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# ISO 26000 in corporate sustainability practices: case study of the forest and energy companies in bioeconomy

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## ABSTRACT

In the emergence of bioeconomy in European Union, sectorial boundaries are becoming blurred: renewable energy production is becoming increasingly integrated with the forest sector via the use of biomass for energy. The implementation of corporate responsibility as a firm- and industry-level strategic issue has become increasingly relevant in bioeconomy. As a result of this, new ways of assessing, monitoring and standardizing sustainability practices are evolving. The aim of this chapter is to make an overview of current state and implementations of seven ISO26000 core topics as a part of sustainable business practices in case of four globally operating companies headquartered in Finland. Thus, we aim at scoping the challenges that organizations face in promoting a standardized view of their social responsibility, especially from upstream sourcing of raw material. Based on our findings, forest-based companies are strongly focused on environmental issues and organizational governance as key priorities for implementing their sustainability agendas, while for example consumer issues and human rights receive less attention. The energy companies have met less public pressure towards its operations compared to the forest industry. This is reflected in their implementation of social responsibility, which is understood in the sector much as responsibility towards customers and employees. We conclude that ISO 26000 standard may bring some added value to especially medium-scale companies with less sophisticated social responsibility processes, though it is not sufficiently detailed to incorporate any sector-specific issues.

## Introduction

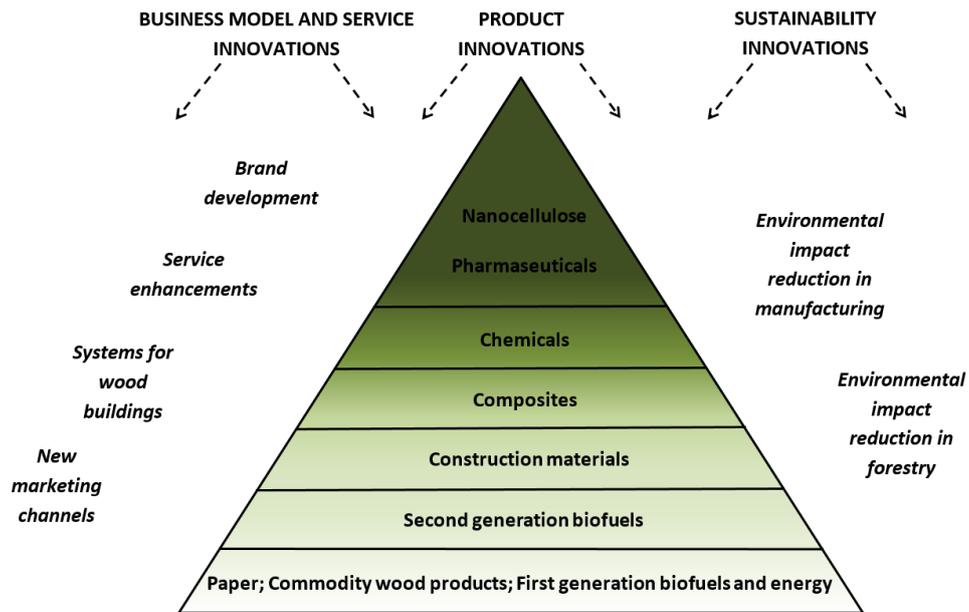
In the European Union (EU), the major challenge related to development of bioeconomy based on the usage of renewable resources is how to materialize a transformation towards a low-carbon, resource and energy efficient economy (Hetemäki et al. 2014). The utilization of forest resources for renewable energy production has been seen, for example, as an option to mitigate climate change, to enhance positive social development, and to support the business opportunities of forest industry companies of different sizes also in rural areas (Stupak et al., 2007). In line with this, various policy instruments have been introduced to enhance the renewable energy production in the EU since the early 2000s (Ericsson et al., 2004).

The global, traditional forest based bioeconomy (i.e., wood, pulp and paper production) is characterized with high capital intensiveness, mature markets of several core products, low

innovation intensity and increasingly international firms operating in global markets with high price volatility (Pätäri et al. 2016). Through increased market globalization, a growing awareness of requirements for sustainability in business operations and a shifting of production capacity to low-income countries in the Global South, the forest based bioeconomy in Europe has also become more exposed to growing vulnerability in competitiveness and company sustainability image (Mikkilä and Toppinen 2008). The overall changes in the global business environment of forest based bioeconomy call for realizing the necessary new green innovations amidst a prolonged global recession, especially in paper and wood products (Panwar et al. 2012).

In the ongoing process of creative destruction towards bioeconomy, sectorial boundaries are becoming blurred across in the intersections of different businesses in forest and energy industries, for example. For both industries, the sustainability impacts of renewable energy production vary depending on the origin of wooden raw material (e.g., domestic or imported) and the end-products processed (e.g., heat, electricity, solid or liquid biofuels) (e.g., Myllyviita et al., 2013). All transmittable and transportable renewable energy products (e.g., electricity, solid biofuels, liquid biofuels) may be sold both at local, regional and global markets, while heat is always being used locally as a result of cooling. Thus, it is not possible unambiguously define the social responsibility (SR) impacts of any business operations of forest and energy industries without consideration of their value chain structures.

Figure 1 below illustrates how the boundaries of forest, energy and chemical industries are crossing in the bioeconomy to create products with higher value added, and what is the role of different types of innovations in the systemic change changing traditional division of industrial boundaries. The general vision (TEM 2014) seems to focus in aiming to move from the bottom of pyramid towards higher value added products and services. However, it is elementary to understand the systemic nature of changes required in industries and many interlinkages between scales of production between different types of products. While in some assessments it is possible to distinguish product and service innovations from business model innovations and from sustainability related (environmental) innovations, it is fair to say that the main body of ongoing innovation efforts towards bioeconomy have some reference to sustainability. Furthermore, most commonly sustainability innovation efforts are made from the resource or energy efficiency point of view or for substituting fossil-based materials with renewables.



**Figure 1.** Breakdown of different types of innovations in the foreseen development of bioeconomy value pyramid

Due to the fact of differences in the characteristics of different renewable energy products together with increasing integration of renewable energy production into the forest based bioeconomy, new ways of assessing, monitoring and standardizing social responsibility practices are evolving both at organizational and systemic level. In a recent review (Toppinen et al. 2016), advancing corporate sustainability thinking into a more systemic level was identified to require: (1) the extension of product-level thinking on value creation to recycling and disposal stages and (2) the incorporation of byproducts and investments into flexible production systems to produce both inter-firm and inter-sectorial synergies.

