ACCOUNTANTS ENABLING THE CIRCULAR ECONOMY

Circular business models are necessary to ensure the sustainability of resources and nature and to achieve sustainable development. However, it is challenging to change legacy mindsets away from linear business models upon which economies have become dependent. It involves rethinking value, impact and risk in a world where materials and products can be kept in use as long as possible to eliminate waste and pollution. Shifting to a circular economy is crucial to close the 'circularity gap' in worldwide resource use, which in recent years is still above 90% (as shown by the reports from Circle Economy and the World Economic Forum).

Circular thinking has implications on the application of accounting and financial principles, for example, depreciating assets until they have no value does not provide incentives for shifting to circular business models. Accountants need to be able to evaluate decisions beyond the financial value generated.

To consider the opportunities and challenges to circular economy adoption, Usha Ganga, NBA Topic Director Sustainability and Aglaia Fischer, Circle Economy, Finance Initiative Lead presented on the work of The Royal NBA and Circle Economy as part of the Coalition Circular Accounting (CCA). CCA's work aims to identify and overcome finance and accounting-related challenges that hinder transitioning to a circular economy. The CCA comprises a group of experts and scientists from finance, accounting and law. Members include NBA, Circle Economy, Invest-NL, ABN-AMRO, Rabobank, Alfa Accountants, KPMG, Allen & Overy, Sustainable Finance Lab, Impact Economy Foundation and scientists associated with Nyenrode Business University and Avans University of Applied Sciences. Their work and latest report, Financial accounting in the circular economy: Redefining value, impact and risk to accelerate the circular transition, is summarized in an article on the IFAC website, Financial Accounting Must Enable the Circular Economy.

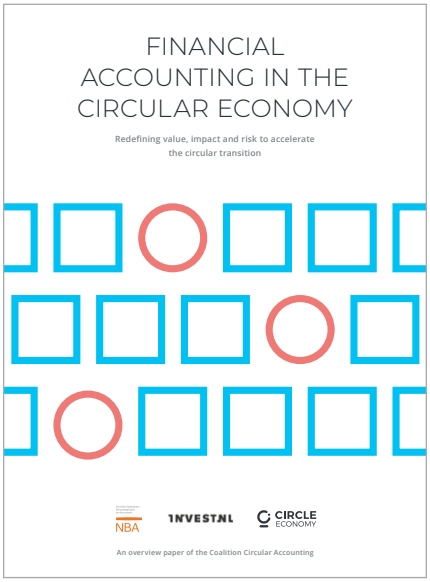
Circular business models are not yet commonplace practice among companies or accountants, and the benefits are not well-understood. Circularity requires innovation in business models and resource use, as well as in financial management and accounting.

KEY CONCEPTS

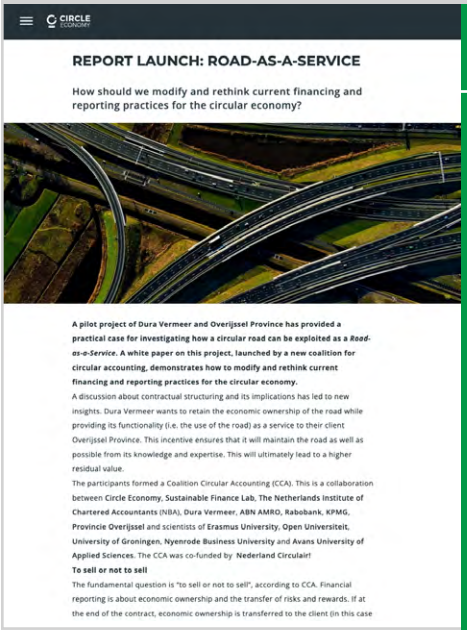
Circular economy is an economic system that maintains a circular flow of resources by regenerating, retaining or adding to their value.

Circular business models involve strategies to narrow, slow, close and regenerate resource cycles or loops.

Circular revenue models allow value to be captured with circular strategies and can be distinguished depending on economic ownership structure. Examples include deposit models, lease and rent models, the Sell-and-Buy-Back model (where the user becomes a temporary economic owner and may sell the product back to the producer), as well as the Product-as-a-Service (PaaS) model.



