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Blueprint 2: Accounting

The Blueprint for New Accounting:
Laying the foundations for
Future-Ready Reporting

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TABLE OF CONTENTS

Blueprint 2: The Blueprint for New Accounting

1. Executive Summary 5

2. Introduction, direction and contributing fields 7
   2.1. A new measure of wealth and value creation 7
   2.2. Blueprint structure 8
   2.3. Introduction to New Accounting and its contributing fields 9
      2.3.1. Different types of accounting and their interrelation 12
      2.3.2. Introducing multicapital accounting 15
   2.4. Recommendations on Purpose 20
      2.4.1. Recommendations for report preparers 20
      2.4.2. Recommendations for standard setters 21
      2.4.3. Recommendations for providers of financial capital 22
      2.4.4. Recommendations for regulators and governments 23

3. Accounting principles for content and quality 24
   3.1. Different accounting principles of different (sub)disciplines 24
   3.2. Laying the foundation: shared principles of New Accounting 27
   3.3. The accounting principle of Recognition 30
      3.3.1. New valuation techniques to facilitate recognition 30
      3.3.2. The possibilities and limits of monetisation 32
   3.4. The accounting principle of Materiality 34
      3.4.1. Materiality thresholds 35
      3.4.2. Deciding materiality in context 37
      3.4.3. Procedural methods for applying materiality 38
   3.5. Recommendations on Content and Quality 42
      3.5.1. Recommendations for report preparers 42
      3.5.2. Recommendations for standard setters 43
      3.5.3. Recommendations for providers of financial capital 44
      3.5.4. Recommendations for regulators and governments 45

4. Financial statements and steps towards integrated statements 46
   4.1. Introduction to statements and disclosure role models 46
   4.2. Income Statement or P&L Account 47
      4.2.1. Statement of other comprehensive income (OCI) 48
      4.2.2. Statements of value and Full Comprehensive Income (FCI) 49
   4.3. Balance Sheet or Statement of Financial Position 52
      4.3.1. Intangible assets 54
      4.3.2. The Expanded Balance Sheet and Statement of Long-term Risk 56
   4.4. Recommendations on Integrated Statements 61
      4.4.1. Recommendations for report preparers 61
      4.4.2. Recommendations for standard setters 62
      4.4.3. Recommendations for providers of financial capital 63
      4.4.4. Recommendations for regulators and governments 64
5. Narrative reporting  
5.1. Introduction: Moving towards more holistic understanding 65
5.2. Strategic content of narrative reporting 65
5.3. Recommendations on Narrative Reporting 69
   5.3.1. Recommendations for report preparers 69
   5.3.2. Recommendations for standard setters 70
   5.3.3. Recommendations for providers of financial capital 71
   5.3.4. Recommendations for regulators and governments 72

6. Disclosure timeframe, aggregation and strategic outlook 73
6.1. Introduction to time and strategic framing 73
   6.1.1. Historical data and long-term, forward-looking information 73
   6.1.2. Frequency of disclosure, quarterly and other 75
   6.1.3. Strategic outlook: From accounting to strategy 76
6.2. Level of analysis, aggregation and conciseness 77
   6.2.1. Aggregation and segmented reporting in context 78
   6.2.2. Reconciling comprehensiveness and conciseness 80
6.3. Recommendations on timeframe, aggregation and strategic outlook 82
   6.3.1. Recommendations for report preparers 82
   6.3.2. Recommendations for standard setters 83
   6.3.3. Recommendations for providers of financial capital 84
   6.3.4. Recommendations for regulators and governments 85

7. Conclusion 86
7.1. A new set of statements, process and systems 86
7.2. Consequences for accounting systems and reporting regime 89
7.3. Consequences for corporate governance approach 90
7.4. Consequences for leadership behaviour 90
7.5. Consequences for targeted stakeholder dialogue 91

8. ANNEXES 92
8.1. Authors 92
8.2. Accounting Working Group (AWG) Members 93
8.3. Working Group Meetings and Online Virtual Dialogue 94
8.4. Steering Board 96
8.5. About the Reporting 3.0 Blueprints series 96
   8.5.1. Four Blueprints – one systemic approach 96
   8.5.2. Pre-competitive, collaborative, multi-stakeholder, global public good 98
   8.5.3. Audiences 99
   8.5.4. Link to the economic system thinking 100
   8.5.5. Leadership & responsibility of the corporate sector 100

9. SOURCES 101

10. STATEMENT EXAMPLES 107
Example 1: Baxter Environmental Financial Statement (published since 1990s) 107
Example 3: PUMA Environmental P&L (2010) 109
Example 6: Crown Estate Total Contribution Statement (2017) 112

11. COMMENT PERIOD STATEMENTS 113
1. EXECUTIVE SUMMARY

In late 2017 we asked members of the 3.0 Accounting Working Group (AWG) to state their vision for accounting twenty years from now. Their feedback reflected concern about three themes: numbers (capturing multicapital value and impact, future trends and alternative financials), approach (principles, business model dynamic and process, meeting the needs of shareholders, stakeholders and society), and resources (standards, methodologies and information technologies). These themes run throughout the Accounting Blueprint, developed through research and exchanges over twelve months. It describes a new state of affairs twenty years onwards, one with the following features:

- New Accounting is a comprehensive discipline comprising three subdisciplines: financial accounting, management accounting and sustainability accounting. It captures the creation of value in different forms, recognising the use of different capitals. Some may refer to it as multicapital, intercapital or integrated accounting.

- The comprehensive discipline is practised by “accountants”, referring to financial accountants, management accountants and sustainability accountants. All these accountants can be “professional” – i.e. obtain a professional qualification leading to some recognised credential or designation such as being “chartered”.

- Accounting is about more than only bookkeeping and reporting. It provides information for managing organisational health, impact performance and direction, including past, present and future-oriented information. It lays the foundation for analysing, communicating and disclosing information in various forms. The aim is to provide relevant information for decision-making that is appropriately informed, strategic and accountable. The overall goal is transformation towards green, inclusive and open economies, including healthy, responsible and accountable organisations.

- New Accounting operates on the basis of a common set of principles, Recognised Comprehensive Accounting Principles (RCAP), that build on principles developed in the past by its subdisciplines with financial, management and sustainability accounting and reporting in mind. While the subdiscipline principles will still be applied, the comprehensive accounting principles are more holistic, shaped to facilitate integration, and enabling context-based understanding of diverse capitals and drivers behind intertemporal value.

- Core accounting information, namely accounting statements, looks very different to mainstream financial statements of the early 21st century. It reflects integration, presenting monetary, quantitative and qualitative information in a manner that merges mainstream and alternative statements experimented with in the early 2000s.

- Companies are producing multilayered income statements (P&Ls), delivering the Statement of Full Comprehensive Income. This statement tracks current year costs and benefits. It includes not only gross value generated and economic value added based on financial transactions, but also internalities and externalities in the form of value added / destroyed based on employee, social, environmental and societal impacts.

- Companies also produce expanded balance sheets, namely the Comprehensive Statement of Financial Position. The latter puts Human Capital and other capitals, including intangible ones, on the balance sheet. A company uses this two-layered balance sheet to outline its understanding of what comprises the difference between its book value and market value, providing estimated values of diverse capitals. Such estimations are determined through the use of recognised methodologies.
• Considering what their balance sheet and risk position may look like twenty years onwards, based on scenario planning, companies also produce the Statement of Long-term Risks and Estimated Value of Assets and Liabilities. In this statement a company provides a brief narrative on risks that its key assets (including Human Capital, Intellectual Capital, Social Capital and Natural Capital) are likely to face twenty years onwards, a brief narrative on likely implications for its liabilities, as well as monetary indication of the estimated values of such assets and liabilities twenty years onwards. The statement considers both own assets and other assets on which the organisation is significantly dependent.

• New Accounting statements are accompanied by narrative text, shaped to target priority stakeholder audiences through different forms of disclosure (including reports and digital communications). Narrative reporting provides a more holistic understanding of business model logic, multicapital context and value creation process, integrated risks and opportunities as well as quality of management enhanced through sound corporate governance. It adds meaning and clarity to the numbers presented in statements.

• In managing their comprehensive and integrated accounting systems, companies have integrated accounting departments where financial accountants, management accountants and sustainability accountants operate under the same roof (i.e., all three areas of expertise in the same department).

• Delivering education to the accountants of tomorrow, universities host faculties where the three subdisciplines of financial accounting, management accounting and sustainability accounting fall within the same comprehensive accounting department. Accounting is not fragmented across diverse departments (such as business economics, environmental accounting and social accounting). Accounting courses covering different capitals are aligned and support integrated thinking.

• Professional associations and standards bodies collaborate in improving alignment and integration across the subdisciplines of accounting. In doing this, they are supported by regulatory bodies, investors and other key accounting information user groups focused on a long-term understanding of value creation that is communicated in financial and multicapital terms.

Considering ways of getting to this new state of affairs, each chapter and the conclusion provides recommendations and an organisation process flow chart for the way forward.
2. INTRODUCTION, DIRECTION AND CONTRIBUTING FIELDS

2.1. A NEW MEASURE OF WEALTH AND VALUE CREATION

As is the case with economics, the discipline of accounting is seen by some as primarily describing a state of affairs, and by others as having a normative function, enabling the accomplishment of some ideal state of affairs. In this Blueprint accounting is approached as a discipline that provides a systematic description of a state of affairs, which at the same time presents a certain framing and analysis of events that enables progress towards some preferred state of affairs. That desired state of affairs traditionally refers to "wealth" and "value", with special reference to the wellbeing and health of individuals or organisations. In the work of Reporting 3.0, that ideal state is a green, inclusive and open economy, made up of, among others, healthy, responsible and accountable organisations. With this overall vision statement comes a strong appreciation of the role of financial markets, business, standards and holistic management approaches to factors such as risk and opportunity in reaching a transformed state of affairs.

Adam Smith described wealth as being about "the annual produce of the land and labour of the society" (The Wealth of Nations, 1776). Today, based on decades of assessment and advanced information and communication technologies, we know more than ever (i) what the state of the land, labour and society looks like on a global scale, and (ii) that we face worrying and unsustainable trends related to the way we use our natural, human and societal resource base, the health of different kinds of capital, as well as the ways in which we organise our economies and enterprises.

These trends are highlighted in Blueprint 1 of Reporting 3.0, reflecting on the role of reporting in interconnecting the micro (company), meso (sector, portfolio, and habitat), and macro (economic, social, and ecological) systems levels through clarified purpose, proper success measurement, and scalability of necessary transformation. Blueprint 3 on Data also highlights related trends in the use of information technologies, in how far innovations such as Artificial Intelligence can help us transform and how best to cope with a fragmented yet connected world of Big Data and more than 1 billion websites. Blueprint 3 calls for seamless data flows that interconnect ultimate means of Natural Capital with the ultimate ends of wellbeing, in information systems that integrates the multiple capitals, contextualises impacts on those capitals within their carrying capacities, and activates necessary responses to catalyse transformation toward thriveability.

In addressing the role of accounting, this Blueprint considers an ideal state where wealth signals a certain quality of health and wellbeing, in other words, not wealth as simply the possession of material goods and money. Enabling progress towards that preferred state, the discipline of accounting, among others, documents exchanges in materials and money. But accounting allows this to be framed and analysed in a manner that facilitates the development of enterprises, markets, economies and societies that are not only sustainable but can thrive, using scarce and precious resources optimally. The Accounting Blueprint sets out to investigate this role of accounting. Asking what New Accounting could look like twenty years from now, it seeks to define a new approach to accounting that defines value that is intertemporal and represents diverse kinds of interconnected values.

Accounting is not simply about record keeping, processing numbers and delivering accurate data. But while there may be agreement today that accounting has a broader purpose, there is no obvious consensus on what that purpose is. This may be the generation of information that is "decision-useful", but useful for whom and for what type of decision-making? Insofar as it is about private economic and

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1 "Hedge Funds see a Gold Rush in Data Mining", Financial Times, 28 August 2017, https://www.ft.com/content/d86ad460-8802-11e7-bf50-e1c239b45787
for-profit decision-making, is it all about value in the form of net income or return on investment? In the previous century it was often assumed that the central purpose of accounting is income determination, based on the assignment of expenses and revenues to fiscal periods. Should enterprise income really be the “centre of gravity” of organisational accounting? Like the shortcomings of “GDP growth”, tracking enterprise income as the desired meter reading of growth or decline is problematic, among others due to what is counted or not counted in calculating income, as well as the tendency to focus on the short term and not the longer-term future (Rutherford 2016).

It remains to be seen, therefore, how accounting can accommodate broader notions of value creation, value creation that reflects the efficient use and quality of diverse capitals with a longer-term perspective, and value creation that reflects an integrated approach to long-term risk and opportunity management. This challenge for mainstream accounting and experimentations in alternative forms of accounting will be explored in the Accounting Blueprint. In doing this, it will examine ways in which accounting can capture often unrecognised value and effectively address the financial and non-financial drivers behind true value. The Blueprint will address a new, integrated approach to how accounting can systematically document and strategically analyse different types of financial and non-financial data. It will also consider how a new approach to accounting can complement quantitative statements with qualitative narrative that addresses strategic and organisational questions related to value proposition, business model, governance, organisational culture and leadership.

2.2. BLUEPRINT STRUCTURE

Having stated a new purpose for accounting, this Blueprint starts by defining “New Accounting” and providing an overview of its constituent subdisciplines, namely financial accounting, management accounting and sustainability accounting. The overview of its subdisciplines signals what strengths and weaknesses they have, providing background for the definition of a more comprehensive, aligned and integrated discipline. It notes the arrival of multicapital accounting, signalling a more integrated approach that considers the use of diverse resources by organisations, the interrelated consequences of their use, as well as a new focus on dynamic, drivers and resultant value creation or value destruction.

Our chapter 3, with its focus on Purpose and Foundations, is followed by chapter 4 on principles for determining the Content and Quality of accounting-based disclosures. Chapters 5 and 6 delve into the content by addressing Statements and Narratives. Chapter 4 provides an overview of accounting and reporting principles found today in financial and non-financial accounting and reporting standards. Comparing these, it suggests what could be a consolidated set of principles for New Accounting. It further examines two fundamental and related principles, namely that of recognition and materiality. Many would argue that materiality, or more broadly, relevance, lies at the heart of improving the usefulness of accounting and reporting. The interpretation and application of recognition in appropriate context has important implications for the way in which relevance or materiality is approached. This includes reflection on the strengths and weaknesses of an approach that relies on monetisation or financial valuation.

Chapter 5 revisits mainstream financial statements and considers how they may be adjusted to reflect multicapital dimensions and more integrated presentations of value. It focuses on the income statement (P&L) and statement of financial position or balance sheet. It highlights recent experimentations with alternative versions of these statements, such as green or integrated P&Ls, and suggests ways in which New Accounting will represent the next step of incorporating the findings of such statements in new mainstream statements. By doing this, chapter 5 tests the boundaries of converging different types of non-financial and financial data and integrating them into comprehensive sum totals.
Mindful of the shortcomings of quantified approaches and presenting numbers in isolation, chapter 6 tackles Narrative Reporting. It highlights recommendations from existing accounting and reporting standards on what should be the content and structure of narrative disclosures that complement quantitative statements. It explores progress with reporting on key items such as strategy, business model, risks and governance, considering the extent to which financial and non-financial commentary related to multi-capital dynamics are fragmented or integrated. Building on recent experience with integrated reporting <IR>, it suggests what would be key features of disclosure narratives based on New Accounting systems.

Chapter 7 addresses Disclosure Timeframe, Aggregation and Strategic Outlook, covering questions such as frequency of disclosure that has implications for accounting statements as well as narrative reporting. It considers the expectation to cover past performance, present status and future outlook, plus the related expectation to cover the short, medium and long term. It also revisits standard guidance on aggregation and segmented reporting, seen as not simply a matter of method but one with substantive implications. It highlights the related expectations of comprehensiveness and conciseness, and solutions to dilemmas accountants may have in dealing with these.

Each chapter concludes with recommendations. Key points from these are built upon in chapter 8. The concluding chapter notes consequences of New Accounting for organisational accounting systems and reporting regime, for corporate governance approach, for leadership behaviour, as well as for targeted stakeholder dialogue.

2.3. INTRODUCTION TO NEW ACCOUNTING AND ITS CONTRIBUTING FIELDS

Reporting 3.0 sets high expectations for accounting in capturing "integral materiality", based on sound contextualisation, proper impact assessment and integral thinking in communicating quality of management and progress. This comes at a time of growing interest in the role of accounting as change agent and the accounting profession as possible saviour of the world. The International Federation of Accountants (IFAC) has argued that professional accountants have a special role to play in that they are key to "develop business cases, manage performance, implement reporting arrangements and systems, and assess and assist in the development of governance and risk management arrangements and strong internal controls" (IFAC, 2017: 8).

It is opportune to take stock today and ask how much has changed since the 2000s, when the CEOs of the Big Four accounting firms warned that the system was "broken" and that the 20th century financial reporting model had become redundant (Financial Times, 8 November 2006). An important factor behind this conclusion was a series of corporate scandals in the early 2000s and questions were raised about the level of confidence that could be placed in audited financial statements. Responding to the statement by the Big Four, AccountAbility CEO Simon Zadek stated in a letter to the Financial Times: "Business drivers are ultimately non-financial... Mainstream financial reporting is unable to handle this simple fact" (Financial Times, 10 November 2006).

These were not the first calls for change in accounting practice and standards. During the 1990s the EU’s Fifth Action Programme, “Towards Sustainability”, called for a “redefinition of accounting concepts, rules, conventions and methodology” (European Commission, 1992: 67). It was asking for this to be done with the aim to account for the use of resources, the full cost of production and the reflection of such costs in market prices. In their book The Balanced Scorecard: Translating Strategy into Action (HBS Press 2

2 “Accountants are going to save the Planet,” said World Business Council for Sustainable Development (WBCSD) President Peter Bakker at the Rio+20 Summit in 2012. See https://hbr.org/2013/03/accountants-will-save-the-wor
Robert Kaplan and David Norton argued that the financial reporting process remained anchored to an accounting model developed centuries ago, and relied on backward-looking financial measures that were no longer adequate.

Initiatives to expand the depth and coverage of reporting have led to growing frustration about complexity. In more recent years both financial reporting and so-called non-financial reporting, led by the Global Reporting Initiative (GRI) process, have been criticised for being too lengthy and too complex for its users. An overview of critiques on the current reporting model was done in 2010 by the Institute of Chartered Accountants in England and Wales (ICAEW 2010). The birth of the International Integrated Reporting Council (IIRC) was in part a response to this critique, with strong involvement of the financial accounting profession.

So what would a new, mother of all standards for reporting and accounting look like? Some argue that producing an overall conceptual framework for reporting (both financial and non-financial) would be impracticable, unless focused at the high level of principles. Mindful that analysts and different stakeholders use diverse information sources, one can at best define some pyramid of different types of measurement and disclosure tools and frameworks, some thematic and some geographic (see Figure 1). At the top of such a pyramid may feature the International Accounting Standards Board (IASB) for International Financial Reporting Standards (IFRS) and the GRI for sustainability reporting standards, as well as the IIRC with a framework for an umbrella and concise, synthesis type of report. Such a pyramid approach also reflects the Core & More concept promoted by Accountancy Europe (2015, 2017).

Figure 1: Map of reporting and disclosure instruments or guidance
The aim in this Blueprint is not to define ideal type reports and standards, but rather to define the information types, information systems, accounting practices and professional skills required to enable different forms of information disclosure. In doing so, this Blueprint will outline the parameters of New Accounting, illustrating convergence and mutual fit between different types of accounting. In seeking to align different types of accounting, it will cover financial, management and sustainability accounting as subdisciplines of New Accounting.

Mindful of established work on stakeholder theory and participatory assurance, as well as calls for “democratic accounting”, the focus of this Blueprint will be on the substance and structure of New Accounting but not on the engagement processes involved. It will therefore not address questions of auditing, assurance and preferences about priority stakeholder groups or user audiences. If anything, it will start the discussion on New Accounting, (i) using the language of numbers and finance as possible common ground between different types of accounting, and (ii) starting off with related content that is likely to be of more use to those who have a more direct interest with the reporting entity involved, be it internal or external stakeholders.

This Blueprint explores accounting broadly defined, encompassing financial accounting, management accounting and sustainability accounting. As set out in Figure 2, this Blueprint presents New Accounting as a comprehensive discipline in which these three subdisciplines are on an equal footing, aligned and operating as separate yet connected subdisciplines under one, integrating umbrella. This is far removed from business as usual today, in which the relation between the three subdisciplines can be described with terms such as siloed, fragmented, non-integrated and hierarchical.

![Figure 2: Three accounting subdisciplines laying the foundation for diverse communications](image)

Greater progress has been made in connecting management accounting with financial accounting. Sustainability accounting is still the youngest arrival, lacking formal recognition as a profession and internationally accepted credential or chartered certification as a qualification in its own right. Different perspectives exist on the relative importance of the three subdisciplines. Some would view sustainability accounting as a subcomponent of management accounting. Others view management accounting as subordinate, since financial and sustainability accounting lead in communicating to external stakeholders. Others would describe management accounting as most important, considering its role in internal decision-making and planning. This Blueprint does not speculate as regards their relative importance. Rather, it seeks to position all three on par as recognised subdisciplines, but between which interdisciplinary thinking is also required to shape the development of more holistic and integrated accounting.
New Accounting at organisation level is therefore broadly defined as standardised systems for (into process) planning, measuring, tracking, controlling, evaluating and communicating the performance of an organisation to (into purpose) enable informed decision-making about its health, future direction, as well as external impacts and dependencies. As accounting, it is a professional field or discipline that prefers measurement in as far as possible, leading to quantified information complemented by qualitative information. Furthermore, it involves both financial and non- or pre-financial information, as well as internal and external reporting or disclosure on the past, present and future.

2.3.1. DIFFERENT TYPES OF ACCOUNTING AND THEIR INTERRELATION

Financial accounting involves a process of identifying, measuring and communicating financial information. This lays the foundation for preparing general purpose financial statements, as opposed to specific purpose financial statements that may target a specific user group. The statements and accompanying narrative text make up the financial report. Financial reporting is also referred to as external reporting, versus internal reporting which is said to be the responsibility of management accounting.

Highlighting the importance of both decision-usefulness and accountability or stewardship as the overall objective of financial accounting and reporting, the European Financial Reporting Advisory Group (EFRAG) has described an ongoing dialogue between management and shareholders:

“Management and shareholders take part in a continuous dialogue. Financial statements are only one example of communication between them. But, because they are prepared in accordance with recognised standards and are audited, financial statements provide a foundation for that dialogue. To be fully effective in this role financial statements need to be prepared with an objective of accountability.” (EFRAG 2013: 6)

The assumption that shareholders are the primary target audience of external reporting has been critiqued by many, although in the 1980s its emphasis was seen as an accountability counterweight to the whims of internal management. Additional elements of critique of financial accounting and reporting have been added over the last two decades (see Deegan 2013, Schaltegger and Burritt, 2010). They include being too reductionist with a legalistic emphasis on areas of direct control, too conservative in its recognition of impacts, giving primacy to financial stakeholders and profitability rather than broader social concerns and coming short in its emphasis on monetary information as the common unit of account across diverse areas of performance. As far as external impacts are concerned, double-entry accounting cannot cope with “one-side transactions”, for example in the case of externalities where there appears to be no corresponding credit / debit. The focus on the core entity has also struggled to do justice to contextual factors and the principle of “sustainability context” (a GRI reporting principle).

Management accounting provides internal managers with the information they need for planning, control and decision-making in the operation of a business. In addition to targeting internal rather than external users of accounting information, management accounting differs from financial accounting in that (i) it presents more detailed (less aggregated) information on the basis of, for example, projects, products, production processes or organisational units, (ii) it focuses more on nonmonetary data such as quantity of materials used and number of hours worked, before translating it into financial data on the basis of costing and pricing, and (iii) it is more forward-looking, with planning being a key purpose, including estimated costs and benefits when budgeting at the level of, for example, products or activities, job orders or processes. With these characteristics, some argue that management accounting (MA) can serve as a natural bridge between financial accounting and sustainability accounting (cf CIMA and AICPA 2014).
It is apparent today that management accounting has evolved in expanding from product analysis to channel and customer profitability analysis, taking a greater role in enterprise performance management (EPM), facilitating a shift towards more predictive accounting, and realising the need for socio-cultural change and behavioural cost-benefit management (Cokins 2016). These trends reflect a realisation that accounting is not simply about collecting, transforming and reporting data, but more importantly about influencing behaviour at all levels. That includes a more strategic role in planning and performance management.

Those arguing for management accounting to become more strategic – strategic management accounting (Shah et al. 2011) – have argued for the need for the discipline to be more effective in supporting planning and control, promote integration within organisations and become more outward-looking, considering strategic developments related to the market and what competitors are doing. Consider also the forward-looking and pre-emptive ability of management accounting to identify the type of risks associated with financial products that caused the global financial crisis in the 2000s.

Management accounting may well be positioned to bridge some of the gaps that exist between financial accounting and sustainability accounting. Signalling a new accounting approach, integrated reporting is one way of linking sustainability considerations with internal decision-making and core business planning needs. Another tool to facilitate this in the domain of management accounting is the “sustainability balanced scorecard” (Figge et al. 2002, Villiers et al. 2016). Certifications in management accounting offered by associations such as the Chartered Institute of Management Accountants (CIMA) and the Institute of Management Accountants (IMA), include the use of balanced scorecards (starting at organisational level), strategy maps and strategic planning. Experience in large enterprises has shown the importance of proper management accounting systems in providing a solid foundation for effective planning processes. This includes having appropriate financial and non-financial information for scenario and long-term goal development in strategic planning.

**Sustainability accounting** has emerged out of the development of social and environmental accounting since the 1970s, a time when the focus was predominantly on employees and the reduction of pollution and waste. By the early 2000s the SIGMA project in the UK published a Sustainability Accounting Guide (2003), which was developed with Forum for the Future and included reference to five Capitals. A decade later, the new subdiscipline had reached the level of sophistication where a Sustainability Accounting Standards Board (SASB) was established in the USA to develop industry standards for the use of incorporating sustainability information in annual filings by listed companies.

SIGMA (2003) has described sustainability accounting as “the generation, analysis and use of monetarised environmental and socially related information in order to improve corporate environmental, social and economic performance”. Looking beyond only monetised data, it has also been described (Schaltegger and Burritt, 2010: 377) as “new information management and accounting methods that attempt to create and provide high quality, relevant information to support corporations in relation to their sustainable development... a subset of accounting that deals with activities, methods and systems to record, analyse and report (i) environmentally and socially induced financial impacts, (ii) ecological and social impacts of a defined economic system (e.g. the company), and (iii) the interactions and linkages between social, environmental and economic issues”.

Borrowing approaches and principles from the financial accounting profession, sustainability accounting has evolved to shape what has been described in the 2000s as a “sustainability accounting framework” (see Figure 3) based on certain objectives, principles, data capture tools, records (e.g. inventories), measurement techniques, reports in different formats or media and qualitative narrative disclosures. Narratives to describe policies and impacts form a critical part of sustainability accounting. The sustainability accounting framework seeks to track organisational performance toward the objective of sustainability.
A stocktaking of research on sustainability assessments, sustainability management accounting, sustainability management control and sustainability reporting has noted the need for integration, following a tendency to treat these in isolation and not effectively dealing with the interlinkages between them. As a result, Maas et al. (2016) have suggested an Integrated Assessment-Management-Control-Reporting Framework (see Figure 4). It is one that provides for feedback loops, seeking to merge inside-out (internal management decision-usefulness) versus outside-in (stakeholder theory) perspectives in a twin-track approach that drives continual improvement through an iterative process (cf Baker and Schaltegger 2015).

Figure 3: The Comprehensive Sustainability Accounting Framework (Lamberton 2005)

Figure 4: Integrated Assessment-Management-Control-Reporting Framework (Maas et al. 2016)
2.3.2. INTRODUCING MULTICAPITAL ACCOUNTING

The Reporting 3.0 Blueprint speaks of “redesigning disclosure based on a more capitals-based approach”, which will include more reflection on a systemic contribution to society as well as the disclosure of how financial capital has been built on the back of other capitals. This signals a move beyond multiple accounts based on the three pillars of sustainable development and the triple bottom line as defined in the 1990s by John Elkington, an approach that shaped the foundation of the GRI standards for sustainability reporting. It highlights the challenge to move beyond past experimentation with multiple accounts, sustainability accounts and fully monetised accounts towards multicapital accounts that are connected or integrated to a greater or lesser degree (cf. Gray, Adams and Owen, 2014: chpt 9). We use the word “capital” as this is more commonly used today to refer to what some prefer to call “resources and relationships” – mindful that, in financial accounting and IFRS, the term “capital” refers only to the liability or contributor side of the balance sheet (i.e. provider of debt or equity capital).

The arrival of the IIRC Framework with its multicapital model has led early mover corporations world-wide to start referencing the Six Capitals in their disclosures – diverse capitals as foreseen in the past by the Six Sigma project (2003) and Forum for the Future (2009). The capitals framework takes the conventional three pillars of Sustainable Development or Triple Bottom Line to greater detail and more specific reference to business resources. This also recognises the dependence of business on certain external resources, including Natural Capital, which has certain carrying capacities. While some reporting managers feared that the Six Capitals of the IIRC Framework implies a need to now prepare six sets of accounts, six sets of profits and losses, one investor commented that it is “just a framing issue ... a way of communicating that there are other stocks and flows that are important as well as financial stocks and flows” (Stubbs et.al. 2014).

