





**Impact Valuation –
Holding Sustainability
to Account**

Environmental issues like increasing climate change and decreasing biodiversity together with social issues like pernicious inequalities in labor markets, bring into stark relief the fact that companies' impacts are not limited to financial markets. Business behavior produces positive and negative externalities that affect society, ecosystems, and the planet.

Impact valuation is a way for companies to gain a more comprehensive, concrete understanding of the value (or cost) of their impacts on society. Impact valuation is a tool companies can use to help identify, measure and value their impact beyond products and profits. This means looking beyond customers and suppliers toward their impact on a broader group of stakeholders that include people and planet. Impacts are measured, quantified and reported in hard figures that can be positive or negative, depending on whether value is being created or destroyed. It is only by measuring these externalities that a true picture of a company's value can be painted.

Impact valuation goes beyond sustainability reporting and toward a more systematic prioritization, collection, and evaluation of data via quantification and monetization techniques. It is still a nascent movement, but it is gaining momentum as more experts across accounting, finance and sustainability advocate it as a means to elevate sustainability standards in business, equip companies with tools for the task, and hold them accountable for their performance.

What sets impact valuation apart from other forms of sustainability reporting are the demands it places on companies to critically and systematically assess and value the externalities that result from their business activities. Moreover, unlike many forms of sustainability reporting, it is intended as a tool for strategic decision-making by management rather than simply to inform shareholders of sustainability and corporate responsibility initiatives.

Here we seek to demonstrate the current state of play and practice among companies worldwide. This helps us to better understand how impact valuation is evolving globally in general as well as within specific industries. Our findings indicate that even after three years of reporting, misconceptions regarding impact valuation's purpose and execution are still rampant. Impact valuation is time-, knowledge-, and resource-intensive. As a result, many companies misunderstand and misimplement valuation methodologies; others ignore impact valuation completely.



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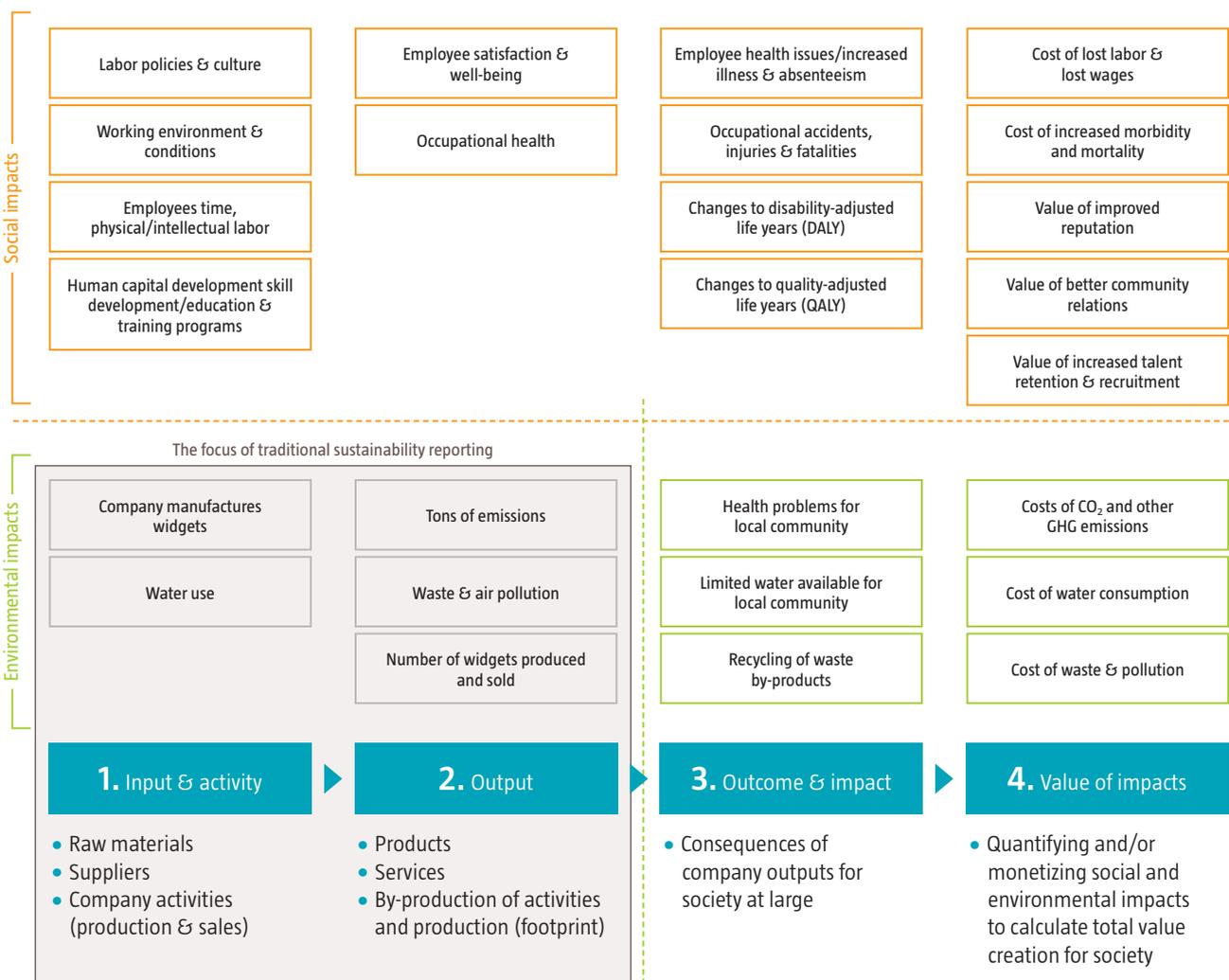
[impact valuation] is intended as a tool for strategic decision-making by management rather than simply to inform shareholders of sustainability and corporate responsibility initiatives.

