

Operationalising natural capital: Managing opportunities and risks from natural resources

Natural Capital Leaders Platform

The Natural Capital Leaders Platform, convened by the Cambridge Institute for Sustainability Leadership, is a global network that has worked with over 100 companies wishing to understand and manage their impacts and dependencies on natural resources and ecosystems. It aims to help progressive companies develop practical approaches to help them value, measure and manage their impacts on the natural environment, and maximise their opportunities.

The Platform is driven by its business members and supported by academics in the University of Cambridge. Businesses work with the Platform to resolve diverse business interests, promote peer learning and drive innovation.

Cambridge Institute for Sustainability Leadership

For 800 years, the University of Cambridge has fostered leadership, ideas and innovations that have benefited and transformed societies. The University now has a critical role to play to help the world respond to a singular challenge: how to provide for as many as nine billion people by 2050 within a finite envelope of land, water and natural resources, whilst adapting to a warmer, less predictable climate.

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.

Rewiring the Economy

Rewiring the Economy is CISL's ten-year plan to lay the foundations for a sustainable economy. The plan is built on ten interdependent tasks, delivered by government, finance and business co-operatively over the next decade to create an economy that encourages sustainable business practices and delivers positive outcomes for people and societies.

Publication details

Copyright © 2016 University of Cambridge Institute for Sustainability Leadership (CISL). Some rights reserved.

Disclaimer

The opinions expressed here are those of the authors and do not represent an official position of CISL, the University of Cambridge, or any of its individual business partners or clients.

Acknowledgments

The principal investigators and authors of this report are: Dr Gemma Cranston of CISL and Dr Stephanie Hime of Little Blue Research, Ltd.

The authors would like to thank the Natural Capital Leaders Platform members who participated in this work.

Reference

Please refer to this paper as University of Cambridge Institute for Sustainability Leadership (CISL). (2016). *Operationalising natural capital: Managing opportunities and risks from natural resources*. Cambridge, UK: Cambridge Institute for Sustainability Leadership.

Copies

This full document can be downloaded from:
www.cisl.cam.ac.uk

Executive Summary

Businesses are looking for ways to incorporate natural resource concerns in their decision-making. To date there is no clear mechanism to help businesses operationalise natural capital in their organisations.

It is well recognised that the world's natural resources and ecosystem services are being degraded at an alarming rate. One of the reasons for their demise is that, despite the evident need, the commercial case or incentive to conserve them is currently weak. Hence it remains profitable for companies to degrade or liquidate ecosystems rather than investing in them for the future.

Businesses lack both a rigorous evidence base and metrics set to provide a compelling commercial case for action and to underpin an effective adaptation and investment strategy.

There is a dearth of simple natural capital* indicators that are business relevant and can be linked to commercial metrics. Without this it is difficult for businesses to incorporate assessments of their dependencies and impacts on the natural environment into decision making processes and to develop clear objectives.

The Natural Capital Leaders Platform members worked with CISL to establish the commercial decisions that are already being impacted by natural resource concerns such as soil fertility and water quality.

Rather than taking a narrow perspective to mitigate operational or reputational risk the businesses agreed that they are pursuing longer term company strategies to address these concerns by recognising natural capital as a financial opportunity; over 50 per cent of the businesses are realising this opportunity through their strategic investments. However, it was clear that the commercial impacts resulting from investments in the natural environment are not being articulated through quantifiable metrics. This makes it difficult to communicate successes and future risks internally, particularly across different business departments. Overcoming this challenge is particularly pertinent as corporate functions and senior leadership teams are becoming more engaged around discussions on natural resource and ecosystem degradation.

The Platform identified the opportunity to develop a set of metrics that would link commercial impacts to impacts on the natural environment. This could include indicators for impacts on soil, water, biodiversity and carbon which could be used to communicate the commercial impacts and dependencies on natural resources for business. Such metrics can help further internal buy-in and enable the development of a strong business case for future investments in the natural environment.