The idea of the Six Capitals serves to help organisations to think beyond financial capital, to think more broadly of value and capitals that lie outside the traditional boundary of the financial accounting entity. As founding IIRC CEO Paul Druckman stated: “For too long businesses have expressed themselves only in the narrow form of financial transactions, an exclusive form of communication that hides from view the rich seams of value that can be found in knowledge, intellect, natural resources and relationships” (Gleeson-White, 2014: 191).

Early examples of integrated reporters from emerging markets such as South Africa and Brazil have shown greater willingness in explicitly using the multicapital framework, compared to their OECD-based counterparts. Shortcomings in their use of the multicapital framework (cf. Haji and Hossein, 2016) reflect in part complexities around the relations between different capitals, combined with unease about disclosing possible negative information or risks not well thought through in core business decision-making (see Setia et al., 2015). The IIRC Framework recognises these complexities, including interdependencies and trade-offs.

More connected ways of covering different resources or capitals have also emerged in the management accounting domain. Those defining an adapted Balanced Scorecard in the form of a “Sustainability Balanced Scorecard” have sought different ways in (i) reflecting different stakeholder perspectives and (ii) building in a fifth component (non-market or societal perspective that seeks to balance focus on the financial perspective). An example of the Sustainability Balanced Scorecard appears in Figure 5, indicating cause-and-effect relationships around eco-efficiency as per the strategy maps suggested by Kaplan and Norton (2004) to define business case interactions between the four perspectives.

---

- Sustainability Balanced Scorecard with mapping of eco-efficiency causal relationships

- MultiCapital Scorecard of Company A, reflecting its organisation-specific key areas of impact

Figure 5: The Sustainability Balanced Scorecard (Möller and Schaltegger 2005) and the MultiCapital Scorecard (Thomas and McElroy 2016)
A MultiCapital Scorecard has been proposed by Thomas and McElroy (2016), as included in Figure 5. Categorising sustainability resources in terms of the Six Capitals, this scorecard defines key Areas of Impact (AOIs) based on “absolute” and “relative materiality” as determined through stakeholder engagement. The key AOIs are then assigned targets and weights, and performance is assessed using progression scores. Finally, a ratio is defined in terms of how far the progression score is coming short of a fully sustainable score (such as zero GHG emissions). The method also distinguishes between “internal economic capital” and “external economic capital”, both having a financial and non-financial (intangible and/or non-monetised yet economic value) dimension. It gives no preferential treatment to financial sustainability. Instead, it works with both monetary and non-monetary metrics to define integrated financial / non-financial performance. Rather than frame performance in terms of financial versus non-financial, the MultiCapital Scorecard subordinates both these types of performance to context-based sustainability criteria. Sustainability therefore serves as the core theory of performance by which performance in all of its dimensions is assessed in the MultiCapital Scorecard.

The arrival of multicapital accounting, producing different forms of internal and external reporting, therefore challenges traditional categories of accounting domains that were defined broadly in terms of the financial versus non-financial or the three pillars of sustainable development. It challenges us to define the meaning of “integration” and the structure of New Accounting as a comprehensive discipline. Our Blueprint defines the new discipline as one with the three recognised subdisciplines of financial, management and sustainability accounting (cf Figure 2). While doing this, it will explore different ways of accounting for and making the connections between the Six Capitals, as well as new theories of performance and value creation in an intercapital manner. Recognising this additional element of analysing and interpreting information produced by the three subdisciplines, we can define the emergence of Integrated Accounting as the central pole around which the three subdisciplines converge. This presentation of the different domains of expertise is given below in Figure 6. It does this with a reminder of the essential factor of having to position performance within appropriate context.
The Virtual Dialogue on Exposure Draft 2.0 of the Accounting Blueprint, held in February 2018, illustrated how experts from different disciplines interpret common terms such as performance, impact and sustainability differently. This applies in particular to the term “value”, with various descriptions of it using adjectives such as total, comprehensive, fair, market, real, true and future. Key considerations relevant here are listed in Table 1, starting with the question of “purpose”, raised by, among others, Paul Druckman in the virtual dialogue.

### Table 1: Key questions in defining “value”

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value for what purpose?</strong></td>
<td>Answering this requires making the link between the value proposition of a business and the broader mission of promoting wealth in the form of a better quality of human wellbeing and health. The latter refers to the health of both humans and nature. Related to purpose is the question “Value to whom?”, which defines among others whether it is about value for certain prioritised stakeholders only, or for wider society.</td>
</tr>
<tr>
<td><strong>How is it created and protected?</strong></td>
<td>This raises the care, efficiency and optimality with which different types of capitals or resources are used and/or conserved. Value creation or destruction in this process is linked with the quality and health of the capitals used or affected by an organisation’s operations, products and services, including thresholds, and use allocations related to their condition.</td>
</tr>
<tr>
<td><strong>What are the drivers behind it?</strong></td>
<td>Behind value creation or destruction there is a certain logic that applies, a certain motor that moves it in a certain direction and speed. Central to that logic is the market dynamic between supply and demand as well as the interconnection between different capitals / resources, an intercapital dynamic that may signal trade-offs and/or complementarity. This logic is also at stake in the cause-and-effect relations between the different dimensions of performance introduced by Kaplan &amp; Norton in the balanced scorecard.</td>
</tr>
<tr>
<td><strong>On performance, what are the flows involved?</strong></td>
<td>Resource flows over a given period (e.g. 12 months) signal the effectiveness, efficiency and productivity with which different capitals have been used (or not). Flows and stocks are interrelated. The sustainability of flows also relates to the health of external resource stocks on which the enterprise is dependent, involving use values and non-use values (i.e. a capital conserved and impacted or not).</td>
</tr>
<tr>
<td><strong>On health, what are the stocks involved?</strong></td>
<td>This refers to the condition and health of own assets and liabilities as well as shared ones, assets and liabilities owned by others and public goods. While the point of departure in organisational level accounting is the resource stocks owned and owed by the reporting entity, sustainability accounting extends the scope in covering external resources or capitals that the enterprise materially impacts and/or is dependent upon.</td>
</tr>
</tbody>
</table>
### Within what timeframe is it assessed?

Different users of accounting information have different levels of interest in the short, medium or long term. Critical in assessing "value creation" and "sustainability" is the consideration of accumulative impact (over X years), longer-term and systemic consequences.

### What are the risks and opportunities involved?

With the intensive use of certain capitals, their interconnectivity and longer-term consequences, goes uncertainty. This implies both risks and opportunities, the probability and significance of which may be unclear. Risks and opportunities also apply to organisation, the value chain (including beneficiaries of the value proposition), business model and context (operational, industry, market, society, ecosystem).

### How is it best measured, analysed and communicated?

While value creation equals generation of profit and return on investment for some, for others it raises concern about broad societal and development outcomes. It has to be asked what kind of decision(s) accounting is seeking to inform, and decisions taken by whom and within what timeframe. Answering this highlights the relevant role of quantitative versus qualitative information, scope and boundaries, as well as the role of monetisation (financial metrics) in communicating performance. As there will be different outcomes, assessing performance will need to weigh their relative importance through longer-term focused qualitative, quantitative and economic analysis.

Different answers to the questions raised in Table 1 lead to different interpretations of, for example, "impact valuation" and "sustainability performance". This was evident from our Virtual Dialogue in early 2018. An important qualification came from Mark Cough, Executive Director of the Natural Capital Coalition (NCC), who argued:

> "Precise estimates need to be avoided. There is no such thing as a true single cost of something. Value is a perspective. The same item will have lots of different values depending upon who you ask and it will change over time and geography. This is why it is important to start by thinking about what decision you are trying to inform and not what number you want."

As we explore the makings of New Accounting, an important message is that the redefinition of "value" today has to recognise not only the relevance of multiple capitals but more importantly, the interconnections between these capitals. This more integrated and holistic perspective is key in the ability of New Accounting to capture the value creation logic or driving motor. Making the intercapital connections and having clarity on principles will prove to be decisive in defining a coherent discipline. This requires an agreed set of New Accounting principles, a theme to which we turn in the next chapter.
2.4. RECOMMENDATIONS ON PURPOSE

Based on our discussion on purpose, contributing fields and the definition of New Accounting, the following recommendations are made for corporations, standard setters, providers of financial capital and regulators.

### 2.4.1. RECOMMENDATIONS FOR REPORT PREPARERS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| EDUCATE  | 1. Ensure that board members, senior executives and managers recognise the need for more integrated accounting approaches with a new sense of purpose and understanding of multidimensional value creation.  
2. Educate executives and managers to understand the rationale for multi- or intercapital accounting, and to be aware of how financial, management and sustainability accounting interlinks. |
| ADVOCATE | 3. Converse with suppliers and business partners to improve understanding and ensure appropriate systems, measurement and management tools are put in place to collect and analyse relevant information required for integrated, multicapital accounting systems.  
4. Converse transparently with market and public regulators about obstacles in the way of making multicapital accounting systems, including appropriate standards and market mechanisms to counter market failure in the form of externalities that carry capacity transgressions. |
| ACCELERATE | 5. Create departments that include financial, management and sustainability accountants under the same roof, working on shared systems.  
6. Make required institutional arrangements for New Accounting, including integrated accounting and audit committees at Board level and appropriate linkages between e.g. planning, control, audit, risk and sustainability functions.  
7. Ensure that organisational infrastructure is complemented by appropriate IT infrastructure, putting in place common software systems for managing processes of financial, management and sustainability accounting. |
## 2.4.2. Recommendations for Standard Setters

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDUCATE</strong></td>
<td>8. Collaborate and organise dialogue events for financial, management and sustainability accounting experts to come to a common understanding of the case for convergence towards New Accounting.</td>
</tr>
<tr>
<td></td>
<td>9. Move beyond ad hoc projects and publications to offering ongoing educational programmes for diverse accounting experts on alignment between financial, management and sustainability accounting.</td>
</tr>
<tr>
<td><strong>ADVOCATE</strong></td>
<td>10. Take fora such as the Corporate Reporting Dialogue to a new level, making the case for New Accounting and shaping agreement on the need for context-based, intercapital accounting as the new normal.</td>
</tr>
<tr>
<td></td>
<td>11. Converse transparently with market and public regulators about challenges and opportunities in the alignment of different accounting subdisciplines, and how regulation can support the development of context-based, intercapital accounting.</td>
</tr>
<tr>
<td><strong>ACCELERATE</strong></td>
<td>12. Define coordinated work plans and an overall roadmap with milestones for progressing over the coming twenty years towards the formalisation of New Accounting as a professional field and recognised toolset used by organisations world-wide.</td>
</tr>
<tr>
<td></td>
<td>13. Collaborate with educational institutions in developing New Accounting as a comprehensive discipline, bringing related departments at educational institutions under the same umbrella and delivering recognised qualifications in New Accounting.</td>
</tr>
</tbody>
</table>
## 2.4.3. RECOMMENDATIONS FOR PROVIDERS OF FINANCIAL CAPITAL

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| **EDUCATE** | 14. Convene executives and senior managers in capacity building events to enhance their understanding of multidimensional value as well as long-term challenges related to non-financial capitals (including their carrying capacities) and implications for financial capital.  
15. Develop and define a common understanding of key information needs to ensure markets can be appropriately informed, market failure avoided and new markets developed for inclusive, green economies. |
| **ADVOCATE**| 16. Better articulate investor information needs, needs defined with the goal of decision-making in support of responsible business practice and true value.  
17. Financial value chain players (up/downstream) discuss and agree on roles and responsibilities, including the appropriate division of labour to capture the new, multidimensional understanding of value creation and the delivery of impactful services. |
| **ACCELERATE**| 18. Have collective financial initiatives agree on revision of disclosure requirements set by securities exchanges, and on steps to address questions such as relevance, reliability, usefulness, timing and integration of information.  
19. Define new incentives to ensure credit managers and analysts develop a proper understanding and ability to handle context-based multicapital information, enabling new approaches in comparative or fundamental analysis, valuation and assessment of business models. |
### 2.4.4. RECOMMENDATIONS FOR REGULATORS AND GOVERNMENTS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| EDUCATE   | 20. Create internal capacity-building programmes to help officials develop an improved understanding of alignment and convergence between financial, management and sustainability accounting, including the meaning of integrated, true value.  
21. Draw parallels between organisational-level micro, meso and macro level accounting systems, considering ways in which accountants at business level can be helped in defining relevant goals, targets and performance information that also support public goals, e.g. SDGs (Sustainable Development Goals). |
| ADVOCATE  | 22. Streamline and align policies on information disclosure, encouraging alignment between financial, management and sustainability accounting systems and standards.  
23. Convene dialogue events with businesses, investors and other stakeholder groups on the need for new accounting rules for topics such as natural and human capital accounting, a new understanding of value creation and a comprehensive discipline of New Accounting. |
| ACCELERATE| 24. Move beyond ad hoc requirements for disclosure on diverse topics to alignment, rolling out disclosure regulations that acknowledge and encourage the development of integrated, context-based multicapital accounting systems.  
25. Revisit the role of market-based and economic instruments in enabling markets to send appropriate price signals, supporting the internalisation of externalities and rewarding related good practice as reported by companies. |
3. ACCOUNTING PRINCIPLES FOR CONTENT AND QUALITY

3.1. DIFFERENT ACCOUNTING PRINCIPLES OF DIFFERENT (SUB)DISCIPLINES

The importance of principles cannot be overstated. When addressing the issues of complexity and usefulness of reporting content in the late 2000s, the Global Accounting Alliance (GAA) – consisting of, among others, nine of the world’s leading professional accounting organisations – recommended that principles-based standards would help reduce complexity. This position reflects a sense that seeking to be too specific and prescriptive in detail may be premature and impractical, mindful of fundamental differences between different economic sectors and different types of information.

There is no shortage of recommended principles in the different accounting domains addressed in this blueprint. The more recent kindred of management accounting and sustainability accounting have borrowed much from the historical experience of financial accounting. A related factor is the preference for principles-based accounting standards, which has been the dominant trend not only in Europe but globally, versus more procedural standards as has been more common in North America.

Table 2 below lists core accounting principles of the IFRS as defined by IASB, and similar or related principles of the USA GAAP (Generally Accepted Accounting Principles) as defined by the Financial Accounting Standards Board (FASB). The standards describe these in various ways, for example, referring to them as qualitative characteristics, assumptions, criteria and constraints. The IASB Conceptual Framework (Exposure Draft 2015) describes “Relevance” and “Faithful Presentation” as the “Fundamental Qualitative Characteristics”, while “Enhancing Qualitative Characteristics” are the principles of “Comparability”, “Verifiability”, “Timeliness” and “Understandability”. In the development of sustainability reporting standards, the Global Reporting Initiative (GRI) introduced the distinction between “Principles for defining Report Content” and “Principles for defining Report Quality”. This makes a useful distinction between what goes into the report versus the quality of what is in the report.

Guidance by the likes of IASB, FASB, IIRC, GRI and the Sustainability Accounting Standards Board (SASB) focus attention on “a report” or “filing”, whereas the intention in this Blueprint is to highlight key principles for accounting (not only reporting) and various forms of disclosure including different types of statements. It should be added that in this Blueprint on Accounting, broadly, the word “Disclosure” is used generically as referring to any information made public (disclosed) by an organisation. This differs from a narrower usage in financial accounting where traditionally “disclosure” is distinguished from “balance sheets, income statements and financial notes” – i.e. “disclosures” provide additional qualitative or narrative text that supplement and explain amounts in the statements of financial reporting.

From the IASB principles list, Relevance and Faithful Representation are the two foundational principles (“the two fundamental qualitative characteristics”). Relevance implies financial information that can make a difference in the decisions made by users. It has this capability based on its predictive and/or confirmatory value. In its 1980 Statement of Financial Accounting Concepts (SFAC No. 2) the FASB described relevance in terms of timeliness, predictive value and feedback value. Deciding whether the information has the capability of making a difference in decision-making involves applying the principle of materiality.
Table 2: Financial accounting and reporting principles as found in the international IASB Conceptual Framework for Financial Reporting (IFRS) and at national level in FASB Generally accepted accounting principles (GAAP)

<table>
<thead>
<tr>
<th>Global IFRS Qualitative characteristics (bold), criteria, factors</th>
<th>USA GAAP Assumptions, principles, characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relevance</strong> (incl. its aspect Materiality as well as the characteristics of predictive value and confirmatory value)</td>
<td>Relevance and Materiality</td>
</tr>
<tr>
<td><strong>Faithful representation</strong> (incl. its characteristics of neutrality, freedom from error and completeness)</td>
<td></td>
</tr>
<tr>
<td><strong>Comparability</strong></td>
<td>Comparability</td>
</tr>
<tr>
<td><strong>Verifiability</strong></td>
<td>Reliable, verifiable, and objective</td>
</tr>
<tr>
<td><strong>Timeliness</strong></td>
<td>Consistency</td>
</tr>
<tr>
<td><strong>Understandability</strong></td>
<td>Time Period (Periodicity) Assumption</td>
</tr>
<tr>
<td>Cost Constraint (cost-benefit)</td>
<td>Cost Constraint – Cost Benefit Principle</td>
</tr>
<tr>
<td>Going Concern Assumption</td>
<td>Industry Practices Constraint</td>
</tr>
<tr>
<td>Entity-specific (direct and indirect control)</td>
<td>Going Concern Principle</td>
</tr>
<tr>
<td>Recognition (probability and measurability of economic in/outflow)</td>
<td>Economic Entity Assumption (separate business vs. personal)</td>
</tr>
<tr>
<td>Historical Cost</td>
<td>Monetary Unit Assumption (US$)</td>
</tr>
<tr>
<td>Current (Fair) Value</td>
<td>Matching Principle (accruals)</td>
</tr>
<tr>
<td></td>
<td>Recognition Principle</td>
</tr>
<tr>
<td></td>
<td>Historical Cost Principle</td>
</tr>
<tr>
<td></td>
<td>Full Disclosure Principle</td>
</tr>
<tr>
<td></td>
<td>Conservatism</td>
</tr>
</tbody>
</table>
Table 3: Sustainability and integrated reporting principles as found in the GRI Guidelines and the IIRC <IR> Framework of the IIRC

<table>
<thead>
<tr>
<th>Global Reporting Initiative (GRI) Guidelines Content and Quality</th>
<th>IIRC &lt;IR&gt; Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stakeholder Inclusiveness</td>
<td>Strategic Focus and Future Orientation</td>
</tr>
<tr>
<td>Sustainability Context</td>
<td>Connectivity of Information</td>
</tr>
<tr>
<td>Materiality</td>
<td>Stakeholder Relationships</td>
</tr>
<tr>
<td>Completeness</td>
<td>Materiality</td>
</tr>
<tr>
<td>Balance</td>
<td>Conciseness</td>
</tr>
<tr>
<td>Comparability</td>
<td>Reliability and Completeness</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Consistency and Comparability</td>
</tr>
<tr>
<td>Timeliness</td>
<td></td>
</tr>
<tr>
<td>Clarity</td>
<td></td>
</tr>
<tr>
<td>Reliability</td>
<td></td>
</tr>
</tbody>
</table>

Faithful representation requires the financial information to faithfully represent the economic phenomena (economic events such as transactions) that it purports to represent. The broader environmental, social and governance (ESG) or sustainability agenda challenges this principle in that it seeks to put “economic phenomena” related to a reporting organisation in the context of broader economic, environmental and societal conditions or trends. If faithful is meant to be “truthful” and “reasonable”, what is presented must enable more holistic and long-term focused decision-making. These are expectations raised by principles such as “sustainability context” and “future orientation”, as found respectively in the guidance frameworks of the GRI and IIRC (see Table 3).

Faithful presentation and objectivity raises the triple concept of “fair, balanced and understandable” (FBU). In 2014 the UK Financial Reporting Council (FRC) decided to require the boards of premium listed companies on the FTSE to state in their annual reports whether or not they consider that “... the annual report and accounts, taken as a whole, is ‘fair, balanced and understandable’ and provides the information necessary for shareholders to assess the company’s performance, business model and strategy” (UK Corporate Governance Code, FRC 2014). Eventually the term “reasonable” as opposed to “fair” was chosen to ensure a clear distinction between the proposed opinion on the “front-half” and the “true and fair” opinion on the financial statements, or “back-half” of the annual report.

A longstanding financial accounting principle is that of “going concern”. It declares that the preparation of the company report and company accounts must start from the principle that the operator of the business will also be able to maintain its operation in the foreseeable future, to continue its activities, and that the cessation of the business, or a significant reduction in its operations for whatever reason, is not expected. If sustainability as a simple principle of “continuity” is not achieved, then several basic principles of accounting cannot be realised. Blueprint 1 on reporting additionally raised the challenge
of "sustainability" not being simply about continuity but also the need for longer-term thriveability. This highlights the important message of New Accounting being strategic and long-term focused, being about much more than merely determining short-term income or profit as such.

Recently management accounting professionals, under the auspices of the CIMA and AICPA, took stock of financial and non-financial reporting developments and came up with a core set of Global Management Accounting Principles. Their conclusions define management accounting as being at the crossroads between finance and management, well positioned with its forward-looking focus to facilitate integrated thinking and the type of content one would expect in Integrated Reporting <IR>. Its four core principles are set out below in Table 4. On relevance, it refers to information that is the best available, reliable and accessible, as well as contextual (time-related, boundary-related and data-related). Noteworthy is the focus on not only decision usefulness but also stewardship and trust. Related to this, it mentions accountability and credibility, sustainability, as well as integrity and ethics. Also noteworthy, something it shares with the FSB Task Force on Climate-related Financial Disclosures (2016), is its emphasis on scenario analysis and modelling.

Table 4: Management Accounting Principles (CIMA and AICPA 2014)

<table>
<thead>
<tr>
<th>The Global Management Accounting Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Influence</strong></td>
</tr>
<tr>
<td>Communication provides Insight that is Influential: Drive better decisions about</td>
</tr>
<tr>
<td>strategy and its execution at all levels</td>
</tr>
<tr>
<td><strong>Relevance</strong></td>
</tr>
<tr>
<td>Information is Relevant: Help organisations plan for and source the information</td>
</tr>
<tr>
<td>needed for creating strategy and tactics for execution</td>
</tr>
<tr>
<td><strong>Trust</strong></td>
</tr>
<tr>
<td>Stewardship builds Trust: Actively manage relationships and resources so that the</td>
</tr>
<tr>
<td>financial and non-financial assets, reputation and value of the organisation are</td>
</tr>
<tr>
<td>protected</td>
</tr>
<tr>
<td><strong>Value</strong></td>
</tr>
<tr>
<td>Impact on Value is Analysed: Simulate different scenarios that demonstrate the</td>
</tr>
<tr>
<td>cause-and-effect relationships between inputs and outcomes</td>
</tr>
</tbody>
</table>

3.2. LAYING THE FOUNDATION: SHARED PRINCIPLES OF NEW ACCOUNTING

The development of New Accounting as an overall discipline will require the different accounting professions to reach common ground on what can be described as a common set of high-level principles for multicapital and integrated accounting. Developing such a common set of principles to be shared by financial accounting, management accounting and sustainability accounting can involve the following assessments:
• What are the core principles already shared across the three accounting disciplines, and to what extent are they interpreted in the same way? One such core principle that comes to mind is that of materiality (see next chapter).

• What are the interrelations between the different principles, and to what extent do possible contradictions between them exist, or, how are they interpreted among the three accounting disciplines?

• What gaps exist in terms of principles that appear in one discipline but not in the others? Each discipline would need to ask itself why the relevant principle is not used, and how it may need to be introduced, and if required, in a re-interpreted manner.

With respect to shared core principles, the Corporate Reporting Dialogue is addressing the common understanding of the principle of materiality (see chapter 5). As stated in Blueprint 1, under Reporting 3.0 we argue for incorporating the materiality and sustainability context principles together, under the broader principle of “relevance”. Clearly relevant sustainability information will make a difference in the decisions made by users, with sustainability context particularly impactful in pointing to timeliness, predictive value and feedback value – affirming holistic and circular nature with a longer-term horizon.

As far as faithful representation is concerned, institutions such as the GRI and IIRC would need to assess to what extent its characteristics of “neutrality, freedom from error and completeness” are sufficiently covered by their existing sets of principles. To what extent does the sustainability or integrated report and its quantitative statements provide a faithful representation of the positions and performance of the reporting organisation? The related challenge for financial accounting or reporting standards and bodies such as the IASB is to determine to what extent conventional financial reporting is “incomplete” in not reflecting the connectedness of diverse capitals. The (in)ability of financial reporting to reflect this sustainability context and longer-term circularity puts a question mark behind its ability to offer a “faithful representation”.

With respect to the interrelations among principles and possible contradictions, an illustrative case from the domain of non-financial reporting has been the relation between the principles of materiality, conciseness and comprehensiveness. The question posed by the IIRC was, for example, to what extent tension exists between conciseness and comprehensiveness, while seeking to produce reports that focus only on what are material topics. This also links up with faithful representation. In a report on Changes in Financial Reporting and Audit Practice, the Audit Quality Forum of the UK has suggested that arguably the need to be clear and concise is an element of the true and fair view on which both preparers and auditors must make a judgement (ICAEW 2009).

With respect to gaps in the collection of principles recommended by the different accounting disciplines, the following can be noted:

• The non-financial accounting networks associated with the GRI and IIRC would need to consider the possible implications of the principle of “recognition” for their areas of work. Is it about recognition only of monetary values, or only of quantitative values? (see next chapter)

• Sustainability accounting professionals would need to consider the possible implications of using the principles of consistency, decision-usefulness, understandability, constraints (cost-benefit, industry realities), conservatism and matching.

• Financial accounting professionals and standards bodies such as the IASB would need to consider the introduction of principles related to context (at different levels, including sustainability context), stewardship and accountability towards shareholders and other stakeholders, connectedness and relevance of diverse capitals as well as future orientation.

• All three the disciplines would need to develop a common understanding of the meaning of “value”, “fair value” and “future value”, including the use of market-based transactions to determine such value, but also alternative techniques (including scenario analysis) to recognise the current fair and future values of different capitals and different intangible assets for which markets may not exist.
What would be the principles of the future context-based and intercapital accounting? Based on our overview above of the current principles prescribed by existing accounting and reporting standards or frameworks, we suggest a core set of Recognised Comprehensive Accounting Principles (RCAP) of New Accounting. Presented below (Table 5), this common set of principles applied across financial, management and sustainability accounting is required to effectively support the development of green, inclusive and open economies. The twelve RCAPs are presented in four columns, covering the Deming cycle steps (Plan-Do-Check-Act) of continuous improvement and learning. Enabling ongoing learning, the principles will facilitate the definition of interconnected and intertemporal value, covering accounting about present condition, past performance and future direction.

Table 5: Recognised Comprehensive Accounting Principles (RCAP) for New Accounting

<table>
<thead>
<tr>
<th>Relevance</th>
<th>Sound &amp; Quality Governance</th>
<th>Intertemporal Value</th>
<th>Integrated Risk &amp; Opportunity Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>(symbiosis of sustainability context and materiality)</td>
<td>(accountable stewardship, integrity, trustworthy, continual improvement)</td>
<td>(integrated impact, weighing implications of actions for future, longer-term value)</td>
<td>(probability &amp; magnitude, compliant &amp; innovative)</td>
</tr>
<tr>
<td>Strategic</td>
<td>Responsive Entity</td>
<td>Comparability</td>
<td>Decision-useful &amp; Actionable</td>
</tr>
<tr>
<td>(dynamic business logic, forward looking)</td>
<td>(entity-specific but open, transparent, responding to stakeholders)</td>
<td>(consistent and standards-aligned)</td>
<td>(measurability, clarity &amp; timeliness)</td>
</tr>
<tr>
<td>Multicapital</td>
<td>Interdisciplinary</td>
<td>Assurability</td>
<td>Faithful Representation</td>
</tr>
<tr>
<td>(interconnected, circular)</td>
<td>(integrating inputs from diverse disciplines, teams)</td>
<td>(verifiable, replicable, transparent on method)</td>
<td>(reliable, accurate, objective, balanced &amp; complete)</td>
</tr>
</tbody>
</table>

This new set of accounting principles will facilitate the new measure of success and approach to value creation described in Blueprint 1, reflecting a multi- or intercapital approach that acknowledges the importance of holistic and circular perspectives, as well as interconnectivity between different capitals and temporal dimensions in its understanding of value. During the Virtual Dialogue on Exposure Draft 2.0 of the Blueprint in February 2018, Paul Hurks of the Royal Netherlands Institute of Chartered Accountants highlighted the following conditions for the establishment of the RCAP: (1) a general accepted accounting framework, (2) suitability of criteria, and (3) availability of data. The existence of these conditions will enable a transformation in which New Accounting among others will facilitate new data management.
3.3. THE ACCOUNTING PRINCIPLE OF RECOGNITION

The use of principles such as multicapital and materiality raises questions of what common, fungible currency can be used to express the level of importance and an appropriate understanding of performance. Is that currency inevitably money, based on certain transactions that have taken place or – in the absence of transactions – new forms of valuation to estimate current and future benefits or costs expected. To get a better understanding of this background to key principles of RCAP, let us revisit the accounting principle of “recognition”.

