon Tracker Institute *The \$2 trillion stranded assets danger zone: How fossil fuel firms risk destroying investor return* http://www.carbontracker.org/wp-content/uploads/2015/11/CAR3817_Synthesis_Report_24.11.15_WEB.pdf

Apparently asset owners are frustrated by the (lack of) commitment of their managers to CSR issues.

Stock exchanges around the world are also increasing their demands for transparency on sustainability issues from companies. The United Nations Sustainable Stock Exchange Initiative (SSE) was established in 2009 and recently released the *Model Guidance on Reporting ESG Information to Investors: A Voluntary Tool for Stock Exchanges to Guide Issuers*³³. By the end of 2015, 47 stock exchanges had joined the SSE— almost triple the membership of 17 in 2014. The World Federation of Exchanges (WFE) launched its sustainability working group in 2014 and has also published guidelines and recommendations on sustainability³⁴.

Sustainable growth

As pointed out previously, the rationale behind sustainability is not just about managing risk, it is also about developing new business opportunities³⁵. According to the World Business Council for Sustainable Development, “To meet the challenge of sustainable development, businesses can help to foster more sustainable levels and patterns of consumption. There is a significant opportunity for business to help consumers choose and use their goods and services sustainably.”³⁶

In reality, the big question is: "How can we reduce the impact of human activities on the environment while offering better living conditions to two billion new consumers (and many more looking to 2050) and preserving the social gains of the Western countries?"

While people living in the old world struggle to rethink their lifestyle, as noted earlier, Chinese and Indian consumers already recognize the need to review existing models of consumption in order to preserve their future.

³³ <http://www.sseinitiative.org/wp-content/uploads/2015/09/SSE-Model-Guidance-on-Reporting-ESG.pdf>

³⁴ <http://www.world-exchanges.org/home/index.php/files/18/Studies%20-%20Reports/287/WFE%20ESG%20Recommendation%20Guidance%20and%20Metrics%20Oct%202015.pdf>

³⁵ Francis Quinn *Transitioning CSR from “nice to have” to “must have”*. CSR Index 2013 InnoVatio Publishing, Zurich, 2013.

³⁶ WBCSD *Sustainable consumption facts & trends: From a Business perspective* available at <http://www.wbcd.org/pages/edocument/edocumentdetails.aspx?id=142>

The two pillars of sustainable growth are investing in sustainable innovation and committing to sustainable consumption.

Over the last 10 to 20 years, the concept of innovation has changed and taken on a new, different meaning. Scientific advances are no longer sufficient to produce innovation that will be welcomed by the public. A good illustration of this is the use of the precautionary principle to respond to public concerns over some of the most recent scientific advances, including nanotechnology and genetically modified organisms³⁷. This is why companies have to rethink their innovation process in light of sustainable development to ensure that major innovation is compatible with sustainability. The lynchpin of sustainable innovation is putting the consumer at the heart of innovation³⁸. Precise and detailed knowledge of consumers' needs, cultural practices and aspirations in each country is the cornerstone of successful innovation. Through this strategic decentralization of research, products and services can be developed not only for local populations, but also on an international scale.

What is sustainable consumption? Certainly not consuming less. That is a false good idea that in the longer term is tantamount to whole-scale economic devolution. Satisfying people's legitimate aspirations for better living conditions means allowing them to consume better thanks to improved, more effective products derived from sustainable innovation that respects the environment. It also means marketing practices that deliver products that are both affordable and acceptable, economically, but also on the societal and cultural level.

Analysis of the progress accomplished by companies who have signed the United Nations Global Compact shows a significant increase (more than 70 percent) since 2009 in adoption of policies aimed at fostering sustainable consumption³⁹. The statistic is reassuring, since it shows that some companies are beginning to understand that this is a cornerstone of their survival. That said, it is essential to understand and recognize the fact that companies cannot take on the challenge of sustainable consumption alone. Consumers have a major role to play, as does society at large, to ensure that what we consume today does not compromise the

³⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=URISERV:l32042>

³⁸ Francis Quinn *L'Oréal Sustainability Strategy & Best Practices* CSR Index 2012 InnoVatio Publishing, Zurich, 2012.

³⁹ UNGC *Impact: Transforming Business and Changing the World* available at <https://www.unglobalcompact.org/library/1331>

world's ability to produce tomorrow. Sustainable consumption is therefore a responsibility shared by industry and all its stakeholders. This is why it is so important to establish an ongoing dialogue with citizen-consumers, based on trust.

Growing impatience

It is fair to say that investors believe that there are significant gaps in current disclosure practices, including a general lack of sustainability reporting and that it is the Board's fiduciary duty to ensure that listed companies report annually on a comprehensive, uniform set of sustainability indicators. Many also believe that more stringent disclosure requirements are necessary due to the lack of adherence to already existing laws. For example, the U.S. Securities and Exchange Commission issued its guidelines on disclosure relating to climate change in 2010, but to date half of the largest 3000 companies in the U.S. did not report on it in their annual filings⁴⁰.

In the European Union (E.U.) a general perception that companies were not sufficiently material and transparent in their sustainability reporting resulted in mandatory CSR disclosure requirements being implemented in 2014⁴¹. From 2017 onwards, CSR reporting will be a legal requirement for the E.U.'s 6000 largest companies with at least 500 employees. At the very least they will be reporting policies, risks and outcomes in the areas of human rights, employee relations, corruption and bribery, board diversity and environmental impact. As expected in a globalized economy, this new European Directive also covers large non-E.U. corporations that are listed on European stock exchanges. So for example, 118 U.S. S&P 500 companies currently not publishing sustainability reports are listed in Europe and are directly concerned by the new disclosure requirements in the E.U. – requirements that cover the global range of activities of the company, not just the European operations⁴².

Governments are increasingly enacting transparency laws. This is, in part, a move to mitigate global corruption risks, as well as a response to pressure from civil society.

⁴⁰ <http://www.bloomberg.com/news/print/2014-06-30/is-climate-a-material-risk-here-s-what-companies-are-really-reporting.html>

⁴¹ http://ec.europa.eu/internal_market/accounting/non-financial_reporting/index_en.htm

⁴² <http://ga-institute.com/Sustainability-Update/2014/06/10/corporate-sustainability-reporting-new-eu-directive-not-just-for-european-companies/>

It also speaks to growing public frustration with governance failures in the private sector. Today, there are over 130 countries with mandatory requirements for sustainability reporting⁴³. A recent French law for a binding new reporting framework is a signal of further regulatory upswing⁴⁴. In the wake of the Rana Plaza tragedy, the French proposal seeks to make parent companies liable for their global supply chain – representing a move to a full liability regime. For their part, large E.U. listed companies engaged in extractive activities are preparing to report on payments made to government or government owned entities with respect to these activities⁴⁵. Reporting will commence in the 2016 financial year for the U.K. and in the 2017 financial year for the rest of the European Union. This comes on the heels of new reporting regulations for companies in the U.K. to ensure that their own activities and those of their supply chains are free from modern slavery and human trafficking⁴⁶.