Within the systemic level developing framework forest bioeconomy and energy companies operate globally. Hence, it is to investigate whether the sustainability agenda of the selected companies meets the internationally, generally acceptable criteria, such as ISO 26000, and what is the value add of the application of the criteria for the companies.

## Research design

The role of ISO 26000 in corporate sustainability practice within forest bioeconomy and energy sectors were analyzed qualitatively within the framework of ISO 26000, following the analysis path by for example Miles and Huberman (1994) and Yin (2003). Here, especially the case study strategy by Yin's (2003) was perceived applicable in that we described organizational phenomenon within

ISO 26000 framework. We chose four case companies; two companies, Metsä Group and Koskisen, representing forest bioeconomy and the other two cases, Fortum and Gasum, energy sector.

The applied data was secondary, publicly available material, such as newspaper articles, previous researches, CR and sustainability reports of the selected companies, and websites of international organizations in order to keep our analysis repeatable and the consequent findings transparent. The chosen material was reviewed within the ISO 26000 framework. In other words, we looked, firstly, direct references of the application of ISO 26000 by the analyzed companies. Secondly, we reviewed concepts and themes that referred ISO 26000 theme if no direct application was found.

Due to the limited number of cases and the related company originated material we handled the data manually, as on one hand the application of some data processing tool had not increased the efficiency and reliability of the data processing significantly and on the other hand the analysis path stays transparent and can be repeated due to the documentation of the manual process.

In later parts of this chapter we make an overview of current state and implementations of seven ISO 26000 core topics and their coherence with current sustainable business practices within forest based bioeconomy and energy industries from the perspective of Finland. Related to that, our first objective is to make a comparative assessment of sustainability implementation and analysis of ISO 26000 in corporate sustainability practices across selected four case companies. Second, we aim at scoping the challenges that organizations face in promoting a standardized view of their SR, especially from upstream sourcing of raw material. Third, we make conclusions and recommendations for developing practical sustainability management practices in the crossroads of forest based bioeconomy and energy industries.

### **ISO26000 standard in the Finnish business context**

A voluntary ISO 26000 standard, introduced in 2010, provides guidance on the integration of social responsibility into management processes, as well as on the principles of SR. When adopting this standard, companies and other organizations can effectively translate their sustainability principles related to social responsibility into effective actions and best practices via employment of appropriate criteria and indicators (e.g., Toppinen et al. 2016). Recognition of a business enterprises' stakeholders is an important element in ISO 26000, as is the short- and long terms objectives in terms of pursuing SR. From the corporate responsibility perspective, growing public awareness in critical corporate conduct has placed an ever greater need to build and secure the legitimacy of operations through

improved transparency, maintain trustful stakeholder relations and leverage the social capital inherent in these relations, so as to enhance value creation during increasing global competition.

ISO 26000 standard aims at providing information on understanding the role of sustainability in different types and sizes of organizations, helping to find practices for integrating the standards throughout the organization and communication on sustainability issues, thereby independently improving organizational practices related to SR. According to Hahn (2013), holistic ISO 26000 is useful in providing starting point for implementing organizational sustainability strategies and helpful in conducting internal and external analyses. The list of seven core subjects of ISO 26000 (i.e. organizational governance, environment, human rights, fair operating practices, labor issues, consumer issues and community involvement and development) presents the most essential areas of SR that an organization should consider to maximize its contribution to sustainable development (ISO 2012). In addition, each organization should actively recognize and address those areas in ISO 26000 that are most relevant to its own field, which calls for sector specific approach in assessing implementation of ISO and for identifying the related challenges. Although economic issues are not directly present, they are covered throughout all these seven dimensions.

The development process of ISO 26000 standard was very long and it has been also criticized (see e.g., Balzarova and Castka, 2012 and Marques, 2012), based on that a lengthy multi-stakeholder process did not necessarily ensure legitimacy or guarantee that this non-certifiable standard could be considered as an enforceable instrument. Rasche (2010) also points out that responsibility standards alone can never be a complete solution to the plethora of social and environmental problems experienced today. According to Hemphill (2013), ISO 26000 seems for smaller-sized companies as a lengthy, complex document, which has a relatively high learning curve cost regarding its implementation of policies and practices. Furthermore, because it neither provides detailed guidance for implementing operational measures in the industry or sector context nor is certifiable, it fails in providing assurance for legitimacy. Castka and Corbett (2016) also argue that sustainability standards will be more widely adopted if they are better-governed, less stringent and more favorably covered in the media, and regarding ISO 26000 there seems room for development in all these areas.

The adoption of ISO 26000 within the Finnish business environment has been so far a smooth but a rather low-key process. Regardless of the intensive responsibility debate in the Finnish society in the 2000s, there is no corresponding policy on corporate responsibility at the national level unlike in the European Union (Parliament of Finland, 2014). The main reason for this might be the welfare state status and advanced social legislation that have created an adequate framework guaranteeing

minimum social services to the citizens and reasonable business environment for the private sectors. Also the voluntary nature of corporate responsibility as a set of actions that go beyond the legal obligations explains the low number of policy initiatives during the last decades (Mikkilä et al. 2015).

The Finnish business organizations can be categorized into three types: export-oriented large-scale industries, traditional or home-market operating small and medium-scale enterprises (SME) and newly established SMEs based on the commercialization of an innovative business idea. The financial, social and environmental operating environments of these actors varies significantly from each other, leading to various responsibility focuses. The Finnish large-scale companies integrate corporate responsibility dimensions in the operations through environmental and social management systems such as Environmental Management Auditing Scheme, EMAS (European Union, EU 2009); Occupational Health and Safety Assessment Series, OHSAS (British Standard Institution, BSI 2007) and Social Accountability 8000, SA8000 (Social Accountability International, SAI 2008). The application of the systems is typically accredited through international standards. (Mikkilä et al., 2015).

