



SOCIAL & HUMAN CAPITAL PROTOCOL

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Orientation

The need for action

People are at the core of business. They are your employees, customers, suppliers, distributors, retailers and neighbors. They determine whether you have a productive workforce, loyal customers, healthy value chains, vibrant local communities and supportive governments. Their growth, prosperity and well-being matter and they are crucial to the success of your business.

In the current global context, ensuring this well-being presents multiple challenges. Persistent poverty, inequality, economic instability and a widening skill gap all impact business value despite significant advances in economic development. No longer can businesses rely solely on financial assets or returns on financial capital to evaluate their risks and opportunities. They must also understand how trends and shifts in society will affect them and how their actions influence society.

In September 2015, all 193 United Nations (UN) member states ratified a set of 17 Sustainable Development Goals to provide a framework for achieving global prosperity within the limits of the planet. Momentum from this revitalized global agenda alongside government policy, investor requests and consumer sentiment are all driving businesses to better manage and integrate social and human capital impacts and dependencies into their core business strategies.

To do well in today's world, businesses must establish effective social dialogue at the enterprise level and/or between employer and business organizations, and workers' representatives, and implement robust systems that build an understanding of the positive and negative value they create beyond financial returns and how such value is distributed.

Despite growing awareness, there is little consensus on how businesses can measure and assess the value of social and human capital resources. The development of measurement and valuation approaches – particularly in relation to social capital – is still in its infancy. Even when CEOs and other decision-makers recognize the value of assets such as community relationships or employee talent, they are unable to translate this value consistently into terms that people inside and outside their businesses can understand, trust and, most importantly, use. As a result, businesses struggle to embed these factors into processes such as strategic decision-making and communications. In many cases, this leads to undervaluing and consequently, underinvesting in the people and relationships on which businesses and society depend.

As we look to the future, demonstrating business value to society will become increasingly important, driven by four principal megatrends that are shaping the world and driving the pace of change: globalization, technology, demographic changes, and climate change. For businesses, there is an urgent need to understand the negative and positive impacts of these megatrends on business models, strategy and operations. This is because these megatrends effectively change the nature of work, the relationship between the employer and the worker, skills and education, social dialogue dynamics and industrial relations. These issues are linked to the digital divide, the platform economy, the business climate and legal framework, social protection systems, the education and training systems and data protection, among many others (IOE 2017).

The Social & Human Capital Coalition believes the assessment and management of corporate performance needs to incorporate social and human capital alongside financial and environmental performance. The Coalition is therefore committed to delivering a credible, comparable and broadly accepted approach to social and human capital impact measurement and valuation - as outlined in this Protocol - that enables businesses to truly value people and relationships as a driver of sustainable growth.

Orientation

Introducing the Social & Human Capital Protocol

The Social & Human Capital Coalition aims to make businesses that truly value people more successful by mainstreaming the assessment of social and human capital – shifting the consideration of social and human capital performance from an optional extra to a core part of business decision-making. This Protocol is a key Coalition resource, setting out many of the foundational principles for measuring and valuing social and human capital.

The Protocol is the result of four years of collaborative development – involving input from over 50 forward-thinking businesses, a public consultation exercise with more than 250 parties and input from a range of expert partners.

The Social & Human Capital Protocol is intended as a generally accepted framework for business to measure and value social and human capital.

As shown in Figure 1, the Protocol consists of four Stages, each with corresponding Steps for you to follow in order to understand, measure, value and improve your business's social and human capital performance.

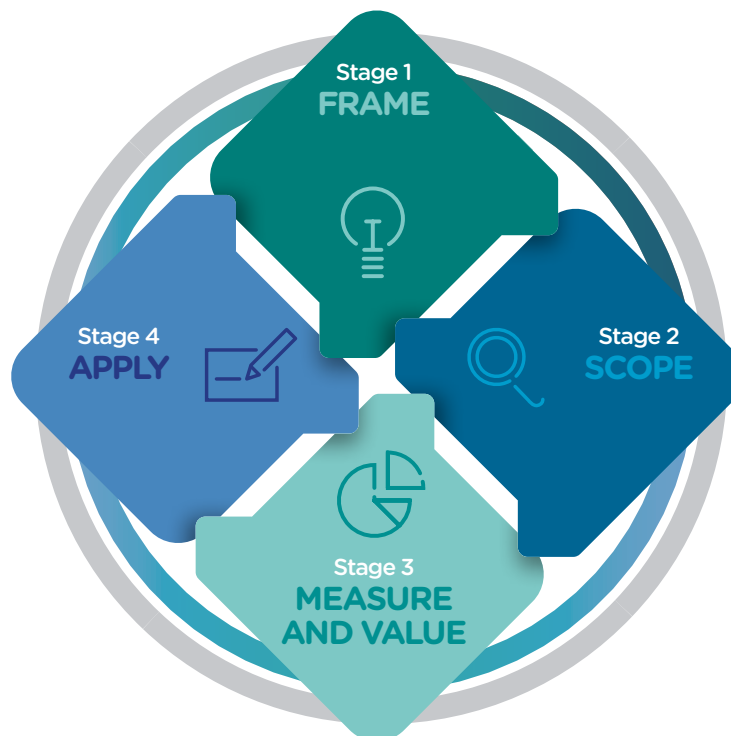


Figure 1:
Stages of the Social & Human Capital Protocol

A consistent process to guide businesses in measuring and valuing their social and human capital

The Protocol is a voluntary framework that provides a consistent process designed to generate fit-for-purpose information for business decision-making. By following the Steps in the Protocol, you can build a customized approach based on a range of available techniques for social and human capital measurement and valuation. See the concepts and definitions section (in Step 1) for further details on how we are developing this terminology and applying it to a business context.

You can use the Protocol to measure and value the social and human capital impacts and dependencies of your whole business or an individual project, product or operation. The Protocol seeks to determine: how (and by how much) your business activities increase, decrease and/or transform social and human capital, and the extent to which you depend on social and human capital resources. A long-term aspiration of the Coalition is that every business using the Protocol will scale and integrate this approach across their organization.

The Protocol does not assume or require that you report assessment results externally. Nevertheless, you may wish to report your assessment findings to demonstrate how you have considered relevant social and human capital risks, opportunities and value creation.

Although the Protocol leaves open the choice of specific metrics and valuation and measurement approaches to users, it aims to provide you with guidance – and therefore confidence – in understanding the techniques that leading businesses currently apply and that you could use within your organization. It also aims to develop a solid foundation for future progress on comparability and standardization.

A framework for collaborative action on harmonized approaches

Even though there is growing guidance available at the national and supranational level and increasing convergence among standard setters, the business application of social and human capital measurement and valuation is still at an early stage. The long-term aspiration of the Social & Human Capital Coalition is to move to harmonized and comparable techniques for social and human capital measurement and valuation.

To achieve this aspiration, the Coalition will provide a platform to consolidate and harmonize approaches, collate examples and guide businesses to the most current tools, data sources and good practices in relevant techniques. The ongoing application of the Protocol will help the Coalition identify gaps to fill and steer practitioners with common interests to collaborate in advancing current practices.

Over the coming years, the Social & Human Capital Coalition will therefore shape and drive collaborative action to achieve four goals:

- **Mobilize:** a network of business champions at both the chief executive and operational levels to advocate for implementation and collaboration.
- **Socialize:** the Social & Human Capital Protocol with the most important practitioners and expert organizations in this space, building a network and community to drive new thinking, global engagement and best practice.
- **Harmonize:** technical approaches within the Social & Human Capital Protocol by promoting awareness, acceptance and uptake by business, governments and key global platforms.
- Work in partnership with Coalition organizations and other initiatives to enable businesses to **capitalize** on their implementation of the Social & Human Capital Protocol by supporting the finance community and capital markets to continue to recognize and reward social and human value creation.

Find out more at: www.social-human-capital.org

Box 1: Connected initiatives

Driving integrated thinking

The Protocol is part of a broader movement to enable businesses to integrate people, planet and profit as drivers of sustainable growth.

Over the last few years, the integrated thinking and reporting movement has made significant strides in shifting views about business value creation. It has demonstrated the importance of measuring and valuing interactions with society and provided a framework to consider the interlinkages between financial capital and social and environmental externalities. Corporate reporting is now undergoing a new drive for improved harmonization of metrics and methods (spearheaded by the Corporate Reporting Dialogue; CRD) that mirrors and complements the work of the Social & Human Capital Coalition.

Against this backdrop, the Social & Human Capital Protocol seeks to contribute to integrated reporting and sustainable value creation as outlined by organizations such as the International Integrated Reporting Council (IIRC), Sustainability Accounting Standards Board (SASB), Accounting for Sustainability (A4S) and the Global Reporting Initiative (GRI), among many others.

While these organizations focus largely on external reporting and disclosure, businesses still struggle with understanding their impacts in a way that provides useful and actionable information for internal decision-makers to strengthen their social and human capital for the benefit of society and business. The Social & Human Capital Protocol aims to bridge this gap, as detailed in our joint statement with IIRC (Social & Human Capital Coalition & IIRC 2018).

Integrating approaches between social, human and natural capital

The same purpose, concepts and principles drive the Social & Human Capital Protocol as drive the Natural Capital Protocol - released by the Natural Capital Coalition in 2016. Both Protocols are critical parts of an evolving set of business resources to ensure social and environmental risks and opportunities are considered in corporate strategy and decision-making.

The Social & Human Capital Protocol mirrors the structure and guidance in the Natural Capital Protocol - indeed, much of the content contained in this document owes a great deal to the pioneering work of the Natural Capital Coalition, from which it has been sourced. Such material has been adapted to the more diverse frames of reference and maturity levels in the social and human capital measurement and valuation field. In addition, the Social & Human Capital Protocol incorporates terminology and frameworks used by practitioners and experts across human and worker rights, social impact assessments, social return on investment, monitoring and evaluation, social life-cycle analysis and product social metrics, among other areas of relevance.

Nevertheless, to achieve a truly holistic picture of an organization's impacts and dependencies, business should not consider social and human capital in isolation but rather as part of a holistic assessment of non-financial capital. After all, it is impossible to value natural capital without applying an anthropological lens; inversely, some of the defining issues of our age impact people and society through changes in natural capital - climate change for example.

It is the Social & Human Coalition's ambition, therefore, to further stimulate the development and harmonization of social and human capital measurement and valuation, until we reach a point where we can further integrate this work with natural capital - an ambition we share with our colleagues in the Natural Capital Coalition (Social & Human Capital Coalition & Natural Capital Coalition 2018).

Users of this document

The Coalition envisages that there will be a range of users and associated benefits from adopting this Protocol. You may be involved in considering your business's wider impacts and how best to measure and manage these. You may be in government and want to understand how to assess how businesses interact with their employees, communities and other stakeholders. You may be an employer organization and want to guide your members who may be interested to evolve business models, strategies and operations to counter the disruptive (and maximize the positive) impacts of the future of work. Whatever your role, it will be vital to work with colleagues from multiple functions in order to fully understand and address issues raised in the Protocol (see further guidance in Box 4).

Technical and ethical principles

Technical principles

We have designed the Protocol as a flexible approach that businesses and stakeholders in diverse settings can tailor to their needs. You will make your own choices about how to determine the scope, metrics, methods and techniques that are most appropriate for your context. The four principles below aim to guide you when making these choices, especially when addressing specific social issues that the Protocol does not elaborate on.

These principles align with the Natural Capital Protocol, which itself builds on guidance from the GRI, the World Resources Institute/WBCSD Greenhouse Gas Protocol and the Climate Disclosure Standards Board (CDSB):

- **Relevance:** Ensure the consideration of the most relevant issues throughout your social and human capital assessment, including the impacts and/or dependencies that are most material for your business and stakeholders. This will help you identify the most important relationships between your business's activities and social and human capital impacts and/or dependencies. Note: relevance is a principle to adhere to throughout the application of the Protocol, as opposed to materiality, which Step 4 considers further.
- **Rigor:** Use fit-for-purpose, technically robust information, data and methods. This will ensure the data your analysis produces is as reliable as possible for the context in which it was produced.
- **Replicability:** Ensure that all your assumptions, data, caveats and methods are transparent, traceable, fully documented and repeatable. This facilitates the iterative development and application of your approach and implementation across your business, and may allow for verification or audit if required.
- **Consistency:** Ensure the data and methods you use for each assessment are compatible with each other and with the scope of the analysis. This will support you as you scale and integrate measurement and valuation across your business.

Ethical principles: The Social & Human Capital Charter

The measurement and valuation of social and human capital is a relatively new concept. Potential exists for misunderstandings, particularly with regard to “hard-to-value issues”, such as health and life, “trade-offs” between different social and human capital issues or stakeholders affected, the intent of external communication and possible lack of transparency in measures and values.

With these issues in mind, the Coalition has also developed a Social & Human Capital Charter to guide businesses in conducting social and human capital measurement and valuation and making judgments about how to interpret findings.

You can find the Social & Human Capital Charter at: www.social-human-capital.org/social-human-capital-protocol/social-human-capital-charter

The purpose of this Charter is to highlight key ethical issues that Protocol users should consider and to help ensure that its application leads to the protection, maintenance and, where possible, enhancement of people's rights, skills, experience, knowledge and health, in addition to societies' shared values, norms and institutions.

You can use the Social & Human Capital Protocol to measure your business's impacts relating to avoiding, preventing and actively addressing illegal activities such as child labor, forced labor and breaches of health and safety requirements. Some businesses are already reporting on these topics as signatories to certain international agreements. The Protocol seeks not to replace but to support such agreements by helping businesses to clarify the business and societal value of a robust response to these issues.

Structure of the Social & Human Capital Protocol

The Social & Human Capital Protocol consists of four Stages, each of which includes a series of supporting Steps. As shown in Figure 2, the Stages and Steps are iterative: you should expect to revisit previous Steps as necessary.

The Protocol describes the actions you need to complete under each Stage and provides guidance and examples throughout. This includes:

- Objectives – the key objective of the Stage;
- Purpose – the rationale and added value of the Stage;
- Steps – a description of each of the Steps in the Stage, including:
 - Actions for implementing each Step;
 - Case study examples to demonstrate how businesses are currently applying elements of the Protocol; while these case studies do not cover all the options and recommendations described in the Protocol (nor cover all regions or focus on some of the innovative smaller scale approach of small and medium sized enterprises), they do provide illustrations of how the most advanced businesses are currently applying certain elements;
 - Outputs that you should have by the end of the Stage;
 - Practical considerations for each Stage in terms of:
 - Skills/expertise;
 - Timing;
 - Stakeholder engagement.

Information on the Protocol is available on the Social & Human Capital Coalition website, which the Coalition updates regularly as more businesses use the Protocol and additional tools and case studies become available. So, while this document contains core guidance and references, the website (www.social-human-capital.org) contains complementary components that will aid you in implementing the Protocol:

- External tools and resources to help execute the Protocol, such as implementation guidance for specific valuation techniques and sample indicators for various impacts or dependencies;
- Sector guides that apply the Protocol process to specific industries and seek to provide more harmonized and comparable information for businesses within each industry;
- A case study library featuring examples of how businesses are using the Protocol and lessons on the application of specific techniques.

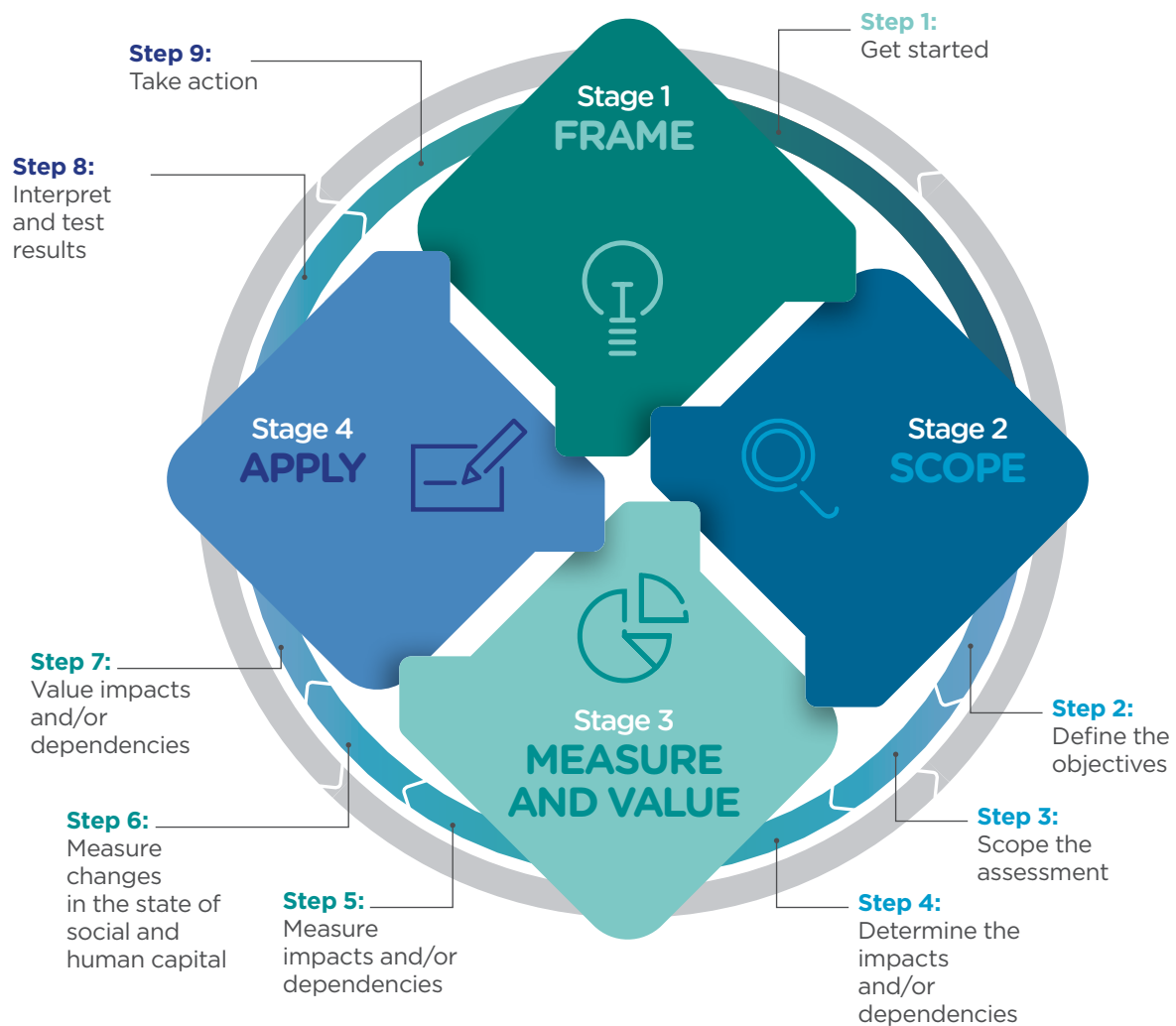


Figure 2:
Steps of the Social & Human Capital Protocol

STAGE 1: FRAME



Objectives:

In Stage 1 of the Protocol, you will develop an understanding of how all businesses interact with social and human capital, including the areas of your business that can function better with an improved understanding of these interactions.

This Stage also includes key background information on how you can define social and human capital and relate it to potential value creation, protection or even destruction by your business.

This Stage additionally contains practical advice on building internal buy-in for your measurement and valuation program.

Purpose:

This Stage forms an essential basis for implementing the methods defined within the Protocol. Such methods enable a fuller picture of value that you can use for better decision-making and, where appropriate, reporting.

Steps:	Questions that this section will answer	Actions
01 Get started	Why should I conduct a social and human capital assessment?	1.1 Understand key concepts and definitions 1.2 Identify the business case and potential business decisions



01 Get started

In Step 1 of the Protocol you will develop an understanding of social and human capital, consider the business value drivers of improved understanding of interactions with social and human capital and engage internally to secure buy-in for a measurement and valuation program.

Actions

1.1 Understand key concepts and definitions

Businesses rely on a diverse set of capitals to function effectively – beyond financial capital, businesses also use and rely on social, human and environmental resources. Put simply, through their activities, businesses make use of and convert these capitals into outputs that in turn affect the stock of the capitals as well as a businesses' long-term viability.



Figure 3:
Scope of the Social & Human Capital Protocol

Social capital refers to networks and their shared norms, values and understanding; human capital refers to an individual's knowledge, skills, competencies and attributes. These resources need to be maintained and enhanced to make society more cohesive and resilient and business more successful – here we define social cohesion as when a society: works toward the well-being of all its members, fights exclusion and marginalization, creates a sense of belonging, promotes trust, offers its members the opportunity of upward mobility (rising from a lower to a higher social class or status).

You may consider social and human capital in terms of stocks and flows in a manner similar to financial capital stocks and flows; however, while businesses account for financial capital performance in balance sheets and profit and loss (P&L) statements, to date there is no equivalent mechanism for evaluating non-financial capital performance. Such accounting would go beyond the measurement of the ways business impacts social and human capital to also consider the ways in which business depends on social and human capital. This would help businesses understand how social and human capital relate to their risks and opportunities and how effective management of these capitals underpin sustainable performance.

Note: Social and human capital are not always approached as a stock but can also be considered through a capability/capacity approach (Knorringer & van Staveren 2006). Here we apply a stock model because it is a useful concept to engage business and promote the uptake of measurement and valuation.

Figure 4 depicts these interactions between social and human capital and business. This figure also illustrates the approach the Protocol uses to measure and value impacts and dependencies on social and human capital in terms of business risks and opportunities and costs and benefits to society.

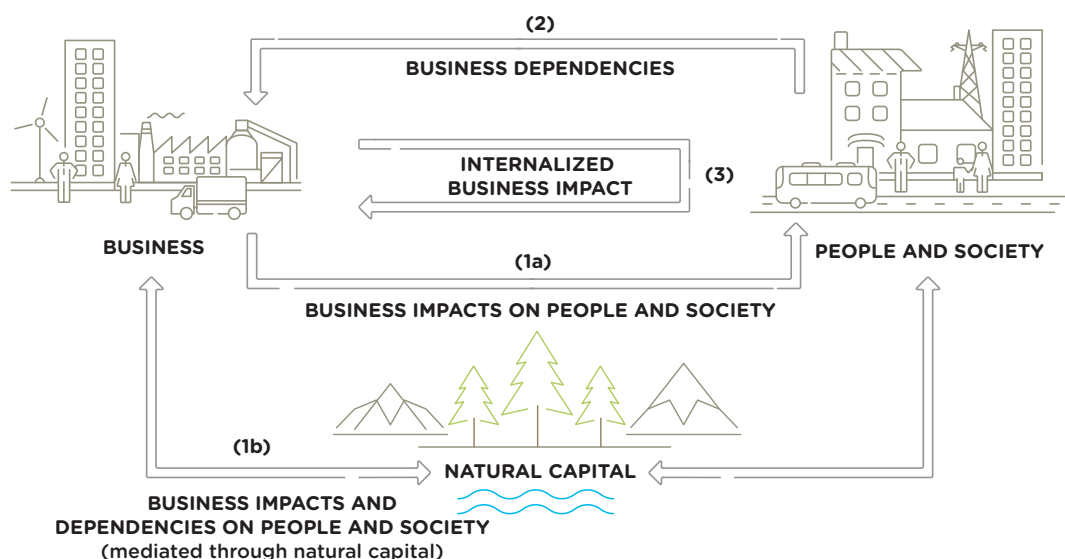


Figure 4:
Social and human capital impacts and dependencies (adapted from the Natural Capital Protocol)



Every business impacts society through its interaction with non-financial capital. These can be direct impacts (arrow 1a), for example, through employment and the payment of wages, or indirect impacts through changes to natural capital (arrow 1b), such as the emission of pollutants that cause respiratory problems and illness in local communities. The Natural Capital Protocol contains guidance on assessing the impacts and dependencies represented by arrow 1b. Importantly, we recognize that to be truly sustainable, all capital interactions must take place within the constraints of the planetary boundaries on natural capital, no matter how much social and/or human capital we create (Stockholm Resilience Centre n.d.; Raworth 2018).

Impacts on social and human capital can be described as the extent to which a business' actions or decisions contribute positively or negatively to a persistent change in the well-being (capabilities, relationships, health, etc.; see Box 2) of people living in society.

Positive impacts are a benefit to society and negative impacts impose a cost on society.

For some businesses, social and human capital impacts and the resulting costs or benefits to society remain externalities or issues without perceivable internal short-term consequences. An externality as a consequence of an action that affects someone other than the agent undertaking the action and for which the agent is neither compensated nor penalized. Externalities can be positive or negative.

In addition to impacting social and human capital, all businesses depend on social and human capital, as shown in arrow 2, Figure 4. Social and human capital dependency is a less established concept within social and human capital measurement but one the Coalition believes is useful; after all, every business dependency is a potential risk and/or opportunity. Businesses depend, for example, on healthy and skilled workers, customer relationships and trust, as well as the rule of law. Some businesses depend heavily on resources that local communities also use and are therefore dependent on a good relationship with these communities.

Arrow 3 in Figure 4 illustrates your businesses impacts on itself, this is otherwise known as internalization of impact. This internalization takes place when an impact on society is reflected back on the business. For example, a business may practice unfair working conditions that lead to decreases in employee engagement and productivity, impacting the business bottom line.

Several potential drivers may lead to the internalization of more social and human capital impacts in the future, including: increasing regulatory or legal action; market forces and changing operating environments; new actions by, and relationships with, external stakeholders; and an increasing drive for transparency or voluntary action by competitors who recognize the significance of transparency in future success. Understanding impacts and dependencies on social and human capital can highlight potential internalization risks and opportunities for your business.