Redefining the value proposition

Companies are in the business of providing products and services, but the process of creating those products and services involves the consumption and exploitation of a lot more than what gets itemized on a balance sheet or included in sustainability reports. Throughout the 20th century and continuing into the 21st, accepted practice was to internalize value and profits and externalize hidden costs and damages. Record the revenues, costs and profits associated strictly with production, but leave any other effects (damaging or beneficial) for society to bear.

Until now, a company's main value proposition was narrowly defined in terms of profits and/or losses on financial statements, and its main stakeholders were narrowly defined as its customers, creditors, investors and shareholders. Impact valuation forces companies to broaden these limited financially oriented definitions to capture the total value they create (or destroy), not just in terms of financial capital but also in terms of social, human, and natural capital. These too are critical resources that companies use but rarely recognize as input factors for production or output factors for external impact.

Figure 1: The impact valuation pathway



Impact valuation goes beyond traditional sustainability reporting as it requires companies to not only measure but also evaluate their impacts on society and the environment using monetary values or other quantitative metrics.

Source: RobecoSAM

Of these, natural capital¹ has received the most attention and is the easiest to illustrate. Natural capital (in particular air and atmospheric health) is being destroyed as a result of carbon and other noxious emissions from corporate activities. In addition, global conglomerates and local owners continue to strip land of natural vegetation and resources, dump chemicals into public waterways and oceans, and pile waste into landfills. These actions further damage natural capital in the present and endanger amounts available for future generations. These are all examples of companies exploiting natural resources and destroying natural capital for their own

gain, without assimilating the negative costs onto their own balance sheets. Similarly, individuals and groups of individuals are resources that can be used by companies. Social capital and human capital measure the knowledge, skills, competencies, and shared norms of people, families, communities, groups and networks. Companies use these forms of capital to create positive value through their products and services and even enhance them via extended education and training. However, companies can also destroy value if they damage the health and well-being of workers, communities, groups and society during the production process.

Managing Risks, Seizing Opportunities

As if the existential risks posed to the environment and society by company externalities were not enough to spur companies into action, there are also compelling

practical reasons for companies to conduct impact valuation, including anticipating and managing future risks.

Proactively managing risks

- **Protecting business operations** – companies are heavily dependent on natural, social and human capital as inputs for their products and services. When these resources are reduced or damaged, company output also suffers.
- **Legal and regulatory action** – regulatory actions worldwide in response to the climate crisis demonstrate that authorities will continue to tighten their grip on company activities that create negative externalities.
- **Changing consumer preferences** – a new breed of conscious consumers who place greater weight on companies' ESG impact is emerging. Sustainable companies that create value-added products with minimal damage to people and planet stand to gain trust and market share.
- **Supply chain partners** – relationships across a company's supply chain may also be at risk if companies fail to adequately address their overall impact. Negative reputational effects of one link can quickly spread to suppliers and customers both upstream and downstream.
- **Investors and financing** – ESG ratings are increasingly being used as investment criteria in their own right. Investors will reward companies that holistically consider long-term risks and opportunities, thereby creating positive shared value for society. Companies that fail to identify, value and rectify their negative impacts will risk an increase in financing costs and divestment by shareholders.

¹ Natural capital is the stock of renewable and non-renewable natural resources (including plants, animals, air, water, soils and minerals) that combine to yield a flow of benefits to people, the environment and society, as well as entities of society like corporations. Natural Capital Coalition, Natural Capital Protocol, p.2

² EY Report. "Total Value: Impact valuation to support decision-making," p. 4

Impact valuation is a tool that helps companies identify and measure the most material (i.e. financially relevant) aspects of value creation that would otherwise go undetected and unmeasured.² It is a beneficial exercise for a company to undertake in order to understand not just its negative costs but also the positive benefits it generates. It enables companies to gain a holistic view of not only potential risks but also promising opportunities to explore. In doing so companies increase their ability to strengthen key areas, expand into new ones, overcome obstacles, and increase overall resilience to

future risks. Below are some positive features of impact valuation for companies and industries.

