Working Paper 2019/05

Reviewing Voluntary Reporting Frameworks Mentioned in 2017 and 2018 Annual Reports

MCGUINNESS INSTITUTE
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Contents

Figures

Tables

1.0 Introduction

1.1 Purpose

This working paper aims to contribute to a dialogue on how New Zealand might manage risks and maximise opportunities in the transition to a low-carbon economy. It is hoped that this work will be particularly useful given the introduction of the Climate Change Response (Zero Carbon) Amendment Bill to the House of Representatives in May 2019.

This research assesses the extent to which a range of public and private organisations mention and/or report against recognised international reporting frameworks/instruments in their annual reports (or, if not available, their financial statements). The research has a specific interest in climate change or environmental reporting.

1.2 Purpose of Project ReportingNZ

This working paper forms part of *Project ReportingNZ*[1], which aims to contribute to a discussion on how to build an informed society, with particular regard to the important role that organisations play within society. When organisations operate efficiently and with similar values to the communities in which they operate, they add value through employment, taxation revenue and the support of community initiatives. However, they can also present challenges if they do not reflect societal values or do not operate in a transparent manner. *Project ReportingNZ* looks specifically at the role of annual reports as a tool for improving the relationship between organisations and the communities in which they operate, and also as one of the few mechanisms to collect readily available data on organisations for use as an evidence base in policy development.

An underlying assumption of *Project ReportingNZ* is that New Zealand's reporting framework is no longer fit for purpose. Questions of what users of reports need to know, in what format and in what time frame need to be explored and assessed regularly to ensure reports are timely, relevant, cost effective and useful.

The specific assumption underlying this working paper is that reporting on climate change is new, challenging and complex. As a result, all parties are required to work together to ensure that regulation, standards and guidelines are aligned to produce cost-effective, accessible, timely and comparable reports. The adage that 'we manage what we measure' highlights that what is not measured is not managed. This report has been developed under the assumption that having a source of accessible, comparable and meaningful information gathered over an extended period of time creates a fundamental basis for informing public policy decisions.

This working paper follows on from previous *Project ReportingNZ* publications:

- *Working Paper 2018/01 – NZSX-listed Company Tables*
- *Working Paper 2018/03 – Analysis of Climate Change Reporting in the Public and Private Sectors*
- *Think Piece 30 – Package of Climate Change Reporting Recommendations*

It also contributes to the upcoming *Project ReportingNZ* publications *Report 17 – Building a Reporting Framework Fit For Purpose* and *Discussion Paper 2019/01 – The Climate Reporting Emergency: A New Zealand case study.*

1 For more on *Project ReportingNZ*, please see the *ReportingNZ* website at www.reportingnz.org.

2.0 Methodology

The following methodology outlines the process of collecting and collating the data. This working paper provides a quantitative assessment of the state of environmental reporting in New Zealand by recording which voluntary frameworks/instruments entities mentioned in their 2017 and 2018 annual reports. Data sets spanning over two years enable us to gain insights on any developing trends. Assessing the quality of the reporting information is outside of the scope of this research.

2.1 Data sets

To explore the various voluntary frameworks/instruments that exist, and what New Zealand entities are currently incorporating these instruments into their reporting practices, reviewers at the Institute downloaded and searched the digital copies of 2017 and 2018 annual reports from the entity types listed in the data sets below.

Table 1: Data sets

Data sets	2017		2018	
	No. of entities	No. of available annual reports	No. of entities	No. of available annual reports
NZX Main Board companies (NZSX)*	129	126	124	123
Deloitte Top 200	200	118	200	161
State-owned enterprises	14	13	14	12
Crown agents and Crown entities**	63	63	63	63
District health boards (DHBs)**	20	20	20	20
Crown research institutes (CRIs)**	7	7	7	7
Government departments	31	29	32	30
Local authorities	78	78	78	78
Total***	542	454	538	494

* Trusts and funds were removed from the total number of entities listed on the NZSX. This was the result of a methodological decision to only include companies that contained the term 'Limited' in their title.

** DHBs and CRIs were treated as separate data sets rather than being included in the Crown agents and Crown entities data set.

*** The total figure does not represent individual organisations. Some companies are NZSX listed as well as on the Deloitte Top 200. There are also entities that are both state-owned enterprises and listed on the Deloitte Top 200 and therefore have been double counted.

2.2 Locating and searching the annual reports

The research methodology was made up of three key steps:

Step 1: Find a soft copy of each entity's annual report. For example, for the Deloitte Top 200 data set, the Companies Register was searched first and if no annual report was found, the entity's website was searched. This meant, for example, that the 2017 list of the Deloitte Top 200 generated the annual reports for that data set whose year end was during the 2017 calendar year.

Step 2: If only financial statements (not annual reports) were found, these were included in the data set but excluded from Step 3.

Step 3: Using the 'search' tool on Adobe Acrobat Pro, annual reports were searched for any mention of selected voluntary frameworks.

The 21 different frameworks analysed are briefly described as follows:

1. **B Corp (B Corporations)**
   B Corp is a certification available to businesses that meet the highest standards of social and environmental performance, public transparency, and legal accountability to balance profit and purpose (B Lab, n.d.).

2. **CarboNZero**
   This certification assists entities with accurate measurement of greenhouse gas emissions and putting in place strategies to manage and reduce climate impacts (Enviro-Mark Solutions, n.d.). The programme then helps entities offset their remaining emissions to achieve net zero (Enviro-Mark Solutions, n.d.).

3. **CDP (formerly Carbon Disclosure project)**
   CDP is a registered charity that runs a 'global disclosure system that enables companies, cities, states and regions to measure and manage their environmental impacts' (CDP, 2019). The initiative is also intended to help investors and policy-makers by providing a data base for decision-making (CDP, 2019).

4. **CDSB (Climate Disclosure Standards Board)**
   The CDSB is made up of businesses and NGOs working to 'provide decision-useful environmental information to markets via mainstream corporate reports' (CDSB, 2019). They do this by providing a framework to preparers that allows them to report environmental information with the same rigour as financial information, with the ultimate goal of 'advancing and aligning the global mainstream corporate reporting model to equate natural capital with financial capital' (CDSB, 2019).

5. **CEMARS (Certified Emissions Measurement and Reduction Scheme)**
   This certification is linked to the carboNZero initiative. Similarly, it aims to enable accurate measurement of greenhouse gas emissions and help put in place strategies to manage and reduce climate impacts (Enviro-Mark Solutions, n.d.).

6. **Ceres**
   Ceres is a sustainability not-for-profit that works 'with the most influential investors and companies to build leadership and drive solutions throughout the economy' (Ceres, 2018). Their work centres around the 'business case for sustainability' and mostly involves forming networks and building leadership (Ceres, 2018).

7. **CSR (Corporate Social Responsibility)**
   Corporate social responsibility is related to the idea of 'corporate citizenship' and provides a 'self-regulating business model that helps companies be socially accountable – to itself, its stakeholders, and the public' (Chen, 2019).

8. **DJSI (Dow Jones Sustainability Indices)**
   This index family 'tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria' (RobecoSAM, 2019).

9. **FTSE4GOOD (FTSE Russell Index Series)**
   This index family is 'designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices' (FTSE Russell, 2019). It mainly serves investors.

10. **GHG Protocol (Greenhouse Gas Protocol)**
    The GHG Protocol provides standards, guidance, tools and training for a range of public and private sector entities to measure and manage climate-warming emissions by establishing 'comprehensive global standardized frameworks' (GHG Protocol, n.d.).

11. **GLEC framework (Global Logistics Emissions Council)**
    This framework is targeted at 'shippers, carriers and logistics service providers' as a way of developing 'harmonized calculation and reporting of the logistics GHG footprint across the multi-modal supply chain' (Smart Freight Centre, n.d.). It is aligned with the GHG Protocol and CDP reporting (Smart Freight Centre, n.d.).

12. **GRI (Global Reporting Initiative)**
    The GRI has pioneered sustainability reporting since 1997. Their reporting standards are 'rooted in the public interest' and are intended to help 'businesses and governments worldwide understand and communicate their impact on critical sustainability issues such as climate change, human rights, governance and social well-being' (GRI, n.d.).

13. **IIRC (International Integrated Reporting Council)/International <IR> Framework**
    The IIRC, which administers the International <IR> Framework, is 'a global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs' that promotes 'communication about value creation as the next step in the evolution of corporate reporting' (Integrated Reporting, n.d.[a]). The process of integrated reporting is outlined in the *International <IR> Framework*, which broadly outlines the content of an integrated report, applying 'principles and concepts that are focused on bringing greater cohesion and efficiency to the reporting process, and adopting 'integrated thinking' as a way of breaking down internal silos and reducing duplication' (Integrated Reporting, n.d.[b]).

