



NATURAL  
CAPITAL  
COALITION

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# BUSINESS INSIGHTS

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PILOT TESTING  
THE NATURAL  
CAPITAL PROTOCOL



This Business Insights report, has been produced by Cambridge Institute for Sustainability Leadership (CISL) on behalf of the Coalition. The author of this report is Dr Gemma Cranston of CISL with thanks to all of the pilot testing businesses of the Natural Capital Protocol

The Natural Capital Protocol and Sector Guides are products of the Natural Capital Coalition. The Coalition is a collaboration of the world's leading organizations from business, accountancy, science and academia, membership organizations, standard setting, finance, policy and conservation, who have come together through a common vision of a world where business conserves and enhances natural capital.

The WBCSD consortium led the development of the Protocol with Conservation International, The B Team, PwC and Sustain Value leading the technical development; ACTS, Arcadis, eftec, ERM, Imperial College, ISS, Natural Capital Project, Synergiz and WWF developed critical technical elements; and, Accenture, CDSB, Deloitte, Dow, eni, GIST Advisory, Kering, LafargeHolcim, Natura, Nestlé, Roche, Shell, The Nature Conservancy and World Resources Institute provided technical insights and review.

The IUCN consortium also contributed to the development of the Protocol, developed the accompanying sector guides and managed the business engagement and pilot testing. Trucost led the development of the sector guides on Food and Beverage and Apparel, with technical support from Indicate Advisory Services, The Sustainable Fashion Academy and The Food and Agricultural Organisation of the United Nations. EY carried out the business engagement and University of Cambridge Institute for Sustainability Leadership (CISL) managed the pilot testing process. IUCN National Committee of the Netherlands, True Price and VitalMetrics provided technical insights and review.

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The University of Cambridge Institute for Sustainability Leadership (CISL) empowers business and policy leaders to tackle critical global challenges. By bringing together multidisciplinary researchers with influential business and policy practitioners across the globe, it fosters an exchange of ideas across traditional boundaries to generate new, solutions-oriented thinking. [www.cisl.cam.ac.uk/natcap](http://www.cisl.cam.ac.uk/natcap)

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# Part 1 Introduction

With increasing consumption, growing populations and a seemingly unlimited appetite for economic growth across the globe, pressure on natural resources and the accompanying impact on the environment look set to increase at an alarming rate.

Progressive companies are recognising their dependencies as well as their impacts upon this natural resource base, or 'natural capital'. They realise that it is in their best interests to start including considerations of natural capital in their decision-making processes and to properly value the natural capital upon which they depend. The difficulty is in how to actually do this in a consistent and logical manner.

In 2014, the Natural Capital Coalition embarked on a landmark project to develop a Natural Capital Protocol and accompanying Sector Guides. Companies had the opportunity to be part of a market-led development of the Protocol by becoming pilot testers.

The vision of the Natural Capital Coalition is to achieve a shift in corporate behaviour to conserve and enhance rather than deplete our natural capital.\* To achieve this, the Coalition brought together global leaders on natural capital to scale action and develop a Natural Capital Protocol and sector-specific guides on food & beverage and apparel.

The Natural Capital Protocol aims to enable businesses to measure and value their direct and indirect impacts and dependencies (both positive and negative) on natural capital. This is important for businesses to mitigate risks associated with environmental degradation and enhance resilience, to reduce costs of securing

scarce resources and to guarantee supply chains in a competitive future. Without measuring their impacts and dependencies, businesses can miss important opportunities for development as well as long-term risks. Assessment of businesses' relationships with natural resources and valuing business impacts can lead to better management, decision-making and strategic planning.

There are a multitude of methodologies to place a value on impacts and improvements, but these are often criticised for not being consistent or comparable, and for producing numbers that are difficult for business to relate to. The draft Protocol brought together a variety of approaches into a ten-step framework. This is supported by additional guidance on specific sectors; two sector guides have already been developed for the apparel and food & beverage sectors which explore the Protocol and go into more detail and guidance for these sectors in particular.

\* Natural capital is another term for the stock of renewable and non-renewable natural resources (eg plants, animals, air, water, soils, carbon, minerals) that combine to yield a flow of benefits to people.