These examples only serve to highlight the growing role of regulatory frameworks and the rule of law to prevent serious wrongdoings and cover-ups, as well as the dire financial consequences that can go with them⁴⁷. Increasingly countries are starting to understand that in today's globalized, hyper-connected world the reputation of a country cannot be separated from the reputation of the companies driving its economy. Integrating sustainability into everyday business practices is without question becoming the new normal – and not just from a compliance standpoint. Companies that choose to ignore sustainability are at high regulatory, reputational, and competitive risk.

Earlier we noted the relatively poor job that companies are doing in sharing with stakeholders (including investors and media) their sustainability vision and progress towards realising their CSR goals. Rating agencies rework and interpret the elements made available to them using criteria and methodologies they have developed in-house to rank companies' results. It is widely recognized that the approach currently adopted by rating agencies presents a number of shortcomings.

⁴³ UNDP, GRI, KPMG & CCGA *Carrots and Sticks: Sustainability reporting policies worldwide – today's best practice, tomorrow's trends* available at <https://www.globalreporting.org/resource/library/Carrots-and-Sticks.pdf>

⁴⁴ <http://www.assemblee-nationale.fr/14/ta/ta0501.asp>

⁴⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:182:0019:0076:EN:PDF>

⁴⁶ <http://www.legislation.gov.uk/ukpga/2015/30/contents/enacted>

⁴⁷ http://www.triplepundit.com/2015/09/lawyers-see-esg-risks-central-clients-interests/?utm_source=Daily+Email+List&utm_campaign=ad20113815-RSS_EMAIL_CAMPAIGN&utm_medium=email&utm_term=0_9dedefcee3-ad20113815-220326049

Not surprisingly therefore the output from these rating agencies is of limited value to both the companies concerned and its stakeholders, including the financial sector in search of sustainable investment opportunities. This in part explains investors' willingness to engage directly with companies on sustainability issues. A report by the Center for International Environmental Law concluded that by not adequately accounting for climate risks, rating agencies could be repeating the mistakes of the credit crisis where risk was underestimated to the detriment of the global financial system⁴⁸. The study revealed how current rating methodologies rely on the $\geq 4^{\circ}\text{C}$ global trajectory and fail to account for a 2°C climate scenario, which could expose rating agencies and investors to significant legal and financial risk.

Closing remarks

Some companies do take sustainability seriously and are working towards win-win scenarios. They are better employers, better business partners and better investments. Today they are the exception and not the rule. Rather surprisingly most companies continue to minimise the changes taking place around them, embrace the status quo and continue business as usual. Others pretend to take sustainability seriously, but only to deceive. Regrettably all of us can effortlessly name several of the latter, but struggle when it comes to naming large, influential companies that are actively pursuing win-win scenarios.

One thing is certain: If companies continue to drag their feet when it comes to material and transparent disclosure on their sustainability performance, legislators, investors, shareholders and stakeholders will be obliged to use whatever means are at their disposal to obtain the information they desire.

The remainder of this book examines the functionalities and latest developments of a robust Global Sustainability Index (GSI) that overcomes some of the limitations mentioned and allows companies to be ranked in a transparent and pertinent manner. Our long-term goal is grand: Build a global sustainability index to demonstrably increase trust in corporate and business sustainability data and,

⁴⁸ CIEL (*Miscalculated Risk and Climate Change: Are Rating Agencies Repeating Credit Crisis Mistakes?* available at <http://www.ciel.org/wp-content/uploads/2015/10/ciel-rpt-credits-10.15-webv2smaller.pdf>)

importantly, allow companies to be compared with others in the same sector; driving consciousness and investment. In this way companies working to develop win-win scenarios can be clearly identified (and recognized/rewarded) and those attempting greenwashing exposed. To this end, the GSI will benefit business leaders' decisions as well as economic and political relations, and consequently the global economy – not to mention society as a whole.

2. How the UNGSI empowers countries

2.1 How the UNGSI will help to achieve a more sustainable society

Călin Georgescu

UNGSi Institute, Vienna

The sustainable society as an emergency priority

This planet is the only one we've got. And yet the human species has forgotten to live in a sustainable way: we are already consuming the Earth's resources faster than nature can replenish them. Our failed economic model and old mindsets still foster the irresponsible squandering of resources in order to secure an illusory infinite growth. It is of utmost importance for the survival of our civilization that we make a shift in the current development paradigm to stop the rationalized rape and plunder of the natural world¹.

A Global Sustainability Index (GSI) is meant to clarify such a crucial issue and to acknowledge the gap between our greed and our duty to future generations. Today we are talking about the UNGSI index because, as always, the United Nations Organization got involved in what really matters in the world.

A society becomes sustainable when it produces sufficient amounts of quality goods and services to fulfill actual human needs without jeopardizing the ability of future generations to enjoy the same benefits. A really sustainable society strives to understand and emulate natural ecosystems while living a prosperous economic, social and cultural life. The goal is the consonance between the global economy and nature that will preserve both nature and humanity. More and more, we need the modesty to recognize the great wisdom of nature, and the will to adjust our actions accordingly. More and more, we need free, independent and critical minds aware that continued prosperity can be achieved in harmony with mother nature rather than by opposing it.

¹ Limits to Growth (1972), A report to the Club of Rome, Donella H. Meadows, Dennis L. Meadows, Jorgen Randers and William W. Behrens III

Our priorities should be shaped according to the formidable challenges lurking ahead. The adaptation of the global development model to the Earth's carrying capacity is the greatest challenge currently facing human civilization. This is an incomparably greater issue than any risks related to financial crises, terrorism, open and simmering conflicts, pandemics or civil strife. Human civilization, being a subsystem of the ecosphere, depends on its material and energy flows, on its stability and capacity of self-adjustment. Our very survival is determined by the state of the global natural capital and the goods and services that it offers. Nature is doing us a favor, not vice versa. Therefore, we shall be able to make meaningful progress only when we realize that natural capital and human capital are two inseparable parts of the same process; both aimed at preserving and improving life on planet Earth.