CASE STUDY


CIRCLE ECONOMY

REPORT LAUNCH: ROAD-AS-A-SERVICE

How should we modify and rethink current financing and reporting practices for the circular economy?

A pilot project of Dura Vermeer and Overijssel Province has provided a practical case for investigating how a circular road can be exploited as a *Road-as-a-Service*. A white paper on this project, launched by a new coalition for circular accounting, demonstrates how to modify and rethink current financing and reporting practices for the circular economy.

A discussion about contractual structuring and its implications has led to new insights. Dura Vermeer wants to retain the economic ownership of the road while providing its functionality (i.e. the use of the road) as a service to their client Overijssel Province. This incentive ensures that it will maintain the road as well as possible from its knowledge and expertise. This will ultimately lead to a higher residual value.

The participants formed a Coalition Circular Accounting (CCA). This is a collaboration between **Circle Economy, Sustainable Finance Lab, The Netherlands Institute of Chartered Accountants** (NBA), **Dura Vermeer, ABN AMRO, Rabobank, KPMG, Provincie Overijssel** and scientists of **Erasmus University, Open Universiteit, University of Groningen, Nyenrode Business University** and **Avans University of Applied Sciences**. The CCA was co-funded by **Nederland Circulair!**

To sell or not to sell

The fundamental question is "to sell or not to sell", according to CCA. Financial reporting is about economic ownership and the transfer of risks and rewards. If at the end of the contract, economic ownership is transferred to the client (in this case

CIRCULAR ROADS

Road-as-a-Service is a pilot project in the Overijssel province in the Netherlands, led by Dutch construction and infrastructure company Dura Vermeer. In this new model, the client (Overijssel) is the legal owner of the road while the contractor (Dura Vermeer) retains the economic ownership of the raw materials of the constructed road and the use of the road as a service. Both parties enter into a contractual obligation while the road is in use. The client covers a periodic payment for the services of the contractor based on functional requirements of the road, such as safety and availability. It is the contractor, however, who bears the costs of road maintenance.

Because the contractor is entitled to collect the residual value at the end of the contract term, the company is incentivized to use durable, long-lasting materials and to optimize the maintenance and (re-)use of the road and the raw materials used in the process.

FROM RISK TO OPPORTUNITY

Excessive pollution and waste, unsustainable resource extraction and biodiversity loss are significant sustainability risks that can be turned into opportunities through circular strategies and business models, which eliminate waste, keep products and materials in use and regenerate nature. The transition to a circular economy will also substantially reduce CO2 emissions and is therefore essential to reaching climate goals.

Circularity involves rethinking:

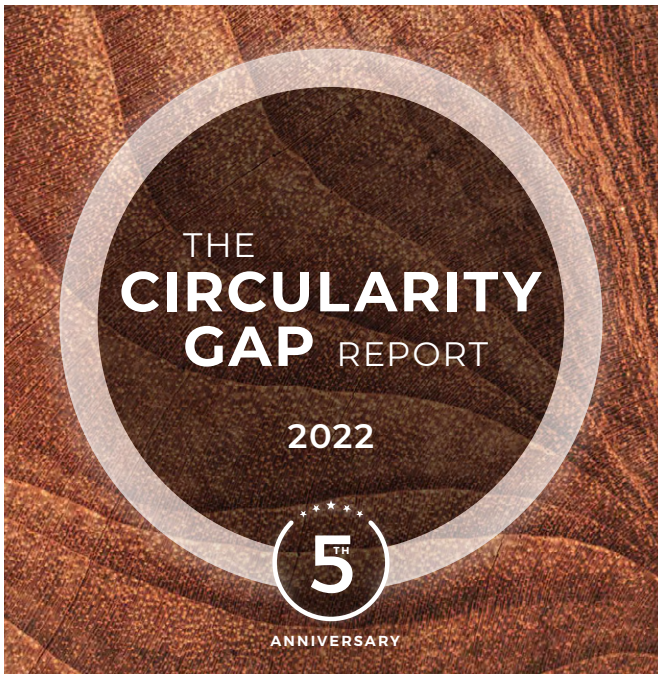
- **Value** – understanding and quantifying the value generated with circular business models and re-assessing concepts of value, for example, in circular thinking regarding waste as residual value can lead to uncovering previously undervalued uses.
- **Impact** – consistent, comparable and reliable impact measurement and reporting are needed to enable circular economy decisions. Different formats for presenting impact data are evolving such as integrated profit and loss statements and multi-capital balance sheets.
- **Risk** – holistic risk assessments which take into account a company's total long-term impact and relationship with the human and natural environment—not only financial returns— are needed to steer capital away from non-circular business models, and towards ones that promise long-term, stable value creation and positive impact.