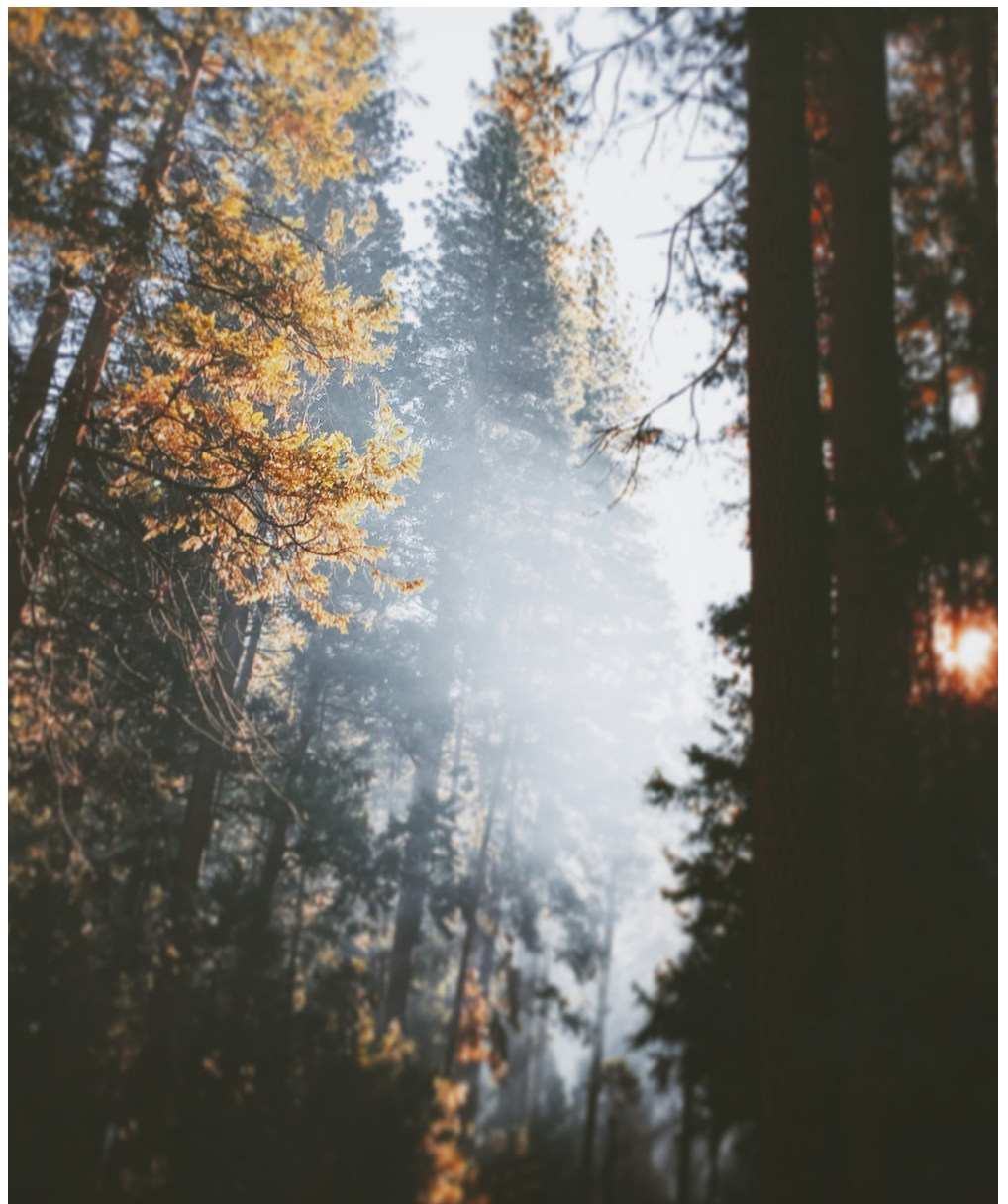
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## 1.1 The Protocol Pilot Programme

Making the Protocol relevant and valuable to business users is of crucial importance and a business-led hub was established by the Cambridge Institute for Sustainability Leadership (CISL) to consult on and test the Protocol with companies to ensure it is fit for purpose. Involvement of business users from an early stage was vital; the opportunity for business was to be able to shape the new Protocol by participating in its development.

The Protocol Pilot Programme was established as a multi-sector group of companies from different geographies and covering a variety of ways in which they engage with natural capital. The purpose of this Programme was for businesses to test and influence the development of the Protocol and Sector Guides helping to make them robust, practical and relevant. This group of leading companies contributed to the shaping of the Natural Capital Protocol through focused engagement and piloting activities.

Ten piloting companies were chosen to carry out deep-dive pilots that were designed to be more intensive in order to directly inform and improve the development of the Protocol. There were ten steps in the draft Protocol and deep dives were expected to complete all of these and share their feedback.





## Part 2 Businesses involved in pilot testing

Over fifty companies tested the Protocol from October 2015 to February 2016.

Ten businesses tested the Protocol in depth. For example, The Dow Chemical Company, the third-largest chemical company in the world, assessed water-use opportunities and risks in site-specific locations. The French luxury goods company Kering, owner of brands such as Gucci, Puma and Stella McCartney, brought its natural capital assessment results into its strategic business decisions. Hoffmann-La Roche, a pharmaceutical company, investigated how natural capital assessments can potentially enhance the management and reporting of environmental issues. The other pilot testers cover a range of sectors and geographies and include household names

such as the Coca-Cola Company, Hugo Boss, Natura, Nespresso, Nestlé, Olam International and Shell.