A sustainable society that thrives within its biophysical limits is now an emergency priority; if overlooked or mismanaged, the planet and the human economy will face devastating consequences. Global society needs to quickly learn to absorb disturbances in global trade, energy, food and financial systems while still doing its best to mitigate the massive ecological crisis. To this end, our current way of thinking and acting needs to be dramatically changed. Unfortunately, having invested so much of our wealth in an unsustainable economic arrangement, we are afraid to substantially alter it. As the old model unravels, we embrace wishful thinking or sink into denial. Our fear of change makes us sustain the unsustainable – the "business as usual" approach – even when the imperative of the new reality becomes self-evident. The organizations with foresight, which can get over the fear of change, will reorder their priorities around the principle of sustainability and a model of responsible business. They will engage in sustainable practices, addressing ecological, financial and social concerns, because they see them as business opportunities and important means to achieve a competitive advantage rather than meeting the minimum compliance requirements. Engaging in sustainability practices is ultimately a problem-solving response to the damaging stresses caused by tough economic and ecological realities and old mindsets; it is a means to cope with the present and plan for the future².

² Bankrupting Nature – Denying Our Planetary Boundaries, Anders Wijkman and Johan Rockström, Routledge, 2012

Under the circumstances, the UN Global Sustainability Index (GS Index) becomes an indispensable tool. The remarkable thing about the GS Index is its capacity to define sustainability both as an all-encompassing worldview and a toolkit to precisely measure and assess whether a certain practice is really sustainable. The net result has been the creation of context-based metrics that seeks to answer some interrelated questions hovering over sustainability: is an organisation committed to and engaged in environmentally sustainable practices? Is profitability correlated to sustainability? Does the organisation support social justice and create value to benefit the community? The GS Index can assess the degree of complementarity between the natural capital, the manmade capital and the human capital so that they can be balanced out. If an organisation spends more resources along one dimension, it will have less to commit to the others and it will consequently create imbalance and disharmony.

Organizations embracing the UN GS index set a new, higher standard of corporate responsibility. At a larger scale, the GS index offers a robust assessment of the sustainability of a society meant to be redesigned the way ecosystems function and evolve. Likewise, it enables us to comprehensively reform and reorder our economic activities in order to reduce and eventually eliminate waste according to the principle “nature knows better”.

In the early years of the new millennium, resource scarcity and the negative impact of harmful practices on the quality of natural capital have become obvious. Our current pattern of consumption without limits is simply not sustainable. The problem is compounded by the fact that the world continues to be divided into ‘haves’ and ‘have nots’. If we believe that the present situation induced by the global economic and financial crisis is difficult enough, we shall be surprised to see that things might get considerably worse in the future.

So far, both nature and the economy have proved capable to deal with cyclic, more or less regular ups and downs, to absorb unexpected shocks and to self-adjust to new circumstances. However, when they are further harmed by the destabilizing influences of human folly and the intensification of global interdependence, we are facing real dangers leading to potentially catastrophic consequences. Unexpected occurrences with major, far-reaching consequences, the so-called ‘black swans’ and

unpredictable swings of popular sentiment reveal how vulnerable the delicate, taken-for-granted balances, actually are. The increasing fragility of the natural and economic-financial systems may bring us closer to a point of no return, when the unraveling of existing structures becomes irreversible under the accumulated impact of mutually reinforcing negative trends.

Biophysical sustainability challenges

a. Climate change

It pays to mention that climate change became a major problem much sooner than expected. It is brought about by the accumulation of greenhouse gases in the atmosphere, a phenomenon accelerated by human activities, especially by the burning of fossil fuels. The ability of the natural systems to absorb the additional emissions is running out fast, enhancing the frequency and intensity of extreme weather events (flooding, hot or cold spells, drought, tornadoes, and hurricanes). In the Arctic seas, polar bears die, drowning, because the surface ice sheet is rapidly melting away; penguins are starving because the algal species, their main food, cannot thrive in warmer water.

One third of the summer ice in the Arctic has melted away. The oceans are 30% more acidic, and, since warm air holds more water vapor than cold air, the atmosphere over the oceans is a shocking five percent wetter, heralding another round of devastating flooding³. Siberia is melting: 63% of its territory is covered by permafrost; by 2050 that percentage will be reduced by one third and the tundra will become another major contributor to greenhouse gas emissions and global warming. The Amazon is drying up: 70% of its tropical forest will be cleared away by the year 2100. The rainforest acts like a giant natural sponge that soaks up huge amounts of CO₂. In 2010, the Amazon rainforest was stricken by a severe drought, in some ways more severe than the drought of 2005 which affected 3 million square

³ An Updated Synthesis of the Impacts of Ocean Acidification on Marine Biodiversity, CBD Technical Series no.75, UNEP, 2014

kilometers, resulting in the release of 8 billion tons of CO₂ into the atmosphere – the emissions levels of China and Russia combined.

The cost of climate change is huge and keeps mounting. Official U.S. records put a price tag of 24 billion dollars on the ecological disaster of 2011 caused by the huge tornado outbreak linked to climate change. Across the United States, the heat wave of June 2012 broke or tied high-temperature records. That followed the warmest May on record for the Northern Hemisphere – the 327th consecutive month in which the temperature of the entire globe exceeded the 20th-century average⁴.

So far, human activities have raised the average temperature of the planet by just under 0.8 degrees Celsius, and that already caused far more damage than most scientists ever expected⁵. The United Nations Climate Change Conferences endorsed the scientific view that any increase in global temperature beyond two degrees Celsius is fraught with unacceptable dangers. Any number above one degree involves a gamble where all bets are off due to the cumulative effect of apparently minor events.

b. Limits of planetary resources

Our resources are running out. Oil and natural gas are peaking while we reach the limits of uranium, many common metal ores, of clean fresh water, of good topsoil. We are losing about 15 million hectares of fertile land per year to erosion, desertification and urban sprawl, the loss being eleven times faster than natural soil formation. At the same time, the biological quality of the soil has been deteriorating because of excessive use of chemicals, especially nitrogen fertilizers. Deforestation, occurring at a rate of 12.5 million hectares per year, may appear to compensate somewhat for that loss, but, in fact, it has become a major contributor to the increasingly obvious dire effects of climate change. The truth is that cheap energy, first-rate ores, rare earths, fresh water, and food will become less freely available over the next few decades. (It is the total rate of resource production that reaches the limits, not the resource size which is gigantic but mostly impossible to recover).