What does it take for something to be “recognised” in accounting statements? And what would be the meaning of “recognition” in New Accounting, considering the ability of accountants to capture relevant multicapital information in different or integrated statements of quantitative data? Presumably the “recognition” of information in accounting statements gives it a certain status, a confirmation of materiality or more broadly, relevance. One can ask: Recognition by whom, and for what purpose? Current convention would have it that this is about recognition by management of the reporting entity, recognition in the eyes of management of information, that is key to practically manage and steer an organisation.

In financial accounting, recognition is about the process of capturing, for inclusion in the financial statements, an item that meets the definition of an element (asset, liability, equity, income or expenses). The IASB Conceptual Framework adds that this involves depicting the item (either alone or as part of a line item) in words and by a monetary amount. This implies working with monetary values, while in New Accounting this could refer to statements that also present non-monetary yet quantified information.

The criteria applied for applying the principle of recognition are technical, but it has important consequences and links with the assessment of what is relevant and material. This includes the preference, among some, for “financial materiality”, implying events that have direct financial consequences. The recognition criteria stated by the IASB Conceptual Framework (2010) in the past referred to (a) the probability that any future economic benefit associated with an item will flow to or from a reporting entity; and (b) whether such an item has a cost or value that can be measured reliably.

These criteria are demanding, requiring probability of directly related flows and reliable measurement of cost or value. As noted with respect to Natural Capital in the Economics of Ecosystems and Biodiversity (TEEB) for Business Report (2012), “the vast majority of ecosystem services and the vast bulk of biodiversity fall outside these recognition criteria and are thus neither accounted for internally by organisations (in the public or private sectors) nor are they (or management’s stewardship of them) reported externally in conventional financial statements” (Van der Lugt et. al. 2012). Exceptions to this would be only cases where, for example, there exists a recognisable market that gives rise to “reliable” valuations (e.g. carbon trading), or where an enterprise operates in a sector where stewardship of Natural Capital and ecosystem services is fundamental to its licence to operate.

3.3.1. NEW VALUATION TECHNIQUES TO FACILITATE RECOGNITION

Shortcomings in capturing and recognising the value of investment in for example, Natural Capital or Social and Relationship Capital, relate in part to (a) methodological challenges and in part to (b) inappropriate regulations (failing to ensure the internalisation of externalities). In approaching investment decision-making and capital expenditure, the soundness of valuation techniques becomes a critical factor. Traditional valuation techniques used in capital investment decision-making clearly have their shortcomings. Research on Natural Capital has shown how most of these tools fail to capture the value of ecosystem services or supplies from nature. The shortcoming in many valuation techniques is their failure to incorporate the costs of ecological and societal damage at the end of project life cycles.
Recognising these complications, the World Business Council for Sustainable Development (WBCSD) (2011) has suggested a hierarchy of appropriate techniques: (i) qualitative review, followed by (ii) quantitative assessment and (iii) monetary evaluation. This acknowledges that monetary valuation provides a particularly important means of aggregating, comparing and communicating different Natural Capital values. At the same time, limiting Natural Capital valuation to monetary indicators alone runs the risk of excluding important benefits and costs since it is rarely possible to quantify or monetise each and every ecosystem service value. The CFO Network of the Accounting for Sustainability (A4S 2014) initiative has recognised the value of incorporating financial and non-financial, quantitative and qualitative methods into a multi-criteria analysis along with other performance criteria. In a guide on capex and capital investment appraisal, it recommended the use of societal value methods that results in a presentation (see Figure 7) that adds up benefits and costs to company, shareholders and broader society.

Figure 7: Total value contribution of a capex project including societal value (A4S 2014)

Despite challenges in applying empirical and financial analysis to new Capital areas, sufficient experience has been gained in the last two decades to adapt and apply existing valuation techniques while giving due consideration to diverse resource inputs and outputs. Natural resource economists have, for example, accumulated a wealth of experience in doing assessments and analysis to determine Total Economic Value (TEV) as proposed by early pioneers such as David Pearce (1989) in the 1980s. This makes the distinction between Use and No-Use, and in the case of Use, between Direct and Indirect use. It involves the application of methods that employ direct market values where relevant markets exist, and where relevant markets do not exist, techniques such as determining:
replacement costs,
avoided damage costs,
hedonic pricing,
contingent valuation (based on surveys), and
value transfer.

These are all covered in the Natural Capital Protocol (Natural Capital Coalition 2016), which was developed with sector supplements to guide businesses in assessing and accounting for Natural Capital use. It built on earlier work by the World Resources Institute and WBCSD in developing the Greenhouse Gas (GHG) Protocol as well as the TEEB process.4

3.3.2. THE POSSIBILITIES AND LIMITS OF MONETISATION

Blueprint 1 of Reporting 3.0 refers to the transformation of financial markets, which, as described by John Fullerton (Capital Institute) at the 2015 Reporting 3.0 Conference, requires cost and benefit accounting as well as the translation of externalities into pricing. The implication is a need to track impact across multiple capitals, and doing so also in economic and monetary terms. Our AWG members noted that the use of monetisation should serve, importantly, to make decisions on resource allocation more transparent and accountable, recognising the relative importance of impacts and outcomes from the perspective of those most affected. It was also noted that where monetisation is not applied explicitly, there is often an implicit valuation about expected outcomes reflected in decision-making.

In financial accounting “recognised items” refers to financial numbers. Experts display different views on the ideal balance between financial and non- or pre-financial information. A word of caution from an analysis of corporate climate reporting in the 2000s by the Association of Chartered Certified Accountants (ACCA) and GRI (2009) was that companies may be focusing on aspects where numbers can be gathered and performance tracked, rather than concentrating on areas where they have the greatest influence. Such cases illustrate how the ease of collecting numbers and reporting as such may become the driver of corporate action, leading to action plans that are not strategic.

Accountants themselves have mixed views on the benefits or not of actively pursuing or prioritising the approach of monetisation. In as far as the aim is to make a business case, there are inevitable limitations to building the case from direct financial impacts because of the uniqueness and complexity of being a responsible business. While the financial dimension is still the prevailing criterion for performance assessment, companies are too complex to be evaluated internally and externally purely in monetary terms (EABIS 2009). Experience with valuation and monetisation over the last two decades have shown the risks of seeking to add up apples and pears into combined totals. Attempts to use monetisation as a means to render different capitals commensurable may also result in misleading conclusions when matters are not put in an appropriate context (i.e. applying context-based monetisation) as noted in Chapter 4 (Integration) of the Reporting 3.0 Blueprint on Data.

As suggested in chapter 3 on the “Purpose” of New Accounting, the emphasis in accounting will necessarily remain on quantitative information so far as possible, complemented by qualitative information. Additionally, New Accounting will prioritise the use of financial information as far as possible, without pushing monetisation to unrealistic extremes. Some arguments for and against monetisation are listed in Table 6, including cases involving ethics or unacceptable risk, where as a matter of principle an emphasis on financial figures would be out of place. These arguments for and against were also echoed during

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4 See [http://www.teebweb.org](http://www.teebweb.org) and [http://naturalcapitalcoalition.org](http://naturalcapitalcoalition.org)
the Virtual Dialogue on Exposure Draft 2.0 of the Blueprint, including a commentary letter from the Sustainability Context Group (see Annex for full text) that critiqued the proposed reliance on monetisation as making the error of disrespecting the sustainability context and assuming fungibility or substitutability between the different capitals.

The proposal made in this Blueprint is to explore the route of context-based monetisation, in which for example, thresholds or critical levels of vital resources are reflected in costing and pricing as determined by reporting enterprises and regulators (through, for example, taxes). Where a vital resource is at risk of extinction or damage to the extent of collapse, regulators applying prevention would issue a ban and “monetisation” would not be applicable.

A key message here is not to confuse (a) monetisation or financial analysis as a methodology (tool of analysis) and (b) financial performance (vs Integrated Performance – end goal) or Financial Capital. This confusion is common in debates on the Capitals, with some concluding that the use of financial analysis implies that Financial Capital is more important than the other Capitals or that financial stakeholders (notably investors) are more important than other stakeholders. All organisations need to consider how they use and impact different Capitals. While seeking to use different Capitals more efficiently and responsibly, all organisations need internally to be able to employ financial analysis as a means or tool of management. Integrated performance management will always need some common, fungible metric for analysis – whether it is monetary values, non-financial numbers or some other common denominator. The preference in New Accounting for translating data into financial figures insofar as it is desirable and feasible, should therefore not be interpreted as giving some superior status to Financial Capital, financial performance or financial stakeholders. It simply acknowledges the practical value and need for economic analysis in the making of the green and inclusive economy.

**Table 6: Some arguments for and against monetisation**

<table>
<thead>
<tr>
<th>FOR:</th>
<th>AGAINST:</th>
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<tr>
<td>Monetisation is a tool for management and accountable resource allocation. It does not imply disrespect for what is being measured – the very contrary. Take e.g. human resource management and the established practice of measuring labour productivity in financial terms.</td>
<td>Principled topics such as human rights and corruption imply human values and ethics that cannot be justified on financial terms. It would be immoral to commit to zero fatal accidents or zero corruption based solely on financial figures.</td>
</tr>
<tr>
<td>Using, for example, Natural Capital efficiently requires measurement and valuation. Efficient use supports conservation. The question is one of sustainable use.</td>
<td>Monetisation of complex phenomena such as biodiversity is unrealistic and paves the way of irresponsible commercial exploitation, instrumentalising Nature.</td>
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</table>
The gap between book value and market value illustrates uncertainty around the value of intangible assets (IAs). Managing and promoting investment in IAs requires improved data on and financial analysis of their nature.

Monetisation tends not to reflect sustainability context. Uncertainty about future costs or benefits when dealing with proximity to critical thresholds, limited carrying capacities and potentially irreversible ecosystem changes require the application of precaution as principle.

Money is the basic, standard medium of communication in business. To capture diverse performance items in core business decision-making – doing it in a way that facilitates comparison across different timeframes, multiple types of capital and organisations – and effectively engage investment decision-makers, you need financial information to work with.

Monetisation and valuation of certain externalities bring unacceptable risk. What if the numbers turn out to be wrong? We cannot do market experiments with fragile capitals. In addition, monetisation makes the mistake of assuming substitutability between different capitals.

The history of Business-as-Usual has been one of non-monetisation of externalities including services provided by Natural and Societal Capital. Its track record is certainly not good, considering trends since the Industrial Revolution.

Emphasis on monetisation and financialising can be short-termist and misguided, with a reductionist focus that is non-strategic and losing sight of long-term vision.

3.4. THE ACCOUNTING PRINCIPLE OF MATERIALITY

Recognised definitions of “materiality” range from a decision by the US Supreme Court in the 1970s to definitions by the International Accounting Standards Board (IASB IFRS), the International Auditing and Assurance Standards Board (IAASB) as well as additions by the GRI and IIRC. More recent contributions have sought to introduce simple and inclusive language that caters for diverse accounting fields. In 2016 seven disclosure standards organisations under the auspices of the Corporate Reporting Dialogue highlighted commonalities between their respective approaches to materiality. They also produced an agreed definition of materiality, one that applies to both financial and non-financial reporting:

“material information is any information which is reasonably capable of making a difference to the conclusions reasonable stakeholders may draw when reviewing the related information”.

(Corporate Reporting Dialogue, 2016)

The statement issued by the Dialogue also lists the different recommendations of its participants’ standards related to organisational or subject scope, boundaries (entity plus) and intended users. As far as subject is concerned, recent additions of note are those related to Natural Capital and human rights.

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5 A listing of internationally recognised definitions can be found on Materiality tracker at: [http://www.materialitytracker.net/standards/definitions/](http://www.materialitytracker.net/standards/definitions/)
The Natural Capital Coalition has produced the following definition in its Natural Capital Protocol series, focused on the significance of natural capital "impacts and/or dependencies":

"an impact or dependency on natural capital is material if consideration of its value, as part of the set of information used for decision making, has the potential to alter that decision"  
(Natural Capital Coalition, 2016)

The Reporting Framework for the UN Guiding Principles for Business and Human Rights has produced a definition of "salient issues" that distinguishes itself from "business materiality":

"Companies should focus their human rights disclosure on the most severe actual and potential impacts on human rights associated with their activities and business relationships. The starting point for disclosure is, therefore, risk to human rights rather than risk to business, while recognizing that where impacts on human rights are most severe, they converge strongly with risk to the business as well." (Human Rights Reporting and Assurance Frameworks Initiative / RAfi 2017)

This definition of salience versus materiality signals different views related to focusing on "impacts on the outside world" versus "impacts on the business". Focus on the former among others raises possible duties with respect to external stakeholders whose wellbeing is significantly affected. Issuing its new reporting standards, the GRI has clarified that the focus in its definition of materiality is on external impacts, while highlighting that these again have consequences for the business or reporting entity itself. GRI Standard 101 (2016) notes that "(i)n financial reporting, materiality is commonly thought of as a threshold for influencing the economic decisions of those using an organisation’s financial statements", yet adds that in sustainability reporting the concept is broader and "concerned with two dimensions, i.e. a wider range of impacts and stakeholders" (GRI 2016).

New Accounting will provide the foundation for stakeholders to make better-informed decisions, be it a manager seeking to improve internal performance, an investor seeking to strengthen the portfolio, an employee seeking better employment, a consumer group seeking accountability on a particular issue, or other type of affected or interested stakeholder drawing conclusions about a certain organisational entity. The total mix of information considered by the stakeholder user of published statements or reports will contain different levels and combinations of financial and sustainability data, displaying interconnections between different capitals involved. The scope of information covered by New Accounting – financial, management and sustainability accounting – will cover the full range of significant internal and external impacts to varying degrees. Under New Accounting, guidance on materiality will cover both qualitative dimensions (questions of interpretation, judgement and principle) as well as quantitative dimensions (questions of quantitative thresholds, related to developments internal and external to the reporting organisation).

**3.4.1. MATERIALITY THRESHOLDS**

In financial accounting, materiality thresholds traditionally serve as a tool for prioritisation that is captured in quantitative terms, such as “5% of earnings”, to assess the level of significance. Yet history has shown the shortcomings of such common rules of thumb. In its Staff Accounting Bulletin No 99 (1999) the US Securities and Exchange Commission (SEC) in fact advised companies against using financial thresholds as the ultimate determinant of materiality. This recognizes the limitations of relying on simple quantitative rules, not considering relevant context including non-financial and qualitative information.

Little guidance on thresholds can be found in non-financial accounting and assurance standards issued since the 2000s – standards such as AA1000, ISAE3000 and issue-specific standards such as the GHG
and water accounting standards issued by the International Organisation for Standardisation (ISO) and the Water Accounting Standards Board. One early exception was the GHG Protocol of the World Resources Institute (WRI) and WBCSD (2004). It suggested that, as a rule of thumb, an error is considered to be materially misleading if its value exceeds 5% of the total inventory for the part of the organisation being verified. The Protocol adds that what the verifier needs to assess, is an error or omission in context. For example, if a 2% error prevents a company from achieving its corporate target, this would most likely be considered material.

The seemingly limited guidance on quantitatively determining the materiality of non-financial issues have led some to suggest that qualitative factors are more likely to be considered in these cases. In its sector and industry-based standards for material metrics, SASB for example includes technical protocols with guidance on narrative as well as “qualitative metrics”. Qualitative factors may include the possible contravention of the law or breach of a contract if a legalistic or principled approach is followed. Proximity to internal organisational targets or external thresholds such as tipping points may imply materiality, based on interpreted context or direction (positive/negative). Qualitative factors may also include the seriousness and salience of a socio-economic or environmental problem faced by the reporting organisation in its operational or local community context.

Sustainability experts increasingly emphasise the need to convey performance in context and define science-based targets. In doing so, they focus on thresholds that refer not to financial accounting metrics but to the condition of ecology and society within which the business operates. It has, for example, been argued that sustainability requires contextualisation within thresholds. The type of thresholds referred to are often environmental ones, employing concepts such as “critical loads”, “tipping points”, “ecological carrying capacity” or the nine “Planetary Boundaries”.

It is evident that New Accounting would need to distinguish between two types of thresholds: those that are internal (organisational performance, entity-specific) and those that are external (ecological thresholds and socio-economic thresholds, entity-related). This implies that prioritisation is based on relevant information related to the reporting organisation and its key resources, including internal and external capitals. Figure 8 gives an illustration of internal and external thresholds applied at different levels, with reference to the two material topics Climate and Labour.

Considering non-financial capitals, what “thresholds” would apply in the social domain of, say, Human or Social Capital? Relevant external thresholds (milestones) may relate to socio-economic conditions in the regions and countries where reporting companies operate. In some cases organisations may need to refer to qualitative references in the absence of reliable quantitative data. Quantitative references could be threshold indicators such as levels of poverty and inequality by country, levels of unemployment by country, or levels of health with respect to globally critical illnesses such as AIDS, tuberculosis, malaria and obesity by country. These imply the types of indicators related to targets of the UN’s Sustainable Development Goals (SDGs). Guidance for reporting organisations on targets and indicators for reporting on the SDGs have been developed by the WBCSD, GRI and UN Global Compact and a core set of indicators have been defined under auspices of UNEP and the UNCTAD Intergovernmental Working Group of Experts on International Standards of Accounting and Reporting (ISAR). The relevant indicators can be found at the intersection of data needs for SDG monitoring, regulatory requirements for corporate disclosure and existing company reporting practices.

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6 See www.stockholmresilience.org
7 On the UNCTAD ISAR consultations, see http://isar.unctad.org/sustainability-reporting/ and the SDG Compass by WBCSD et al., see https://sdgcompass.org
3.4.2. DECIDING MATERIALITY IN CONTEXT

Most would agree that performance information should be interpreted within appropriate context. The problem is a difference of opinion on what constitutes the relevant "context". It may be operational context, market and industry context, regional and national country context, or societal and ecological context. For each of the multicapitals there is a more relevant context, depending also on the product, service, organisational unit or type of business involved.

Accounting standards have always recognised that materiality is context-specific, implying the circumstances of the reporting organisation. It points to factors that also courts would view as reasonable considerations. In financial accounting the tendency has been to interpret this first and foremost as referring to the operational context of the reporting organisation itself, its industry (peers) and markets. The social responsibility debate since the 1980s has taken "context" to a broader, ecological and societal meaning.

The GRI has "sustainability context" as one of its reporting principles, encouraging users to consider for example available public scientific reports and to convey the magnitude of their impacts in appropriate geographic contexts. This is part of the "combination of internal and external factors" the GRI expects the reporting organisation to refer to when determining if a topic (aspect, indicator) is material. Sustainability context raises in particular scientific studies, identifying the "(r)easonably estimable economic, environmental, and/or social impacts (such as climate change, HIV-AIDS, or poverty) identified through sound investigation" (GRI Standard 101).

Experts such as the Sustainability Context Group have argued that most corporate sustainability programmes come short in that they focus on the micro level. They advance incremental improvements in company performance compared to past years or peers, but not compared to limits and thresholds at
the broader social and environmental levels. The Sustainability Context Group argues that Sustainability Context is a performance accounting principle that calls for the specification of organisation-specific standards of performance as a precursor to measurement and reporting. Their position is that Sustainability Context as principle must take into account (1) whom an organisation’s stakeholders are, (2) the duties and obligations it owes to them to manage its impacts on vital capitals in ways that can affect their well-being, (3) the carrying capacities of the capitals involved, and (4) its fair, just and proportionate shares of the carrying capacities and/or burdens to maintain them. 

### 3.4.3. PROCEDURAL METHODS FOR APPLYING MATERIALITY

Our focus in this Blueprint is not on assurance or engagement processes (and related materiality determination processes as recommended by AA1000, GRI Standards, the <IR> Framework or ISAE3000). The emphasis in this paper is, rather, on the content involved and, importantly, the procedural methods recommended for applying the principle of materiality. The procedural methods or “tests” for applying materiality as recommended by the different standards involved suggest areas of information and data collection, which raises challenges for the scope and boundaries of the relevant accounts developed by reporting organisations. Table 7 below lists the tests recommended by non-financial standards since the 2000s. For comparison, some common terms across the four lists are highlighted in bold.

The methods listed in Table 7 illustrate the traditional interest in financial impact or impact on value creation, what peers are doing and what regulators are undertaking, as well as the more recent emphasis on what stakeholders are saying and what science is saying. Experts including different types of accountants have varying preferences about the relative merits of engaging stakeholders in pursuing these methods versus doing desk research and using new software-based tools such as Artificial Intelligence (see 3.0 Data Blueprint). New Accounting will involve the full mix of tools, using people engagement as well as smart IT. Importantly, as a Redefining Materiality II paper by AccountAbility (2013) made clear, the above tests go beyond reporting. The materiality determination methodology needs to be embedded within an organisation’s ongoing processes of strategy development, performance management, accounting, reporting and stakeholder engagement.

As far as the test of “evidence of financial impact” is concerned, many (especially those in the financial community) assume that an item is only really material once financial consequences can be reliably defined – i.e. when it is “financially material”. Some lawyers would argue that materiality by definition implies financial consequences, and that the term should therefore only be used in statutory filings (annual financial reports) and not in non-financial reporting in order to avoid inconsistencies in the external disclosures of an enterprise. The counter-argument would be that materiality is a strategic concept, and that more significant impacts are often longer-term consequences which, in the short term, may not be reliably reflected in accurate financial figures. To satisfy among others the legal and auditing professions, we therefore need to define different scopes of “materiality”.

To enable New Accounting to practically accommodate these different views, we recommend that it employs a methodological approach that distinguishes between three fields of materiality, namely ID Materiality (Internal Direct, own operations), ED Materiality (External Direct) and EI Materiality (External Indirect, systems level). These distinctions are only methodological, allowing financial, management and sustainability accounting to work with three different categories of materiality that enable the inclusion of items on different types of accounting statements and related narrative reporting. It should NOT be interpreted as signalling that one, e.g. internal scope, is by definition more important than another.

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8 On the Sustainability Context Group of experts and their position, see [http://www.sustycontext.org/about/](http://www.sustycontext.org/about/)
e.g. external scope. Analysis on sustainability performance has often illustrated that some of the most significant developments may lie externally at the systems level, for example far up in the supply chain.

Table 7: Procedural methods or tests for applying the materiality principle

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<tbody>
<tr>
<td>1. Direct short-term financial impacts</td>
<td>1. Reasonably estimable sustainability impacts, risks or opportunities, identified through sound investigation / by science</td>
<td>1. Could substantively affect value creation</td>
<td>1. Financial impacts &amp; risks</td>
</tr>
<tr>
<td>2. Policy-related performance Business peer-based norms</td>
<td>2. Main sustainability interests and topics, and indicators raised by stakeholders</td>
<td>2. Link to strategy, governance, performance or prospects</td>
<td>2. Legal, regulatory &amp; policy drivers</td>
</tr>
<tr>
<td>3. Stakeholder behaviour and concerns</td>
<td>3. Main topics and future challenges for the sector reported by peers and competitors</td>
<td>3. Are important to key stakeholders</td>
<td>3. Industry norms &amp; competitive drivers</td>
</tr>
<tr>
<td>4. Societal norms (regulatory and non-regulatory)</td>
<td>4. Relevant laws, regulations, international agreements, or voluntary agreements</td>
<td>4. Form the basis of boardroom discussions</td>
<td>4. Stakeholders concerns &amp; societal trends</td>
</tr>
<tr>
<td></td>
<td>5. Key organisational values, policies, strategies, operational management systems, goals and targets</td>
<td>5. May intensify or lead to opportunity loss if left unchecked.</td>
<td>5. Opportunities for innovation</td>
</tr>
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We use the term “fields” (signalled by abbreviations) rather than “scope”, in order to avoid misinterpreted prioritisation or confusion with, for example, GHG accounting. Our three fields provide a practical way to categorise different types of information. While all three categories may involve the identification of financial metrics, what distinguishes them methodologically is rather organisational scope (core entity control versus entities 2, 3, 4...n) and level of data certainty (EI Materiality involving more uncertainty in terms of measurability, causal mapping and predictability). The three categories of materiality are illustrated in Figure 9 in the context of the value chain and broader systems level environment.
To illustrate practically what using this methodology implies, consider the following examples:

- **ID Materiality**: For example, planning and budgeting for an internal capex project; planning and tracking progress for a talent management programme; developing new governance and remuneration policy; monitoring and improving reduction of GHG emissions from own, controlled operations. *(Information / metrics more likely found in management accounting and sustainability accounting documents, statements or periodic reports.)*

- **ED Materiality**: For example, transaction-based activities such as working with suppliers to procure and improve quality standards; providing downstream customers certain services; paying taxes to a public authority; incomplete or non-transaction-based activities such as Other Comprehensive Income (OCI) investments, a voluntary project to conserve local natural resources; a human rights initiative with local community groups. *(Information / metrics more likely found in financial accounting and sustainability accounting documents, statements or periodic reports.)*

- **EI Materiality**: For example, health and safety standards in tier 2-n supplier operations abroad; socio-economic contribution to development in a certain country; water scarcity and resource competition in certain watershed or basin area; consumer lifestyles and health in society; IT-supported education in a region. *(Information / metrics more likely found in sustainability accounting and financial accounting including risk management documents, statements or periodic reports.)*
The Reporting 3.0 Blueprint 1 (BP1) argues that a new materiality process needs to take on board the idea of an organisation serving a "bigger whole", and that leads to better inclusion of systemic risk and transformation risk, but also opens a discussion about root-cause opportunities. Current materiality definitions and approaches tend to miss the micro-macro element as well as accumulative or systemic effects. Our categorisation of three fields of materiality provides a practical accounting tool for applying a new approach, one that puts three scope dimensions on an equal footing and allows for interspatial (e.g. inside/outside) and intertemporal (e.g. past/present/future) analysis.

The integral and context-based materiality determination process recommended by Blueprint 1 involves three steps, (i) identifying impacts on capitals vital to stakeholder wellbeing, (ii) determining if impacts compromise carrying capacities of capitals, and (iii) ascertaining strategic innovation opportunities to enhance capitals. Combined with materiality tests defined by accounting and reporting standards, the following Key Actions for applying Integral Materiality or Relevance can be defined for multicapital accounting purposes (Table 8 below).

### Table 8: Key Actions for applying Integral Materiality or Relevance in New Accounting

1. **Map your Integrated Value Creation Process**, including current / future Value Proposition and Business Model, with their associated intended impacts
2. **Assess your Impacts**, including impactful unintended consequences of your business, relying on scientific opinion on risks associated with carrying capacity and impacts on vital capitals
3. **Assess innovation opportunities**, including opportunities around enhancing use of different capitals and ways of turning negative impacts or risks into opportunities and positive impacts
4. **Consider your organisational Policy, Values and Strategy**, including different types of values such as business values, ethical values, behavioural values and cultural values
5. **Consider industry and market trends**, including peer behaviour, evolving industry norms, standards and foresight
6. **Consider societal trends**, including societal behaviour and norms, governmental laws and regulations
7. **Engage with prioritised stakeholders or rightsholders on findings related to the above**, seeking to improve understanding, prioritise topics and validate your management approach
8. **Discuss conclusions from the above with internal leadership, management and audit**, agreeing on follow-up actions in view of implications for accounting systems, processes, data requirements, different disclosure documents and aligned performance communications

Considering the 12 steps of the integral and context-based materiality determination process recommended by Blueprint 1 (page 46), many of these relate to assessing impacts and taking action to improve, working on the basis of scientific thresholds and allocations agreed with stakeholders or rightsholders. They also point to the critical examination of the business model and value creation process, including tracking of societal trends and working with future scenarios.
3.5. RECOMMENDATIONS ON CONTENT AND QUALITY

Based on our discussion on principles for Content and Quality, the following recommendations are made for corporations, standard setters, providers of financial capital and regulators.