A variety of different sectors was represented by the pilot testers (Figure 1). The most represented sector was power and utilities (22 per cent); the companies in this sector also represented a variety of different geographical regions, including Europe and South America. A further 24 per cent of pilot testers were split equally across the apparel and food & beverage sectors. These companies were also asked to input into the development of the Sector Guides specifically for these two sectors.

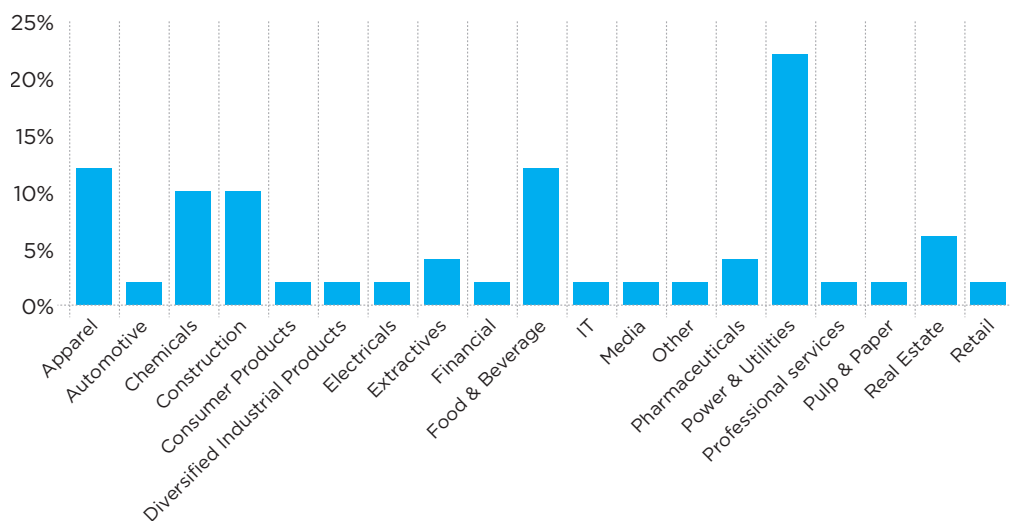
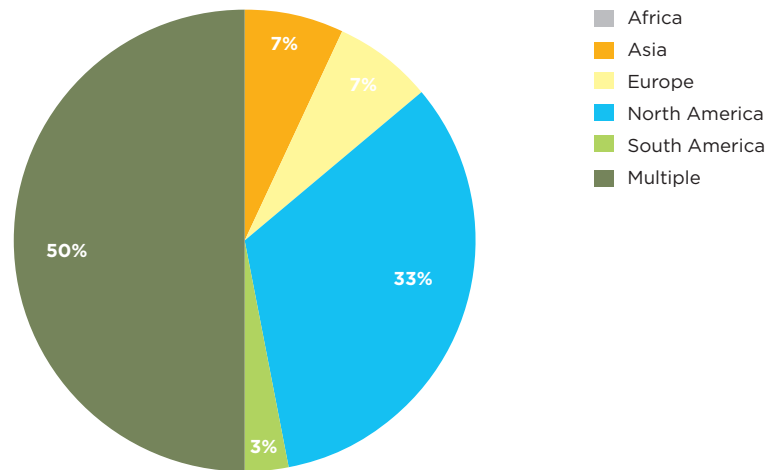


Figure 1: Sector breakdown of pilot tests

**“I believe business and commerce should use the Natural Capital Protocol to embed the holistic decision-making necessary to not only manage risk, but more importantly deliver corporate culture change.”**

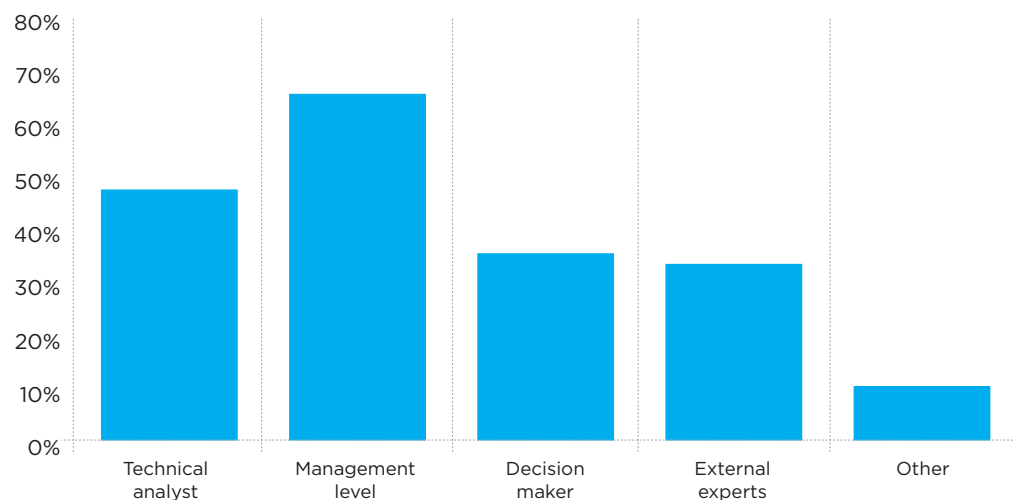
**Chris Brown, Vice President** – Corporate Responsibility & Sustainability, Olam International (UK) Ltd

The pilot tester companies ran their natural capital assessments in different geographical locations. Figure 2 shows the breakdown of regions in which an assessment was applied. For many of the pilot tests a number of countries and regions were involved due to the complex nature of supply chains.



