

The Circular Economy: Policy, Disclosure and the Role of the Accountant

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Understandings of the term 'the circular economy' vary in depth and breadth. The Irish Department of the Environment, Climate and Communications has recently advised that participation in the circular economy requires keeping resources in use for as long as possible, extracting the maximum value from them whilst in use, and then recovering and regenerating products and materials at the end of life.

Perhaps the most internationally recognised organisational advocate of the circular economy, the Ellen MacArthur Foundation, describes the circular economy as having a basis on three principles: (i) eliminating waste and pollution; (ii) circulating products and materials (at their highest value); and (iii) regenerating nature. From this perspective, the circular economy is underpinned by a transition to renewable energy and materials and decouples economic activity from the consumption of finite resources. The emphasis is on the resilience of the economic system and the benefits derived for business, people and the environment.

There are clear financial aspects and implications for businesses and organisations engaging in the circular economy, highlighting various roles for accountants and financial experts in areas such as planning, decision-making, and reporting. As policy developments suggest an expectation that all entities will engage in the circular economy in the coming years, the development of knowledge and skills in this area is a priority for third-level accounting and finance programmes and for continuous professional development.

The Circular Economy and Miscellaneous Provisions Act (2022)

The Circular Economy and Miscellaneous Provisions Act (2022) was signed into Irish law on 22 July 2022. The introduction of the Act heralds a phasing-in of levies on all single-use

packaging over time. The Act also establishes a basis to ensure a system is in place to allow hundreds of thousands of tonnes of material to be safely and sustainably re-used as secondary raw materials. Levies are somewhat balanced with incentives to use reusable and recyclable alternatives to single-use disposables. It appears inevitable that businesses in industries such as construction, retail, consumer goods and hospitality, to name but a few, will face greater pressure to evaluate the environmental impact of materials used in processes, products and packaging. The Act, through its introduction of mandatory segregation and incentivised charging regime for commercial waste, will also drive businesses to focus on their waste management systems. Many of the changes required by businesses may require a significant initial outlay in terms of financial and human resources. Financial advice will be needed by many who seek to make this investment in an efficient and astute manner.

International sustainability reporting standards

International sustainability reporting standards are currently issued by three primary bodies, the Global Reporting Initiative (GRI), the Task-Force for Climate Related Disclosures (TCFD), and the International Sustainability Standards Board (ISSB). All sets of standards cover the essential aspects of the circular economy including materials usage, waste management, energy sourcing, emissions and water usage and discharge. One of the most pertinent areas of the circular economy

is the use and recycling of materials; this is dealt with in detail by all of the standard-setting bodies. The GRI, for example, guides companies to measure and report on the volume or weight of recycled input materials used to manufacture products and services. It also advises the measurement and reporting of the weight of waste diverted from disposal, and that directed to disposal by the composition of the waste. Similarly, the TCFD encourages companies to disclose metrics regarding their use of materials and their waste management systems. In doing so, companies are guided to report the resulting climate-related risks they pose while also disclosing the related risks they face, such as the rising cost of materials. While still in the consultation stage, the ISSB currently proposes to set standards in this regard.

Currently, Irish companies are not required to adopt any of the international sustainability reporting standards. Nonetheless, Irish firms listed in the UK are required to adopt the TCFD and those standards currently under development by the ISSB may become relevant vis-à-vis IFRS. Interestingly, none of the standards directly prescribe a circular economy approach to reporting. While large and listed firms are increasingly building in-house teams to manage sustainability and related communications, smaller firms are referring to their accountants for the measurement and reporting of environmental impact (IFAC, 2021). Given that sustainability reporting is a new departure for the profession, navigating the landscape of reporting

standards in itself may be challenging. Many bodies have already begun to devise models as to how this may be achieved in a manner consistent with the circular economy. Business In The Community (BITC) UK, for example, has devised a circular economy maturity matrix which is consistent with the TCFD standards. This is based on three indicators- material flows; governance, strategy and processes; and carbon impact, although more indicators may be added or alternative indicators used as companies deem appropriate. The matrix may be adopted by businesses which are at different stages of progress or maturity in measuring and reporting their participation in the circular economy. For instance, gathering data on emissions from both upstream and downstream is complex, such that the company in the illustration has indicated acknowledgement of the need to report this information in the future.

amends the Non-financial Reporting Directive (Directive 2014/95/EU, the NFRD).

