FROM MSCI ESG RESEARCH INC.

MSCI ESG THOUGHT LEADERS COUNCIL

CLEAN TECHNOLOGIES | JUNE 2014

INTRODUCTION TO THE MSCI ESG THOUGHT LEADER COUNCIL

The goal of the MSCI ESG Research Thought Leaders Council is to maintain our leading edge in research methodology by regularly seeking feedback and opinions from external experts in key industries and relevant ESG issue areas. The MSCI ESG Research Thought Leaders Council consists of a series of about four panels annually, with three to six members on each panel. We aim to assemble international experts with recognized leadership and expertise on the topic area related to the panel.

The second panel was held on June 10th, 2014 on clean technologies. Panel members were asked to provide feedback on MSCI ESG Research's taxonomy, and input on how to define clean technologies, measure their impact and balance negative externalities.

KEY TAKEAWAYS

- The council thought that MSCI ESG Research's taxonomy captures the most relevant clean technologies, but to avoid overlap it was suggested that the taxonomy of the classification system be organized along environmental themes.
- The Thought Leadership Council recommended that we also include smart IT systems, transportation services, and technologies related to agricultural efficiency in our definition of clean technology.
- An assessment of clean technology that would evaluate the
 attractiveness based on the environmental costs and benefits
 associated with the technology would benefit the analysis.
 Life cycle assessments provide a means of calculating the
 environmental costs and benefits of a technology, but also
 highlight the potential negative externalities far down the
 value chain.
- Investors benefit from a clean technology classification system that distinguishes between different levels of the value chain (e.g. infrastructure, products / components, enabling services). The organization responsible for clean technology development within a company is a key indicator to assess overarching strategy.

COUNCIL MEMBERS



Martin Whittaker Sonen Capital



Christian-Guillaume Marchal BeCitizen



Mark B. Milstein Cornell University



Peter Adriaens University of Michigan



KEY DISCUSSION POINTS

1. FOCUS ON TAXONOMY

The definition of clean technology is continuously evolving, which makes the classification of these products and services an important tool for investors. In our conversations with members of the Thought Leadership Council, the majority opinion was that the breakdown of categories should be based on distinct environmental themes that keep overlap to a minimum. For example, our current use of Green Building is not in line with any single environmental theme – rather it intersects with Energy and Water themes. A new proposal is to organize these categories based on environmental macro themes, such as Air, Water, Energy, and Resource Efficiency.

2. MISSING TECHNOLOGIES: EMERGING 'SMART'
SYSTEMS. AGRICULTURE. AND TRANSPORTATION

Members of the Thought Leadership Council also highlighted some environmentally-beneficial products and services that are not specifically listed in our existing classification. Products and services related to transportation, 'smart IT' systems, and agricultural efficiency – including drip irrigation and organic farming - were at the top of the list.

But overall, the Thought Leadership Council thought that we are capturing the most relevant clean technologies.

3. EVALUATING ATTRACTIVENESS

All participants agreed that our assessment of clean technology should incorporate an attractiveness indicator that weighs environmental and social costs and benefits. However, they all recognize that applying a single process to identify the environmental costs and benefits of a wide range of technologies presents a methodological challenge.

One suggested course is in the direction of life cycle assessments that gauge the upstream and downstream impacts associated with a product's use. However, the question that ultimately arises with life cycle assessments is when to stop iterating to the next level and whether an LCA methodology should discount indirect impacts.

If the LCA is extended far enough along the

If the LCA is extended far enough along the value chain, even the most seemingly benign technology can be framed in the context of negative externalities, such as platinum mined for the purpose of emissions control systems or conflict metals found in energy efficient electronics.

Another topic that came up is whether our assessment of attractiveness should incorporate economic elements. Economic viability is a prerequisite for developing a lasting technology and the Thought Leadership Council was generally in favor of incorporating economic elements, as well as macrolevel benefits, into our assessment of attractiveness.

4. DISTINCTION BETWEEN INFRASTRUCTURE, COMPONENTS. AND SERVICES

An important distinction that was brought to our attention was that of products/infrastructure vs. components and services. While it is important for investors to tailor their holdings to specific environmental themes, an additional layer of granularity focused on the value-chain would further aid their assessment of clean technology exposure. Generally, investors will benefit from a system that differentiates between the products and services that provide the direct environmental benefit (ex. wind turbine manufacturers) versus the components (ex. coatings used on turbine blades) and services (ex. wind farm engineering).



5. MANAGEMENT STRUCTURE BEHIND CLEAN TECHNOLOGY INNOVATION

In addition to our conversations on taxonomy and the attractiveness methodology, the Thought Leadership Council also presented its views on indicators that are representative of a company's business strategy. Within this framework, the TLC proposed the addition of metrics focused on the groups that drive clean technology development within a company.

Work emanating from CSR Departments may have a strong impact on communities and a company's reputation, but does not highlight the core business aspect that investors aim to capture. Work derived from research and development departments may be innovative, but might not achieve immediate economic viability.

Companies that facilitate clean technology developments through central business groups following an overarching product strategy are in the best position to respond to demand for products that are environmentally attractive.

ABOUT MSCI ESG RESEARCH PRODUCTS AND SERVICES

MSCI's ESG products and services are provided by MSCI ESG Research Inc. and are designed to provide in-depth research, ratings and analysis of environmental, social and governance-related business practices to companies worldwide. ESG ratings, data and analysis from MSCI ESG Research are also used in the construction of the MSCI ESG Indexes. MSCI ESG Research is produced by MSCI's indirect wholly-owned subsidiary MSCI ESG Research Inc., a Registered Investment Adviser under the Investment Advisers Act of 1940.

ABOUT MSCI

For more than 40 years, MSCI's research-based indexes and analytics have helped the world's leading investors build and manage better portfolios. Clients rely on our offerings for deeper insights into the drivers of performance and risk in their portfolios, broad asset class coverage and innovative research. Our line of products and services includes indexes, analytical models, data, real estate benchmarks and ESG research. MSCI serves 98 of the top 100 largest money managers, according to the most recent P&I ranking. For more information, visit us at www.msci.com.

The information contained herein (the "Information") may not be reproduced or redisseminated in whole or in part without prior written permission from MSCI. The Information may not be used to verify or correct other data, to create indexes, risk models, or analytics, or in connection with issuing, offering, sponsoring, managing or marketing any securities, portfolios, financial products or other investment vehicles. Historical data and analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. None of the Information or MSCI index or other product or service constitutes an offer to buy or sell, or a promotion or recommendation of, any security, financial instrument or product or trading strategy. Further, none of the Information or any MSCI index is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. The Information is provided "as is" and the user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF MSCI INC. OR ANY OF ITS SUBSIDIARIES OR ITS OR THEIR DIRECT OR INDIRECT SUPPLIERS OR ANY THIRD PARTY INVOLVED IN THE MAKING OR COMPILING OF THE INFORMATION (EACH, An "MSCI PARTY") MAKES ANY WARRANTIES OR REPRESENTATIONS AND, TO THE MAXIMUM EXTENT PERMITTED BY LAW, EACH MSCI PARTY HEREBY EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. WITHOUT LIMITING ANY OF THE FOREGOING AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, IN NO EVENT SHALL ANY OF THE MSCI PARTIES HAVE ANY LIABILITY REGARDING ANY OF THE INFORMATION FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR ANY OTHER DAMAGES EVEN IF NOTIFIED OF THE POSSIBILITY OF SUCH DAMAGES. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited.