14. **International Organization for standardization (ISO) 14000 family – Environmental management)**
    This family of standards 'provides practical tools for companies and organizations of all kinds to manage their environmental responsibilities' (ISO, n.d.). The standards are as follows:

    a. ISO 14001 Environmental management systems - Requirements with guidance for use
    b. ISO 14004 Environmental management systems - General guidelines on implementation
    c. ISO 14006 Environmental management systems - Guidelines for incorporating ecodesign
    d. ISO 14015 Environmental management - Environmental assessment of sites and organizations
    e. ISO 14020 to 14025 Environmental labels and declarations
    f. ISO/NP 14030 Green bonds -- Environmental performance of nominated projects and assets; discusses post-production environmental assessment
    g. ISO 14031 Environmental management - Environmental performance evaluation - Guidelines
    h. ISO 14040 to 14049 Environmental management - Life cycle assessment; discusses pre-production planning and environment goal setting
    i. ISO 14050 Environmental management - Vocabulary; terms and definitions
    j. ISO/TR 14062 Environmental management - Integrating environmental aspects into product design and development
    k. ISO 14063 Environmental management - Environmental communication - Guidelines and examples
    l. ISO 14064 Greenhouse gases; measuring, quantifying, and reducing greenhouse gas emissions

15. **Measuring Emissions: A Guide for Organisations**
    This guide 'sets out how to quantify and report GHG emissions, and provides methods to apply emission factors to produce a GHG inventory' (MfE, 2019, p. 6).

16. **NGER (National Greenhouse and Energy Reporting scheme)**
    The NGER provides a single national framework in Australia for 'reporting and disseminating company information about greenhouse gas emissions, energy production, energy consumption and other information' (Australian Government Clean Energy Regulator, 2019).

17. **PRI (Principles of Responsible Investment)**
    The United Nations PRI is the world's leading proponent of responsible investment. It 'encourages investors to use responsible investment to enhance returns and better manage risks, but does not operate for its own profit; it engages with global policymakers but is not associated with any government' (PRI, n.d.).

18. **SASB (Sustainability Accounting Standards Board):**
    The SASB establishes and maintains 'disclosure standards on sustainability matters that facilitate communication by companies to investors of decision-useful information' (SASB, 2018).

TCFD (Task Force on Climate-related Financial Disclosures)
The TCFD develops 'voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to investors, lenders, insurers, and other stakeholders' (TCFD, 2019a). The TCFD Secretariat is based in New York in Michael Bloomberg's offices. The operational arm of TCFD is likely to be led by a combination of CDSB and SASB (both organisations have had funding from Bloomberg in the past). *TCFD Good practice 1 Handbook* (TCFD, 2019b) has been jointly launched by both organisations in New York in September 2019.

19. **UN SDGs (United Nations Sustainable Development Goals):**
    The Sustainable Development Goals are intended to help 'achieve a better and more sustainable future for all' (UN, n.d.). They address global challenges, 'including those related to poverty, inequality, climate, environmental degradation, prosperity, and peace and justice' (UN, n.d.)

20. **UNFCCC (United Nations Framework Convention on Climate Change)**
    The UNFCCC is a convention adopted at the Rio Earth Summit that now has near-universal membership of 197 countries (UNFCCC, 2019). The ultimate aim of the convention is to prevent '"dangerous" human interference with the climate system' (UNFCCC, 2019).

2.3 Collating the data

The results for each data set were recorded on separate pages of an Excel spreadsheet. Each sheet included a table for the 2017 and 2018 annual reports published by each entity. Reviewers recorded whether or not a company had mentioned one or more of the above frameworks/instruments in their 2017 and 2018 reports along with the page number(s) where the information was found.

2.4 Presenting the data

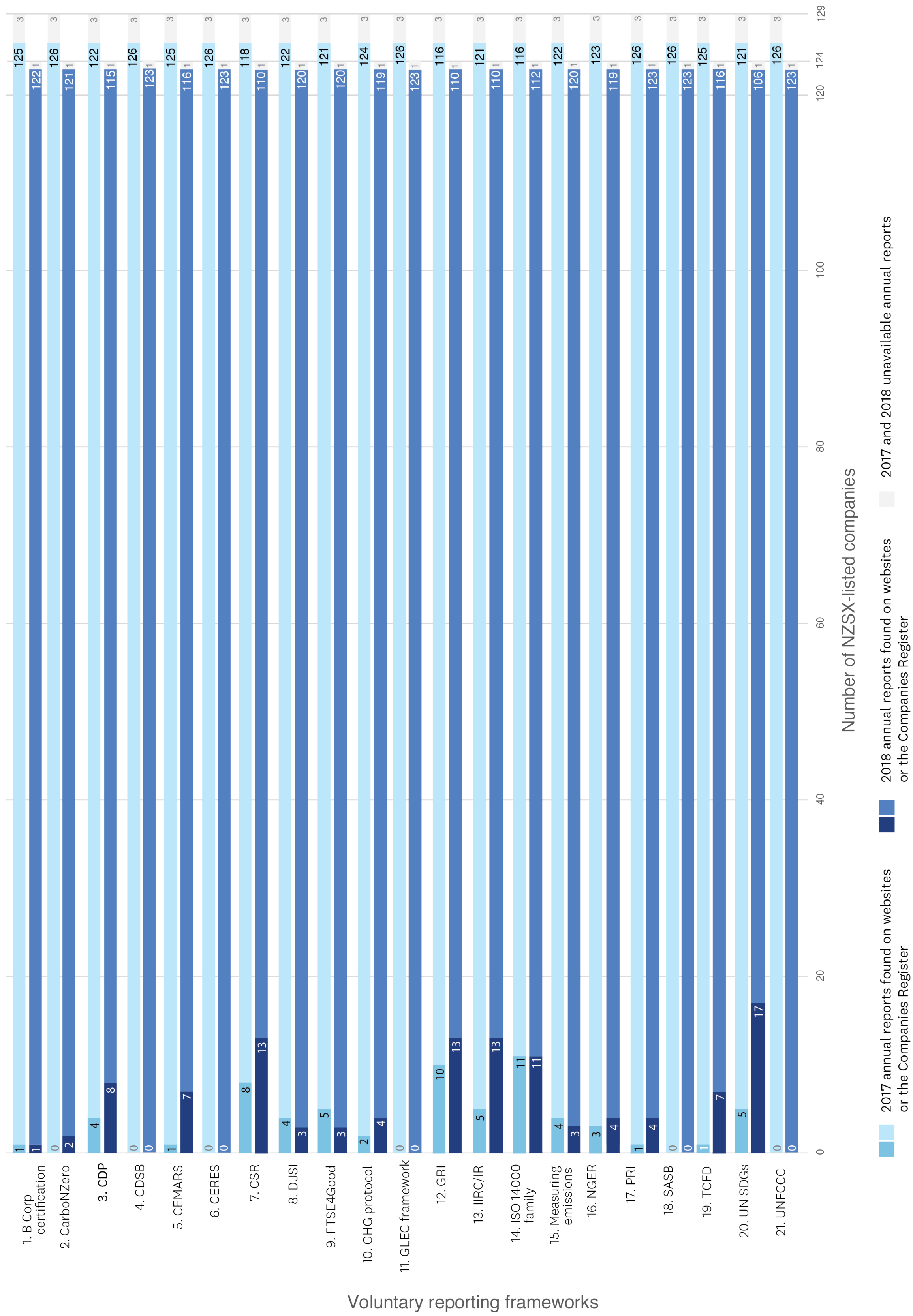
The final data is presented as a series of graphs in Section 3.0. Each graph illustrates 2017 and 2018 annual reports that mentioned/applied a particular reporting framework/instrument in blue. Annual reports that did not mention the reporting frameworks/instruments are indicated with darker grey, while annual reports that could not be located are represented with light grey.

3.0 Results

3.1. NZSX-listed companies

Figure 1 illustrates the full data set of NZSX-listed companies.