3.5.1. RECOMMENDATIONS FOR REPORT PREPARERS

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<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| EDUCATE  | 26. Board members, senior executives and managers need a more holistic understanding of materiality and value, aware of key risks and opportunities associated with the use of diverse capitals.  
27. Company financial, management and sustainability accountants need educational programmes on meaning and convergence between different accounting principles. |
| ADVOCATE | 28. Converse with business partners and industry associations on convergence between accounting standards and agreement on core principles.  
29. Engage with standards setting bodies and regulators on the development of a core set of principles for appropriate content and quality in context-based, intercapital accounting systems. |
| ACCELERATE | 30. Support your financial, management and sustainability accountants in working with professional accounting and standards bodies to secure agreement on the core principles of New Accounting.  
31. Through corporate disclosures illustrate to diverse stakeholders the value of applying the core principles of New Accounting, displaying a more integrated understanding of performance and true value creation. |
### 3.5.2. RECOMMENDATIONS FOR STANDARD SETTERS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| EDUCATE | 32. Converse and collaborate in facilitating an improved understanding of the interrelations between and meaning of the principles of different accounting disciplines.  
33. Collaborate in developing learning examples of how business accounting systems and disclosures can deliver different, misaligned messages due to a lack of common understanding of accounting principles and propose solutions to address such misalignments and inconsistencies. |
| ADVOCATE| 34. Use fora such as the Corporate Reporting Dialogue and Reporting 3.0 to shape agreement on a core set of principles of New Accounting.  
35. Jointly address key principles such as recognition, materiality and faithful representation, including technical detail, to shape agreement on items such as context-based thresholds and procedures to determine materiality. |
| ACCELERATE | 36. Publish joint guidance on key aims and principles of context-based, intercapital accounting, proactively shaping a common understanding and the development of New Accounting as a common profession and more comprehensive discipline. |
### 3.5.3. RECOMMENDATIONS FOR PROVIDERS OF FINANCIAL CAPITAL

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
</table>
| **EDUCATE** | 37. Establish capacity building and educational events to ensure that fund managers and analysts have a proper understanding of principles and ways in which core principles of New Accounting can facilitate more responsible and impactful financing practices.  
38. Support research and publications that illustrate a more future-fit understanding of relevance, the need for context-based and longer-term perspectives, and how fundamental analysis needs to change to reflect a more multidimensional meaning of value. |
| **ADVOCATE** | 39. Produce a collective statement of New Accounting principles that will better enable clients to provide the accountable and decision-useful information you need.  
40. Engage partners from the upstream to the downstream of financial value chains in a dialogue on accounting approaches and principles to secure better and more comprehensively informed markets. |
| **ACCELERATE** | 41. Stock exchanges and finance initiatives need to jointly agree on accounting approaches and principles they believe are essential to ensure markets are appropriately informed and equipped to develop green, inclusive economies.  
42. Agree with standards bodies and regulators on appropriate incentives for disclosures that are more accountable and long-term focused, in the midst of new infotech developments such as the growing popularity of exchange-traded funds (ETFs) and automated research and analysis. |
### 3.5.4. RECOMMENDATIONS FOR REGULATORS AND GOVERNMENTS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>43. Present internal capacity building programmes, enabling officials to assess the meaning of and alignment between different principles for accounting systems at organisational level.</td>
</tr>
<tr>
<td></td>
<td>44. Engage different professions – e.g. legal, auditing, accounting and management professions – in dialogue on their interpretation of the principles of relevance and materiality. This can elaborate the pros and cons of approaches that are more compliance driven versus more strategic innovation driven, more public versus more private driven, and more rules versus more principles driven.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>45. Engage professional bodies, educational institutions and standard setters in a dialogue on alignment between standards, including principles most appropriate for a new, integrated and multicapital discipline of accounting.</td>
</tr>
<tr>
<td></td>
<td>46. Collaborate with research institutions in convening learning events and policy dialogues on experience with monetisation, and delivering recommendations on preferred policies and approaches.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>47. Issue new guidance on key principles believed to be critical for accounting systems and disclosures that deliver relevant content and reliable quality of information appropriate for well-informed markets.</td>
</tr>
<tr>
<td></td>
<td>48. Convene educational and professional institutions to agree on the approach and core principles of New Accounting, and take steps to ensure that its comprehensive approach is offered with recognised qualifications issued by educational institutions.</td>
</tr>
</tbody>
</table>
4. FINANCIAL STATEMENTS AND STEPS TOWARDS INTEGRATED STATEMENTS

4.1. INTRODUCTION TO STATEMENTS AND DISCLOSURE ROLE MODELS

Interest in the multicapital approach to value creation in recent years have highlighted the need to better reflect movements or interactions between the capitals (financial and other), the reality that performance has multiple dimensions that inter-relate, and efforts to define interlinkages or connectivity that suggest some correlation or cause-and-effect between (non)-financial performance and broader notions of value creation in the short, medium and long term. Behind the attempt to innovate in measuring and analysing these trends are new strategies initiated by some, approaches such as “shared value” that either reflect stronger awareness of external spill-over effects or conscious attempts to take certain societal challenges as the point of departure in initiating a new product line, new business model or new business.

The following type of approaches to multicapital value accounting can be identified – each with its own implications for how performance measurement, accounting and reporting statements are developed.

<table>
<thead>
<tr>
<th>Impact Ostrich</th>
<th>Impact Reactor</th>
<th>Impact Accounter</th>
<th>Impact Innovator</th>
<th>Impact Start-Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disinterest or ignore external impacts, Business as Usual (BAU)</td>
<td>Recognise, acknowledge external impacts (neg/pos associations)</td>
<td>Measure side-effects and account for external impacts (neg/pos)</td>
<td>Purposefully pursue, optimise external impacts (positive cause-effect relations)</td>
<td>Societal challenge as reason d’etre, business model point of departure</td>
</tr>
</tbody>
</table>

Figure 10: Different disclosure role models and their accounting implications

With the above in mind, various examples can be cited of innovation in disclosure over the last two decades, resulting in alternative statements such as social balance sheets, green P&Ls, Economic Value Added and Total Contribution statements. Examples of environmental financial statements, alternative income and total contribution statements from companies such as Baxter, STMicroelectronics, Puma, LafargeHolcim, ABN-AMRO and Crown Estate are provided in the Annex to this Blueprint.

Baxter has been publishing environmental financial statements since the 1990s. STMicroelectronics has been a good example in the 2000s of reporting costs and savings associated with environmental expenditures. In the last decade Puma has provided good illustrations of natural resource use impacts and dependencies in different tiers of its value chain, an approach further developed today by the Kering Group. Before merging with Lafarge, Holcim published an Integrated P&L with transparent indication of the methodological assumptions behind its calculations related to key environmental and social topics. ABN-AMRO in 2016 published its initial Integrated P&L findings focusing on, among others, its mortgage services and categorising impacts according to the Six Capitals. Since 2013 Crown Estate has published an annual Total Contribution Report on its impacts across the Six Capitals, seeking to define value created...
beyond financial return and determine its adjusted Gross Value Added (aGVA) once positive and negative flows (impacts) have been added up.

Where does all this economic analysis and accounting experimentation leave the core financial statements of financial accounting? What are the implications for budgeting, planning and performance management tools used in management accounting? Can we define the complementarity and links between these different tools, in order to bring some coherence and structure to the discipline of New Accounting? In its Conceptual Framework (Exposure Draft 2016), the Sustainability Accounting Standards Board (SASB) argues as follows:

“Corporate reporting must extend beyond financial statements to facilitate the measurement and reporting of sustainability information that will enhance a decision makers’ understanding of all material risks and opportunities. Like financial accounting, sustainability accounting has both confirmatory and predictive value, so it can be used to evaluate past performance as well as for future planning and decision support. As a complement to financial accounting, it helps provide a more complete view of a corporation’s performance and its ability to create long-term value.” (SASB 2016)

The experience of financial accounting shows that certain types of information rather belong in minimalistic, compliance-driven statements containing audited, hard facts, whereas other types of information about trends, stocks and flows in complex and long-term focused domains rather belong in alternative, strategic statements. Considering the scope or fields of information (Figure 8) defined in the previous chapter, the different types of statements will contain different combinations of financial, non-financial quantitative and qualitative information. Conventional financial statements lend themselves more to current year performance and compliance-driven financial information, while alternative statements and narratives lend themselves to more long-term, future-oriented and strategic information.

The financial accounting experience also illustrates that alignment between different statements and their add-ons (including notes) should not be taken for granted. We start by revisiting the mainstream financial statements, followed by an update on new, alternative statements and their expansion as well as areas of convergence with mainstream statements. As foundation this chapter focuses on the Income Statement and Balance Sheet or Statement of Financial Position, but not on the Cash Flow Statement and Statement of Changes in Equity (including retained earnings versus dividends paid). For the purposes of defining New Accounting, the most significant of the four mainstream financial statements to focus on are the Income Statement and Balance Sheet.

4.2. INCOME STATEMENT OR P&L ACCOUNT

Highlighting the complications (including subjectivity and verifiability) of measuring and reporting on intangible assets (more below), ICAEW (2010) has noted from research that when valuing a business analysts look to the income statement rather than the balance sheet. For this reason the content of the income statement is a very sensitive issue for standard setters. Earnings are also seen as reflecting the contribution of intangible assets and thus provide a basis for valuing a business, even when it has valuable intangible assets missing from the balance sheet. Clearly, accounting and business valuation has come a long way compared to the pre-industrial era when conceptions of profit were very simple and accounting was essentially used for record-keeping purposes. The definition and measurement of profit became more sophisticated alongside industrialisation as business became more complex, and economies saw the arrival of new products such as credit markets, derivative transactions and international markets (Acevedo 2012). It was only by the 1970s that GAAP in the USA set some uniform standard of measuring income, expenses and profitability.
Conventional wisdom in financial accounting is that the income statement or profit and loss account is the key “performance statement” to assess the profitability (return) of a company, while the balance sheet serves as key statement to assess the risk associated with a company. While the latter addresses stocks (the status as on a certain date), the former captures flows and the efficiency with which a company has been using its resources. The main components of the income statement tells you what revenue (topline) the company has been generating, what costs it incurred in doing that, and on that basis what profit (or loss – bottom line) remains. Of these three components, the costs component is the one where the absence of sustainability externalities is most evident. This is especially the case with negative externalities, associated with Cost of Goods Sold (CoGS) or the direct costs of labour and resource supplies. Positive externalities may impact both sales costs (offsetting) and sales revenues (boosting sales if internalised). Furthermore, negative (or positive) externalities may affect other operating costs such as distribution costs as well as non-operating expenses such as finance costs and taxation.

Traditionally the formal position in financial accounting has always been that not one of the core financial statements is more important than the others, but that the cash flow statement, income statement and balance sheet should be treated equally and as a whole. Importantly, and a challenge for the conventional P&L, is that adding credibility to financial statements can be done through linking financial and non-financial performance indicators reflected in narrative reporting such as the management discussion and analysis (MD&A) of the annual report. Further credibility will also be added by linking the financial and non-financial performance indicators found in other types of statements or reporting other than the conventional annual report. Overall, such reconciliation of information (data) provided adds usefulness and clarity to reporting.

4.2.1. STATEMENT OF OTHER COMPREHENSIVE INCOME (OCI)

In the revision of the IASB Conceptual Framework for Financial Reporting during recent years, it has been argued that in the absence of a definition of “profit or loss” it is difficult to form a view on what income and expenses should be reported as other comprehensive income (OCI). This highlights ongoing confusion and diverse views on what constitutes “the bottom line” as well as the ambiguity of “financial performance”. It also highlights that both reporting managers and investors can be quite opportunistic when given the choice of reporting location (between different types of statements) or when seeking to locate publicly available information where it is the easiest and least costly to locate and process.

Discussion on Other Comprehensive Income (OCI), which added to net income results in a total Comprehensive Income (CI), raises questions about what is really considered when calculating “net income (profit or loss)” and to what extent reporting organisations are allowed flexibility in including or excluding items that are not associated with their core business or items whose value involve a great deal of volatility. It can be asked whether the income statement really records all revenues, expenses, gains and losses. While standards bodies such as IASB seek to promote transparency on decision-making in this and on the components of OCI, additional questions have been raised about where and how such items should be presented (for example in the income statement or balance sheet) to better meet the information needs of investors and creditors.

Though involving long-term assets and liabilities, OCI primarily consists of highly volatile and transitory unrealised gains and losses caused by market fluctuations. The FASB (2011) listing of the components of OCI (ASC 220-10-45-10A) includes foreign currency translation adjustments, gains and losses on derivative instruments that are designated as cash flow hedges, unrealised holding gains and losses on marketable security investments, as well as gains or losses associated with pension or other post-retirement benefits (that are not recognised immediately as a component of net periodic benefit cost).
The value of OCI can be significant, especially for some sectors, such as financial institutions that manage large investment portfolios.

The FASB (2011) Accounting Standards Update (ASU) No 2011-05 gave reporting entities two options for presenting OCI:

- **A single, continuous statement of comprehensive income** — Entities must include the components of net income, a total for net income, the components of OCI, a total for OCI, and a total for comprehensive income (CI).

- **Two separate but consecutive statements** — Entities must report components of net income and total net income in the statement of net income (income statement), which must be immediately followed by a statement of OCI that must include the components of OCI, a total for OCI, and a total for comprehensive income (CI). A reporting entity may begin the second statement with net income.

The above makes for the presentation of income in a *multiple-step or layered format* to reduce the emphasis on net income. The International Accounting Standard Board (IASB, 2011) issued its own guidance that provided for the same two options. Overall, the US FASB and international IASB are steering toward a layered presentation of comprehensive income, which has led some commentators to conclude that the presentation in a single statement is only a matter of time.

The experience with OCI holds important lessons for how sustainability or multicapital-related income gets incorporated into reporting statements. Consider factors such as the following:

I) to what extent an item is associated with core business or not,
II) to what extent the value of an item is subject to high volatility,
III) to what extent a user has mainly interest in “net income” (profit) versus a more nuanced Comprehensive Income figure,
IV) the ability to reclassify different / multi-capital gains or losses, depending on whether they are “realised”.
V) the location and positioning of multi-capital gains and losses on different statements, as well as
Vi) the role of contextual factors such as economic crisis or disaster events in sharpening investor interest in “Other” (OCI) items.

Overall, a case may be made for the development of a Statement of Integrated Comprehensive Income or Multicapital P&Ls, building on experience with developing alternative statements. Let us consider what this may look like, revisiting efforts to revise the income statement by defining value added in different and expanded ways.

### 4.2.2. STATEMENTS OF VALUE AND FULL COMPREHENSIVE INCOME (FCI)

The Value-Added Statement (VAS) refines the P&L account by expanding it with reference to wealth / value generation and wealth / value distribution, recognising both an entity performance dimension and societal performance dimension. Put differently, the performance of the reporting entity is also assessed based on its “social performance”. Value distribution is broken down in terms of the distribution of value among stakeholders (who have contributed to company performance) such as employees, financial and non-financial suppliers, government, as well as community and the environment (see Figure 11). The GRI Guidelines has referred to it as “direct economic value generated and distributed” (EVG&D – G4 Economic Indicator EC1), with the new GRI Standard Disclosure 201-1 breaking gross value distribution down in terms of operating costs, employee wages and benefits, payments to providers of capital, payments to
government by country, and community investments. The IIRC <IR> Framework recognises value addition in terms of wealth created and wealth distributed categorised – referring to the different capitals – by for example personnel expenditure (human capital), finance costs (financial capital) and government (social and relationship capital).

Figure 11: The Value Added Statement (VAS) - aligning mainstream financial and social responsibility accounts

Shortcomings in the usefulness of the VAS have also been identified. This, for example, emerged from a survey among report users in South Africa during the 1990s, a period when more than half of 400 companies listed on the JSE produced VASs that were included in their annual reports (see Van Staden 1998). Shortcomings related to factors such as a lack of standardisation and comparability, a lack of external assurance, how much more information is really provided in addition to what already appears in financial statements, and how much can be deducted from the information (for example, indication of productivity and mainstreaming versus philanthropy). Yet it is recognised that refined versions of the VAS can serve well to promoting reporting and accounting integration (see Aldama and Zicari 2012, Haller and Van Staden 2014 and Figure 12). The development of the VA figure over time can serve as a good (material) indicator of the future ability of wealth creation, a good indicator of the (in)dependency of a company and its business model to structural market changes, and a good indicator of interconnectivity between different capitals and stakeholder interests.

Included in the VAS can also be Intellectual Capital, one of the IIRC’s Six Capitals. A case can be made, if material, to disclose the direct revenues from intangibles (licences, trademarks, etc.) as components of operating VA separately in a refined VAS. This is reflected in the refined VAS below.
### Panel A: statement of sources of value added (value added generated)

<table>
<thead>
<tr>
<th>Description</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>XXX</td>
</tr>
<tr>
<td>Less</td>
<td>Cost of related bought-in materials and services (M&amp;S) XX</td>
</tr>
<tr>
<td>Less</td>
<td>Decreases in finished goods or work in progress XX</td>
</tr>
<tr>
<td>Sales-based gross operating value added</td>
<td>XXX</td>
</tr>
<tr>
<td>Plus</td>
<td>Increases in finished goods or work in progress (minus related bought-in M&amp;S) XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Self-produced non-current assets (minus related bought-in M&amp;S) XX</td>
</tr>
<tr>
<td>Production-based gross operating value added</td>
<td>XXX</td>
</tr>
<tr>
<td>Plus</td>
<td>Revenues from intangible assets (minus related bought-in M&amp;S) XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Other operating revenues (minus related bought-in M&amp;S) XX</td>
</tr>
<tr>
<td>Gross operating value added</td>
<td>XXX</td>
</tr>
<tr>
<td>Less</td>
<td>Depreciation of tangible fixed assets XX</td>
</tr>
<tr>
<td>Less</td>
<td>Amortization of intangible assets XX</td>
</tr>
<tr>
<td>Net operating value added</td>
<td>XXX</td>
</tr>
<tr>
<td>Plus</td>
<td>Income from investments and other financial instruments XX</td>
</tr>
<tr>
<td>Net ordinary value added</td>
<td>XXX</td>
</tr>
<tr>
<td>Plus/less</td>
<td>Value added from extraordinary items XX</td>
</tr>
<tr>
<td>Plus/less</td>
<td>Value added from discontinued operations XX</td>
</tr>
<tr>
<td>Total value added generated</td>
<td>XXX</td>
</tr>
</tbody>
</table>

### Panel B: statement of value added appropriation (value added distributed)

<table>
<thead>
<tr>
<th>Description</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee’s share</td>
<td>Net wages XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Wage taxes withheld XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Contribution to social security withheld XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Pension premiums XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Other additional employees benefits XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Bonuses XX</td>
</tr>
<tr>
<td>Total employee’s share</td>
<td>XXX</td>
</tr>
<tr>
<td>Government’s and society’s share</td>
<td>Income taxes XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Indirect taxes (e.g. VAT, tariffs, duties) XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Other public charges and duties XX</td>
</tr>
<tr>
<td>Less</td>
<td>Subsidies (from government) XX</td>
</tr>
<tr>
<td>Government’s share</td>
<td>XXX</td>
</tr>
<tr>
<td>Plus</td>
<td>Other contributions to society, such as donations, social activities, etc. XX</td>
</tr>
<tr>
<td>Total contributions to the public and society</td>
<td>XXX</td>
</tr>
<tr>
<td>Capital provider’s share</td>
<td>Interest paid XX</td>
</tr>
<tr>
<td>Plus</td>
<td>Dividends and other payments to shareholders XX</td>
</tr>
<tr>
<td>Total capital providers’ share</td>
<td>XXX</td>
</tr>
<tr>
<td>Value added retained in the organisation</td>
<td>XXX</td>
</tr>
<tr>
<td>Plus/less</td>
<td>Additions or reductions to retained earnings XXX</td>
</tr>
<tr>
<td>Total value added retained</td>
<td>XXX</td>
</tr>
<tr>
<td>Total value added distributed</td>
<td>XXX</td>
</tr>
</tbody>
</table>

*Figure 12: Refined Value Added Statement (VAS) model (Haller and Van Staden 2014)*
These versions of the VAS reflect monetised values based on market transactions and direct payments made by the producing entity that issues the statement. Experts have also experimented with expanded VASs that include:

I) monetised value estimations for externalities, and
II) those values presented not only for a particular / past year but for a future period ... for example 20 years (such as a project life cycle).

The above results in an Expanded Value Added Statement (EVAS – see Mook 2004) that includes direct and indirect outputs and impacts. What is described as indirect really refers to values that are not monetised and captured in conventional financial statements, notably externalities that are also not captured in the type of VASs discussed earlier. These additions in the expanded VAS reflect the externalities that can be found listed in more recent experimentations with alternative or integrated P&Ls and Total Contribution statements to determine Net Positive Impact (NPI) or adjusted Gross Value Added (aGVA).

Including the often non-monetised items in the form of externalities can substantially improve the ratio of a company’s value added to purchases (costs of external goods and services). This is provided that the experiment involves reasonable estimates and a balanced coverage of all significant positive and negative impacts. In addition, enabling analysis that puts these numbers in a broader context and comparison with core financial data will benefit from including them in combined, multilayered statements. This is what we suggest with the Statement of Full Comprehensive Income (FCI) as presented in Figure 13.

The multilayered Statement of FCI presents (i) Other Comprehensive Income, (ii) Value Added Distributed, as well as (iii) Indirect Benefits and Costs to arrive at a total FCI. It separates internalities (covered in the Value Added Distributed section) and externalities (covered in the Indirect Benefits / Costs section). The former presents monetary values based on recorded transactions between the reporting entity and others, while the latter presents monetary values based on scientific estimations. The items listed under the former covers the fields of ID Materiality and ED Materiality, while the items listed under the latter cover the fields of ED Materiality and EI Materiality. Breakdown categorisation of the items in the externalities layer can be refined to reflect capitals such as Human, Societal and Relationship, as well as Intellectual Capital. The “external” dimension of Human Capital in the form of “own employees” relates to issues such as work/life balance and the health impacts of societal phenomena such as epidemics.

4.3. BALANCE SHEET OR STATEMENT OF FINANCIAL POSITION

The balance sheet is key for assessing the level of risk associated with a reporting organisation. This includes indications of what the organisation owns, its level of debt and the extent to which it is leveraged or geared (borrowed capital versus investor capital). From a sustainability point of view, the presentation of assets and liabilities as per a certain date raises the following key questions:

- How accurate is the number that represents the value of its assets? Have fixed (non-current) assets been revalued recently? Does it include, for example, polluted land that is overvalued or biodiverse land that is undervalued? To what extent are intangible assets valued, recognised and appropriately amortised?
- What kind of debt providers are involved? Have they applied ESG criteria in doing due diligence and a credit risk assessment of the organisation involved? Is the level of debt (and therefore leverage) healthy, considering the industry and region the organisation is based in?
- What kind of investors are providing equity? Have they applied ESG criteria in their screening and analysis? Is it transient financiers or institutional ones applying longer-term time horizons in their investment decision-making?
Figure 13: The Statement of Full Comprehensive Income (FCI) and its cyclical relation to the Balance Sheet
On the depreciation of *tangible* fixed assets and the amortisation of *intangible* fixed assets, it is noteworthy that these can involve life times of several years. The domain of fixed (non-current) assets is therefore one where long-term planning is (should be) common and where the long-term investment decision-making perspective should be anchored. Consider examples of fixed assets such as property, plants and vehicles. A property or a power generating plant may have an assumed lifetime of 50 years, and a mining site 100 years. Consider examples of intangible (no physical substance, cannot be touched, seen or heard), non-current assets, such as patents, trademarks, licences and software.

The frequency with which fixed assets are re-valued depends typically on the volatility of the value of the asset involved, and/or whether there is a strong difference between current market value compared to book value. Significant change in real or estimated value may reflect deeper uncertainty about the resilience or future usability of the non-current asset involved. Take the case of stranded asset risks. The ACCA (2016) has recommended that fossil fuel companies publish valuations of their reserves using a range of disclosed price/demand scenarios. This comes against growing awareness of the impact that stranded assets or a carbon bubble could have on the market value of fossil fuel companies. Analysis of annual reporting by fossil fuel producers has shown that many are recognising asset impairments. For any company from a climate high-impact industry, it may be asked how much carbon it has on its balance sheet. For industries vulnerable to the physical impacts of climate change, questions may be asked about the likely future value of their property considering different climate scenarios.

### 4.3.1. INTANGIBLE ASSETS

How much we can read from a balance sheet is influenced by what appears on or off the balance sheet, as well as the reliability of values reflected on the balance sheet. Weakness in the latter has been exemplified with a growing debate on the value of Intangible Assets (IAs) and the growing gap between book value and market value. In its *Statement and Guidance on Non-Financial Business Reporting* (2008), the International Corporate Governance Network (ICGN) recognised among benefits of non-financial reporting the ability to better capture intangibles, assets whose market value may be impaired by mismanagement.

The birth of the IIRC <IR> Framework was in part a response to the seeming inability of conventional annual reporting and traditional financial statements to effectively address the creation, maintenance and pricing of IAs. These have been of growing importance in recent decades. Studies by Ocean Tomo (2015) has signalled how IAs have accounted for close to 85% of market value of S&P500 companies by 2015 compared to only 17% in 1975. Fundamental equity analysis needs to be revised to effectively address the growing importance of IAs. These assets are especially important to less heavy industries, for example the service industries, where topics such as talent management, reputation and trust are highly material.

Frustration with the inability of conventional statements to capture the value of IAs relate to a broader sense that conventional GAAP-based approaches to accounting and reporting “do not readily portray the value created by social investment – for either the organisation or for society” (Adams et.al. 2016). At stake here is therefore not only value destruction but also value creation, including the opportunity costs of not effectively capturing value that feeds back into the long-term value of the company itself.

Research on investment in different IAs and the resultant impact on competitive advantage has illustrated the interrelationships between tangibles and intangibles, as well as challenges in monetising the costs and benefits of investment in IAs (see Greco et al. 2013). Figure 14 lists a variety of IAs grouped as value drivers in two main categories, the Relationship Category and the Knowledge Category, each with their own subcategories. Tacit knowledge refers to the tacit know-how of human resources and the
corporate culture within the organisation, while explicit knowledge refers to the intellectual property of the organisation (e.g. trademarks, patents and licences) and its processes.

In financial accounting IAs are categorised, importantly, in terms of whether they are (a) purchased or internally created, and (b) whether they have limited life or indefinite life. Important in defining IAs is whether – associated with assets that lack physical substance – there are transactions that allow economic benefits to be reflected on financial statements. Another key consideration is whether it involves resources that are likely to be the primary sources (value drivers) of the company’s future cash flows – for example brand name or trademark in the case of an agrifood retailer. Many IAs are industry-specific. Whether an asset resorts under “goodwill” or not depends on whether it is, or is not, separately identifiable as of an acquisition date. For example, the workforce of an acquired company cannot be separated (sold or transferred separately) from it, and the value of that workforce is therefore subsumed under goodwill in an acquisition (Cheng et al. 2016: 42).

With respect to measuring IAs, the “fair value” (exit price a party would be willing to pay when selling the IA) versus the initial purchasing price of the asset can be determined, as stipulated in the FASB Accounting Standards Codification (2009), based on three approaches, namely (i) the market approach (assets actively traded), (ii) cost approach (replacement costs based on production costs) and (iii) income approach (future amounts to be derived from the asset converted to a single current or present value using a discount rate). IAs often lack an active market in which they are traded, and production costs are not easily defined to determine replacement costs, which leaves the need for pursuing estimations of future income. As noted in chapter 4 on the principle of recognition, work on valuation of Natural Capital has made good progress over the last two decades in applying exactly these three mentioned approaches to determine Total Economic Value (TEV).

Figure 14: Categories and components of the IA Value Drivers tree (Greco et al. 2013)
If IAs are of such increasing importance, and decision-makers need greater clarity on how they contribute to value creation, how can mainstream statements be revised to facilitate better informed decision-making in this respect? How can the conventional balance sheet or statement of financial position be revised to capture the value of IAs and address the gap between book value and market value? We seek to answer this in the next section with the proposal for an expanded, two-layer balance sheet.

4.3.2. THE EXPANDED BALANCE SHEET AND STATEMENT OF LONG-TERM RISK

Blueprint 1 speaks of the evolution from double-entry bookkeeping – which was good enough for the throughput economy – towards multicapital bookkeeping, which will be required in the making of the circular economy. Figure 13 shows the logical link between balance sheets and income statements, the latter presenting flows associated with business activity during a certain period and the relative efficiency with which assets or different resources have been used to arrive at a certain financial position at the end of the financial year. Our proposed Statement of Full Comprehensive Income (FCI) provides an important pillar in supporting circular economic approaches, as its recognition of externalised and indirect costs and benefits addresses, among others, value-destroying activities such as the generation of waste. Both management and sustainability accounting will play key roles in defining the relevant costs and benefits, including ways in which alternative business models, products and solutions will turn value destroying into value creating, circularity-minded business activities.

But if the conventional financial P&L needs to be replaced by a more comprehensive, multilayer income statement on value addition, what should be expected of the conventional statement of financial position? What would an alternative balance sheet look like, one that reflects the dependence on multicapital assets and risks (or opportunities) associated with their condition (stocks) at a certain point in time? How would an alternative balance sheet, covering among others IAs that are key for product or business model innovation and long-term transformation, give an indication of True Future Value? One can also ask if the existing balance sheet should be expanded, or if in addition, companies should be expected to accompany the current statement of financial position with a Future-Date Balance Sheet of financial or value position, say, twenty years onwards.

In the following pages we present an expanded balance sheet, the Comprehensive Statement of Financial Position for the current or past year (Table 9). It adds a new layer to the conventional balance sheet, referring to the market value of the enterprise to come up with a new total, which is Total Comprehensive Liabilities and Market Value of Owners Equity. The market value and associated Price/Book Value Ratio is calculated on the basis of the share price as at 31 December. To avoid the impact of short-term shock events, the share price can be taken as the average price of the last month.

On the left-hand side of the expanded balance sheet, the reporting entity is invited to give its estimation of the relative contribution of its non-purchased tangible and IAs with indefinite life to the difference (gap) between market value and book value. If the share is undervalued, the reporting entity can give an estimation of the relative values of such non-purchased assets which are not effectively recognised by the market and which would make the difference in taking the Price/Book Value Ratio to par and beyond 1/1. Of course each enterprise would make the case that its shares are worth substantially more. If a reporting enterprise added up more or less scientific estimations of the assets involved – for example brand value, reputation value, or employees value – it may result in a grand total far more than Total Comprehensive Liabilities (including Market Value of Owners Equity). However, short of giving reporting entities a complete blank check in suggesting the real value of their enterprises, the expanded statement uses current Market Value to set a ceiling.
Note also that the second layer of the expanded balance sheet differentiates between "own" and "shared" capitals, the latter providing for the social, relationship and natural capitals. Including "shared capitals" shows that our expanded balance sheet goes beyond a focus on "assets" as only "resources controlled by an entity" (own emphasis), as defined in the IFRS Conceptual Framework (2015). This addresses the shortcoming in IFRS highlighted during the Virtual Dialogue on Exposure Draft 2.0 of the Blueprint in 2018, when Helen Slinger of Accounting for Sustainability (A4S) noted:

"an asset is defined as 'a resource controlled by the entity' ... excludes resources upon which the company relies if they are not controlled by the entity. In other words, it assumes they have no value to the company, which in turn implies that any change in the condition or value of them has no impact on future economic benefits expected to flow to the entity... how can an accounting system designed to measure and report on the value of companies be appropriate, if it drives natural destruction and neglects social welfare? It can't. Furthermore, the reported position and performance of a company using this accounting system is unlikely to be a true and fair reflection of the relevant 'state of affairs' of that company at any given time."