Equipped with robust metrics data, Boards and Chief Executives can respond with urgency to natural resource depletion and ecosystem degradation.

* 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.

Contents

Executive summary	1
Part 1: Introduction	3
Part 2: Business Voice	4
2.1 Business risks and opportunities	4
2.2 Drivers and team engagement	7
2.3 Language and terminology	8
Part 3: Linking to commercial drivers	9
3.1 The commercial logic	10
3.2 Natural capital concerns	11
Part 4: Looking to the future	12
References	13

Natural Capital Leaders Platform members



Part 1

Introduction

With the launch of the Natural Capital Protocol in July 2016, companies are looking for ways to consider the natural environment in their decision-making processes. Scalable approaches and metrics linked to commercial indicators offer a way to manage impacts and drive internal change.

This report focuses on the measurement and value of businesses' impacts and dependencies on the natural environment. It is intended to provide an overview for sustainability leaders and managers of the state of play of where natural capital is already being included in business decision-making and where there are still barriers to its incorporation.

CISL's Natural Capital Leaders Platform works with leading businesses to explore issues around their impact and dependencies on natural resources. Each business is making progress on securing and enhancing the natural resources upon which they depend, and has good examples of where they have delivered this. They recognise that their future growth depends on a healthy and sustained supply of nature's goods and its services (natural capital).

The challenge is to demonstrate scale and to explore opportunities for core business decision-making to consider the degradation of natural resources and ecosystems because they have a commercial impact.

The Platform has analysed the mechanisms that are being adopted to influence business decisions to consider the natural environment. It has used this assessment to identify the gaps and key opportunities for businesses to work collectively with CISL to break down barriers to operationalising natural capital in business.

This report reflects the outcomes of interviews, a workshop and a small online survey^{*} directed at those working on technical issues related to business and the natural environment. The names of the companies will not be revealed within the report.



* The online survey was sent to companies piloting the Protocol.

Part 2

Business voice

The companies within the Natural Capital Leaders Platform are looking to consider the natural environment as part of core business decision-making. The Platform supports them to understand, measure and adopt practices that sustain and enhance natural resources and ecosystem services as an outcome of their operations.

2.1 Business risks and opportunities

Narratives around natural capital are often now being produced by business; this is an indication that resource security and ecosystem health are beginning to be seen as important for business. However, the natural environment is not conventionally considered as a commercial value driver and is often not included in decision-making processes.

CISL conducted an in-depth workshop, interviews with business and an online survey to explore how concerns around natural resources are being incorporated in current business decision-making. The main objective of this work was to determine whether maintaining healthy ecosystems or securing natural resources were considered in decision-making and how this could be improved.

In order to illustrate the changing dynamics of where the natural environment sits in relation to business decision-making, companies were asked to describe a case study that had addressed a natural resource challenge. Feedback was classified within an overall risk and opportunity framework to ensure consistency with other areas of business decision-making. Risks and opportunities were considered according to the following categories*:

- **Regulatory and legal:** the risks and opportunities associated with changes in global and national policies and legislation.
- **Reputational:** risks and opportunities arising from a company's need to maintain its brand image.
- **Operational:** those relating to a company's day-to-day activities, expenditure and processes including opportunities to identify cost savings and efficiencies.
- **Financial:** risks and opportunities associated with obtaining capital and any taxation considerations.
- **Market and product:** risks and opportunities associated with a company's service and product offerings.

Data obtained in the form of quotes were classified according to the categories above and whether they related to risks, opportunities, or both; it was clear that a number of businesses had more than one driver for action on natural resources. A selection of these quotes are illustrated in Figure 1.

*The Natural Capital Protocol (2016): forthcoming¹

“ Links to some commodities, natural capital metrics and yield is clear; it is already part of core decision-making.

The future of our commodity supply was driven by major social and natural capital concerns.

Stakeholders are pushing for it.*

Water availability is becoming a problem – we want to secure the supply chain.*

“ We want to achieve commercial differentiation.