**Figure 2:** Geographical representation of pilot testers

In some cases, pilot tester companies required technical assistance to apply the Protocol; 55 per cent of the companies required an external technical advisor. All companies were also asked who was involved in the process of testing the Protocol in their business, to ascertain the users and applicability of the Protocol. The majority of pilot tests included management-level engagement (Figure 3).



**Figure 3:** Breakdown of the category of person involved in testing the Protocol

The Protocol is broken down into four stages which focus upon: 1) the business case; 2) setting the scope and objectives; 3) measuring and valuing business dependencies and impacts; and 4) applying the results (Figure 4). In the draft Protocol that was pilot tested, there were ten steps in total within these stages. The final Protocol, launched on 13 July 2016, has reduced to nine steps.

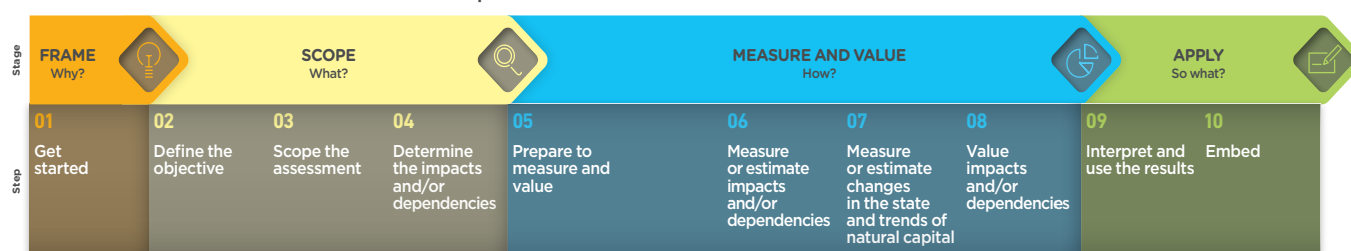


Figure 4: The four stages and ten steps of the draft Natural Capital Protocol

Not all the pilot testers applied the Protocol in its entirety, although 53 per cent did. Of the pilots, 22 per cent only trialled the first four steps (Figure 5); these first steps focused upon the scoping of a natural capital assessment. These particular steps help to confirm what are the most relevant natural capital impacts and / or dependencies for a business through a materiality process. For businesses that were new to natural capital assessment, these steps were more time consuming and it was important to get them right first. Given the short timeline some did not manage to go beyond the scoping stage.

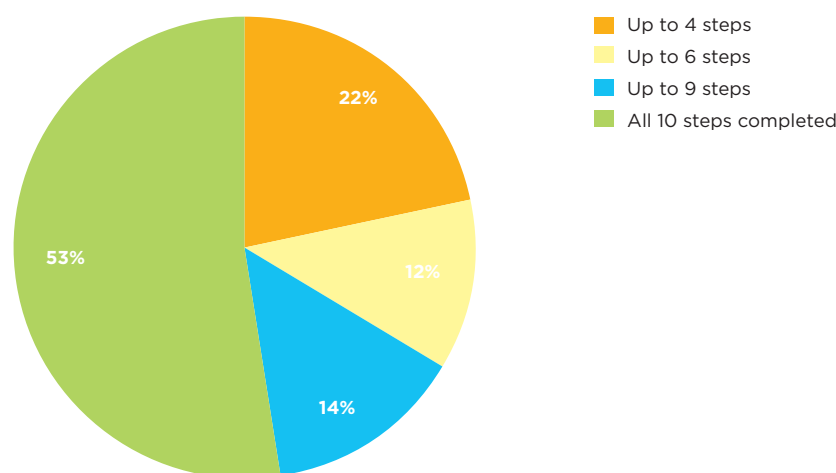


Figure 5: Number of steps in the Protocol completed by pilot tests

“Scoping your business decision up front is essential. You need to narrow down the types of natural capital assessment to avoid being overwhelmed.”