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Understanding and seizing opportunities

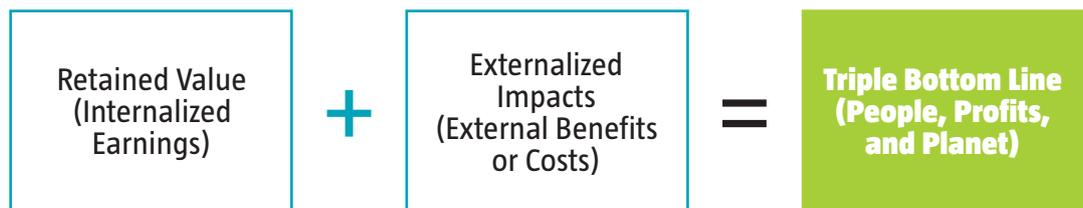
- **Decision-support tool** – knowing the location and magnitude of impacts in an organization is critical in the development of policies, processes, partnerships and products that mitigate and/or enhance those impacts. Companies can use the results of impact valuations to justify capital investments to augment or mitigate impact results.
- **Demonstrate material value creation** – companies can use impact valuation to inform their understanding of how wages, employment, healthcare, training and services create powerful positive impacts on individuals, families, communities, and in turn on the local economy and the company itself. In addition, companies regularly invest in beneficial development and educational projects that produce multiplier effects for their key stakeholders.
- **Greater transparency** – companies that are open about measuring their impact and sharing the results will create goodwill and trust among stakeholders.
- **Knowledge-sharing** – dissemination of knowledge and experience by companies is badly needed. Companies willing to share their knowledge will increase their chances of constructive feedback from supply chain partners and peers also interested in the development of impact valuation within business and industry. Inter- and intra-industry collaboration means tackling key problems together, thus strengthening the sustainability of specific industry value chains as well as the overall development of impact valuation for a sustainable global economy.

Impact valuation ... is a means to elevate sustainability standards in business, equip companies with tools for the task, and hold them accountable for their performance.

Integrated Reporting – measuring the triple bottom line

Many companies have adopted a monetized profit/loss (P&L) approach to impact valuation that helps them understand the financial impact of externalities on social and environmental health and well-being in the same way a traditional P&L gives them a snapshot of their financial health. Using the P&L approach, companies prioritize the most relevant impact areas for business activities, measure the inputs and outputs associated with those activities (externalities), and

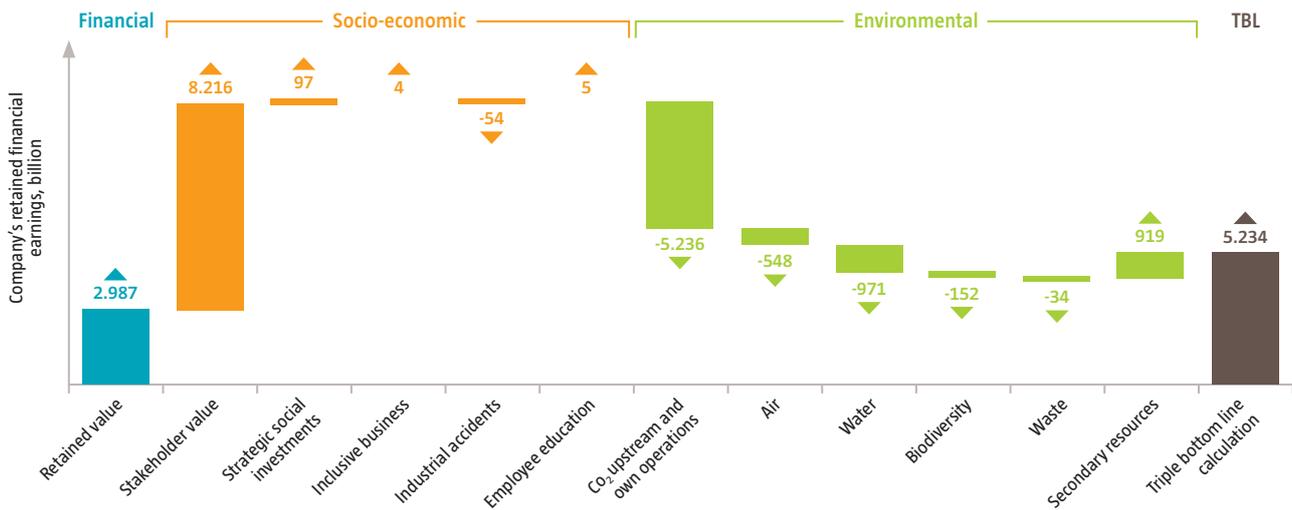
then translate the resulting data into monetary values (monetization). Integrated P&Ls measure and monetize economic, social and environmental externalities (both positive and negative) and integrate the results with internalized earnings from company financials. The integrated results yield a true picture of the triple bottom line (TBL) – the total value created (or lost) for all stakeholders in society (See Figure 2).



These types of impact P&Ls are separate from company financial statements but can be used as supplements to financial reports to guide senior management in assessing risks and opportunities related to impacts as well as to inform stakeholders of a company's track

record on sustainability issues. Impact P&Ls can take different forms, including Integrated, Environmental or Social P&Ls, depending on the scope and purpose of the impact assessment.

Figure 2: Calculating the triple bottom line – the ultimate impact on profits, people and planet



An illustrative example of a company's Integrated P&L statement. Although there were negative environmental externalities, positive social and economic externalities were able to compensate so that the triple bottom line (TBL) was positive overall.

Source: LafargeHolcim, Sustainability Report 2017

Impact valuation in the CSA

A central purpose of the SAM Corporate Sustainability Assessment (CSA) is to collect information on corporate sustainability performance in order to keep investors updated and informed. A secondary aim is to inform companies themselves. The extensive data collection process enables engagement with companies at a deeper level, helping them to understand and adopt the latest developments in best practice as well as prepare for the requirements and demands of

stakeholders in the future. Impact valuation is one of those key sustainability areas whose development and importance, though nascent at present, looks set to grow dramatically in the future.