We could consider a natural capital credit rating.

We got insight and an understanding of what customers are thinking.

Influence the investor community.

“ Our objective is around reputation and brand enhancement.

Figure 1: The classification of a selection of quotes from participating companies. [Each quote is classified according to risk (blue), opportunity (green), potentially either (grey). An example of multiple classifications for one project example marked with.*]

In addition, each company was categorised according to its size using revenue figures from 2015⁺²⁻¹¹:

- Small: revenue <£5 billion
- Medium: revenue >£5 billion < £20 billion
- Large: revenue > £20 billion



⁺Company size is based on the revenue, turnover, or net sales reported in company annual or sustainability reports. Here, each of the terms represents the amount of money each company secured in sales during 2015 before any deductions for tax, expenses, etc. Figures were converted to GBP, using the average exchange rates for 2015 where figures were reported in other currencies. Where figures were unavailable for 2015 the closest reported figures were used (2014).

An analysis was performed to determine how the treatment of natural resource issues has developed since 2013; this was the last time the Platform members had been formally interviewed to understand the drivers and barriers to fully engaging with measuring and managing their impacts.¹²

Figure 2a–b illustrates the change in the responses from 2013 to 2016. Of note is the transition from a risk-focused response to one that now includes opportunities from maintaining the natural environment. The companies now see risk mitigation and new opportunities as closely interlinked.

The trajectory shown in Figure 2c shows the existence of a virtuous circle in terms of a business approach from mitigation through to opportunity.

This change reflects the shift from business decision-making being reactive and risk-based towards a more forward-looking, opportunistic approach when assessing natural resource challenges.

Issues such as natural resource depletion and ecosystem degradation are beginning to be considered as material to business; with this recognition businesses are building up strategic planning approaches that support the incorporation of natural resource concerns in decision-making. The inclusion of these concerns in business decision-making is now considered as a financial and market opportunity by business (Figure 2c).

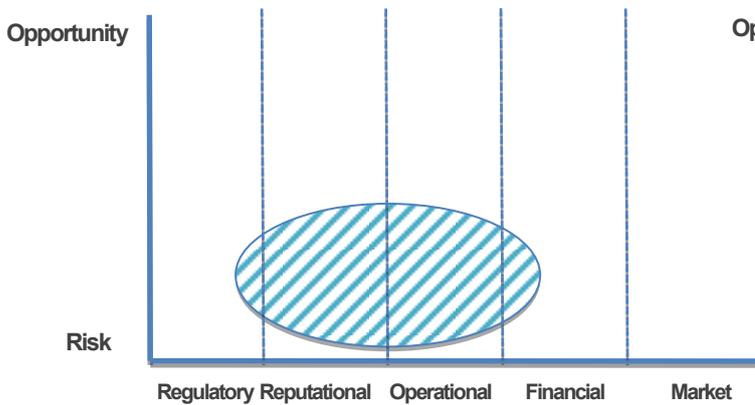


Figure 2a: Responses in 2013 (grouped)