Circular economy solutions involve various strategies including:

- Narrowing resource loops (use fewer resources) through innovations in the production and design of products, such as resource efficiency and optimized logistics. It can involve understanding and supporting solutions to make production processes more efficient by using fewer resources e.g., recovering CO2 from production and reusing, replacing non-renewable fossil or virgin resources, or redesigning products to reduce material use.
- Slowing resource loops (use resources for longer) by increasing product longevity through design for durability, repairing, and remanufacturing. Extending the life of products starts with products that are already in use and changing designs to expand the duration of product use.
- Closing resource loops (use resources again) by making sure that all resources are reused in new product life cycles after use, through reverse logistics and take-back programs which involve reusing material at the end of consumer use of a product.
- Regenerating resource loops - Improving nature and biodiversity through changed practices. The changes in farming and land practices in the food and agriculture industry as highlighted by Olam are a good example. Regeneration strategies are also becoming more common to protect raw materials.

The shift to circularity is not straightforward. Obstacles that need to be considered and overcome include:

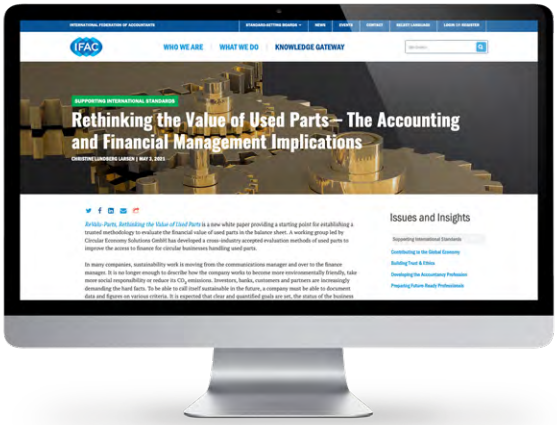
- Business feasibility, particularly in the absence of government policy to incentivize investment in a circular economy and sustainability. Investment and solutions are more likely to be driven at an organization level within a government policy framework. Without this context, the return on investment on new or alternative technologies and solutions may not appear to be economically viable for some businesses. The introduction of better tax policy and enabling environmental regulations that help to create a level-playing field among companies can all provide important incentives.
- Technical feasibility and practical implementation - a lack of awareness of the practical changes to operating practices, and products and services that would lead to circular resource-efficient business models. Awareness of solutions that reduce waste and emissions is typically lacking and often requires expertise in the science underpinning business processes and products.
- Reliable data on sustainability impacts and risks and opportunities is necessary to focus strategy and business model changes on targeted high-impact areas.
- A system-wide change is needed to build consumer demand and enable supply.
  - It is important to build consumer awareness and demand for products as a service and their benefits, particularly where there are higher upfront costs for products with longer lives. Longevity needs to become a key product feature;
  - Suppliers must collaborate on critical aspects to shift to circular such as materials, design, enhancing quality and repairability to increase longevity which may require changes in manufacturing and production processes;
  - Circular solutions must be profitable over time to enable business viability.
- Mindsets must change to view waste and pollution as design flaws and to move away from the take-make-dispose linear business model. Circularity can also challenge the idea that incremental improvements to production processes and products are in themselves sufficient.