⁴ The Year of Recurring Disasters. A Review of Natural Disasters in 2012, The Brookings Institution, London School of Economics Project on Internal Displacement, March 2013

⁵ Climate Change 2014, Synthesis Report, IPCC

To these, add the complications of peak human population, weather disasters triggered by climate change, the spread of plant diseases and so forth. We are running up against resource limits at a time when the global society has become more complex and costly. We need vast amounts of energy, water and food to maintain our highly complex, organized social and economic structures. By 2030 the global demand for water will increase by 30 percent, energy by 40 percent and food by 50 percent. Our industrial agriculture, commerce, manufacturing, transport, finance, the oil and gas and coal industry, the electric grid, and so on, were made possible by the availability of cheap abundant fossil fuels and vast deposits of first-rate ores and rare earths. All these systems are currently in severe hardship. They have reached scales and levels of complexity that can hardly cope with resource depletion and environmental degradation. Sooner or later, the system will no longer be able to sustain itself.

We have entered a period of prolonged contraction. If we manage contraction successfully, we are likely to do a much better job of transitioning to a society that can be maintained over time. However, if we are still planning for consistent and compound growth and pretend that contraction is not happening, we are setting the stage for entropy and, ultimately, collapse.

The first thing organisations must do is replace the notion of growth as a goal in itself with economic viability, increases in scale and amplitude with resilience – the ability of an organisation to absorb shocks while continuing to function. Organisations should get much leaner and act proactively by developing, throughout the value chain, services and products far less resource-intensive. Business growth, decoupled from material use (without increasing the use of energy, water and other materials), is still possible. And yet, to continue growing, organisations will need to improve the quality of their products and services while shooting for the zero use of physical resources. The “zero waste to landfill” should become the norm in business. Consulting firm McKinsey calculated that a “circular economy” would be worth up to \$630 billion per year in the European Union economy and trillions globally. Decoupling, regeneration and circularity must become a common practice. Full-cost accounting would internalise externalities while collaborative and precompetitive partnerships will create shared value.

Companies can get a great boost in attaining these and other goals by the adoption of appropriate indicators. The UN GS Index will help them build a resilient, long-term value creation model which will connect non-financial performance and traditional financial metrics, all in terms that Wall Street understands. Diversity, redundancy, modularity, materiality, fast feedback and trust are all critical factors in resilience that will be gauged by the UN GS Index. All this will enable companies to tackle the mega challenges of a contracting and volatile economy as part of their profit-making operations.

c. Farming food

Contemporary agriculture is literally burning up our planet. How? Directly, via the emissions of the entire industrial farming cycle as well as indirectly via deforestation and wetland destruction⁶. Nearly 65 billion animals worldwide are crowded into Confined Animal Feeding Operations (CAFOs); instead of being pastured, they are being confined within unhealthy and cruel conditions, fed with GMO corn and soybeans and on a steady diet of antibiotics, aimed to counteract stress, overcrowding and diseases. The amount of greenhouse emissions (18%) coming from these CAFOs surpasses that of the entire transportation industry. The livestock sector is responsible for 37% of the anthropogenic methane, 65% of the anthropogenic nitrous oxide and 64% of the anthropogenic ammonia emissions, which significantly contribute to acid rain and acidification of ecosystems⁷. Moreover, the livestock sector accounts for 8% of the global human water use (mostly for the irrigation of feed crops), the same as it is the largest sectoral source of water pollution (coming from animal wastes, antibiotics and hormones, chemicals from fertilizers and pesticides and sediments from eroded pastures).

Social sustainability challenges

An economy is a social institution, embedded in particular societies and in history. Since man occupies a moral universe as well as a physical one, an economy cannot be divorced from the questions of justice. There is no such thing as ethical neutrality

⁶ <http://ecowatch.com/2013/01/21/factory-farming-global-warming/>

⁷ Livestock's long shadow – environmental issues and options, FAO, Rome 2006

of a modern economy. Truly free markets are based on a solid preexistent social order. They require the rule of law and ethical participants in order to function optimally. When the force of virtue diminishes, markets are inefficient and chaotic; profit-making becomes separated from serviceability to the real needs of people. Likewise, when economic equilibrium is divorced from economic equity, both equity and equilibrium are lost. The economy, being unable to balance itself, will either collapse or resort to non-market support such as stimulus programs during the economic crisis of 2008.

It would be utterly unrealistic to imagine that we could create a sustainable economic system that would automatically ensure virtue. At the same time, we should not overlook that greed leads to a systemic inefficiency that can be criticised on strictly economic grounds. The presence or absence of a moral economy makes all the difference between economic sanity and economic folly. The question then becomes whether the UN GS Index could allow economic equity to reshape the heart of economic rationality and recognise the dignity of labor.

The need of collaboration and sharing

The problem we are facing today is that dangers are quite obvious and tend to become worse, while opportunities and rewards seem projected into some indefinite future. This may be a hard sell for the politicians, but it is the natural mission of science.

Any crisis generates strong pressures for positive interventions in critical areas in order to mend the structural weaknesses that may have been the immediate cause of the disaster. Paradoxically, this is also a time for deeper reflection on what is fundamentally wrong with the established system. When everything is fine, nobody bothers to ask why things happen the way they do. But when bad turns to worse that question becomes necessary and legitimate.

But we must first learn to think strategically. Our own working experience at the UN on the sustainable development policies has taught us that the first order of business is to formulate the strategic goal in clear terms and to set a realistic timeframe for attaining it. Once the long-term goal is accepted, one proceeds with setting

intermediate targets for every phase of the implementation, estimating the resources required to that end and indicating where, realistically, those resources are going to come from. It is of utmost importance that all measures taken in the short term should not deviate from the established course and be conceived as building blocks toward meeting the targets of the strategic design. At the same time, planning for the future should be flexible enough to allow for continuous adaptation to changing circumstances and for an enhanced ability to cope effectively with emergency situations.

Secondly, the magnitude and truly global nature of the problems lying ahead make it imperative to build new bridges of communication and international cooperation. The effects of climate change, pollution, water supply and preservation of biodiversity are oblivious of national borders. The awareness that global issues call for global answers is on the rise everywhere. Due to the UN GS Index, the scope and substance of multilateral diplomacy are bound to increase exponentially and require imaginative solutions attuned to the realities of today's world. Better coordination at conceptual, decision-making and executive levels becomes essential.

Thirdly, the role of science becomes crucial. A sustainable economy is a knowledge-based organisation. The very concepts of sustainable development and knowledge-based economy were born and further refined within the framework of scientific debates. Human creativity produced remarkable technological breakthroughs that have improved the lives of millions and continues to do so at an accelerating pace. Mentalities also change with the advance and spread of knowledge. Rational arguments are more likely to have an impact on individual and social patterns of behavior compared to empty slogans. Investment in science, knowledge and innovation are assured to yield substantial dividends now and in the future.