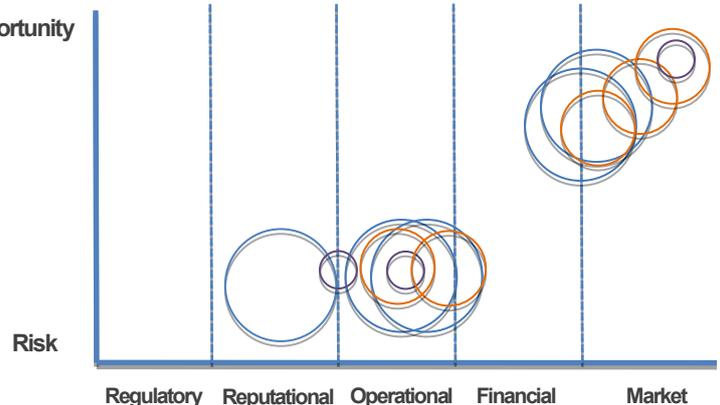


Figure 2b: Responses in 2016

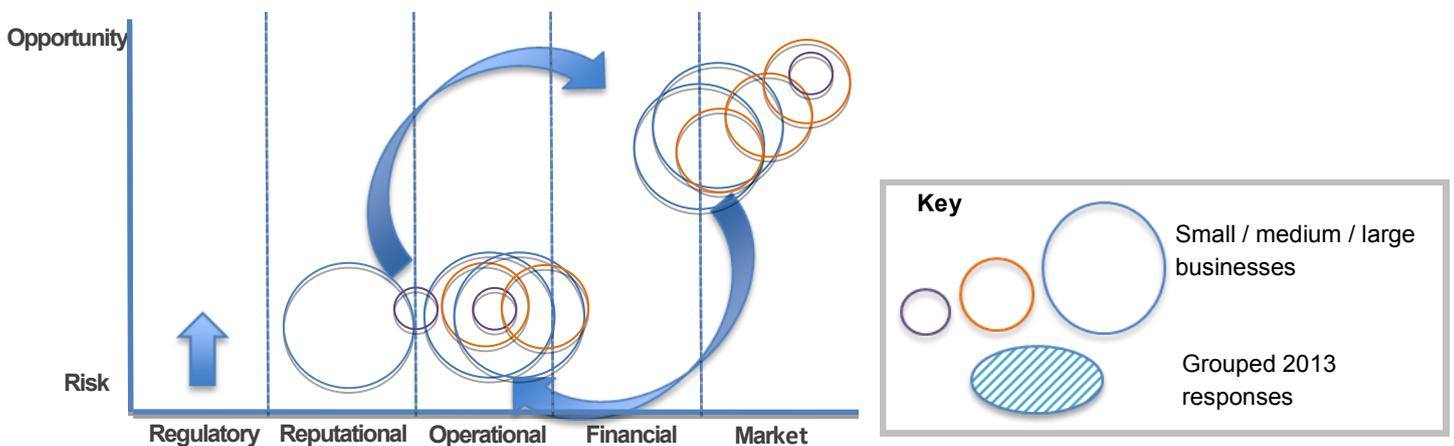


Figure 2c: Trajectory from risk mitigation to opportunity

2.2 Drivers and team engagement

The commercial drivers for protecting the natural environment in businesses are not clear; companies explain them in the form of narratives rather than hard commercial strategies.

The commercial drivers for business to understand, measure and adopt practices that sustain and enhance natural resources and ecosystem services have to be identified first. The Platform members explored the drivers behind their decisions on the natural environment and identified the top three:

- Strategic planning
- Supply chain transformation
- Market differentiation

These three drivers suggest that companies are looking for commercial opportunities from natural the environment rather than being reactive to risks as they arise.

As businesses move to a more opportunistic and commercial approach to natural resources and ecosystem health they are able to engage departments beyond the corporate responsibility teams.

The Platform members acknowledged that the teams they most commonly engage with are: communications, operations and supply chain, product and R&D, sales, corporate functions, senior leadership team and finally, the board and associates. These findings are supported by Ethical Corporation's latest State of Responsible Business Report.¹³

It was noted by the Platform members that their engagement with sales and corporate functions (specifically finance) was relatively recent; this highlights the need for commercial value drivers for engaging with the natural environment to be identified.

The commercial drivers and prioritisation of the natural environment in business are often not clear; many businesses tend to have narratives around the natural environment rather than hard commercial statistics.



2.3 Language and terminology

Using commercial language is most successful in engaging non-sustainability specialists.

Commercial language needs to be adopted when discussing concerns around the natural environment with colleagues in different departments.

Businesses explained that the language they use to engage internally depends on which team they were talking to. When discussing risks associated with the natural environment, terms like 'cost' and 'brand' were used; when identifying opportunities, terms like 'yield', 'value' and social benefit' were more likely to be used. These terms are all grounded in commercial drivers.

