THE NETWORK FOR
SUSTAINABLE FINANCIAL MARKETS

12 February 2017

SUBMITTED VIA EMAIL TO: tcfd2017@uk.pwc.com

Submission to Members of the Task Force on Climate-Related Financial Disclosures (TCFD) in response to Public Consultation on Task Force Recommendations

The Network for Sustainable Financial Markets (SFM) is pleased to submit these comments in response to the TCFD public consultation. The SFM is an international, non-partisan network of over 200 finance sector professionals, academics and others that was established in April 2008 to foster long-term investing and sustainable financial practices. The network is made up of individuals who collaborate to contribute as independent thinkers around complex subjects with the objective of developing sustainable financial markets.

More information on SFM may be found at the end of this letter and on the SFM website at: http://www.sustainablefinancialmarkets.net/

Introductory Comments

The Network for Sustainable Financial Markets commends the Task Force for the work it is doing to help improve climate risk reporting.

We generally support the Task Force's recommendations and disclosures framework. However, we encourage the Task Force to view its mandate as requiring a broader, more strategic and integrated set of disclosure recommendations. We believe this is necessary to effectively address both (a) the systemic barriers to improved climate-related financial reporting and (b) what is realistically needed to produce the transformational changes to business models and business eco-ecosystems required for sustainable success under expected future business circumstances.

From this perspective, we offer a set of contextual observations. We hope these comments supplement the insightful submissions being received from other commenters. We recommend that the Task Force enhance its recommendations to more specifically address systemic disclosure concerns that are necessary to advance uptake of the current TCFD recommendations. We see the Task Force's mandate as covering root cause issues that underlie current reporting impediments and will continue to block achieving COP 21 goals and transition to a lower carbon economy if not addressed.

Specifically, our submission to the Task Force addresses climate change reporting, as a component of business strategy development, from a systems thinking perspective. We recognize that this will require longer-term thinking within companies (their boards and management structures) and must recognize influences of the broader economic, political and social systems within which companies seek to remain viable.

In this letter, we recommend that the Task Force consider:

1. Climate change disclosure as part of a fundamental short-termism problem
2. Incorporating longer-term strategic planning disclosures
3. Focusing board and executive attention on long-term value creation
4. Structuring reporting standards to neutralize behavioural biases
5. Emphasizing investor stewardship responsibilities.

We believe that the success of any disclosure recommendations presented by the Task Force will depend on the extent to which the above five factors have been duly considered and integrated as appropriate into the disclosure recommendations it presents, and how they might be implanted regionally and globally, in pursuit of its remit regarding concern for global financial stability due to climate risks.

Disclosure is not merely a vehicle for identifying and communicating information. It also plays a much more important role in organizing analytical methods and value drivers of business and informing decision making on the sustainable allocation and deployment of capital throughout capital markets and the global economy. We believe that climate-related financial disclosures will only be useful if, in addition to what the Task Force has already recommended, they are structured to address the following systemic issues.

The main concepts which underlie these comments are that:

1. Today's mindsets about governance & stewardship will not lead us to fixing problems caused thereby, within the timeframes dictated by transition to a low carbon economy by 2050.

2. Government and regulatory action must at least reinforce if not compel private sector action to enhance climate-related and broader disclosures within a context of integrated thinking.

Climate Change Disclosure is Part of the Fundamental Short-Termism Problem

Dominance of short-term thinking in the financial system and society has created a dysfunctional "tragedy of the horizons" phenomenon that can make even critically important information appear immaterial. As a result, climate risk is not the only issue being discounted that can impact enterprise valuation and ability to create long term value. We believe that the benefits of greater climate disclosures should be presented in this broader context.

Company reports and effective disclosures for shareholders should include recognition of the extent to which the company's current valuation is based on a long-term and strategic business model, its value drivers and the expected future positive economic profit growth. For example, positive Return on Invested Capital (ROI), or Cash Flow Return on Investment (CFROI), is key to measuring the competitiveness of a company's business strategy, business model and its value creation capacity.