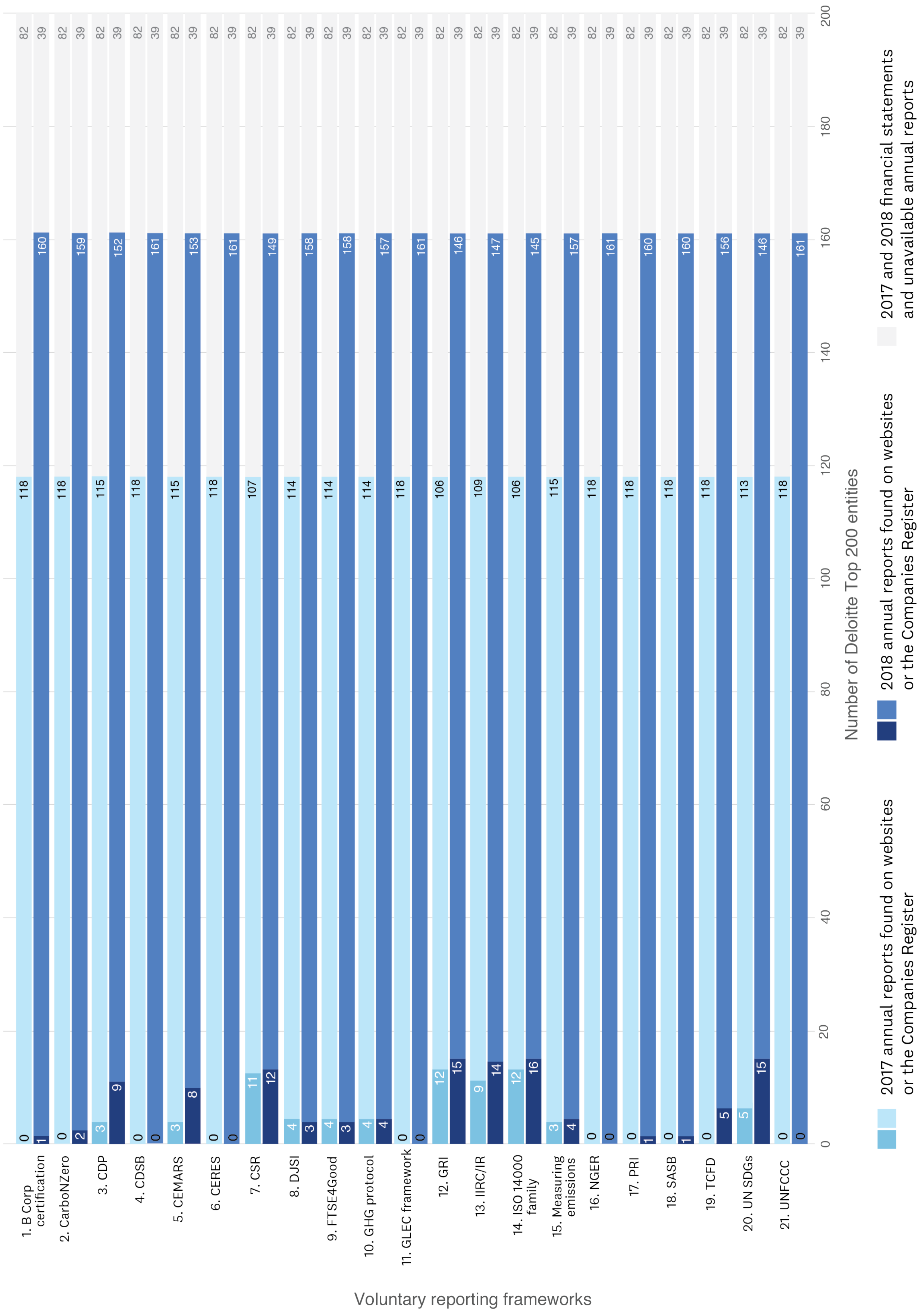
Figure 1: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of NZSX-listed companies



3.2 Deloitte Top 200

Figure 2 illustrates the full data set of Deloitte Top 200 entities.

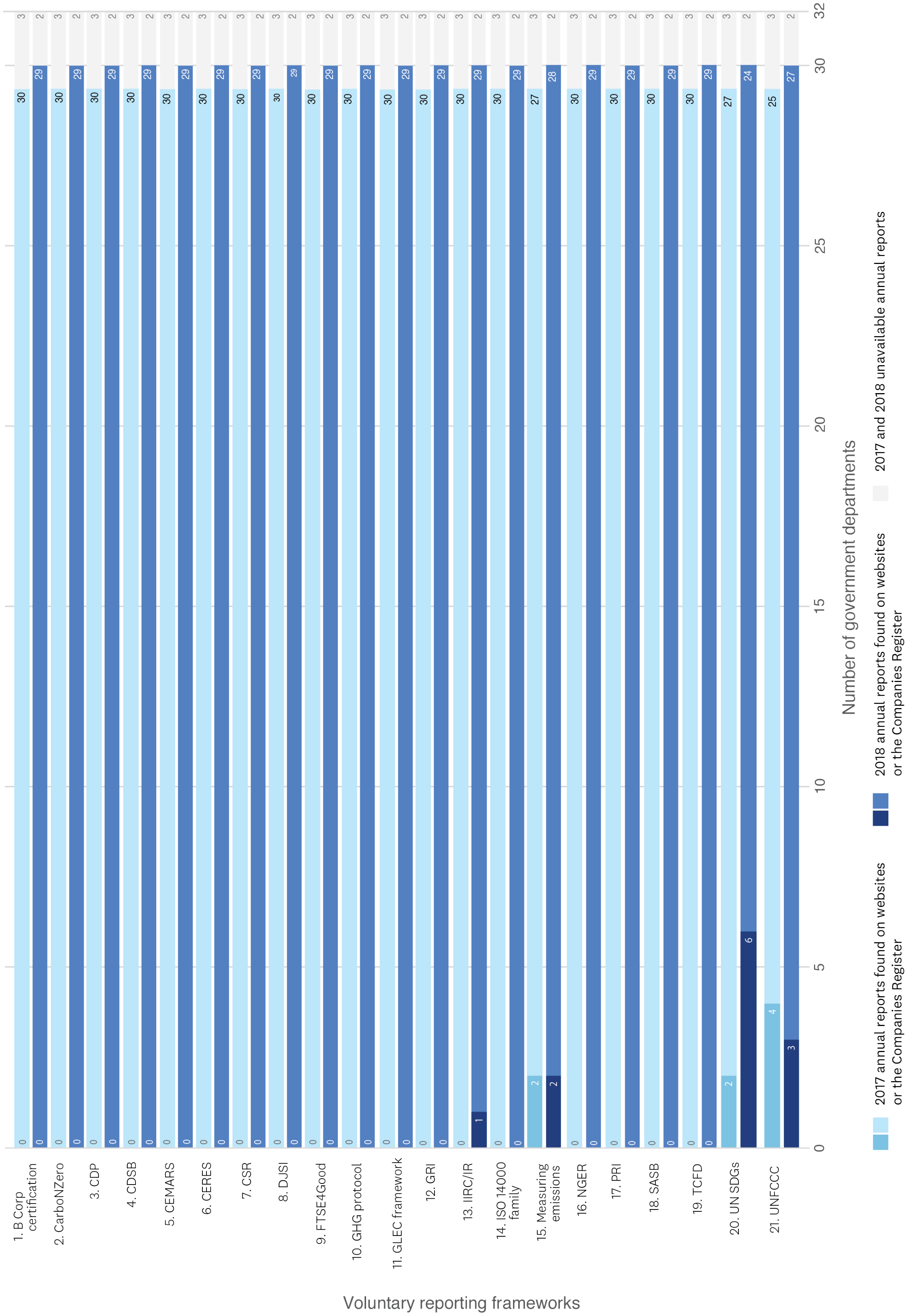
Figure 2: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of the Deloitte Top 200



3.3 Government departments

Figure 3 illustrates the full data set of government departments.

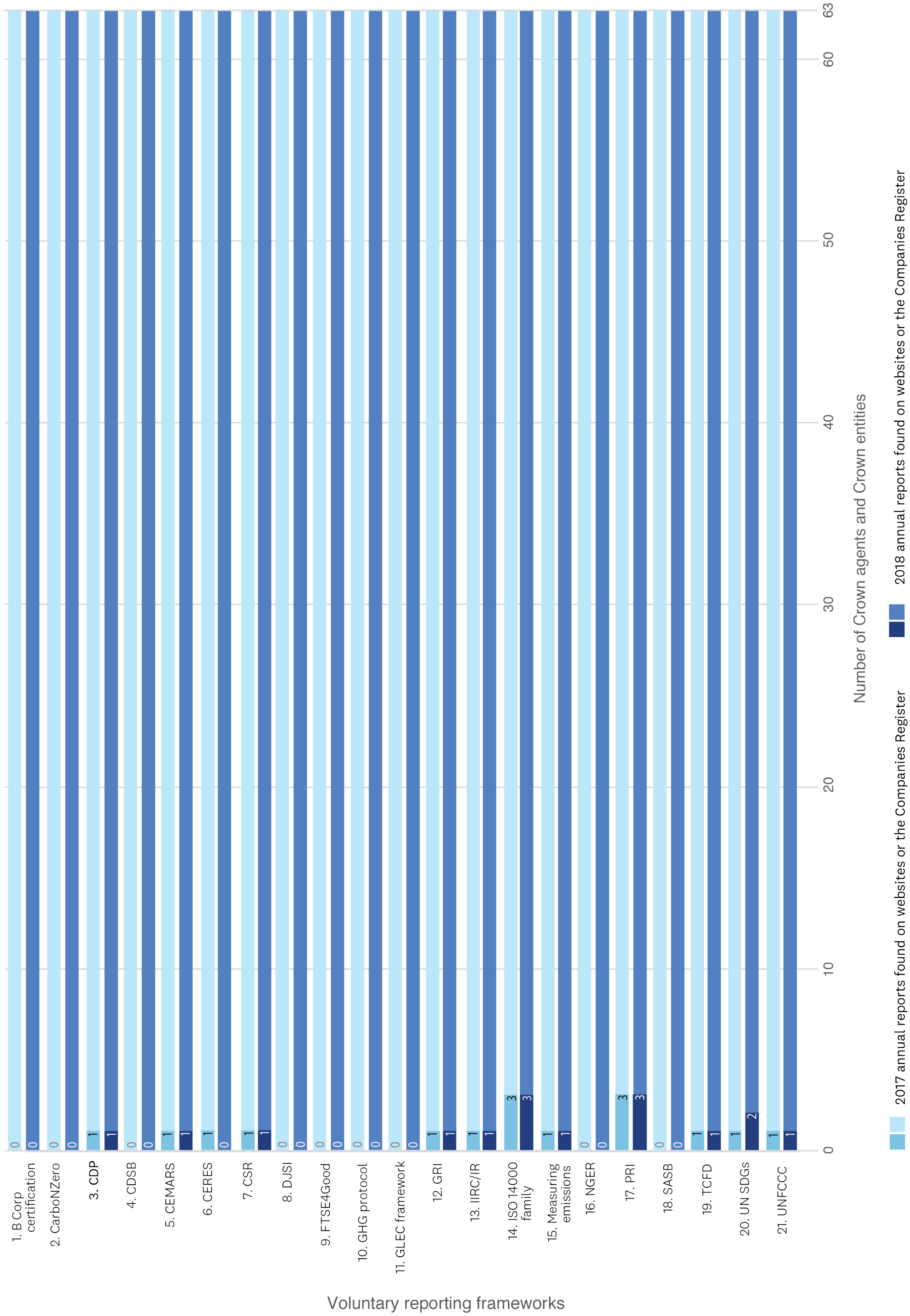
Figure 3: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of government departments