Figure 5:
Examples of social and human capital impacts

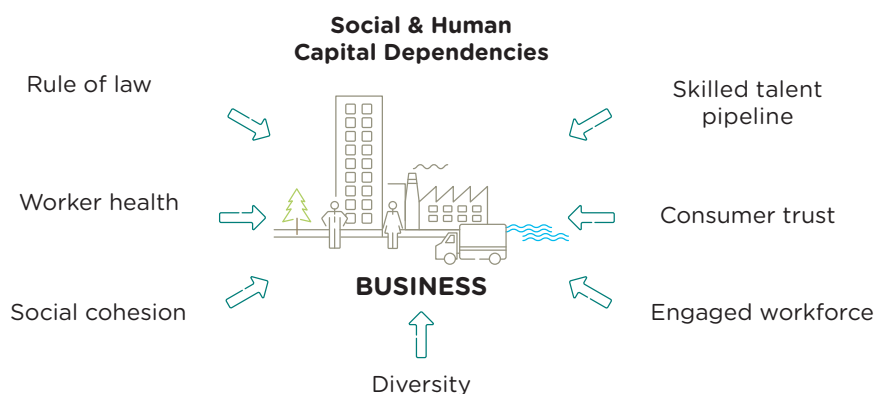


Figure 6:
Examples of social and human capital dependencies

Table 1:
Key definitions

Key Definitions	
Social capital	Networks together with shared norms, values and understanding that facilitate cooperation within and among groups (OECD 2001).
Human capital	The knowledge, skills, competencies and attributes embodied in individuals that facilitate the creation of personal, social and economic well-being (Keeley 2007).
Social and human capital impacts	A persistent change in well-being experienced by a person or group of people that occurs as a result of an activity; it can be positive, negative, intended or unintended. Note: there are various perspectives on how to define impact. The Protocol adopts this definition for the purpose of aiding consistency (particularly in drawing the impact pathway). Other approaches that lead to the measurement and valuation of attributable changes in people's lives are equally valid.
Social and human capital dependencies	Social and human resources and relationships that businesses need in order to create and sustain value.
Impact driver	A measurable social and human capital resource that is used as an input to production (e.g., number of skilled staff needed to run a facility) or a measurable non-product output of a business activity (e.g., the number of health and safety incidents in one year at a production facility); impact drivers are often analogous with the term outputs as used in the field of project evaluation.
Social and human capital issues	The Protocol uses this term to describe general categories of social and human capital impacts and/or dependencies. These categories may correspond to existing external frameworks or terminology already used by businesses. This allows businesses to map these issues across their activities in order to identify those that are material for further analysis, without developing detailed impact or dependency pathways (which will be necessary prior to measurement and valuation).
Measurement	The process of determining the amounts, extent and conditions or changes in social and human capital through the collection of qualitative and/or quantitative data.
Valuation	The process of estimating the relative importance, worth or usefulness of social and human capital to people or society, or to a business in a particular context; valuation may involve qualitative, quantitative or monetary approaches, or a combination of these.



The Protocol does not seek to create a single agreed definition of well-being as there are many different approaches embodied in academic research. However, given that changes in well-being are a key consequence of business impacts on social and human capital, it is important to understand the concept of well-being as detailed in Box 2 (Diener 2009, NEF 2009, Stiglitz & Fitoussi 2009).

Box 2: Well-being

Most researchers agree that well-being is a multidimensional construct consisting of both objective and subjective dimensions. The Organisation for Economic Co-operation and Development (OECD) defines some of these dimensions in its framework used to measure and compare well-being of different populations over time (OECD 2015a). While this framework was originally intended to improve the evidence base for policymakers, the OECD has recently updated (OECD 2018) this breakdown of the dimensions of well-being for business use.

The OECD framework distinguishes, as shown in Figure 7, between current well-being and the conditions required to ensure the sustainability of well-being over time, demonstrating the critical importance of non-financial capital to long-term well-being. Current well-being is split into two categories: “material conditions” and “quality of life.”

The three indicators within material conditions are:

- 1) Income and wealth
- 2) Jobs and earnings
- 3) Housing

These indicators determine people’s consumption possibilities and their command over resources.

The eight indicators within quality of life are:

- | | |
|------------------------------------|--|
| 1) Health status | 5) Social connections |
| 2) Work and life balance | 6) Environmental quality |
| 3) Education and skills | 7) Personal security |
| 4) Civic engagement and governance | 8) Subjective well-being (overall life satisfaction as perceived by individuals) |

These indicators are the set of non-monetary attributes of individuals; they shape their opportunities and life chances and have intrinsic value in different cultures and contexts.

Businesses will impact and depend on many of the dimensions of current well-being and also play an important role in maintaining and increasing the stocks of the capitals on which future well-being depends.

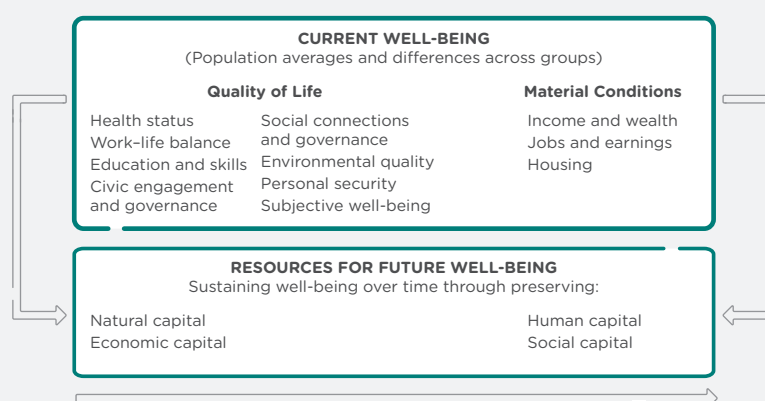


Figure 7:
The OECD well-being framework



1.2 Identify the business case and potential business decisions

It is critical to identify how social and human capital relate to business decisions and to create the business case for undertaking an assessment. You should therefore identify key decision-makers and the type of decisions that would benefit from social and human capital information.

As described in Figure 8, five business value drivers connect to the business case for measuring, valuing and managing social and human capital. These business drivers are the mechanisms through which social and human capital drive business performance improvement and value creation. The importance of these drivers will vary by business (and by assessment scope). For example, for some businesses, mitigating any negative impacts on nearby communities in order to obtain a social license to operate may be their highest priority, while other businesses might be interested in developing new product lines to address the health needs of low-income people (WBCSD 2015a), or inputting to the development of public policies.

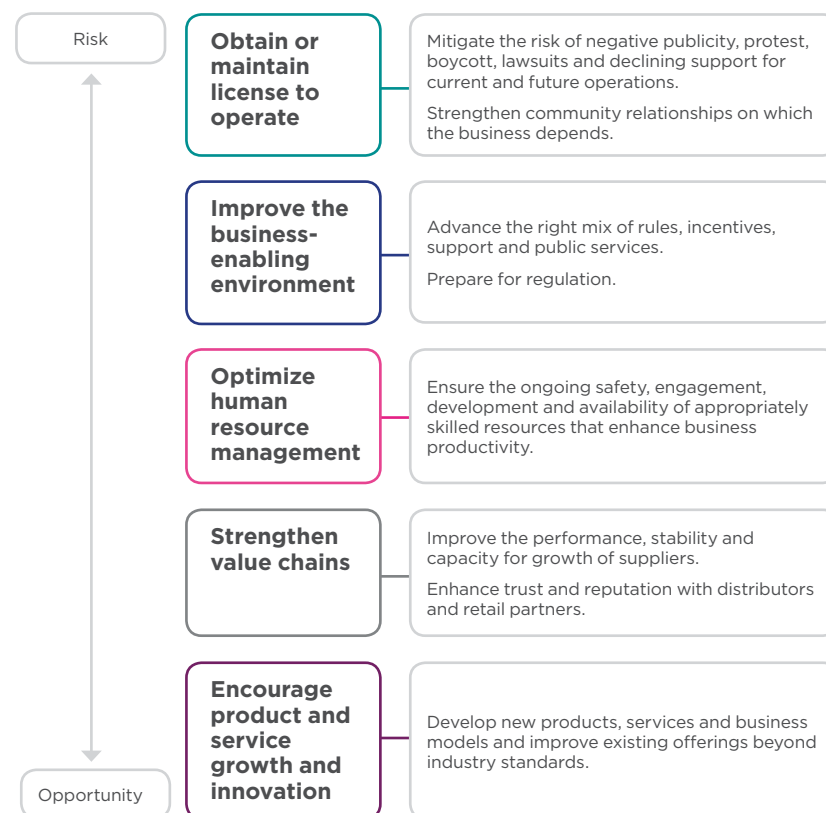


Figure 8:
Business value drivers for measuring and managing social and human capital



Figure 9:

Map of example impacts and dependencies against business value drivers

When considering relevant business value drivers, you should consider key decision-makers who are responsible for or rely on the management of these issues and where social and human capital measurement and valuation could inform and influence their decisions. This could include decisions about resource allocation, investments in new markets, business models or product lines, or actions to improve talent acquisition or productivity. Consulting relevant internal stakeholders through interviews, workshops or regular meetings can strengthen this process and also build buy-in and momentum internally for subsequent Steps. Step 2 provides further information on determining the target audience for the assessment.

We encourage you to consider how the results of an assessment might contribute to value creation, protection and destruction for your business or society:

- **Value creation:** is the excess of benefits over costs. For example, it can be the value from avoided inputs or productivity gains, such as a local workforce training program that enables the substitution of expensive expatriates with local hires.
- **Value protection:** is the value saved by avoiding risks such as costly delays in planning, construction and operations, lawsuits or other unforeseen added costs, or project cancellation.
- **Value destruction:** is the value lost due to the use of or impact on social and human capital.



Box 3: Considering inequality in the Social & Human Capital Protocol

Today in OECD countries, the richest 10% of the population earns 9.6 times more income than the poorest 10%. Differences in wealth, gender, age, ethnicity, health and other factors limit individuals' access to, participation in and the outcomes they experience from the products, services and employment businesses provide, resulting in significant inequalities between groups and individuals.

Understanding these inequalities (while taking into account practicable data collection capabilities), and how they interact with a business's current or planned activities, can unlock potential value creation. Indeed, there is a link between addressing inequalities and the five business value drivers presented in Figure 8. Inequalities can include:

Access

Access relates to a number of areas: to products or services, to jobs, to finance, etc. For example, a business that provides financial capital may realize women are underrepresented as customers – upon understanding this, the business can more closely examine why women have less access to credit and then develop a new service offering or support others to remove barriers for women to access finance. This creates a win-win situation where the business gains customers and perhaps develops a competitive advantage and women customers gain better access to credit.

Participation

Involvement of employees in corporate decision-making, if properly managed, can add value to firm-level financial performance (Ionascu 2018) due to an increased ability to listen to and empathize with employees, improve corporate governance and increase capacity for innovation. Numerous studies that have investigated board-level diversity in relation to profitability demonstrate this empirically.

Remuneration

- Pay ratios may be defined as “the ratio of the total compensation of the PEO (principle executive officer) to that of the median annual total compensation of all employees” (Securities and Exchange Commission 2017). High pay ratios may affect staff morale and productivity.
- Business also has an effect on inequality through the relationship between payments to employees and payments to owners of capital. If the proportion paid to employees is decreasing, this may lead to increasing inequality.
- Anecdotal evidence shows that wage policies which go beyond the minimum legal requirements can help improve employee turnover rates and contribute to productivity and employee loyalty, among other benefits (Coulson & Bonner 2015, Heery, Nash & Hann 2017). On a macroeconomic level, the rise in income inequality between 1985 and 2005 is estimated to have reduced average cumulative growth in OECD countries by 4.7 percentage points between 1990 and 2010 (OECD 2015b).
- On top of this, some governments are increasing regulation mandating the disclosure of pay gap data between women and men and executives and employees – such as the United Kingdom's Equality Act 2010 and Companies (Miscellaneous Reporting) Regulations 2018 and the Dodd-Frank Act 2010 in the United States. These pose some challenges to businesses from a managerial HR perspective and data protection policies, so businesses that already act on this data, are potentially better equipped when there is a probability that such legislation is passed.

Incorporating proactive policies to tackle potential inequalities or discriminatory measures (in line with Sustainable Development Goal 10) into your application of the Protocol can be a valuable exercise in creating and protecting value (as illustrated through these examples), leading to a more just society with reduced poverty rates and public sector costs associated with poor relative lifestyles.

It is important to consider what inequalities might be associated with the social issues you identify in your assessment so that you can collect data related to any such inequalities. As a first step, think through (to the best of your capabilities), what inequalities may be present in access, participation and remuneration, and collect data (Steps 5 and 6) on related inequalities.

Once you have collected your data, conduct distributional analyses (Step 8) to understand if there are systemic differences in access, participation or outcomes (e.g., remuneration). Track progress and changes in subgroups over time for a clearer understanding of the presence and change in differences between populations. Understanding patterns associated with inequalities is a first step in reducing the related biases that perpetuate such inequalities. Policies that can address inequality (including the payment of wages commensurate to the competencies and skills) demonstrate that a business properly values its workers' contributions and human dignity, providing clear evidence of social and human capital valuation and stewardship.



Box 4: Considerations for a pragmatic approach to kicking off the Social & Human Capital Protocol journey

WBCSD's Social Capital in Decision-Making: How social information drives value creation (WBCSD 2016) consolidates the lessons learned through interviews and conversations with businesses on how they began their social and human capital measurement and valuation journeys. Their advice is captured in the three points below:

Kicking off the journey

- Every business we spoke to highlighted one important point – that they are all at the beginning of their measurement and valuation journeys. Each business strongly felt that this is an iterative process that cannot be precisely planned, but that getting started is the most important step.
- Focus efforts and work step by step to reach concrete results: start with pilots that have a feasible scope.
- Select pilots that are closely connected to the core business of your organization and use these examples to demonstrate the business case of a measurement and valuation approach.

Building internal buy-in, collaboration and ownership

We encourage businesses that are at early stages of using the Protocol to start where they can build internal momentum for measurement and valuation, with the ambition to eventually expand their approach across the organization. There are some pragmatic entry points that such businesses could consider for pilot studies:

- Decide how you want to use the results of a pilot study, for example, communication, reporting, monitoring, strategy, decision-making, steering or setting key performance indicators (KPI).
- Start with any social and human capital measurement and valuation approaches that the organization is already familiar with and that it can improve, build upon and expand through the Social & Human Capital Protocol.
- Use a committee of board members as ambassadors and to test results. Board-level ambassadors support you in creating awareness and commitment throughout the business.
- Start within the remit of a particularly influential and engaged individual or group who can dedicate appropriate resources, serve as an example to others and act as a champion going forward.
- Take the opportunity to tackle a challenging issue within the organization that already has stakeholder and senior leadership attention.
- Create a small core team with members that represent several departments of your organization (finance, business development, procurement, human resources, etc.) to encourage ownership and leverage different perspectives. Consider involving the chief financial officer or other finance function before involving communications to avoid the risk that a project will be labeled internally as marketing or for external reporting purposes.
- Consider allocating a dedicated change management person within the business at an early stage.
- Secure local input, particularly for multinational businesses, as you cannot fully understand local social and human capital issues from a position at the headquarters.
- Add a social and human perspective to the scope of ongoing natural capital assessments within the organization.

Leverage external experience and dialogue

- Involving external experts and other practitioners can help to build a credible approach and can save a business a lot of time.
- At the same time, carefully consider in which phase of the project it is most suitable to involve which external stakeholders; and be clear about how your business aims to use the outcomes of the measurement and valuation project.



Step 1 Case Studies

The cases below demonstrate examples of where businesses have found motivation to initiate social and human capital measurement and valuation to improve the business-enabling environment (Sompo Japan Nipponkoa Insurance) and to stimulate product innovation (Solvay), and an example of the importance of securing support from multiple internal functions in order to facilitate an assessment (Skanska).

Sompo Japan Nipponkoa Insurance

Sompo Japan Nipponkoa Insurance is interested in using measurement and valuation approaches to ensure its products fulfil key social needs in new markets. For example, the company is partnering with Save the Children Japan to create educational curricula for road safety in Indonesia and is working on weather index insurance for farmers in Thailand and Myanmar.

In both cases, measuring and valuing the impacts on society can assist the company with data-driven communications to a range of stakeholders. This helps to secure a license to operate, negotiate favorable policies, and raise awareness and build knowledge within these new markets. In addition to external communication, internal awareness of the company's social impacts helps Sompo Japan Nipponkoa Insurance minimize any negative impacts and maximize the benefits amassed through socially beneficial programs.

Solvay

Sustainable portfolio management (SPM) is one practical example of how Solvay is walking the talk on social capital. The Solvay product portfolio is systematically assessed using its SPM compass. This measures the environmental and social impact of the company's products, anticipates the impact of megatrends and helps Solvay make portfolio decisions that deliver social benefits through product innovation – for example, medical care, healthy nutrition, air and water quality, supporting an ageing population – and ensuring business growth.

Skanska

Skanska engaged different department leads early on in the process by asking them what data they currently collect and what existing initiatives have a significant impact on society. The Accounting for Sustainability team provides regular updates on progress to key departments and collaborates with internal stakeholders to share achievements and lessons from their various initiatives. It was particularly important to secure support from the finance department because it is familiar with credible methods for monetizing environmental and social capital and has the expertise to assist in robust reporting and governance.

STAGE 1: Conclusion

Outputs

At the end of Stage 1, you should have:

- A well-grounded understanding of what social and human capital are and how the business interacts with them.
- Knowledge of the key business drivers that can spur measurement and valuation of impacts and dependencies on social and human capital.

Practical considerations

Stage 1 lays the groundwork for the rest of the Protocol, which is why it is critically important that businesses give sufficient thought to the issues raised in this Stage. However, it does not need to be a resource-intensive process. Below are a few considerations for completing Stage 1:

- **Skills/expertise:** Businesses can draw on internal knowledge/expertise for most of this Stage.
- **Timing:** This Stage should take a relatively short time to complete (i.e., less than two weeks).
- **Stakeholder engagement:** External engagement is optional but highly recommended as it adds credibility and quality (see Box 7). You should conduct this Stage with internal stakeholders (key department heads, local/national managers, etc.) to gain buy-in. Ensure you secure senior-level support and appropriate resources before moving on to Stage 2 of the Protocol.

STAGE 2: SCOPE



Objectives:

In implementing Stage 2 of the Protocol, you will determine the key audiences and objectives and will set the boundaries of your measurement and valuation project. An impact and/or dependency pathway will be developed, which will provide a hypothesis for how your business activities translate into social and human capital impacts and/or dependencies and will help identify measures and metrics that you should assess.

The evaluation of the significance of each issue along the impact pathway provides the necessary information for a materiality assessment, either as a stand-alone exercise or capitalizing on materiality processes already in place in your business.

The Steps in this Stage are likely to be iterative and to inform one another, so the results of one Step may require revisiting a preceding Step. This is normal and any assessment timeline should include it.

Purpose:

This Stage ensures that you target your measurement and valuation efforts appropriately to produce fit-for-purpose results.

Steps:	Questions that this section will answer	Actions
02 Define the objective	What is the objective of your assessment?	2.1 Determine the audience for the results 2.2 Determine the objectives of the assessment
03 Scope the assessment	What is an appropriate scope to meet your objective?	3.1 Define the boundary conditions 3.2 Specify whose value perspective and decide on assessing impacts and/or dependencies
04 Determine the impacts and/or dependencies	Which impacts and/or dependencies are material?	4.1 List potentially material impacts and dependencies 4.2 Categorize social and human capital issues by type 4.3 Define the impact and/or dependency pathway 4.4 Prioritize social and human capital issues



02 Define the objective

The first part of setting the scope of the assessment is determining the target audience and the specific objectives for measurement and valuation. The prospective audience should influence the Protocol's implementation, informing the level of detail of the assessment, the valuation approach chosen and the type of outputs delivered. You should set objectives for measurement and valuation based on the needs and interests of the target audience, considering the type of decisions for which they require the information. This Step should draw on the outputs of Step 1 as a starting point.

Actions

2.1 Determine the audience for the results

The audience can be a group of stakeholders the business wants to share results with for either communication or decision-making purposes.

Either type of audience could be internal and/or external stakeholders. An audience for decision-making purposes will be stakeholders who have an interest in the business's social and human capital impacts and dependencies and whose actions can have a significant influence on a business's success – note that this is a different set of criteria to identifying those stakeholders affected by a business's activities, which you should consider when identifying material social and human capital issues. Providing these decision-makers with the right information is essential in order to integrate relevant social and human capital considerations into business thinking and action (WBCSD 2015a).

Table 2 below identifies some of the potential internal and external audiences for the Protocol results. You should identify the target audience(s) for specific issues that you plan to measure and value, pinpointing the specific individuals whom the results will inform where possible. These individuals should then be involved throughout the analysis as key stakeholders – see Figures 10 and 11 that link such stakeholders with business drivers identified in Step 1.

Table 2:

Examples of internal and external audiences (based on the Natural Capital Protocol)

Internal audiences may include	External audiences may include
• Senior executives and directors (i.e., board members or chief executives, etc.) • Heads of sustainability, corporate social responsibility, social investment, health and safety, human rights, site and operations managers • Departments such as: - Finance - Strategy - Procurement - Marketing and communications - Reporting - Public or government affairs - Investor relations - Safety - Human resources - Auditing and compliance - Enterprise risk management • General employees and contractors	• Shareholders (if applicable) • Investors • Civil society (NGOs, labor unions, charitable bodies, international organizations, etc.) • Community/other affected stakeholders (e.g., local residents, schools, farmers, smallholders, etc.) • Governments and supranational institutions • Regulators • Suppliers • Customers • Employer and business organizations • Indigenous communities • Professional bodies • Insurers

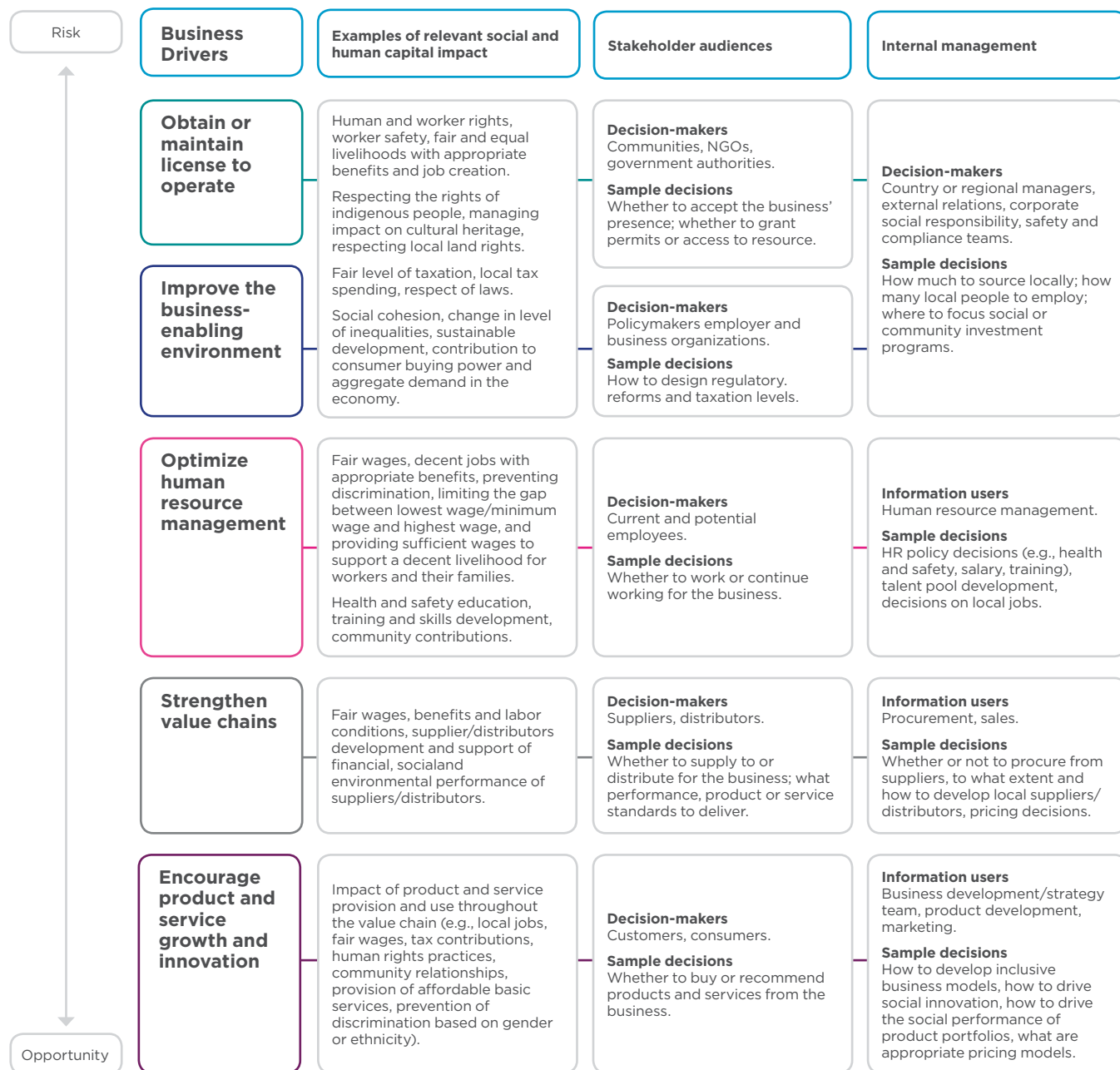


Figure 10:
Illustrative mapping of social and human capital impacts against business drivers, decision-makers and potential decisions