Own capitals include controlled resources in the form of Human Capital and the workforce of the reporting entity, one of the most obvious assets whose absence on conventional balance sheets many find surprising. Most financial accountants would agree that IASB recognition criteria could be met for Human Capital. An entity can measure the value of its workforce, and prove future economic benefit associated with the cost and investment involved. Why then could the value of the workforce not be capitalised on the balance sheet? The value that a reporting entity would enter on our expanded balance sheet would focus not on expenditure on employees, but rather on investment in employees – i.e. capturing activities that are expected to generate income beyond one year (longer term). Calculating the value of Human Capital will therefore be based on components such as total compensation and expected income – the reporting entity will generate economic income returns from Human Capital in future periods.

The Social and Relationship Capital is dependent on the reporting entity taking action, meaning it co-creates the capital and can bring it to an end if it so wishes. Being co-created, it remains at best shared and cannot be owned. In the case of Natural Capital, this refers to external assets that may belong to others or may be a public good. Different from a company's own land and assets, as reflected in the conventional balance sheet, these external Natural Capital assets can at best be shared and its services purchased. As the expanded balance sheet uses Market Value to set an overall ceiling to what is reported as Total Comprehensive Assets in the Comprehensive Statement, the real value of external Natural Capital assets that the reporting entity relies on is likely to be substantially greater than what is reflected in this statement. The statement only gives an estimation of relative importance, as currently recognised by the market, of that portion of Natural Capital services on which the entity is directly and highly dependent.

What the expanded Balance Sheet does is to provide for more informed decision-making related to the gap between book value and market value today (this year). It seeks to present a more complete Statement of Financial or Value Position. But related to future direction and prospective outlook, a remaining question is that of future risks related to long-term assets as reflected on the conventional balance sheet. To address this, we suggest a Statement of Long-Term Risks and Estimated Non-Current Asset / Liability Value (see Table 10). Partially a Future Balance statement addressing future value, this statement presents a combination of quantitative, financial and qualitative, explanatory information. The reporting entity is invited to provide estimations (range) of what may be the value of its long-term assets and liabilities twenty years from now. For industries such as oil and gas, mining, power generation and water services, it is common to do planning related to assets with lifespans of for example 50 to 100 years. For the purposes of facilitating a discussion on long-term risk across industries, a period of 20 years however suffices – a period for which demographic and other trends are understood with greater certainty.
Table 9: The Comprehensive Statement of Financial Position / Balance Sheet as at 31 December

<table>
<thead>
<tr>
<th>Current Assets:</th>
<th>Current Liabilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cash</td>
<td>• Short-term debt</td>
</tr>
<tr>
<td>• Accounts Receivable</td>
<td>• Owed to banks</td>
</tr>
<tr>
<td>• Inventories</td>
<td>• Current portion of Long-term debt</td>
</tr>
<tr>
<td>• Prepaid expenses</td>
<td>• Accounts Payable</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td><strong>Total Current Liabilities:</strong></td>
</tr>
<tr>
<td><strong>104</strong></td>
<td><strong>54</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-current Assets:</th>
<th>Non-current Liabilities:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Land</td>
<td>• Long-term debt</td>
</tr>
<tr>
<td>• Buildings and improvements</td>
<td>• Total Non-current Liabilities</td>
</tr>
<tr>
<td>• Equipment</td>
<td><strong>42</strong></td>
</tr>
<tr>
<td>• Less accumulated depreciation</td>
<td>• Common Stock</td>
</tr>
<tr>
<td><strong>Total Non-current Assets</strong></td>
<td><strong>45</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL ASSETS:</th>
<th>TOTAL LIABILITIES AND OWNERS EQUITY:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>169</strong></td>
<td><strong>169</strong></td>
</tr>
</tbody>
</table>

Non-Purchased (e.g. self-created or shared) Intangible or Tangible Assets of Indefinite Life (key factors generating value beyond 1 year, explaining difference between Book Value and Market Value):

- Difference Book Value (total shareholders equity) to Market Value (market value of 146 based on Share Price/Book Value 2/1 as at 31 December): 73

Own:

- **Human Capital** – e.g. employee competencies, capabilities and experience: 30
- **Intellectual Capital** – organisational capital e.g. leadership, tacit knowledge, systems, procedures, governance protocols and brand value: 20

Shared:

- **Social and Relationship Capital** – reputation, impact value proposition, institutions and the relationships within customers, communities, other stakeholder groups or networks: 15
- **Natural Capital** – shared (non-owned) renewable and non-renewable natural resources and processes: 8

Total Non-Purchased (e.g. self-created) Intangible or Tangible Assets of Indefinite Life: 73

TOTAL COMPREHENSIVE ASSETS: **242**

TOTAL COMPREHENSIVE LIABILITIES AND MARKET VALUE OF OWNERS EQUITY: **242**
Table 10: Statement of Long-Term Risks and Estimated Non-Current Asset / Liability Value

<table>
<thead>
<tr>
<th>Non-Current Assets in 20 yrs:</th>
<th>Non-Current Liabilities in 20 yrs:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Forecast value of purchased or paid-for Non-Current Assets at 31 December 2040:</strong></td>
<td><strong>Forecast value of Long-term Debt at 31 December 2040:</strong></td>
</tr>
<tr>
<td>• Land (natural capital)</td>
<td>• Long-term debt</td>
</tr>
<tr>
<td>Brief description of long-term risk, valuation, assumptions, scenario used and possible future implications for investment, restructuring, write-downs, or impairment.</td>
<td>Brief description of value calculation and assumptions, key financial risks involved including expected debt – equity structure / leverage and ability to repay / refinance existing debt or creditworthiness as a result of impact of long-term asset-related risks.</td>
</tr>
<tr>
<td>• Reserves (natural capital, recoverable – non-extracted and extracted, e.g. water, minerals, oil for which title rights held).</td>
<td>00</td>
</tr>
<tr>
<td>Brief description of key long-term risk, valuation, assumptions, scenario used and possible future implications for investment, restructuring, write-downs, or impairment.</td>
<td></td>
</tr>
<tr>
<td>• Buildings (built capital)</td>
<td>00</td>
</tr>
<tr>
<td>Brief description of key long-term risk, valuation, assumptions, scenario used and possible future implications for investment, restructuring, write-downs, or impairment.</td>
<td></td>
</tr>
<tr>
<td>• Equipment (manufactured capital)</td>
<td>00</td>
</tr>
<tr>
<td>Brief description of key long-term risk, valuation, assumptions, scenario used and possible future implications for investment, restructuring, write-downs, or impairment.</td>
<td></td>
</tr>
<tr>
<td>• Financial assets (financial capital)</td>
<td>00</td>
</tr>
<tr>
<td>Brief description of key long-term risk, valuation, assumptions, scenario used and possible future implications for investment.</td>
<td></td>
</tr>
<tr>
<td>• Intangible assets (intellectual capital-based, purchased, with limited / identifiable life – incl patents, copyrights, licences, software, contracts, leaseholds and trademarks).</td>
<td>00</td>
</tr>
<tr>
<td>Brief description of key long-term risk, valuation, assumptions, scenario used and possible future implications for investment, restructuring, write-downs, or impairment.</td>
<td></td>
</tr>
</tbody>
</table>
New Accounting will therefore challenge the reporting entity to illustrate to stakeholders that it is prepared and able to exercise informed decision-making about long-term risks associated with its non-current tangible and intangible assets. These include land, reserves and building property that may be vulnerable in the face of global climate change. The brief descriptive text provided by the reporter in the Statement of Long-Term Risks can be expanded on in narrative reporting, as addressed in the following section of this Blueprint. Compared to the Comprehensive Income Statement and its coverage of flows, this combination of the expanded balance sheet and statement of long-term risks addresses current and future stocks. Its presentation of financial and explanatory information in a balance sheet-like structure serves to enhance integration and narrows the gap between narrative discussion and financial statements. It presents an approach more focused on timely values and less on the reliability of numbers, resulting in what ICAEW (2016: 18) has referred to as a form of Full Fair Value Accounting. It follows the prediction that “in the New Economy, companies will need to continuously measure and report all assets at fair value to all users” (Boulton et al, 2000). And the fair or market value of today incorporates expectations of future value.

Note that the proposed forward-looking Statement (Table 10) focuses on “purchased or paid for” non-current assets, while our proposed expanded Balance Sheet adds “non-purchased (e.g. self-created or shared)” assets of indefinite life. A more ambitious version of the forward-looking Statement could also list estimated future values for non-purchased assets (such as the value of a shared natural resource) and non-purchased debt (such as a debt owed to nature due to the use of a shared natural resource). The existence of non-purchased or non-paid-for debt raises the possibility of systemic risk, and in the case of an unsustainable debt, that involves the degeneration of a public resource beyond healthy thresholds. The implications of this and proposal work with scientific allocations in such cases is addressed in the 3.0 Reporting Blueprint. As is the case with stranded assets when dealing with purchased or paid-for assets, such situations will require a supplementary narrative (including Notes to the statement) that, for example, describes transitional plans. The narrative therefore completes the meaningfulness of what is presented in predominantly quantitative statements, which takes us to the next chapter on Narrative Reporting.
4.4. RECOMMENDATIONS ON INTEGRATED STATEMENTS

Based on our discussion on Financial Statements, alternative versions thereof and our proposed expanded, forward-looking and integrated statements, the following recommendations are made for corporations, standard setters, providers of financial capital and regulators.

4.4.1. RECOMMENDATIONS FOR REPORT PREPARERS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>49. Task newly formed, multidisciplinary accounting teams to assess alternative statements and come to an understanding of the implications of developing integrated P&amp;Ls and alternative balance sheets, including multi-layered and mainstreaming versions thereof.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>50. Engage with research, professional, standards setting and regulatory bodies on experience gained with the development of alternative statements. Shape agreement on areas of where standard guidance or regulation is required to ensure that fully comprehensive statements can be developed most effectively and efficiently.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>51. Have newly formed, multidisciplinary accounting teams initiate an agreed approach and development of fully comprehensive statements for your organisation, including multi-layered income statements that capture material externalities and statements of current/future value position with estimations of key intangible assets and long-term risks.</td>
</tr>
<tr>
<td>STAGE</td>
<td>RECOMMENDATION</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>EDUCATE</td>
<td>52. Organise joint management education seminars for staff members so that finance, management and sustainability accountants participate and learn jointly about the evolution of mainstream and alternative statements. Debate the content of new integrated, fully comprehensive statements.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>53. Convene with research service providers and ratings organisations such as the Global Initiative for Sustainability Ratings (GISR) to enhance agreement on common approaches to support the development of alternative and reliable, integrated statements by enterprises.</td>
</tr>
</tbody>
</table>
| ACCELERATE| 54. Task the management accounting profession to define efficient approaches and best practices for putting in place systems that enable the gathering and analysis of relevant information from project and product level to business unit and organisation-wide level with the goal of producing aggregate, comprehensive and forward-looking statements.  
55. Agree on a roadmap with allocated responsibilities for the development and agreement on approach and content of fully comprehensive, integrated statements – statements of full comprehensive income, value position and future risks. |
### 4.4.3. RECOMMENDATIONS FOR PROVIDERS OF FINANCIAL CAPITAL

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>56. Use educational events to ensure fund managers and analysts understand evolving approaches and the meaning of alternative statements, including expanded income statements and alternative balance sheets to provide more comprehensive coverage of different assets and liabilities, intangible items and long-term risks.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>57. Engage partners from the upstream to the downstream of financial value chains to recognise, use and encourage the development by enterprises of alternative and integrated statements, comprehensively covering key elements of efficient use of different capitals as well as current/future assets and liabilities to better inform lenders and investors.</td>
</tr>
</tbody>
</table>
| ACCELERATE | 58. Develop assessments and commentaries on alternative statements (including integrated P&Ls or Total Contribution statements) published in recent years by leading corporates, defining areas for improvement and ways of scaling up.  
59. Jointly define strategic shortcomings in current, conventional financial statements and recommend priority areas for improvement, suggesting to professional accounting and standards bodies key items to be covered in comprehensive, intercapital statements of a New Accounting practice. |
### 4.4.4. RECOMMENDATIONS FOR REGULATORS AND GOVERNMENTS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>60. Internal capacity building programmes for governmental officials from diverse departments need to include coverage of new approaches by business to capture multicapital impacts in alternative statements, including the identification of areas where policy and regulations facilitate or provide barriers to finding reliable, standard ways of capturing externalities in economic terms.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>61. In collaboration with professional bodies, educational institutions and standard setters, consider ways of supporting their efforts to advance the development by business of alternative statements, ones that track multicapital impacts and communicate performance in ways that prevent long-term market failure and value destruction.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>62. Issue policy statements and guidance that acknowledge the contribution of alternative statements and suggest ways of framing new, intercapital statements in ways that consider principled approaches to integrated risk management, informed markets, long-term business development and intergenerational equity.</td>
</tr>
</tbody>
</table>
5. NARRATIVE REPORTING

5.1. INTRODUCTION: MOVING TOWARDS MORE HOLISTIC UNDERSTANDING

In the future we anticipate that accounting will provide a foundation for different forms of disclosure and reporting in diverse formats for different audiences with diverse information needs. This includes so-called “narrative reporting”, which in future could be qualitative text provided in different forms of periodic or annual reporting. As signalled in the previous chapter, narrative reporting contributes to the meaningfulness of statements and serves to ensure that the metrics found in statements are interpreted in the appropriate (including operational, market and sustainability) context.

Following the financial crisis of 2008 onwards, a practice statement on management commentary was issued by the International Accounting Standards Board (IASB, 2010) recognising that reporting is likely to become increasingly narrative (see Fraser et al. 2010). The increase in the importance of management commentary was positively related to financial statement complexity. In other words, as financial statements of large organisations became increasingly complex and full of clutter, including wide-ranging footnotes, it was up to the front-end of annual reports with its narrative text to give it all a holistic, integrated and understandable meaning. This, among others, raised questions related to an apparent disconnect between the front-half and the back-half of annual reports, the audit and assurability of different types of potentially biased information disclosed, as well as the level of skill and interest shown by investors and other stakeholders in both the front and back-half of annual reports (cf ICAS 2016).

The Enhanced Business Reporting Consortium published an exposure draft of The Enhanced Business Reporting Framework in 2005. It sought to provide structure for the type of narrative discussion required in many countries, current examples of which are the MD&A in the US, the Operating and Financial Review (OFR) in Australia and the Strategic Review in the UK. It provided a framework of 35 recommended disclosure categories under four headings: Business Landscape, Strategy, Resources and Processes, and Performance. Today, thinking on the non-financial parts of annual reports has evolved with more focus on the business model, the value creation process (including transformation of multiple capitals), governance, risks and opportunities, strategy and trends in quantitative and qualitative metrics. This trend has been influenced by the international <IR> Framework, including where report preparers have not explicitly referenced it (see Adams et al, 2016).

An issue here is not just how narrative reporting is structured, but also – if not more importantly – how different reports and sections are connected. Many integrated reporters have failed to effectively make the link between strategy, goals, targets and performance indicators. A holistic and faithful picture of the value creation process is therefore missing. Speaking about evidence of a “red line link through purpose, strategy, process and people” in assuring non-financial information, Ken Weldon of PKF underlined during the February 2018 Virtual Dialogue on the Blueprint that the auditor needs to see a true “whole of organisation governance”.

5.2. STRATEGIC CONTENT OF NARRATIVE REPORTING

Reporting on business models

The European Financial Reporting Advisory Group (EFRAG, 2014) argues that the business model should play a role in “financial reporting”\(^9\) and be considered in the IASB’s Conceptual Framework, noting that

\(^9\) This was also the topic of an earlier report published by the Institute of Chartered Accountants in England and Wales (ICAEW, 2010).
their views are shared by financial reporting standards setting bodies in France, Germany, Italy and the UK. They argue that an understanding of the business model is essential to follow the Conceptual Framework’s fundamental principles of relevance and faithful presentation. In their view, an understanding of the business model is necessary to: determine future cash flows from long term assets; produce accounts which reflect economic reality; and, inform about changes in the business model and hence changes in how assets and liabilities are used. The EFRAG report provides an example of the business model being ignored by IAS 16 Property, Plant and Equipment, where the chosen depreciation policy is applied to a whole class of assets regardless of how they are used.

EFRAG (2014) went through a similar exercise to Gould et al. (IIRC 2013) when writing the Business Model Background Paper for <IR> in examining what the term meant. Whilst EFRAG uses the term “value creation”, which is central to the <IR> Framework, the focus of their discussion of the business model is much more about the process of driving profitability and generating revenue, than is the definition used by the IIRC:

> “An organisation’s business model is its system of transforming inputs, through its business activities, into outputs and outcomes that aims to fulfil the organisation’s strategic purposes and create value over the short, medium and long term.” (IIRC Framework 2013: 33)

where value creation reflects changes in multiple capitals – not just financial capital:

> “The process that results in increases, decreases or transformations of the capitals caused by the organisation’s business activities and outputs.” (IIRC Framework 2013: 33)

The UK’s Financial Reporting Council (FRC) has similarly defined the business model in narrower terms as:

> “what the company does, how it does it, and how it creates economic value now” (FRC 2016: 6, emphasis in original).

The IIRC’s broader definition is reflective of the increased importance of narrative reporting, driven by a need for non-financial information to assess an organisation’s ability to create value in the future. This definition, and the thinking behind it about the substance of how an organisation does business and creates value, deserves consideration as a basis for new financial reporting as well as non-financial reporting. In terms of financial reporting, the focus would be on cash flow generation and profitability, but with the understanding that transformations of other forms of capital could drive cash flow generation and profitability, particularly in the medium and longer term. Definitions of the business model as focusing solely on cash generation or short term economic value fail to: 1) address the concerns of significant investors (such as pension funds) on long-term returns; and, 2) recognise the importance of non-financial capitals in generating financial capital.

Value creation and the value creation process

Value creation, the value creation process and the multiple capitals are fundamental concepts of the <IR> Framework (IIRC, 2013). The <IR> Framework encourages organisations to think of multiple capital inputs to the process of creating value for the organisation and its stakeholders. The process of thinking about what value means for an organisation and how it is created is referred to as integrated thinking. It has been found to be particularly valuable in articulating and developing a shared understanding of what an organisation does. The multiple capital model broadens and deepens understanding about how value is created (or diminished) (see Adams, 2017).
The IR Framework provides a framework for capturing value creation drivers and reflecting these in (reporting on) strategy. The IR Framework encourages organisations to identify multiple capitals and external factors, including social, environmental and institutional factors, which are required in or impact on the value creation process. These are incorporated into the development of the organisation’s strategy to create value. Organisations should disclose material externalities impacting on strategy and capitals needed to deliver on it. Reporting should also consider how the organisation delivered on its previous year’s strategy and capitals transformed in that process.

Risk reporting: business, market and ESG risk

A number of issues have been identified with the current level and quality of risk reporting and strong arguments have been put forward regarding benefits to both users and reporting organisations for better reporting (ACCA, 2014; Elshandidy et al., 2015; FSB, 2012; Ryan, 2012). Arguments put forward by the ACCA (2014) for better risk reporting include:

- increased investor confidence in the quality of management,
- provides a better idea of how a company’s performance will be affected if a risk materialises,
- demonstrates Board accountability, and
- adds value to the reporting organisation.

Regulation and Stock Exchange requirements for risk reporting vary considerably across jurisdictions (ACCA, 2014; Elshandidy et al., 2015). The extent and nature of mandatory risk reporting requirements have been found to be significantly associated with the nature of the legal system and culture. There have been calls for risk reporting to be, for example, clear, balanced, understandable, comprehensive, relevant, consistent over time, comparable across an industry, provided on a timely basis (FSB Enhanced Disclosure Task Force, 2012). It has also been argued that risk reporting should present risks in a well-structured format, separate components of comprehensive income (CI) that are primarily driven by variations in cash flow versus those primarily driven by variations in the cost of capital, use fair value accounting and disclose primary historical and forward-looking attributes with respect to model-dependent risk disclosures (Ryan, 2012).

ESG risk and opportunity can have a major impact on an organisation’s strategy and hence on its ability to create value (Adams, 2017), and should be reported on to the extent that they have a (potential) material impact. ESG risk consideration has tended, however, to be an add-on rather than something considered and reported alongside other risks the organisation faces. New Accounting will incorporate ESG risk assessment into mainstream risk consideration. Accompanying the multilayered and expanded income statements and balance sheets, with the statements of Long-term Risks and Estimated Asset / Liability Value, narrative reporting would add further explanations of context, methodology and the financial figures provided in these statements.

Governance reporting

Good governance is essential to quality reporting (IFAC, 2011). National corporate governance codes in countries worldwide require reporting on compliance with the national corporate governance framework – in many cases explicitly requiring the inclusion of a Corporate Governance Report (i.e. separate chapter) within the annual report.
The increase in corporate governance disclosures over the last two decades can be attributed to:

- corporate governance scandals (such as Enron, Worldcom and VW10) (Hermalin and Weisbach (2012);
- reporting frameworks which require Board involvement in reporting and/or specified governance disclosures (see Adams, 2017);
- concern about executive pay (Hermalin and Weisbach (2012); and,
- concern about gender diversity and breadth of experience of the Board where the concerns are accountability, performance and/or having the Board take responsibility.

Whilst Boards are required to take responsibility for financial reporting and integrated reports that follow either the King IV Code (in South Africa) or the International <IR> Framework (IIRC, 2013), they have traditionally had little or no involvement in sustainability reporting (although Chan et al., 2014 found a link between governance quality and CSR disclosure). Adams (2017) found that Board involvement in reporting, specifically integrated reporting, could improve the Board’s understanding of the purpose of the business and their responsiveness to, and understanding of, ESG risk. This is especially important considering the duty of Board directors “to exercise reasonable care, skill and diligence”, an area that Garratt (2012) has signalled is one where most Boards fail.

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10 See https://drcaroladams.net/the-vw-scandal-green-revenue-manipulation-and-corporate-governance/
5.3. RECOMMENDATIONS ON NARRATIVE REPORTING

Based on our discussion on Narrative Reporting, we present recommendations for corporations, standard setters, providers of financial capital and regulators. These recommendations are concerned with improving the quality and increasing the quantity of narrative disclosures on the business model, the value creation process (including transformation of multiple capitals), governance, risks and opportunities, strategy and trends in quantitative and qualitative metrics. The recommendations are aligned with the International <IR> Framework (with the exception that they acknowledge a diverse audience with different information priorities), the work of the GRI on metrics and recent regulation on narrative reporting such as the OFR in Australia and the Strategic Review in the UK. The recommendations also cover actions required to develop “integrated thinking” as defined in the International <IR> Framework.

5.3.1. RECOMMENDATIONS FOR REPORT PREPARERS

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<tr>
<th>STAGE</th>
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<tr>
<td>EDUCATE</td>
<td>63. Develop multidisciplinary accounting, reporting and communications teams to reassess their current approach to narrative reporting.</td>
</tr>
<tr>
<td></td>
<td>64. Identify key weaknesses related to the lack of consistency and connection between different narrative disclosures, including lack of connectivity and limitations in the communication of the business model, transformation of multiple capitals, governance, risks &amp; opportunities, strategy and trends.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>65. Engage with key stakeholder groups on the content of narrative reporting on material matters, including areas of improvement in the complementary roles of different narratives in different types of reporting or disclosure.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>66. Collaborate with standards setting organisations and regulatory bodies in developing narrative reporting guidance.</td>
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### 5.3.2. RECOMMENDATIONS FOR STANDARD SETTERS

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<tr>
<td>EDUCATE</td>
<td>67. Engage with users and preparers from the financial, management and sustainability accounting domains to assess the extent of misalignment or complementarity of narrative disclosures in different types of periodic reports.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>68. Engage with professional bodies, responsible investor and sustainable finance initiatives and regulatory bodies on the decision-usefulness and common but differentiated purpose and standardisation needs of narrative disclosures in different types of reporting.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>69. Through collaborative processes reach agreement on standard, key content elements such as: organisation (including corporate governance); business strategy &amp; value creation; risks (current / future, trends); opportunities (current/future, trends); and, contextualised analysis of performance (including non-financial and qualitative metrics). Develop guidance on these matters.</td>
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### 5.3.3. RECOMMENDATIONS FOR PROVIDERS OF FINANCIAL CAPITAL

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<tr>
<td>EDUCATE</td>
<td>70. Providers of educational programmes and qualifications in credit and investment management need to develop and provide good practice publications and courses with comparative analysis of narrative reporting from financial, integrated and sustainability reports by corporations, and related guidance by bodies such as the IASB, IIRC and GRI.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>71. Engage partners from the upstream to the downstream of their value chains to refine and promote their recommendations on decision-useful and accountable narrative reporting including preferences on key narrative content elements.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>72. Collaborate with professional organisations and standards bodies of the financial, management and sustainability accounting domains to support the development of guidance on aligned approaches to narrative reporting and content elements.</td>
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</table>
### 5.3.4. RECOMMENDATIONS FOR REGULATORS AND GOVERNMENTS

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<tr>
<td>EDUCATE</td>
<td>73. Develop internal capacity building programmes for governmental officials from diverse departments (including finance, business &amp; industry, labour, environment, welfare and statistics), which include trends in international narrative reporting standards and corporate narratives on value creation and impact connected with public goals such as the SDGs.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>74. Through collaboration with local professional bodies, educational institutions and standard setters, develop ways of supporting their efforts to promote decision-useful and accountable narrative reporting that enables a context-based and reliable assessment of multicapital impacts and longer term value creation.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>75. Develop policy statements, guidance and initiatives that promote decision-useful and accountable narrative reporting by corporations. This includes addressing strategic risks and opportunities related to multi-capital and systemic developments such as climate change.</td>
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</table>
6. DISCLOSURE TIMEFRAME, AGGREGATION AND STRATEGIC OUTLOOK

6.1. INTRODUCTION TO TIME AND STRATEGIC FRAMING

Our discussion on statements showed how important the presentation of accounting information can be, considering its ability to effectively inform the users of reported information. As important as the presentation, including structure and centralisation or disaggregation of information, is the timing with which performance information is disclosed. It remains to be seen what impact new IT capabilities and the possibilities of realtime data disclosure will have on accounting practice and human behaviour. The reliability and discipline with which organisational performance information is collected, processed and reported have been a signal of the importance attached to it, as well as the level of experience in having established the required accounting systems.

While time has a different value in different industry sectors, senior executives and managers are challenged to maintain a sense of balance when processing the immediate operational needs of today, expectations for the coming months and planning for years ahead. The same applies to accountants. While sustainability and management accountants are used to working with longer-term and future-focused developments, financial accountants are confronted with the daily realities of implementation and pressure for reporting results on a quarterly or short-term basis. This highlights the need for sustainability accountants to learn from financial accounting about the discipline and controls of delivering reliable information on a periodic basis. It also highlights the need for financial accountants to learn from corporate finance, strategy and sustainability about keeping track with longer term and systemic developments.

Leading the definition of key accounts and setting up comprehensive accounting systems, what specifications should a Chief Integrated Accounting Officer give to her accounting and IT professionals? How many years of data need to be covered? How frequently should overall results be reported, internally and externally? How would backward-looking versus forward-looking information be dealt with differently, and what are the related research, analysis and resource allocation requirements? We start by reflecting on these questions for New Accounting by revisiting the expected types of information and frequency of disclosures.

6.1.1. HISTORICAL DATA AND LONG-TERM, FORWARD-LOOKING INFORMATION

Large businesses are under pressure to report more forward-looking information. What is the content of “forward-looking” information? It can be forecasts about earnings, revenues, cash flows, special expenses or capital expenditures, as well as the disclosure of business plans or strategies alongside defined risks and opportunities. Probably no issue demands future, long-term focused disclosure more than that of climate change. Seeking to promote more structured and standardised information in climate-related financial disclosures, the FSB Task Force on Climate-related Financial Disclosures (TCFD, 2016) defined four core areas of disclosure: metrics and targets, risk management, strategy and governance. It addresses the forward-looking dimension by recommending scenario analysis, seen as key to better understanding the potential financial implications of climate change on an organisation. The Task Force noted: “It is important to undertake both historical and forward-looking analyses when considering the potential financial impacts of climate change on an organisation, with greater need for forward-looking analyses as the efforts to mitigate and adapt to climate change are without historical precedent” (TCFD 2016: 10).