An exploratory mapping of the terms used most frequently when discussing the natural environment with colleagues from different departments, highlighted by business interviews, is shown in Figure 3. These commercial terms can be categorised according to business risk or opportunity.

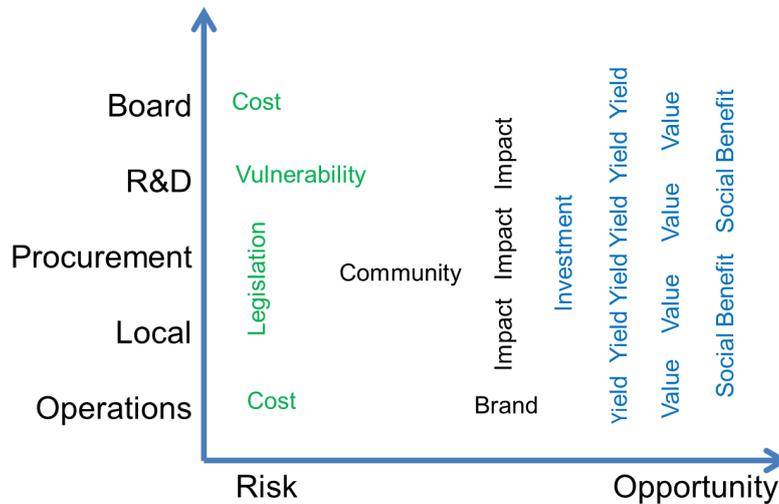


Figure 3: Mapping showing the terms used most with different teams*

A larger group of companies beyond the Platform, from multiple sectors, were asked to select which terms they use to engage colleagues across departments on the natural environment. The most common terms used by this larger group were 'impact' and 'vulnerability'.

This varies from the response from the Platform members, who identified 'impact' and 'yield' as the top terms. The difference is mainly because the Platform members have close links to agriculture and food production.

The terms 'impact' and 'brand' resonated with both groups.

A number of additional terms were identified beyond those shown in Figure 3; these included community, resource efficiency, risk management and resilience, and value creation.

*Terms used with more than one team are shown across the y-axis. Terms in larger text were used most frequently during interviews.

Part 3

Linking to commercial drivers

Despite the increased engagement with internal teams and recognition that the consideration of the natural environment may help companies meet their commercial aims, businesses identified several barriers to its inclusion in decision-making.

Understanding the language used to engage with different teams, as discussed in Part 2, is a first step. This demonstrates the need for commercial terminology to be adopted; however, often the commercial case to adopt practices that sustain the natural environment is not clear.

The quotes in Figure 4 help to build a picture of the challenges associated with building a commercial case for the incorporation of the natural environment in decision making. These can be synthesised into four key issues:

1. How should specific **commercial drivers** for action on the natural environment be articulated?
2. What **commercial metrics** should be used to demonstrate the business impact of addressing concerns around the natural environment?
3. How can the **natural environment issues** that support commercial objectives be identified?
4. What **natural environment metrics** should be used to demonstrate the environmental performance and impact of a business on natural capital?

“ What metrics / indicators should be used for natural capital and how can these read across to a commercial benefit? ”

Is it metrics (soil and water) that we need? Can we show the correlation of the metric to the commercial outcome?

Everyone is beginning to understand natural capital yet no one is really driving it forward.

We need to find a project / area with a high-level issue to solve, which connects up other initiatives and drives things forward with tangible actions.

Is it possible to operationalise natural capital so it becomes part of the core business?

Figure 4: Quotes demonstrating the challenges associated with the scaling and addressing natural environment concerns in business

3.1 The commercial logic

Businesses wanted to explore the linkages between their environmental performance and commercial impacts.

A selection of potential commercial measures that could help to demonstrate the business benefits of investing in and securing the natural environment were discussed and mapped on to three commercial drivers (Figure 5).