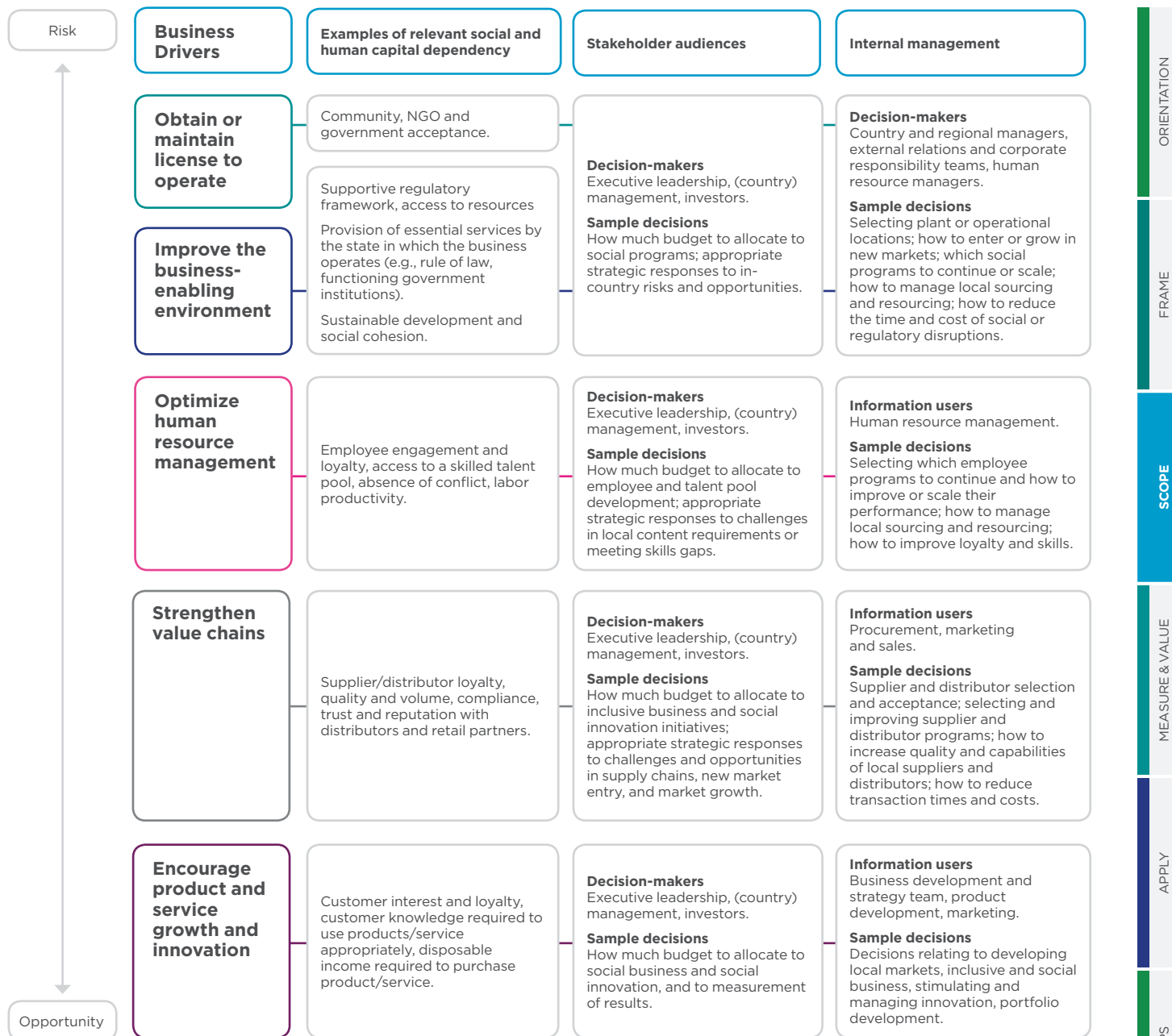


Figure 11:
Illustrative mapping of social and human capital dependencies against business drivers, decision-makers and potential decisions



2.2 Determine the objectives of the assessment

Identifying the target audience and understanding what motivates them will inform the objective of the assessment. When setting objectives, you should consider:

Business decisions: With a specific target audience in mind, you should set your objectives based on how the results can inform key business decisions. These could include decisions such as: whether to invest in a specific program or product portfolio; how to reduce the negative impacts; or improve the effectiveness of a specific investment. You may also want to communicate the assessment results in order to influence or inform external decisions, for example, by government regarding local employment, project location or scale of co-investment. See further guidance in Step 9.

Audience perspective: This means considering whether identified audiences are interested in information about impacts on society, impacts on the business and/or business dependencies on society. For example, if you want to decide whether to continue investing in a specific training program, you may want to understand the impact of the training on the employees as individuals, the impact on society, as well as the impact on your business itself. Governments may be interested in a more macro view of the way the business generates and distributes profits and losses via its impacts on social and human capital. Similarly, internal decision-makers may be interested in measuring and valuing their dependency on skilled workers and how changes in the stock or availability of such workers due to migration to other regions could impact operations.

Listed below are some example objectives for the measurement and valuation of social and human capital based on current practice. These are not exhaustive but provide an illustration of common applications of measurement and valuation among multinational corporations (WBCSD 2015a):

1. Deepening stakeholder engagement and managing relevant social and human capital impacts

Target audiences:

- External – government, media, customers, communities and the general public;
- Internal – national-level leadership, project managers and employees.

Understanding and demonstrating social and human capital impacts for external stakeholders remains the starting point for numerous measurement and valuation initiatives. However, many businesses move on from their initial analysis to apply their findings to internal decision-making. Businesses can use studies that highlight how government and community priorities intersect with business activities, in order to guide impact improvement activities, inform discussions and enhance relationships and reputation. This is particularly effective in situations where government ambitions are clear or the government has provided business with a framework of priority areas to align with.

2. Improving local performance

Target audiences:

- External – government, trade unions, employer organizations, community groups and local media;
- Internal – local community investment managers, human resource and procurement managers, social performance and community engagement staff; where investments are significant, you can involve global business unit presidents and top management.

Where businesses have large operations, social license to operate can be highly dependent upon local content – for example, the extent to which the business's value chain includes local workers, suppliers and distributors. Businesses are using measurement and valuation approaches to ensure that their local content strategies strengthen the local economy and the community, as well as business performance.



3. Supporting entry into new markets

Target audiences:

- External – government, institutional and individual customers;
- Internal – executive board, investment and risk committees, human resources, marketing and strategic planning.

Governments are often the initial gatekeepers for new market entry. Social and human capital assessments can help businesses to hold more informed discussions with government about the impact that their planned investment may have on a country or region, and so help establish their social license to operate. They can also inform the development and growth of new products and services by helping to understand the market and inform local stakeholders.

4. Facilitating government sales and contract development

Target audiences:

- External – government clients and the general public;
- Internal – bid and contract managers, social innovation initiative and resource allocation managers.

Governments can be important decision-makers when it comes to product sales and innovative service solutions. This is even more pronounced when the government is the customer. They are often interested in the wider impacts of how their money is spent, including social and human capital impacts. In the United Kingdom in particular, the Social Value Act and the use of Community Benefit clauses in government contracts are driving businesses to apply monetary valuation techniques to their social and human capital impacts (United Kingdom Government 2012).

5. Better human resource management by shifting thinking on human capital

Target audiences:

- External – shareholders, trade unions, employer organizations and clients;
- Internal – executive leadership, client managers, functional leaders, training managers and employees.

Human capital is essential to all businesses, but they generally measure it as a cost rather than an asset, impact or dependency. Human capital-intensive businesses are beginning to look at how shifting their perspective might lead to better decisions and performance for the business and its employees.

6. Driving integrated thinking through inclusive business

Target audiences:

- External – shareholders and investors;
- Internal – executive leadership, board, managing directors and national, sales and procurement managers.

Inclusive business initiatives (Said Business School & Deloitte 2018) are commercially viable, scalable business models that expand access to goods, services and livelihood opportunities for the economically disadvantaged. In this area, businesses are applying social and financial information side by side. Businesses are using measurement and valuation initiatives to understand, demonstrate and manage the social and human capital impacts and dependencies related to these emerging business models.

7. Improving community impact through human capital

Target audiences:

- External – influencers, non-profit and community leaders, elected officials, academics, corporate and community foundations and funders, customers and the general public;
- Internal – employees and local management.

Businesses can support their employees' involvement in community action and service through human capital investment programs, such as employee volunteering, that enable employees to use their skills and energy outside their business for better outcomes in society (Impact 2030 2018). Businesses benefit through increased loyalty and retention and local brand visibility; while communities benefit through the investment of time, talent and expertise. Measurement and valuation of such activities can help communicate the benefits as well as optimize positive impact.



Step 2 Case Studies

The following cases demonstrate examples of where businesses have selected a target audience for a social and human capital impact assessment. Smurfit Kappa discusses interest in both internal and external audiences, whereas Nestlé focuses the assessment on business decision-making, primarily for an internal audience. Veolia highlights a very specific audience and objective – facilitating government contracts.

Smurfit Kappa

Smurfit Kappa has identified key internal and external stakeholders who would be the main audience for its socioeconomic impact assessment of three educational institutions supported by the company, targeting rural populations in Colombia. Each of these stakeholders has different objectives and information needs.

- **Internal stakeholders:** Project management uses the results to improve project efficiency and performance, whereas the Smurfit Kappa Foundation and Smurfit Kappa Management boards use the results to understand the impact of their investments.
- **External stakeholders:** The Ministry of Education of Colombia is shown the results to demonstrate the positive impacts of the Technical Agricultural, Livestock and Forestry Institutes (ITAF) rural education approach.

Nestlé

Nestlé has identified 11 salient human rights issues in its sustainability strategy. Each of these human rights issues has or will see the development of specific commitments. In order to support those developments, valuing the societal impact of Nestlé related to those human rights is key. The initial model developed focuses on employment, skills and health and safety, covering the value chain of one Nestlé brand. The results are intended to be used alongside natural and financial impact assessments to inform resource allocation decisions by senior leadership, as well as at brand level to support decision-making in order to create shared value. The results of the study are initially focused on internal audiences in order to build awareness and knowledge of the methodology. It has additionally been shared with selected external stakeholders to further support the methodology's development.

Veolia

Veolia UK has worked in collaboration with its government client – Southwark Council in London – to conduct a social return on investment (SROI) analysis on their contract. The assessment aims to shift perceptions among their local government clients – encouraging the consideration of social value rather than the lowest possible monetary cost contracts. Veolia UK is now generating the SROI calculation with bid development and contract managers in order to appraise and demonstrate the social value of potential projects and to steer social value improvement activities within current projects.

03 Scope the assessment

Agreeing on the boundaries of your approach from the outset is important from both a conceptual and practical perspective. It provides clarity, focuses your approach and ensures the efficient and effective use of resources.

Actions

3.1 Define the boundary conditions

You should consider the following four key boundaries: organizational, geographic, temporal and value chain. You may decide to start with a narrow approach to the Protocol focused on the direct operations of a single business unit, in one location, within a narrow time frame. For example, you could decide to assess impacts and dependencies related to the professional advancement of women in one supplier factory in Bangladesh over the last three years. Once you have established your approach, you could expand your coverage to include all suppliers and/or other parts of the value chain, such as retail workers.

When setting the boundaries of the assessment, you should consider:

Stakeholder and audience interest: There may be certain operations, projects or regions where there is a more urgent need for the Protocol, where there is greater scrutiny by external stakeholders or where using the Protocol has more support from senior leadership.

Likely effectiveness of tackling high priority social and human capital issues: Some issues may be higher priority for certain locations, projects or parts of the value chain. For example, rolling out new health and safety measure could be a priority for one country/region but other regions may have already addressed this.

Business ambition level and available resources: There may be project boundaries that would provide meaningful results quickly and therefore would help build momentum for further measurement and valuation.

Data availability: Some data may be difficult to access or, where available, may not meet high enough quality standards. For example, this could be the case when businesses depend on surveys or other data sets from resource-constrained governments or when measurement requires capturing data from thousands of tier one and two suppliers without any established data collection systems in place.

Objectives and scope of the assessment: The audience and objectives identified in previous Steps will dictate clear boundaries for your assessment.

Figure 12 provides a snapshot of possible boundaries (more detailed explanations follow).

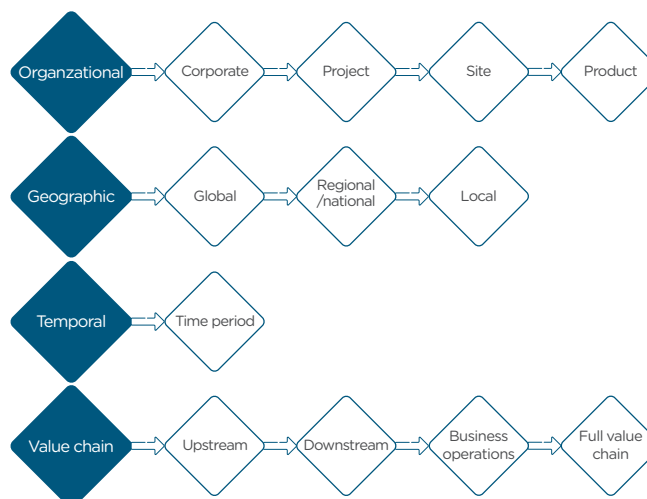


Figure 12:
Types of boundaries



Organizational boundary: When determining organizational boundaries, you should consider the business operations or activities that you will measure and value.

Options for some of the different organizational boundaries could be:

- *Corporate:* this includes everything within the direct control of the business. For example, a business could develop an approach for promoting safety to all of its direct employees.
- *Project:* this examines a specific initiative or project, such as a skill-building program that is active over a number of sites and/or business units.
- *Site:* this focuses on impacts and dependencies at specific sites or operations. For example, this could include reviewing a manufacturing operation in the business.
- *Product:* this focuses on a specific product or brand. This could cut across the value chain if considering the product life cycle – see “Value chain boundary” below.

Geographic boundary: The spatial boundaries of the assessment should be determined not only by where the business is operating but by its influence and reach. For example, you might focus on the impacts on employment in the community where you operate but the migration of workers from other regions into this community could impact those other regions.

Narrowing the approach to focus on the community in the immediate vicinity of your operation could miss significant changes in social and human capital that occur in other regions, for example, from employee remittances back to workers' families. In these cases, you could set the boundary to include those regions that receive the most remittances.

Options for spatial boundaries to consider include:

- *Global:* this includes anywhere that the business has an impact.
- *Regional/national:* this looks at one country or several countries within a defined region.
- *Local:* this includes one specific geographic area, such as one city, town, county or state.

Temporal boundary: This means determining an appropriate time horizon for the approach. It has significant implications for the measurement and valuation methods used, particularly regarding the selection of an appropriate baseline (see Step 6). The availability of appropriate baseline data is critical for impact measurement and valuation as it is difficult to measure change without reliable data on the situation without your intervention or activity. It is therefore critical to determine the time horizon of the study while bearing in mind any lag time it will take for impacts to become measurable and the length of time that such impacts endure. This could be years, months or a snapshot in time.

There is a spectrum of possibilities for temporal boundaries, from an assessment covering a financial year with the aim of establishing an annual measurement inventory, to an assessment examining all impacts that result from an activity for as long as these impacts persist.

Value chain boundary: You can scope a measurement and valuation project (as illustrated in Table 3) according to phases of the value chain:

- *Upstream:* (cradle to gate), covers the activities of suppliers.
- *Business operations:* (gate to gate), covers activities over which the business has direct operational control, including majority-owned subsidiaries.
- *Downstream:* (gate to grave) covers activities linked to the purchase, use, reuse, recovery, recycling and final disposal of the business' products and services.
- Alternatively, it could include the *full value chain*. (Full value chain assessments can be well suited to a social life-cycle assessment (SLCA) approach).

When determining project scope, businesses that are starting their social and human capital measurement and valuation journeys may wish to be pragmatic, identifying a starting point that is feasible for the resources they have at their disposal and that can stimulate engagement and further adoption across the business (note that this approach risks omitting issues that may be material for decision-making).

**Table 3:**

Examples of how social and human capital issues can act along the entire value chain

Social or human capital issue (For more examples of social and human capital issues, see Table 4)	Example of impact or dependency by stakeholder group			
	Employees (business operations)	Suppliers (upstream)	Consumers (downstream)	Local communities/wider society (beyond your value chain)
Health and safety	You are running a program internally that is promoting discussion of mental health issues and sharing resources for employees to use	Injuries or illnesses that may occur in the course of producing a product or service that you are purchasing for your business	You label a product that you supply with appropriate information to ensure it is not hazardous to consumers	Your requirement for international standard medical checks for your employees requires upskilling of local medical practitioners and so elevates standards across the community
Employment and remuneration	You invest in a new operating plant and create jobs in an area where unemployment rates are high	Your suppliers use contingent workers who do not have access to any employee benefit programs	You develop and sell a technology that will automate a key manufacturing process and result in the loss of jobs	The spending of your employees' wages in local communities results in the creation of jobs locally
Skills and knowledge	You are dependent on access to and use of a specific talent pool for your product development	You run a training program with suppliers to ensure they produce the quality of goods you need	A service you provide to customers helps facilitate the creation and dissemination of intellectual capital	An employee volunteering or pro bono activity you run helps to transfer knowledge from your employees to other organizations

Although developed independently, this table aligns with the methodology developed in the Roundtable for Product Social Metrics (Roundtable for Product Social Metrics 2018).

3.2 Specify whose value perspective and decide on assessing impacts and/or dependencies

It is important to decide whether your assessment will focus on the value to your business (i.e., business value) or the value to society (i.e., societal value), or both (shared value).

Depending on your objective, you may cover your impacts or dependencies, or both. A complete assessment considers both impacts and dependencies to gain a full understanding of your business's risks and opportunities in relation to social and human capital.

It is important to note that impacts and dependencies are inter-related. For example, business dependencies typically result in impacts (e.g., businesses that depend on a skilled workforce may attract more highly skilled individuals to migrate to a region, this may result in a more productive workforce as well as consequent changes to the regional economy). Step 4 further explains impacts and dependencies, introducing the concepts of impact and dependency pathways.

You may consider impacts and dependencies in the three components of a complete social and human capital assessment:

1. **Your business dependencies:** are benefits that your business receives from social or human capital. These are applicable whether you depend on social and human capital for your direct operations or indirectly somewhere else in your value chain, including suppliers and consumers.
2. **Your impacts on society:** can arise from your direct operations or indirectly from somewhere else in your value chain, including suppliers and consumers.
3. **Impacts on your business:** as a result of your impacts on social or human capital. These will affect your financial bottom line – either now or in the future. They may result from your direct operations or from social and human capital impacts elsewhere in your value chain. In other words, impacts on your business are societal costs or benefits (externalities) that have become internalized, or are likely to be internalized. An example of impacts on your business is the implementation of an outreach program that creates goodwill in local communities and therefore decreases operational disruptions and recruitment costs.



We recommend the inclusion of all three components within a social and human capital assessment as all are relevant for business applications that use measurement and valuation of non-financial capital. If you choose a “business value” perspective, business dependencies are always relevant, as are impacts that are (or are at risk of) being internalized. A “societal value” perspective will normally be more focused on the assessment of your impacts on society.

Step 3 Case Studies

The following examples demonstrate various scopes and boundary criteria used for the assessment of social and human capital. BASF focuses on a business-wide assessment including multiple projects and products, whereas AkzoNobel has chosen to build understanding of the impact of a specific product.

BASF

BASF set the boundaries of its assessment based on the materiality of the company’s impacts at each step in the value chain, the availability of data and methodologies, and the feasibility of the calculation approach at each level of BASF’s business:

- The corporate level: BASF’s own operations, direct and indirect suppliers (tier one to tier n), and customer industries, aligned with boundaries for financial reporting.
- The project level: Depending on the project’s characteristics, the scope goes beyond the corporate level. For example, for site development activities, the construction of the plant is assessed and additional impacts, such as community development, are considered.
- Product level: Impacts are considered from cradle to grave based on life-cycle assessment data.

The use phase and end-of-life impacts associated with products made by BASF’s customers are extremely diverse. Various approaches are available to measure and value these impacts. However, comprehensive coverage of the impacts of the entire portfolio in the use and end-of-life phase requires a detailed mapping of more than 60,000 product applications. As data and valuation methods for certain impacts are not yet available for BASF’s entire portfolio, the use and end-of-life phase were tested on a case-by-case basis at product level.

AkzoNobel

The geographic, organizational and temporal scopes of the assessment were chosen to reflect the cradle-to-grave impacts of producing 100,000 copies of a €20 book in Europe using 50% virgin paper from Brazil and 50% recycled paper and using AkzoNobel’s bleaching chemicals.

A product (in this case a book) was chosen as the assessment scope as it is easier for external audiences to understand than the impacts of a specific bleaching chemical. The assessment is used as an internal improvement tool based on a reference baseline. It is the business-as-usual assessment. The results will be compared to other products and to future assessments after initiatives have been undertaken in the book value chain.

AkzoNobel has an assessment maturity scale for building on its impact analyses over time:

1. Do baseline assessment;
2. Identify hotspots and implement an initiative to minimize risk or maximize opportunity;
3. Redo the assessment to quantify impact of the initiative.



04 Determine the impacts and/or dependencies

This Step helps you to identify social and human capital issues that are most relevant to your business. This may include social and human capital issues that you are already working on and issues you may want to work on in the future. The Protocol is flexible and will therefore be applicable regardless of the method or classification framework used to identify social and human capital issues.

Actions

Note: Mapping social and human capital issues to activities (although sometimes challenging due to data availability) is important because it provides the business with a full view of their direct and indirect social and human capital impacts and dependencies. Classifying these issues as positive and negative, and as impacts and dependencies, adds another level of credibility to the analysis. Enterprise risk management (ERM) processes strongly align with this mapping process and the subsequent management approaches within the Protocol (COSO & WBCSD 2018). You may additionally wish to consider issues with the potential to become more pronounced in the future by using horizon scanning or similar approach.

Box 5: Social and human capital issues

A key concept we introduce in the first Stage of the Protocol is that of social and human capital issues. We use this term to describe categories or themes of issues, which may include both social and human capital impacts and/or dependencies.

The social and human capital field faces the challenge of the plethora of different ways to classify business interactions with social and human capital. This is no surprise given the variety and importance of social and human capital impacts or dependencies that are relevant for businesses in different contexts. This can make it difficult for businesses to select which classification framework to use when deciding on what impacts or dependencies are most material for them. In reality, the answer is likely to be different depending on the context faced.

It is not the intention of the Protocol to set out a new classification here. We do, however, advise businesses to consider their social and human capital issues. These may be social topics or themes that a business has already identified; businesses may take them from existing national priorities or other external classification frameworks e.g., topics used in a social life-cycle assessment – SLCA (UNEP & SETAC 2009); or some businesses may already specifically define social and human capital impacts or dependencies.

This allows Protocol users to identify which social and human capital issues are most material to them using whichever language or classification frameworks are most familiar. Once you have chosen issues, we recommend checking these against the list of common issues identified in Table 4. You can then continue with more detailed identification of specific social and human capital impacts or dependencies that the assessment will measure and value.



4.1 List potentially material impacts and dependencies

When identifying potential social and human capital issues in your operations or along the value chain, you can use a number of external frameworks as helpful references. We highlight three such frameworks, recognized by the United Nations (UN) and national governments, below:

- UN Universal Declaration of Human Rights (UN 1948) – proclaimed by the United Nations General Assembly in 1948 and forming the basis for international human rights law, these 30 articles lay out a common standard of achievement for all people and nations. The UN Guiding Principles for Business and Human Rights (OHCHR 2011), further explain how these rights are applicable to business and can be put into practice. The UN Guiding Principles Reporting Framework (UN 2015a), launched by the Human Rights Reporting and Assurance Frameworks Initiative, uses the UNGPs along with the International Labour Organization (ILO)'s Declaration on Fundamental Principles and Rights at Work to summarize 32 internationally recognized human rights.
- ILO Tripartite Declaration of Principles Concerning Multinational Enterprises (the MNE Declaration) (ILO 2017) – developed and adopted by governments, employers and workers from around the world, provides direct guidance to enterprises on social policy and inclusive, responsible and sustainable workplace practices. The MNE Declaration is complimented and expanded upon by the OECD Guidelines for Multinational Enterprises (OECD 2011) were ratified.
- The Sustainable Development Goals (UN 2015b)– ratified by all 193 UN member states in September 2015, these 17 global goals and associated 169 targets provide an aspirational model for international development to which business can align and contribute.

These frameworks outline both baselines for social responsibilities and performance, as well as aspirational targets for society that businesses can help to achieve and capture significant business opportunities in the process.

Table 4 contains an analysis of these three resources in order to distil key social and human capital issues akin to Tables 4.1 and 4.2 of the Natural Capital Protocol. This serves as an initial list to allow businesses to understand how social and human capital is relevant to them and to identify which issues (see definitions in Step 1) may be most material for further analysis.

We have added additional social and human capital issues to the list as appropriate. However, this does not provide a comprehensive listing of all potential social and human capital issues that may be relevant to all companies and sectors, nor does it relate to measures or indicators at this stage. The list of issues is not mutually exclusive; hence, there will be overlap between issues identified. You should validate, add to or refine this list of issues as appropriate for your business.