The TCFD leaves it to reporting organisations to decide what timeframes they apply when assessing short, medium and long-term impacts, considering for example the life of their assets and the profile of
the climate-related risks they face. An example of sector specifics is that of water services. Many of the A4S CFO Network members involved in its “managing future uncertainty” project are water services companies, for whom the assessment of risks to water resources and water management systems over a timeframe of 50 to 100 years is common. The need for a long-term focus in decision-making is given. In its comments on the TCFD Dec 2016 Recommendations, the Network for Sustainable Financial Markets (2017) has urged for longer-term strategic planning disclosure requirements. It argues that climate-related disclosures will lack necessary information if they do not disclose whether a company has a strategic plan extending 5 to 20 years into the future (or longer, depending on the industry). It cited the example of Toyota, which recently disclosed a 35-year strategic plan and technology roadmap.

In its assessment of the influence of accounting practice on long-term versus short-termist investment decision-making, the ICAEW (2016) has considered whether requiring companies to publish long-term series of data as supplementary information in financial reporting could improve management accountability for long-term performance. This could involve providing 20 years of data on key financial reporting indicators. At the same time, it pointed to the reality that investors already construct and manage their own data series on companies, based on their own analysis of annual reports or data they buy from third-party, commercial information providers. With respect to the forward-looking, long-term future, a further consideration is also the fact that, in our Internet world, change can be surprisingly rapid and the reliability of long-term planning is therefore more complicated.

Figure 15 maps the scope of information to be covered by accounting and reporting, considering its forward and backward-looking dimensions as well as the nature of the information being positive or negative. The natural tendency for a report preparer is to underplay risks and overplay opportunities. While forward-looking information on opportunities therefore holds the possibility of abuse, it is with respect to risks that the responsible provider of financial capital would want to push for more forward-looking information. The coloured bars in the graphic signals the likely timeframes for which reliable information – be it financial, pre-financial quantitative and qualitative – could be collected and reported. Information on past performance can more easily be defined as entity-specific ("hard information" based on organisational performance records), whereas collecting information on future performance will tend to be more challenged in being entity specific and relating diverse trends (scenarios) to the likely future performance of a specific reporting entity.

**Figure 15: Scope of information, including timeframe and nature**
6.1.2. FREQUENCY OF DISCLOSURE, QUARTERLY AND OTHER

If accounting were to be a change agent, one factor not to be underestimated in its role is the frequency with which collected and interpreted information is disclosed, through periodic reports and other disclosure vehicles. This implies the managing of expectations, as reflected in the tradition of quarterly earnings reporting. Managing expectations also faces new challenges in view of ongoing IT innovation, including the ability of new technologies such as Artificial Intelligence to bring new insights on an ongoing basis. Any single “report” is “after the fact” or outdated as soon as it is published, as real-time information flows challenge conventions such as “closing the books” in a timely fashion.

In the 2000s the Chartered Financial Analysts Institute (CFA 2006) issued a white paper recommending that companies eliminate quarterly earnings guidance. For some the disclosure of forward-looking information in the form of forecasts raise alarm bells related to possible misrepresentation or abuse (e.g. managers making over-optimistic or misleading forecasts). For others it represents a way of enhancing accountability, by facilitating greater transparency and longer-term strategy. Financial regulators can protect reporters from legal liabilities in the event of inaccurate forecasts (safe harbour provisions), provided that the forecasts are made in good faith.11

Debates on the merits of voluntary forward-looking statements over the last four decades have shown diverse opinions. In a Public Policy Paper on long-term investment and accounting, the ICAEW (2016) has argued that evidence need to be refined on the suggestion that more frequent (e.g. quarterly) reporting encourages short-termism in decision-making by business managers and impedes long-term investment. It highlighted apparent trade-offs that exist between transparency and managerial autonomy, as well as between reporting timeliness and reliability of information. Questions involved here include:

- the regularity and timeframe of disclosure (for example quarterly, six-monthly, annually),
- the impact of tying management incentives / rewards / remuneration to results reflected in such disclosures,
- the type of investor (e.g. institutional or transient investor), and
- the type of investments (e.g. investment in assets with long lives or investments held for long periods) involved.

Greater reporting frequency is often assumed to increase transparency (lower information asymmetries) that leads to beneficial capital market outcomes (lower cost of capital, greater market liquidity). Finance executives have highlighted the benefits of regular earnings guidance and reporting such as promoting a reputation for transparency, attracting analyst following, constraining price volatility and reduced litigation risk. Yet reporting too frequently can also lead to greater (perceived) volatility in performance and market pricing, and additionally, undermine long-term investment. The Kay Review of UK Equity Markets and Long-Term Decision-making (2012) took note of the risk of earnings manipulation by managers to meet quarterly earnings targets and recommended that quarterly reporting requirements should be removed.

Ways of addressing the above short-termism include recommendations to do away with quarterly earnings guidance and quarterly reporting, and/or rather providing regular guidance on long-term performance. The Generation Foundation and KKS (2015) have weighed the perceived benefits of earnings guidance and its costs, the latter involving actual costs in the form of earnings management, attracting a short-term investor base, enhancing analyst herding and insider trading. It concluded that the costs

11 Cf regulation of Fair Disclosure by the SEC and the Private Securities Litigation Reform Act passed by the US Congress in 1995.
outweigh the benefits, and like institutions such as the CFA Institute and US Chamber of Commerce, recommended doing away with earnings guidance. It recommended steps for companies to announce and stop providing earnings guidance, following the examples of companies such as Coca-Cola, Unilever and Google.

The Generation Foundation and KKS (2015) recommend replacing earnings guidance with Integrated Reporting and Integrated Guidance. It foresaw that the latter will not seek to provide numeric forecasts about specific metrics regularly, but will rather inform market participants about changes over time in a firm’s different forms of capital and their effect on the future competitiveness of the company over the long term. It argued that a company could provide the market with Integrated Guidance every one to three years. This idea of integrated guidance, for example on longer-term changes in the different capitals of a firm, complements our earlier proposal of an expanded balance sheet accompanied by a Statement of Long-Term Risks and Asset/Liability Value. The latter needs to be accompanied by narrative reporting that can be included in the Integrated Guidance.

6.1.3. STRATEGIC OUTLOOK: FROM ACCOUNTING TO STRATEGY

On the "qualitative characteristics of useful financial information", the IFRS Conceptual Framework for Financial Reporting (2016) states:

“Financial reports provide information about the reporting entity’s economic resources, claims against the reporting entity and the effects of transactions and other events and conditions that change those resources and claims... Some financial reports also include explanatory material about management’s expectations and strategies for the reporting entity, and other types of forward-looking information.” (Par 2.2)

Apparently the place for qualitative discussion of strategy lies within the narrative MD&A, Director’s Report or similar variants. But there are limitations. The Framework (2016: par 1.6) notes that "general purpose financial reports do not and cannot provide all of the information that existing and potential investors, lenders and other creditors need", adding that these users need to consider other sources for information on, for example, economic conditions and industry or company outlooks.

With "Strategic Focus and Future Orientation" as its first principle, the <IR> Framework expects the integrated report to describe the strategy of an organisation, and how the strategy relates to the organisation’s ability to create value in the short, medium and long term and to its use of and effects on the capitals. With respect to the implementation of strategy, integrated accounting needs to be able to communicate and track a logical linkage from overall strategic goals and objectives to related targets and key performance indicators.

One of the <IR> Framework’s recommended content elements is Outlook, asking – with reference to the short, medium and long term – what challenges and uncertainties is the organisation likely to encounter in pursuing its strategy, and what are the potential implications for its business model and future performance? The GRI Guidelines (Standard Disclosure 102-14) expects executive leadership of the company to state its strategy for addressing sustainability. The required statement should present an overall vision and strategy for the short term, medium term, and long term, particularly related to managing the significant economic, environmental and social impacts of the reporting organisation.

What the <IR> Framework describes appears to be business strategy, whereas what the GRI Standard describes comes across as sustainability strategy. SASB makes the case for a sustainable business strategy.
Disclosure timeframe, aggregation and strategic outlook

Needless to say, the end goal has to be integrated strategy, i.e. a strategy for a sustainable and thriving business with a long-term focus. The key point here is that accounting is challenged to provide the raw material of what becomes a discussion about strategy, its implementation and longer-term direction. This also implies that disclosure on Outlook becomes more than only a hint of likely trends (e.g. market, economy, country) of the coming year, but a discussion of longer-term developments. As shown by the experience of management accounting and sustainability accounting, New Accounting has inherently also a forward-looking and strategic dimension.

Assessing future risks and opportunities requires a more forward-looking assessment and examination of value proposition, business model and strategy. It also recognises the shortcomings of relying only on past (financial) performance as a more or less reliable indicator of future investment returns. It is with this perspective that asset managers using the SASB standard listing of material topics state that “ESG analysis adds an additional level of rigor to fundamental analysis and helps to assess the reliability of future cash flows”, mindful of the value of ESG information (which tend to involve long-term developments) in complementing fundamental investment analysis (SASB 2016).

This more strategic perspective also takes financial accounting into corporate finance. While in the past experts had different views on whether corporate finance is part of accounting or vice versa, the above suggests a positioning of financial accounting within Corporate Finance as a broader field, including strategic financing and investor relations. Within corporates, work in the field of New Accounting will cut across different departments, including finance and sustainability.

6.2. LEVEL OF ANALYSIS, AGGREGATION AND CONCISENESS

Debates on the length and understandability of corporate reporting since the 2000s have often raised the words “complexity” and “clutter”. Associated with this is the challenge of understanding and effectively communicating about complex phenomena of our modern world, phenomena such as “global financial crisis”, “climate change” and “digital revolution”. Also associated is different approaches in responding to calls for accountability, transparency and market efficiency, with some assuming the best approach is to bombard information users with more information, often compliance-driven and repeated boilerplate information or excessive technical detail. Involved are matters of technical complexity, misguided innovation in managing stakeholder expectations, as well as a lack of understanding on how new possibilities of IT and digital communications can best be employed to deliver real (not just artificial) intelligence.

In part, the issue of information clutter or overload has underlined the need for effectively applying the principle of relevance and materiality. With this comes the question of conciseness versus completeness of reporting, which we will discuss in the following section. To start with, let us consider the need for reporting in the appropriate context (for example sustainability context). It implies the level of analysis, aggregation and segmentation in accounting and reporting. Blueprint 1 states that accounting needs to serve accountability at the micro, meso and macro levels. How can organisational level accounting better enable such multilevel accountability?

The decision on aggregation and consolidation of collected data or information is not simply a methodological matter of processing metrics and related information. It also implies substantive considerations involved in compiling a “relevant” and “faithful representation” of the status and performance of an organisation. Some would argue that sustainability context requires applying the principle of “subsidiarity”, disclosing and communicating information, as far as possible in local context. In the next section we consider the relevance of local context, as well as core market and business operational context in presenting performance information appropriately.
6.2.1. AGGREGATION AND SEGMENTED REPORTING IN CONTEXT

On the structuring and presentation of accounting information in globally aggregated or consolidated format, consider to what extent segmented reporting based on, for example, region or business line is more relevant – among others from a responsible, multicapital investment point of view. When publishing its revised operating segments standard IFRS 8 (Segment Reporting) in 2009, the International Accounting Standards Board (IASB) acknowledged the benefits of viewing business unit performance “through the eyes of management”. With this pragmatic and functional management approach for segment reporting, it provided greater flexibility for management to report measures such as underlying earnings, industry specific measures and other “non-GAAP” (non-audited or non-financial) information at the segment level. Whereas external stakeholders are mostly interested in aggregated figures of a whole company (group), a production site or entire product life cycles, company internal actors also need detailed, disaggregated information for the exact examination of internal organisational, process and product improvements (Maas et.al. 2016).

Disclosures by reportable operating segments can include, according to IFRS8, internal and external revenues. Internal revenues (for example based on internal trading between subsidiaries within a group) will fall within the field of ID Materiality as we defined earlier. Also, the standard dictates that it can include material items of income and expense disclosed separately. It may very well be, therefore, that what is considered not material at global or group level may be considered material at operating segment level – for example, water use by the Africa Unit in a water scare region, versus global level water use by a global beer and drinks producing group.

Related to the principle of Clarity, GRI Standard 101 acknowledges that the level of aggregation of information can affect the clarity of a report if it is more or less detailed than stakeholders expect. The IIRC <IR> Framework recommends a level of aggregation (by country, subsidiary, division, or site) that is appropriate to the circumstances of the reporting entity, adding:

“In some circumstances, aggregation of information can result in a significant loss of meaning and can also fail to highlight particularly strong or poor performance in specific areas. On the other hand, unnecessary disaggregation can result in clutter that adversely affects the ease of understanding the information.” (IIRC Framework 2013: par 4.61)

The IIRC approach is also that of the management view, considering how senior management and those charged with governance manage and oversee the organisation and its operations, which typically results in presenting information based on business or geographical segments used for financial reporting purposes. Investors have expressed appreciation for segmented data by market, for example geographical region (say Latin America versus Asia Pacific).

Note the SASB approach with its Sustainability Industry Classification System (SICS), considering not only whether companies have similar business models, products and services and the like, but also to what extent they face common sustainability challenges. This underlines the value of having performance information collated and presented in a manner that enables investors and other users to make more meaningful comparisons between peers and to ensure they interpret disclosed information in the appropriate context (industry operational and sustainability context).

Evidently there is an interrelation between having a disclosure that is concise as well as readable and transparent. Key with respect to aggregation and segmentation in New Accounting is the following:
I) **Aggregation is not used as a technique to hide bad news or risks** (cf Transparency International’s critique of some sectors for not reporting taxes paid country-by-country\(^{12}\)). The decision about (dis)aggregation has to serve the purpose of decision-useful information and stewardship accountability.

II) **Sustainability context** implies the decision about (dis)aggregation is substantively important and not simply a methodological technicality. This includes weighing the relative importance of local versus regional versus global context – i.e. geographical context in addition to industry or sector context.

III) Preferred levels of aggregation and segmentation has implications for how accounts are defined, set up and maintained, including alignment between accounts related to different capitals (all of which will cover both financial and non-financial units of measurement).

Related to the macro-micro link or gap identified in Blueprint 1, experience in the domain of Natural Capital and ecosystem services valuation presents extensive experience gained by leading corporates over the last decade in the combination of bottom-up versus top-down measurement or assessment approaches. Work by analysts such as True Cost and the True Price Foundation as well as the Natural Capital Project in developing an Integrated Evaluation of Ecosystem Services and Tradeoffs (InVEST) software has illustrated the pros and cons of relying on global or industry-based data sets versus local site-specific data sources in doing modelling (cf Tallis and Polasky 2011). In some cases, for example when dealing with strategy and defining likely hot spots in global supply chains, a top-down approach suffices. In other cases, when for example investigating local impact and country level risk, a bottom-up approach in data collection and accounting is required.

- Ford mapping of its plants worldwide and 2025 Projected Annual Renewable Water Supply per Person globally, based on WBCSD Global Water Tool\(^{13}\)

- Efficiency frontier showing maximum feasible combinations of economic returns and biodiversity scores associated with different local land management scenarios (Polasky et al. 2008)

\(^{12}\) Transparency International (TI) expects disclosure of key financial information on a country-by-country basis. On their regular assessment of reporting by multinational corporations, see [http://www.transparency.org/whatwedo/publication/transparency_in_corporate_reporting_assessing_emerging_market_multinat](http://www.transparency.org/whatwedo/publication/transparency_in_corporate_reporting_assessing_emerging_market_multinat)

\(^{13}\) Ford stated in 2013: We use the World Business Council for Sustainable Development’s (WBCSD) Global Water Tool to evaluate which of our operations are projected to be in water-scarce regions by 2025. The analysis shows that approximately 26 percent of our operations are projected to be in such regions (defined as areas of extreme scarcity or scarcity) [http://corporate.ford.com/microsites/sustainability-report-2011-12/water-stressed.html](http://corporate.ford.com/microsites/sustainability-report-2011-12/water-stressed.html)
The range of levels of analysis on Natural Capital impacts and dependencies is illustrated by the two graphic images in Figure 16, taken from ecosystem valuation work done by for example the WBCSD and WRI. Quantifying impacts and doing economic analysis in these cases can involve dealing with monetary measuring units (e.g. US$) when dealing with environmental impacts or resources. When dealing with social impact and resources, measuring units may involve alternatives such as “risk hours by country”, calculated on the basis of man-hours spent by supplier country, and indexed risks such as occupational safety and forced labour. The latter approach was presented by Otto Group at the 2014 Reporting 3.0 Conference in Berlin. It points to the intersect between multilevel private and public accounts, and the need for national accounting (public statistics) institutions and industry bodies to meet and define improved ways in which relevant public level information can be made available to help businesses conduct more scientific assessments and target setting.

6.2.2. RECONCILING COMPREHENSIVENESS AND CONCISENESS

As can be seen from the KPMG analysis of annual reports of listed companies from 16 countries (Figure 17), their length commonly ranges from 200 to 300 pages. Concerns about the growing length and complexity of annual financial reports have led for example the UK Financial Reporting Council to publish a report entitled Cutting Clutter: Combating clutter in annual reports (FRC 2011) and the Australian Financial Reporting Council to set up a Managing Complexity Task Force (Australia FRC 2012). The Institute of Chartered Accountants of Scotland and the New Zealand Institute of Chartered Accountants co-published a report entitled Losing the Excess Baggage (2011). In a report on complexity entitled Louder than Words (FRC 2009), the UK FRC noted that increased use of fair value accounting has resulted in lengthy valuation assumption disclosures. It cautioned that this type of disclosure is fundamentally different from segmental disclosures, which provide greater disaggregation of core business results. It recommended testing user feedback on the usefulness of various “assumptions” and “disaggregation” disclosures.

The IIRC has set out to promote a new form of reporting that results in producing more concise documents. In doing so, it has been confronted with a seeming contradiction between the principles of “conciseness” and “comprehensiveness” while seeking to strengthen the application of the related principle of materiality. It joined the Association of Chartered Certified Accountants (ACCA) and International Association for Accounting Education and Research (IAAER) in commissioning research on the topic. The resultant research report (ACCA et al., 2016) highlighted, based on the examination of company reports and interviews with preparers as well as auditors, the importance of the process of materiality determination, as well as the explicit or implicit consideration of magnitude and likelihood of occurrence as criteria. The study also signalled bias in favour of numbers, in particular financial figures, when deciding on materiality. Interviewees reported use of techniques such as report layout, centralised graphics, and cross-referencing within a report and to additional materials on a website.

The question of possible tension between the principles of conciseness and completeness is really one of clarifying their meaning. Here it is helpful to compare how the IIRC and GRI respectively define “completeness”. The <IR> Framework defines completeness in terms of including “all material matters, both positive and negative”. The GRI Standards (101) defines completeness in terms of including “material topics and their boundaries”, reflecting “significant economic, environmental, and social impacts”. The essence therefore is addressing all material topics while covering the full spectrum (econ-env-social) of the sustainability or multicapital agenda. About conciseness, the term GRI uses is “level of coverage” when deciding how much information to disclose related to each material topic. On the principle of “clarity”, the GRI also refers to information being understandable and accessible, adding the test that a “report contains the level of information required by stakeholders, but avoids excessive and unnecessary detail” (GRI 101).
The level of ambition in tracking different types of information (internal/external, past/future, global/local, etc) has implications for the planning, organisation and resource requirements of setting up comprehensive accounting systems. Naturally, managers would consider the financial accounting principles of conservatism and cost/benefit constraints. Insofar as they face an expanding sustainability agenda, key will be the application of the principle of relevance and materiality in terms of the three fields we defined. When in 1976 the US Supreme Court referred to “total mix of information” in defining materiality, it was never meant to imply “all information”. It implied the information “likely to be considered” by a reasonable investor, the information that more likely than not (>50% chance) has the potential for influencing the decisions made by that investor. The same logic applies when the Corporate Reporting Dialogue defines materiality in terms of “information which is reasonably capable of making a difference to the conclusions reasonable stakeholders may draw” (see chapter 6). In this respect materiality is both determined in terms of internal or external thresholds and itself conceptually represents a threshold for the amount of information that is included in disclosures.

- Length of annual reports from 16 countries (KPMG 2016)

Figure 17: Growing length of annual reports

Our definition of three fields of materiality (ID, ED, EI) and the possibility of information packages defined in terms of prioritised stakeholder group will enable users, including the legal, audit and financial professions to have clarity on different levels of assurance, certainty and accuracy implied. The three fields do not imply a hierarchy, and a piece of EI information may prove to be significantly more relevant than a piece of ID information. Also, the definition of disclosure packages in terms of target audience (prioritised stakeholder groups) will enable more concise and focused reports.
6.3. RECOMMENDATIONS ON TIMEFRAME, AGGREGATION AND STRATEGIC OUTLOOK

Based on our discussion on Timeframe and Aggregation, including strategic outlook at different levels of analysis, the following recommendations are made for corporations, standard setters, providers of financial capital and regulators.

6.3.1. RECOMMENDATIONS FOR REPORT PREPARERS

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<th>STAGE</th>
<th>RECOMMENDATION</th>
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<tr>
<td>EDUCATE</td>
<td>76. Task multidisciplinary accounting teams to assess your current approach to disclosure timeframes and aggregation, consider the recommendations of different standard setters (e.g. IASB, GRI, IIRC, TFCD) on forward-looking information, aggregation criteria and multilevel systems context. Decide on implications for new accounting systems, data collection and disclosure formats.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>77. Engage your business partners, up and downstream in the value chain, in making the case for improved, multicapital information gathering and context-based analysis.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>78. Collaborate with standards setting organisations in defining improved guidance on timeframes, aggregation and segmentation, as well as the related principles of materiality, comprehensiveness and conciseness, considering new criteria such as country demographic and bioregional context.</td>
</tr>
<tr>
<td></td>
<td>79. Collaborate with infotech (ICT) industry initiatives in defining user needs and specifications for software solutions that enable improved data collection and accounting systems at different levels (vertical, horizontal), common systems that support the information requirements of financial, management and sustainability accountants.</td>
</tr>
</tbody>
</table>
### 6.3.2. RECOMMENDATIONS FOR STANDARD SETTERS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>80. Organise collaborative assessments, involving your managers from the financial, management and sustainability accounting domains, on different approaches to timeframe, aggregation and segmentation, as well as implications of related principles such as materiality, context and conciseness in ensuring different stakeholders and markets are better informed.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>81. Organise dialogue events with professional bodies, business initiatives, and public institutions, including statistics departments, on key country and regional developments, with the aim to determine how relevant disclosure by business covering different timeframes, levels of aggregation and segments can better support informed and accountable decision-making.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>82. Define combined guidance on timeframe, aggregation and segmentation, considering different types of financial / sustainability / integrated disclosure, applying agreed interpretations of the related principles of materiality, comprehensiveness, conciseness and sustainability context while considering new criteria such as national development and bioregional context.</td>
</tr>
</tbody>
</table>
## 6.3.3. Recommendations for Providers of Financial Capital

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>83. Providers of education and qualifications in credit and investment management need to develop good practice publications and courses that address questions of timeframe (timing of disclosures as well as timeframes of disclosure content), aggregation, segmentation and context in analysing corporate disclosures, with special consideration of relevance, multicapital connectivity, integrated risk management and multi-level accountability.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>84. Engage partners, from the upstream to the downstream of your financial value chains, to improve shared understanding of appropriate timeframes, levels of analysis, aggregation and segmentation while considering New Accounting principles. This includes the use of country risk and opportunity profiles, with scientific information about socio-economic and ecological trends.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>85. Collaborate with professional organisations and standards bodies in supporting the development of New Accounting guidance on timeframe, aggregation and segmentation, applying agreed understanding of principles and enabling analysts to access priority information for employing New Accounting ratios and other interpretive tools at appropriate levels of analysis.</td>
</tr>
</tbody>
</table>
### 6.3.4. RECOMMENDATIONS FOR REGULATORS AND GOVERNMENTS

<table>
<thead>
<tr>
<th>STAGE</th>
<th>RECOMMENDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDUCATE</td>
<td>86. Have internal capacity building programmes for officials from diverse departments address accounting systems at different levels, including timeframe (future scenarios) of information covered and ways of making relevant public scientific information sources more accessible for use by corporates for their accounting and risk management purposes.</td>
</tr>
<tr>
<td>ADVOCATE</td>
<td>87. Collaborate with industry, professional and standards bodies as well as tertiary research institutions in defining linkages between micro, meso and macro level accounting systems and requirements for improved public resources that corporates can easily access to obtain relevant scientific information.</td>
</tr>
<tr>
<td>ACCELERATE</td>
<td>88. Establish initiatives with industry, professional and standards bodies as well as tertiary research institutions for the establishment of improved public resources that corporates can easily access to obtain relevant scientific information, including future scenarios and data about the local / national / regional market, economy, societal and environmental contexts in which they operate.</td>
</tr>
</tbody>
</table>
7. CONCLUSION

7.1. A NEW SET OF STATEMENTS, PROCESS AND SYSTEMS

Accounting twenty years from now will look very different from accounting today, and so would accounting practice and accounting education. New Accounting will be recognised as a comprehensive discipline, accompanied by interdisciplinary practice-producing statements and disclosures that are much closer to market values, forward-looking developments and societal realities. It will be accounting, as we said in the introduction, with a broader sense of purpose and a different understanding of wealth and value creation. Working together as professional, interdisciplinary teams, financial, management and sustainability accountants will pave the way for New Accounting to make its contribution to green, inclusive and open economies. The Virtual Dialogue on Exposure Draft 2.0 of the Blueprint in 2018 included suggestions that in twenty years accountants will be the guardians of relevant information flows, and that self-accounting software, as well as Artificial Intelligence and internet-based systems including Blockchain, will be omnipresent.

Greater use of information technologies (IT) will underscore the increasing importance of appropriate ethics and education of accountants, and the necessity of clarity on overall principles. Our Accounting Blueprint proposes twelve Recognised Comprehensive Accounting Principles (RCAP) of New Accounting. It also suggests ways of dealing with the challenge of recognition and monetisation, identifies key actions for determining integral materiality while considering internal and external thresholds, and shows how accounting can be more strategic and holistic. Importantly, it gives financial statements a facelift and suggests what multilayered and more comprehensive income statements and balance sheets may look like twenty years onwards.

Like different views on monetisation, there are different thoughts among experts on the desirability or feasibility of integrating ESG information into mainstream financial statements. Some would argue that this is premature, and that more meaningful would be the further development of quantitative non-financial statements (such as Integrated P&Ls or Total Contribution statements) alongside financial statements. Some would refer to these as value statements, which can be populated with either quantitative and/or qualitative content. Our Blueprint tests the boundaries of what is doable and what may be the new normal by 2040. This implies integrated, holistic statements that capture different types of information in a meaningful and structured manner.

The core statements at the heart of New Accounting are presented in Figure 18 (next page), covering flows and stocks of a current reporting period as well as the longer-term dimensions of past and future performance. The expanded, multilayered statements serve to bring performance aspects related to use or non-use of diverse capitals into core decision-making. This supports better-informed, holistic decision-making, communications and reporting both internally and externally. Figure 18 also illustrates the relevant areas of expertise and management involved, feeding relevant information and data into different capitals-related statements that form the backbone of eventual integrated statements.

Mindful of calls for greater accountability in the use of diverse capitals, fairness to different stakeholders or rightsholders – current and future – as well as decision-usefulness in the midst of information overload, the Accounting Blueprint suggests ways in which accounting can be more strategic in its analyses and narrative communications. It highlights valuable lessons learned from integrated reporting IR, showing how narrative reporting has a key role to play in making up for the shortcomings of conventional financial or sustainability statements and improving understanding of various drivers behind value creation with a longer-term focus. Narrative will also be critical in providing a qualitative explanation of how value creation may involve formulas such as $1 + 1 = 3$, reflecting synergy in the interactions between capitals in a way that conventional double-entry bookkeeping cannot explain.
Ongoing decision-making focused on the longer-term, respecting systemic consequences and the health of vital capitals, mindful of the interdependence of the health of the business, its society and ecology.