Fourthly, all relevant stakeholders must be involved in the global quest for sustainable development. National governments and intergovernmental organizations, businesses big and small, creative and enterprising individuals, the scientific and academic community, volunteer and other non-governmental associations, think tanks, religious denominations and the media – all bear a common responsibility for life on this planet. Every voice has to be heard, every meaningful contribution should be welcomed.

From the Kyoto Protocol, through the Copenhagen Accord, to the Paris COP21, countries strive to hold the increase in the global average temperature by reducing greenhouse gas emissions. The draft agreement⁸ invokes “a transformation towards sustainable development that fosters climate resilient and low greenhouse gas emission societies and economies, and that does not threaten food production and distribution”. Unfortunately, real sustainable development cannot be achieved within the current *status quo* of food production and distribution, i.e. by further using the current economic and development models. Economic actors should envisage new business ethics, evolving around integrity, responsible business and based on new economic indices. This is where the concept and the vision of the UN GS Index have broken new ground in our understanding of what it means to think and act globally. Business shouldn't see it as a threat, but as an opportunity towards a radical developmental shift. They should also be aware that this is also no longer a choice, but the *only solution*. Thus, the UN GS Index initiative can seize the moment and lead the transition to a more sustainable future. The UN GS Index Institute has always been committed to this goal and it is now better prepared than ever to do its part. And yet, we are fully aware of how much remains to be done.

⁸ http://unfccc.int/files/bodies/awg/application/pdf/draft_paris_agreement_5dec15.pdf

2.2 Rethinking education in the spirit of sustainability

Călin Georgescu

UNGS Institute, Vienna

Francesco De Leo

Kaufmann & Partners, London

The sustainable society as an emergency priority

There is hardly any news on the situation of the world's natural and human capital that are rapidly degrading.

We are losing about 15 million hectares of fertile land per year, which means that the loss is 11 times faster than natural soil formation. At the same time, the biological quality of the soil has been deteriorating because of excessive use of chemicals, especially nitrogen fertilizers.

So far, human activities have raised the average temperature of the planet by just under 0.8 degrees Celsius, and that caused far more damage than most scientists ever expected.

40% of human deaths worldwide are caused by water, air and soil pollution.

There have been reports and statistics (especially in point of Europe 2020 indicators) warning about the situation of the natural capital in Europe. Each advances various sets of punctual measures meant to improve the situation, but they all tend to lack a broader perspective, the "big" picture and, therefore, the underlying cause of the respective state of facts. In this respect the UN Global Sustainability Index is calling as an emergency in order to restore the equilibrium and to stop the deterioration of the natural capital and to recalibrate the investment in sustainability. In the meantime the UN GS Index is proposing to rethink education in a new spirit of approach to Natural Capital and to invest massive in education. But education in the spirit of free development.

We take note, for instance, of the landscape fragmentation across Europe¹, caused by transportation infrastructure and built-up areas and which significantly impacts on the environment. A report in point², makes a number of recommendations, admitting, nevertheless, that the list of suggested measures is not comprehensive. For example, it does not cover measures in the fields of communication and education of the public, economic or market based instruments, reorganisation of traffic, and promotion of changes in behaviour. Significant differences³ across Europe are also registered concerning the gross nutrient balance in the agricultural land.

These are only a few consequences of what we believe to be the central problem of the degradation of the natural and, consequently, human capital: an inadequate educational framework.

Most current approaches to what is called “environmental education”, or “education for sustainability” tend to take the form of either being a specific subject taught at various educational levels or it being embedded to various extents into the existing subjects of the curriculum. It is also sometimes addressed via subjects taught interdisciplinary⁴.

It is here that the gap occurs: nature and environment is not just “another topic” to be taught in school; the entire curriculum should be designed as having nature and the preservation of the environment as the underlying theme. It should constantly build upon the idea of man being a continuation of his natural environment and his lifelong partnership with nature.

Man and nature should be partners and not rivals. This should be the starting point of a completely new school curriculum which should be taught to our children in schools. In the medium and long term, this new approach will considerably favour innovation and will improve people’s health and wellbeing, with positive consequences on the revival of the natural capital.

This new education concept should be massively integrated and further made accessible to everyone. No education will serve mankind until it is made accessible

¹ http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_rn110&plugin=1

² <http://www.eea.europa.eu/publications/landscape-fragmentation-in-europe>

³ http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=t2020_rn310&plugin=1

⁴ <http://www.eco-schools.org/>

to the vast majority of citizens. It is not just a fashionable desire to reinvent a concept or to create a trend. The survival and the perpetuation of the human race is at stake, the same as immediate action is needed to preserve the natural capital of our planet.

Our education system is rather about manipulation and servitude than about democracy. We punish children with rewards: official favours, grades or other incentives; they are the paraphernalia of servitude, not of freedom and democracy.

Children can be controlled by our education system, but they will fight back with weapons of social pathology: drugs, violence, self-destruction and/or indifference.

Education should strive to create unique personalities, not conformists or selfish conquistadors. It should endow one with a creative spirit necessary to tackle the big challenges. It should allow one to find the real values which will be her/his roadmap to life. It should make ones spiritually rich, a person who loves working in her/his vocation, no matter the place or the company.

Education should mould young children into responsible citizens; therefore, it should be free from the influence and constraints of "the gods" of greed and super-profit.

Today's children are mostly disconnected from nature; hence, environmental education is not keeping pace with environmental degradation. Real investment is needed in environmental education and outdoor learning.

Environmental education should effectively create responsible citizens who will help stop human degradation of the environment; it should further engage youth to become the future conservation leaders.

It goes without saying that a new business model, based on a different business ethics will only arise from a different approach to education and learning. Therefore, since UNGSII is looking for a new relationship between the human and the natural capital, it should equally aim at exploring ways and methods of redefining the school curriculum so as to make education the starting point of a new ethics for business, ultimately creating welfare in harmony with nature. The entire curriculum is to be reconsidered, the learning process aiming rather at the individual development and personal accomplishment in complete freedom. UNGSII will start by developing a series of graduate programs and tailor-made courses for companies aiming to implement a different business ethic.

Why Education is Key to Build a More Sustainable Future

If we look at the vast body of empirical research addressing the impact of severe climate change on the world economy and the emerging fragilities spanning across a broad spectrum of industries that are currently affected by a more unpredictable global environment, we must recognize that we are already facing unprecedented challenges.