For the time being, Finland follows the practice of the majority of the other European Union countries in the voluntary corporate responsibility reporting. The Parliament has not initiated to enlarge the legal demand of annual reporting to cover also a larger set of social and environmental indicators. Global Finnish companies have started to standardize their responsibility reporting in the mid-2000s by adopting the Global Reporting Initiative (GRI) reporting format (GRI 2014). The context-dependence of responsibility documentation, especially reporting needs on SR of forest-based renewable energy production has been found to be vary notable in different situations among Finnish businesses (Myllyviita et al., 2013). For example, while reporting on non-usage of child labor and education opportunities may be crucial for assessing social sustainability, monitoring those issues is not relevant in areas like Finland without usage of child labor and with compulsory nine year school education.

In the previous studies, sustainability managers in the North American and European companies operating within forest based bioeconomy companies have been found not yet to have a deep familiarity with the standard, and the practical benefit for the sustainability frontrunners of adopting the ISO 26000 have been questioned (Toppinen et al. 2015a). The managers also argued that a global and uniform social responsibility standard might not be sufficient for developing a more in-depth company-specific conceptualization of corporate responsibility, and that there is a risk that such a standard could become either too imposing or too superficial, and not able to address the sector

specific issues. Furthermore, while the ISO 26000 guide on social responsibility has been found applicable as a schematic framework for analyzing sustainability communication content in the pulp and paper businesses, the emphasis on environmental sustainability seems to dominate in communication over issues (Toppinen et al. 2015b). In their case analysis of Finnish forest, mining and food sector companies, Mikkilä et al. (2016) found that a ISO 26000 social responsibility guideline provides a relatively comprehensive framework for the implementation of corporate responsibility, but at the same time the detailed revision of the cases indicated the technical-social focus of the ISO criteria set giving less consideration on environmental issues that are commonly perceived as one of the most relevant dimension of comprehensive responsibility in the Finnish context.

## **Results**

### ***ISO26000 within forest and energy industries***

Finland has been chosen as focus area due to national interests in promoting European climate strategy in its energy policy and national renewable energy program. The Finnish national Energy and Climate Strategy was updated in 2013 and its energy policies are well integrated with those of the European Union. The focal points of the government's energy strategy are to strengthen its energy security, to move progressively towards a decarbonised economy, and to deepen its integration in the wider European market (TEM 2016). Regardless of the country's high dependence on imported fossil fuels, decarbonising is the long-term objective, Finland having already one of the lowest shares of fossil fuels in its energy mix among IEA member countries, ranking fourth-lowest in 2011 (IEA 2013).

Finland has a very ambitious renewable energy program, with a view to meeting its binding EU target to increase the share of renewable energy to 38% of final energy consumption by 2020. The government has clearly indicated that forestry will play a central role in meeting its renewables target, with the sector having to contribute half of the additional 38 terawatt hours between 2005 and 2020. Measures implemented to attain the country's renewables target include promoting the use of forest chips and other wood-based energy, alongside wind power, the use of biofuels in transport, and the greater utilization of heat pumps. Although the government is in favor of the requirement that biomass use be sustainable, there are serious concerns about potential EU schemes in this regard, which could bring about a great deal of administrative burden for their certification. (IEA 2013).

One of the recent key approach in sustainable business models is the concept of circular economy introduced by the Ellen MacArthur Foundation in the early 2010's. The model is based on the philosophy of redefining products and services to design waste out, while minimizing negative impacts. Consequently, in a transition to renewable energy sources, the circular model builds economic, natural and social capital.

Finland is an example where the energy policy and the role of renewables in it was interlinking the traditional forest and energy sectors into circular economy type solutions before the debate itself was launched. The pulp and paper industry has a significant role in the Finnish renewable energy production due to the widely adopted kraft pulp production process since the 1930s. The by-product of the process, black liquor can be processed further as steam and electricity to be utilized in the pulp and paper process or to feed the electric grid. In addition, the pulp and paper processes cogenerate electricity and heat within using biomass-based by-products and wastes as fuel. As a consequent, the share of forest sector in national bioeconomy output in Finland is as high as 50%, and that of the energy supply 11% totaling in two-thirds of the GDP. Furthermore, the pulp and paper industry corresponds for 25% of the total electric production equaling 70% of the renewable energy production in Finland due to energy production within the pulp and paper process (Forest Industries 2017, TEM 2014). Furthermore, the forest based bioeconomy companies have had co-projects with the energy companies in biofuels production (see e.g. Stora Enso and Neste Oil company websites).

Finland has a high level of energy consumption per capita within European Union due to the cold climate, long distances and relatively energy-intensive industry structure (Findicator 2017). Regardless of the private consumption habits one of the major cause is the large pulp and paper industry basis with its relatively energy intensive production processes even though the processes themselves produces a significant share of the energy produced in Finland. The main target of the energy companies has traditionally been the energy supply for the households and industries, but recently the energy companies have started to profile themselves more and more as circular economy specialists in processing waste, heat and energy – one example of this being a large-scale energy player Fortum Oyj that acquired a circular economy company Ekokem in 2016 (Fortum Oyj website).

### ***Overview of case companies and their stance towards ISO 26000***

In the following we will first make an overview of the four case companies and the role of ISO 26000 core topics present in their management systems (Tables 1 and 2). The data are extracted from their

most recent corporate sustainability reporting, web-pages and other publicly available documents. The analysis aims at elaborating similarities and differences across businesses and, consequently, pointing out future research needs. Table 2 presents an overview of characteristics of corporate sustainability practices through the lens of ISO 26000. To present a general view on the SR reporting practices within the case companies, we first discuss the information contents of the seven core topic themes by each organization, then build a brief comparison between the case companies on their SR practices.