We recommend that you consider these issues not only in terms of how they affect your own business and employees but also how you affect other stakeholders in your value chain, in local communities and in wider society (see Step 3 for examples). Furthermore, you may have an effect on these issues or they may affect you through your relationships or partnerships with other organizations.



Table 4:
Social and human capital Issues

Social and human capital issues relating to business	Social or human capital issue	Description	Examples of business impacts (non-exhaustive)	Examples of business dependencies (non-exhaustive)
Employment and remuneration	Human	Issues associated with the provision of jobs and wages	Providing employment and career opportunities (including through internships and apprenticeships) in an area with high unemployment rates, paying a fair wage with appropriate benefits	Presence of a supply chain and downstream value chain that are free from modern slavery
Inclusion and diversity	Social	Issues associated with engagement and involvement of people regardless of perceived differences	Providing equality in remuneration, preventing discrimination, ensuring dignified treatment of all people	Availability of an engaged workforce, increased innovation potential from a diverse workforce
Skills and knowledge	Human	Issues associated with experience, training, education, or the creation and dissemination of intellectual capital (with particular regard to the rapidly changing employment environment)	Providing training or education (including re-skilling, up-skilling and lifelong learning), appropriate use and sharing of intellectual property	Availability of a skilled workforce, access to and use of intellectual property
Health and safety	Human	Issues associated with people's physical or mental health	Providing reasonable hours of work in a safe, supportive environment, actively creating products and services that promote healthy lifestyles, allowing employees to adopt a healthy work-life balance	Availability of a healthy, happy and productive workforce, safe consumption of a business's products and services
Labor relations	Social and Human	Issues related to labor rights and dispute settlement	Providing adequate grievance mechanisms, allowing access to collective bargaining and associations (of both employer and business organisations, and trade unions).	A workforce that is engaged and willing to work for you, the absence of grievances, lawsuits, etc.
Value chain relationships	Social	Issues related to mutual trust and understanding with organizations in the value chain	Relationship building, reasonable pricing, collaboration around key challenges	Trust that enables free flows of products and financial capital through the value chain
Access to essential services	Social and Human	Issues related to the provision of services deemed essential for or required by society (and business)—e.g., rule of law and functioning government institutions that maintain a minimum standard of human capital (healthcare, affordable housing, clean water, sanitation and hygiene, healthy and affordable food, electricity and transport)	Allowing time for employees to partake in public elections, access healthcare, etc., paying fair share of taxes that enable states to fund essential services	Provision of essential services by the state in which you operate
Personal security in the workplace and community	Human	Issues related to the treatment of employees in the workplace	Ensuring the absence of physical punishment, sexual abuse or harassment, forced labor, child labor and trafficking in the workplace	Absence of violations in the business or supply chain
Privacy	Social and Human	Issues related to personal privacy, including the use of personal data	Ensuring that adequate data protection measures are in place to prevent violation of customer and employee privacy	Presence of commercial confidentiality, current or potential customers are confident that you will protect personal data
Access to land and culture	Social	Issues relating to whether stakeholders can access land and enjoy activities that are of spiritual or cultural significance	Respecting rights of indigenous people, managing impact on cultural heritage, allowing access and shared use of land	Presence of social license to operate
Physical and economic freedom of movement	Social and Human	Issues related to the movement of people	Ensuring ethical informed consent procedures, fair negotiation and adequate compensation and that they precede the physical or economic displacement of people	Availability of a flexible and mobile workforce
Law and order	Social	Issues related to legal and regulatory compliance	Ensuring that, where local law and social protection systems do not already uphold human rights, the business' ethical code protects worker rights (including while in job transition), implementing fair and transparent governance standards, reporting financial and non-financial information	Absence of violations in the business or supply chain, capital from investors who require transparent and effective governance, and compliance with local laws

ORIENTATION

FRAME

SCOPE

MEASURE & VALUE

APPLY

NEXT STEPS



Not every business will start in the same place on this Step. Depending on the business's perspective and level of current maturity with integrating sustainability into core business functions, some organizations will refer to, build on and validate existing lists of social and human capital issues, such as:

Corporate materiality analysis: You may already have conducted a materiality analysis as part of your social or sustainability strategy development or reporting. This may be informed by external guidance on identifying types of stakeholders and social issues, such as those contained within the United Nations Environment Programme's (UNEP) Guidelines for Social Life Cycle Assessment of Products (UNEP & SETAC 2009) and the Roundtable for Product Social Metrics Handbook for Product Social Impact Assessment (Roundtable for Product Social Metrics 2018). Work can draw from such lists to map and rank the relevance of issues.

Industry-specific priorities: You can also draw on industry or sector-wide mappings of issues. As an example, WBCSD's Social Life Cycle Metrics for Chemical Products publication illustrates mapping conducted by the chemicals sector through the identification and mapping of 25 topics against three key stakeholder groups (WBCSD 2016b).

The TEEB Agriculture and Food Report by The Economics of Ecosystems and Biodiversity (TEEB) (TEEB 2018), which introduces issues specific to agribusiness, and SASB's Materiality Map (SASB 2018), which identifies social and human capital topics on an industry-by-industry basis, may additionally be useful when implementing the Protocol.

National priorities: Include national development plans, e.g., the South African government's National Development Plan 2030 (South African Government 2013), national action plans on business and human rights, or national sustainable development strategies. A number of countries now have legislation in place that necessitates vigilance beyond national borders and throughout the value chain (Oxfam 2018), such as the United Kingdom's Modern Slavery Act (2015) and France's Duty of Vigilance Law (Legifrance 2017). The latter requires all large French businesses and foreign businesses with French subsidiaries to undertake "reasonable vigilance" to prevent and address human rights violations and environmental impacts throughout their business operations and supply chains. This law can provide guidance on how to assess social issues along value chains and monitor these issues through a surveillance plan.

Local priorities: Community action plans and municipal strategic plans may additionally provide useful sources of social and human capital information.



4.2 Categorize social and human capital issues by type

Categorizing these issues adds an important and useful perspective. Options for categorizing social and human capital issues can include whether they are:

- Positive or negative;
- Impacts or dependencies;
- Known or potential issues;
- Risks or opportunities.

It is particularly important that you consider measuring and valuing both potential positive and potential negative impacts.

When aggregating data over multiple socioeconomic impact areas, you should also consider each individual impact, including the distribution of the impact and stakeholders affected. This is essential in ensuring the identification and mitigation of significant negative impacts, rather than *trading them off* against positive impacts.

Stakeholders increasingly view businesses as complicit in social transgressions within their value chains – even if they are not directly responsible. Stakeholders have a greater respect for businesses that acknowledge and take actions to tackle social challenges throughout their value chains; such businesses can also proactively manage issues that could present material risks to the business.

4.3 Define the impact and/or dependency pathway

Defining the impact and/or dependency pathway draws the links between social and human capital issues identified and the business activities that affect or rely on them. These pathways (also called logical frameworks, results chains or theories of change) outline the potential and empirically testable relationships between your business' activities and social and human capital creation, destruction or reliance.

Depending on the results of the previous Steps, you may conclude that it is most important to focus on social and human capital impacts, dependencies or a combination of the two. Dependencies, by definition, are felt by the business but a variety of stakeholders in society may experience social and human capital impacts, including the business itself through internalization (see Figure 4 and Step 3).

You can use an impact and/or dependency pathway to show an impact on the business, such as financial cost, and an impact on society, or to outline a specific social and human capital dependency that the business relies on.

Impact Pathways

An impact pathway has three generic steps: the impact driver, the change in social and human capital caused by the impact driver (sometimes called *outcomes*), and the *impacts* that result from the change in social and human capital. While impact pathways are well established as the foundation for social and human capital impact assessments, you may be familiar with other methods for creating your impact pathway that are defined differently to the generic steps described here. See Box 6 for how these different methods align with the Protocol.

An impact driver is a measurable quantity that is used as an *input* for a business *activity* (e.g., the financial cost of running a training program, number of employee hours spent on a volunteering initiative or supporting apprenticeship activities), or is a measurable *output* of a business *activity* (e.g., number of employees or apprentices trained, number and type of volunteer activities undertaken). Impact drivers are generally expressed in quantitative units (e.g., number of hours, number of people, cost) and may already be included in business non-financial reporting or generated through SLCA.

An impact driver is not the same as an *impact*. An *impact* is the persistent change experienced by a person or group of people that occurs as a result of an activity. It can be positive, negative, intended or unintended. A single impact driver may be associated with multiple *impacts*.

An impact pathway describes how, as a result of a specific business activity, a particular impact driver results in changes in social and human capital and how these changes impact different stakeholders. Figure 13 illustrates an example of a business running a training program on the importance of working safely. In this example, the impact driver is the running of a certain number of hours of training programs (this is measured in Step 5).



These training hours in turn lead to increased awareness by the trainees of the importance of health and safety procedures and practices that could lead to an decrease in the number of health and safety incidents (this is the change in social capital measured in Step 6). This, in turn, may lead to fewer incidences of injury and illness (the impact, valued in Step 7).

In this example, the impact could be valued both in terms of impact to the business (e.g., a reduced rate of absenteeism) and impact to society (e.g., an avoided cost of publicly provided healthcare).

Box 6: Methods of drawing the impact pathway

You may be familiar with the model of “*input-activity-output-outcome-impact*”. This is more detailed than the generic steps we have shown in the Protocol but is fully aligned.

The *input*, *activity* and *output* are the components of an impact driver. In the example in Figure 13, the *inputs* would be the cost of running the program, the *activity* would be the running of the program itself and the outputs would be the number of people trained and the hours spent in training. You may find it useful to write out the impact driver step in this way to understand in more detail how your business drives *impact*.

The outcome, showing a measurable change in social or human capital, is aligned with Step 6 and the *impact* is what you are attempting to value in Step 7. It should be noted that, although the aspiration of Step 7 is to (qualitatively, quantitatively or monetarily) value the actual impact(s) on society, in many cases this is not possible given the availability of data and measurement methodologies.

Therefore, businesses will often value (estimate the relative worth of) outcomes as a proxy for impacts, using more readily available information.

You should refer to your results from implementing Steps 2 and 3 of the Protocol to frame your impact pathways (e.g., the organizational, geographic, temporal and value chain scope identified) to define the business *activities* that will be included, as well your choice of audience. It is recommended to develop separate impact pathways for each social and human capital issue you plan to measure and value.

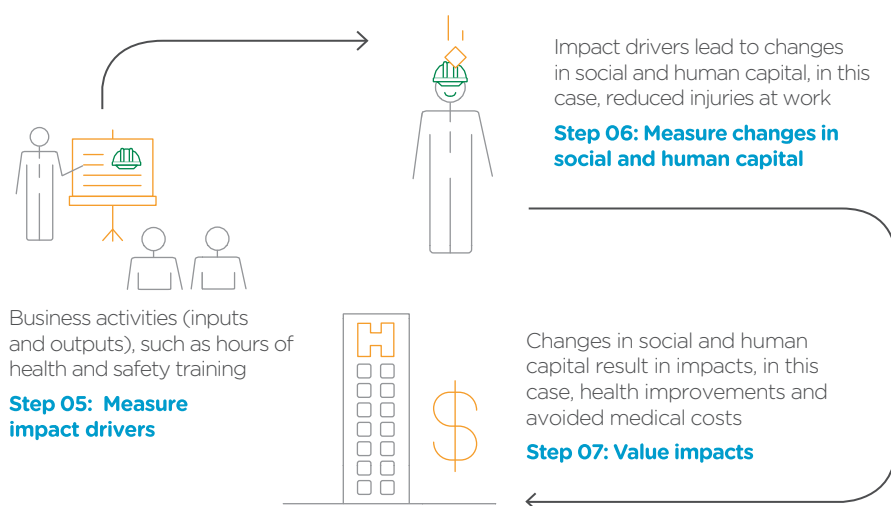


Figure 13:
Elements of an impact pathway

It is important to note that there may be more links in the chain, especially between impact drivers and *impacts*, the latter of which may be considered over different time periods. Similarly, results chains do not have to be linear. For example, impact drivers can lead to multiple *outcomes*, which each lead to multiple *impacts* (WBCSD 2013).

Ensure that you define and, where possible, measure changes along the full impact pathway to the *end impact*. In practice, it may be difficult for you to measure such *impacts* and you might need to report *outcomes* or even *outputs* as intermediate or proxy measures of *impact*. While using such proxies is sometimes necessary, you should also be aware of their limitations (Harding 2014) (see Step 6).

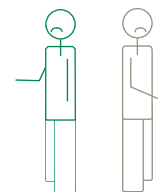
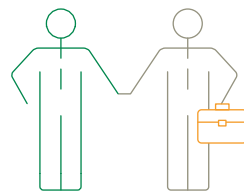
You should keep a record of any references, assumptions or justifications that have been used to make causal links in the pathway and these should be cited in any analysis of the data in validation exercises or sensitivity analysis (see Step 8). Once you have defined the impact pathway, you should determine the valuation approach that you will use for your assessment. We advise you to review Step 7 and make this decision before proceeding.

Dependency pathway

The same logic used to construct an impact pathway may be applied to business dependencies – see Figure 14 below. While dependency pathways are a new concept for dealing with social and human capital issues, this is a process that businesses contributing to the development of the Protocol have found particularly helpful in articulating the business value of social and human capital management.

Business activities are dependent on customer networks and trust (e.g., percentage of repeat business vs. new clients)

Step 05: Measure dependencies



Customer trust and connections decline, due to:

- The business itself, such as poor customer care practices, unfair product pricing
- Sources outside of the business, such as racial or religious tensions, breakdown in communications infrastructure

Changes in social and human capital affect business dependency, so customer relationships and sales decrease

Step 07: Value dependencies



Step 06: Measure changes in social and human capital

Figure 14:
Elements of a dependency pathway

Impact and dependency pathways can:

- Help you understand the tracing of business activities all the way through *outputs* to *outcomes* and *impacts*.
- Highlight unintended consequences or indirect effects of a business activity that might occur despite not being the primary intention of the activity.
- Articulate the causal links between a business's activity or product and downstream impacts. This can be particularly useful when you want to demonstrate the societal value of the use of your products.



4.4 Prioritize social and human capital issues

The prioritization of social and human capital issues brings Steps 1, 2 and 3 together to determine the most material issues to measure and value. Based on the information you have gathered, it should now be possible to assess the relative materiality of each impact and/or dependency.

You should prioritize issues that substantively affect your business's ability to create and destroy value – for the business and for key stakeholders – over the short, medium and long term. These will be issues that are crucial to decision-making.

A well-accepted way to prioritize social and human capital issues is by combining the stakeholder and business perspective in a materiality assessment, which many businesses carry out as part of their sustainability strategy development and reporting processes. For the purposes of the Social & Human Capital Protocol, you should view a materiality assessment as a systematic approach to prioritizing issues and not a process necessary to meet corporate reporting legal disclosure requirements or expectations.

Important note regarding disclosure: Materiality is both a general and legal concept (CRD 2016). Materiality within the Protocol does not necessarily equate to the legal concept of materiality that applies to formal corporate reporting in many jurisdictions (for example, as defined in the United States of America by the Supreme Court). Many businesses around the world regularly disclose information about their impacts and dependencies on social and human capital. However, if you have concerns about the potential interpretation of disclosures you plan to make on social and human capital impacts or dependencies – by investors, regulators or other stakeholders, for example – we advise you to seek independent legal advice relevant to your industry and jurisdiction (Natural Capital Coalition 2016).

You can think of materiality as determining the relevance and significance of an issue to a business and its stakeholders (Social Value International 2016a). In the context of the Protocol, you should apply these in terms of:

- **Relevance:** which social and human capital issues are relevant when considering the activities that occur across a business's value chain (see Step 1).
- **Significance:** the relative importance of these issues to a business and their stakeholders (see Steps 1 and 2).

The output of a materiality assessment should provide you with a clear understanding of which relevant social and human capital issues identified are most significant to your stakeholders and your business. This will then determine the focus of the social and human capital assessment.

Potential criteria may include:

- **Operational:** the extent to which the social and human capital impact or dependency may significantly affect business operations, project implementation or the value of existing or new product(s).
- **Legal and regulatory:** the extent to which the social and human capital impact or dependency may trigger a legal process or liability.
- **Financing:** the extent to which the social and human capital impact or dependency may influence "cost of capital" or your access to capital, investor interest or insurance conditions.
- **Reputational and marketing:** the extent to which the social and human capital impact or dependency may affect the product portfolio, company image or relationship with customers and other stakeholders (e.g., changing customer preferences).
- **Societal:** the extent to which the social and human capital impact or dependency may generate significant impacts on society.

Completing this Step with appropriate stakeholder input is essential to the credibility and value of the approach. Global and/or local stakeholders can play an important role in informing the long list of issues (developed earlier in Step 4), determining their business relevance and/or validating the final lists.



You can choose the most appropriate process to capture stakeholder views. Some businesses for example adopt an approach that includes hotspot analysis, using life-cycle analysis data to supplement the materiality process by pinpointing stakeholders that are most relevant for further dialogue.

You may decide to draw on existing internal committees or external stakeholder advisory boards; or choose to develop entirely new processes. If you decide to build on existing processes and results, you should consider whether current materiality analyses and stakeholder engagement should be adapted or extended to lay the foundations for social and human capital measurement and valuation, and validate existing priorities with a view to social and human capital measurement and valuation.

The identification of and engagement with stakeholder groups that are impacted by your business is an essential foundation to this process. To identify stakeholders, businesses may want to conduct a stakeholder analysis and mapping exercise that classifies stakeholders by criteria such as their expertise, legitimacy, and willingness and ability to engage. See Box 7 on stakeholder engagement and the list of references for more guidance.

Some businesses will use this information to prioritize all the social and human capital issues identified as most significant to stakeholders and the business for inclusion in its social and human capital assessment. Others will focus on a smaller, pragmatic selection of issues or a cluster of issues within a priority area, such as supply chain or product impact issues.

Regardless of the number of priority issues chosen, the key objective is to ensure the Protocol is not just a one-off assessment but a continuous process and an ongoing movement for change within the business.

Box 7: Stakeholder engagement

We strongly recommend early consideration of how to engage stakeholders (Fish, et al. 2011) through a participatory strategy, outlined in a dedicated engagement plan. High-quality, continuous stakeholder engagement can enrich the Protocol process and strengthen the quality and credibility of the results (Social Value International 2016d).

It is critical to:

- Identify and map stakeholders;
- Engage directly with populations that business actions will impact;
- Avoid reinterpreting their views inline with your own expectations;
- Give due consideration to all (including negative) viewpoints;
- Report back findings (and confirm the validity of results);
- Initiate appropriate issue management where required.

This will often include engaging local communities and establishing social dialogue with internal stakeholders (particularly between employer and business organizations, and workers' representatives). Such engagement can, for example:

- Offer different perspectives on the issues or impacts of greatest concern;
- Provide information on the relative importance of issues and impacts;
- Provide data and expertise;
- Validate and add credibility to your process and results.

Stakeholder engagement is mandatory for some measurement and valuation techniques (see Step 7), particularly when this requires the perspectives or data of those people whom business actions directly impact.

The risks of not engaging with stakeholders include having an incomplete view of material social and human capital issues and impacts, missing out on opportunities for innovation and having results that are not credible or usable when comparing options and making decisions.

As social and human capital valuation is still at an early stage, it is important that businesses are clear about their current ambition level and long-term goals. This will help set expectations with stakeholders and is an important precursor to inviting them to serve as partners as the business refines and improves its approach.



Step 4 Case Studies

The case studies outlined here focus on different aspects of Step 4 of the Protocol. Santander discuss how they use various frameworks to guide the implementation of work on social and human capital, including a specific focus on the United Nations Sustainable Development Goals (SDGs). Siemens describe the benefits of compiling an impact pathway in order to improve understanding of the project and LafargeHolcim highlight their materiality process.

Santander

The Santander methodology takes account of international frameworks, methodologies and standards for non-financial information and reporting. Guidance from the London Benchmarking Group and the World Business Council for Sustainable Development (WBCSD) were considered in particular in the construction of the Santander framework. The methodology also aims to map the bank's impacts according to the SDGs, as they serve as a useful aid in framing the work for internal decision-making and external reporting purposes. Santander views reporting in line with the SDGs as a priority concern, as reporting SDG progress demonstrates the extent of company commitment to the goals and the way in which the bank contributes to society.

The first step for the development of this methodology was to group Santander social initiatives/programs into four high-level categories:

Key priorities	Action area
Education Strengthening education is an important part of Santander's contribution to society. This includes primary and higher education, as well as financial education.	• Childhood primary and secondary education • Financial education
Entrepreneurship and job creation Santander has prioritized capacity building and microcredit entrepreneurs, specifically among disadvantaged groups.	• Entrepreneurship competencies • Job promotion
Welfare/Social well-being This includes support of NGOs and other institutions that implement programs to advance the health and well-being of people, particularly from low-income households.	• Child and youth protection • Elderly care • Low-income household support • Social inclusion • Medical and healthcare • Disability services
Environment This includes efforts to develop environmentally friendly tools, products and services. These are solutions for individuals and help tackle climate change, and protect the natural capital on which all people rely.	• Reduction of consumption and emissions



Step 4 Case Studies continued

Siemens

The Siemens Business to Society approach is an integrated strategy for the measurement and valuation of economic, environmental and social factors for internal decision-making and external reporting.

Applying the concept of impact pathways has enabled Siemens to improve its understanding of non-financial capital impacts and dependencies. It was surprising how far-reaching some impacts were, and how significant a proportion of national and international development plan priorities were impacted upon by Siemens' business activities.

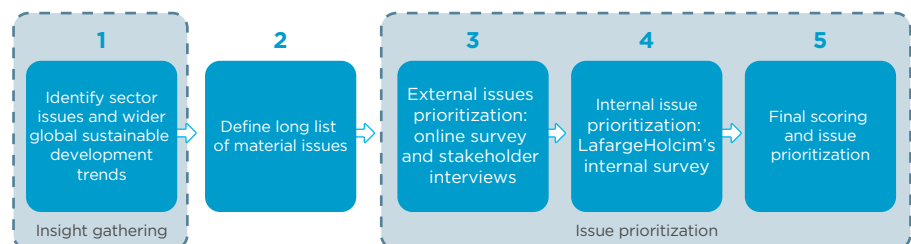
At an early stage in all national-level projects, the local Siemens project manager was briefed on the concept of impact pathways. This was very helpful for developing an understanding of impact measurement and could then be used as a guide to determine which subjects and KPIs to assess.

Impact pathways are also a useful conversation starter when engaging new internal and external stakeholders and may be used to plan program improvements over time, encouraging project managers to think "maybe I can go one step further, from measuring *output* to measuring *outcome or impact*."

LafargeHolcim

To prioritize social capital issues, LafargeHolcim has undertaken a five-step process aligned with the GRI G4 reporting guidelines, which includes engagement with both external and internal stakeholders, as well as research on industry peers, initiatives in the sector and wider sustainability trends. Sixteen external stakeholders were asked to rank the importance of each issue on a scale of high, medium and low through an online survey. A smaller selection participated in an interview to provide deeper insights. Fourteen internal stakeholders were also invited to score the issues. These included members of the executive committee, country CEOs and internal sustainability experts.

Scores were aggregated and the final results were recorded in a materiality matrix. Issues considered most material by internal and external stakeholders were spread across environment, social and governance themes, as well as across the company's value chain – from supplier management to sustainable products. In addition to the results, the process also offered insights into how the company can use the materiality results to develop goals and strategic KPIs.





STAGE 2: Conclusion

Outputs

By the end of Stage 2, you should have an understanding of:

- Who the target audiences are for the assessment and how the business might reflect their needs in the choice of scope and objective.
- What organizational, geographic, temporal and value chain boundaries the assessment is going to cover within the limits of the resources available.
- The full universe of potentially relevant social and human capital issues for the business.
- The links in the pathway that connect a business activity to social and human capital impacts and dependencies.

This should lead to the compilation of a set of priority issues that are: relevant to key audiences within the study's scope, connected to business activities and material to the business and its stakeholders.

Practical considerations

The time needed to complete this Stage depends on the level of buy-in and support of senior leaders and decision-makers. Some key considerations include:

- **Skills/expertise:** Businesses may benefit from referring to the more detailed guidance within the references section and potentially from support from external experts.
- **Timing:** The time and labor required for this Stage is likely to vary by organization. Businesses that are new to the concept of impact and/or dependency pathways and to issue prioritization may take longer (depending on their capacity to access information on relevant issues and to gather input from internal and external stakeholders). It is important to allocate sufficient time to socialize the proposed scope internally in order to ensure that the key audience/decision-makers have the opportunity to inform the process and decisions on boundaries and that they recognize the impacts or dependencies that result from the mapping process.
- **Stakeholder engagement:** Input from stakeholders impacted (through social dialogue at the company level, and/or in between employer and business organizations and workers' representatives') and the target audience is essential to ensuring that the assessment:
 - Focuses on material topics;
 - Is scoped in alignment with its objectives.

Input from external stakeholders will enrich the process and can be particularly valuable when mapping impact and dependency pathways.

STAGE 3: MEASURE AND VALUE



Objectives:

In this Stage, you will define fit-for-purpose indicators, metrics and data sources before conducting the technical measurement and valuation of your social and human capital impacts and/or dependencies.

Before you start this Stage, you should familiarize yourself with Step 8 in the Apply Stage, which covers interpreting and using assessment results, as there may be implications for Steps 5, 6 and 7, depending upon your objective.

Purpose:

Measurement and valuation are at the core of the Protocol. Establishing reliable access to tailored information will support informed action from decision-makers. When social and human capital impacts and dependencies use comparable values, you can employ them alongside other business information. This is key to integrating and mainstreaming the consideration of social and human capital within business operations and decision-making.