POSITIONING CFOS AND FINANCE FUNCTIONS TO HELP ENABLE CIRCULAR BUSINESS MODELS

To help, CFOs and finance functions can:

- Address data limitations particularly relating to sustainability impacts and related risks and opportunities; where information is not available, the finance function is well placed to work with others such as engineers and surveyors to collect, filter and report on the information needed to support decision making and reporting.
- Select key impact metrics relating to resource efficiency, waste and emissions according to global standards and supplement with local sustainability priorities, for example, related to water, and build measurement methodologies to ensure reliability and comparability. Appropriate targets to meet circular economy goals can then be established.
- Ensure financial planning and management tools such as budgeting incentivize innovation to support sustainable practices and solutions aligned to goals and strategy. Financial modeling and decision criteria may need refining to ensure the long-term benefits of projects are balanced against short-term economic realities. For example, economic value-added and other financial measures of value and return need to incorporate wider performance metrics such as those related to enhancing reputation.
- Address accounting challenges such as new depreciation models to assign value to products and resources after their useful life. Current asset depreciation over the useful life of an asset discourages circular thinking. A working group led by Circular Economy Solutions GmbH has developed methods for valuing used parts and materials on the balance sheet (see Rethinking the Value of Used Parts – The Accounting and Financial Management Implications).



- Frame the business case for transforming business models to enable business resilience and viability. For example, circular business may require new service models that do not require product ownership and accompanying shifts in revenue models to focus more on services such as warranties, repair and maintenance.
- Ensure all relevant principal and financial risks of linear business models are understood such as the potential for fossil-based assets to lose economic value quickly through higher costs driven by carbon taxes. This may involve stopping activities now even though they are still profitable in the short term.
- Identify opportunities and risks related to transitioning to a circular economy.
- Rethink relationships with other functions and external stakeholders to ensure that an enabling industrial ecosystem is developed to maintain and support a circular business approach.
- Where external financing is needed, engage with investors and financiers to demonstrate the value proposition of circular business model changes such as how these will lead to new sources of value creation for key stakeholders.

KEY RECOMMENDATIONS FOR THE PROFESSION TO ADVANCE THE CIRCULAR ECONOMY

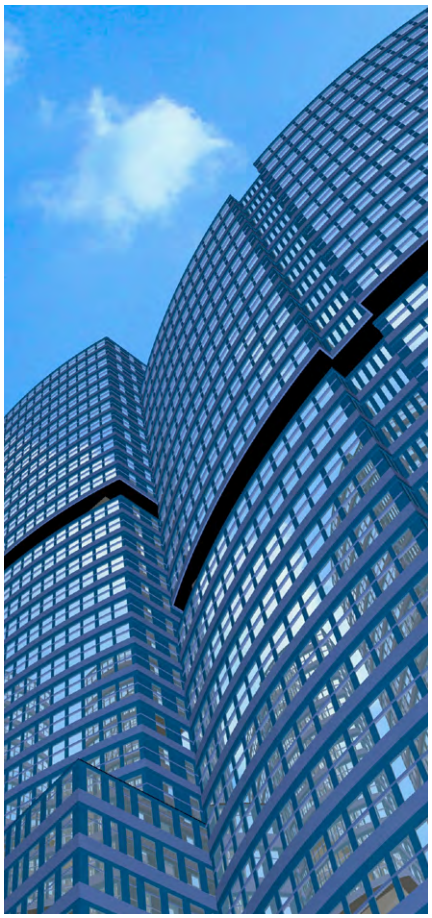
Convene forums with relevant stakeholders help to facilitate debate and alignment on country strategies for enabling circular economy thinking and overcoming obstacles to the circular transition. Key partners and collaborators include private sector leaders in circular business models, active investors and financiers, relevant government ministries and departments to broker political support, business organizations such as chambers of commerce, NGOs and customer groups.

Highlight best practices in circular business models and industry case studies that demonstrate practical solutions and the multi-capital and stakeholder benefits of investing in the circular economy.

Consider incorporating circular business as part of the education, training, and professional development of accountants including in existing education and training programs that are provided to members including sustainability learning and continuing professional development programs. These programs can include specific learning on circular and resource-efficient business models and how reporting and valuation can enable circular decisions.

Monitor and contribute to how global and jurisdictional sustainability reporting standards deal with information disclosure related to the circular economy and resource use. For example, sustainability reporting standards being developed in the European Union are likely to reference disclosure requirements for resource use and circular transition in support of the EU Green Deal, EU Taxonomy regulation and EU Circular Economy Action Plan.

Advocate for policy incentives and support for businesses including from a tax and revenue perspective and ensure policy schemes are designed to achieve desired outcomes.



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