**Table 1.** Background information of Finnish case companies from operating in Nordic forest and energy industries.

	<b>Fortum</b>	<b>Metsä Group</b>	<b>Gasum</b>	<b>Koskisen</b>
<b>Field of industry</b>	Energy	Forest	Energy	Forest
<b>Turnover</b>	3,382	5,016	915	247
<b>Operating profit</b>	808	542	126	4
<b>Employees (#)</b>	7,835	9,600	310	1,057
<b>Main product categories</b>	Electricity, heating and cooling, energy sector services, power trading	Paperboard for packaging, tissue paper, wood products	Natural gas, biogas, liquefied natural gas, technical services	Plywood, sawn and processed timber, birch products, chipboard, components for wood construction
<b>Examples of strategic renewal initiatives</b>	Integration to circular economy with acquisition of Ekokem company	Investments in large-scale bio-product mill to supply renewable energy, materials and a bundle of (niche) bioeconomy products	Acquisition of Liquefied Natural Gas (LNG) business of the Norwegian Skangas in 2014	Implementation of a project to take advantage of circular economy approach in production processes

*Fortum* is an international energy company providing customers with energy solutions that according to company strategy improve present and future life, and deliver excellent shareholder value. The company operates mainly in Nordic and the Baltic countries, Russia, Poland and India. In addition to production of heat and electricity, Fortum has recently invested in production of fast pyrolysis oil made of wood-based raw materials (e.g., forest residues, wood chips and sawdust) integrated with existing combined heat and power production and an urban district heating network.

Sustainability is defined being an integral part of the Fortum's strategy. The company has defined sustainability focus areas in the areas of economic, social and environmental responsibility without a special focus on ISO 26000. The focus areas are based on Fortum's and its stakeholders' views of the significance of the impacts on the company and its ability to create value. The dimensions of ISO 26000 are considered very well. Consequently, the economic dimension focusses on long-term value and growth, economic benefits to stakeholders, and sustainable supply chain. Social focus area covers secure supply of heat and electricity (consumer issues in ISO 26000), customer satisfaction (consumer issues in ISO 26000), solutions for sustainable business (fair operating practices in ISO 26000),

business ethics and compliance (governance, fair operating practices in ISO 26000), and operational occupational safety (labor issues ISO 26000), corporate citizenship (community engagement and development in ISO 26000), human rights (human rights in ISO 26000), and product responsibility (consumer issues in ISO 26000). The third, environmental element equals much the environment in ISO 26000 considering energy and resource efficiency, reduction of environmental impacts and climate benign energy production and systems (Fortum 2016). In 2016 Fortum acquired Ekokem, a leading Nordic circular economy company specialised in material and waste recycling, final disposal solutions, soil remediation and environmental construction. Fortum strengthened its strategy as a Nordic circular economy leader in the field of waste-to-energy solution with this acquisition.

**Table 2.** ISO 26000 social responsibility guideline core topics covered in case companies' communication.

CORE TOPIC THEMES	Large-scale companies		SME companies	
	Fortum	Metsä Group	Gasum	Koskisen
<b>Governance</b>	Commitments to UN declarations related to human and political rights, and climate, GC, ILO, International Chamber of Commerce's anti-bribery and anti-corruption guidelines Sustainability management strategy driven	Commitments to WBCSD, Global Compact, ILO; Sustainable Development Goals mentioned;  Diversity management; Investment based strategic integration into circular economy and	Commitment to GC Participation in CIF, FEI, WEC, EC Sustainability and responsibility part of the new strategy	Commitment to the code of conduct to long-term, responsible and ethical business by taking into account personnel, environmental, financial and stakeholder needs. Core focus areas: meaningful work, a healthy environment and fair partnerships
<b>Environment</b>	Energy and resource efficiency, decarbonization, circular economy, reduction of environmental impacts, climate benign energy production and systems	Sustainable forest management; material and energy efficiency, emissions control and water use; renewable energy	Carbon-neutral future and innovations, efficiency and environmental impacts of the supply chain	Reduction of life-cycle impacts of production and products to soil, air and water; PEFC and FSC chain-of-custody certificates for wood
<b>Human rights</b>	In accordance with the UN Guiding Principles on Business and Human Rights, ILO	Commitments to GC, ILO Convention	Not mentioned	Commitment to UN Universal Declaration of Human Rights. Member of FIBS Corporate Responsibility Network
<b>Fair operating practices</b>	International Chamber of Commerce's anti-bribery and anti-corruption guidelines Sustainable supply chain	Sustainable supply chain	Life-cycle impacts; Programs promoting sustainable development, energy efficiency and environmental protection	Circulation of wood, raw materials and energy. Systematic communication on incidents, legal actions and development
<b>Labor issues</b>	Operational and occupational safety	Work safety program in place	Safety and security as strategic objectives	Personnel working conditions, development of know-how, wellbeing at work, investments in health
<b>Consumer issues</b>	Product responsibility; guarantee-of-origin-labelled and renewable energy	Product safety; product and process innovations into new bioproducts	Openness, transparency and active dialogue; Customer satisfaction; Gas supply security	Confidentiality of contracts with customers, complying product requirements and standards, following ethical

				codes throughout the order-delivery chains, traceability of products and services
<b>Community engagement and development</b>	Participation in national and international organizations, supporting local communities	Supporting local livelihoods and society; EIA of bioproduct mill and local business ecosystem development	Supporting junior sport teams and student guild activities, project in India with UFF	Supporting local entrepreneurship, collaboration with local educational institutions
<b>Overall assessment of guideline applicability</b>	No direct mentioning of ISO 26000, but topics well covered, mainly due to application of GRI	No direct mentioning of ISO 26000, but topics well covered	No direct mentioning of ISO 26000, the gaps obviously due to the Nordic operation environment (no commitments to international declarations, no human rights issues)	Direct mentioning of ISO 26000; since 2015 implementation of the standard as a social sustainability framework

*Metsä Group* is a global forest based bioeconomy group present in 30 countries, but operating mainly in Europe. At the moment, the company is building the first new generation bio-plant to be located in Finland. Abreast with pulp, the mill will produce out wood-based raw materials bio-products such as tall oil, turpentine, bio-composites and biogas, some of which have good demand potential at higher levels of Figure 1 value pyramid.

The company addresses its current sustainability agenda under four rather general themes where ISO 26000 is not directly advocated anywhere. The first one is about offering “sustainable choices” (mainly connected to “consumer issues”), the second is about bringing raw material from forests to consumers (integrating “environment” and “consumer issues”), the third emphasizes better climate and environment (again focusing on “environment” via emission control, water foot printing and material and energy efficiency), and the fourth is about general well-being (with a clear linkage to “community engagement and development” from ISO 26000). Work safety and employer diversity programs are examples under theme “labour issues”, which also fall partly under “governance”. Among core ISO 26000 topics, linkage to “human rights” is via commitment to Global Compact and ILO Convention, as well via company supplier code of conducts. Promoting sustainable, renewable (forest-based) materials through production of safe, high-quality and recyclable products for the needs of bioeconomy is at the heart of the company strategy and sustainability agenda, where bioproduct mill under construction in Finland represents a flagship project and its EIA process has been a centre of company multi-stakeholder dialogue. This bioproduct mill (pulp mill based forest biorefinery) is envisioned (*Metsä Group Sustainability Report 2015*, p. 17) to be “a pioneer in sustainable industry with no fossil fuel CO<sub>2</sub> emissions” and contributor with a 2 percentage unit growth in Finnish national renewable energy strategy targets.