Aligned to the CSRD and particularly significant in the context of the circular economy is Regulation (EU) 2020/852 which establishes the basis for the EU Green Taxonomy. The Taxonomy Regulation establishes six environmental objectives, including that of the transition to a circular economy. A first delegated act on sustainable activities for two of the objectives, climate change adaptation and mitigation, was published on 9 December 2021 and is applicable since January 2022. A second delegated act for the remaining objectives will be published later in 2022. The Regulation contains 'Do No Significant Harm' (DNSH) criteria, which require that companies, in addition to disclosing their contribution to relevant objectives, provide assurance

on disclosing adherence to the DNSH criteria for the circular economy. For a company manufacturing cement, an eligible activity for the purposes of the Taxonomy, a disclosure would be expected as to whether the manufacturing plant accepts alternative fuels such as solid recovered fuel. For a cement production site using hazardous wastes as alternative fuels, the disclosure should confirm whether its waste management plan that meets EU standards exists. DNSH to the circular economy disclosures for a company manufacturing low carbon technologies, another eligible activity, would be expected to confirm that embodied carbon emissions represent less than 50% of the total carbon emissions saved by the use of the energy efficient equipment.

July 2022 saw the introduction of 13 Regulatory Technical Standards

	Material Flows	Governance, Strategy, Processes	Carbon Impact
STARTING POINT	<p>Material / product inflow (tonnes)</p> <p><i>Circulytics, Circular Transition Indicators</i></p> <p>The amount of raw materials and products that come into your business, measured in tonnes</p>	<p>Governance, strategy, and process enabler indicator</p> <p><i>Circulytics</i></p> <p>The extent to which business have embedded circular economy in how they work</p>	<p>GHG impact of waste management (kg CO_{2e} per tonne of material relative to landfill)</p> <p><i>Circulytics</i></p> <p>The amount by which greenhouse gasses are reduced by recycling, composting, or recovering energy from waste rather than sending it to landfill and creating new material in its place</p>
HIGHER MATURITY	<p>% Circular inflow</p> <p><i>Circulytics, Circular Transition Indicators</i></p> <p>The proportion of material / product inflow that is renewable, or that has been reused or recycled</p>	<p>% (by mass) of physical products designed along circular principles</p> <p><i>Circulytics</i></p> <p>The proportion of the business's products which are designed to be durable, repairable & recyclable</p>	<p>GHG savings through use of recycled material input (kg CO_{2e} per kg of material or % reduction from virgin material)</p> <p><i>Circular Transition Indicators</i></p> <p>The percentage by which carbon savings can be reduced by using recycled materials rather than virgin materials</p>
	<p>% Circular outflow</p> <p><i>Circular Transition Indicators</i></p> <p>The proportion of materials leaving the business - either as products being sold or as waste - that are likely to be recycled or reused</p>	<p>% of revenue from circular services</p> <p><i>Circulytics</i></p> <p>The proportion of business revenue which comes from selling services that grow the circular economy, e.g. consultancy support to circular businesses</p>	<p>Product related Scope 3 emissions (tonnes CO_{2e})</p> <p><i>N/A</i></p> <p>The amount of greenhouse gas emissions released during the creation and use of products which the business makes or sells</p>

Source: BITC UK/Circular Online (2022)