Figure 18: A new era of accounting, with multi-layered and forward-looking statements
**Figure 19: Organisational process flow for New Accounting**

<table>
<thead>
<tr>
<th>PLAN</th>
<th>BUDGET</th>
<th>DO</th>
<th>PURPOSE</th>
<th>CONTROL</th>
<th>MEASURE</th>
<th>ANALYSE</th>
<th>REPORT</th>
<th>AUDIT</th>
<th>SCALABILITY</th>
<th>IMPROVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value proposition:</strong> Assess multidimensional context (incl opps &amp; risks, trends) Define Value, Strategy</td>
<td><strong>Goals:</strong> Goals, objectives, targets (non-fin/fin connected, aligned)</td>
<td><strong>Implement:</strong> Implement plans, organisation, multidiscip, integrated teams</td>
<td><strong>Standards:</strong> Standards for measuring performance: Agreed method &amp; Recognised Camp Acc Principles (RCAP)</td>
<td><strong>Methodology:</strong> Apply financial, manager &amp; sus’y standards (eg carbon budget status)</td>
<td><strong>Statements:</strong> Multilayer, expanded income, Balance Sheet &amp; Risk Statements</td>
<td><strong>Impact &amp; Materiality:</strong> Apply Comp Acc Principles (RCAP)</td>
<td><strong>Disclosure format, medium, frequency:</strong> Suit of reports, fin &amp; nonfinancial Online, digital, printed Real-time, interim, annual</td>
<td><strong>Documentation:</strong> Manage, sus’ty &amp; fin documents, incl method (eg GIAC inventory)</td>
<td><strong>Resource Use &amp; Externalities:</strong> Quality, circularity, intercultural, scale</td>
<td></td>
</tr>
<tr>
<td><strong>Revenues, Costs, Income:</strong> Project revenues &amp; costs Consider opps &amp; risks incl externalities, needs vs wants Resource supply &amp; resilience Short to long-term margins &amp; cash flow targets</td>
<td><strong>Processes &amp; Procedures:</strong> Coordinate implementation of plans, resource use, engaging partners, tracking progress Status reports Checks on quality, compliance</td>
<td><strong>Tracking:</strong> Progress, duties, safeguard, recordkeeping, integrity Note errors, improvement Team motivation</td>
<td><strong>Multicapital Data Collection:</strong> Integrated systems (ERP, scorecards Data on diff capitals/resources Integrated KPIs Impact &amp; Outcomes</td>
<td><strong>Impact &amp; Materiality:</strong> Assess trends &amp; materiality impact Trends to int/ext thresholds</td>
<td><strong>Review:</strong> Narrative text, interpret analysis Implications for business model, risk management, governance Recommendations (S/M/L-term)</td>
<td><strong>Scenarios:</strong> Progress in context of future scenarios Trends in health of multiCapitals</td>
<td><strong>Internet Visits:</strong> Online check, AI research</td>
<td><strong>Assets &amp; Liabilities:</strong> Management of key assets &amp; liabilities Intangible assets recognition</td>
<td><strong>Integrated Risk Management:</strong> Pathways addressing long-term, scale Risk offering, incentives, training, governance</td>
<td></td>
</tr>
<tr>
<td><strong>Structure:</strong> Design organisation leadership, teams, units – Integrated Acc Dept / Committee Check skills requirements (susty/man/fin accountants)</td>
<td><strong>Approval &amp; Allocation:</strong> Budget approval by exec management Allocation of multiCap resources</td>
<td><strong>Value Chain Management:</strong> Accountable procurement, relationships management</td>
<td><strong>Risk Management:</strong> Check known/ emerging risks Preventative measures, ownership, monitor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>Scaling Finance:</strong> Responsible lending &amp; investment Rated capital providers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Our Blueprint chapters 2 to 6 provide a series of recommendations for companies, accounting standard setters, providers of financial capital and regulators. They have far-reaching implications for how companies organise their accounting practices internally, for collaboration with value chain partners and standard setting as well as professional organisations, including engagement with responsible investors, regulators and other stakeholders.

Figure 19 presents a process flowchart for management leaders to consider what a New Accounting set-up in their organisations may look like. It starts off with getting clarity on the understanding of value and strategy, as well as defining accounts and organising interdisciplinary accounting teams. It includes the application of the twelve RCAPs in developing expanded, comprehensive statements and looking at a complete value creation process when assessing impact and outcomes with a multi and intercapital perspective. Building on this, let us consider the foreseen consequences of New Accounting for accounting systems and reporting regimes, corporate governance approach, leadership behaviour and targeted stakeholder engagement.

7.2. CONSEQUENCES FOR ACCOUNTING SYSTEMS AND REPORTING REGIME

The delivery of New Accounting will require accounting systems that, as the rule and not the exception, incorporate information managed by financial, management and sustainability accountants. This is an organisational challenge as well as an information systems and IT challenge. Managers in large organisations are well familiar with the challenges of developing more integrated Enterprise Resource Planning (ERP) systems, including ones that reflect the main components of the balanced scorecard management tool. But before the IT challenge of having appropriate software systems in place is addressed, managers need clarity on the organisation and definition of what will be key data needs, data collection and accounting processes, key accounts and general ledgers. The definition of key pre-integration accounts will be categorised with reference to different capital categories, for example financial capital accounts, human resource accounts, natural resource accounts, materials and waste accounts, manufacturing and supplier accounts, customer relation accounts, and societal and community relations accounts. Managers will also need clarity on common procedures for closing books in a timely fashion so that the three accounting sub-fields deliver periodic information according to aligned time frames.

This new accounting and reporting regime implies the alignment of processes of internal and external reporting, as well as different activity areas, from assessment, planning and budgeting to tracking performance, managing working capital and defining integrated results (including outcomes). The main difference between the accounting documents involved will relate to their sustainability versus management versus finance dimension, but also, and more importantly, to the time dimension, having across the three subdisciplines components that cover past performance, current period developments, and future performance.

Management accounting at corporate level will play a leading role in integrating and connecting the different accounts, planning elements and controls. Building on its experience in calculating cost/benefit metrics at product, process and broader organisational levels, management accounting will also take the lead in defining inter-Capital connections, including financial-non-financial connectivity, and integrated KPIs. Sustainability accounting procedures would need to be sufficiently mature to be subject to internal controls and audit, reporting results in the same timeframe as management and financial accounting. This is required to leave sufficient time for management to interpret results, integrate data and develop an integrated narrative for communicating comprehensive results to priority markets and stakeholder groups.
7.3. CONSEQUENCES FOR CORPORATE GOVERNANCE APPROACH

Experience with integrated reporting (IR) during the 2010s has illustrated the need for (i) Board level and senior executive engagement upfront, securing buy-in to the multicapital and integrated approach, as well as (ii) having accounting and reporting processes involving multidisciplinary teams with managers from diverse departments, often overseen by the Chief Finance Officer. While the establishment of New Accounting may initially see some turf battles between different departments, key is that the responsible teams involve managers from different departments. We foresee processes that are more inclusive internally than financial or sustainability reporting has ever displayed.

Importantly, as suggested in our recommendations, New Accounting will require corporations to have in place comprehensive accounting departments in which financial, management and sustainability accountants work in the same office. The integrated accounting department will be led by a Chief Integrated Accounting Officer, and its activities overseen at Board / Executive level by an Integrated Accounting and Audit Committee. The implication is also that Board / Executive agendas need to provide for (i) the discussion of progress, risks and opportunities related to diverse capitals, as well as (ii) holistic and strategic discussion of the interconnections between the different capitals, linked with the comprehensive performance of the reporting organisation and its longer-term value creation. Board directors and senior executives will discuss and sign off on our proposed Statement of Full Comprehensive Income (FCI), Comprehensive Statement of Financial Position, Statement of Long-term Risks and Estimated Non-Current Asset/Liability Value, as well as their accompanying strategic narrative reports defined in terms of priority stakeholder groups (including Owners and Creditors reports).

In performance management, managers and employees will be rewarded and given incentives tied to performance associated with the different capitals. The relevant performance indicators and targets involved will reflect integration (for example sales growth of new products with a social impact label or mitigation of key asset risk factors). The definition of cost centres and value creation centres will reflect the longer-term integration of material externalities and intangibles (including internalities such as Human or Intellectual Capital), as reported in new multilayered income statements and expanded balance sheets.

7.4. CONSEQUENCES FOR LEADERSHIP BEHAVIOUR

Reference was made above to the need for interdisciplinary teams cutting across functional departments, as well as certain institutional arrangements such as having a Chief Integrated Accounting Officer and Integrated Accounting and Auditing Committee in place. These will require leadership that appreciates the importance of combatting silo cultures and having interaction not only across business lines and geographical units, but most importantly across the different functional areas of the internal and external value chain. Internally, this implies a new perspective on functions such as environmental manager or human resources manager and management accountant, or within the current-day finance department functions such as Planning and Budgeting and Internal Controls. And while managers are familiar with the value chain and value proposition concepts, management for New Accounting will work with a more holistic understanding of value, aware of its intertemporal nature and the multicapital value drivers behind it. These will be covered in new, strategic narrative disclosures complementing comprehensive statements.

The new Chief Integrated Accounting Officers will need to display the ability to build trust and shape influential communications, as required by the new Management Accounting principles in defining a

14 Mervyn King (2016) suggested the creation of a Chief Value Officer position. A Chief Integrated Accounting Officer can fulfil that function.
bridge-building role, while also showcasing their holistic understanding of relevance and value. They will need to have a sound understanding of the twelve RCAPs of New Accounting, including its responsiveness and interdisciplinary understanding of risk and opportunity. They will be working with fellow officers (incl CFOs, COOs, and CSOs) who lead functional and capital-based areas such as financial resources, human resources, natural resources and different asset classes. They and the accountant employees they oversee will have expertise and education in New Accounting, with skill sets to take past innovations such as the balanced scorecard to a new interdisciplinary and organisational level. Their accounting education will have been shaped by a comprehensive discipline offered by educational and management institutions and complemented by New Accounting training programmes run by professional associations and standards bodies.

7.5. CONSEQUENCES FOR TARGETED STAKEHOLDER DIALOGUE

Advances in IT and new tools such as Artificial Intelligence have led some to conclude that software investigation and Internet searches can produce more reliable business intelligence than in-person meetings and dialogue with diverse stakeholder groups. IT and its ability to process Big Data may enable us to do more comprehensive stocktaking of current developments. Yet, growing uncertainty, unpredictability and complexity associated with global sustainability trends reminds us of the reality that human interaction and open discussion will remain critical. What will be all the more evident twenty years from now is how new technologies enable us to have more comprehensive and integrated information, and how prioritisation of stakeholder groups and their targeted engagement is all the more critical in defining real, as opposed to artificial, intelligence.

The implications of the above, and the arrival of New Accounting, will require stakeholder groups to educate themselves and develop an ability to assess organisational performance in accounting terms. This includes an ability to interpret integrated data, and to show an interdisciplinary understanding of multicapital, intertemporal value. Such expertise will be essential in the mainstreaming of what is required to build green, inclusive and open economies. It highlights the need for educational and training institutions to offer qualifications and courses in New Accounting as a comprehensive discipline. It also implies a new education of the providers of financial capital, including investors and their analysts.

By 2040, New Accounting will be accompanied by integrated investment analysis (IIA) as a mainstream function by any quality investment institution. New Accounting will also provide relevant and reliable information for long-term focused dialogue, with key providers of diverse capitals and key rightsholders most impacted by consequences for related capitals that they are highly dependent upon. Confirming the application of New Accounting principles in the processes behind delivering such information for improved decision-making will be assurance, the future of which is worth a whole Blueprint in its own right.
8. ANNEXES

8.1. AUTHORS

Dr Cornelis T. van der Lugt is Senior Research Fellow with the Centre for Corporate Governance at Stellenbosch University Business School, Cape Town, South Africa, as well as Senior Associate with BSD Consulting, Zurich, Switzerland. He is a member of the Engagement Team of the Cadmos Responsible Investment Funds (PPT Geneva) and leads content development for training in Integrated Reporting <IR> under the auspices of the International Integrated Reporting Council (IIRC). In the last two years he has presented trainings on use of the IIRC <IR> Framework in Zurich, Geneva, Paris, Berlin, Istanbul, Melbourne, Sydney, Johannesburg and Cape Town.

Cornis has over 20 years of experience working globally in the field of sustainability standards. In the 2000s he was deeply involved in the establishment of the Global Reporting Initiative and UN Global Compact. In recent years he was a member of the financial sector working group of the Sustainability Accounting Standards Board (SASB) as well as a leading analyst in the use of the IIRC’s <IR> Reporting Framework. His past work includes developing guidance for managers and benchmarking reports on good practices with partners such as SustainAbility, AccountAbility, Standard & Poor’s, KPMG and the World Resources Institute. He holds a PhD from Stellenbosch University, an MBA from the Haute Ecole de Commerce (HEC, Paris) and the SASB Fundamentals of Sustainability Accounting (FSA) credential.

Dr Carol Adams is Professor of Accounting at Durham University Business School in the UK and Swinburne Business School in Australia. She is founding editor of the Sustainability Accounting, Management and Policy Journal. Her work is concerned with the role of accounting and reporting in the relationships between business, society and the environment. For over two decades she has sought to advance practice and policy with respect to integrating sustainability considerations into organisations through applied research, leadership, standard setting, advisory work and educating the next generation of business leaders.

Carol has been involved in various global corporate reporting initiatives. This includes being Chair of the GRI (Global Reporting Initiative) Stakeholder Council and a member of the Institute of Chartered Accountant’s of Scotland’s (ICAS) Sustainability Panel, the ACCA’s Global Forum on Sustainability and the Climate Disclosure Standards Board’s Technical Working Group. Previously she served as a Director and Council Member of AccountAbility and was involved in the development of the first AA1000 Framework. She was a member of IIRC’s Capitals Collaboration Group, co-authored the Capitals Background Paper for <IR> and is author of: Adams, CA (2017) “The Sustainable Development Goals, integrated thinking and the integrated report” published by the IIRC and ICAS.
### 8.2. ACCOUNTING WORKING GROUP (AWG) MEMBERS

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<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
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<td>Professor of Accounting, Durham University Business School, Durham, United Kingdom</td>
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</tr>
</tbody>
</table>
8.3. WORKING GROUP MEETINGS AND ONLINE VIRTUAL DIALOGUE

Members of the AWG and invited external experts met in person in May 2017 before the annual Reporting 3.0 Conference in Amsterdam, as well as in November 2017 on the margins of the Natural Capital Forum in Edinburgh and the SASB Symposium in New York.

An online virtual dialogue on the Exposure Draft 2.0 of the Accounting Blueprint was convened by Convetit from 19 – 23 February 2018 (report on the dialogue available on the 3.0 online depositary). Participating in the online dialogue, including 12 invited expert panelists, were the following persons:

Adams, Carol  
Professor of Accounting, Durham University Business School, United Kingdom

Adams, Mary  
Author, Consultant, Speaker - Intangible Capital, Strategy, Integrated Reporting

Arango, Felipe  
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Operations Manager, Social Value International

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Technical Director, Sustainability Accounting Standards Board (SASB), USA

Druckman, Paul  
Independent Non-Executive Director and Chair of the Corporate Reporting Council, UK FRC

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Senior Sustainability Specialist, Discovery Limited

Gaia, Shanti  
Core Team Member and Analyst, MetaIntegral

Gough, Mark  
Executive Director, Natural Capital Coalition

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Markets Director, International Integrated Reporting Council (IIRC), London

Grüninger, Beat  
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Henshaw, Jessie  
Scientist

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Thurm, Ralph  
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Weldin, Ken  
Audit & Assurance, PKF Australia

From left to right: Paul Hurks (NBA), Ralph Thurm (Reporting 3.0), Nicolai Lundy (SASB), Loshni Naidoo (SAICA), Michiyasu Nakajima (Kansai University), Cornis van der Lugt (Stellenbosch University), Mark McElroy (CSO), Neil Smith (Augen), Wim Bartels (KPMG) and Andre Jacobs (ABN-AMRO).

AWG meeting at Aegon Headquarters, Amsterdam, 29 May 2017

From left to right: Mark McElroy (CSO), Brad Monterio (IMA), David Parham (SASB), Elizabeth Aceituno (WWF) Helena Barton (Deloitte & Touche), Shari Litton (ThomsonReuters), Bill Baue (Reporting 3.0), Raj Kundra (WWF Sustainable Finance) and Cornis van der Lugt (Stellenbosch University).

AWG meeting at Thomson Reuters, New York, 29 November 2017

ANNEXES
8.4. STEERING BOARD

Members of the Reporting 3.0 Steering Board are:

Bill Baue  
Convetit and Sustainability Context Group

Claudine Blamey  
The Crown Estate

Sarah Grey  
International Integrated Reporting Council (IIRC)

Paul Hurks  
Royal Netherlands Institute of Chartered Accountants (NBA)

Brendan LeBlanc  
Ernst & Young

Stephen Russell  
World Resources Institute (WRI)

Peter Teuscher  
BSD Consulting

Ralph Thurm  
A|HEAD| Ahead, Oncommons gGmbH

Cornis Van der Lugt  
Stellenbosch University Business School

8.5. ABOUT THE REPORTING 3.0 BLUEPRINTS SERIES

The Reporting 3.0 Platform was established to convene a neutral, pre-competitive, global public good space for diverse stakeholders to co-create solutions whereby the reporting field raises its level of ambition to play its rightful role in spurring a regenerative, green, inclusive and open global economy. Reporting 3.0 does this by curating events (such as conferences, labs, regional roundtables and virtual online dialogues) and Blueprint Projects that gather Working Groups to collaborate on designing new structures that build off the foundations of existing standards and frameworks in order to recommend steps that boost transformation in disclosure. The platform, often seen as a global research and development (R&D) Think Tank, naturally fosters the type of collaboration that makes a new operating system for future-fit disclosure practices possible.

Reporting 3.0 was launched in 2012 with the aim to create a global multi-stakeholder community focused on identifying and fulfilling the potential of reporting to serve the intersecting interests of sustainability, financial performance, and economic growth. To better serve this interest and expand its public good value, Reporting 3.0 is the flagship program of ‘On Commons’, an independent not-for-profit, registered under German law as gGmbH (gemeinnützige GmbH).

8.5.1. FOUR BLUEPRINTS – ONE SYSTEMIC APPROACH

Reporting 3.0 has held three major international conferences in 2013, 2014 and 2015, gathering a whole array of international experts from four continents and 15 countries. In addition, various Transition Labs and Regional Roundtables were held in 2014. As an outcome of the 2015 conference, a work ecosystem consisting of 4 interdependent Blueprint Projects was explored and designed in 2016. This design stems from the following outcomes of the earlier conference deliberations:

See [http://www.reporting3.org](http://www.reporting3.org) for conference reports of 2014 and 2015. The 2013 conference was held in German language only.
• **Sustainability and integral disclosure need a clearly defined 'North Star', a serving purpose.** The Reporting 3.0 community recognises the absence of this clear end-goal in current sustainability and integrated reporting standards & frameworks. As government leaders at Rio+20 in 2012 have already proclaimed to be aiming for a green & inclusive economy as an overall macro perspective, sustainability and integrated reporting disclosure, so far designed as a micro perspective of organisation-specific focus, that inadequately links to current macro-economic thinking and its shortcomings, still needs to develop that link through feasible disclosure elements. This is best addressed through a needed closure of what we call the sustainability context gap and still has to motivate reporters to explain their micro contributions to the macro level, mainly described through issue-specific urgencies like global warming, water shortages, biodiversity loss, human rights abuses and corruption. More frankly spoken: there can be no sustainable business in an unsustainable world, so there will never be true sustainability without a seamless connection to an economic system logic that still needs to be designed in a way that market mechanisms do the right thing through price signals and monetary incentivation, including subsidies and taxation.

• A green, inclusive and open economy needs a corresponding financial market understanding, with a focused purpose to contribute achieving a green, inclusive and open economy. Disclosure that feeds investors to make the right decisions at the necessary scale will not suffice through existing disclosure. Environmental, Social and Governance (ESG) ratings, rankings and indexes fall short of necessary information that combines financial success with positive impact information through corporate disclosure. However, there is already evidence that overall material ESG information leads to better stock price performance due to a meaningful level of information that companies can use, but it is not yet proven or deliberately clear on a company-by-company case, while that is decisive for the individual investment decision on the one hand, and managing through feasible dashboards at board level on the other hand.

• In addition, even material ESG information doesn't yet automatically cut through to fiduciary duties, a still existing disconnect to risk management due to shortcomings in the discussion of materiality. In consequence, now underscored by new research by the World Business Council for Sustainable Development (WBCSD) amongst their member companies, only 29% of the companies who outline material sustainability risks in sustainability reporting reflect the same information in their legal filings or disclosures. While 89% of companies indicate that sustainability issues could have a financial impact on their business, 70% don’t believe their risk management practices are adequately addressing those risks. At Reporting 3.0 meetings the need for convergence and the definition of ‘true materiality’, based on sound contextualization and proper impact assessments (integral thinking) became constantly evident, with the need to combine truly material sustainability issues with risk management, governance and remuneration.

• A work environment that describes necessary enablers to create the disclosure needed depends on a collaborative approach. Reporting 3.0 has observed a certain stagnation in the area of the current reporting standard setters, accounting organisations, data providers and new business entrepreneurs, to identify, update and act at the level of ambition necessary in order to clarify purpose, success measurement and scalability at rates needed to be on target for minimally achieving what’s needed to survive as a human race. That is what the four Blueprints aim to address all together and what is soundly based in the definitions and principles for disclosure for a green, inclusive & open economy.


Thinking about a third generation in reporting (after the first generation of financial reporting and the second generation of sustainability and integrated reporting, with the possibility of ‘integral reporting’ as a placeholder description for generation 3) a fluid exchange of learning in all four areas described by the below Blueprint design is needed. We also believe that there needs to be a revolving process in place to update the Blueprints about every 2-3 years, given the speed of developments in all areas related to this set of recommendations for the related constituencies.

The Reporting 3.0 Blueprint Ecosystem

8.5.2. PRE-COMPETITIVE, COLLABORATIVE, MULTI-STAKEHOLDER, GLOBAL PUBLIC GOOD

Reporting 3.0 does not exist to define yet another reporting standard, accounting standard, software product or new business model canvas. We are building on the strong shoulders of the existing reporting, accounting and data infrastructure. We simply believe that the combination of these partial pockets of expertise (silod industries) isn’t yet working towards the end-goal of necessary systems level change and at the right speed, and is restricted through their mandates. As a consequence, we remain on a blind flight. It is, 55 years after Rachel Carson’s Silent Spring, 45 years after Limits to Growth, 30 years after the Brundtland Report and 25 years after the first Rio Conference, still impossible to properly assess whether a company is sustainable or not. We therefore aim to boost cross-fertilization of these 4 still distinct markets through crowd-sourced collaboration. So far, we see Reporting 3.0 as the only
pre-competitive and open community with this level of ambition. Through our discussions we know that there’s isn’t yet a curriculum that offers this needed breadth between micro, meso, and macro aspects, cross-cutting economic theory, social and environmental education as well behavioural science. It is the lack of language, lack of forums to meet and lack of the sheer awareness of the magnitude of the urgency for global change that holds colleagues back to even address what Reporting 3.0 aims to achieve. That is where we’d like to make a real difference. We offer flexible engagement opportunities as Sponsor Partner, Advocation Partner, Working Group Partner, Validation Partner, Pilot Project & Testing Partner or through various public engagement opportunities like virtual dialogues, events and public comment periods. We aim to update the Blueprints every two years and disseminate them as a package to the constituencies that work with us and target audiences. We hope to stimulate market reaction accordingly, so that the recommendations that are made in the Blueprints will effect positive change positively and needed systems change. We are also convinced that if our recommendations are ignored by existing players, someone else will step up and rise to the challenge in a more collaborative way. While competition has served the existing economic system to develop and dominate, collaboration will replace it in a green, inclusive & open economy.

8.5.3. AUDIENCES

The Blueprint ecosystem addresses four major areas that are minimally necessary to be combined to elaborate on the trajectory of disclosure at various levels. These four areas attract the following audiences:

- Reporting serving a green, inclusive & open economy: Reporting standards setters, reporting organisations, statistics offices, governments, NGOs; academics (both macro economic and micro economic, social science and environmental science), financial markets experts;

- Accounting that serves a new success definition of a green, inclusive & open economy: Accounting standard setters, accountants, controllers; academics in accounting and controlling;

- Data integration, contextualization and activation: reporting standard setters, companies, investors, software and analytics companies, data science experts, academics.

- New business models: Entrepreneurs in circular, sharing, collaborative business models, business model designers, new business model initiatives, existing corporations, funders, venture capitalists.

We believe that without those four areas in combination breakthrough thinking and action will not emerge. As an outcome the new disclosure has to aim for a seamless information flow between corporations and their related supply and demand chain (micro level), industries or regions (meso) as well as habitats, nation states and global social and environmental ecosystems (macro).

It is to be expected that we are also addressing the outcomes of our deliberations to these actors, but the chapters are designed in a way that they are written for those main parties that need to contribute to the breakthrough in disclosure by actively applying our recommendations. These are reporting standard setters; governments, legislators and multilateral organisations; corporations; and finally, investors.

Of course, all other constituencies are invited to use the recommendations for their own thinking, too, but these four groups should actively apply the recommendations, so we understand all other constituencies are important enablers of the Blueprint applications, e.g. NGOs, academics, data scientists, statisticians, economists, consultants, etc. They are also invited to contribute to the outcome of the Blueprints and support the dissemination of their outcomes.
8.5.4. LINK TO THE ECONOMIC SYSTEM THINKING

Failures of economic system thinking, ecological system thinking and education system thinking are the main reason for the failure of sustainability. We coin that the 'triple-e-failure'. Sustainability, in the way it is applied in corporations, in standard setting, in data collection, in business model creation, is only a redux version of what it was originally meant to be. The reduction from people, planet and prosperity to people planet and profit, totally losing the focus on overall wellbeing through inter- and intragenerational equity, has led to incrementalism that doesn’t add up to solve global challenges and is subordinated to be applied in current economic system thinking.

However, capitalism, if focused on the right outcomes through the right incentives, can generally support a green, inclusive & open economy. Regenerative capitalism as the financial market answer to the idea of a green, inclusive & open economy is therefore a necessary element. Overall, a new global level playing field through an adjustment of cost calculation by internalizing a full spectrum of externalized costs into cost accounting, the addition of benefit accounting, the translation into pricing, and an adjusted tax regime that burdens resource use while lowering tax on labor, are the main ingredients of the necessary readjustment. In total, without engaging all humans on this planet and reaching the necessary scalability by incentivizing leaders, while making all others followers through a new level playing field, sustainability will never be reached. This is one of the blunt truths we need to understand.

Reporting 3.0 is therefore taking those necessities into account in the design of the Blueprints. They are integral parts of the ‘North Star’ understanding.

8.5.5. LEADERSHIP & RESPONSIBILITY OF THE CORPORATE SECTOR

At Reporting 3.0, we see a necessary interplay between the macro level, the meso level and the micro level. The interplay has to be organized through international policy, regulation and implementation standards. The existing economic system boundaries have so far not allowed sustainability to lead, they actively act against a green, inclusive & open economy by neglecting the need to serve the wellbeing of every global citizen, by respecting the limitations of nature and by limiting a financial system to purely act in service of the real economy. Recommendations for disclosure need to think through the ‘ideal setup’ of a green, inclusive & open economy, a fitting regenerative capitalism, and the role of the different constituencies. But very importantly, all that interplay needs leadership, and we think most of the leadership, driven by a survival sense or an ambition to excel beyond our limited applied understanding of sustainability, will come from the corporate sector.

Leaders will understand that they will need to take action to advise of the overall economic system conditions, defining the necessary level playing field, in order to scale up sustainable policy making, technological changes and financing mechanisms. For their own organisation the real challenge is how to become sustainable beyond reducing negative impact and how to excel through transformation capabilities that allow the organisation to lead. Leadership excellence and organisational transformation capabilities are necessary ingredients of being ‘future ready’. So far reporting standards don’t have any disclosure available for investors and other stakeholders to show where an organisation stands on its pathway to be future ready. These are additional ingredients and new reporting elements that need coverage in an interplay between purpose, success measurement and scalability of any organisation.

18 We acknowledge that the term ‘North Star’ is more come in the Northern hemisphere, whereas the ‘Southern Cross’ might be better fitting in the Southern hemisphere.
9. SOURCES


Association of Chartered Certified Accountants (ACCA). (2016). Filling the information black hole: How are fossil fuel companies reporting on the stranded asset risk? London: ACCA.


Gleeson-White, J. (2014). *Six Capitals: The Revolution Capitalism has to have – or can Accountants save the Planet?* Sydney: Allen & Unwin.