*Gasum* is a Finnish expert in natural energy gases (natural gas and biogas). It imports natural gas to Finland, upgrades biogas, and transmits and delivers these for a broad range of uses in energy production, industry, homes, and land and maritime transport. The company develops the Finnish and Nordic energy infrastructure by investing in the liquefied natural gas (“LNG”) business, biogas business and transport services.

Gasum invested strongly in corporate responsibility issues in 2015. The promotion of sustainable development is considered at the core of the strategy raising safety and security as one of the key strategic objectives. Furthermore, Gasum build its roadmap as regards the transition to a carbon-neutral society by 2050. The corporate responsibility themes include carbon-neutral future and innovations, forerunner in safety and supply security, better society with the stakeholders and understanding life-cycle impacts. The majority of ISO 26000 dimensions are covered with the four elements emphasizing the environment in the first and last theme. ISO 26000 topic “government” is included in the strategic approach to corporate responsibility. The theme “forerunner in safety and supply security refers much to the topics “labor issues” and “consumer issues”. Third theme, “better society with our stakeholders”, refers much to community engagement and development in ISO 26000 listing (Gasum 2016). It is worth of noticing that ISO 26000 topic “human rights” is not covered in company’s SR reporting, which may be a good example of the context-dependency of the responsibility documentation. As Gasum operates mainly in the Nordic area, these issues are covered comprehensively by the legislation in the region and thus it is an integral part of company’s operations that these issues are being respected.

Gasum acquired a majority stake in the LNG business of the Norwegian Skangas in 2014. Skangas will continue to strengthen the position and infrastructure of LNG and the utilization of new gas solutions more extensively in Finland, Sweden and Norway replacing fossil-based crude oil. From sustainability perspective, LNG has good business potential especially in maritime transport with products having reduced sulphur emissions (see Boer et al. 2016).

*Koskisen* is a Finnish family-owned enterprise operating in several branches of woodworking industry by processing sawnwood and birch products together with manufacture of plywood and chipboard. In addition to focus on production processes, an important part of company’s operations concerns forest management and wood procurement in its own forest holdings and collaborator private forest owners. Koskisen is also involved in renewable energy production through its sales of side-products (i.e., chips and sawdust) to the nearby power plants.

Koskisen is focused in their sustainability strategy into four main themes, which are committed family business, healthy environment, fair partnerships and meaningful work, which also form the structure of corporate responsibility report (Koskisen Sustainability Report 2015, pp. 8–15). Related to the four main themes, the implementation of CR management is based on a general code of conduct (Koskisen 2016) composing ethical instructions related to management systems (i.e., objectives to meet the international standards of ISO 14001, OHSAS 18001 and ISO 26000), human rights (i.e., following the UN human rights declaration, involvement in Finnish Business & Society FIBS agreement on business diversity at organizations in Finland), customers and suppliers, working safety, environment and wood procurement (i.e., possession of FSC and PEFC certificates) and overall implementation of corporate responsibility by leaning on ISO 26000. From the perspective of sustainability assessments, the selection of measures to reported is very narrow comprising information of only some selected issues (e.g., in the context of healthy environment the share of energy waste in relation to total amount of waste generated and in the context of meaningful work the gender distribution, worker satisfaction and sick absence). As a new opening for integrating into bioeconomy, Koskisen implemented (Koskisen Sustainability Report, p. 14) a co-operation project with Ekokem to develop circular economy strategy by finding after 10 years of development work a solution to recycle aluminum coated veneer waste.

From comparative point of view, the four companies do not illustrate any major differences in their implementation of SR. Only Koskisen is found to be directly using ISO 26000 guidance in implementing its sustainability strategy whereas other case companies with more sophisticated SR related processes and incorporation of GRI reporting for their sustainability disclosure do not seem to have need for it. On the one hand, as ISO 26000 guidance is adjusted with the GRI measurement system, following GRI guidelines also provides directly information on the fulfillment of ISO 26000 core topics whether it has been stated in organizations' strategies or not. On the second hand, since ISO 26000 does not comprise direct guidelines for selecting specific indicators to implement sustainability assessments, following ISO 26000 core topics in organizations' strategies with some unbalanced selection of few sustainability indicators is not sufficient condition to show transparently the state of SR within the organization.

Some differences that are found at least partly reflect the scale of companies, which is much larger for Metsä Group and Fortum in comparison to Gasum and Koskisen resulting in higher level of internationalization and related communications needs, for example to financiers and shareholders. Gasum has among the companies most visible emphasis on national-level active customer dialogue,

and with the acquisition of majority share in Skangas possibility to diversify its business with the growing potential in the use of LNG in maritime transport.

From the perspective of integration into circular aspects of bioeconomy, two different operating modes can be detected. Metsä Group has a purely investment based strategy towards integration into circular economy to diversify its value creation model whereas Fortum and Gasum have adopted acquisition based strategies using Ekokem (Fortum) and Skangas (Gasum) as stepping stones towards circular economy based business. In addition, at the same Fortum made investments in innovative fast pyrolysis production in one of its combined heat and power (CHP) production plants. However, even being at the core of bioeconomy transition, for Metsä Group the main body of attention has been with large-scale forest biorefinery under construction and the business opportunities in currently profitable pulp production. The related concerns on the sustainability and availability of biomass at competitive prices have been at the greatest focus in media, although the real possibility would seem to lie in developing an innovative local business ecosystem by integrating new players outside forest based bioeconomy. However, only time will tell after the start-up of the new bio-product mill, to what extent any positive spillover effects will emerge out to the local (circular) bioeconomy cluster. Abreast with Fortum, Metsä Group and Gasum also Koskisen has stated pursuing towards circular economy. Yet, based on the information provided by the company's internet pages, finding solutions for recycling the aluminum waste from the veneer is more related to efficient re-usage and management of waste instead of making investments on industrial processes, where those materials could be used to produce entirely new innovative and value added products in line with the profound thinking of circular economy.