3.4 Crown agents and Crown entities

Figure 4 illustrates the data set of Crown agents and Crown entities.

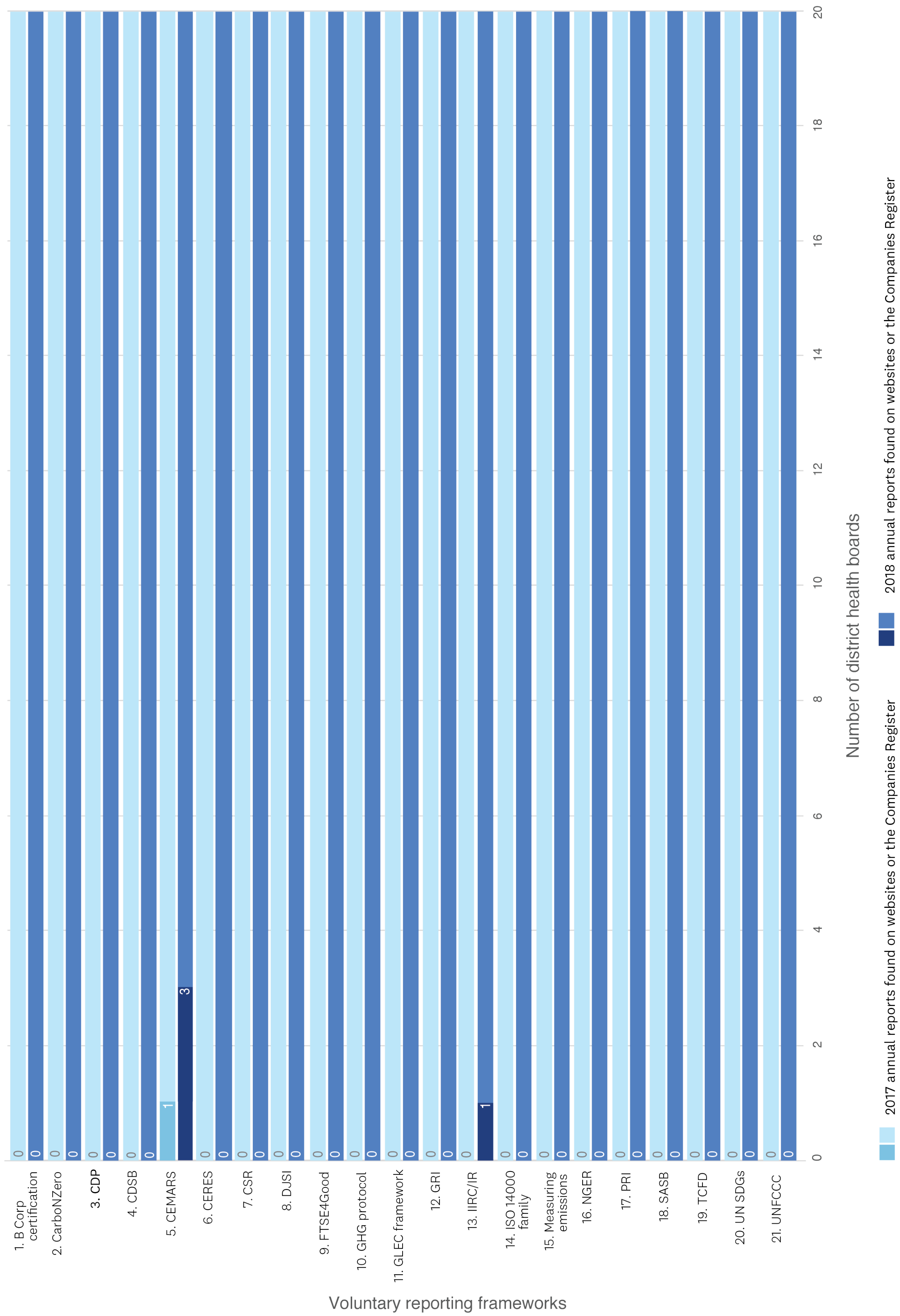
Figure 4: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of Crown agents and Crown entities



3.5 District Health Boards

Figure 5 illustrates the data set of DHBs.

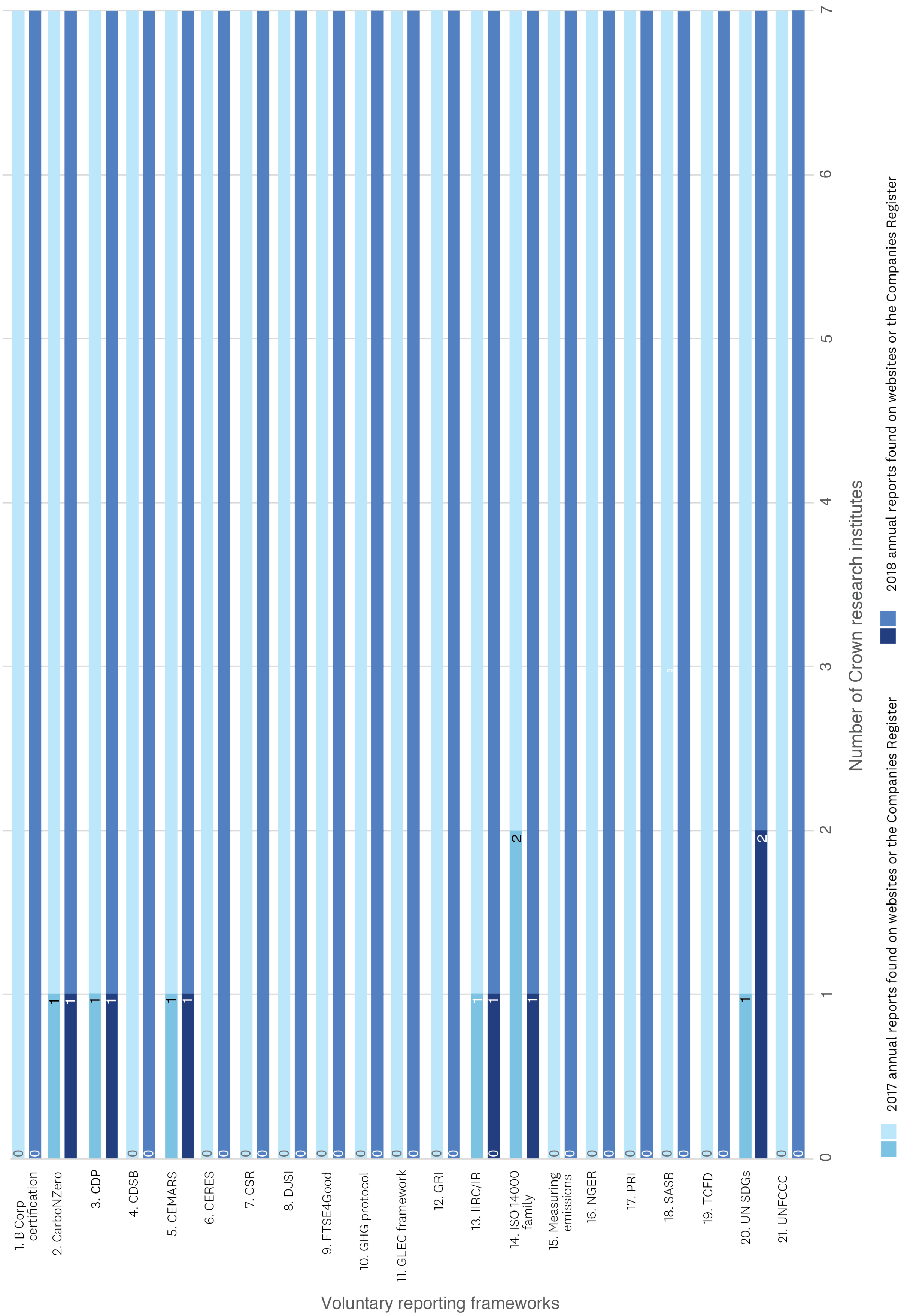
Figure 5: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of district health boards



3.6 Crown research institutes

Figure 6 illustrates the full data set of CRIs.