Mark Weick, Lead Director, The Dow Chemical Company



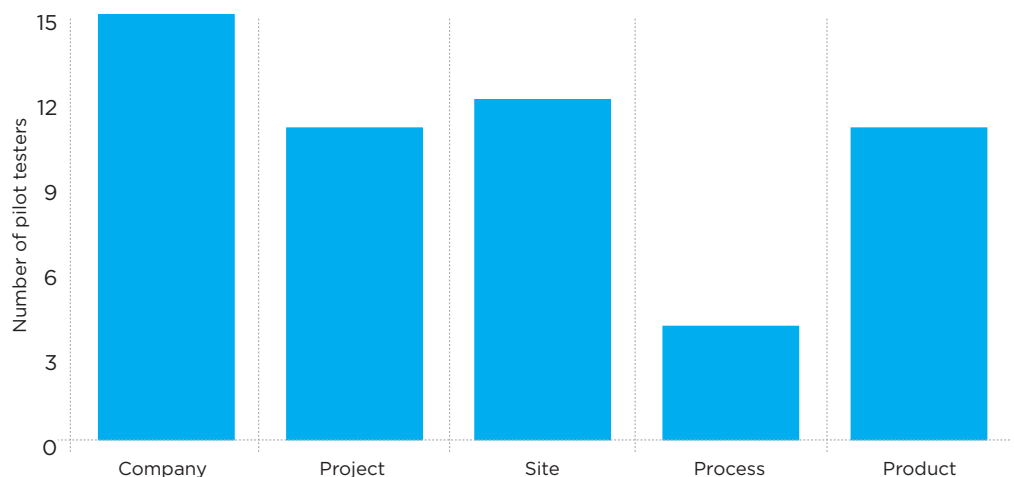
# Part 3

## Pilot test applications

The pilot testers applied the Protocol in a variety of different ways. Each business had its own objectives and focus for their pilot test. For example, some wanted to undertake an assessment of a particular site or project, considering only their direct operations in order to inform business planning. These scoping decisions can be categorised into a) organisational focus, b) business boundaries and c) business application. Each pilot tester was able to classify their pilot tests in these three categories. The majority of pilot testers wanted to assess their natural capital impacts and dependencies across the company (Figure 6a). Many businesses wanted to consider all of their direct operations as well as their upstream and downstream impacts and dependencies (Figure 6b); often a pilot tester selected multiple boundaries for their assessment.

The most popular business application of a natural capital assessment was to inform a screening of some aspect of the business; this was closely followed by risk and opportunity assessments. The Dow Chemical Company's pilot focused upon water valuation and informing site decision to secure water resources. Mark Weick, Lead Director, Sustainability and Enterprise Risk Management at Dow Chemical said that "the Protocol was helpful in evaluating approaches to valuation and alternatives for a secure fresh water supply".

Pilot testers often selected more than one business application as they had a variety of decision-making categories that were relevant. The majority of businesses wanted to use a natural capital assessment to inform their internal decisions. Birgitta Kramer, Manager Duurzaamheid, Business Development at Vitens explained that they "wanted the NCA Natural Capital Assessment to work primarily for decision-making processes and secondarily for communication / transparency".