There are still many challenges for business in conducting social and human capital impact measurement and valuation but the field is rapidly evolving. This guide contains current good practice; yet improved methods and resources are becoming available as businesses continue to strive for the credible, useful and comparable valuation of social and human capital, particularly in relation to big data, real-time data and big indicators (Better Evaluation n.d.; Nelson, Chandra, & Miller 2018).

Steps:	Questions that this section will answer	Actions
05 Measure impact drivers and/or dependencies	How can your impact drivers and/or dependencies be measured?	5.1 Map your activities against impact drivers and/or dependencies 5.2 Identify a good quality indicator 5.3 Choose balanced and transparent metrics 5.4 Collect data for measurement and valuation
06 Measure changes in the state of social and human capital	What are the changes in the state and trends of social and human capital related to your business impacts and/or dependencies?	6.1 Identify changes in social and human capital associated with your business activities and impact drivers and those associated with external factors 6.2 Measure changes in social and human capital 6.3 Attribute changes in social and human capital
07 Value impacts and/or dependencies	What is the value of your social and human capital impacts and/or dependencies?	7.1 Define the consequences of impacts and/or dependencies and confirm prioritization 7.2 Select the appropriate type of value 7.3 Select a fit-for-purpose valuation technique



05 Measure impacts and/or dependencies

Before you can conduct a valuation exercise, you need to measure your social and human capital impact drivers and/or dependencies. The key decision to make at this point is to select the most appropriate indicators and metrics for measurement.

A combination of the following will drive this decision:

- Objective(s) of the analysis (as determined in Steps 1 and 2);
- Impact or dependency pathways (as identified in Step 4);
- Informational requirements of the valuation approach (as identified in Step 7).

For example, if the objective of the analysis is the monetary valuation of several different impacts so that the business can compare their relative size or aggregate them, it will be important to define and measure indicators that will support comparable monetary valuation techniques.

Actions

5.1 Map your activities against impact drivers and/or dependencies

In order to complete this action you will first need to identify all of the relevant activities associated with your assessment.

The figure below presents a simplified example to help you think through the relevant activities for your assessment. It shows the range of activities across the forest products value chain. In this example, the main activities are grouped into five value chain stages (production, primary and secondary processing, use and end of life), each with its associated impact drivers (both inputs and outputs). All of these value chain stages likewise depend upon social and human capital including safe, well-trained, and motivated employees).

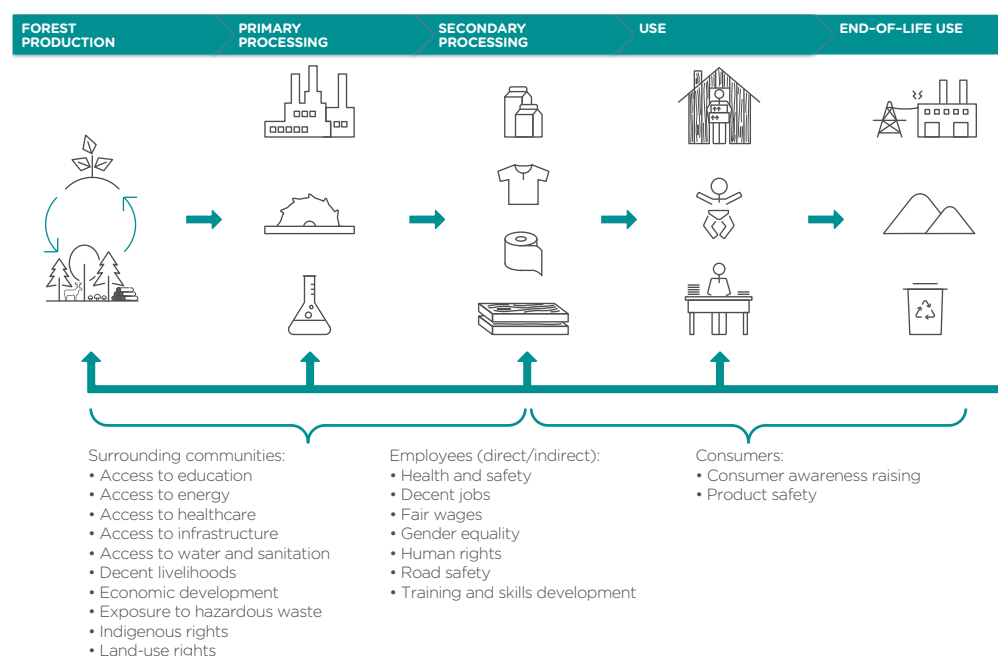


Figure 15:

Examples of social and human capital issues along the forest products value chain (modified from the Social & Human Capital Protocol: Forest Product Sector Guide)



5.2 Identify a good quality indicator

Indicators consist of information that infers performance. An indicator can be quantitative or qualitative. Ideally, it should provide a simple and reliable means to reflect the status of an activity or intervention. This means that it must be relevant, and sensitive or granular enough to reflect the expected magnitude of the intervention.

There are various sources of detailed guidance about what good quality indicators and metrics look like but put simply, you can think of effective indicators as having five SMART characteristics, (Church & Rogers 2006; UNEP & SETAC 2009; World Bank & Independent Evaluation Group 2012; Roundtable for Social Metrics 2018):

Specific: Indicators should reflect simple information about what is being measured, without being affected by other factors; and these should be easy to understand and communicate. Is it clear exactly what you are measuring? Have you specified the appropriate level of disaggregation?

Measurable: They should be objectively verifiable. Are the indicators objective? Are the indicators verifiable? Are they reliable and clear measures?

Attainable: Indicators and their measurement units must not be impractically time-consuming or expensive to collect and be able to withstand/be sensitive to changes in context.

Relevant: Indicators should reflect information that is meaningful. Does the indicator capture the essence of the desired result? Is it relevant to the intended outcome and impact?

Time-bound: Progress can be tracked at a desired frequency for a set period of time. Is there a clear time frame within which you should capture impacts?

Applying the SMART characteristics sounds simple, but many social performance indicators that businesses commonly use lack alignment with these characteristics, particularly with regards to specificity.

In many cases, indicators are too vague or too subjective and hence, open to discretionary use. Sometimes this is an issue around definitions – for example, clarifying what businesses consider a minor or serious health and safety incident. In other cases, it is the use of ratios or percentages that lack details – for example, total number of incidents vs. number of incidents per 10,000 people; both statistics are valid but their combined use would provide a more complete picture of performance.

5.3 Choose balanced and transparent metrics

Defining harmonized metrics and gaining access to appropriate and reliable data, in a way that is practical, affordable and pragmatic for business, remains a huge challenge. Recommendations for strengthening (and harmonizing) existing indicators and metrics used by businesses include:

- **Taking a balanced view of positive and negative impacts:** Many social and human capital impact indicators are designed with the assumption that there is a positive impact, meaning that they do not take negative consequences into account. For example, indicators may use *increases* or *improvements* but ignore some of the risks of negative direct or indirect outcomes for different stakeholder groups.
- **Document calculation methodologies:** Businesses should keep a record of (and if possible and appropriate, disclose) information about the methods employed to calculate an indicator. This can be a major contributor in the drive to achieve increased convergence and comparability. Not only does this increase accountability and transparency, it also supports the potential for increased awareness of best practices and their wider adoption among businesses.
- **Document assumptions:** It is important to carefully document (and if possible and appropriate, disclose) the assumptions that you use throughout your analysis and therefore any limitations in the application of your results. Being open about these limitations is likely to increase your credibility among stakeholders and facilitate learning and collaboration.



5.4 Collect data for measurement and valuation

Once you have identified the metrics you will use, the next step is to begin data collection and analysis. You may have already identified some of the data sources and selected your collection methods. This information is likely to have contributed to the choice of indicators. However, it is valuable to review it at this stage.

It is just as important to determine when and how you will collect data as it is to determine what data you will collect. For example, if you are trying to gather information about the impact of an investment in training farmers, it is important to keep the sowing or harvesting season in mind, as the farmers may not be available for interviews. If investigating participants with a low level of literacy, then an interview may be more appropriate than a survey (see Box 8). If businesses are comparing year-on-year performance, it is important to clarify the baseline and to ensure consistency in the time frame (see Step 3) and methods for measurement (see Step 6). This allows for comparability between year-on-year results.

It is important to make sure that you collect the right data to support the necessary analysis or calculations and to produce the social and human capital valuation. If you collect incorrect or insufficient data, you will waste time and resources by having to fill data gaps or rerun data collection. The overview below shows some of the different data sources that businesses might use in the context of the Protocol.

Primary data: data collected by the business (or an externally contracted party) specifically for the assessment. This offers more precise results but can also be more time-consuming and require more specialized skills. Some sources of primary data include:

- Internal and reported business data, including data collected by the business, such as the number of apprenticeships, internships and recruitment of new employees from human resources, hours of employee volunteering, employee engagement studies, spending with suppliers, or sales team performance;
- Data collected from customers or suppliers for the assessment.

Data related to the above can be derived from surveys, interviews and focus groups:

- Surveys, including those conducted by the business on a specific population, such as employees, suppliers, users or customers;
- Interviews or focus groups that seek to gather the perspectives of the target population.

Secondary data: data originally collected and published for another purpose or a different assessment. Secondary data sources include:

- Published, peer-reviewed and grey literature (e.g., life-cycle impact assessment databases; industry, government or internal reports):
 - Government statistics or World Bank/UN databases, such as household budget surveys, demographic health surveys or other routine data collection databases (Social Value International n.d.);
 - Interviews with third parties/proxies, including interviews with experts such as local NGOs, that can provide insight into communities that may be inaccessible to the business;
 - Data from employer and business organizations (e.g., labor and employment data, statistics concerning skills in demand, etc.)
- Past assessments;
- Data from audit/certification programs;
- Estimates derived using modeling techniques (e.g., environmentally extended input-output (EEIO) analysis, productivity models, mass balance).

Most businesses use a combination of primary and secondary data as this is more practical and can be sufficient to achieve the purpose of the assessment.



You can use both primary and secondary data-gathering techniques to collect data beyond a business's own operations – for instance, upstream or downstream in the value chain. In some cases, the engagement required to collect primary data from upstream suppliers or with downstream customers can be of business benefit in itself by strengthening business relationships. Businesses should ensure that their requests for data from suppliers or customers are not overly frequent or onerous. Where possible, and in particular in the case of suppliers, the data provider should receive feedback to help them understand how they compare to their peers and how they can improve performance, so that they see the benefit of their efforts in providing data.

One important factor to be aware of with surveys and focus groups – whether designing primary data collection or when interpreting secondary data – is sampling and sample bias. Instead of collecting information from all individuals or households in the community, businesses may select a representative sample instead. Based on that sample, businesses may then produce an estimate of the indicators of interest and then generalize it to the entire population. You should ensure the sample is of sufficient size and shares the same key characteristics as the population it represents.

Businesses should also carefully consider the data sets used for value transfer (see Step 7 for the definition and use of value transfer); for example, what are the characteristics of the study population and how should these be adjusted to avoid bias when results are applied to your business?

Box 8: Ethical considerations in data collection

The Protocol is not intended as a guide to all of the different data-gathering methods. There are, however, some important ethical requirements and principles for data collection that the Coalition strongly endorses, especially when engaging directly with communities. These principles not only ensure respect for the rights of participants but also strengthen the accuracy of the results. Anyone engaged in collecting data from communities should be aware of:

Informed consent: This is the process of obtaining approval from participants for the sharing and use of their data. This is an ethical requirement for most research. To ensure that consent is informed, it must be freely given, with sufficient information provided on all aspects of participation and data use.

With regards to indigenous communities, businesses should abide by specific principles around free prior and informed consent as specified by the UN (OHCHR 2013).

Cultural norms: Businesses should be sensitive, aware and respectful of cultural norms when determining appropriate data collection techniques. This could include, for example, being conscious of gender dynamics and whether women will speak freely in front of peers who are men.

Legal requirements: Businesses should review data laws and regulations in the country and locations where they are collecting data to ensure they comply.

Personal data: Many organizations collect and store large volumes of personal data. Businesses should give utmost consideration to how that data is stored and used, particularly in relation to the European Union's General Data Protection Regulation (European Union Publications 2016).

Other factors to be aware of include education and literacy levels, privacy and anonymity, as well as safety in some contexts.



Step 5 Case Studies

The cases below from Santander and Alliance Trust show how these organizations have developed SMART indicators to track the impact of their projects and investments. Santander uses a spread of impact-level indicators to measure the business's impact on people, organizations and the SDGs. Alliance Trust offers an investor perspective, describing how potential investments may be compared based on their effect on social and human capital. The market then effectively values these impacts monetarily. This approach allows Alliance Trust to stay one step ahead in investment sustainability planning.

Santander

Having defined the scope of its programs, Santander then measures the number of beneficiaries helped through these programs. However, before measuring the number of beneficiaries, the bank had to define what it considered as “a person helped.”

The main initiatives and programs were grouped into common areas that helped identify and define the most relevant beneficiaries and helped to achieve a simpler, more stringent reporting process. More specific definitions and indicators have additionally been developed that sit under these wider area groupings.

Indicators for measuring level of impact on beneficiaries

In order to determine the level of impact among beneficiaries – understood as change generated through the program – Santander has established three levels of impact according to the London Benchmarking Group methodology, for which quantitative KPIs were then established:

- **Connect:** the number of beneficiaries that have access to new services or tools;
- **Improve:** the number of beneficiaries that experience an improvement in their personal or family situation;
- **Transform:** the number of beneficiaries that experience a deep or transformational change in their lives.

This approach provides a clear, unified structure for measuring impact across programs and allows the bank to aggregate impact data for reporting purposes.

Indicators for measuring impact on the Sustainable Development Goals

Santander's social impact methodology aims to map the bank's impact on the SDGs. In doing so, Santander builds a wider view of how its programs are impacting beneficiaries beyond the main category that the program pertains to. For example, in the case of a program providing financial education to women with limited resources, several SDG targets are impacted.

Indicators for measuring impact on organizations

The methodology additionally includes the measurement of Santander's impact on the organizations it supports by evaluating whether its collaboration generates impacts that:

- Improve the organization's management;
- Drive new initiatives or increase the scope of existing ones;
- Better serve or expand their network of people assisted.

Alliance Trust

Alliance Trust uses a “Sustainability Matrix” to identify well-run sustainable companies that have better investment potential than the market. Companies are assessed and rated on two axes: Product Sustainability and Management Quality. Product Sustainability assesses the extent to which a company's core business helps or harms society and/or the environment. An A rating indicates a company whose products or services contribute to sustainable development while an E rating indicates a company whose core business is in conflict with sustainable development. Management Quality assesses whether a company has appropriate structures, policies and practices in place for managing its ESG risks and impacts. Management Quality, in relation to the risks and opportunities represented by potentially material ESG issues, is graded from 1 (excellent) to 5 (very poor).



06 Measure changes in the state of social and human capital

The assessment of changes in social and human capital is a precursor to applying a valuation methodology. We recommend that you:

- Use the impact pathways outlined in Step 4 to provide a framework for this Stage, noting that each impact driver may lead to multiple impacts;
- Ensure that measurements are consistent in terms of scope and methodology and that you can therefore aggregate or compare them;
- Attribute, where multiple actors are involved, changes in social and human capital to your business or external parties.

Actions

6.1 Identify changes in social and human capital associated with your business activities and impact drivers and those associated with external factors

This Step of the Protocol measures changes in social and human capital resulting from your business impact drivers. These changes are sometimes known as outcomes. Here you will undertake or commission measurement in order to understand the changes in social and human capital, and identify trends (over time, geographies, etc.) and contributing factors or parties, including the attribution of changes resulting from your business activities and impact drivers.

Some businesses may choose to use value transfer (see Step 7) or published impact factors to assess changes in social and human capital resulting from the business activities, rather than directly measuring these changes. In such cases, completing this Step will help to adjust for differences between your business/site of interest and the location or context of the original source study. Even if you do not need to make any adjustments, you should consider changes in social and human capital at a high level. This will enable you to check that the type and extent of social and human capital change described in the source study is comparable to what occurs at the site(s) of interest in your assessment.

The selection of specific changes in social and human capital to include in your assessment will also depend on the scope of the assessment and on available data, the cost of sourcing or modeling additional data, suitable methods, and the time and other resources available for your assessment.

It is important to identify external factors that result in changes in social and human capital, as accounting for such external factors could influence the significance of your business impacts and/or dependencies. Trends in social and human capital will often predict the future value of these resources, for example, automation resulting in the decreasing value of physical labor and increasing value of advanced technical and strategic skills. You might find it helpful to map the relevant indicators chosen in Step 5 to their dependencies and identify the likely subsequent changes in social and human capital.

6.2 Measure changes in social and human capital

You now need to select the most appropriate method(s) for measuring or estimating the relevant changes in social and human capital for different impact and dependency pathways and (where relevant) determine the likelihood of external factors affecting changes in social and human capital occurring – particularly when assessing dependencies.

Measuring can be challenging and costly. Measuring *impacts* in the technical sense is difficult due to (among other factors) the length of time it can take for impacts to materialize, influences beyond business activities that affect the impacts measured and the need for data outside of the scope of business operations. Businesses often focus on measurement at an earlier stage along the impact pathway as a proxy for *impact* and use data modeling techniques to understand what their longer-term *impacts* might be (WBCSD 2013). Businesses must be careful in their use of proxy indicators as proxies are no guarantee that businesses will deliver *impact* as anticipated.



6.3 Attribute changes in social and human capital

Consider whether you can meaningfully understand the change in social and human capital that you are trying to measure by itself or whether you need to measure it with reference to some kind of alternative scenario (also known as a counterfactual). After all, changes in social and human capital will occur naturally over time, regardless of the business activity. Therefore, observed changes in indicators (even against a defined baseline) do not necessarily provide a basis from which you can attribute causality between your activities and the observed change.

For example, a business could measure its employment in terms of the number of new jobs it has created; such data is likely to be readily available from the human resources department, but this does not tell you whether those individuals were likely to have gained employment even without the business's intervention. To measure these kinds of changes in social and human capital, comparison to a counterfactual scenario is necessary.

The fields of impact measurement and life-cycle analysis (LCA) use the terms *baseline* and *counterfactual* widely and various organizations define them in different ways. We leverage the definitions set out in the Natural Capital Protocol:

- **Baselines:** A baseline is the starting point or benchmark against which you can compare changes in social and human capital. Most assessments require an explicit baseline to enable the drawing of meaningful conclusions. The type of baseline will vary depending on the nature of the assessment and can include:
 - The historical situation during a specific period of time, such as a comparison of the number of health and safety incidents one year relative to those of the year before (the baseline year);
 - The state of social and/or human capital (e.g., employment level) at a point in time; for example, the state immediately before a project began;
 - A sector or economy-wide average level of a given social and/or human capital impact or dependency (i.e., an industry benchmark for salary level).
- **Counterfactual scenarios:** A counterfactual describes a plausible alternative state that would have resulted if the business activity or intervention had not occurred. You may achieve this by measuring or estimating consecutive change over the same time period in a comparable population or control group who did not benefit from the intervention. If a suitable counterfactual is available, this can add significant credibility to the measurement results, in particular to help justify a causal relationship between an activity or intervention and the change in social and human capital that you are measuring. However, these techniques can add to the time and cost required for measurement and are not always feasible for a business to conduct.

When undertaking an assessment that covers an extended period – such as measuring and valuing the impacts of a project over 20 years – the assessment will need to use a baseline and counterfactual scenario to account for changes in social and human capital that would have happened anyway in the absence of the business's activities. This is the challenge of proving the net benefit of an intervention and is known as *additionality*. You calculate additionality by identifying the gross benefits of your activities less the benefits that would have occurred in the absence of your intervention (the *deadweight*), less the negative impacts elsewhere (including *displacement*). Some of the approaches you might consider using to measure *deadweight* include:

- Business-as-usual projections based on historic baseline data, using what has happened previously in relation to health and safety incidents to project forward what might happen without a new intervention;
- Matching approaches that involve comparing the (gross) outcomes of a pilot intervention (in one factory) against business-as-usual outcomes in similar (non-pilot) factories;
- *Difference in differences* approaches that calculate the impact of an intervention by studying and comparing the effects of similar approaches (either within a business or compared to peers or minimum statutory requirements);
- Randomized control led trials whereby you apply your intervention to a specific set of employees and not to another similar group and monitor each over time to assess differences in behaviors and outcomes;



- Stakeholder surveys (including e-surveys, face-to-face surveys, focus groups and one-to-one interviews) exploring the situation before and after outcomes and questioning what alternative outcomes might have come about without your intervention;
- Delphi expert elicitation (in relation to causality). A Delphi expert elicitation is used to solicit the opinions of experts via an iterative questioning process. After each round of questions, you summarize and circulate responses for discussion in the next round. This enables the development of a consensus on the issue while taking into account common trends and outliers;
- Case studies with individuals affected by your business's actions that explore their views on how their lives and behaviors may have changed.

For many social and human capital issues, many different actors may have contributed to an identified net change in the state of social and human capital (for example, a training program funded by multiple parties). In such cases, it is important to acknowledge that you cannot directly attribute the whole of the social and human capital impact to your business. In some instances, acknowledgment of the attribution issue might be sufficient; however, in other instances it may be possible to use some method to attribute between parties – such as the percentage split of financial investment provided for the training course by each party. Calculating attribution is a particular challenge for *business-to-business* industries, which sell base components that other businesses often combine with hundreds of other products for multiple end applications.

Ensure clarity when reporting your gross, or preferably, your net impact. For example, when communicating your business's positive impact on well-being as a result of wages paid to your workforce, communicate whether calculations include employment benefits that would have occurred even without your presence (*deadweight*), and consider decreases in well-being that occur as a result of employing your staff, for example, negative impacts on your competitors in terms of regional labor market effects (*displacement changes*).

Outputs of this Step should include information on the likelihood of changes in social and human capital and, where possible, weighted estimates of the attribution. This information can then be used as an input for sensitivity analysis (see Step 8) to understand how study results may vary based on changes to the assumptions you have made in this Step.



Step 6 Case Studies

Nestlé describe below the critical importance of selecting the right baseline for an assessment, highlighting how different choices of baseline lead to radically different results. APRIL use the results of an assessment to highlight how it was relatively easy to measure changes in land value over time but much more challenging to attribute these changes to the business. APRIL developed a number of indicators to help make these connections and to estimate deadweight and displacement changes in social and human capital.

Nestlé

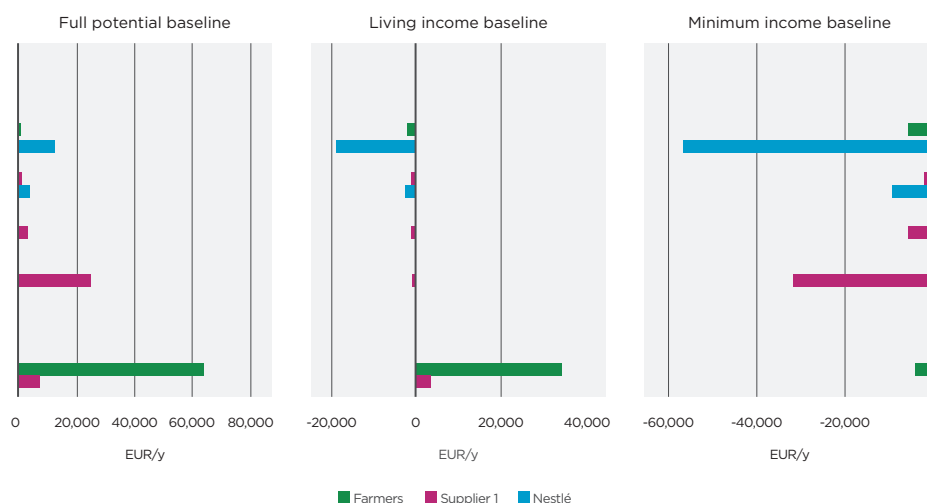
Based on existing statistics linking inequalities of income to inequities of health (World Health Organization, Eurostat), Nestlé developed a methodology to value social impact related to employment and skills (health and safety was also addressed but this is not discussed further here).

The results show the link between employee income and health, which is new for social capital impact valuation in the private sector. The underlying assumption is that income inequality is a key health determinant and on which the private sector has an important influence.

The baseline definition is critically important in this methodology and leads to the translation of the same results into either positive or negative societal impacts. If it is assumed that people should live to their full potential, this leads to negative impacts. Nestlé believes that this is an unrealistic baseline – there is no societal expectation that all employees will earn a top-level salary.

There is also an issue with assuming that any wage provided is positive, which would be the case if a minimum income baseline were used. States mandate a minimum wage; though employing people in the Nestlé supply chain at this rate still places a burden upon society in terms of income support or increased healthcare costs, which can be valued as a negative impact. This has led to the emergence of living wages that the company considers a more realistic baseline from which to measure impact. To summarize, two alternative baselines that can be defined are:

- The living wage baseline, which assumes that there is a threshold (the living wage) below which a negative impact occurs and above which a positive one occurs. For Nestlé, this baseline seems the most aligned with current trends in public and businesses' social policies.
- The minimum income baseline, which assumes that all income provided above the minimum income in a country brings a positive impact. It is close to the current vision of economic impact assessment studies. However, Nestlé is not in favor of this baseline for the reasons mentioned above.