10. STATEMENT EXAMPLES

Example 1: Baxter Environmental Financial Statement (published since 1990s)

**Baxter 2013 Environmental Financial Statement**

**Estimated Environmental Costs, Income, Savings and Cost Avoidance Worldwide**

<table>
<thead>
<tr>
<th>ENVIRONMENTAL COSTS (dollars in millions)</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Programs</td>
<td>$3.1</td>
<td>$3.7</td>
<td>$3.3</td>
<td>$2.0</td>
<td>$2.0</td>
</tr>
<tr>
<td>Corporate Environmental – General and Shared Business Unit Costs</td>
<td>$3.1</td>
<td>$3.7</td>
<td>$3.3</td>
<td>$2.0</td>
<td>$2.0</td>
</tr>
<tr>
<td>Auditor and Attorney Fees</td>
<td>0.4</td>
<td>0.4</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Energy Professionals and Energy Reduction Programs</td>
<td>1.4</td>
<td>1.3</td>
<td>1.2</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Corporate Environmental – Information Technology</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.4</td>
<td>0.4</td>
</tr>
<tr>
<td>Non-Hazardous Waste Disposal</td>
<td>1.3</td>
<td>1.0</td>
<td>1.1</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Pollution Controls – Operation and Maintenance</td>
<td>3.9</td>
<td>4.0</td>
<td>3.9</td>
<td>3.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Pollution Controls – Depreciation</td>
<td>2.5</td>
<td>2.3</td>
<td>2.4</td>
<td>2.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Basic Program Total</td>
<td>$24.0</td>
<td>$23.0</td>
<td>$22.0</td>
<td>$22.0</td>
<td>$22.1</td>
</tr>
</tbody>
</table>

Remediation, Waste and Other Response (proactive environmental action will minimize these costs)

<table>
<thead>
<tr>
<th>Basic Programs</th>
<th>$25.0</th>
<th>$27.0</th>
<th>$24.0</th>
<th>$23.0</th>
<th>$22.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attorney Fees for Cleanup Claims and Notices of Violation</td>
<td>$0.3</td>
<td>$0.3</td>
<td>$0.2</td>
<td>$0.1</td>
<td>$0.1</td>
</tr>
<tr>
<td>Settlement of Government Claims</td>
<td>0.0</td>
<td>0.0</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Carbon Taxes, Credits and Offsets</td>
<td>1.2</td>
<td>1.5</td>
<td>1.5</td>
<td>1.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Environmental Fees for Packaging</td>
<td>0.9</td>
<td>0.8</td>
<td>0.9</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>Environmental Fees for Electronic Goods and Batteries</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Remediation/Cleanup – Off-site</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Remediation/Cleanup – On-site</td>
<td>1.2</td>
<td>1.5</td>
<td>1.5</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Remediation, Waste and Other Response Total</td>
<td>$14.1</td>
<td>$14.6</td>
<td>$12.0</td>
<td>$11.3</td>
<td>$10.6</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL INCOME, SAVINGS AND COST AVOIDANCE** (dollars in millions; see Detail on Income, Savings and Cost Avoidance from 2013 Activities below)

<table>
<thead>
<tr>
<th>From Initiatives in Stated Year</th>
<th>2013</th>
<th>2012</th>
<th>2011</th>
<th>2010</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Use of Existing Assets</td>
<td>$5.0</td>
<td>$4.7</td>
<td>$4.4</td>
<td>$3.8</td>
<td>$3.2</td>
</tr>
<tr>
<td>Non-Hazardous Waste Disposal</td>
<td>$2.8</td>
<td>$2.6</td>
<td>$2.3</td>
<td>$2.0</td>
<td>$1.8</td>
</tr>
<tr>
<td>Recycling</td>
<td>0.7</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Conservation</td>
<td>0.6</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Water Conservation</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>$12.3</td>
<td>$12.4</td>
<td>$11.2</td>
<td>$10.7</td>
<td>$9.2</td>
</tr>
</tbody>
</table>

**Detail on Income, Savings and Cost Avoidance for 2013 Activities** (dollars in millions)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Income and Savings</th>
<th>Cost Avoidance</th>
<th>Total Financial Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Use of Existing Assets</td>
<td>$5.0</td>
<td>$0.0</td>
<td>$5.0</td>
</tr>
<tr>
<td>Non-Hazardous Waste Disposal</td>
<td>$2.8</td>
<td>$2.6</td>
<td>$2.3</td>
</tr>
<tr>
<td>Recycling</td>
<td>0.7</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Conservation</td>
<td>0.6</td>
<td>0.6</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>$12.3</td>
<td>$5.5</td>
<td>$6.8</td>
</tr>
</tbody>
</table>

**Cost Avoidance Detail from Efforts Initiated in the Six Years Prior to Report Year** (dollars in millions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Use of Existing Assets</td>
<td>$3.7</td>
<td>$4.7</td>
<td>$4.4</td>
<td>$3.8</td>
<td>$3.2</td>
</tr>
<tr>
<td>Non-Hazardous Waste Disposal</td>
<td>$2.1</td>
<td>$2.6</td>
<td>$2.3</td>
<td>$2.0</td>
<td>$1.8</td>
</tr>
<tr>
<td>Recycling</td>
<td>0.5</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Conservation</td>
<td>0.4</td>
<td>0.6</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>$7.7</td>
<td>$5.9</td>
<td>$5.5</td>
<td>$5.0</td>
<td>$4.6</td>
</tr>
</tbody>
</table>

Footnotes:

1. Financial numbers rounded to nearest USD100,000 to reflect appropriate degree of data accuracy.
2. Corporate environmental costs comprise total environmental costs related to operating corporate environmental programs that report into Baxter manufacturing and legal groups. While corporate Environmental, Health and Safety (EHS) groups are still integrated in 2009, total business unit program costs remain in the Business Unit/Regional/Mobility Environmental Professionals and Programs line, as those environmental costs mostly directly support facility programs.
3. Carbon taxes, associated with purchasing renewable energy, from electric utilities, renewable energy certificates, and carbon credits purchased in the European Union ETS and Chicago Climate Exchange (CCE). Through the CCE, a carbon emission allowance (CCA) is purchased for each ton of CO2. As a result, the total impact of carbon taxes is $2.8 million.
4. Reduction in waste paper, energy and water reduction activities. It is assumed that production and distribution activities grew proportionately with Baxter’s publicly stated cost of goods sold, adjusted for changes in inventories and the average unit cost of goods sold. A 3% decrease in energy use is assumed since there were ten years of data available.
5. For 2013, the three-year average was 5%, for 2012, 3% to 2011, 2% to 2010, 1% for 2009, 0% for 2008, 1% for 2007, 2% for 2006, 3% for 2005, 2% for 2004, 3% for 2003, 2% for 2002, 3% for 2001, 2% for 2000, 3% for 1999, 2% for 1998, 3% for 1997, 3% for 1996, 2% for 1995, 3% for 1994, 3% for 1993, 3% for 1992, and 3% for 1991. The overall average is determined on a cumulative basis as described in the caption to the table above. The average for the last three years is included.

To be consistent, the average of non-capital expenditures for new capital equipment over five years is terminated after seven years, the approximate duration of many facility construction and process improvement projects, after which additional process improvements and changes are possible.
Example 2: STMicroelectronics – Sustainability Report 2011

The method used to calculate the savings shown in this table is the following:

1) we set a baseline using the 1994 model with the assumption that there are no installation enhancements, except for chemicals for which the baseline is 2000;
2) the baseline is projected each year in relation to the quantity produced;
3) each year, the actual value is compared to this projection; and
4) the result shows the theoretical benefits due to the installation improvements concerning the savings for energy, water and the use of chemicals.

Total costs cover expenditure of environmental management areas (including waste and remediation) and yearly net investment and equipment depreciation.
Example 3: PUMA Environmental P&L (2010)

The table below sets out for the first time in monetary terms the changes in human welfare which result from PUMA’s environmental impacts. Details on how these monetary values were derived are set out in ‘How it was done’ on pages 12-22.

The top half of the table splits the total impact of EUR 145 million between that attributable to our own operations and each tier of our supply chain. The latter half of the table shows where the impacts occur by our key regions and segments, including the impacts by segment normalised by sales.

### The Environmental Profit and Loss

<table>
<thead>
<tr>
<th>EUR million</th>
<th>Water use</th>
<th>GHGs</th>
<th>Land use</th>
<th>Other air pollution</th>
<th>Waste</th>
<th>TOTAL</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>33%</td>
<td>33%</td>
<td>25%</td>
<td>7%</td>
<td>2%</td>
<td>100%</td>
<td>47</td>
</tr>
<tr>
<td>PUMA operations</td>
<td>&lt;1</td>
<td>7</td>
<td>&lt;1</td>
<td>1</td>
<td>&lt;1</td>
<td>8</td>
<td>145</td>
</tr>
<tr>
<td>Tier 1</td>
<td>1</td>
<td>9</td>
<td>&lt;1</td>
<td>1</td>
<td>2</td>
<td>13</td>
<td>9%</td>
</tr>
<tr>
<td>Tier 2</td>
<td>4</td>
<td>7</td>
<td>&lt;1</td>
<td>2</td>
<td>1</td>
<td>14</td>
<td>9%</td>
</tr>
<tr>
<td>Tier 3</td>
<td>17</td>
<td>7</td>
<td>&lt;1</td>
<td>3</td>
<td>&lt;1</td>
<td>27</td>
<td>19%</td>
</tr>
<tr>
<td>Tier 4</td>
<td>25</td>
<td>17</td>
<td>37</td>
<td>4</td>
<td>&lt;1</td>
<td>83</td>
<td>57%</td>
</tr>
<tr>
<td><strong>Regional analysis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EMEA</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>1</td>
<td>&lt;1</td>
<td>14</td>
<td>10%</td>
</tr>
<tr>
<td>Americas</td>
<td>2</td>
<td>10</td>
<td>20</td>
<td>3</td>
<td>&lt;1</td>
<td>35</td>
<td>24%</td>
</tr>
<tr>
<td>Asia / Pacific</td>
<td>41</td>
<td>29</td>
<td>16</td>
<td>7</td>
<td>3</td>
<td>96</td>
<td>66%</td>
</tr>
</tbody>
</table>

### Segments

<table>
<thead>
<tr>
<th></th>
<th>Water use</th>
<th>GHGs</th>
<th>Land use</th>
<th>Other air pollution</th>
<th>Waste</th>
<th>TOTAL</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Footwear</td>
<td>25</td>
<td>28</td>
<td>34</td>
<td>7</td>
<td>2</td>
<td>96</td>
<td>66%</td>
</tr>
<tr>
<td>Apparel</td>
<td>18</td>
<td>14</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>39</td>
<td>27%</td>
</tr>
<tr>
<td>Accessories</td>
<td>4</td>
<td>5</td>
<td>&lt;1</td>
<td>1</td>
<td>&lt;1</td>
<td>10</td>
<td>7%</td>
</tr>
</tbody>
</table>

### Intensity

Environmental impact (EUR) per EUR 100 of sales

<table>
<thead>
<tr>
<th></th>
<th>Footwear</th>
<th>Apparel</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water use</td>
<td>1.8</td>
<td>1.9</td>
<td>1.2</td>
</tr>
<tr>
<td>GHGs</td>
<td>2.0</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Land use</td>
<td>2.4</td>
<td>0.3</td>
<td>0.00</td>
</tr>
<tr>
<td>Other air pollution</td>
<td>0.5</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Waste</td>
<td>0.1</td>
<td>0.1</td>
<td>0.00</td>
</tr>
</tbody>
</table>

### The drivers of environmental impacts

The table below sets out our environmental impacts in more traditional metrics. This data was used to generate the monetary values in the E P&L and shows for the first time our environmental impacts from our own operations and our entire supply chain.

<table>
<thead>
<tr>
<th></th>
<th>Water use</th>
<th>GHGs</th>
<th>Land use</th>
<th>Other air pollution</th>
<th>Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>77.5</td>
<td>717.5</td>
<td>107.8</td>
<td>6.6</td>
<td>42.3</td>
</tr>
<tr>
<td>PUMA operations</td>
<td>0.1</td>
<td>110.1</td>
<td>&lt;0.1</td>
<td>0.4</td>
<td>6.5</td>
</tr>
<tr>
<td>Tier 1</td>
<td>5.3</td>
<td>131.4</td>
<td>0.3</td>
<td>1.1</td>
<td>21.2</td>
</tr>
<tr>
<td>Tier 2</td>
<td>20.3</td>
<td>108.8</td>
<td>0.2</td>
<td>1.0</td>
<td>8.3</td>
</tr>
<tr>
<td>Tier 3</td>
<td>18.4</td>
<td>112.7</td>
<td>0.2</td>
<td>1.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Tier 4</td>
<td>33.4</td>
<td>254.5</td>
<td>107.1</td>
<td>2.9</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Year: 2014
Scope: Holcim Global
Results in: mio CHF

Financial
Socio-economic
Environmental

Triple bottom line can be used to assess opportunities beyond compliance

Compliance with governance, social and environmental requirements and standards

* Net measured for 2014, but reflected, as we intend to measure in future IPIs.
* No significant incidents in 2016.

Results of pilot analysis

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Impact</th>
<th>Valuation (£) - 3 year average</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Gross value added (in summary, turnover minus the cost of goods and services we procure)</td>
<td>+</td>
<td>319,500,000</td>
</tr>
<tr>
<td>Net total</td>
<td>+</td>
<td>319,500,000</td>
</tr>
<tr>
<td><strong>Physical resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. New development and retrofitting</td>
<td>+</td>
<td>123,200,000</td>
</tr>
<tr>
<td>3. Fixed asset upgrades (property, plant and equipment)</td>
<td>+</td>
<td>1,137,000</td>
</tr>
<tr>
<td>4. Damage to property due to workplace activity</td>
<td>-</td>
<td>(3,600,000)</td>
</tr>
<tr>
<td>5. Wear and tear of fixed assets</td>
<td>-</td>
<td>(3,000,000)</td>
</tr>
<tr>
<td>6. Reduction in value due to external events (natural, social and political)</td>
<td>-</td>
<td>(200,000)</td>
</tr>
<tr>
<td>Net total</td>
<td>+</td>
<td>117,537,000</td>
</tr>
<tr>
<td><strong>Natural resources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Specific habitat investment</td>
<td>+</td>
<td>235,000</td>
</tr>
<tr>
<td>8. Soil recovery strategies</td>
<td>+</td>
<td>245,000</td>
</tr>
<tr>
<td>9. Greenhouse gas emissions</td>
<td>-</td>
<td>(149,000)</td>
</tr>
<tr>
<td>10. Waste generated</td>
<td>-</td>
<td>(170,000)</td>
</tr>
<tr>
<td>11. Water consumed</td>
<td>-</td>
<td>(382,000)</td>
</tr>
<tr>
<td>12. Carbon sequestered and stored</td>
<td>+</td>
<td>575,000</td>
</tr>
<tr>
<td>13. Greenhouse gas emissions avoided</td>
<td>+</td>
<td>38,000</td>
</tr>
<tr>
<td>14. Other ecosystem services avoided</td>
<td>+</td>
<td>26,348,000</td>
</tr>
<tr>
<td>Net total</td>
<td>+</td>
<td>26,740,000</td>
</tr>
<tr>
<td><strong>Our people</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Contribution to private healthcare</td>
<td>+</td>
<td>97,000</td>
</tr>
<tr>
<td>16. Contribution to public healthcare</td>
<td>+</td>
<td>1,064,000</td>
</tr>
<tr>
<td>17. Investment in other wellbeing programmes</td>
<td>+</td>
<td>131,000</td>
</tr>
<tr>
<td>18. Workplace injuries</td>
<td>-</td>
<td>(241,000)</td>
</tr>
<tr>
<td>19. Workplace fatalities</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>20. Sickness absence days</td>
<td>-</td>
<td>(180,000)</td>
</tr>
<tr>
<td>21. Gender equal opportunity</td>
<td>-</td>
<td>(82,000)</td>
</tr>
<tr>
<td>22. Employee engagement</td>
<td>+</td>
<td>15,000</td>
</tr>
<tr>
<td>23. Employee volunteer programmes</td>
<td>+</td>
<td>59,000</td>
</tr>
<tr>
<td>Net total</td>
<td>+</td>
<td>863,000</td>
</tr>
<tr>
<td><strong>Our know-how</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Employee training and development</td>
<td>+</td>
<td>797,000</td>
</tr>
<tr>
<td>25. Research and development</td>
<td>+</td>
<td>1,847,000</td>
</tr>
<tr>
<td>26. Knowledge decay</td>
<td>-</td>
<td>(422,000)</td>
</tr>
<tr>
<td>27. Suboptimal employee turnover</td>
<td>-</td>
<td>(355,000)</td>
</tr>
<tr>
<td>28. Value added</td>
<td>+</td>
<td>3,674,009</td>
</tr>
<tr>
<td>29. Consumption of public information</td>
<td>-</td>
<td>(212,000)</td>
</tr>
<tr>
<td>30. Production of public information</td>
<td>+</td>
<td>591,000</td>
</tr>
<tr>
<td>Net total</td>
<td>+</td>
<td>3,696,655</td>
</tr>
<tr>
<td><strong>Our networks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Customer management systems</td>
<td>+</td>
<td>49,000</td>
</tr>
<tr>
<td>32. Local and wider communities (e.g. Stewardship Programme)</td>
<td>+</td>
<td>9,120,000</td>
</tr>
<tr>
<td>33. Late payment of suppliers</td>
<td>-</td>
<td>(151,000)</td>
</tr>
<tr>
<td>34. Employment placements</td>
<td>+</td>
<td>2,669,000</td>
</tr>
<tr>
<td>35. Visitor wellbeing (from ecosystem services)</td>
<td>+</td>
<td>3,500,000</td>
</tr>
<tr>
<td>Net total</td>
<td>+</td>
<td>15,177,000</td>
</tr>
</tbody>
</table>

Total Contribution Report 2017
11. COMMENT PERIOD STATEMENTS

- Sustainability Context Group, statement dated 19 February 2018
- Social Value International, statement dated 27 March 2018
Public Comment on Reporting 3.0’s Accounting Blueprint Draft 2.0
Submitted by the Sustainability Context Group

February 19, 2018

We, the undersigned members of the Sustainability Context Group (SCG), are very pleased to submit this Public Comment on the most recent draft of Reporting 3.0’s Blueprint 2: Accounting (Exposure Draft 2.0), dated 12 October 2017.

To start, we welcome the core vision of the Accounting Blueprint to usher in the establishment of “New Accounting” in the years ahead as follows (p. 12):

... a comprehensive discipline that comprises three subdisciplines: financial accounting, management accounting and sustainability accounting. It captures the creation of value in different forms, recognizing the use of different capitals. Some may refer to it as multicapital, integrated or intercapital accounting ...

New Accounting operates on the basis of a common set of principles, Recognised Comprehensive Accounting Principles (RCAP) that build on principles developed in the past by its subdisciplines with financial, management and sustainability accounting and reporting in mind. While the subdiscipline principles will still be applied, the comprehensive accounting principles are more holistic, shaped to facilitate integration and enabling context-based understanding of diverse capitals and drivers behind intertemporal value.

With the goal of spurring the emergence of such integrated accounting in mind, we have two general comments on the Draft to offer:
1. First is that we do not see management accounting as occupying the same general positioning as financial and sustainability accounting. Unlike the latter two, management accounting is an internal management issue and therefore at the discretion of the organization. Thus, it seems to us unnecessary and inappropriate to attempt to prescribe an approach for management accounting. Financial and sustainability accounting, by contrast, involve external reporting and disclosure for accountability to stakeholders.

Accordingly, we believe the kind of integration Reporting 3.0 has set out to achieve should be aimed primarily at financial and sustainability accounting, and only indirectly at management accounting. As is the case today, management accounting will be driven by the content of the other two, but need not be explicitly prescribed beyond that. In other words, Reporting 3.0’s efforts in its Accounting Blueprint should be aimed explicitly at financial and sustainability accounting, and only implicitly at management accounting. Solve for the first two and the third one will follow.

2. Next comes the all-important issue of how best to achieve integration between two subdisciplines (financial and sustainability accounting) that are otherwise separate and distinct from one another. True integration requires commensurability – in other words, a common *lingua franca* of performance is needed that can be expressed on a common scale using shared units of measurement between the two subdisciplines. We believe core concepts already identified in other Reporting 3.0 Blueprints, *capitals* and *context*, hold the key to commensurability here for how best to integrate financial and sustainability accounting.

This is precisely where our concern arises. We see instances where the Accounting Blueprint advocates for practices that demonstrably prioritize non-contextualized expressions over contextualized expressions. Specifically, we see this around the embrace of *monetization* as a strategy for integration.

We acknowledge the attraction of monetization as a possible common *lingua franca* for integrating diverse elements – in particular, the multiple capitals. However, we believe that monetization suffers from two very serious shortcomings:

a. First, monetization is not contextualized vis-à-vis thresholds in the carrying capacities of the capitals. If it were so contextualized to the required extent, it would be the case that, say, the last gallon of available renewable water in a watershed would be priced at a level far above the first gallon. Indeed, the last gallon might carry an infinite cost because the use of it would extinguish the resource.

b. Second, monetization commits the fatal error known as “weak sustainability,” in that it at least tacitly assumes fungibility or substitutability between the capitals. When we assign monetary values to capitals, or to our impacts upon them, we make it possible, for example, to offset the negative values (costs) of depleting
or destroying natural resources with the positive values given to, say, our impacts on human or social resources. In the real world, however, no such offsetting or substitutability is possible. A natural resource that is destroyed is very likely gone forever, no matter how positive our other impacts on other resources might be.

Importantly, it should also be clear here that even if it were possible to contextualize monetization in the ways alluded to above (and as explained further in section 4.4 of Reporting 3.0’s Data Blueprint, completed last year), we would still be left with the weak sustainability problem of non-substitutability. Natural capitals will never be substitutable with non-natural capitals (or even some other natural capitals) no matter how contextualized their monetized values might be. Even the use of constructed capitals (technologies) to replace or supplant the substance or services of natural capitals are not substitutions at all because they do not regenerate the capital lost. As Herman Daly once wrote (1996), “You cannot make the same house by substituting more saws for less wood.”

In order to explore alternatives to monetization as a strategy for achieving commensurability between the accounting subdisciplines, we find it useful to think of the problem in terms of alternative theories of performance (TOP). The TOP behind monetization, of course, is that the higher the net value of impacts on capitals (monetized net value), the better. Monetization thereby hews to a TOP that is quite explicitly incrementalist. The higher the economic value achieved, the better – shareholder value must be maximized. Different TOPs will have different interpretations of what better means for them, and that is one of the reasons why TOPs are so important.

For example, an alternative TOP, which applies to the core foundations of financial and sustainability accounting, is grounded in sufficiency. In financial accounting, for example, revenues must exceed expenses to generate a profit, thereby creating a means of producing a sufficient return on equity. Sustainability accounting applies this sufficiency-based approach more broadly: stocks of capitals must be maintained at defined levels in order to ensure the flow of valuable goods and services, which, in turn, people rely on for their well-being. Rather than maximizing the monetized value of impacts on capital stocks and flows in the aggregate, a sufficiency-based approach seeks only to maintain them (the stocks and flows of capitals) at levels that will ensure stakeholder well-being. It is not acceptable to suffer the loss of one vital capital in exchange for the preservation or growth of another. All vital capitals are necessary, that’s why we call them vital.

We therefore urge Reporting 3.0 to explore an alternate strategy for achieving commensurability between financial and sustainability accounting besides monetization as it’s most often applied – i.e. 1) in an uncontextualized way, and that 2) inappropriately allows for capital substitution, or the offsetting of impacts on one
capital against impacts on other capitals. Instead, we strongly recommend achieving commensurability through a TOP grounded in sufficiency. We think the potential here is enormous. Indeed, both subdisciplines already involve assessments of impacts on capitals, the stocks and flows of which can be empirically assessed, and also the effects of organizations’ impacts upon them. This can provide just the sort of basis needed to achieve commensurability between the subdisciplines. In other words, why not integrate performance on the basis of what an organization’s impacts are on the sufficiency of capital stocks and flows — all of them, both separately and together? Through that lens, integrated accounting can be seen as context-based, multicapital impact accounting.

We would add that this approach still allows for monetization, provided it abides by the non-negotiables of context and capitals — namely, contextualization and the non-substitution of capitals. It should also be clear that in the event monetization is used as a strategy for integrating performance, it should be to monetize the effects of organizations’ impacts on the sufficiency of vital capitals and not the capitals themselves. That is not to say, however, that the monetization of impacts cannot be informed by the monetary value of capitals; rather, it is simply to say that in the end, what should be monetized for integrated accounting and reporting purposes is the value of organizational activities and their effects on vital capitals (i.e., their performance).

That all said, it should also be clear that the sufficiency-based approach must allow for other integration mechanisms that operate independent of economic- / finance-oriented mechanisms such as monetization. Assuming adoption of that approach, the Accounting Blueprint should be worded in such a way that the door is left open to any such mechanism — monetary, non-monetary, or otherwise — that can achieve commensurability between the subdisciplines while also adhering to the context and capitals first principles.

In closing, we urge Reporting 3.0 to establish a “first-principles” approach to all of its endeavors (including the current integration of financial and sustainability accounting), by holding firm to its commitment to multicapital and context-based thinking across the board. The Accounting Blueprint should be no exception!

Sincerely,

1. Bill Baue, Reporting 3.0
2. Wim Bartels
3. John Byrd, University of Colorado
4. Jed Davis, Cabot Creamery Cooperative
5. John Fullerton, The Capital Institute
6. Rob Gray, CSEAR at University of St. Andrews
7. Henk Hadders, University of Groningen
8. Geoff Kendall, Future-Fit Foundation
9. Laurie Lane-Zucker, Impact Entrepreneur, LLC
10. Brendan LeBlanc, Ernst & Young
11. Mark McElroy, Center for Sustainable Organizations
12. Den Patten, Illinois State University
13. Gus Speth, Former Dean, Yale School of Forestry and Environmental Studies
14. Ralph Thurm, Reporting 3.0
15. Jo van Engelen, TU Delft
16. Mathis Wackernagel, Global Footprint Network
17. Allen White, Tellus Institute
18. Andy Whitman, Manomet
20. Andrew Winston, Winston Eco-Strategies
21. Robin Wood
22. Eric Zencey, Gund Institute, University of Vermont
27 March 2018

Dear Cornis,

Thank you for inviting Social Value International (SVI) to contribute to the development of Reporting 3.0 Blueprint. We are writing to you today to present our position on the topic of monetisation of social and environmental outcomes.

During the recent online debate regarding the Blueprint the issue of monetisation was discussed and two points were made to argue against its use. The first was that monetisation requires context and the second was that monetisation should not be done because of issues around substitutability. We would like to present our response to these two points and to invite further debate and discussion.

SVI’s starting point is that resources are currently being allocated to activities without adequately considering social and environmental outcomes which results in a lower sustainability performance. Any processes that account for these outcomes in order to improve the sustainability of decisions will never be perfect. Once a decision is made, it is often the cumulative effect of many decisions that will make a material difference on performance and there are inevitable judgements in deciding what data to collect, how accurate this needs to be and in comparing the value of different options for allocating resources. SVI works to increase the extent to which decisions take these outcomes into account whilst reducing the risk that resource allocation decisions are sub-optimal.

Context

We would agree with the need to contextualise valuations. If values are used which are based on a different context there is a risk that the decision could be different to the one that would be made had the value been contextualised. This would also need the decision makers to be unaware of the basis for values. In general, there are not enough decisions being made which take social and environmental outcomes into account and we believe that increasing awareness of appropriate valuation will go hand in hand with increases in decisions.

Our work on valuation, and as evidenced in the Global Value Exchange, is around creating process, standards and assurance of valuations that are contextualised. We believe that over time there will be ranges of values for outcomes, in particular contexts. As the volume of examples grows the variance of values for specific contexts will reduce but change over time, reflecting changes in contexts and in relative values.
Substitutability

Substitutability is the assumption that one capital can substitute for another and that valuation makes it possible to offset negative values on one capital with positive values from another.

SVI agrees that this is a risk and that some capitals, once used, cannot be replaced. However, resource allocation decisions are, and will continue to be made, where different outcomes for different groups of people in different contexts are being compared. We believe that valuation, whether using financial proxies or other methods, contributes to better decisions because it makes the methods, process and extent of the involvement of those effected more transparent.

The need for transparency would mean providing information to decision makers without netting off, to inform the discussion and inevitable choice, with a transparent, common approach to valuation. That is not to ignore the methodological challenges here but to argue that, on balance, this will lead to better decisions than one where the value basis for this decision is not transparent, not common to decision makers and not informed by those affected.

In considering the level of summary here, it would be as appropriate for decision makers. Too much data and information is less likely to be useful than appropriate summary. Appropriate valuation can therefore provide a useful level of summary.

Yours Sincerely

Jeremy Nicholls

CEO
Social Value International
Paul Druckman, Chair, UK Corporate Reporting Council
“The sustainability accountants, those that work with the sort of indicators as recommended by GRI and SASB as well as those engaged with the social and natural capital protocols have a bright future as part of the future accounting regime. Those with the fundamentals of accounting and the breadth of sustainability may well take the lead.”

Wim Bartels, International Integrated Reporting Council and KPMG
“One of the very promising aspects of the Blueprint is the concept of the integrated statements, incorporating long-term risks but also attempting to better explain total value versus book value. This will provide better insights into the real value creation, protection and depletion by companies.”

Zimkita Mabindla, South African Institute of Chartered Accountants (SAICA)
“The Financial and Management Accounting disciplines are well established and there are key competencies to qualifying as a Chartered Accountant. Sustainability accounting is not as well established and not understood by the accounting profession.”

Helen Slinger, Accounting for Sustainability (A4S)
“Accounting is currently failing in presenting a true and fair view of the position and performance of companies and this misrepresents companies’ ability to sustain themselves.”

Mark Gouch, Natural Capital Coalition
“Understanding what the numbers are telling us is absolutely critical when running any organization. Numbers though, when delivered without an understanding of the bigger picture in which they fit, are necessarily limited in the information that they are able to convey.”

Ben Carpenter, Social Value International
“We do need the development of expanded income statements and balance sheets with social externalities incorporated. If we are to make decisions that are not solely based on financial value, then we believe non-financial value should be incorporated into the same set of accounts.”

Linda Devonish-Mills, Institute of Management Accountants (IMA)
“Increasingly, CFOs and their teams are asked to perform in more strategic roles to make best use of data for organizational decisions. This requires an advanced skillset for management accountants at all levels.”

Paul Hurks, Royal Netherlands Institute of Chartered Accountants
“The key principles of New Accounting are very well summarized in the RCAP of the Accounting Blueprint. New Accounting is a logical result from inevitable transitions in economy, capitalism, transactions, organizations and reporting. New Accounting will lead to New Data management, including being multi-capital and new currency focused.”

Sonal Dalal, Sustainability Accounting Standards Board
“Survey results showed that across the board, members favored quantitative metrics for their comparability and verifiability. This is an important reason why approximately 80% of SASB’s metrics are quantitative.”

Ken Weldin, PKF Australia
“The gap at present is confidence amongst corporates in reporting lead indicators on the one hand, and on the other hand sophisticated investors and analysts who know they need to look beyond traditional profit and loss or balance sheet metrics.”

Rene Orij, Nyenrode Business University
“Artificial intelligence (AI) will be omnipresent in accounting 20 years from now. The accounting equivalent of self-driving cars is self-accounting computers. Self-learning AI algorithms will arrange the collection, analyzing, reporting and verification of accounting data.”