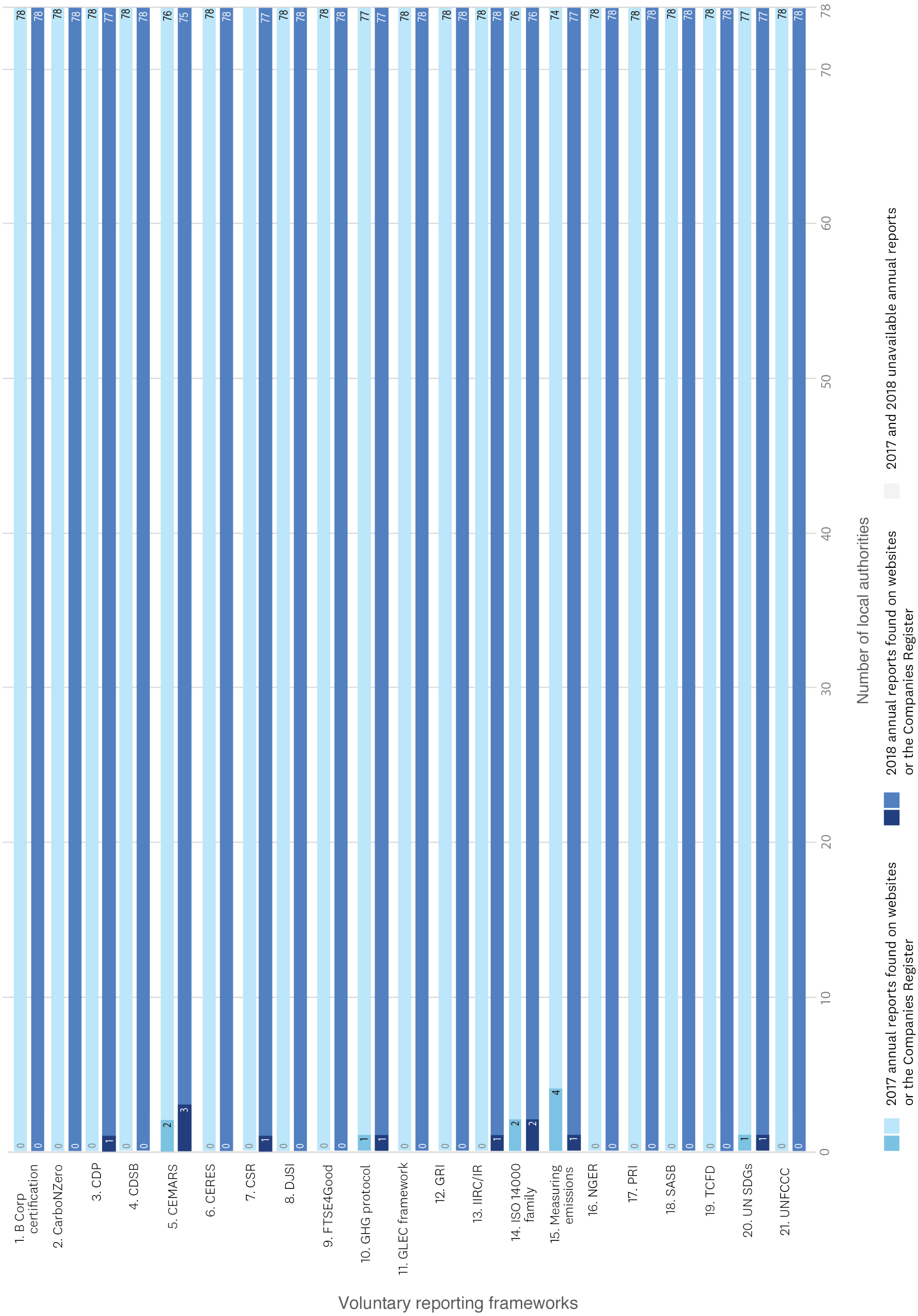
Figure 6: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of Crown research institutes



3.7 Local authorities

Figure 7 illustrates the full data set of local authorities.

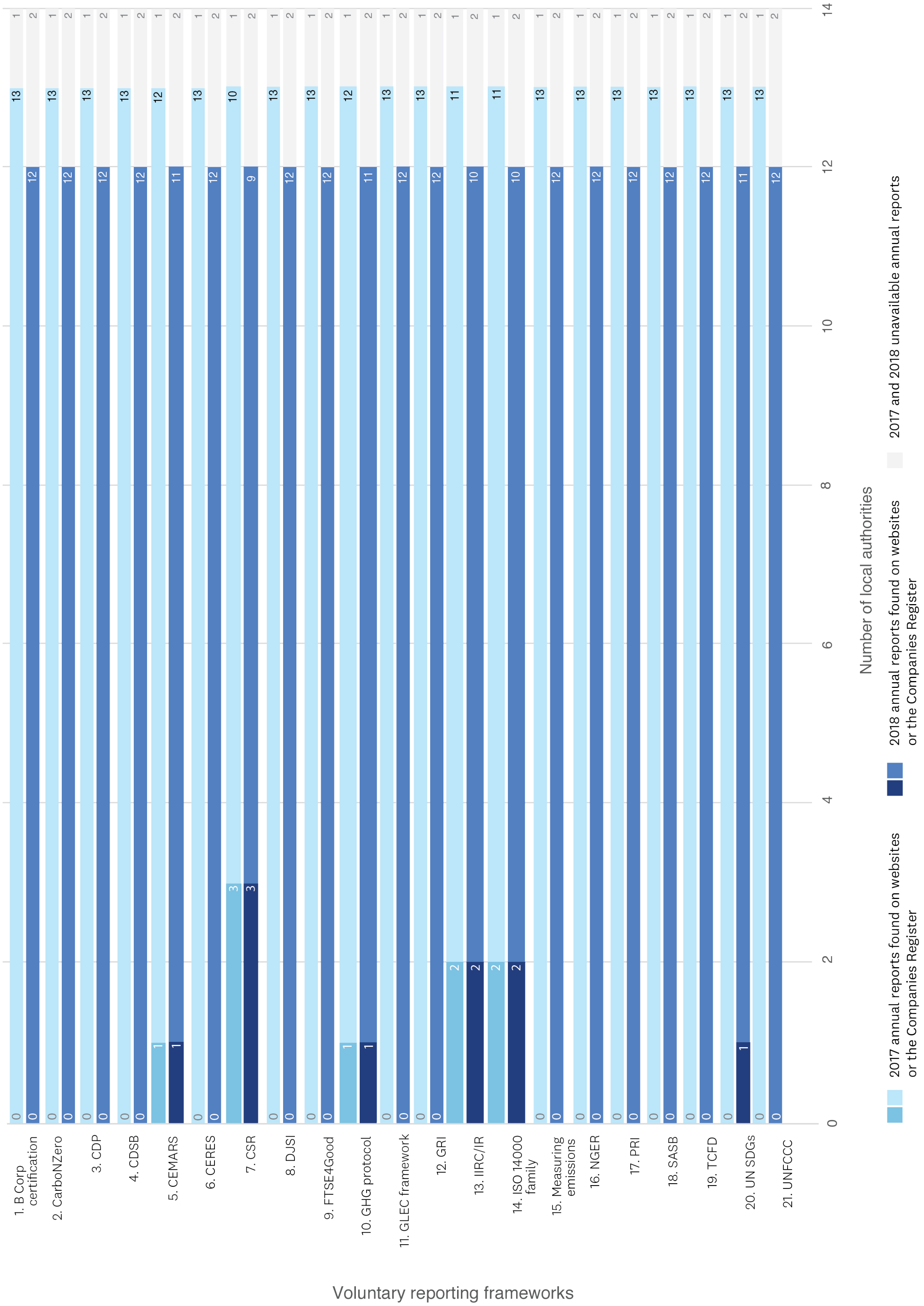
Figure 7: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of local authorities



3.8 State-owned enterprises

Figure 8 illustrates the full data set of state-owned enterprises.

Figure 8: Voluntary reporting frameworks disclosed in the 2017 and 2018 annual reports of state-owned enterprises



4.0 Observations

In this section we make some key observations across all data. At an immediate glance, it is evident that very few companies are choosing to use a voluntary international framework. This is possibly because there are too many frameworks for entities to choose from; it is timely to explore the development of a framework unique to New Zealand and appropriate for our reporting entities.

Currently no single voluntary framework is used consistently by all entities to report on environmental information. Instead of a single dominant framework there are a range of popular frameworks, all with similar aims. The problem with such a wide variety of frameworks is that this saturates the market, and any impacts of effective reporting are siloed and diluted. Presently is a lack of information around which frameworks are applicable and useful for particular entities (e.g. type, industry, size). This presents a barrier to entry and consequently entities can be unlikely to adopt a reporting framework. Furthermore, there is little alignment between frameworks, making it difficult to draw comparisons between entities and across sectors.