We should start preparing ourselves to realize that the challenges of a more unstable world are not going to fade away anytime soon. On the contrary, the joint impact of climate change and the transition to a low-carbon economy in the context of a more interdependent and interconnected world will require new tools, new metrics and a new narrative.

While there is a growing awareness emerging across the board about the perils of inaction in addressing the impact of climate change and more concerns are coalescing around the issue of a persistent underinvestment in sustainability, we are more and more convinced that a “paradigm shift” will not materialise anytime soon, unless we address the challenge of re-thinking education in a more fragile world.

The perils of inaction preventing a structural change shaping the content and the delivery of education represent a formidable challenge in a world affected by pervasive vulnerabilities due to the transition to a low-carbon economy and the impact of catastrophic climatic events.

While facing a wide array of unprecedented challenges, shaping the world economy and the health of the planet in dramatic ways, there is a growing concern that not so much has been done to mobilise the resources and the brainpower needed to produce a lasting impact.

To a large extent it is odd that while the financial world is starting to realise that climate change will be exerting an enduring impact on asset allocation and risk mitigation and the media community is contributing to raising the level of public awareness, there has been marginal change taking place in terms of how educational institutions are preparing the next generation for the challenges ahead.

It is time to start asking if educational institutions are capable of addressing a paradigm shift that will embrace the values of sustainability as the driving force shaping the world economy and the health status of the planet.

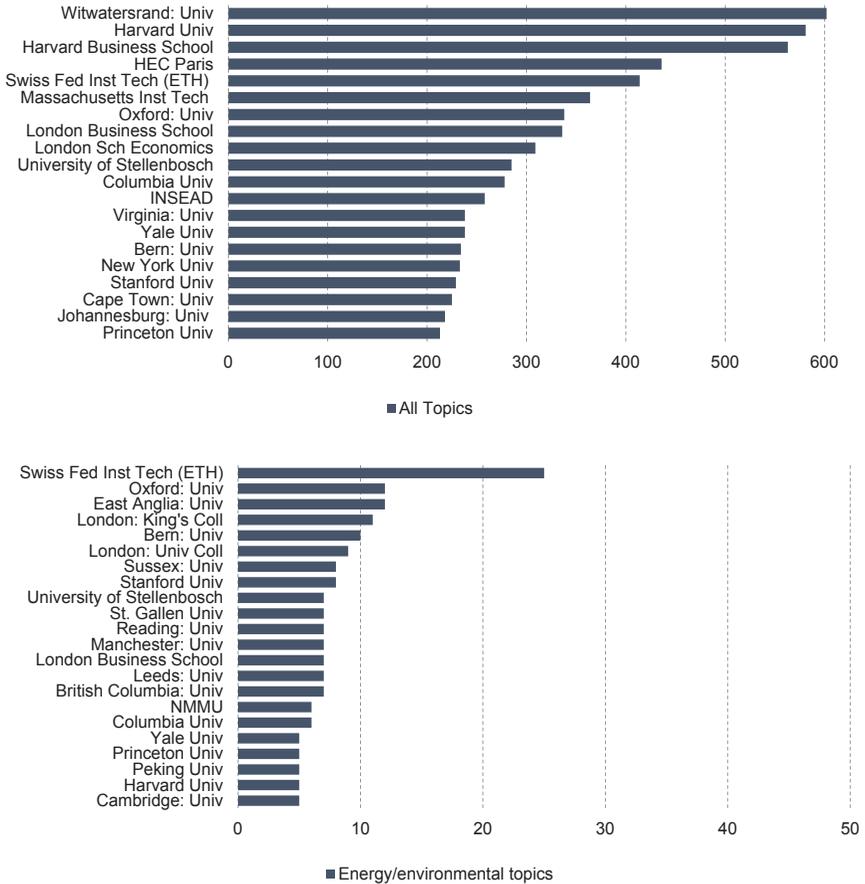
If these are the most fundamental challenges of our civilization, if there is evidence of mounting pressure on the corporate world to make progress towards a low-carbon economy, a similar sense of urgency should pervade the educational world.

The educational world has one more responsibility that has been neglected, so far: it should question what kind of core skills will be needed ten, fifteen years from now in a world shaped by unexpected fragilities, by a more severe climate and by the increasing volatility of financial markets.

While we do not pretend to address the fundamental challenges the educational world is facing as a whole in terms of mission and core values, we believe that there is a compelling need to mobilise the MBA (Master in Business Administration) community to adapt to the “new normal” already shaping the world economy. MBAs across the world are churning out students that will be ending up in leadership positions across the financial and corporate world, ten years from now, taking roles as CEOs or top line managers. It will be their responsibility to address the challenges that are already emerging as the most daunting currently shaping the future of our civilization.

Do MBA candidates have the right tools, the right mindset, do they own the leadership skills to mobilise the vast amount of resources and brainpower needed to change and adapt to a less predictable global environment? Are they ready to master the emerging technologies that will empower them and their organisations to thrive in a world shaped by catastrophic climatic events? Are they trained in understanding the impact of geography on their business? Are they aware that they will be managing in a more transparent world, where reputational effects will be key to create sustainable, long-term value? Are they schooled in the metrics of sustainability and capable to provide guidance to investors on how they are making a transition towards a low-carbon economy? Are they aware of the impact of the energy world on their way of doing business?

Figure 1: Media visibility of universities and business schools in selected international media 2014/2015: all topics versus energy/environmental topics (most mentioned institutions)



Basis: 16,762 statements on/by universities and business schools on international TV news and in leading business publications; 440 statements referenced energy and environmental topics

These are just a few questions and many more should be addressed. Looking at research results that hit the surface of the media, we believe that energy and environmental issues at present are treated as a niche issue and not as an

underlying concept. Only 2.5 percent of all information published on universities and business schools on international TV news and in opinion-leading business papers centred on energy and environmental issues in 2014/2015.

We do not pretend to have all the answers, but we see an opportunity to enhance the chances for the educational world to provide the next generation with the skills and values needed to find the solutions to the existing problems generated by a more severe climate and to enable a new breed of managers and innovators to address new kinds of challenges that we are unable to predict, yet.

Revolutionizing MBA education

MBA programs across the world have a critical role in shaping the evolution of the corporate establishment, they will influence the way financial markets assess the value creation potential of key industries and they have a more than disproportionate responsibility in nurturing the individuals who are going to build the corporate and political elite of different regions across the world. With no relevant change in the way most MBA education is delivered in terms of mission, values, content and process we are afraid we'll see a shortage of talent and innovation with respect to the resources we need to mobilise to make sustainability the key driver of a more resilient and equitable world economy.