Commercial driver	Suggested measures
Security of supply	<ul style="list-style-type: none"> • amount of investment protected • value of commodity supply secured • value of commodity saved from pests • money saved by predicting changes in legislation
Financial savings	<ul style="list-style-type: none"> • farmer cost savings • savings from time saved
Market leadership	<ul style="list-style-type: none"> • valuation of environmental performance • access to new markets

Figure 5: A selection of potential commercial measures

Many of these measures are not being undertaken by business in conjunction with their practices around the natural environment. The measures most commonly used were the cost of an intervention and avoidance.

Those who do not have a clear measurement framework to monitor project performance (both commercial and environmental) identified both time and cost constraints as the major barriers.

This supports the findings of Ethical Corporation's recent report¹³ in which it found that only 44 per cent of respondents measured the return on investment of sustainability initiatives and only 42 per cent were confident in their ability to measure impact accurately.

3.2 Natural capital concerns

For businesses to adopt significant changes to their operations or business practices that support the natural environment, a clear need was identified: to make the connection between their commercial impacts and environmental impacts.

A set of clear, consistent environmental indicators first need to be created. Only then can the linkages between commercial metrics and a company's environmental performance be made.

The most important issues associated with the natural environment were agreed upon by the businesses: these were soil, water and biodiversity (Figure 6). There is not currently a consistent set of measures for these issues that can support business decision-making.

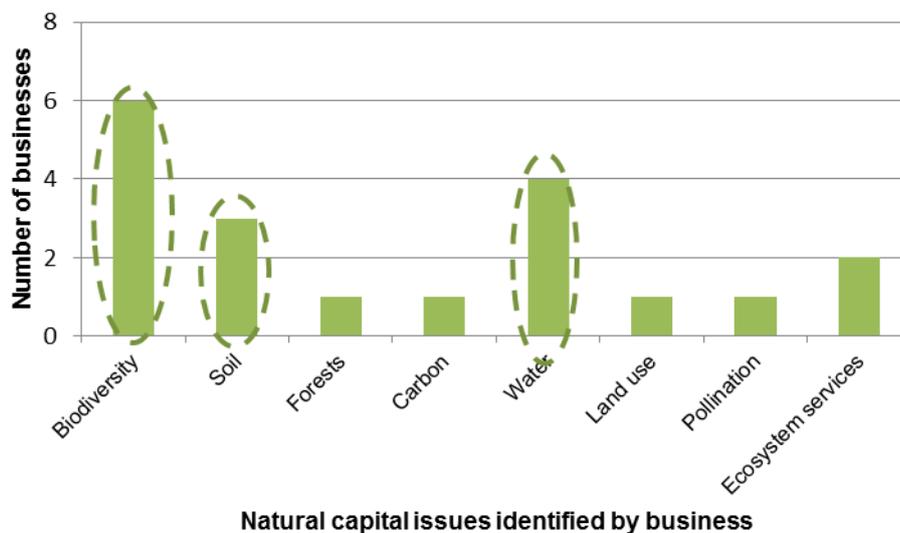


Figure 6: Natural capital issues of importance to business

It is the combination of commercial and environmental measures that can be used to demonstrate the success of investments in the natural environment or changes in business practice. These metrics can support companies to operationalise and incorporate considerations of the natural environment in their decision-making. These measures need to be simple and accessible.

Part 4

Looking to the future

The Natural Capital Leaders Platform members identified a gap in the availability of consistent, scalable environmental indicators that link to commercial metrics.

There is an opportunity for businesses to work with CISL to develop a set of metrics that consider the natural environment by measuring elements such as soil, water, biodiversity and carbon, and their links to commercial drivers. This will help create strong business cases for further investments to sustain and enhance the natural environment, and will enable businesses to address concerns around resource depletion and ecosystem degradation in their decision-making processes.

The need for these indicators is driven by three key themes that emerged from this report:

- Almost all companies interviewed are pursuing longer term company strategies
- Businesses are concerned with issues associated with the natural environment that impact costs to their business
- Gaps were identified with regard to current, simple environmental indicators, particularly for soil, water and biodiversity, and their use alongside commercial metrics

CISL is looking to develop a metrics dashboard that can help businesses to focus their approach to the natural environment and apply it to the areas that will have a commercial benefit.