In order for company directors and management and investors to gain insight into the drivers of the future value component of current company valuation, disclosures should include how much of a company's current stock price and enterprise value is generated by the expected future value and innovation at the company.[i] According to *Organizational Capital Partners* on average, at least 40 to 50 percent of a company's valuation is tied to creation of expected future value, growth and innovation.[ii] The strategic horizon for most breakthrough innovation ranges from three to ten years or longer and is embedded in company valuation. Reporting of this information is critical to understanding how current and future valuations are impacted by climate change and other long horizon issues.[iii]

In the end this is about more than just disclosures and reporting. The dialogue between companies and investors at every level should (seek to) infuse the issues related to intangible capital value drivers into the dominant finance, accounting, investment and management conventions and reporting standards. The need to improve this dialogue by achieving investment industry consensus and standards as to which factors and or value drivers are truly material for them and communicating this to reporting companies is recognised within the industry itself and has emerged from the recent Delphi Project.[iv]

Climate change is a material disclosure item for most companies

We also believe that the Task Force needs to stress that climate change is a "material" consideration for disclosures of most (if not all) companies. Unfortunately, some market players are currently seeking to label climate-related considerations and many other long-term or systemic factors as immaterial information sought by special interests to further social or political objectives.[v]

The mischaracterizations made by the short-term special interests must be called out for what they are in order to foster a shift toward longer-term and sustainable business planning and investment.

Incorporate Longer-Term Strategic Planning Disclosure Requirements

Business plan development and long-term company strategy responses to climate change are critical prerequisites for turning scenario analyses into sustainable action and long term value creation. We believe the Task Force’s recommendations for disclosures about strategy should be enhanced by considering the following observations and suggestions.

Disclosures Should Address a Company's Longest Planning Horizon

Climate-related disclosures will lack necessary information if they do not disclose whether a company has a strategic plan extending five to twenty years into the future (or longer, depending on the industry). To be actionable, strategic plan disclosures should address what is the longest strategic horizon of the company, how the long-term strategic business plan is resourced and financed and linked to business strategy execution and business model transition / transformation plans.[vi]

They should also identify key assumptions which underlie scenarios and plans, as unrealistic assumptions can be used to game the system. For example, effective long-term strategic business plan reporting and disclosures should inform investors about:

- customer, societal and environmental trends as seen by management
- research and development commitment in dollars (i.e., applicable currency) over 5 years or longer

- net new capital expenditures in dollars over 5 years or longer
- key employee recruitment, training, and leadership development practices
- investment in new technologies, new product development, new channel development, new business models and new industry eco-systems
- executive compensation incentive plan design that aligns to economic profit, Return on Invested Capital (ROIC), growth, R&D, innovation, Future Growth Value and rolling five to seven-year performance periods
- organizational and management structure design and accountability alignment with the strategic plan[vii]
- related board director and CEO business model innovation skills, including executive succession plans for business model transformation as required over the next 20 years and longer, as well as the next 5 generations or more of C-Suite and Board leaders
- investment in human resources technologies for a system of record on management structure and a system of record on people as platforms for strategic organization design and talent management required to drive long term enterprise innovation accountability and long term sustained growth and returns on invested capital
- performance metrics and targets to hold management accountable for delivering on the longer-term (10-year plus) strategic plan[viii] (financial, innovation, customer, employee engagement, organizational, brand and GHG reduction) as part of a comprehensive and integrated business model transformation to “Net Zero” GHG business model and as a financially viable, durable and sustainable business system.

In our view, these types of disclosures are consistent with what a company might report either in an informative, forward looking, (i.e. not boiler plate) MD&A or similar management commentary or strategy report, or in an integrated report as proposed by the International Integrated Reporting Council’s December 2013 Framework for Integrated Reporting.