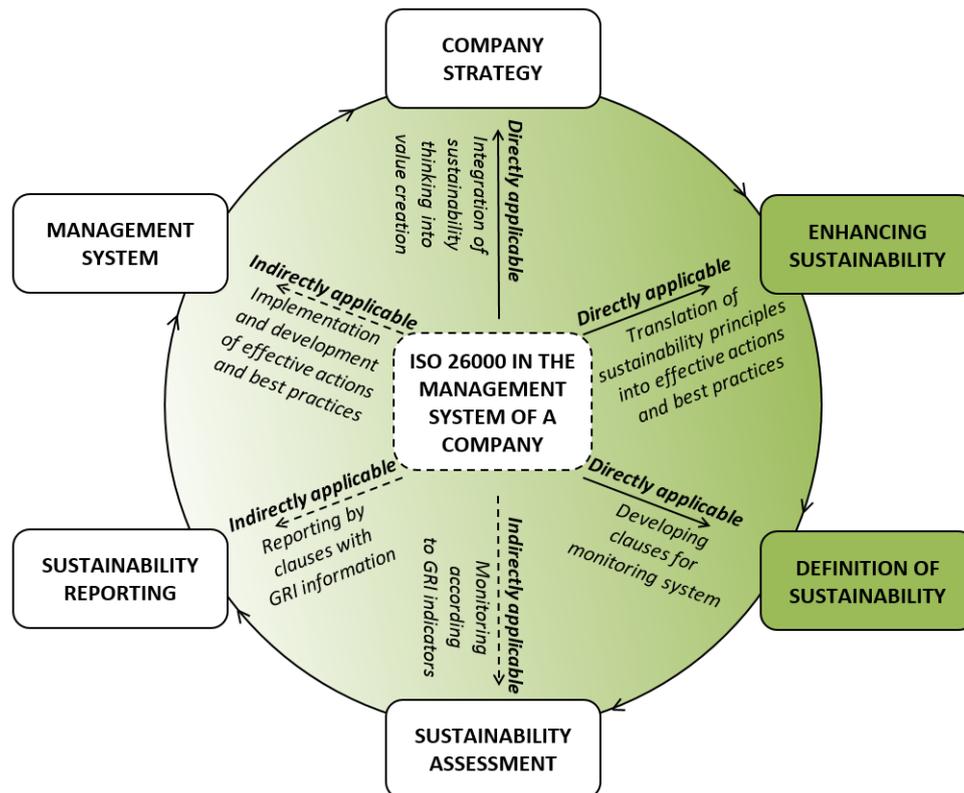
### ***Challenges that case companies face in promoting a standardized view of SR***

Based on case company evidence, large scale companies with more sophisticated SR related processes and incorporation of GRI reporting for their sustainability disclosure do not seem to have need for emphasizing ISO 26000 guidance. Only Koskisen was found to be using the guidance in implementing its sustainability strategy since 2015, reflecting a move towards more holistic sustainability mindset among traditional wood industry business entering the era of societal strategies for bioeconomy. In addition, for a SME company like Koskisen highly dependent on, for example, well-functioning collaboration with local forest owners and business customers in the vicinity, indicating their willingness for a more transparent SR communication may be one way of distinguishing themselves from competitors.

In comparing results across forest and energy industries it becomes obvious that forest companies continue to be more strongly focused on environmental issues and organizational governance as key priorities for implementing their SR, while for example consumer issues and human rights receive less attention (see Mikkilä et al. 2015, Toppinen et al. 2015a, 2015b). For all companies, community engagement practices found in place, for example, are a list of fairly traditional philanthropy oriented activities. The energy sector has met less public pressure towards its operations in comparison to large-scale forest based bioeconomy companies. This is reflected also in the implementation of SR, which is understood in the energy sector much as responsibility towards customers and employees even though the larger set of SR indicators are recognized in the GRI based disclosure.

Also strategic renewal of forest and energy companies is visible in our material. Key examples are Fortum acquiring Ekokem or Gasum becoming majority owner of Skangas. Especially the latter one is interesting. As the results of Korhonen et al. (2015) indicate, although among Nordic forest industries there have been serious concerns related to costs of tightening regulation on sulphur emissions in maritime transport, these may be more short-run adjustments costs to be surpassed in the longer run. Substantial new business opportunities have started to materialize via adoption of clean technology in transportation and shipping, as well as via possibilities for building new strategic cross-sectoral partnerships in future development of transportation biofuels, which could be a new business area for forest biomass based producers.

To summarize the empirical findings made in this chapter, it is worth viewing ISO 26000 within the management system of a company (see Figure 2). From there it can be observed that several benefits exist. First, ISO 26000 is directly applicable in translating sustainability principles into best practices and effective actions (“enhancing sustainability”) and in building basis for defining what sustainability means for establishing a monitoring system. For the other areas of company sustainability management, the effect is of more indirect nature, especially what comes to sustainability assessment, monitoring and reporting, where other tools and auditable systems naturally already are in place. From the perspective of integrating sustainability thinking into value creation models, one can think that a guideline line ISO 26000 has a role to play when it is about building basis for introduction of the sustainability mindset into company principles.



**Figure 2.** Areas of direct and indirect applicability of ISO 26000 in integrating SR practices into company strategies.

### Discussion and conclusions

In comparison with earlier studies on the role of ISO 26000 for companies, for example Castka & Balzarova (2008) have argued that organizations would adopt the social responsibility agenda for strategic, altruistic or coercive reasons. As only certain organizations adopt ISO 26000, their argumentation is that organizations will most likely adopt the standard if their most salient stakeholders recognize and value ISO 26000. Hence, MNCs will seek legitimacy of their social responsibility agendas and adopt ISO 26000 if this will be the best means for dealing with it. Our analysis did not support their hypothesis, as the studied large-scale companies ignored much ISO26000 and relied on GRI reporting.