The impact valuation criterion was first introduced in the 2016 CSA and was included in 16 out of 61 industry questionnaires. The purpose was to identify companies that have adopted processes to value the impacts of their main environmental and social externalities and to assess the extent to which management had incorporated the results into strategic planning, budgetary decisions, and business model analysis.

Including impact valuation in the CSA allows us to assess the extent to which management is incorporating the results into strategic planning, budgetary decisions, and business model analysis.

In 2018, the questions were extended to all 61 industries of the CSA. The question was part of the “Future Questions” section of the questionnaire, giving companies the opportunity to thoughtfully consider, explore, and challenge themselves on this emerging but imminently important sustainability topic without penalizing their overall sustainability performance.

Questions focused on:

- (1) whether companies are conducting impact valuation on social or environmental externalities;
- (2) whether these externalities originate from operations during upstream manufacturing and processing phases or further downstream from products & servicing phases; and
- (3) which impact valuation technique companies are adopting

2019 CSA Results

A total of 259 companies confirmed they conducted impact valuation; however, this is not a reflection of the total amount of companies correctly assessing their impact. Due diligence revealed that only 31% of these (81 companies) actually conducted impact assessments according to generally accepted practice criteria – pointing to confusion among companies on the definition and execution of impact valuation (See Figure 3).

In geographic terms, companies from Asia-Pacific and Europe led other regions in attempting to respond. Companies from North America, Latin America and Africa followed in that order. Though many responses from Asia-Pacific companies did not constitute true impact valuation, their high response rates may be indicative of a need that Asian companies feel to demonstrate leadership and burnish their image on sustainability in general as their global economic significance rises. In Europe, higher response rates are almost certainly indicative of stricter EU regulatory regimes.

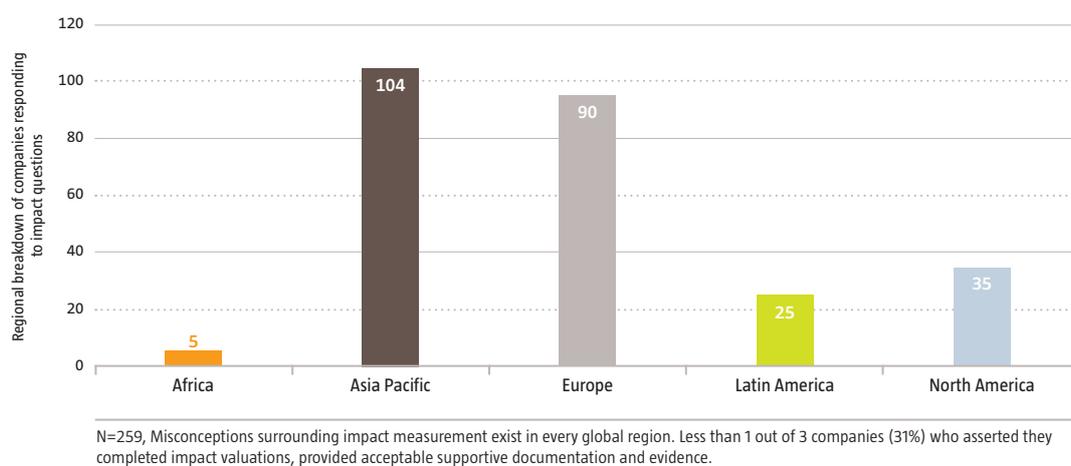
Misconceptions over Meaning and Measurement of Impact

Correctly completing an impact valuation means companies identified and quantified their external environmental impacts (e.g. air pollution, water pollution, waste production, noise pollution, traffic disturbances) and/or external social impacts (e.g. industrial accidents, inclusive business investments, community education, microfinance loans) and then assessed how these impacts affected natural and social capital indicators.

Some companies even went on to monetize the revenues and costs associated with each impact through IP&L, EP&L or SP&L statements.

Without a strong understanding of how impact valuation can improve a company’s value proposition to society, management may think the longer-term benefits are not worth the short-term investment costs.

Figure 3: Regional breakdown of companies claiming to conduct impact valuation



Source: SAM Corporate Sustainability Assessment 2019

The fact that only 31% of companies reporting on impact assessments correctly executed an impact valuation based on the standard definition demonstrates it is still a misunderstood topic – even for sustainability experts. Clearly, there is confusion among companies about its purpose, execution and use.

Impact valuation is meant to measure, quantify, and value externalities (both positive and negative)

that show how value is being created or destroyed as a result of company activities but that are not already incorporated in the company’s traditional financial statements. Yet of the 259 companies which positively responded that they were conducting impact valuations, 69% (178 companies) provided evidence on sustainability initiatives that, for the most part, were financial indicators already integrated (and internalized) in the company’s balance sheet.