**Figure 6a:** Categorisation of pilot tests by organisational focus

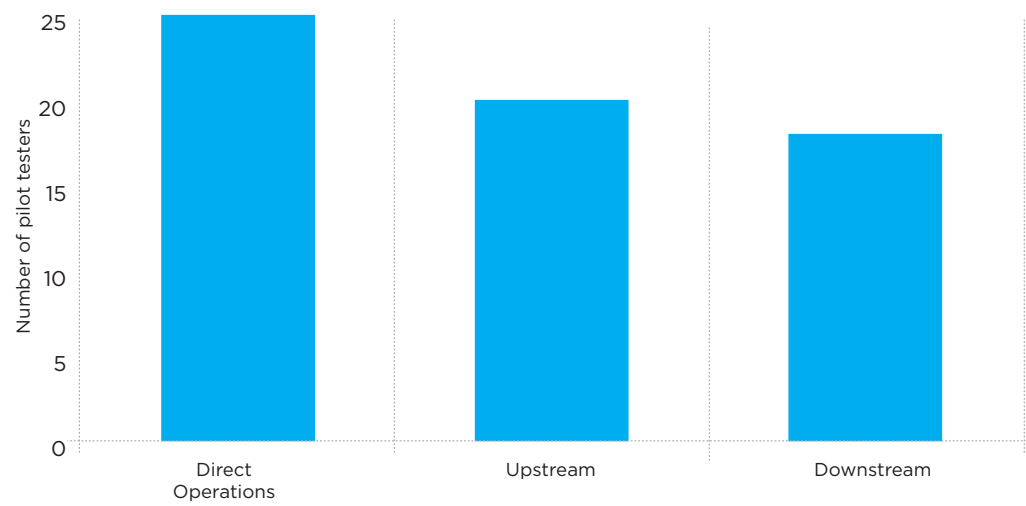


Figure 6b: Categorisation of pilot tests by business boundary

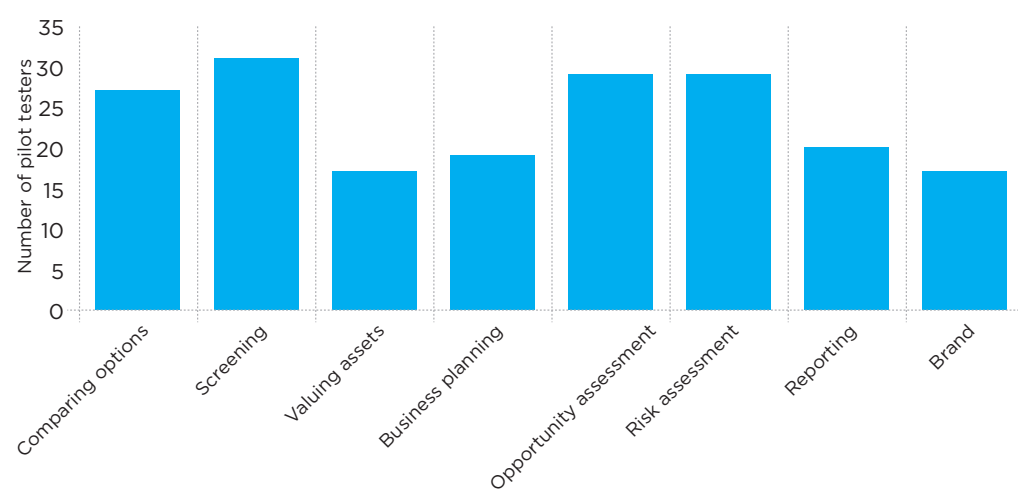


Figure 6c: Categorisation of pilot tests by business application

Some of the pilot testers applied the Protocol retrospectively to an already existing assessment. Yorkshire Water, for example, completed their assessment on an investment scheme which had already started on site, to assist a quick and low-cost pilot test with readily available data.

In doing so they identified where undertaking a natural capital assessment would be of most benefit to the business; Gordon Rogers, Manager of Sustainability and Strategy at Yorkshire Water explained that “in practice, we observe one of the biggest benefits of NCA in options appraisal, with application at the earliest stages of planning and design”. Nestlé also used the Protocol to further explore their methodological approach to natural capital and found that the two were well aligned.

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# Part 4

## Pilot test learnings

For many of the pilot companies this was their first time using a systematic approach in evaluating their environmental impacts. Many companies explained that the process was helpful in making them think explicitly about dependencies. There is a tendency for business to focus upon impacts but this does not allow business to consider the full risk spectrum and comprehensively identify their vulnerabilities; dependencies are arguably more important than impacts in terms of business operations and commerciality.

Rowland Hill, Sustainability and Reporting Manager at Marks and Spencer highlighted that “natural capital impacts on all businesses; for some as an operational ‘by product’ and other as ‘core’ to its main function”. These direct and indirect impacts and dependencies were explored by a number of pilot testers.

Connie Hensler, Director, Corporate LCA Programs at Interface identified that by undertaking a natural capital assessment they “learned where their most important impacts and vulnerabilities are, and this provided a clear focus for driving improvement in the company’s impact”. Other businesses were in agreement that a natural capital assessment can help to justify the focus areas for the future.

Companies that are well advanced in thinking about natural capital, such as in the utility sector, were able to use their assessments to confirm that they are already responding to the largest environmental impacts in their businesses, namely associated with energy and carbon. They are already addressing these because

they represent a hard business cost. Their natural capital assessments also highlighted smaller, but still notable, impact areas that had not previously been identified, such as biodiversity. Rogers at Yorkshire Water explained that a natural capital assessment “shows an opportunity where we might be able to make, and demonstrate, a new positive environmental impact in the future in our investment schemes, for example by focusing more on biodiversity”. Arcadis Netherlands is also advanced in its CO<sub>2</sub> footprint mapping and used the Protocol to identify an important gap in their assessments to date in the upstream purchasing of, for example, office supplies.

In Jaguar Land Rover’s pilot test they also discovered that their main natural capital impacts were much as they expected, but were able to show that a few items were much more significant than others. Ian Ellison, Sustainability Manager at Jaguar Land Rover clarified that this “provided clear areas of focus for action”.

A key learning from many pilot testers was that a lot of data is required which can be difficult to attain. Ellison at Jaguar Land Rover explained that “applying the Protocol thoroughly involves a lot of data, not all of which is easily available as part of normal business operations, especially if it is held several tiers down in a supply chain”. Nespresso agreed that this was an opportunity for future steps and hopes to collect representative primary data that can be leveraged, particularly in their valuation assessments.



# Part 5

## The impact of the pilot tests

The businesses were asked where their pilot tests had had an impact in their organisations. Sixty per cent of the respondents said that they have become more confident and comfortable talking about and engaging on the topic of natural capital with industry stakeholders; this is because they have used the Protocol to work through a range of relevant issues and been able to explore them more deeply. For some, the results of their pilot have helped specifically to make the internal supply chain and procurement functions better aware of the importance of their decisions on the environmental impacts of the company; they have leveraged this to identify opportunities for improving performance. Duncan Pollard, AVP Stakeholders Engagement in Sustainability, Nestlé explained that the Protocol pilot has given them “the confidence to start the next wave of exploration at the business level”.