Most commonly mentioned or applied frameworks/instruments among all entities:

- GRI (Global Reporting Initiative)
- ISO14000 family
- UN SDGs (United Nations Sustainable Development Goals)
- CSR (Corporate Social Responsibility)
- IIRC (International Integrated Reporting Council)

Least commonly mentioned or applied frameworks/instruments among all entities:

- CDSB (Climate Disclosure Standards Board)
- SASB (Sustainability Accounting Standards Board)
- GLEC framework (Global Logistics Emissions Council Framework)

Emerging changes

It is evident in comparing the data of all entities from 2017 and 2018 that, overall, there has been an increase in the mention and application of frameworks/instruments. However, there was no reduction in the number of different frameworks being used, suggesting that the over-saturation of reporting frameworks remains pervasive and continues to present issues.

While there was an increase in the numbers of entities mentioning each framework/instrument from 2017 to 2018, these numbers are still significantly low, particularly given the large data set. In total, there were 96[2] entities that mentioned a framework/instrument within their annual reports during 2017, which increased to 138[3] entities in 2018.

Comparison between 2017 and 2018 data also revealed a significant increase in mention of the UN SDGs for 2018. While only 15 entities mentioned the goals in their 2017 annual reports, 44 entities were found to have mentioned them in 2018. The 2017 mentions were a mix of public and private sector entities (including the Ministry for the Environment and the Ministry for Women), while two thirds of the 2018 mentions were private sector entities. The private sector uptake is interesting because the discourse surrounding *The Wellbeing Budget 2019* would have made uptake for the SDGs more likely in the public sector.

There was also a significant increase in mention of the IIRC/International <IR> framework in reporting, and one new frameworks/instruments was mentioned in 2018 annual reports that was not mentioned in 2017: SASB.

2 Includes 24 entities that double up: 19 of which were listed on both the NZSX and Deloitte Top 200, and 5 of which are state-owned enterprises as well as Deloitte Top 200 entities.

3 Includes 30 entities that double up: 26 of which were listed on both the NZSX and Deloitte Top 200, and 4 of which are state-owned enterprises as well as Deloitte Top 200 entities.

Multiple frameworks

A number of entities mentioned more than one framework within their annual reports. Among the for-profit entities in 2017, it was particularly notable that Contact Energy Limited [3], Sanford Limited [6], Meridian Energy Limited [4], Vector Limited [4], and Westpac Banking Corporation [7] mentioned three or more frameworks/instruments.

In 2018 annual reports the highest numbers of different frameworks/instruments were mentioned by Contact Energy Limited [6], Vector Limited [6], SkyCity Entertainment Group limited [8] and Westpac Banking Corporation [8].

Guardians of New Zealand Superannuation from the Crown agents and Crown entities data set mentioned six different frameworks/instruments in their 2017 annual report and four in its 2018 annual report.

Overall, entities operating in the private sector (NZSX and Top 200 companies) employed significantly more frameworks in their reporting practices than public sector entities. This was similar for 2017, when each framework/instrument was mentioned by more private sector entities than public sector entities (except for UNFCCC, CEMARs and Ceres).

Private sector

Deloitte Top 200 entities had mentioned frameworks/instruments at a higher rate than any other data set in both 2017 and 2018. However, it is important to note that companies that were listed on the Top 200 that mentioned a framework/instrument were likely to also be on the NZSX. This finding has been consistent among all the quantitative research the Institute has undertaken looking at annual reports of for-profit entities. In the past, we have understood this to be a result of NZSX-listed companies having greater reporting requirements, and therefore being much more likely to apply a framework/instrument in their annual report.

Other specific observations

- It was concerning that the MfE's *Measuring Emissions* guidance was only mentioned by fifteen different entities across both 2017 and 2018. We expected that government departments, local authorities and other public sector entities would have higher uptake of the guidelines in order to lead by example and to improve comparability across sectors.
- The prevalence of different approaches to climate change disclosures can at least partially be attributed to the absence of consistent and mandatory reporting standards. This is well illustrated by the publishing of sustainability reports, presented separately from both annual reports and financial statements. Although some, or even many, sustainability reports may be exemplary in terms of decision-useful climate information, the fact that they are unregulated means that they are of limited reliability and even more limited comparability. This is why the Institute excluded them from research into the reporting framework. As part of further research in this area, it would be useful to take sustainability reports and similar documents into consideration and establish their level of alignment with particular frameworks, and with the problem-solving steps established by the Institute during climate *ReportingNZ* research.
- Despite the extensive international support for the recommendations of the TCFD, only two entities mentioned this framework in their 2017 annual reports. One of which was an NZSX-listed company and the other of which was a Crown entity. In 2018 the number of entities acknowledging the TCFD in their reporting practices increased to eight.
- Among the eight entities that acknowledged TCFD within their 2018 annual report, there were differing levels of acknowledgment. The Institute believed it was necessary to differentiate the level of depth entities used when mentioning TCFD. The intention for this is to use the highest scoring entity as an

example of best practice.

Table 2: Entities that mentioned 'TCFD' in their publicly available annual reports

Entity name	Entity type	2017 [2] (out of 542* entities)	2018 [8] (out of 538* entities)
Air New Zealand Limited	NZX-listed & Top 200		✓
AMP Limited	NZX-listed		✓
Contact Energy Limited#	NZX-listed & Top 200		✓
Downer EDI Group Limited#	NZX-listed & Top 200		✓
Guardians of New Zealand Superannuation	Crown entity	✓	✓
Meridian Energy Limited	NZX-listed & Top 200		✓
Vector Limited	NZX-listed & Top 200		✓
Westpac Banking Corporation#	NZX-listed	✓	✓
Total		**2**	**8**

Notes: * These figures are the total of the eight data sets and therefore will include a small amount of double counting (for example companies that are listed on both the NZSX and Deloitte Top 200 and entities that are both state-owned enterprises and on the Deloitte Top 200 have been counted twice)

These three entities are listed as supporters on the TCFD website as at 26 June 2019.

Our scoring method is as follows:

1. Inclusion of the 'four key themes' within the TCFD recommendations **(score out of 4)**:

- Governance: disclose the organization's governance around climate-related risks and opportunities.
- Strategy: disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material
- Risk management: disclose how the organization identifies, assesses, and manages climate-related risks.
- Metrics and targets: disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.

2. Generic elements of best practice **(score out of 3)**:

- Togetherness: has the specific information been grouped together within the annual report?
- Detail: has the specific information implicitly or explicitly been mentioned?
- Priority: has the entity made the specific information a priority within its annual report?

3. Total score **(score out of 7)**

Based on the outcome from applying this scoring method, we were able to determine which entities addressed TCFD in more depth than others (see Appendix 1).

To show how the TCFD's recommendations have been adopted by entities into their reporting practices, we have analysed examples of best practice from both non signing entities and those who are signatories to TCFD.

Examples of best practice (see Appendix 2)

Example 1: Meridian Energy Limited

Meridian Energy Limited included a concise explanation of how the company incorporated the TCFD recommendations into its business model. Elements of this example that particularly stood out were the simplicity of the disclosed information and the location within the annual report. This shows that Meridian Energy Limited has carefully considered the recommendations of the TCFD and prioritised them within its business model.

Example 2: Guardians of New Zealand Superannuation

Although Guardians of New Zealand Superannuation have little mention of TCFD within its 2018 annual report, the entity has disclosed information that aligns with the TCFD's recommendation criteria. Despite the implicit mention of TCFD, we have considered this to be an example of best practice as it shows that the entity is committed to incorporating such reporting criteria into its business model.

Example 3: Downer EDI Group Limited (signatory of TCFD)

Downer EDI Group Limited has included an excellent overview of the impacts that climate-related risks have on its business model. This type of disclosure is an example of best practice as it incorporates actual risks, time horizons, potential impacts to the business and Downer's management/mitigation responses. As a signatory of TCFD, Downer has incorporated their recommendations into their business model – showing priority and commitment.

Example 4: Contact Energy Limited (signatory of TCFD)

Contact Energy Limited has incorporated the recommendations of the TCFD into an index that is displayed in its 2018 annual report. This is an example of best practice as it displays the TCFD's criteria by having pages within the annual report correspond to each specific recommendation.