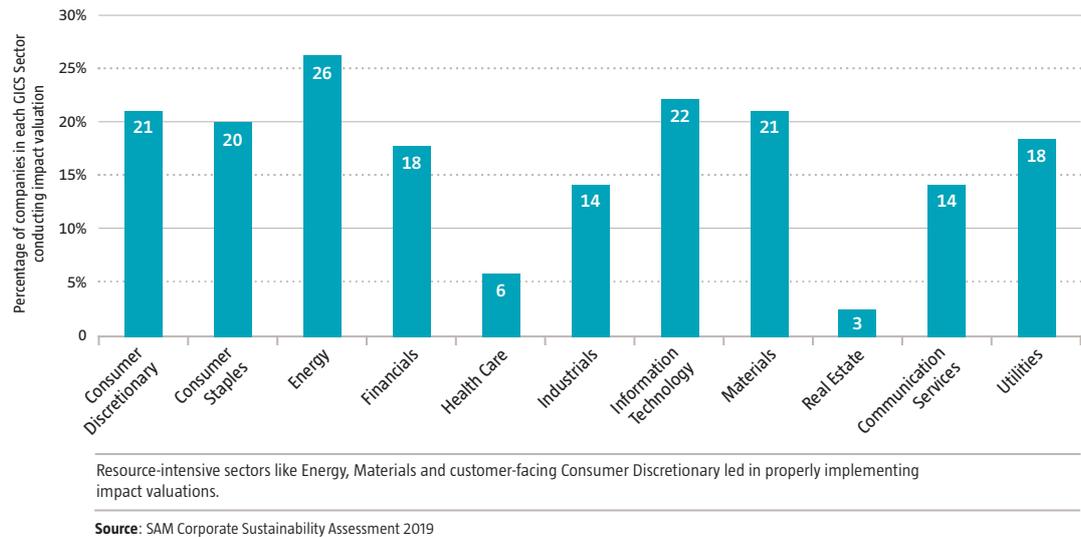
Below is a sample of projects and initiatives that companies cited as impact valuation techniques. While linked to sustainability, alone they do not constitute impact valuation.

- Investments or expenses made by the company to reduce its environmental footprint (e.g. avoided/reduced emissions, material/energy efficiency, capital expenditures or operational expenditures to improve environmental performance, clean up the environment, or to cover remediation costs).
- Revenues from sustainable products and services (e.g. recyclable or degradable materials, reduced use of raw materials, reduced hazardous substances, increased use of recycled or renewable content).
- Philanthropic donations and contributions to community investment programs.
- Responses that focused exclusively on economic externalities (e.g. economic benefit from jobs created, employee wages, taxes paid, contributions to overall GDP) without considering environmental or social externalities.

All of this points to clear and wide-ranging misconceptions regarding not only the practical criteria needed to carry out an impact valuation but also the overarching motivation for conducting them. In response to the former, companies may simply lack the expertise and knowledge required to understand and correctly execute a proper impact assessment. Moreover, even if the knowledge, expertise, and motivation are present, undertaking a proper impact valuation involves multiple levels of complexity and is resource-intensive. Without an imminent threat to business operations and a strong understanding of how impact valuation can improve a company’s value proposition to society, management may think the longer-term benefits are not worth the short-term investment costs.

Impact valuation is still a misunderstood topic – even for sustainability experts.

Figure 4: An overview of impact valuation across sectors



In terms of sector leadership, companies within the energy, IT, materials, and consumer discretionary sectors led the way in providing accurately implemented impact valuations (See Figure 4). At the other end of the scale, under 10% of companies in the health care and real estate sectors conducted accurate impact valuation in 2019.

The higher participation rate among energy companies comes as no surprise given their well-documented and publicized role in the climate crisis. The direct link between their business activities and negative environmental externalities like greenhouse gas emissions has led stakeholders to place higher demands on the measurement, reporting and disclosure of their environmental footprints. For similar reasons, neither do the relatively high proportions of companies in the materials and consumer discretionary sectors represent a surprise. These sectors are closely linked to environmental pollution and social indicators like human rights and labor abuses, especially in developing markets.

The fact that IT comes second only to energy is an interesting result. This could be, in part, due to company management teams' desire to better understand their social impacts in the wake of bad publicity over gender inequality practices and the lack of diversity among the sector's workforce. In addition, IT companies may be eager to understand and counter the negative effects of digitalization and automation on the workforce.

IT firms also provide the platforms and tools necessary to accelerate social and economic inclusion to previously remote and underserved populations: this can have larger multiplier effects for economic growth in an area or region, thus having a major effect on a firm's total impact. IT companies may wish to make a more concrete connection between these gains and their expansion into new markets to help secure goodwill and financial backing from regional governments, local communities, and investors.

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Measuring externalities in the supply chain

Company value chains are notoriously complex and can spread across multiple industries, suppliers, and global regions. Each supplier link within the chain will have its own set of environmental and social externalities.