EU-Level Developments

At European level, the proposed Corporate Sustainability Reporting Directive (CSRD)¹ sets out that 'achieving a climate neutral and circular economy and a toxic-free environment requires the full mobilisation of all economic sectors'. The Directive, which comes into force on 1 January 2024 with respect to the 2023 financial year,

that their activities do not impede achievement by others of the objectives, consequent to a risk-based assessment. While currently, only certain business activities are deemed eligible to report alignment with the Taxonomy, further activities are expected to be included later in 2022. Current guidance on disclosing Taxonomy alignment, issued by the Technical Expert Group on Sustainable Finance, focuses primarily on reporting contribution to the first two objectives but it does include advice

(RTS) under the Sustainable Finance Disclosure Regulation, which were published in the Official Journal of the EU on the 25th of the month. Applicable from 1 January 2023, the standards require a wide range of financial market participants to produce a statement on the principal adverse impacts of investment decisions on sustainability factor, and also to provide a description of the principal adverse impacts of investment decisions on sustainability factors² using a range of indicators set

1 COM/2021/189, para 42.

2 Article 1

out within the regulation³. With regard to waste, investors must disclose the weight of non-recycled waste generated by investee companies per million Euro invested (expressed as a weighted average). In terms of recycling of water, disclosures of the weighted average percentage of water recycled and reused by investee companies must be provided. The standards are particularly significant for the construction sector in that they require real estate investors to achieve an indication of the share of raw building materials (excluding recovered, recycled and bio-sourced) compared to the total weight of building materials used in new construction and major renovations. The share of real estate assets not equipped with facilities for waste sorting and not covered by a waste recovery or recycling contract must also be disclosed by investors.

The future role of the accounting profession in the circular economy

The pace with which action is being taken by accounting bodies with regard to reporting for the circular economy varies internationally. The Netherlands offers the most notable example of a

progressive movement in the area. The Royal Netherlands Institute of Chartered Accountants has partnered with the Dutch Circle Economy organisation to found Coalition Circular Accounting (CCA), a body aiming to identify and overcome accounting-related challenges that hinder the transition to the circular economy. CCA (2022, p.4) explains that 'circular accounting describes the practice of measuring, analysing and reporting on a company's financial and non-financial performance, to truly reflect the value and impact of circular businesses on all relevant stakeholders'.

Gaining sufficient environmental literacy and accessing the requisite data to take relevant measurements for materials, water, waste, and emissions is a challenge for many; yet, the CCA point out further issues facing the accounting profession in the future with respect to reporting for companies engaged in the circular economy. While in the circular economy, waste should theoretically cease to exist, residual resources, or by-products, will remain. In the absence of mature markets, pricing of such resources may be difficult. The CCA advises that these are best treated as contingent assets, to the extent that

their future economic value is yet to be determined and will depend on future events that are not under the control of the company. Furthermore, assets which are deployed in the circular economy, in theory, should have an infinite useful economic life. On this point, the CCA suggests the term 'scrap' or 'residual' value be replaced with the term 'harvest' value, i.e. the value of the benefits that may be derived from an asset at the end of its UEL. The body encourages accountants to discuss this with clients and adjust depreciation schemes accordingly. Indeed, the balance sheet as a whole may take on a new form such that it represents not just the firm's position in terms of financial capital, but also in terms of social and environmental capital. Future audits may require a redefinition of risk to encompass aspects relating to the societal and environmental impacts on a double materiality basis, i.e. incorporating the impact of the company's business on society and the environment as well as the impact of society and the environment on the business.

Global multinational and other large companies increasingly establish and expand departments solely tasked with



³ Article 3

transitioning to this new economic model and providing related reports and disclosures. However, smaller companies will face difficulties due to a lack of necessary resources, likely leading them to refer to their accountants who have traditionally served as sources of financial advice and reporting functions. Leading to the conclusion that education and training in accounting for sustainability and the circular economy is a fundamental priority, one which much of the national and international policy formation discussed in this article has devoted little attention to.

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