Focus Attention of Board and Executive on Long-Term Value Creation

The transformative changes required to develop and to implement sustainable long-term business strategies and business model transformations that align to Net Zero GHG Business models by 2050 and which will address climate-related financial concerns require identification of director, executive and investment decision-makers who have the personal conceptual and systems thinking (cognitive) capacity to effectively think longer-term and through complex issues. Executives and directors must also have the personal skills to make complicated decisions which involve an understanding of long-term enterprise business model financial viability, durability and sustainability, related deployment of new capital, as well as global industry and systemic innovation and risk management.

Forty years of strategic leadership, cognitive capacity, and crystallized intelligence research[ix] has identified that less than five percent of the world’s adult population has the critical thinking capacity to perform complex work and investment decision making at the higher levels of innovation and systems thinking complexity. This higher level of systems thinking is what is required for conceptualizing and implementing new business and economic models. [See Table 1 on the following page.]

Table 1: Work Flows and Value Added Innovation[x]

Work Levels and Value Added Innovation	Longest Strategic Horizon (avg. accountable horizon)	Enterprise Valuation	
7 **Global Inter-Generational** Transforming Economic, Financial, Political and Military Systems; Region/Nation Building; Global Business and Societal Innovation	Beyond 20 years		
6 **Industry/Global Transformational** Global Industry Structure and/or Ecosystem Transformation, Corporate Citizenship Innovation	Up to 20 years (7 years)	Future Growth Value (FV) as % of Enterprise Value	
5 **Transformational** Business Model Innovation and Integration	Up to 10 years (5 years)		
4 **Breakthrough** New Product, New Service, New Channel and New Market Innovation	Up to 5 years (3 years)		Δ Enterprise Value (EV) + Dividends or Total Shareholder Return (TSR)
3 **Process** Value Stream and/or Process, Technology and People Innovation	Up to 2 years (yearly)		
2 **Situational** Quality and Continuous Improvement	Up to 1 year (quarterly)	Current Value (CV) as % of Enterprise Value	
1 **Procedural** Executional Excellence	Up to 3 months (assignment task)		

Companies are unlikely to succeed at building sustainable long-term business strategies, economic profit growth, and positive ROIC without leaders who possess the higher levels of cognitive thinking, systems thinking, and crystallized intelligence that must be applied to more complex levels of innovation and value creation for customers, shareholders and society.[xi]

Board and executive succession planning for the next 20 years and beyond are also part of a critical process for acquiring and developing needed talent for Net Zero GHG business model transformation and should be covered and disclosed in reporting standards. These organizational design (levels of innovation) and talent gaps are real material risks for transitioning to a low carbon and net zero GHG economy. Companies that fail to attend to developing the requisite organizational capital and strategic leadership capacity in Directors and C-Suite officers will become increasingly risky in a carbon constrained world.

Structure Reporting Standards to Neutralize Behavioural Biases

Behavioural biases present major roadblocks to recognition of climate-related risks and opportunities. How and where information is presented can play a role in whether disclosures are understood and used.[xii] The culture of an organization can also crush positive business model change when it conflicts with beliefs, organizational and accountability design or incentive structures.

We believe that climate-related disclosure effectiveness can be enhanced by taking behavioural influences into consideration in designing disclosure requirements. This is essential to fostering a business and investment culture that understands and values sustainable, long-term wealth creation.

Use Reporting Design to Promote Business Model Transformation

For example, the Task Force might strengthen its recommendation about disclosures related to scenario analysis and reduce the effect of undesirable behavioural biases by requiring scenario analyses to start with the goal of addressing climate-related challenges (e.g., base the scenario on the findings of the International Energy Agency that zero or near zero emissions will be required by 2050 to meet the 2 degree Celsius COP21 goal for global temperature increase[xiii]) and disclosing, on a comply or explain basis, the company's long-term strategic business plan to meet that goal.