If sustainability is the driving force shaping the future of our civilization, we should start envisioning how we can tap the vast talent pool of resources that are part of today's MBA programs: because our world cannot afford to waste the unlimited potential of the next generation to succeed where the current generation has failed.

But to make progress towards building up the talent pool the world needs to address the transition to the "new normal" shaped by the forces of climate change and the irreversible transition towards a low-carbon economy. We need to chart a new course aimed at capturing the core values and skills the world badly needs to become a more resilient place.

While we do not pretend to have all the answers and we are well aware that education is a work in progress, we do have a few considerations that MBAs should focus upon.

We see value in getting MBA programs working on a number of different dimensions of education and we have focused on a few drivers that we are confident will become a fundamental part of the curriculum of future MBA candidates.

We do not mean to be exhaustive about the list of what matters in the “new world” shaped by the force of climate change and the transition towards a low-carbon economy.

But we take the liberty to be entitled to our opinion and we suggest we should focus on the following areas of development.

1. Climate Science

Climate Science should be part of every single MBA program. Understanding the impact of climate change on business and society is a fundamental requirement for the individuals who are going to lead the world into the transition towards a low-carbon economy. Climate Science is not just relegated to an overall understanding of how climate is exerting and will exert a dramatic influence on the chances of survival of whole industries and the resulting impact on the very constituencies businesses are relying upon. Understanding the impact of the depletion of natural capital and the emergence of new forms of scarcity induced by finite natural resources is not a marginal issue and should be treated as one of the most fundamental challenges we are currently facing as a civilization.

2. Computational Science

Computational Science and “big data” should be at the core of the subjects covered by MBA programs. We are convinced that the recent developments in computational science are creating the premises for a new era of “science-based” innovation that will change the way industries and organisations will work in the near future.

3. The Energy Economy

Understanding the impact of energy on the economy and the way industries work and stay competitive in a more fragile world should be a key part of the educational background of each and every single MBA candidate

4. Geography

Geography matters and it will do increasingly so. MBA programs should enable students to appreciate the impact of geography on the chances of their business to stay competitive over time and they should be aware of the challenges of climate change in terms of logistics and channel management

5. History and Geo-Politics

History and geo-politics will exert an enduring impact on value creation, more than we experienced in the last decades. The world is not flat anymore, and a flat world will not be back in the foreseeable future. We expect future MBA candidate to have a much finer appreciation of the impact of geopolitics and the legacy of history on the evolution of the world economy

6. Understanding the Policy Making Process

Understanding the evolution of the policy making process well beyond the nation-state level and a deeper understanding of the impact of cross-national, cross-borders global institutions should be part of the daily training. The transition towards a low-carbon economy and the costs imposed by climate change on a global scale require an understanding that multinational corporations are to engage with political institutions both at international as well as the global level to secure a path towards a more sustainable way to create long-term value.

7. Technology and the Innovation Dynamics

Technology and the dynamics of innovation will not be just an “also have”: they will be a “must have” for every individual who aims at playing a leading role in managing the transition to a “new normal” shaped by the fragilities generated by climate change and the journey towards a low-carbon economy. Understanding the evolution of the Internet of Things (IoT), the rapid development of the Internet of Vehicles (IoV) and the future of smart grids should be an essential part of the MBA curriculum.

8. Non-Linear Thinking and Complexity Management

The increasing interconnectedness of the world requires non-linear thinking and the courage to dismiss the common managerial wisdom, a legacy of the past, while embracing the science of “complexity” management. Failing to do so will reverberate

in a negative way on the capability to address the challenges we face and the new ones the next generations will be facing 10-15 years from now.

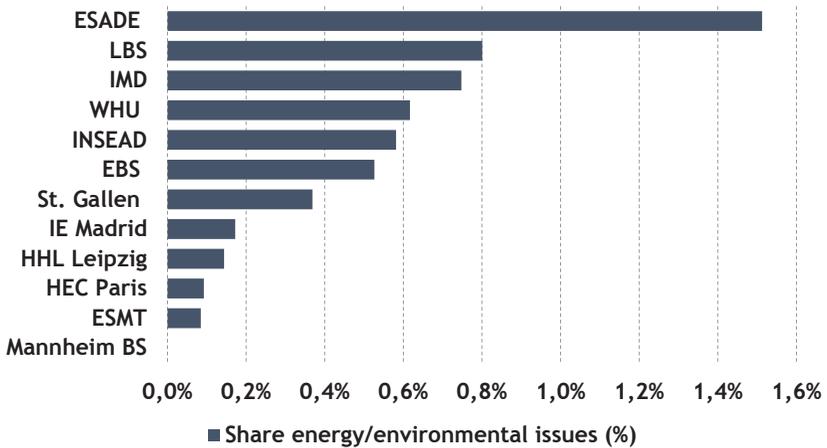
9. A New Breed of Leaders

Mobilising brains and talents across a wide spectrum of disciplines will require a new form of leadership skilled in the art of dialogue and collaboration across different disciplinary domains. Soft skills will become as important as hard, analytical skills: we expect MBA programs to engage the next generation of students in a more pervasive and comprehensive approach towards nurturing the values of transparency and authenticity. Ethics in business should become an integral part of the candidates' curriculum.

10. Corporate Reputation

Understanding the impact of corporate and industry reputation will be a fundamental part of value creation. No corporation is an island and the issues emerging within and across their borders in terms of reputation will affect their long-term value and chances for survival. Unexpected fragilities and a new class of vulnerabilities are already shaping the future of well-established industries such as the automotive industry and the food industry. More industries are on the line and they will be under deep scrutiny and monitoring control by an increasing number of national as well as international authorities. Failing to recognise that we live and operate in a transparent world will only exacerbate the shortcomings of a world built on the legacy of the past, more than a sense of urgency for the changes we need to face build up a more resilient world.

Figure 2: Share of coverage of energy/environmental issues in news on business schools 2014/2015 German and international media



Basis: 11,355 topic mentions regarding the selected business schools in 52 German and international media

We do not pretend to have enlisted all the key issues that will shape the transition towards a more sustainable planet. But we should be aware of the current shortcomings of most traditional MBA curricula and the need for long-lasting changes that will be capable of igniting a new wave of innovations aimed at transforming the competitive landscape that has been a traditional part of our daily lives.

We can achieve that if, instead of taking for granted that what has worked in the past, will eventually work in the future, we take the chance of embracing the values of sustainability and transparency as the driving force of the “new economy” aimed at building a more resilient and equitable world.