Step 6 Case Studies continued

APRIL and Asian Agri

The aim of APRIL and Asian Agri's study was to measure and quantify the primary contributions to local economic development, household welfare, community lifestyle and land-use patterns and their impact on poverty reduction in Riau Province, Indonesia, where the company has significant operations.

It is clear that other factors beyond just APRIL's and Asian Agri's business activities have contributed to the land price and welfare increases seen over the 30-year period. While the parties involved have not yet calculated an estimation of the business's contribution to the change, the study includes some initial attribution indicators as a first step. Some examples include:

- Percentage of respondents who know the business;
- Percentage of respondents who have worked/are still working for the companies or have income-generating activities tied to the companies;
- Percentage of respondents who reported that the companies' operations make it easier to meet their daily needs/to find jobs/to access education/to contribute to better roads and bridges;
- Percentage of respondents who reported that they lost their livelihoods due to the companies' operations/that there were conflicts between the companies and the community;
- Percentage of respondents who perceived air or water pollution due to company waste/sound pollution or damaged roads caused by company operations;
- Percentage of respondents who reported that they cannot get a job at the companies due to lack of skills.



07 Value impacts and/or dependencies

Valuation is the process of determining the relative importance, worth or usefulness of something in a particular context. In Step 7, you will first identify the appropriate type of value to be used for each impact or dependency identified and then choose a fit-for-purpose valuation technique. As indicated previously, this choice will also guide the selection of indicators for measurement in Step 5.

Valuation may involve qualitative, quantitative or monetary approaches, or a combination of these. Note that in practice, the distinctions between each type of valuation may become blurred. For example, in semi-structured surveys, respondents provide their qualitative opinion on a reference scale (the Likert scale, for example) that is immediately converted into (quantitative) scores. Likert scale scores are an example of a semi-quantitative technique as they are a conversion of qualitative information into quantitative data. The Protocol does not intend to define these differences in detail but rather to indicate some of the strengths, weaknesses and appropriateness of various valuation techniques.

To identify the appropriate valuation technique, you should select the type of value most suited to the information needs of your audience, the objectives of the assessment, and the time and resources available. Based on these criteria, you can then select an appropriate valuation technique. For example:

- Determine the type of value used: Is the audience interested in qualitative, quantitative or monetary values, or a mix of these values (Better Evaluation n.d.) depending on the issue assessed?
- Select a fit-for-purpose valuation technique: Which valuation technique aligns with the chosen scope and anticipated deliverables?

Actions

7.1 Define the consequences of impacts and/or dependencies and confirm prioritization

Now that you have completed Steps 5 and 6, you should have an understanding of the type and magnitude of your business's impacts and dependencies (measured by the indicators you selected).

At this point you should categorize these impacts and dependencies by value perspective in order to avoid unintentionally mixing value to different stakeholders in subsequent Steps. When measuring value to your business, do not forget to include impacts internalized through regulation, reputational damage, etc. It may also be worthwhile to consider impacts that are at risk of being internalized.

Before embarking upon valuation, we recommend that you reassess the significance of impacts and dependencies identified in Step 4 now that more information is available.

7.2 Select the appropriate type of value

Definitions of different types of value are provided below.

Qualitative valuation: relies on data and information that can be descriptive in nature and/or convey more subjective perceptions of change. Normally implemented through questionnaire surveys, deliberative approaches or expert opinions, qualitative valuation may be useful for a preliminary identification of impacts and/or dependencies and is sometimes the only approach possible given the nature of the assessment and/or data available. Qualitative valuation may express relative value using terms such as high, medium or low, or ranking options using defined categories. The process of developing scales as part of a relative valuation approach is as important and can be as complex as deciding upon measurement metrics (WBCSD 2016b). Qualitative valuation may also take the form of stories, case histories, selected quotations or expressions of emotional responses to changes in social and human capital.



Quantitative valuation: is about expressing the value of impacts and/or dependencies in numerical, non-monetary, terms. It is different from *quantitative measurement* in that quantitative valuation relates to the importance, worth or usefulness of the impact and/or dependency by taking into account the context and ideally including affected stakeholders. So, for example, a business creating 1,000 jobs in an area with 15% unemployment may cause an impact of far greater value to stakeholders than a business creating 2,000 jobs in an area where there is a 5% unemployment rate. Quantitative valuations typically require quantitative measures as an input (e.g., the number of jobs created); these quantitative measures are also a prerequisite for monetary valuation (see below).

Monetary valuation: is used to determine the value of impacts and/or dependencies in a common unit of measure, such as US dollars, euros, etc., for ease of comparison with financial values (e.g., business costs or revenue). This approach (if sufficient information is available) is best used to provide information on the marginal value/net costs or benefits of an intervention that alters the quality and/or quantity of social and human capital, either at a point in time or over a given period. It can also be useful to assess the distribution of costs and benefits among different stakeholders and to assess the cost-benefit of different interventions.

Most monetary valuation techniques aim to measure changes in well-being (see Table 6 for more detail on these valuation approaches). The monetary valuation of social and human capital impacts and/or dependencies may require statistical techniques that are best carried out by qualified experts.

Different audiences will have different needs and preferences concerning the information they use to make decisions, including preferences for qualitative, quantitative or monetary valuation;

- An approach designed for external stakeholders, such as local communities, might focus on qualitative and quantitative valuation approaches that are transparent and that non-experts can easily understand, such as total jobs created or stated job satisfaction.
- If governments are an intended audience, they may be interested in the monetary valuation of social and human capital impacts. Certain forms of monetary valuation can reflect the preferences and priorities of citizens or identify opportunities for governments to save costs as a result of welfare improvements or improved efficiency in use of resources. Examples include: a business's direct contribution to gross domestic product (GDP) through employment; government savings from avoided spending on welfare and unemployment benefits; and the monetary value of well-being changes among communities due to business activities.
- Internal stakeholders may be more interested in performance against quantitative targets or key performance indicators alongside impacts on departmental budgets.

Table 5 highlights some of the advantages and disadvantages of qualitative, quantitative and monetary valuation approaches.

7.3 Select a fit-for-purpose valuation technique

When choosing the valuation technique for the assessment you should consider:

Type of valuation: For each social and human capital assessment, you should select an appropriate valuation technique based on whether you will assess values in qualitative, quantitative or monetary terms. If you have multiple audiences and objectives, you may need to employ more than one method.

When using a mix of techniques and/or measuring different value perspectives, you should ensure that values are consistent with one another – especially if you are going to directly compare or aggregate them. For example, when considering monetary values associated with providing a vocational training course, it is possible to measure in monetary terms both the resource cost to a business of running the course and the well-being benefit to an individual from the increased earnings they can expect as a result of taking the course. The first value represents the value of the *impact driver* (or *input*) by the business, while the second value represents the value of the *impact*; therefore, they represent different stages of the impact pathway and should be compared with caution. Only values that represent the same level of the impact pathway (e.g., all *impacts* or all *outcomes*) and use comparable valuation techniques may be simply aggregated into a total impact figure – apply caution when comparing or aggregating in other circumstances. Attention should also be given to the distribution of value between different stakeholder groups.



Level of rigor and granularity: You should determine the appropriate level of rigor to apply. Some businesses may decide that relatively broad estimates are sufficient to inform key decisions and will withstand critique from internal and external stakeholders, whereas other businesses may choose techniques that have higher levels of accuracy and credibility but may be time-and-labor intensive. Whatever the judgment, it is advisable to be transparent about the level of uncertainty in the results. You can do this by conducting sensitivity analysis (Step 8) to examine the effect of changes in key data or assumptions on your results.

Table 5:
Advantages and disadvantages of applying the three types of value

Type of values	Advantages	Disadvantages
Qualitative	This is useful when there are many different impacts or many different perspectives on those impacts. It can offer insight into context, motivations and sentiments that can serve as a complement and/or clarification of monetary valuation. It can be used when there is a lack of data for quantitative measurement. It can be used when important stakeholders find quantities or monetary values difficult to understand, accept or interpret, such as when impacts and/or dependencies are perceived to have a strong moral or ethical dimension.	Results are often based on subjective assessment and so may be: – More difficult to validate or reproduce; – Subject to bias; and/or – Generally more difficult to compare directly with other qualitative valuations and so provide less information about the relative importance of different social and human capital impacts or dependencies. This makes qualitative valuations of less use to external parties such as investors that aim to compare different options.
Quantitative	This is good for evaluating progress on a target or over time. It can include both direct measures (e.g., number of illnesses) and proxy measures (e.g., number of visits to healthcare services as a proxy for number of illnesses). It is useful when important stakeholders find monetary values difficult to accept or interpret.	Some stakeholders may find it difficult to accept the quantification of certain changes (e.g. in spiritual values, cultural identity, historical significance or health). Without contextual analysis – such as that from a qualitative case study – it may be difficult to interpret or compare results. Stakeholders may be unfamiliar with units of measurement and not be able to readily understand them.
Monetary	If monetary values are estimated correctly and on a consistent basis, they can be broadly comparable and offer meaningful information to help assess trade-offs between different social and human capital impacts or dependencies. Monetary valuation is essential for determining economic values or for direct comparison with financial information – where these are required for decision-making.	It may be time-consuming and expensive, especially if primary research is required to generate data and advanced tools/techniques are needed to determine monetary values. Some stakeholders may find it difficult to accept or interpret monetary valuation of certain benefits or issues (e.g. in spiritual values, cultural identity, historical significance or health). The assumptions built into the chosen valuation methods and the aggregation of results are not always readily accessible. The monetary values ascribed to impacts may change over time due to factors such as exchange rates, inflation or purchasing power adjustments. These changes will affect the impact valuation but are outside the business' control. Monetary valuations can only capture a limited proportion of total economic value. It will never be possible to ascribe a monetary value for every aspect of change experienced by every stakeholder impacted by a business or an intervention.

Types of valuation techniques include:

1. Qualitative valuation techniques

- *Opinion surveys*: provide a means of representing the views of a broad group of relevant stakeholders through a series of questions (e.g., through questionnaires or semi-structured interviews). You can elicit the relative importance or worth of social and human capital in a given context to estimate the value in a qualitative sense. Questions may be based on actual or hypothetical scenarios and seek responses from a range of relevant stakeholders. You can deliver surveys in person or remotely via telephone or the internet. It is essential to consider potential sources of bias in survey design, including in sample selection, scenario framing, the wording of questions and data analysis. You can also use surveys for quantitative analysis but should always include qualitative questions to support results and to validate respondents' understanding of quantitative questions.
- *Deliberative approaches*: are structured frameworks, such as facilitated group discussions or focus groups, for stakeholders to debate the relative values of social and human capital in a given context. They are particularly useful where there are divergent opinions that would benefit from facilitated discussion in order to understand the key drivers of different points of view and to work through these differences in an attempt to reach consensus on an appropriate qualitative valuation.
- *Relative valuation*: involves allocating high/medium/low values in order to determine the relative value of costs and/or benefits in categorical terms. You can implement this approach via workshops, available data and/or expert judgment.

2. Quantitative valuation techniques

- *Multi-criteria analysis*: involves selecting a range of indicators and rating and ranking their value through scoring and weighting in order to derive a single metric. You can do this using workshops, available data and/or expert judgment.
- *Structured surveys*: allow for the collection of quantitative information about respondents' views or preferences through the use of closed questions, which you can aggregate over the sample and use to estimate the views or preferences of a population of interest, such as a specific stakeholder group.
- *Health-adjusted life years (HALYs)*: is a family of techniques that you can use to measure the morbidity and mortality associated with changes in human well-being and health (i.e., injuries and illnesses) using a consistent and comparable unit of measurement.

Different health agencies have developed a number of HALY measures over the years. Two such techniques, which have become particularly prominent, are disability-adjusted life years (DALYs) (World Health Organization n.d.) and quality-adjusted life years (QALYs). These techniques measure health states in different ways, so care should be taken when considering comparison or aggregation of more than one type of HALY. There are also approaches to value HALYs in monetary terms (Mason, Jones-Lee & Donaldson 2009).



3. Monetary valuation techniques

There are various ways of categorizing techniques for the monetary valuation of social and human capital, with each category capturing different dimensions of value. These are: market-based approaches, revealed preference techniques, stated preference techniques, cost-based approaches, and value transfer techniques:

- *Market-based approaches*: use existing market prices for specific goods and services where relevant to represent changes in social and human capital. Where direct markets for goods or services exist, the value people place on the good is revealed directly using market prices, either for that or a similar good. Note: Even if the market price is correctly valued, it may only reflect a fraction of the total economic value. For instance, if you value health based on treatment cost + loss of labor and leisure time, you will not value multiple other factors, including the residual damage felt by the affected person.
- *Revealed preference techniques*: examine the way in which people reveal their preferences for a good or service derived from social and human capital.
- *Stated preference techniques*: ask consumers to state their preference directly for a good or service using survey techniques in order to define an appropriate value.
- *Cost-based approaches*: estimate the value of non-market “goods” or “bads” in terms of the cost of compensating those affected, mitigating damage or providing repair or remedy following negative impacts.
- *Value transfer*: also known as benefit transfer, is not a valuation technique in itself but involves transferring value estimates from existing economic valuation studies to the study site or context in question, making adjustments where appropriate. The application of value transfer can raise complex technical and ethical questions. For example, should correction for GDP/purchase power be applied? This can lead to differences in valuation of the same impact between more and less economically developed regions.

Table 6 provides a detailed comparison of monetary valuation techniques, including their advantages and disadvantages, and the likely data, time, budget and skills required to perform them.



Table 6:
Comparison of monetary valuation techniques

Technique	Description	Data required	Time/ Budget	Skills required	Advantages	Disadvantages
Market-based approaches						
Market prices	How much it costs to buy a good or service, or what it is worth to sell	Market price of goods or services The costs involved to process and bring the product or service to market (e.g., a training course)	Days/Low	Basic	+ A readily transparent and defensible method since based on market data + Reflects an individual's actual willingness to pay (WTP)	- Only applicable where a market exists for the goods or services and this data is readily available - Risk of undervaluation of the total economic value/ impact of societal well-being
Production function techniques	The effect of changes in non-market factors on the value of production output as a way to value these factors; a subset of these techniques is the human capital approach to value the loss of a worker from the workforce in terms of the corresponding foregone economic output	Data on changes in production output of a product Data on cause-and-effect relationship (e.g., marginal product of labor)	Weeks/ Medium	Economic analysis	+ If all required data are available, the technique can be implemented fairly easily + Can link social and human capital dependencies to financial accounts	- Necessary to recognize and understand the relationship between a change in social and human capital (i.e., labor) and output of product - Can be difficult to obtain data on relevant changes in social and human capital and effect on production
Revealed preference techniques						
Travel cost method	Based on the observation that social goods and marketed goods and services are often complementary (i.e., you need to spend money and valuable time on travel to visit a place of cultural importance); measures travel and other costs incurred when visiting a cultural asset for recreation or leisure to elicit a value per visit	The amount of time and money people spend visiting a site for recreation or leisure purposes Motivations for travel	Weeks - months/ High	Questionnaire design, interviewing and econometric analysis	+ Based on actual behavior (what people do) rather than a hypothetically stated WTP + Results relatively easy to interpret and explain	- Approach limited to use of recreational benefits - Difficulties in apportioning costs when trips are to multiple places or are for more than one purpose
Hedonic price method	The difference in property prices or wage rates that can be ascribed to the different qualities or attributes. In the case of wages, this could include skills, years of experience and training	Data related to house prices and how they are affected by relevant qualities Data related to wage rates or productivity increases as a result of training expenditures, education or partnerships with other organizations	Weeks/ Medium	Econometric	+ Wage data and employee health (insurance) expenditures readily available	- Difficult to measure things like on-the-job training or spillovers resulting from partnerships
Subjective well-being valuation (WV)	Assesses the relationship between life circumstances (e.g., employment status, health status, safety of local area) and levels of self-reported well-being	Large statistical data sets (e.g., the British Household Panel Survey)	Weeks/ Medium	Econometric/statistical analysis	+ Necessary data sets publicly available in some countries (e.g., UK) + Additional data sets can be created	- Data needed may not be available for either the issue being investigated or for a specific stakeholder group, in which case, costs will be higher - Provides only general correlations and not business-specific analysis

ORIENTATION

FRAME

SCOPE

MEASURE & VALUE

APPLY

NEXT STEPS



Table 6 continued:
Comparison of monetary valuation techniques

Technique	Description	Data required	Time/ Budget	Skills required	Advantages	Disadvantages
Stated preference techniques						
Contingent valuation (CV)	Infer values by asking people directly what is their WTP for a social benefit or their willingness to accept (WTA) compensation for their loss There are different ways to ask people for their WTP or WTA value, including through open-ended questions, being provided a price with the option to turn it down (dichotomous choice) and auction games	Stated value that people place on a good or service (e.g., job security, increased confidence); demographic and biographical information on survey respondents; obtained through survey questionnaires	Weeks – months/ High	Questionnaire design, interviewing and econometric analysis	+ Captures both use and non-use values + Flexible – can be used to estimate the economic value of virtually anything + A primary survey should result in more accurate outcome than value transfers	- Results are subject to numerous different respondent biases, e.g.: • Respondents may express a positive WTP, to promote warm-glow effect, overestimating value • If the cost is perceived as tax, respondents may express a negative WTP, underestimating value • If the respondent opposes placing any financial value on a good or service, they may place a protest bid that vastly overstates their WTP
Choice experiments (CE)	Presents a series of alternative resource or use options, each defined by various attributes set at different levels (including price) and asks respondents to select which option (i.e., sets of attributes at different levels) they prefer (e.g., a selection of different levels of work-life balance)	As for CV above, although CE contrasts several different scenarios; an appropriate set of levels are required for the different parameters (e.g., ranging from 0% to 100% loss of access to a spiritual site)	Weeks – months/ High	Questionnaire design, interviewing and econometric analysis	+ Captures both use and non-use values + Provides theoretically more accurate values for marginal changes (e.g., values per % loss of access to a spiritual site) + Can give more accurate outcome than contingent valuation or value transfers	- Results are subject to numerous different biases from respondents - Can be mentally challenging for respondents to truly weigh the alternative choices given to them in the time available
Valuation game	Participants asked to place value on outcomes by comparing preferences or by comparing goods or services that have known market values	Relative values that people place on goods or services or preferences to outcomes; demographic and biographical information	Days/Low	Questionnaire design and interviewing	+ Flexible and useful for defining outcomes, recognizing subgroups of stakeholders; order of magnitude valuation for service design + Captures both use and non-use value	- Results are subject to numerous different biases from respondents - Preferences need to align with market costs where more than one outcome is being valued for service design purposes
Hybrid stated preference/well-being valuation	Respondents asked directly for their willingness to accept compensation for a loss such that their level of well-being does not change	Large statistical data sets (e.g., the British Household Panel Survey) Stated value that people place on the well-being associated with a good or service (e.g., access to a library service); demographic and biographical information on survey respondents; data obtained through survey questionnaires	Weeks – months/ High	Questionnaire design, interviewing and econometric/statistical analysis	+ Avoids the need for willingness to pay scenarios that rely on hypothetical costs	- Data needed for well-being valuation may not be available, in which case costs will be higher

Table 6 continued:
Comparison of monetary valuation techniques

Technique	Description	Data required	Time/ Budget	Skills required	Advantages	Disadvantages
Cost-based approaches						
Compensation costs	The cost of compensating an individual or group of individuals for experiencing a negative impact	Compensation costs from the business or from public sources for a particular incident	Days/Low	Secondary data collection	+ Does not rely on hypothetical scenarios to provide WTA value + May be possible to obtain existing data from business or public sources	- Data needed may not be available for either the issue being investigated or for a specific stakeholder group, in which case costs will be higher - Only represents a lower bound for WTA - Results may be misleading if demographic differences are not controlled for
Defensive expenditure	The value paid to mitigate a risk or disamenity, e.g., expenditure on safety equipment along with the associated % reduction in risk of mortality or injury	Data on the price levels of specific defensive products along with the perceived or real reduction in risk or disamenity they provide	Weeks/ Medium	Econometric	+ Does not rely on hypothetical scenarios	- Data needed may not be available for either the issue being investigated or for a specific stakeholder group, in which case costs will be higher - Provides only general correlations and not business-specific analysis - Only represents a lower bound for WTP or WTA
Damage/repair/replacement cost	Cost of restoring a negative impact to its previous condition, for example following damage to a site of cultural importance	Data on actual or estimated repair costs	Days/Low	Secondary data collection	+ Does not rely on hypothetical scenarios	- Data needed may not exist for specific context - May not be possible to restore all impacts, in which case values may significantly underestimate WTA or WTP value held by those affected
Value transfer						
Compensation costs	Involves transferring value estimates from existing economic valuation studies to the study site in question, making adjustments where appropriate While a primary valuation technique is preferred, it may not be feasible; thus, value transfer is increasingly used by businesses instead of primary techniques due to its practicality for business applications	Valuations from similar studies elsewhere Data on key variables from similar studies (e.g., GDP per person, age, education level)	Days/Low	Basic or econometric analysis if using bid functions	+ Can be quick and require relatively fewer resources than many other techniques + Useful for scaling up valuation projects from geographically specific or project-based initiatives to a business-wide strategy + Can increase the credibility of a business study through reference to a reputable source + Means multiple businesses can use the same value, with the potential to make values and performance analysis more comparable across businesses and industries	- Results may not be relevant to the stakeholder group for which the value is being calculated - Decision-makers must be attuned to socioeconomic and cultural discrepancies among groups and individuals and should carry out at least basic location-specific research as a fit-for-purpose test - Existing valuation studies may be more robust and numerous for some goods/services than for others



Step 7 Case Studies

BT and Nestlé explain below how they have used monetary valuation and health-adjusted life years to value their impact on customers and workers, whereas the Roundtable for Product Social Metrics describe a scales-based and multi-criteria analysis approach. Informa highlight their innovative approach to calculating the monetary value of networking events.

BT

BT commissioned research to adapt the social return on investment (SROI) methodology to analyze the value of the company's digital inclusion activities. The findings demonstrate that the company's *Get IT Together* program has a social return of investment of £3.7 for every £1 spent. The company also estimates that the social value of being online is worth over £1,064 a year to newly online individuals and over £3,658 a year to professional users. BT has made the methodology available as an open source tool to aid further studies and form the basis of the United Kingdom government's digital inclusion valuation framework.

Nestlé

A unit of measurement was required that could represent impact over a broad range of issues and hence, disability adjusted-life years (DALYs) were chosen. This unit brings together two sub-issues – years of life lost and spent disabled – allowing for the accounting of early deaths and reduced quality of life.

DALYs and its counterpart, quality-adjusted life years (QALYs), are well-understood units used by governments and UN organizations to guide public health policy decisions. The World Health Organization has, for example, published an extensive study – *Global Burden of Diseases* – of all sources of DALYs per country linked to causes, as well as extensive research on the social determinants of health, including working conditions and environment. In corporate impact valuation, there is emerging consensus that DALYs are the most appropriate measure for health and safety, meaning the impact of accidents and injuries in a work-related environment. The use of such metrics is much less common for assessing other societal issues, such as child labor or living wages. However Nestlé believe that DALYs can provide relevant insights to those issues if measurements and models can be established.

Using quality of life (expressed in DALYs or QALYs) to evaluate social performance issues other than health and safety provides a more relevant approach than traditional measures of economic contribution, such as job creation and related *output/outcome* indicators. Studies that use this type of purely economic approach generally view all employment created as a positive, while neglecting potential human rights issues related to the quality of the job in terms of wages and working conditions, among other factors.



Step 7 Case Studies continued

The Roundtable for Product Social Metrics

The Roundtable for Product Social Metrics is a forum for collaboration between large businesses grappling with the issue of social impact assessment at the product level. One aim of this collaboration was to harmonize disparate methodologies from participating businesses, resulting in the development of the Handbook for Product Social Impact Assessment. This handbook has now been refined and tested in a series of diverse pilot projects, including: a chair component, a hair care product, tires and electricity generation. The handbook additionally formed a key input for the development of and is fully aligned with the WBCSD Social Life Cycle Metrics for Chemical Products report.

Among other areas, the Roundtable for Product Social Metrics provides guidance on two valuation techniques compatible with LCA assessment: a scales-based approach and a quantitative approach. The handbook summarizes a number of advantages of each approach:

- The quality of data collected is critical in both approaches. Therefore, data collection requires a well-defined procedure.
- The scales-based approach may allow for an intuitive judgment of results, as these are presented as positive, neutral or negative according to a reference scale or as an assessment of a combination of different questions.
- The scales-based approach may be advantageous where the quantification of indicators is very difficult or does not deliver meaningful results.
- The quantitative approach has a higher resolution, which gives a higher degree of granularity in the decision-making process.

These methodologies correspond to the *relative valuation* and *multi-criteria analysis* techniques detailed in the Social & Human Capital Protocol. Roundtable participants are now exploring the feasibility of monetary valuation. The methodology of the Roundtable for Product Social Metrics is freely available under a Creative Commons license.

Informa

Informa, a leading business intelligence, publishing, knowledge and events business, is calculating the monetary value of networking associated with the business's global events. The purpose of this monetary figure is to provide one of a suite of indicators on the social, economic and environmental impact of an event to the organizing team and host city. This will aid commercial decision-making and demonstrate alignment with the company's and host city's values.

Considering social, economic and environmental values for events helps provide a clearer picture of the impact of each event to stakeholders, including the host city. To generate these wider economic, social and environmental values, a mixture of research techniques were used. For networking, the value of new lead acquisition is estimated based on a series of industry research papers. The values used are complemented with data from other survey-based sources relating to the estimated return on investment for event attendance. The valuation requires a number of pieces of data including an estimation of the number of connections participants make during event visits. Results are communicated as part of an overall summary of impact that will be refined over time. This work is currently under development and being piloted with different regional teams (Little Blue Research 2019).