The IEA report clearly identifies that the business models of the electric power industry worldwide must transform to 95 % clean power and clean power eco-systems and grids by no later than 2050 to be aligned with the 2 degree Celsius COP21 goal. Thus, disclosures of business strategy and business model risk relative to this 25-year goal and business model transformation are essential for understanding what is clearly a key business strategy and risk management issue.

This requires full board attention and the exercise of directors' business judgement in fulfilling their strategic duty (as part of the fiduciary duty of due care) in regard to matters of enlightened corporate governance and enterprise risk management. Disclosures related to business model risk must have at least the same if not higher prominence as disclosures of environmental risks, given their major implications for valuation, returns on invested capital and cash flows in the long term (10 years and greater).

This approach to business model innovation and business model risk disclosure would foster more sustainable and long-term business planning and investment than requiring that disclosures start from a business as usual scenario with a focus on only GHG and or carbon reduction plans, metrics and targets.

That is, focusing on business model transformation risks in transitioning to net zero GHG business models by no later than 2050 will provide enhanced disclosures and reduce related valuation risks that will minimize capital markets disruption and material enterprise valuation loss, as has already seen in the coal sector.

Emphasize Related Investor Stewardship Responsibilities

SFM also is supportive of the work of *Preventable Surprises*[xiv] which is focusing on why transition plans are needed and not just scenarios. *Preventable Surprises* argues that because the vast majority of investors do not have the incentives or resources to dig deeply into disclosure data, and are not incentivised to do so, there is a need for the Task Force to make clear to investors that they have a stewardship responsibility to push all investee companies into executing transition plans. This is needed to contain fears about first mover disadvantage.

For investors, a long-horizon focus on the drivers of future value (including company responses to climate change) is linked to their fiduciary duty of impartiality. The duty of impartiality requires fiduciaries to treat different generations of fund participants impartially, balancing current and future wealth generation needs.[xv]

Conclusion

Companies and long-horizon investors are at ground zero for the intersection of climate change reality with business plans and business model transformation required to create Net Zero GHG business models by 2050.

We believe that the organizational and leadership research and related finance and valuation research and related principles outlined in this SFM response, including the endnotes, are essential to development of a “fit-for-purpose” corporate reporting, disclosure and engagement process that meaningfully informs board, management and investor decisions about creation of long term enterprise value.

We hope the Task Force will adapt its recommendations to more effectively foster the corporate and investor innovation, culture and business model and industry eco-system transformations that are needed to align to the 2 degree Celsius goals agreed to in Paris in 2015 at COP21.

In summary, SFM believes that better climate reporting is necessary, but not sufficient, for businesses to act on the transition and transformation to net zero GHG business models by no later than 2050.

We encourage the Task Force to emphasize implementation of disclosures that will allow institutional investors to hold investee companies’ boards and named officer accountable for getting to the end goal of a lower GHG global economy as set by the COP21 goals, while also creating value for customers, shareholders and global society at the same time.

About the Network for Sustainable Financial Markets

The SFM is an International, non-partisan network of finance sector professionals, academics and others who have an active interest in long-term investing. We believe that the recurring crises recently experienced in our financial markets are not isolated incidents. Rather, this instability is evidence that the financial market system is in need of well thought-out reform so that it can better serve its core purpose of creating long-term sustainable value. We see the greatest peril as inappropriate regulation and governance reforms that fail to address the real causes of financial market instability, with climate risk being one of the most fundamental instability risks that companies and investors face.

As a network of individuals, SFM does not take official positions aside from participants' agreement on the Guiding Principles set forth below. The SFM participants and other signatories to this letter do so in their individual capacities.

The SFM Guiding Principles are as follows:

1. The economic and social purpose of markets is to create long-term, sustainable value, which requires the efficient allocation of capital towards that goal.