Making the important links between commercial drivers and environmental performance, by using simple indicators, can enable businesses to make a step change to consider the natural environment in their decision-making.

References

- ¹ Natural Capital Coalition (2016). The Natural Capital Protocol will be made public on 13 July 2016 and will be available at <http://www.naturalcapitalcoalition.org/>
 - ² Olam International Management Discussion and Analysis. (2015). Retrieved May 24, 2016 from Olam International website, http://49tmko49h46b4e0czy3rlqaye1b.wpengine.netdna-cdn.com/wp-content/uploads/2016/02/29Feb2016_Q42015_MDA.pdf
 - ³ Nestlé Group results. (2015). Retrieved May 25, 2016 from Nestlé website, <http://www.nestle.com>
 - ⁴ Walmart Annual Report. (2015). Retrieved May 24, 2016 from Walmart website, http://www.corporatereport.com/walmart/2015/ar/downloads/walmart_2015_ar.pdf
 - ⁵ Volac Agriculture News. (2016). Retrieved May 23, 2016 from Volac website, <http://www.volac.com/news/agriculture-news/news329/volac-invests-to-seize-future-opportunities>
 - ⁶ Mondi Integrated Report and financial statements. (2015). Retrieved May 23, 2016 from Mondi website, <http://reports2015.mondigroup.com/downloads/integrated-report-and-financial-statements-2015.pdf>
 - ⁷ Anglian Water financial statement. (2015). Retrieved May 25, 2016 from Anglian Water website, <http://anglianwater.co.uk>
 - ⁸ Kering group key figures. (2015). Retrieved May 25, 2016 from Kering website, <http://Kering.com>
 - ⁹ Mars Business Segments Highlights. (2016). Retrieved May 25, 2016 from Mars website, <http://www.mars.com/global/about-mars/mars-pia/business-summaries.aspx>
 - ¹⁰ UK FOREX foreign exchange yearly average figures. (2016). Retrieved May 25, 2016 from UK FOEX website, <http://www.ukforex.co.uk/forex-tools/historical-rate-tools/yearly-average-rates>
 - ¹¹ Business Dictionary. (2016). Retrieved May 25, 2016 from Business Dictionary website, <http://www.businessdictionary.com/definition/turnover.html>
 - ¹² CISL. (2013). E.VALU.A.TE: Listening to business. Report by the Natural Capital Leaders Platform. Cambridge, UK: CISL
 - ¹³ Ethical Corporation State of Responsible Business Report. (2016). Retrieved May 25, 2016 from Ethical Corporation website, <http://www.ethicalcorp.com>
- 

**Cambridge insight,
policy influence,
business impact**

**The University of Cambridge
Institute for Sustainability
Leadership (CISL)** brings together
business, government and
academia to find solutions to
critical sustainability challenges.

Capitalising on the world-class,
multidisciplinary strengths of the
University of Cambridge, CISL
deepens leaders' insight and
understanding through its executive
programmes; builds deep, strategic
engagement with leadership
companies; and creates opportunities
for collaborative enquiry and action
through its business platforms.

Over 25 years, we have developed
a leadership network with more
than 7,000 alumni from leading global
organisations and an expert team of
Fellows, Senior Associates and staff.

HRH The Prince of Wales is the
patron of CISL and has inspired and
supported many of our initiatives.

Head Office

1 Trumpington Street
Cambridge, CB2 1QA
United Kingdom
t: +44 (0)1223 768850
e: info@cisl.cam.ac.uk

EU Office

The Periclès Building
Rue de la Science 23
B-1040 Brussels, Belgium
t: +32 (0)2 894 93 20
e: info.eu@cisl.cam.ac.uk

South Africa

PO Box 313
Cape Town 8000
South Africa
t: +27 (0)21 469 4765
e: info.sa@cisl.cam.ac.uk