Regarding criticism towards ISO 26000, Hemphill (2012) considered the guideline to be too broad in scope resulting in inability to capture the important environmental context of industries and sectors. Together with this, it was also found to be costly and time-consuming to implement especially for SMEs without a certifiable management system standard requiring another certifiable SR initiative to be integrated in with the international standard to allow for “legitimacy and credibility”

to be publicly conveyed to stakeholders. However, the empirical findings here showed that ISO 26000 can provide a promising starting point for SR standardization especially for SMEs due to its non-official and flexible nature.

As a weakness of ISO 26000 it can be stated, that without bringing the seven core topics into actual level of assessment and reporting, for example, by integrating the management system with GRI measurement system, the transparency and sustainability communication content of the social responsibility reporting remains superficial. In addition, monitoring the development in core topics, for example, by reporting periods within the company is impossible without usage of concrete sustainability measures guiding the data gathering.

The actual implications for social and environmental improvement or corporate strategic management practices via the ISO 26000 guidance standard are largely yet unknown in the field of forest based bioeconomy. Nevertheless, few years later since its introduction, there has been impetus to take a look at the situation from the perspective of ISO 26000 from a sector specific view. Based on our findings, forest based bioeconomy companies are strongly focused on environmental issues and organizational governance as key priorities for implementing their social responsibility, while for example consumer issues and human rights still receive only moderate attention. Yet, when considering the context-dependency in SR reporting needs, this may also be a conscious and even well-grounded decision made within companies. Especially in case of Northern European companies using local raw material operating in local markets with close informal collaboration relationships with their customers, there may not be high needs for establishing reporting practices, for example, on human rights for customers.

In all, while ISO 26000 social responsibility guideline provides a relatively comprehensive framework for the implementation of corporate sustainability, it may not bring much added value to sustainability frontrunner companies with sophisticated SR related processes and incorporation of GRI reporting for sustainability disclosure. Some added value may be delivered to medium-scale companies with less sophisticated social responsibility processes. In the process of transforming traditional forest and energy industries towards bioeconomy, as such the guideline does not seem to be sufficiently detailed to incorporate forest or energy sector-specific issues and neither does it capture aspects related to circular economy processes. Yet, when combined with some existing sustainability assessment system (e.g., GRI), the core topics of ISO 26000 can support benchmarking the hot topics in companies' processes and help wrapping up social responsibility assessment information into sustainability practices that can be communicated in the society.

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## List of references

Balzarova, M. A., Castka, P. 2012. Stakeholders' Influence and Contribution to Social Standards Development: The Case of Multiple Stakeholder Approach to ISO 26000 Development. *Journal of Business Ethics*, 111(2): 265–279.

Boer, E., Ahdour, S., Meerwaldt, H. 2016. SECA Assessment: Impacts of 2015 SECA marine fuel sulphur limits: First drawings from European experiences. Report by CEDelft. <https://www.nabu.de/imperia/md/content/nabude/verkehr/nabu-seca-studie2016.pdf>

BSI. 2007. Occupational health and safety management systems (OHSAS 18001:2007), <http://www.bsigroup.com/en-GB/ohsas-18001-occupational-health-and-safety>, accessed 7 August 2014

Castka, P., Balzarova, M., A. 2006. ISO 26000 and supply chains – On the diffusion of the social responsibility standard. *International Journal of Production Economics*, 111(2): 274–286. [dx.doi.org/10.1016/j.ijpe.2006.10.017](https://doi.org/10.1016/j.ijpe.2006.10.017)

Castka, P., Corbett, C. 2016. Adoption and diffusion of environmental and social standards: The effect of stringency, governance, and media coverage. *International Journal of Operations & Production Management*, 36(11):1504-1529

Ellen MacArthur Foundation. 2017. What is a circular economy? <https://www.ellenmacarthurfoundation.org/circular-economy>

Ericsson, K., Huttunen, S., Nilsson, L.J., Svenningsson, P. 2004. Bioenergy policy and market development in Finland and Sweden, *Energy Policy*, Vol. 32 No. 15, pp. 1707–1721. DOI: 10.1016/S0301-4215(03)00161-7EU. (2009) 'Regulation of the European Parliament and of the Council on the voluntary participation by organisations in a Community eco-management and audit scheme (EMAS)', <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009R1221&from=EN>, accessed 8 August 2014

Findicator 2017. <http://www.findikaattori.fi/en/26>

Forest industries. 2017. Industries. Available at <https://www.forestindustries.fi/industry>

Fortum. 2016. Sustainability 2015, reporting content of our sustainability website as pdf. Available at: [http://apps.fortum.fi/sustainability/Fortum\\_Sustainability\\_2015\\_V2.pdf](http://apps.fortum.fi/sustainability/Fortum_Sustainability_2015_V2.pdf)

Gasum. 2016. Corporate responsibility report 2015. Available at: [http://www.gasum.com/globalassets/vuosikertomukset/gasum-corporate-responsibility-report-2015\\_en\\_final\\_sheets.pdf](http://www.gasum.com/globalassets/vuosikertomukset/gasum-corporate-responsibility-report-2015_en_final_sheets.pdf)

Hahn, R. 2013. ISO 26000 and the Standardization of Strategic Management Processes for Sustainability and Corporate Social Responsibility. *Business Strategy and the Environment*, 22(7): 442–455.

Hemphill, T. 2013. The ISO26000 guidance on social responsibility international standard: what are the business governance implications? *Corporate Governance*, 13(3): 305–317.

Hetemäki, L., Hoen, H., Schwarzbauer, P. 2014. Conclusions and policy implications. In: *Future of the European forest based sector: Structural changes towards bioeconomy.* (ed. Hetemäki, L.) *EFI What science can tell us* 6, 95–108.

IEA. 2013. Energy policies of IEA countries, Finland, 2013 Review. [https://www.iea.org/publications/freepublications/publication/Finland2013\\_free.pdf](https://www.iea.org/publications/freepublications/publication/Finland2013_free.pdf)

ISO. 2012. 7 Core Subjects. *International Organization for Standardization, ISO Central Secretariat.* Available: [http://www.iso.org/iso/sr\\_7\\_core\\_subjects.pdf](http://www.iso.org/iso/sr_7_core_subjects.pdf)

Korhonen, J., Pätäri, S., Toppinen, A., Tuppura, A. 2015. The role of environmental regulation for the future competitiveness of pulp and paper industry: the case of the sulfur emissions directive in Northern Europe. *Journal of Cleaner Production*, 108(Part 1): 864–872.