2. Sustainable value creation requires that hidden risks and rewards be identified and valued.

3. Balance between short-term and long-term investment views is needed for sustainability.

4. Efficient allocation of capital requires that market participants take responsibility for their actions.

5. Governance of financial institutions must serve the interests of the beneficiaries.

6. Better alignment of financial interests is needed to reduce agency costs generated by conflicts of interest.

7. A coordinated global approach is needed to better protect the financial markets from a race to the bottom.

Each of the undersigned would be happy to provide further assistance to the Task Force on Climate Disclosures (TCFD), and you should feel free to contact us. Please note signatories may be contacted directly or through the SFM Secretariat, Cary Krosinsky, at nocda@yahoo.com. Signatories have signed in their personal capacities and not as representatives of their employers or any affiliated organizations.

Respectfully submitted,

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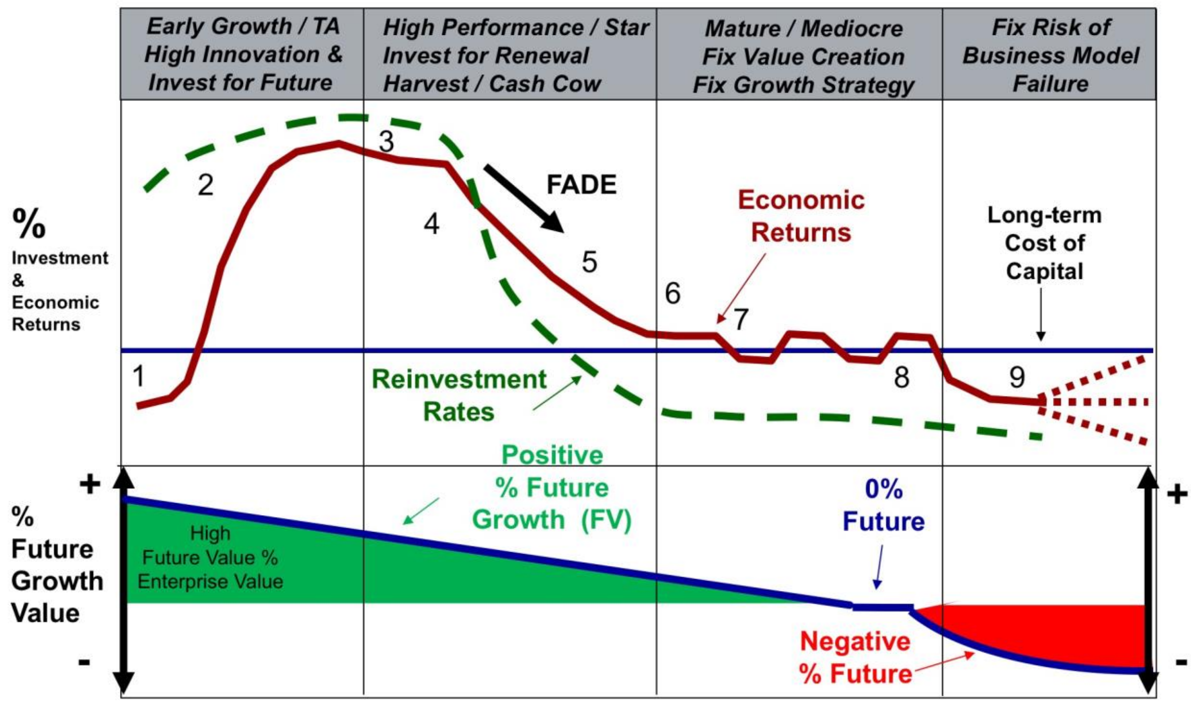
[i] Future value (FV) can be calculated using Enterprise value (EV) minus current value (CV). EV is a financial measure used to recognize the true value of a firm at current market value (equity and debt) with a marker for long-term financial viability and durability. Financial viability is measured as the performance spread of the Return on Invested Capital relative to the weighted average cost of capital (WACC). Current Value calculated as Net Operating Profit After Tax (NOPAT) divided by WACC plus some type of fade discount factor on CV due to competitive advantage fade over time.