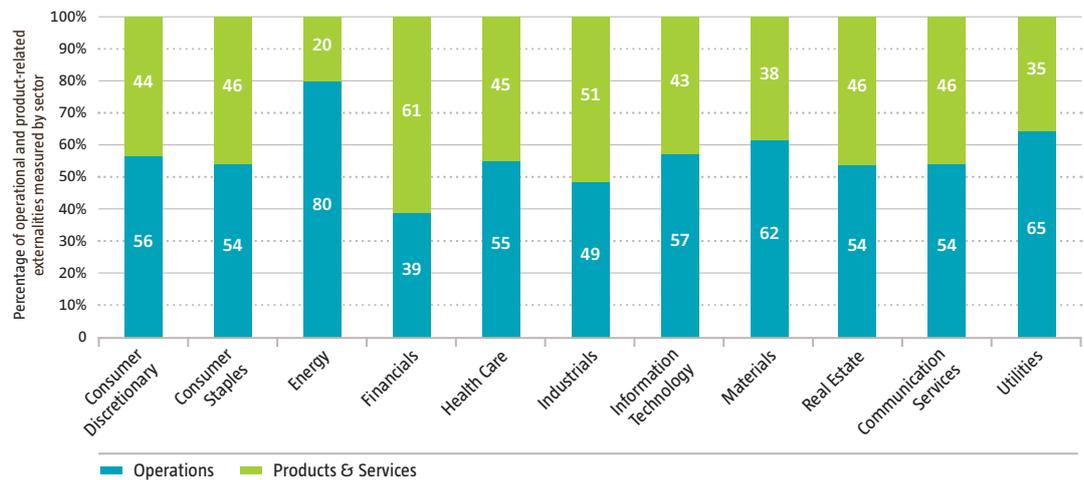
In addition to processing, manufacturing, marketing and distribution links, consumers and post-sale customer service functions are also important links in the chain. Although far removed from a firm’s core operations, what happens to products after sale is becoming a critical impact area with the increase in waste volumes that are polluting oceans, land, soil and air. A good deal of research is centering on product life-cycle assessments and the effects of products after their useful life has ended. With this in mind, companies need to specify whether their impact valuation analysis covers the externalities generated by their own operations or by their products or services.

On average, 57% of reported externalities originate from companies’ own operations (manufacturing activities, offices, and premises), while 43% of reported externalities originate from their products and services (See Figure 5). On average, around 69% of reported externalities in the energy, materials and utilities sectors are “own operation” impacts. This is an encouraging observation given that these sectors are particularly exposed to environmental externalities in the production process.

Companies in the financial sector primarily focus on the externalities linked to their products and services (61% of reported externalities), which is again encouraging since such firms create externalities mainly through their investments in other companies (e.g. investment funds) or households (e.g. mortgages). Nevertheless, a significant proportion of reported externalities in the financial sector (39%) focus on their own operations (e.g. offices and premises). This raises concerns about whether companies are actually considering impacts in the most important areas of their business.

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Figure 5: Measuring operational externalities is preferred to product externalities



Other than financials, companies across most sectors measure externalities associated with creating products and services (Operations) rather than externalities associated with products and services after sale (Products & Services).

Source: SAM Corporate Sustainability Assessment 2019

Externalities measured by companies

Of all externalities measured and reported by companies, 62% impact the environmental domain, while 38% impact the social domain (See Figure 6). This is primarily because impact valuation was initially developed within the textiles, chemicals, and construction materials industries, which had considerable exposure to environmental externalities. Companies and investors are now realizing, however, that environmental and social externalities are interwoven.

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Chemical companies, for example, have been at the center of some major environmental controversies in recent years as their operations and products have been found to release larger quantities of hazardous chemicals than previously believed. This in turn has not just impacted levels of greenhouse gas emissions and damaged biodiversity; it has had serious consequences on local communities as these toxic substances infiltrate the food chains of both animals and humans, leading to increasing rates of disease and early mortality.

Monetary valuation techniques enable companies and investors to better aggregate and compare impacts and use the data for capital investments or other strategic decisions.

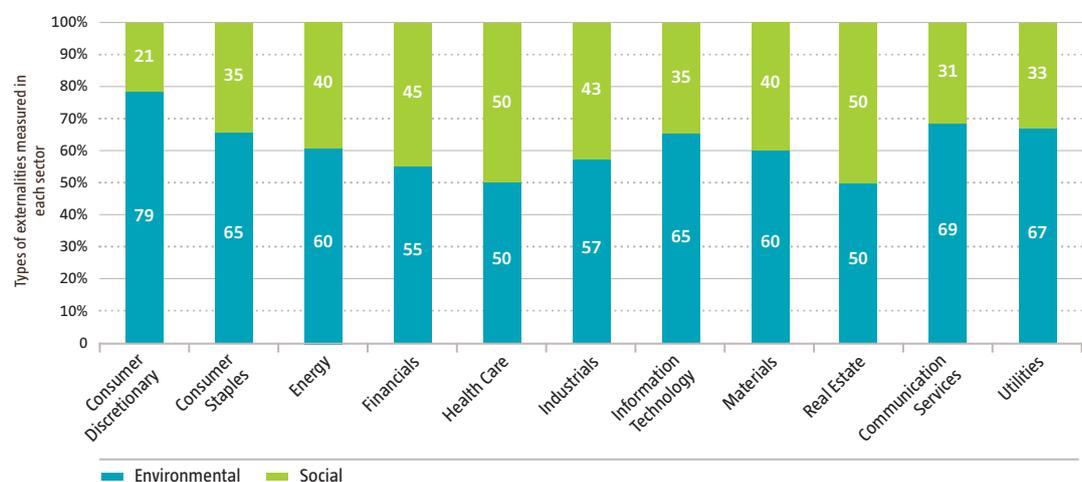
Impact valuation techniques –

Monetization vs. Quantification

Monetary valuation techniques translate costs and/or benefits into monetary units, enabling companies and investors to better aggregate and compare impacts and use the data for capital investments or other strategic decisions. Another approach is quantitative valuation, which uses numerical, non-monetary units to assess the magnitude of a company's impact. Quantification techniques are used when impacts are being addressed in a particular context or to a particular affected group. For example, the value and impact of a company's water consumption will be greater in water-stressed areas than for areas where there is an abundance of water. In these cases it would be more meaningful to report consumption using water volume metrics (m³) rather than using a monetized value that is meaningless without regional context.