Where a pilot test focused on a particular value chain, some businesses found that they could use their results to share the hotspots they had found with the value chain partners and discuss possible improvements with them. Klas Hallberg, Manager New Developments in Sustainability, AkzoNobel explained that their pilot found that their own “bleaching chemicals production have only a small contribution to the total natural capital impact of the production of a book”, and it was therefore important to engage with the value chain involved in book production to reduce the overall impacts.

As well as opening discussions with value chain actors, some businesses were able to use their pilot tests to engage their colleagues at a more strategic level. Nespresso in particular were using their pilot to explore how to incorporate natural capital into corporate performance. Natura also wanted to look for ways to operationalise natural capital; Roberto Lima, Chief Executive Officer, Natura explained they wanted to use natural capital assessments to “drive the company to a low carbon economy and sustainability in its broadest understanding”.

**“The Protocol gave us the confidence to start the next wave of exploration at the business level.”**

**Duncan Pollard**, AVP Stakeholders Engagement in Sustainability, Nestlé

The direct and indirect impacts and dependencies was an area that many of the pilot testers wanted to explore. In doing so, Ellison, Jaguar Land Rover, explained that “applying the Protocol has allowed us to go beyond our current primary impacts and look at secondary and tertiary ones and how the burden may shift in the future”. They were already aware of the primary impacts and the business is now better positioned to address those that are less visible; Ellison clarified that “the assessment has helped the business to set clear priorities for interventions in the highest impact value chains”.

For many pilot testers their assessments did not directly inform commercial decisions. In some cases the commercial decisions they hoped to inform were around how to improve sourcing and supply chains to reduce environmental impacts, reduce risk and optimise opportunities. For example, Lima at Natura explained that they want to explore if their “choices in terms of sustainable relevant ingredients and production systems are better than business as usual”. Yorkshire Water used their pilot test and the learnings to inform their approach to investment planning and optimisation.





# Part 6

## What pilot testers would do differently

The importance of engaging internal stakeholders was identified by some of the pilot testers; many felt that this was a gap. It is important to ensure internal buy-in and then engage across teams to determine what is material for the business in terms of natural capital: often this needs to be considered from a commercial perspective. Without engaging the right players there is a risk that a natural capital assessment will not have an impact.

For the companies that were retrofitting the Protocol to existing studies, some noted that next time they would like to apply the Protocol at the start of a new project or decision. For example, Rogers, Yorkshire Water detailed that they could “implement an NCA natural capital assessment at the start of a capital investment programme, to enable NCA to shape the decision-making”. Yorkshire Water recognised this would provide the business with the advantage of choosing a solution that, as Rogers explained “not only minimises the negative impacts on the environment (eg the most energy-efficient option), but actively creates positive environmental enhancements (eg by having a green roof)”.

**“The assessment has helped the business to set clear priorities for interventions in the highest impact value chains.”**

**Ian Ellison**, Sustainability Manager,  
Jaguar Land Rover

Many of the pilot tester companies did not complete a full, monetised evaluation and stated that next time they would like to go further in their assessment. This requires more time and data, which were seen as a constraint in the short timeframe of the Protocol Pilot Programme. To help them become more advanced, some pilot companies agreed that they would develop a smaller scope so they can understand the challenges better and address the problems more directly.



## Part 7 Recommendations from the pilot testers

Seventy per cent of pilot tester respondents recommended that other businesses should simply just get started and try the Protocol. Rogers at Yorkshire Water particularly recommended that you should “go ahead and try applying the Protocol to your organisation – remembering that this is a first attempt and you can capture your learning and build upon it over time”. Simon Braaksma, Senior Director, Group Sustainability at Philips stated that “if you take sustainability serious, you cannot avoid the Natural Capital Protocol” and Christopher Earl, Safety, Security, Health and Environmental Data Manager at F. Hoffmann-La Roche Ltd was clear in stating you should “start early and involve many people”.

Identifying a clear starting point was raised by some pilot testers, as well as the need to begin with a small scope. Weick from Dow Chemical explained that “scoping your business decision up front is essential. You need to narrow down the types of natural capital assessment to avoid being overwhelmed”. Natura also found that methodological challenges should be expected.

Lima from Natura explained “it’s still necessary to evolve on the measurement of ecosystem services and positive impacts, ie use of organics, small supplier communities, working with non-wood forest product”. This was underpinned by Ellison, Jaguar Land Rover who explained that “you may need several iterations before you have data good enough to make decisions from, but make sure you use the results to make real change”.

The need to leverage existing data was also consistently mentioned; Nijhof, Arcadis explained that it is best to “start small using a specific organisational focus and focused business application using existing data”.

## Part 8 Concluding remarks

The response from over fifty businesses in testing the Natural Capital Protocol was overwhelming. These companies have identified a need to assess their impacts and dependencies upon the natural environment and are beginning to see the results of their natural capital assessments being incorporated in business decisions. There is clearly a need for companies to simply get started on a natural capital assessment, but without a strong link to the commercial value and business impact it may still be difficult for some to implement.