Appendix 1: Scoring tables

Table 3: Inclusion of the 'four key themes' within the TCFD recommendations

Entity Type	Governance	Strategy	Risk management	Metrics and targets	Score
Air New Zealand Limited	Yes (p. 59)	N/A	Yes (p. 58)	N/A	2 out of 4
AMP Limited	N/A	N/A	Yes (p. 11)	Yes (p. 11)	2 out of 4
Contact Energy Limited#	Yes (p. 19)	Yes (p. 24)	Yes (p. 25)	Yes (p. 41)	4 out of 4
Downer EDI Group Limited#	Yes (p. 122)	Yes (p. 124)	Yes (pp. 125, 126)	N/A	3 out of 4
Guardians of New Zealand Superannuation	Yes (p. 56)	Yes (p. 18)	Yes (p. 56)	Yes (p. 56)	4 out of 4
Meridian Energy Limited	Yes (p. 5)	Yes (p. 13)	Yes (p. 5)	Yes (p. 27)	4 out of 4
Vector Limited	Yes (p. 50)	Yes (p. 50)	Yes (p. 127)	Yes (pp. 33, 50, 51)	3 out of 4
Westpac Banking Corporation#	Yes (p. 119)	Yes (pp. 119, 131)	Yes (p. 124)	Yes (pp. 132, 136)	4 out of 4

Table 4: Generic elements of best practice

Entity Type	Togetherness	Detail	Priority of TCFD	Score
Air New Zealand Limited	Yes	No	No	1 out of 3
AMP Limited	Yes	No	No	1 out of 3
Contact Energy Limited#	No	Yes	Yes	2 out of 3
Downer EDI Group Limited#	Yes	Yes	Yes	3 out of 3
Guardians of New Zealand Superannuation	Yes	Yes	No	2 out of 3
Meridian Energy Limited	Yes	Yes	Yes	3 out of 3
Vector Limited	Yes	Yes	Yes	3 out of 3
Westpac Banking Corporation#	Yes	Yes	Yes	3 out of 3

Appendix 2: Examples of best practice

Example 1: Meridian Energy Limited

Meridian Energy Limited Integrated Report 2018, p. 5.

Meridian Integrated Report 2018

ASSESSING OUR CLIMATE CHANGE RISKS.
The Board also sets Meridian's overall appetite for risk and its approach to risk management. A summary of Meridian's key risks can be found in the FY18 Corporate Governance Statement available at https://www.meridianenergy.co.nz/assets/Investors/Governance/Meridian-Energy-Corporate-Governance-Statement.pdf.

Included among the various risks and risk scenarios that the Board reviews are climate-change-related risks. This year, using the newly published guidelines prepared by the Task Force on Climate-Related Financial Disclosures (TCFD), Management have identified the specific climate change risks from our existing set of risks. Given Meridian's focus on climate action, taking the time to consolidate our view of these risks is appropriate.

Of the 20 specific climate change risks identified, 12 are considered well managed, six require ongoing monitoring, two are considered priorities and there are no urgent risks.

The risks identified for ongoing monitoring are:

- changes in inflows
- population changes
- unsuccessful investments in new technologies
- cost of transition to lower emissions technology
- change in regulation
- legal precedent.

The two risks identified as priorities are:

- **industry disruption** – the concern that New Zealand's two biggest industries, agriculture and international tourism, could be curtailed because of their higher than average greenhouse gas emissions
- **flooding** – climate change modelling indicates that there will be an increase in rainfall on the West Coast of New Zealand. In the extreme, a flood event could, theoretically cause significant damage to Meridian's generation assets and third-party damage to infrastructure, property (town), farmland and the environment.

We have mitigation plans in place for all these risks.

THE ROLE OF COMMITTEES. Committees support the Board by providing detail on specific issues and having subject matter experts provide insights and advice. The following Committees, and the Board as a whole, cover the spectrum of resources on which we depend for our business success, and feed into the Company's overall strategy and direction. They also keep the Board well informed of day-to-day operations.

The Board and Committees also oversee progress on our Sustainable Development Goals (SDGs). The Safety and Sustainability Committee has responsibility for our progress on SDG7 (Affordable and Clean Energy) and

RESOURCES	BOARD OVERSIGHT
Financial and manufactured capital (our cash and assets)	Audit & Risk Committee
Technology	Full Board
Human capital	
· Our people and expertise	Remuneration & Human Resources Committee
· Health and safety	Safety & Sustainability Committee
Relationships and reputation	
· Our people	Remuneration & Human Resources Committee
· All other groups	Safety & Sustainability Committee and full Board
Natural resources	Safety & Sustainability Committee
Significant risks around resources	Audit & Risk Committee

SDG13 (Climate Action). The Board as a whole oversees our progress as a responsible generator, particularly as it pertains to the Waitaki reconsenting process. Our Remuneration and Human Resources Committee oversees Meridian's maintenance and development of being a great place to work. Our Audit and Risk Committee assists the Board in fulfilling its responsibilities in matters related to risk management, financial accounting and reporting.

THE ROLE OF PEOPLE AND CULTURE. No strategic goals, policies or processes would be achievable if it weren't for Meridian's people, who are our most important resource. They work hard to create value for shareholders, so it's essential that they are aligned with the Company's strategy and are well supported and rewarded appropriately for their efforts. The Board has approved a wide range of policies that Management are required to adhere to and incorporate in the Company's operations, including a Code of Conduct, the content of which all employees agree to honour. The Code provides guidance to staff on the behaviours that are expected and how to handle the issues and challenges they may face. Our approach to remunerating our people is on page 56.

IF YOU WOULD LIKE FURTHER INFORMATION.
We look forward to seeing you at the Annual Shareholder Meeting. In the meantime, if you are a shareholder, please feel free to ask questions, request information or comment on this report via Meridian's website or by directly contacting the Investor Relations Manager at investors@meridianenergy.co.nz.

CHRIS MOLLER
Chair

PETER WILSON
Deputy Chair

00:05

Example 2: Guardians of New Zealand Superannuation
Guardians of New Zealand Superannuation Annual Report 2018, p. 56

56 INVESTMENT REPORT

CLIMATE CHANGE

Given the Fund's long-term horizon and purpose, it is important that the risks and opportunities stemming from climate change are factored into our investment strategies and ownership practices.

In 2016/17, as part of our climate change strategy, we transitioned the Fund's global passive equity portfolio (40% of the Fund) to a low-carbon approach. We also developed 2020 carbon reduction targets for the overall Fund. Here we provide an update on the climate change activities we undertook during 2017/18 and our progress towards the 2020 targets.

CARBON TARGETS

Measured relative to the original Reference Portfolio, by 2020:

1. Reduce the carbon emissions intensity of the Fund by at least 20%
2. Reduce the potential emissions from reserves of the Fund by at least 40%

	Carbon emissions intensity*	Potential emissions from reserves**
2018	-18.7%	-32.1%

* Carbon emissions intensity is defined as measured tonnes CO_2e/\$m sales = tonnes of carbon emissions divided by \$m of company sales. This measures the portfolio in terms of carbon emissions per unit of output and provides a measure of the overall efficiency of the portfolio by comparing emissions with the economic activity that produces them. This metric is robust to movements in market valuations.

** Fossil fuel reserves are defined as potential future emissions: measures tonnes CO_2e/\$m invested = tonnes of carbon emissions divided by \$m invested. This measures the carbon equivalent emissions stored in fossil fuel reserves that would be released if those reserves were produced and used in the future, relative to dollars invested. MSCI ESG research calculates the potential emissions should all reserves be produced and burnt expressed as tonnes of CO_2 equivalent using the Potsdam Institute methodology. This includes proved and probable reserves.

STRATEGY OVERVIEW

The aim of the climate change investment strategy is to improve investment resilience to climate change over the long-term horizon of the Fund. Climate change considerations are factored into the Guardians' valuation investment decision-making processes and governance structures on an ongoing basis. This entails managing and monitoring the Fund's carbon exposure, managing climate-related risks, and seeking to take advantage of the investment opportunities arising from climate change action.

The Chief Executive Officer at the Guardians is ultimately responsible for the Fund's strategy. The Chief Investment Officer (CIO) is responsible for the climate change investment strategy, with both the CIO and Head of Responsible Investment overseeing its implementation, and acting as project sponsors. The different elements of the strategy are integrated into the objectives of the relevant members of the investment team, with the heads of each team responsible for ensuring delivery.

Our climate change strategy has four work-streams, which together help to make our portfolio more resilient to climate-related risks.

- **Reduce** – implement rules and activities to reduce climate change risk in the passive listed equities portfolio and other relevant portfolios;
- **Analyse** – implement framework to assist investment professionals in integrating climate change into valuations for active and prospective investments;
- **Engage** – implement an engagement programme and voting policy on climate change;
- **Search** – progress implementation of climate change opportunities identified.

102 - 20
201 - 2

Example 3: Downer EDI Group Limited
Downer EDI Group Limited Annual Report 2018, p. 125

Downer FY2018 TCFD

Climate change is a global challenge. As a diverse organisation with operations spanning across the Asia Pacific region, Downer acknowledges that climate change will impact its business, which will present a combination of climate-related risks and opportunities over the medium to long term.

Recognising the need for increased information on climate-related impacts, the TCFD developed voluntary, consistent climate-related financial disclosures for use by investors, lenders, insurers and other stakeholders to inform decision making in relation to climate risk.

The final TCFD report was released in June 2017 and is supported by Downer. This report recommended improved disclosures in relation to the areas of governance, strategy, risk management and metrics and targets relevant to climate risk. The TCFD recognises that meaningful adoption of the report's recommendations will be achieved over a three-year timeframe as both experience and disclosures evolve in response to clearer messaging from financial markets about the information they require to measure and respond to climate-related risks and opportunities.

Downer supports the TCFD objectives. Commencing in the 2018 financial year Downer's climate related disclosures align with the TCFD recommendations and build on Downer's disclosures in the 2017 financial year.