STAGE 3: Conclusion

Outputs

By the end of Stage 3 you should have:

- Chosen appropriate indicators and metrics that are, as far as possible, SMART.
- Understood the ethical considerations around data collection.
- Undertaken the collection of primary or secondary data (or a mix of both) and documented data sources, assumptions and limitations.
- Selected an appropriate baseline (and, where relevant, counterfactual scenarios).
- Appreciated the issues of additionality and attribution and disclosed any relevant assumptions made concerning these issues.
- Decided which type of value, or combination of values, will be most useful for achieving the aims of the assessment and the needs of the audience.
- Used all of the above to choose and implement an appropriate valuation technique.

Practical considerations

This Stage is typically the most time-and-resource intensive and many businesses using the Protocol for the first time will likely engage external experts to capture, analyze and validate the data and results.

Skills/expertise: Many of the measurement and valuation techniques require economics/econometrics expertise. Some businesses may also engage specialists, academics or civil society partners – including sociologists, ethnographers or anthropologists – in fieldwork.

Timing: The amount of time to complete the data collection and analysis varies significantly depending on the approach and the data available. As highlighted above, a narrowly focused value transfer approach using available corporate-level data sets could take less than a month. Any primary data collection is likely to take more time.

Stakeholder engagement: Most businesses will engage external stakeholders at some point in the measurement and valuation process. Capturing the perspectives of the stakeholders impacted by the business strengthens the quality and credibility of the results and analysis. Stakeholder engagement is also potentially needed to gather or confirm the interpretation of data. When engaging stakeholders in data gathering and analysis, businesses should keep ethical considerations in mind – refer to Box 7 for further information.

Data availability: Businesses with experience in the assessment of natural capital may observe several important challenges that are more pronounced in the field of social and human capital, for example:

- There are currently fewer sources of secondary data available from background databases;
- Quantitative valuations can be more difficult because of a lack of agreed indicators and wide range of perspectives;
- Value choices (personal values, such as personal beliefs, attitudes and risk perceptions, are the criteria people use to evaluate actions and events) make decision-making more complicated.

STAGE 4: APPLY



Objectives:

In the last Stage of the Protocol you will interpret the results of Stage 3 and apply them to relevant business decisions. You will investigate how to integrate the social and human capital measurement and valuation approach into business processes and systems to *do things better*. You will also consider how the business could change its contribution to sustainable growth in society to *do better things*.

Purpose:

The appropriate interpretation and communication of results will ensure that the measurement and valuation effort drives tangible, meaningful improvements in the management of social and human capital. Embedding the assessment into your business processes and systems will promote more integrated thinking, thereby aligning the consideration of social, human, environmental and financial issues to drive better decision-making and improve social and human capital performance management. Through the process of applying the Protocol, it is certain that each business will encounter and overcome challenges related to classifying definitions, identifying fit-for-purpose indicators and metrics, and sourcing appropriate data. Sharing both challenges encountered and solutions found will help to advance, further harmonize and build the credibility of the field of social and human capital measurement and valuation for business.

Steps:	Questions that this section will answer	Actions
08 Interpret and test results	How can you interpret, validate and verify your assessment process and results?	8.1 Collate results 8.2 Consider discounting (in cases where you have applied monetary valuation) 8.3 Test key assumptions 8.4 Identify who is affected 8.5 Make recommendations for action 8.6 Validate and verify the assessment process and results
09 Take action	How will you apply your results and integrate social and human capital into existing processes?	9.1 Apply and act on the results 9.2 Integrate social and human capital into business processes 9.3 Mainstream social and human capital assessment within the business



08 Interpret and test results

Step 8 puts the results of social and human capital measurement and valuation into the context of business decision-making. It aims to help you analyze, interpret and communicate the results in such a way that the target audiences you identified in Step 2 can use them effectively. In this Step, you should not only ask what the results mean for your business but also how reliable they are. You should consider several factors when analyzing and applying the results of measurement and valuation.

Actions

8.1 Collate results

You may have already considered how you will combine the collected data sets in order to produce a valuation result during the previous Steps. If not, you should do this now. You may require additional technical support – internally or externally – to complete more complex calculations or modeling.

A particular difficulty is that different social and human capital impacts and dependencies require tailored approaches and there may be a number of alternatives to choose from. Differences between these alternatives may include their level of precision, their granularity and the completeness of the value that they represent. You should aim to produce values that are (as far as possible) consistent with one another – especially if you are intending to directly compare or aggregate them.

To interpret and present the results, businesses must collate them in a way that makes sense internally and for other relevant audiences. This is likely to involve some type of analytical framework, such as a cost-benefit analysis, total profit and loss account or total societal contribution. Some businesses may take a macro picture of their performance across various capitals – social, human, natural and financial – to identify the relative positive and negative performance for each and, in some cases, for each part of the value chain.

Just because it is possible to value an impact does not, by itself, justify trading one impact off against another that may be valued more highly. Similarly, the value of the impacts from an activity may be positive in a net figure but there may be negative impacts masked within that. For example, there may be situations where employment and wage payments create value for workers but working conditions are unfavorable. It is important to look both at the total value and the individual elements (see attribution in Step 6), including different groups impacted (see distributional analysis), to ensure that you do not overlook any key risks or obligations.

8.2 Consider discounting (in cases where you have applied monetary valuation)

Where social and human capital valuation relates only to private costs or benefits to a business, it is appropriate to use the business's normal financial discount rate to express future costs or benefits in present value terms, i.e., the standard *hurdle rate* used for project appraisal or the business's weighted average cost of capital.

However, it is rare that decisions relating to social and human capital have purely private consequences attributable only to the decision-maker. It is therefore much more likely that valuation will need to consider costs or benefits accruing to third parties (referred to in the Protocol as *impacts on society*).

Where these future societal costs or benefits are concerned, it is appropriate to apply a discount rate that reflects the balance of preferences (among all the affected stakeholders) for consumption now versus consumption in the future – this is referred to as a societal or social discount rate.

Societal discount rates vary but are almost always lower than normal financial discount rates, principally because they attempt to reflect the well-being of future generations as well as generations alive today. This can be particularly important in the context of social and human capital, which, unlike most other forms of capital, can continue to provide sustainable, long-term benefits.



Typical social discount rates currently range between 2-5%, but in some contexts higher, lower and even negative discount rates can be justified (Health and Safety Executive 2001; United Kingdom Treasury 2018). A common approach to address potential debate about the appropriate discount rate is to test the sensitivity of results and conclusions using multiple different discount rates.

8.3 Test key assumptions

Some estimation and approximation will likely be involved in any social and human capital measurement and valuation. As the social and human capital assessment field evolves, new data and methods will help improve accuracy and reliability of results. However, all businesses will need to weigh the benefits of precision against the resources required for the collection of large data sets – and consider the use of analytics and big data indicators going forward.

It is critically important to understand and clearly communicate the level of confidence you have in your results, so that this is taken into consideration when applying them to business decisions. For example, when using value transfer for monetary valuation, existing value estimates in the literature can vary greatly, giving vastly different results depending on the reference value chosen. You should make this variation explicit and discuss its implications, especially if using this information alongside other monetary values.

In areas of uncertainty, it is usually preferable to choose the most reasonable assumptions, rather than defaulting intentionally to best or worst case scenarios. There are, however, situations that warrant the use of a more precautionary approach to social and human capital valuation. In these cases, the most conservative values should be applied. An alternative is to present ranges of likely values rather than one single datapoint.

Furthermore, in the case of monetary valuation, the values may be sensitive to changes that are outside the business's control, such as fluctuations in exchange rate, inflation and purchasing power parity. This can mean that a business's impact could change between assessments without the business having changed its actions. Where possible, and particularly in the case of monetary valuation, businesses should carry out a sensitivity analysis to test assumptions and communicate the results of the sensitivity analysis alongside the assessment results.

8.4 Identify who is affected

Use distributional analysis to understand who is affected by a decision, and whether they gain or lose. This is an important step in determining whether planned actions would increase or decrease inequalities between groups of stakeholders and to proactively resolve such issues. For instance, to appreciate the impact of increasing wages for one group of workers on wage equality, you need data on the top, median and bottom wage deciles. Having gender-disaggregated and gender-specific data is also crucial to appreciating potential gender inequalities or discrimination.

8.5 Make recommendations for action

You should consider how to prioritize your findings and recommended actions. The starting point should always be tackling any risks, concerns or negative impact areas that require urgent attention.

You should present the findings in a language and format that resonates with each target audience and may, therefore, choose to use different formats to present to different stakeholders. Some businesses may choose a stand-alone report while others will integrate the findings into existing KPIs, reporting or measurement tools. It is increasingly common for businesses to use scorecards to communicate results assessed against objectives or goals.

However you choose to make recommendations, you should identify and communicate all assumptions used. This can include, for example, the use of average or minimum wage baselines to capture changes to employee incomes and any adjustments made to include other benefits paid by the business.



8.6 Validate and verify the assessment process and results

Formal verification or external audit is not a mandatory feature of the Protocol but you may need to provide such auditing or verification if you intend to communicate the assessment results to certain audiences. Verification provides both internal and external stakeholders with the confidence that the data and methods are fit-for-purpose and the results are sufficiently robust for use in decision-making.

Validation and verification may cover the process you adopted or the results, or both. Regardless of whether or not you conduct validation or verification, you should identify and communicate any critical uncertainties, key assumptions and important caveats that will help communicate the strengths and weaknesses of the assessment and the reliability of the results. The Protocol's four principles (relevance, rigor, replicability and consistency) – as described in the Orientation section of this document – will help when validating and verifying your results.

Step 8 Case Studies

In its Social Life Cycle Metrics for Chemical Products report, WBCSD discuss the importance of carefully considering data aggregation and collation to avoid misleading results. Skanska expand on the concept of credible data by elaborating on the business' 2020 Data Strategy.

WBCSD: Social Life Cycle Metrics for Chemical Products

WBCSD's Social Life Cycle Metrics for Chemical Products report builds on the work of the Roundtable for Product Social Metrics and the United Nations Environment Programme (UNEP)'s Guidelines for Social Life Cycle Assessment of Products (UNEP & SETAC 2009) and associated works by adding the experience of WBCSD companies and tailoring a methodology specific to the needs of the chemical sector.

One topic covered in the guide is the aggregation of data.

When aggregation is chosen, the process shall respect the following principles:

- **Clarity:** Aggregation shall be achieved at a level understood by stakeholders;
- **Transparency:** Stakeholders shall be able to disaggregate if they want to further analyze a specific stage of the value chain or a social topic in particular;
- **Credibility:** The methodology shall be sufficiently detailed; and
- **Consistency:** The results shall be consistent with the goal and scope of the assessment.

Skanska

The assessment results were audited by Skanska's finance department, which revealed that the quality of the social and environmental data could be improved, especially when compared with more established financial metrics. This internal audit provided useful feedback on processes that require improvement before making data publicly available.

To address data challenges, the company has developed a 2020 Data Strategy. Part of the strategy will bring the Accounting for Sustainability initiative closer to the work of the information technology department, in order to understand and apply effective data management principles. Some examples of data management principles in the Skanska 2020 Data Strategy include:

- Data sources and ownership – identifying the most appropriate sources of data for the appropriate use, taking into account the quality of different sources and future risks to data availability;
- Data modeling – mapping the sources, flows and storage of different metrics to start to identify inefficiencies and risk of error in the data management and reporting process;
- Data life-cycle management – using data mapping to identify the value data assets have throughout their life cycle (from creation to management, use and deletion);
- Data governance – appropriate governance of data creation, replication, management, use and deletion.



09 Take Action

The Social & Human Capital Coalition's vision is that social and human capital will be consistently measured and valued in corporate, investor and government decision-making. This can only happen if social and human capital measurement and valuation become part of the way that business operates. This integration will take time, which is why it is important that businesses view the Protocol as an iterative process whereby a business develops, strengthens and expands its approach over time.

In addition to using the results of a social and human capital assessment to make decisions, we recommend expanding the original scope of the assessment and carefully considering how you can best use the results to support the mainstreaming of social and human capital assessment. You should revisit the outputs of Stage 2 to confirm the next priority area you will tackle. You should seek to record and apply the lessons learned to date in implementing the Protocol to improve and streamline the process, as well as re-engage the internal stakeholders who have been involved so far as advocates within the business.

You should consider sharing the stories, methodologies, indicators and values you have applied. You could discuss the challenges, benefits and opportunities of your experience, share your ambitions and goals, and act as an advocate in mainstreaming social and human capital measurement and valuation for business. Remember, even if you are new to this topic, the field is young and all businesses are at the beginning of their journeys. The experience and insights of leading businesses are essential to informing and advancing this important practice.



Actions

9.1 Apply and act on the results

You should of course consider whether and how the assessment met the objective (identified in Step 2) and can inform the decision you need to make. The results of your assessment may have led to a change of activity, or to smaller adjustments in a plan of action or additional mitigations, or they may simply provide further justification for the activities already underway meaning no change is necessary.

You may need to measure the contribution of the assessment to your business strategy or targets, for example, the amount of money saved (or lost) relative to an alternative approach.

Depending on your selected business application, you may decide to, for example:

- Reduce or increase a certain business activity
- Use a specific procurement sourcing option
- Select a specific site
- Make a specific investment (e.g., in a community or staff education program)
- Adapt your activities based on stakeholder relationships
- Develop a new product or adapt existing ones
- Include social and human capital in your reporting
- Monitor your social and human capital performance over time

Additional actions that you may consider include:

Internalizing externalities: You may want to consider whether externalities that you have identified could, or would, be internalized in the future as you take action based on the results of the assessment.

9.2 Integrate social and human capital into business processes

Many businesses start with a pilot study, which generates momentum internally for further studies. Other businesses start with a corporate-wide study that is adapted at a site level or product level, or expanded to include other parts of the value chain. Regardless of the path to integration, each business should continue to advance its approach, drawing on internal lessons and new tools and resources as they become available.

Outlined below are a few examples of business processes that could leverage the Social & Human Capital Protocol process:

Cost-benefit analysis: Social and human capital measurement and valuation is useful for analyzing net benefits or internal rates of return of specific investments. In doing so, it can provide another level of confidence to both business and social value creation.

Strategic planning and goal setting: Social and human capital information can help guide corporate strategy by providing additional data on the business' role in society and its impacts and dependencies. A growing number of businesses are incorporating the language of sustainable value creation into the way they communicate their business mission and contribution to society.

Management systems: Businesses can use the Protocol process in continuous improvement planning – particularly where real-time data indicators are available. For example, including safety indicators and values into the structured plan-do-check-act cycle can help translate results into corrective actions for operations managers, helping to make the measurement and valuation of social and human capital a part of regular performance evaluations.



Impact assessments: Businesses can align their existing impact assessment, or due diligence processes, with social and human capital measurement and valuation principles. This will help to better connect these activities to the wider business and provide a more complete view of social and human capital performance.

External reporting: Businesses can integrate the Protocol into existing sustainability and financial reporting. The Protocol process provides a structured way to prioritize issues and strives to create credible, comparable data that is useful for stakeholders and shareholders. We have designed it in particular to provide a solid foundation for integrated reporting.

Risk assessment: The Protocol provides a way of analyzing the risks of a business's products or operations. This can add valuation elements to inform decision-making, thereby providing richer information to operations, finance, strategy, etc., and can introduce a broader range of measures to assess risk in context (COSO & WBCSD 2018).

Product portfolio management: Businesses can benefit from an added layer of data for product portfolio management, screening out products with negative impacts and innovating to create more sustainable product portfolios. An SLCA can, for example, bring potentially valuable information for design, risk management and/or strategic decision-making.

There are many other business processes and systems into which the Protocol could be integrated. Some of these depend on the business structure and operations, as well as their current maturity with regards to integrating sustainability into core business functions. One way to help drive further integration is by customizing the Protocol to specific business needs and building implementation tools and guidance that help embed the process and ensure its consistent application across operations.

9.3 Mainstream social and human capital assessment within the business

You should refer to the outcomes of Stage 1 of the Protocol to define your next priority areas. These could address areas of high risk, high interest to stakeholders or of high importance to the business. When making a longer-term plan, you should keep the following points in mind:

- Don't be afraid to address negative social and human capital issues that could be caused by the business, that could impact operations and/or supply chains or could pose a potential risk. Addressing the many societal challenges that touch upon business operations is often a more essential, credible and valuable initiative than seeking new opportunities. It is particularly important to discuss the management of any negative impacts (Social & Human Capital Coalition 2017) as part of any net/total impact communication, in order to avoid the perception of *greenwashing*.
- Shift mindsets to transformation. Although the assessment may be moving on to a new subject or to pilot projects in a new business function, businesses should clearly frame efforts to implement the Social & Human Capital Protocol as part of a crosscutting change effort that will eventually affect the entire business.
- Share long-term ambitions, goals and objectives with staff across the business. This is most powerful if the messages come from senior leadership. Where the measurement and valuation efforts affect your whole value chain, seek opportunities to begin a broader setting of expectations with your suppliers, customers and stakeholders.
- Leverage the experience, insight and enthusiasm for measurement and valuation of key team members to engage additional employees. Focus not just on the impact of your measurement and valuation project on society but also on the benefits it has brought to the business – in terms of improving decision-making capabilities and ultimately, in reducing risk and increasing performance, profit or recognition.

In addition to the intended audience, you may also consider communicating results to a wider group of stakeholders internally and externally. There are a number of benefits to doing so – including demonstrating leadership in integrating sustainability into the business. Sharing the results in a clear and transparent way can also strengthen relationships with stakeholders and unlock new opportunities for collaboration to address any identified challenges.



Step 9 Case Studies

Integrating social and human capital into business practices and communicating the benefits of a measurement and valuation approach are both key to scaling up the social and human capital movement. Below AkzoNobel expand on their external communication of results and Siemens detail the internal scaling up of its measurement and valuation program.

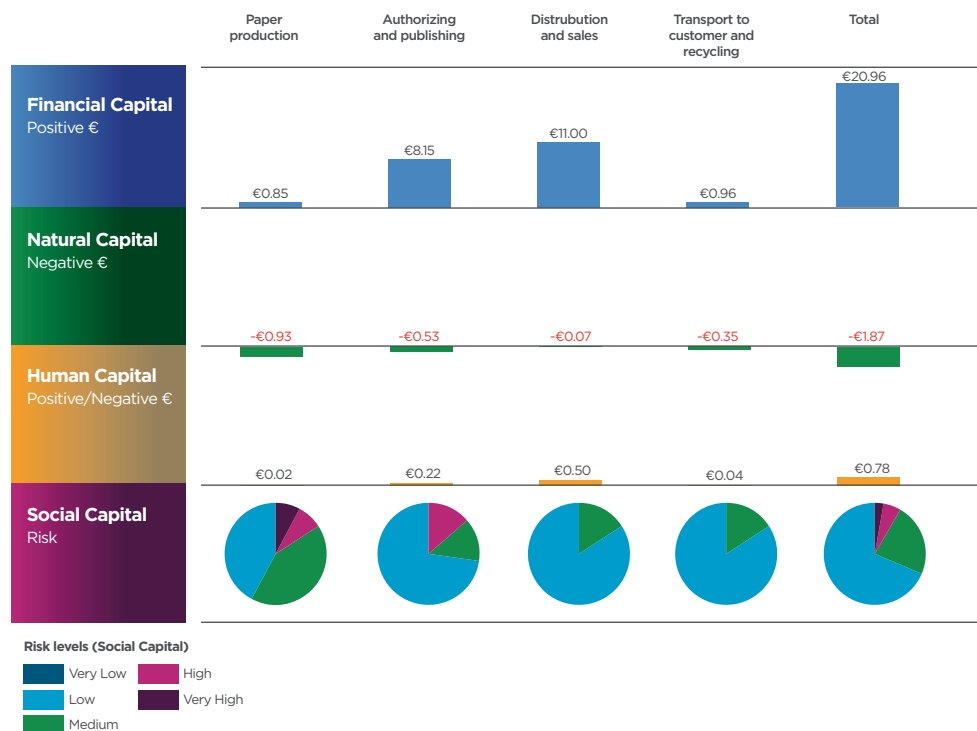
AkzoNobel

The greatest benefit of undertaking non-financial value assessment for AkzoNobel has been tracking and monitoring impacts to facilitate continuous improvement and engaging employees, suppliers and customers. Demonstrating that AkzoNobel is proactive about measuring its social impact is crucial to maintaining supplier and customer relationships.

AkzoNobel is also using the results of its *4D P&L* assessments to help drive product and service innovation and launch additional community programs, prioritizing those offering more value to society.

The company has introduced additional talent development and training programs for employees that the human resources management team now benchmarks against industry averages and uses the information to attract and retain talent.

For clear communication of the results, AkzoNobel has compared the positive and negative values created in the book value chain. The company reports the following: “The combined overall increase in financial and human capital (€21.74) is more than 10 times greater than the loss of natural capital (-€1.87). Few social risks have been identified. This is an encouraging result: we believe that this loss in natural capital can be (further) reduced by using our AkzoNobel technology and value chain cooperation.”





Step 9 Case Studies continued

Siemens

Siemens is taking an iterative approach to developing its organizational impact assessment. To decide where to start, a small team within Corporate Strategy Sustainability conducted interviews with the heads of strategy across the company's 30 lead countries on their needs and expectations for social impact measurement; 90% responded that socioeconomic performance is very important and will become more important over the coming years.

Armed with this endorsement, the team conducted two pilot projects measuring country-level performance in South Africa and the wider impacts of an infrastructure project in the United Kingdom.

The core team operating the Siemens Business to Society project produced a support concept, including guidelines and an implementation kit for country-level implementation, which has now been executed in 20 countries globally.

The original methodology used at Siemens has now been condensed into a more streamlined process using relatable business language instead of the specialist academic terminology of non-financial capital assessment. This has assisted in reducing the perceived complexity and resource requirements of impact assessments at a national level, improving program buy-in and uptake. The demand from Siemens country-level operations for carrying out this work is currently very strong, as the value of the project has now been effectively demonstrated.



STAGE 4: Conclusion

Outputs

At the end of Stage 4 you should have:

- Clearly outlined the assumptions and limitations of the assessment and have an understanding of the sensitivity of the results to key assumptions.
- Used the results to inform the business decisions identified in Steps 1 and 2.
- Communicated the results to the target internal and external audiences.
- Identified opportunities for improvements that you could make to the assessment process in the future.
- Considered how to integrate the results of this and future assessments into business strategy, decision-making and communications processes.

Practical considerations

This final Stage of the Protocol is critical to consolidating and capitalizing on the work done over the last three Stages. Its application will vary greatly among businesses but, as it lays the foundations for future action, it is important to allocate sufficient time and attention to this Stage.

Skills/expertise: You may want to consider additional support from change management professionals, communications professionals, stakeholder engagement teams and technical professionals (such as certified safety, health and environment professionals) in order to determine reporting opportunities and provide reliable data. You should also ensure you have recorded the skills, expertise and support needed to apply the previous three Stages. Finally, you should consider additional skills that your business might need on an ongoing basis.

Timing: The time required for this Stage can vary. The key consideration is to ensure the allocation of enough time to record progress and lessons learned to date and to gain an appropriate level of awareness and engagement, while still keeping up momentum on the broader journey.

Stakeholder engagement: Look back at the full range of stakeholders engaged throughout Stages 1, 2 and 3. Determine which stakeholders you can call upon to record their experience and expertise and to act as advocates going forward. This is an appropriate point to re-engage internal stakeholders at more senior levels and to kick off communications with a wider range of external stakeholders.

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Acknowledgments

We would like to extend sincere thanks to WBCSD for leading the development of the Social & Human Capital Protocol. We would also like to thank the businesses and experts who contributed their insights, experience and expertise.

Kithrona Cerri and Matthew Watkins from WBCSD led and managed the coordination, writing and publication of the first version of this document.

Matthew Watkins and Eva Zabey from WBCSD, Mike Wallace and Mark Graham from the Social & Human Capital Coalition led the 2018 public consultation and the 2019 update of the Protocol, with valuable input from the Protocol Technical Committee (see below). We would like to highlight the considerable pro-bono contribution of BrownFlynn, an ERM Group Company and PwC throughout the Protocol development process.

We would also like to warmly acknowledge the support of Jessica Davis-Pluess (independent), Stuart Jefford (PwC), Laura Plant (PwC), Jeremy Nicholls (SVI) and Heather Esper (WDI) in the development of this document, the contributions of Janne Dietz (KPMG) and Matthew Archer (Yale University) to the underlying analysis, and the European School of Management and Technology for additional analysis of indicators and metrics.