In addition, quantification is often used when it is difficult to assign monetary values to non-financial impacts like human life, wildlife, and biodiversity. Examples of quantitative valuation of impacts include the number of people and/or species affected by an environmental change, changes to human health measured in disability-adjusted life years (DALYs) or quality-adjusted life years (QALYs), changes in air quality, unemployment rates, and well-being and life satisfaction rates.

Figure 6: Environmental externalities measured more than social externalities



The graph above shows the type of externality (environmental or social) measured by companies within each sector. With the exception of healthcare where both types are equally evaluated, environmental externalities are measured more frequently than social ones.

Source: SAM Corporate Sustainability Assessment 2019

Many companies use both techniques as quantitative measurements are typically needed before an impact

indicator can be monetized. Graphical illustrations of each approach are shown below in Figure 7.

Figure 7: Quantitative Approach

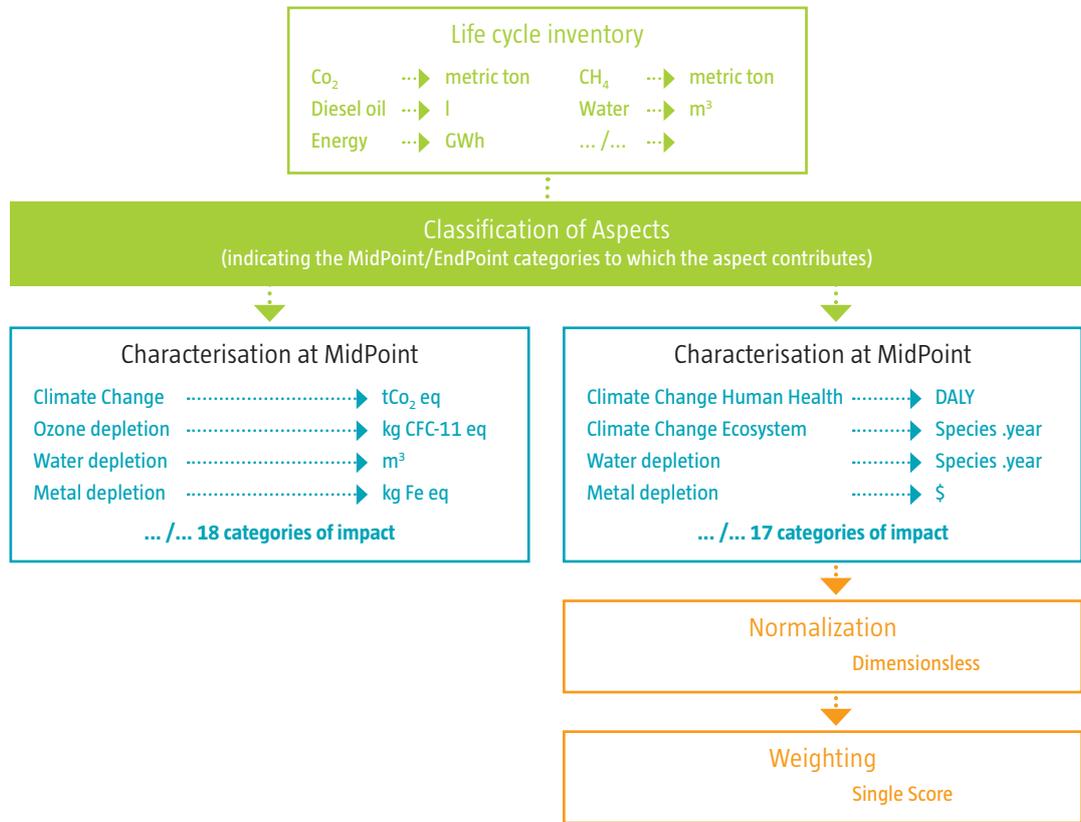


Figure 7 shows an impact valuation assessment using a quantitative technique from a leading electric utilities company. The methodology translates the environmental results into mid-points or end-points. The end-points express the environmental indicators in terms of their consequences for the environment (e.g. harm to human health, damage to ecosystems or depletion of natural resources). Each end-point is assigned an individual weight that contributes to a single score.