Risk	Description	TCFD Risk Type	Potential Impact to Business	Management Response and Mitigation
Impacts of increasing energy costs	Increased operational costs due to increase in electricity, gaseous and liquid fuel prices, materially impacting high energy consuming service lines	**Transition:** Market and Policy	Decreased profitability from contracts in energy-intensive service lines **Time horizon:** Medium to Long Term	Continue identifying and implementing energy efficiency initiatives
Exposure to extreme weather events	Severe weather events impacting the delivery of contractual obligations. For example, resource mobilisation, health and safety, and security	**Physical:** Acute and Chronic, and Legal	Inability to achieve contractual schedules due to adverse and severe weather events **Time horizon:** Long Term	Continue to assess contractual arrangements with respect to acute and chronic weather events to ensure appropriate mitigation measures are in place
Exposure to thermal coal contracts	Transition to a low carbon economy leads to reduced demand for thermal coal for power generation	**Transition:** Policy, Legal, Technology Changes, Market Changes, Reputation	Reputational risks arise from Downer's continual exposure to the coal sector **Time horizon:** Medium Term	Continue to monitor demand forecasts for thermal coal – particularly local demand driven by power stations that are current customers for existing thermal coal mining services contracts Undertake scenario analysis of Downer's medium to long term exposure to metallurgical and thermal coal When reviewing contract extensions / new contracts, continue to undertake analysis to increase exposure to mines that are expected to maintain competitiveness in light of the transition to a low carbon economy

Annual Report 2018 125

Example 4: Contact Energy Limited

Contact Energy Limited Annual Report 2018, p. 44

Sustainability Report

9. EMPLOYEE ABSENTEE RATE[1] AS AT 30 JUNE 2018

	FY18			FY17		
	Females	Males	All Employees	Females	Males	All Employes
Total scheduled days	101,223	144,586	245,809	109,749	148,130	257,878
Total absence days	3,808	3,271	7,080	4,652	2,868	7,520
Lost days as a percentage	4%	2%	3%	4%	2%	3%

1. Measures days lost as a percentage of total scheduled work days for employees.

10. SAFETY DATA AS AT 30 JUNE 2018

	FY18	FY17
Fatalities	-	-
Occupational Disease Rate – Controlled[1]	0.7	-
Lost Time Injury Frequency Rate – Controlled[2]	3.0	3.2
Lost Time Injury Frequency Rate – Monitored[2]	9.3	12.7

1. Measures occupational disease as a rate of hours worked for employees and contractors working under our HSE management systems.
2. Measures the number of lost time injuries occurring in a workplace per 1 million man-hours worked for employees and contractors. 'Lost days' is based on work days not calendar days. A lost time injury commences the next rostered day after the injured person is signed off work by a medical practitioner. First aid injuries are not included in this rate. It only includes injuries that result in a lost time injury.

11. INJURIES BY GENDER AS AT 30 JUNE 2018

	Controlled		Monitored	
Type of injury	**Male**	**Female**	**Male**	**Female**
Sprain or strain	6	-	3	-
Bruising or crushing	-	-	2	-
Laceration	1	-	-	-
Puncture wound	-	1	-	-
Poisoning or toxic effects	1	-	-	-
Fracture	1	1	-	-
Illness (medical condition)	1	-	-	-
Dislocation	-	1	-	-
Burns (hot or cold)	-	1	-	-
Total	**10**	**4**	**5**	**0**

12. TCFD INDEX

Disclosure	Page number
Describe the Board's oversight of climate-related risks and opportunities.	Board oversight is through the Health, Safety and Environment Committee
Describe management's role in assessing and managing climate-related risks and opportunities.	p.24
Describe the climate-related risks and opportunities the organisation has identified over the short, medium and long term.	p.42
Describe the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning.	p.24
Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2 degree or lower scenario.	p.24
Describe the organisation's processes for identifying and assessing climate-related risks.	p.24
Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management.	p.30
Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	p.25
Disclose Scope 1, 2 and if appropriate 3 greenhouse gas (GHG) emissions, and the related risks.	p.41
Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	p.25

44 Contact Annual Report 2018

References

Australian Government Clean Energy Regulator. (2019). About the National Greenhouse and Energy Reporting scheme. Retrieved 21 June 2019 from http://www.cleanenergyregulator.gov.au/NGER/About-the-National-Greenhouse-and-Energy-Reporting-scheme.

B Lab. (2019). About B Corporations. Retrieved 21 June 2019 from Certified B Corporation: https://bcorporation.net/about-b-corps.

CDP. (2019). Our vision and mission. Retrieved 21 June 2019 from CDP: https://www.cdp.net/en/info/about-us.

Ceres. (2018). About us. Retrieved 21 June 2019 from Ceres Environmental Services: https://www.ceres.org/about-us.

Chen, J. (2019). Corporate Social Responsibility (CSR). Retrieved 21 June 2019 from Investopedia: https://www.investopedia.com/terms/c/corp-social-responsibility.asp.

Climate Disclosure Standards Board (CDSB). (2019). About the Climate Disclosure Standards Board. Retrieved 21 June 2019 from https://www.cdsb.net/our-story.

Downer EDI Group Limited. (2018). *Downer EDI Group Limited Annual Report 2018*. Sydney: Author. Retrieved 1 October 2019 from https://www.downergroup.com/Content/cms/media/2018/PDF/AGM/DOW0041_Annual_Report_2018_FA.pdf.

Enviro-Mark Solutions. (2019). Carbon Programmes & Certification. Retrieved 21 June 2019 from https://www.enviro-mark.com/what-we-offer/carbon-management.

FTSE Russell. (2019). FTSE4Good Index Series. Retrieved 21 June 2019 from https://www.ftserussell.com/products/indices/ftse4good.

Greenhouse Gas Protocol (GHG Protocol). (n.d.). What is GHG Protocol? Retrieved 21 June 2019 from https://ghgprotocol.org/about-us.

Global Reporting Initiative (GRI). (2019). About GRI. Retrieved 21 June 2019 from https://www.globalreporting.org/Information/about-gri/Pages/default.aspx.

Guardians of New Zealand Superannuation. (2018). *Guardians of New Zealand Superannuation Annual Report 2018*. Auckland: New Zealand Superannuation Fund. Retrieved 1 October 2019 from https://nzsuperfund.nz/sites/default/files/documents-sys/Annual%20Report%202018.pdf.

Integrated Reporting <IR> (Integrated Reporting). (n.d. [a]). The IIRC. Retrieved 21 June 2019 from https://integratedreporting.org/the-iirc-2.

Integrated Reporting <IR> (Integrated Reporting). (n.d. [b]). International <IR> Framework. Retrieved 21 July 2019 from http://integratedreporting.org/resource/international-ir-framework.

International Organization for Standardization (ISO). (n.d.). ISO 14000 family – Environmental management. Retrieved 21 June 2019 from: https://www.iso.org/iso-14001-environmental-management.html.

Meridian Energy Limited. (2018). *Meridian Energy Limited Integrated Report 2018*. NL: Author. Retrieved 1 October 2019 from https://www.meridianenergy.co.nz/assets/Investors/Reports-and-presentations/Annual-results-and-reports/2018/95098799a5/Meridian-Energy-Integrated-Report-for-the-year-ended-30-June-2018.pdf.

Ministry for the Environment (MfE). (2019). *Measuring Emissions: A Guide for Organisations. 2019 Quick Guide*. Retrieved 21 June 2019 from Ministry for the Environment: https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/2019-quick-guide.pdf.

Principles of Responsible Investment (PRI). (n.d.). About. Retrieved 1 August 2019 from https://www. unpri.org/pri/about-the-pri.

RobecoSAM.(2019). Dow Jones Sustainability Indices. Retrieved 21 June 2019 from https://www.robecosam.com/csa/indices/djsi-index-family.html.

Smart Freight Centre. (n.d.). The global method for calculation and reporting of logistics emissions. Retrieved 21 June 2019 from https://www.smartfreightcentre.org/en/how-to-implement-items/what-is-glec-framework/58.

Sustainability Accounting Standards Board (SASB). (2018). Mission. Retrieved 21 June 2019 from https://www.sasb.org/governance.

Task Force on Climate-related Financial Disclosures (TCFD). (2019a). About the Task Force. Retrieved 21 June 2019 from https://www.fsb-tcfd.org/about.

Task Force on Climate-related Financial Disclosures (TCFD). (2019b). *TCFD Good Practice Handbook*. NL: Climate Disclosure Standards Board (CDSB) & Sustainability Accounting Standards Board (SASB). Retrieved 30 October 2019 from https://www.cdsb.net/sites/default/files/tcfd_good_practice_handbook_a4.pdf.

United Nations (UN). (n.d.). About the Sustainable Development Goals. Retrieved 21 June 2019 from https://www.un.org/sustainabledevelopment/sustainable-development-goals.

United Nations Framework Convention on Climate Change (UNFCCC). (n.d.) What is the United Nations Framework Convention on Climate Change?. Retrieved 21 June 2019 from https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change.

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