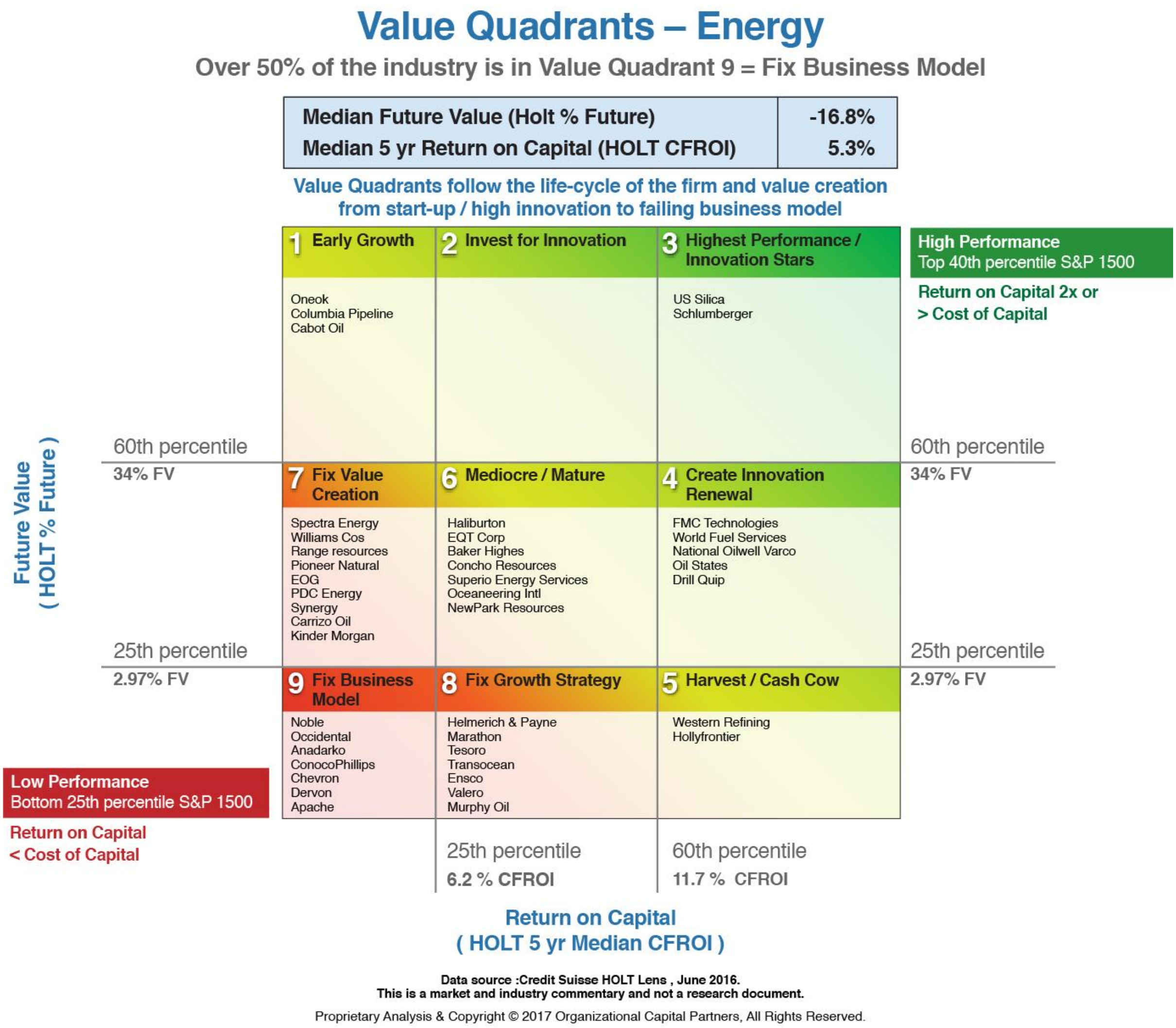
[ii] Organizational Capital Partners and Shareholder Value Advisors report on The Alignment Gap Between Creating Value, Performance Measurement , and Long Term Incentive Design, November 17, 2014, commissioned by the Investors Responsibility Research Center Institute, https://irrcinstitute.org/reports/deep-misalignment-betweencorporate- economic-performance-shareholder-return-and-executive-compensation/