5. Foreword and Editors



Michael Møller Acting Head, United Nations Office at Geneva. Møller brings to the position a wealth of experience, having served for more than 30 years as an international civil servant in the United Nations. Most recently he was Executive Director of the Kofi Annan Foundation from 2008 to 2011. Prior to this, he served as the Secretary-General's Special Representative for Cyprus (2006-2008) and Director for Political, Peacekeeping and Humanitarian Affairs in the Office of the Secretary-General (2001-2006), also serving concurrently as Deputy Chief of Staff for the last two years of that period.



Francis Quinn, Ph.D., a global corporate strategist, recently joined Workiva as Director of Sustainability Technologies. Quinn began his career as research fellow at the Japanese Ministry of International Trade & Industry. In 1996, he joined L'Oreal Group as a researcher in biomimetic and composite polymers. Quinn later led the integration of The Body Shop into L'Oreal. Most recently, he built the company's global sustainable growth strategy as director of sustainable development. Quinn received his Ph.D. in physics from Trinity College Dublin.



Roland Schatz is the Founder and CEO of Media Tenor International and InnoVatio Publishing. Schatz is a journalist in the 5th generation of his family and has devoted the past 30 years to implementing Perception Change by empowering media. In 2008, he launched, together with Prince Ghazi of Jordan, the C1 One World Dialogue foundation, to improve Inter-Faith-Dialogue. The InnoVatio network of academics, entrepreneurs and media leaders initiated the UN Global Sustainability Index. Schatz hosts masterclasses on 'Unlearning Intolerance' at the UN and teaches at the Institute for Future Management of the Sigmund Freud University in Vienna. In 2013 Schatz was appointed Senior Advisor to the General Director of the UN in Geneva..

6. Contributors



Steven Bacon, Ph.D., is a Quantitative Analyst in Sustainability Investing at RobecoSAM. Previously, he served for over 6 years as an Equity Analyst covering European Banks for two boutique investment banks based in London. He first joined RobecoSAM as a Business Analyst in Equity Research, working as the interface between business and IT on new requirements for RobecoSAM's proprietary sustainability database, before moving to his current role. Steven Bacon holds a Ph.D. in Applied Sciences from Fribourg University in Switzerland, as well as an M.A. in Mathematics from Oxford University and an M.Sc. in Applied Sciences from Imperial College London.



Francesco de Leo, Ph.D., is the Founder and Executive Chairman of Kaufman & Partners, a London based advisory company focused on telco, media, entertainment and corporate finance. Together with Jacek Marczyk, Kaufman & Partners is leading in the field of massive computational analysis of complexity across financial markets, advising world class financial institutions in the field of asset management and portfolio selection. Francesco is also acting as President of European Operations for Prodea Systems, a Dallas based company leading in the field of the "Internet of Things". Prodea systems is controlled by the Ansari family, who is among the Trustee of the XPrize.org Foundation and sponsored the Ansari Prize for the first non-government organization to launch a reusable manned spaceship into space twice within the same week. Francesco is a member of the Advisory Board of Media Tenor, Rapperswil, Switzerland.



Călin Georgescu, Ph.D. a senior sustainable development expert and member of the Club of Rome, recently joined the UN Global Sustainable Index Institute as executive director. He served 17 years in the UN system holding various positions within the UNDP, UNEP and as UN Special Rapporteur for toxic waste of the OHCHR. He also coordinated the Romanian National Sustainable Development Strategy in 1999 and 2008 and acted as director of the International Economic Organisations Department in the Romanian Ministry of Foreign Affairs. He authored several books on prospective studies dealing with the impact of human capital development on Romania's socio-economic progress. He obtained his PhD in soil research from the University of Agronomic Sciences of Bucharest.



Arnfried Ossen, Ph.D., is Senior Quantitative Analyst in Sustainability Investing at RobecoSAM. Previously, he served as Head of Application Management at Bank Sarasin in Basel, Switzerland, for more than 10 years, where he headed the integration of quantitative models and sustainability data into the core banking and portfolio management processes and systems. Prior to that, he was Head of Center of Competence Marketing Analytics at Deutsche Bank in Frankfurt, Germany. Arnfried Ossen holds a Ph.D. in Computer Science from Technical University of Berlin and was a post-doctoral fellow at the University of California at Berkeley.



Bruno Rebelle, General Manager TRANSITIONS. Bruno Rebelle is a French environmentalist, engaged with NGOs, the business and public institutions to promote sustainable development. Graduated as a veterinary surgeon, in 1981, he founded and managed Vétérinaires sans Frontières / Vetaid, and NGO dealing with animal production and natural resources management in developing countries. As General manager he held many responsibilities in aid and development NGOs coalitions. In 1997, he joined Greenpeace and led the French branch as Executive director, significantly growing the movement and improving its public profile. In 2003, he was appointed as Programme Director (n°2) at Greenpeace International, leading campaigning activities, communication, and political work all over the world. After leaving Greenpeace at the end of 2006, he set up TRANSITIONS, a consultancy firm offering strategic advice to companies and local government genuinely engaging in sustainable development. At the end of 2012, he was appointed by the French government as one of the 6 members of the Steering committee to lead a nation-wide public consultation to design the national energy transition to be implemented by law from 2014 onward.



Jevan Tan resides in Singapore, graduating with a BA and MA from Stanford University, and an MBA from the Kellogg School of Management, Northwestern University. In an earlier professional career, he worked as the Regional Country Head of a well known US Investment Bank, Morgan Stanley International. Currently, Mr Tan incubates new companies and has private equity interests in oil and gas, mining and natural resource developments, food and pharmaceutical distribution, construction and building materials, hotels and real estate developments. He holds various key positions in educational institutions and community organizations in Singapore, China, Indonesia, Thailand, Vietnam, Sri Lanka and India. As an extension of his work with the youth in Singapore, Mr Tan and his associates intend to establish a non-profit Sustainability Institution and Foundation in Singapore. The organization will have an emphasis on Asia, focusing on sustainability research & analysis, management consulting & financial advisory, and private equity investments . They will also continue to expand their educational life skills and sustainability.



Matthias Vollbracht is Head of Corporate Analysis of Media Tenor International, Vienna, Austria, and a Partner in Awareness Metrics, a platform for reputation risk and investment signal solutions. Vollbracht has been working for major international clients with a focus on reputation management, agenda-setting, target systems, crisis communication, management reputation, financial communication, and CSR. He has developed reputation insurance solutions based on empirical risk assessment. He holds a degree in economics from the University of Mainz and has worked as a business journalist.