Koskisen. 2016. Ethical code of conduct (in Finnish). [https://link.koskisen.com/\\_system/modules/digistore/InlineStream.aspx?file=RDpcQVRMQUSUSVMuc2VydmJjZXMtZmlsZXN5c3RlbVxkaWdp3RvcVcZGF0YTFcS29za2lzZW5cb3RoZXIgzG9jdW1lbnRzXEtvc2tpc2VuX2tbnNlcm5pX2VldHRpbmVuX29oamVfZmkucGRm&d=Mjk5MjAxNg==](https://link.koskisen.com/_system/modules/digistore/InlineStream.aspx?file=RDpcQVRMQUSUSVMuc2VydmJjZXMtZmlsZXN5c3RlbVxkaWdp3RvcVcZGF0YTFcS29za2lzZW5cb3RoZXIgzG9jdW1lbnRzXEtvc2tpc2VuX2tbnNlcm5pX2VldHRpbmVuX29oamVfZmkucGRm&d=Mjk5MjAxNg==)

Marques, J. 2012. A global SR standard: good, or too good to be true? (ISO 26000 standard for social responsibility). *The Journal for Quality and Participation*, 34(4): 29–35.

Metsä Group. 2015. Sustainability Report. Available at: <http://www.metsagroup.com/en/Documents/Sustainability/Metsa-Group-Sustainability-Report-2015.pdf>

Mikkilä, M., Panapaan, V., Linnanen, L. 2016. The Pursuit of Responsible Business: Corporate Responsibility of Finnish Companies in Their Global Operations. Chapter 8 in Idowu, S. (ed.): *Key Initiatives in Corporate Social Responsibility, CSR, Sustainability, Ethics & Governance.* Springer. DOI 10.1007/978-3-319-21641-6\_8.

Mikkilä, M., Panapanaan, V., Linnanen, L. 2015. Corporate responsibility in Finland – From local movements to global responsibility. In Idowu, S. O., Schmidpeter, R., Fifka, M. S. (Eds.), *Corporate Social Responsibility in Europe.* pp. 209-228. Springer. [http://link.springer.com/chapter/10.1007%2F978-3-319-13566-3\\_12#page-1](http://link.springer.com/chapter/10.1007%2F978-3-319-13566-3_12#page-1).

Mikkilä, M., Toppinen, A. 2008. Sustainability reporting in the world's largest pulp and paper companies. *Forest Policy and Economics*, 10 (8): 500–506.

Miles, M. B. & Huberman, A. M. 1994. *Qualitative data analysis. An expanded sourcebook.* Sage Publications, Thousand Oaks-London-New Delhi. 338 p.

- Myllyviita, T., Leskinen, P., Leskinen, L.A., Lähtinen, K., Pasanen, K., Sironen, S., Kähkönen, T., Sikanen, L., Asikainen, A. 2013. Sustainability assessment of wood-based bioenergy - A case study of Eastern Finland. *Biomass and Bioenergy*, 59: 293–299.
- Panwar, R., Vlosky, R., Hansen, E. 2012. Gaining competitive advantage in the new normal. *Forest Products Journal*, 62(6): 420-428.
- Parliament of Finland. 2014. Documents of the parliament debates during the 2000s. Available at: <http://web.eduskunta.fi/Resource.phx/eduskunta/index.htx?lng14fi>
- Pätäri, S., Tuppur, A., Toppinen, A., Korhonen, J. 2016. Global sustainability megaforges in shaping the future of the European pulp and paper industry towards a bioeconomy. *Forest Policy and Economics*, 66: 38–46.
- Rasche, A. 2010. The limits of corporate responsibility standards. *Business Ethics: A European Review*, 19(3): 280–291.
- SAI. 2008. ‘Social Accountability 8000 Standard’, [http://www.sai-intl.org/\\_data/n\\_0001/resources/live/2008StdEnglishFinal.pdf](http://www.sai-intl.org/_data/n_0001/resources/live/2008StdEnglishFinal.pdf), accessed 8 August 2014
- Stupak I, Asikainen A, Jonsell M, Karlton E, Lunnan A, Mizaraitė D, Pasanen K, Pärn H, Raulund-Rasmussen K, Röser D, Schroeder M, Varnagirytė I, Vilkriste L, Callesen I, Clarke N, Gaitnieks T, Ingerslev M, Mandre M, Ozolincius R, Saarsalmi A, Armolaitis K, Helmisaari H-S, Indriksons A, Kairiukstis L, Katzensteiner K, Kukkola M, Ots K, Ravn HP, Tamminen P. 2007. Sustainable utilisation of forest biomass for energy—Possibilities and problems: Policy, legislation, certification, and recommendations and guidelines in the Nordic, Baltic, and other European countries. *Biomass and Bioenergy*, 31:666–684.
- TEM. 2014. Suomen biotalousstrategia (Finnish national bioeconomy strategy). [http://www.biotalous.fi/wp-content/uploads/2015/01/Suomen\\_biotalousstrategia\\_2014.pdf](http://www.biotalous.fi/wp-content/uploads/2015/01/Suomen_biotalousstrategia_2014.pdf)
- TEM. 2016. Ministry of Economic Affairs and Employment; Energy. Available: <http://tem.fi/en/energy>
- Toppinen, A., Virtanen, A., Mayer, A., Tuppur, A., 2015a. Standardizing corporate responsibility via ISO 26000: empirical insights from the forest industry. *Sustainable Development* 23(3): 153-166.
- Toppinen, A., Lähtinen, K., Hänninen, V. 2015b. ISO 26000 in the assessment of CSR communication quality: CEO letters and social media in the global pulp and paper industry. *Social Responsibility Journal*, 11(4):702–715.
- Toppinen, A., Lähtinen, K., Holopainen, J. 2016. On corporate responsibility. In Panwar, R., Hansen, E. & Kozak, R. (eds): *Forests, business and sustainability*. Chapter 5 pp. 70–90. Routledge, New York. ISBN 978-1-138-77929-7.
- Yin, R. K. 2003. Case study research. Design and methods. *Applied social research methods services*. Vol. 5. Sage Publication, London. 179 p.