Finally, we would like to warmly thank the Natural Capital Coalition for their support and advice, as well as their willingness to reference and reuse significant elements of the Natural Capital Protocol in this version of the Social & Human Capital Protocol. The Natural Capital Protocol is available at: www.naturalcapitalcoalition.org/protocol/

CONTRIBUTING BUSINESSES

Accenture Axel Franck, Katharina Beck

Alliance Trust Lynne Dalgarno

APRIL Jemmy Chayadi, Lukman Hakim Moeslich

Arcadis Bianca Nijhof, Lia Belilos, Philip Youell, Alessandro Casartelli

ArcelorMittal Annie Heaton, Chifipa Mhango

Argos Paula Cristina Perez Gonzalez, Andrés Salazar González

AkzoNobel Caterina Camerani, Klas Hallberg

BASF Christian Heller, Dr. Gerwig Kruspel

BMW Group Dr. Marzia Traverso, Peter Tarne

BT Anna Easton

CEMEX Alexander Röder, Henning Alts Schoutz

Chanel Guy Morgan

Deloitte Canada Edward Thomas

Deloitte Touche Tohmatsu Limited Eric Dugelay, Stasha Santifort

Dow Mark Weick

DSM Gaelle Nicolle, Jacobine Das Gupta

ENI Gloria Denti, Francesca Palmisani, Roberto Bossi, Fabrizio Pecoraro

ERM Linden Edgell, Sabine Hoefnagel

Evonik Guido Vornholt

EY Anne Munaretto, Roel Drost

Fujitsu Nozomi Takayanagi, Sogo Fujisaki, Takafumi Ikuta, Takahiro Yamauchi

Godrej Vikas Goswami

Honda Shuhei Nakano, Yuzuru Matsuno

JP Morgan Ali El Idrissi, Yasemin Saltuk

Kering Michael Beutler

KPMG Ana Perez Uematsu, Barend van Bergen, Brad Sparks, Isabel Beitia, Janne Dietz, Jerwin Tholen, Wim Bartels

LafargeHolcim Alan Kreisberg, Anne-Laure Denis, Antonio Carillo, Ariane Lüthi, Jim Rushworth, Pier Gribaudi

Masisa Francisca Tondreau, Regina Massai

Mitsubishi Julie Rogers, Emily Minton, James Gomme

Mondi Arnavaz Schatten, Neil Burns

PwC Geoff Lane, Stephen Hogan, Stuart Jefford, Laura Plant, Alisha Kapoor

Nestlé Anna Turrell, Duncan Pollard, Luiz Montenegro, Samuel Vionnet (Valuing Nature)

Roche Ursula Fischler-Strasak

SABMiller Anna Swaithe, Cecilia Zevallos, Lauren IannaroneSABIC Gretchen Govoni

Santander Etienne Butruille

SCA Anna Brodowsky, Kersti Strandqvist, Per Brattberg

Schneider Electric Thomas Andre

Shell David Atkins, Joanne Bole, Miguel Ruiz-Larrea

Siemens Daniela Proust, Dominic Kerner, Ian Bowman, Emily Wright

Skanska Christina Houlgrave, Bobin Kan

Smurfit Kappa Angela Concha, Beatriz Mejia, Outi Marin

Solvay Joachim Poesch, Pierre Coers, Thomas Andro

Sompo Japan Nipponkoa Insurance Inc. Adam Ichikawa

Tata Manjula Sriram

The Navigator Company José Ataíde

Vale Vitor Libanio, Adriana Verdier

Veolia Helene Lebedeff, Kevin Hurst, Sonia Ouldali

Veracel Debora Jorge, Renato Filho

TECHNICAL COMMITTEE

We would like to thank the Protocol Technical Committee for their assistance with resolving content issues arising from the public consultation on the Protocol and for their specific editorial contributions.

Aaron Bernstein Proxywatch

Ajit Chaudri TATA

Alison Tate International Trade Union Confederation (ITUC)

Alka Upadhyay TATA

Andreza Souza Natura

Antonio Carrillo LafargeHolcim

Ben Carpenter Social Value International

Bianca Nijhof Arcadis

Bill Baue Reporting 3.0

Bruno Van Parys Solvay

Caterina Camerani AkzoNobel

Christian Heller BASF

Christopher Earl Roche

David Bent Forum for the Future

David Lawrence AIM Progress

Dennis Hudson Center for Safety and Health Sustainability (CSHS)

Diana Carrero Argos

Doug MacNair ERM

Frank Murillo Social Progress Imperative

Hannah James Yorkshire Water

Heather Esper University of Michigan

Helen Slinger A4S

Holly Dublin Independent

Janne Dietz KPMG

Jeremy Dufour Olam

Julie Greene Olam

Kelly McCarthy GIIN

Larry Beeferman Harvard

Laura Plant PwC

Lilian Wang PwC

Malcom Staves L'Oreal

Manjit Jus Robecosam

Mark Goedkoop Pre-sustainability

Marta Santamaría Natural Capital Coalition

Nachiketa Das Green Indian States Trust (GIST)

Neil Stevenson International Integrated Reporting Council (IIRC)

Nicolas Vercken Oxfam

Nikolas Kelling Volkswagen

Ravi Abeywardana Olam

Reinoud Clemens DSM

Richard Barker Said Business School

Richard Betts EY

Roland Michelitsch Inter-American Development Bank (IADB)

Samuel Vionnet Valuing Nature

Sara Russo Garrido CIRAIG

Sonja Haut Novartis

Stephanie Hime Little Blue Research

Sue Stephenson Impact2030

Tom Beagent PwC

Urs Schenker Nestlé

SOCIAL & HUMAN CAPITAL COALITION BOARD

The Social & Human Capital Coalition Board have provided oversight to the process and content of the current version of the Social & Human Capital Protocol.

Cécile Duflot, Director General, Oxfam France

Jeremy Nicholls, former CEO, Social Value International

Kathy Seabrook, Chair, Center for Safety and Health Sustainability (CSHS)

Mark Gough, Executive Director, Natural Capital Coalition

Martine Durand, Chief Statistician and Director of Statistics and Data, Organisation for Economic Co-operation and Development (OECD)

Pavan Sukhdev, President, World Wildlife Fund International (WWF)

Peter Bakker (Chair of the Board), CEO, World Business Council for Sustainable Development (WBCSD)

Richard Howitt, Chief Executive Officer, International Integrated Reporting Council (IIRC)

Roberto Suarez Santos, Secretary-General, International Organisation of Employers (IOE)

Sharan Burrow, General Secretary, International Trade Union Confederation (ITUC) (June 2018 to January 2019)

Vic van Vuuren, Director, Enterprises Department, International Labour Organization (ILO)

References

- Accounting for Sustainability (2012). Future Proofed Decision Making: Integrating Environmental and Social Factors into Strategy, Finance and Operations. Available at: <https://www.accountingforsustainability.org/en/knowledge-hub/reports/future-proofed-decision-making.html>
- Accounting for Sustainability (2014). Natural and Social Capital Accounting: An Introduction for Finance Teams. Available at: <https://www.accountingforsustainability.org/en/knowledge-hub/guides/Natural-social-capital.html>
- B Analytics (n.d.). GIIRS Global Impact Investment Rating System Fund Ratings. Available at: <http://b-analytics.net/content/giirs-fund-rating-methodology>
- Better Evaluation (n.d.). Combine Qualitative and Quantitative Data. Available at: https://www.betterevaluation.org/en/rainbow_framework/describe/combining_qualitative_and_quantitative_data
- BlackRock (2018). BlackRock Investment Stewardship's Approach to Engagement on Human Capital Management. Available at: <https://www.blackrock.com/corporate/literature/publication/blk-commentary-engagement-on-human-capital-march2018.pdf>
- Church, C. & Rogers, M. (2006). "Chapter 4: Indicators." In: Designing for Results: Integrating Monitoring and Evaluation in Conflict Transformation Programs, pp. 43-60. Available at: <https://www.sfcg.org/Documents/dmechapter4.pdf>
- Clegg, N., Dawkes, B., & Mason, A. (2016). The Social Lexicon: Sorting out the Muddle. In association with Porritt, J. and Forum for the Future. Available at: <http://www.jonathonporritt.com/sites/default/files/users/The%20Social%20Lexicon%20October%202016.pdf>
- Committee of Sponsoring Organizations of the Treadway Commission (COSO) & WBCSD (2018). Enterprise Risk Management: Applying Enterprise Risk Management to Environmental, Social and Governance-related Risks. Available at: https://docs.wbcsd.org/2018/02/COSO_WBCSD_ESGERM.pdf
- Corporate Reporting Dialogue (CRD) (2016). Statement of Common Principles of Materiality of the Corporate Reporting Dialogue. Available at: <https://corporatereportingdialogue.com/wp-content/uploads/2016/03/Statement-of-Common-Principles-of-Materiality1.pdf>
- Corporate Reporting Dialogue (CRD) (2018). Better Alignment Project. Available at: <http://corporatereportingdialogue.com/wp-content/uploads/2018/11/Corporate-Reporting-Dialogue-Better-Alignment-Project.pdf>
- Coulson, A. & Bonner, J. (2015). Living Wage Employers: Evidence of UK Business Cases. January. London: Citizens UK on behalf of the Living Wage Foundation. Available at: <https://strathprints.strath.ac.uk/51445/1/LivingWageReport21012015.pdf>
- Diener, E. (2009). "Subjective Well-being." In Diener, E. (Ed.). The Science of Well-being. Available at: <https://www.springer.com/de/book/9789048123490>
- European Commission (2014). Proposed Approaches to Social Impact Measurement. Available at: <https://publications.europa.eu/en/publication-detail/-/publication/0c0b5d38-4ac8-43d1-a7af-32f7b6fcf1cc>
- European Union Publications (2016). General Data Protection Regulation (EU) 2016/679. Available at: <https://publications.europa.eu/en/publication-detail/-/publication/3e485e15-11bd-11e6-ba9a-01aa75ed71a1/language-en>
- Fish R., Burgess J., Church A., & Turner, K. (2011). "Shared Values for the Contributions Ecosystem Services Make to Human Well-being." In Human Well-being. Available at: <https://www.cbd.int/financial/values/unitedkingdom-sharedvalues.pdf>
- Global Reporting Initiative (GRI) (2015). GRI 101: Foundation. Available at: <https://www.globalreporting.org/standards/media/1036/gri-101-foundation-2016.pdf#page=%2010>
- Global Reporting Initiative (GRI) (2016). GRI 103: Management Approach. Available at: <https://www.globalreporting.org/standards/media/1038/gri-103-management-approach-2016.pdf#page=6>
- Global Reporting Initiative (GRI) (2018). GRI 403: Occupational Health and Safety. Available at: <https://www.globalreporting.org/standards/gri-standards-download-center/gri-403-occupational-health-and-safety-2018/>

Global Reporting Initiative (GRI), United Nations (UN) Global Compact & WBCSD (2015). The SDG Compass. Available at: <http://sdgcompass.org/>

Harding, A. (2014). What is the Difference between an Impact and an Outcome? Impact is the Longer Term Effect of an Outcome. Available at: <http://blogs.lse.ac.uk/impactofsocialsciences/2014/10/27/impact-vs-outcome-harding/>

Health and Safety Executive (2001). Reducing Risks, Protecting People. Available at: <http://www.hse.gov.uk/risk/theory/r2p2.pdf>

Heery, E., Nash, D. & Hann, D. (2017). The Living Wage – Employer Experience. Available at: https://www.researchgate.net/publication/315837281_The_Living_Wage_-_Employer_Experience

Impact 2030 (2018). 2018 Impact2030 Innovation Awards. Available at: http://dev.impact2030.com/viewpage?id=2018_impact2030_summit_-_innovation_awards

International Finance Corporation (IFC) (2007). “Stakeholder Consultation.” In: Stakeholder Engagement Handbook. Available at: http://www.ifc.org/wps/wcm/connect/5a4e740048855591b724f76a6515bb18/PartOne_%20StakeholderConsultation.pdf?MOD=AJPERES

International Finance Corporation (IFC) (2007). “Stakeholder Identification and Analysis.” In: Stakeholder Engagement Handbook. Available at: http://www.ifc.org/wps/wcm/connect/b720b30048855a0584e4d66a6515bb18/PartOne%20_StakeholderIdentification.pdf?MOD=AJPERES

International Integrated Reporting Council (IIRC) (2013). Capitals Background Paper <IR> Available at: <http://integratedreporting.org/wp-content/uploads/2013/03/IR-Background-Paper-Capitals.pdf>

International Integrated Reporting Council (IIRC) & International Federation of Accountants (2016). Materiality in Integrated Reporting: Guidance for the Preparation of Integrated Reports. Available at: <https://www.ifac.org/publications-resources/materiality-integrated-reporting>

International Labour Organization (ILO) (1998). Declaration on Fundamental Principles and Rights at Work. Available at: <https://www.ilo.org/declaration/lang--en/index.htm>

International Organization of Employers (IOE) (2017). Policy brief: Understanding the Future of Work. Available at: <https://www.ioe-emp.org/ihp?elD=dumpFile&t=f&f=128002&token=cf212c5fdc20dd63ee909184dbd10747158c2ce3>

International Organization for Standardization (ISO) (2018). ISO 45001 - Occupational Health and Safety. Available at: <https://www.iso.org/iso-45001-occupational-health-and-safety.html>

Ionascu, M., et al. (2018). “Women on Boards and Financial Performance: Evidence from a European Emerging Market”. In: Sustainability 2018, 10, 1644. Available at: <http://www.mdpi.com/2071-1050/10/5/1644/pdf>

Keeley, B. (2007). Human Capital, How What You Know Shapes Your Life. Available at: <https://www.oecd-ilibrary.org/docserver/9789264029095-en.pdf?expires=1545125845>

Knorringer P. & van Staveren, I. (2006). Social Capital for Industrial Development: Operationalizing the Concept. Vienna: United Nations Industrial Development Organization (UNIDO). Available at: https://repub.eur.nl/pub/21665/_social_capital.pdf

Little Blue Research (2019). The social impact of different events. Available at: <https://www.littleblueresearch.com/case-studies>

Mason, H., Jones-Lee, M., & Donaldson, C. (2009). “Modelling the Monetary Value of a QALY: A New Approach Based on UK Data”. In: Health Econ. 2009 Aug;18(8):933-50 Economics, August, 18 (8), 933-50. Available at: <https://onlinelibrary.wiley.com/doi/abs/10.1002/hecl.1416>

Mayne, J. (2001). “Addressing Attribution Through Contribution Analysis: Using Performance Measures Sensibly”. In: The Canadian Journal of Program Evaluation, 16 (1), 1-24. Available at: https://www.betterevaluation.org/resources/guide/addressing_attribution_through_contribution_analysis

Natural Capital Coalition (2016). Natural Capital Protocol. Available at: <http://www.naturalcapitalcoalition.org/natural-capital-protocol.html>

Nelson, C., Chandra, A., & Miller, C. (2018). “Can Measures Change the World?” In: Stanford Social Innovation Review, Winter 2018. Available at: https://ssir.org/articles/entry/can_measures_change_the_world

- New Economics Foundation (NEF) (2009). National Accounts of Well-being: Bringing Real Wealth onto the Balance Sheet. Available at <http://roar.uel.ac.uk/603/1/Michaelson%2C%20J.%20et%20al%20%282009%29%20nef.pdf>
- Office for National Statistics (2018). Measuring National Well-being: Quality of Life in the UK, 2018. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/articles/measuringnationalwellbeing/qualityoflifeintheuk2018>
- Office of the United Nations High Commissioner for Human Rights (OHCHR), (2011). UN Guiding Principles for Business and Human Rights. Available at: https://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf
- Office of the United Nations High Commissioner for Human Rights (OHCHR), (2013). Free, Prior and Informed Consent of Indigenous Peoples. Available at: <https://www.ohchr.org/Documents/Issues/ipeoples/freepriorandinformedconsent.pdf>
- Organisation for Economic Co-operation and Development (OECD) (2001). The Well-being of Nations: The Role of Human and Social Capital. Executive Summary. Available at: <http://www.oecd.org/education/innovation-education/1870573.pdf>
- Organisation for Economic Co-operation and Development (OECD) (2008). OECD Guidelines for Multinational Enterprises. OECD Publishing. Available at: <http://www.oecd.org/investment/mne/1922428.pdf>
- Organisation for Economic Co-operation and Development (OECD) (2011). OECD Guidelines for Multinational Enterprises. Available at: <http://www.oecd.org/investment/mne/1922428.pdf>
- Organisation for Economic Co-operation and Development (OECD) (2012). Mortality Risk Valuation in Environment, Health and Transport Policies. Available at: <http://www.oecd.org/env/tools-evaluation/mortalityriskvaluationinenvironmenthealthandtransportpolicies.htm>
- Organisation for Economic Co-operation and Development (OECD) (2013). OECD Guidelines on Measuring Subjective Well-being. Available at: <http://www.oecd.org/statistics/oecd-guidelines-on-measuring-subjective-well-being-9789264191655-en.htm>
- Organisation for Economic Co-operation and Development (OECD) (2015a). How's Life? 2015: Measuring Well-being. Available at: http://dx.doi.org/10.1787/how_life-2015-en
- Organisation for Economic Co-operation and Development (OECD) (2015b). In it Together: Why Less Inequality Benefits All. Available at: <http://www.oecd.org/social/in-it-together-why-less-inequality-benefits-all-9789264235120-en.htm>
- Organisation for Economic Co-operation and Development (OECD) (2018). Measuring Business Impacts on People's Well-being and Sustainability: Taking Stock of Existing Frameworks and Initiatives. Available at: <http://www.oecd.org/investment/measuring-business-impacts-on-peoples-well-being.htm>
- Organisation for Economic Co-operation and Development (OECD) (n.d.). Glossary of Statistical Terms. Available at: <https://stats.oecd.org/glossary/>
- Oxfam (2009). Oxfam Poverty Footprint: Understanding Business Contribution to Development. Available at: https://d1tn3vj7xz9fdh.cloudfront.net/s3fs-public/file_attachments/oxfam-poverty-footprint_3.pdf
- Oxfam (2018). Ripe for Change. Available at: https://d1tn3vj7xz9fdh.cloudfront.net/s3fs-public/file_attachments/cr-ripe-for-change-supermarket-supply-chains-210618-en.pdf
- Raworth, K. (2018). Doughnut Economics. Available at: <https://www.kateraworth.com/doughnut/>
- Reporting 3.0 (2016), Project Outline for Blueprint 2: Accounting. Available at: https://reporting3.org/wp-content/uploads/2017/12/R3_BP_2_Outline.pdf
- Roundtable for Product Social Metrics (2018). Handbook for Product Social Impact Assessment (version 3.0). Available at: <http://product-social-impact-assessment.com/>
- Said Business School & Deloitte (2018). In Pursuit of Inclusive Capitalism: Business and Approaches to Systemic Change. Available at: <https://www.scribd.com/document/376814729/In-Pursuit-of-Inclusive-Capitalism-Business-and-Approaches-to-Systemic-Change>

Scrivens, K. & Smith, C. (2013). Four Interpretations of Social Capital: An Agenda for Measurement. OECD Statistics Working Papers. Available at: https://www.oecd-ilibrary.org/economics/four-interpretations-of-social-capital_5jzbcx010wmt-en

Securities and Exchange Commission (2017), Division of Corporation Finance Guidance on Calculation of Pay Ratio Disclosure. Available at: <https://www.sec.gov/corpfin/announcement/guidance-calculation-pay-ratio-disclosure>

Social & Human Capital Coalition (2017). Social & Human Capital Charter. Available at: <http://social-human-capital.org/social-human-capital-protocol/social-human-capital-charter>

Social & Human Capital Coalition, International Integrated Reporting Council (IIRC) (2018). “Supporting an Integrated Approach to Social and Human Capital”. Available at: http://social-human-capital.org/sites/default/files/IIRC%20SHCC%20Joint%20Statement%20Final_0.pdf

Social & Human Capital Coalition & Natural Capital Coalition (2018). Informing Decision-making by Taking a Systems Approach to Value. Available at: http://social-human-capital.org/sites/default/files/SHCC%20NCC%20Joint%20Statement_0.pdf

Social Value International (2012). A Guide to Social Return on Investment. Available at: <https://socialvalueint.org/social-value/standards-and-guidance/the-guide-to-sroi/>

Social Value International (2016a). A Discussion Document on the Valuation of Social Outcomes. Available at: <http://www.socialvalueuk.org/app/uploads/2017/09/Valuation-of-Social-Outcomes-pdf-1.pdf>

Social Value International (2016). “Part One: Creating Well-defined Outcomes.”: In New Supplementary Guidance for Principle 2: Understanding What Changes. Available at: <https://www.salfordsocialvalue.org.uk/new-supplementary-guidance-principle-2-understanding-changes/>

Social Value International (2016d). Supplementary Guidance on Materiality. Available at: [http://www.socialvalueuk.org/app/uploads/2016/03/Supplementary%20Guidance%20on%20Materiality%20\(PDF\).pdf](http://www.socialvalueuk.org/app/uploads/2016/03/Supplementary%20Guidance%20on%20Materiality%20(PDF).pdf)

Social Value International (2016). Supplementary Guidance on Stakeholder Involvement. Available at: [http://www.socialvalueuk.org/app/uploads/2016/03/Supplementary%20Guidance%20on%20Stakeholder%20Involvement%20\(PDF\).pdf](http://www.socialvalueuk.org/app/uploads/2016/03/Supplementary%20Guidance%20on%20Stakeholder%20Involvement%20(PDF).pdf)

Social Value International (n.d.) “Global Value Exchange 2.0” Available at: <http://www.globalvaluexchange.org/>

South African Government (2013). National Development Plan 2030. Available at: <https://www.gov.za/issues/national-development-plan-2030>

Stiglitz, J., Sen, A., & Fitoussi, J. (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress. Available at: <https://ec.europa.eu/eurostat/documents/118025/118123/Fitoussi+Commission+report>

Stockholm Resilience Centre (n.d.). The nine planetary boundaries. Available at: <https://www.stockholmresilience.org/research/planetary-boundaries/planetary-boundaries/about-the-research/the-nine-planetary-boundaries.html>

Sustainability Accounting Standards Board (SASB) (2017). SASB’s Approach to Materiality for the Purpose of Standards Development. Available at: <http://library.sasb.org/wp-content/uploads/2017/01/ApproachMateriality-Staff-Bulletin-01192017.pdf?hsCtaTracking=9280788c-d775-4b34-8bc8-5447a06a6d38%7C2e22652a-5486-4854-b68f-73fea01a2414>

Sustainability Accounting Standards Board (SASB) (2017). The SASB Standards. Available at: <https://www.sasb.org/standards/download/>

Sustainability Accounting Standards Board (SASB) (2018). Materiality Map. Available at: <https://materiality.sasb.org/?hsCtaTracking=28ae6e2d-2004-4a52-887f-819b72e9f70a%7C160e7227-a2ed-4f28-af33-dff50a769cf4>

The Economics of Ecosystems and Biodiversity (TEEB) (2018). TEEB for Agriculture and Food - Scientific and Economic Foundations Report. Available at: <http://teebweb.org/agrifood/scientific-and-economic-foundations-report/>

United Kingdom Government (2012). The Public Services (Social Value) Act 2012. Available at: <https://socialvalueportal.com/legislation-overview/>

United Kingdom Treasury (2018). The Green Book: Central Government Guidance on Appraisal and Evaluation. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf

United Nations (1948). Universal Declaration of Human Rights. Available at: <http://www.un.org/en/universal-declaration-human-rights/>

United Nations (2015a). Guiding Principles Reporting Framework. Available at: <https://www.ungpreporting.org/framework-guidance/download-the-reporting-framework/>

United Nations (2015b). Sustainable Development Goals. Available at: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

United Nations Environment Programme (UNEP) & Society of Environmental Toxicology and Chemistry (SETAC) (2009). Guidelines for Social Life Cycle Assessment of Products. Available at: http://www.unep.fr/shared/publications/pdf/dtix1164xpa-guidelines_slca.pdf

United Nations Environment Programme (UNEP) & Society of Environmental Toxicology and Chemistry (SETAC) (2013). The Methodological Sheets for SLCA. Available at: https://www.lifecycleinitiative.org/wp-content/uploads/2013/11/S-LCA_methodological_sheets_11.11.13.pdf

Vaessen, J. (2017). Dealing with Attribution in an Increasingly Interconnected and Policy-saturated World. Independent Evaluation Group. Available at: <https://ieg.worldbankgroup.org/blog/dealing-attribution-increasingly-interconnected-and-policy-saturated-world>

World Bank, and Independent Evaluation Group (2012). Designing a Results Framework for Achieving Results: A How-to Guide. Available at: http://siteresources.worldbank.org/EXT/VACAPDEV/Resources/designing_results_framework.pdf

World Business Council for Sustainable Development (WBCSD) (2013). Measuring Socio-economic Impact: A Guide for Business. Available at: <https://www.wbcsd.org/Programs/Redefining-Value/External-Disclosure/Reporting-matters/Resources/Measuring-Socio-Economic-Impact-A-guide-for-business>

World Business Council for Sustainable Development (WBCSD) (2015a). Social Capital in Decision-making: How Social Information Drives Value Creation. Available at: <http://wbcsdpublications.org/project/social-capital-in-decision-making-how-social-information-drives-value-creation/>

World Business Council for Sustainable Development (WBCSD) (2015). Towards a Social Capital Protocol: A Call for Collaboration. Available at: <https://www.wbcsd.org/contentwbc/download/1429/18447>

World Business Council for Sustainable Development (WBCSD) (2016). Building the Social Capital Protocol: Insights into Employment, Skills and Safety. Available at: <https://www.wbcsd.org/Programs/People/Social-Impact/Resources/Building-the-Social-Capital-Protocol-Insights-into-employment-skills-and-safety>

World Business Council for Sustainable Development (WBCSD) (2016b). Social Life Cycle Metrics for Chemical Products. Available at: <http://www.wbcsd.org/Projects/Chemicals/Resources/Social-Life-Cycle-Metrics-for-Chemical-Products>

World Health Organization (n.d.). Health Statistics and Information Systems: Metrics: Disability-Adjusted Life Year (DALY). Available at: http://www.who.int/healthinfo/global_burden_disease/metrics_daly/en/



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Social & Human Capital Coalition: www.social-human-capital.org
February 2019



Designed by **Radley Yeldar**
www.ry.com