Source: SAM Corporate Sustainability Assessment 2019

Figure 8: Monetization Approach

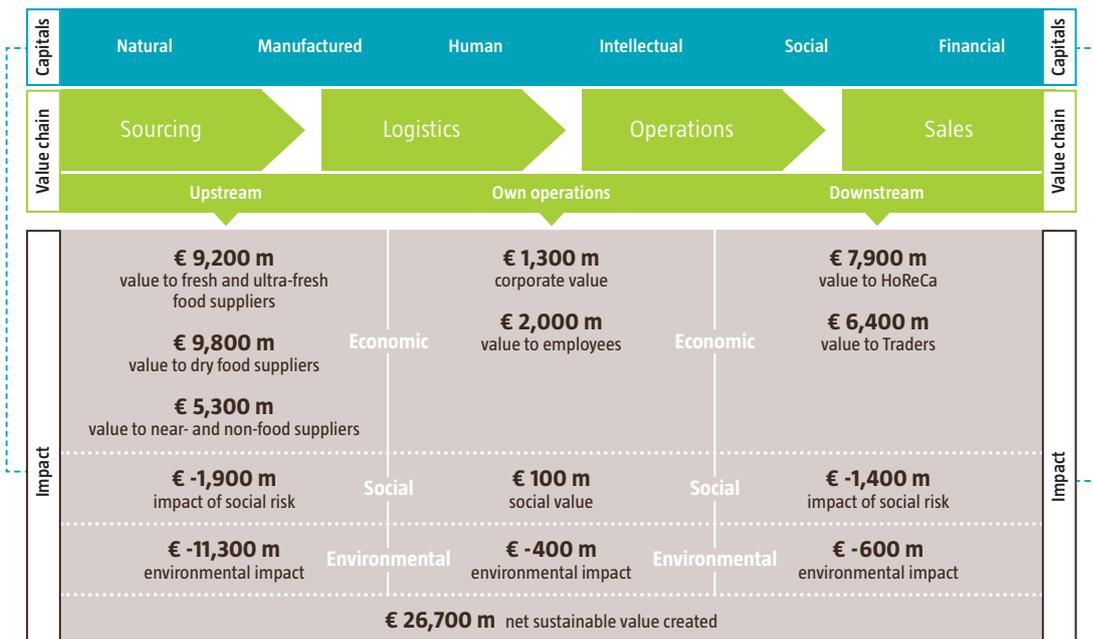


Figure 8 provides an example of a monetized approach to impact valuation from a leading food retailer. The methodology is based on the Natural and Social Capital Protocol's methodologies. Total net impact for society has been evaluated and monetized across the company's value chain in terms of economic, social and environmental impacts.³

³ World Business Council for Sustainable Development (WBCSD), Social & Human Capital Protocol, methodology guidebook

Source: SAM Corporate Sustainability Assessment 2019

CSA data show that on average 81% of companies monetize their externalized impacts. Companies in industries that focus on environmental externalities, such as industrials and materials, primarily adopt monetary techniques.

On average 81% of companies monetize their externalized impacts ... and the most widely used monetary metric is the social cost of carbon.

Conclusion

The rigor and objectivity of impact valuation assessments decreases the risk of “greenwashing” by companies making subjective sustainability claims without adequate supportive proof. It is advocated by a growing number of finance and accounting experts who wish to reform financial accounting and financial analysis to create a truly sustainable economy populated by companies with positive impact backed up by standardized and comparable impact data. Standardized impact data would make it easier for investors to analyze and compare company sustainability performance between firms.

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Efforts are underway by sustainability reporting bodies like the WBCSD, GRI, SASB, CDP and even the CFA Institute to develop integrated and “impact-weighted” accounting systems that enable companies to internalize and monetize their negative and positive externalities, much like traditional P&L statements internalize the cost and benefits of their inputs and outputs of production.⁴ This should also help reform fundamental and investment analyses by integrating impact into the financial ratios used to generate company forecasts and valuations.⁵

As part of these broader efforts, the CSA aims to add to the growing body of data on impact valuation, specifically on corporate attitudes and adoption activities. Moving forward, we will further develop impact valuation

However, leading companies are also beginning to combine monetary and quantitative approaches to integrate social externalities and impact in their risk-management strategies. In doing so, they are increasingly using disability-adjusted life years (DALY), which measure the years lost by workers, clients or local communities due to ill health, disability or mortality.

criteria to identify the most material externalities for each industry. Asking companies to report on them will help us ensure that the externalities having the greatest impact are being measured, assessed and integrated into risk-management strategies.

In addition, going forward the CSA will aim to assess companies on their negative and positive externalities separately. This will facilitate a better understanding of how negative externalities and impacts influence risk, while at the same time provide insight on companies’ positive impacts in order to assess how they create value for society beyond traditional metrics like products and profits. In future, collaboration with industry standard-setters like the CDP, the WBCSD, the Natural Capital Coalition, and the Social and Human Capital Coalition will expand and deepen.

The journey is still long, and the ultimate goal of fully integrated impact accounting is still distant. Although it is not easy, impact valuation is not an impossible task. Leading companies from every economic sector have already undertaken impact assessments and are diligently collaborating to develop the discipline further. They understand the existential benefits of impact valuation, as well as the existential risk of doing nothing.

Unfortunately, experience from the CSA demonstrates that, for now, the laggards far outnumber the leaders. This ratio needs to invert if we are to keep the triple bottom line of people, profit, and planet from sinking into the red.

Acknowledgments

A special thank you to Angelo Ferro for his expertise and valuable contributions to this article as well as impact valuation research at RobecoSAM.

⁴ WBCSD – World Business Council for Sustainable Development
GRI – Global Reporting Initiative
SASB – Sustainability Accounting Standards Board
CDP – formerly the Carbon Disclosure Project

⁵ For an analysis on the need to reform modern portfolio analysis to account for interdependencies and externalities of firms on society, see “No Firm is an Island: using the SDGs to bridge modern portfolio management to the future.” Van der Meer, Michael. RobecoSAM Yearbook 2019 edition.