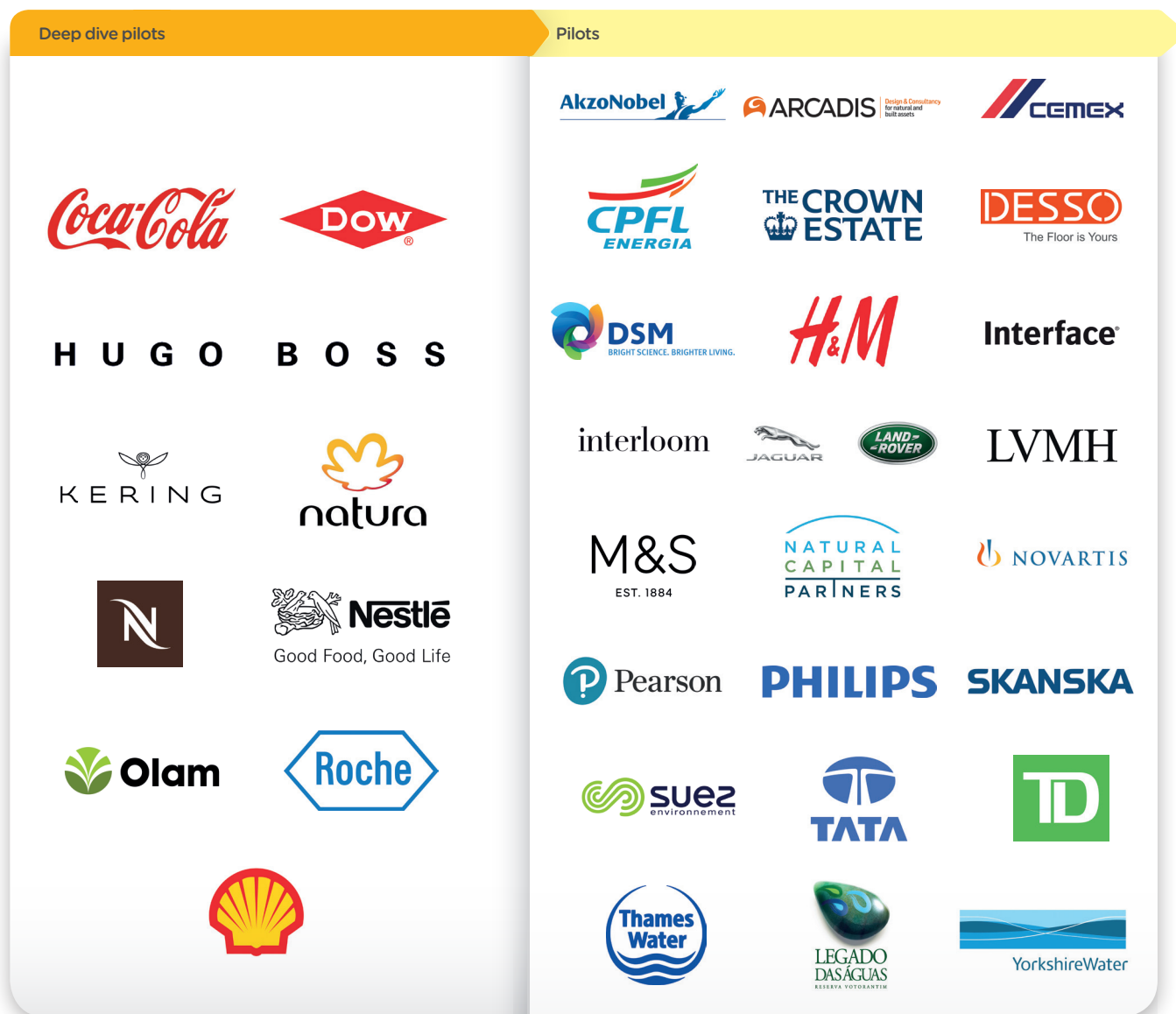
This gap in the measurement of commercial impacts and natural resources means that there remains a lack of corporate understanding of the value drivers behind natural capital. There is an opportunity for businesses to come together to showcase the positive business impacts that have been driven by natural capital and to categorise them for others to adopt.

Businesses have been exploring with CISL the linkages between commercial value drivers and commercial impact to natural resource impacts and dependencies. Developing this thinking can support businesses in operationalising natural capital within their organisations.



“It is increasingly apparent that traditional financial accounting practices are failing to recognise all relevant business impacts and risks. The Natural Capital Protocol is a real world first in bringing structure and a standardised common framework for natural capital assessment.”

Liz Barber, CFO, Yorkshire Water



“Natural capital not only presents an opportunity for businesses to adopt a more integrated approach to sustainability and financial reporting, but also to develop more informed decision making processes.”

Adam Crossley, Director of Environment, Skanska UK Plc.



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