[iii] For example, Credit Suisse HOLT calculated that the Future Value of Apache as of June 2016 was a negative 127% of Enterprise Value, its EV/ EBITDA multiple was only 6.3X and their 3-year median CFROI was only -.60. With a significant negative Future Value and a 3- to 5-year median return on capital (CFROI) less than their cost of capital, Organizational Capital Partners believes this signals that the business strategy has failed to create value and is not a financially viable business model. A similar situation was found by Credit Suisse HOLT for the power utility Xcel Energy in the USA, with calculation of a Future Value of negative 20.18% of enterprise value and a 3-year median return on capital (CFROI) of only 2.4%, which is also below its cost of capital. Such disclosures provide long horizon investors with an effective way to screen for companies which are the "stars" in value creation value and those which have "failing or failed business models." (See below graphics on the corporate life-cycle.) Companies can then be flagged for possible corporate governance engagement related to their business strategy. Such strategic insights will be more important than ever as business models and complete industry sectors are economically disrupted due to climate change and potential regulatory changes like a carbon tax which will impact business model economics, returns on invested capital and valuations. These failing business models appear to be the fodder for capital market disruptions that are of concern to the G20 finance ministers and the Financial Stability Board.

**Corporate Life-cycle Stages &
Future Value (FV) That Align To 9 Value Quadrants**



Adapted from © 2016 Bartley J. Madden *Value Creation Thinking*



The above strategic performance analysis segments the energy sector of S&P 1500 into 9 Value Quadrants (VQs) of value creation. The core analytics is based on data from Credit Suisse HOLT global performance database and using their Future Value (HOLT % Future) and Median 5 year Return on Capital (CFROI) performance metrics. The corporate life-cycle emerges from this analysis and nine stages of the corporate life-cycle from start-up, to high performance star to cash cow to failing / failed business model. All directors of companies should know which value quadrant they are in relative to their peers and their industry as part of strategy review, strategic goal setting, long-term incentive program design and CEO succession and selection. VQ's 7, 8, 9 appear to be the companies most challenged strategically For ongoing analysis of the Future Value of the S&P 1000 industrials please see Bart Maddens new book "Value Creation Thinking" and hot links below with Future Value data from Credit Suisse Holt. http://www.valuecreationthinking.com
http://www.valuecreationthinking.com/futurescorecard.htm

[iv] The Material ESG Factors and Metrics that Drive Value: Project Delphi. Beta report of an investment industry working group (2016), available at https://swannick.files.wordpress.com/2017/02/delphi-1-0-report-final.pdf The Delphi Project purpose was to explain the difference between market value and book value. The definition of materiality was very specific and tightly to aligned to financial value creation outcomes. A key finding from the Delphi Project was that material intangible capital and ESG drivers that impacted long term sustained company performance and valuation and were segmented into three main integrated Value Levers: Growth, Return on Capital, Governance & Risk. The three Value Levers were further sub-segmented into 10 Value Drivers and related metrics that drive performance and wealth creation over the long term.

The “Growth” value lever included metrics for Customer Strategy and Market Share, including new products, new markets and new business models, brand and reputation. The “Return on Capital” value lever included: employee engagement, talent management, greenhouse gas (GHG) emissions, and energy efficiency. The “Governance/Risk” value lever included:

- operational risk; corporate governance risk incorporating performance metrics plus incentive design risk, regulatory risk, and licence to operate risk. Thus this leading group of institutional
- investor insiders created an integrated performance measurement, reporting and disclosure architecture that has been validated. The metrics for GHG emission and energy efficiency are only two of a much larger and integrated metrics suite for long term performance and sustained value creation that requires effective disclosure for the purposes of capital markets participants.
- Short-term thinking, design and use of typical operational performance metrics, and long term incentive design engineered at less than four years are primary drivers of the climate change disaster that lies at the heart of the Task Force's mandate. We believe the Task Force should explicitly recognize that climate-related financial reporting shortcomings are not an isolated environmental problem but part of the consequences of dysfunctional myopia. This myopia is a failure of the due care strategic duty of most officers and directors to plan for the longer term (10 years and greater) and to invest in R&D, innovation, organizational and human capital, and brands necessary to sustain business model viability, positive economic profitability and cash flows over the 10- to 20-year strategic horizon and longer.
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[v] For example, see the Center for Capital Markets Competitiveness recently released report, Essential Information: Modernizing our Corporate Disclosure System (Winter 2017), available at https://www.uschamber.com/press-release/new-us-chamber-ccmc-report-outlines-importance-effective-modern-corporate-disclosure

[vi] Toyota has recently disclosed its 35-year strategic plan and automobile industry eco-system, and technology roadmap for the transformation of its fleet to be sold to become 90 % clean fleet (non-internal combustion engine) by 2050.

[vii] This includes levels of required innovation that align to Enterprise Value related board director and CEO business model innovation skills, including executive succession plans for business model transformation as required over the next 20 years and longer, as well as the next 5 generations or more of C-Suite and Board leaders investment in human resources technologies for a system of record on management structure and a system of record on people as platforms for strategic organization design and talent management required to drive long term enterprise innovation accountability and long term sustained growth and returns on invested capital

[viii] For example, less than 10 per cent of US listed companies disclose performance metrics and KPIs that directly hold named officers accountable for innovation and growth from new products, new markets, business models or even creating new industrieshttps://irrcinstitute.org/reports/deep-misalignment-between-corporate-economicperformance-shareholder-return-and-executive-compensation/

[ix] See here for further details on fluid and crystallized intelligence; https://www.verywell.com/fluid-intelligence-vscrystallized-intelligence-2795004, https://en.wikipedia.org/wiki/Fluid_and_crystallized_intelligence

[x] The Work Levels architecture for managerial accountability, innovation and delegated decisions making is based on 40 years of empirical research and over 600 executive and board level interviews and the results are illustrated in the following table.

[xi] The research finds that the Work Level design principles for scope and scale, jumps in role accountability, value adding work, and leadership complexity in management structure design have been applied at Unilever,

Tata Group, GE, U.S. Armed Forces, Rockwell Automation Quaker Oats/PepsiCo, Alcan/Rio Tinto, BHP Billiton, Shell, ICI Industries, Omnicom Group, Inco/Vale, Standard Bank of South Africa, Scotiabank, CPS Energy, and the former Ontario Hydro, to name a few.

[xii] For example, company valuations can be influenced by whether ESG information is provided in a stand-alone report or is incorporated into financial statement disclosures. See Arnold, Markus C. and Bassen, Alexander and Frank, Ralf, Integrating Sustainability Reports into Financial Statements: An Experimental Study (June 11, 2012). Available at SSRN: https://ssrn.com/abstract=2030891 or http://dx.doi.org/10.2139/ssrn.2030891

[xiii] International Energy Agency, Energy, Climate Change & Environment: 2016 Insights, available at https://www.iea.org/publications/freepublications/publication/energy-climate-change-and-environment-2016-insights.html . The IEA report identifies that the business models of the electric power industry worldwide must transform to 95 % clean power and clean power eco-systems and grids by no later than 2050 to be 2C aligned.

[xiv] https://preventablesurprises.com/

[xv] For additional information on the fiduciary duty of impartiality, see Hawley, James P. and Johnson, Keith L. and Waitzer, Edward J., Reclaiming Fiduciary Duty Balance (September 21, 2011). Rotman International Journal of Pension Management, Vol. 4, No. 2, p. 4, Fall 2011. Available at SSRN: https://ssrn.com/abstract=1935068