

Megatrends, circular economy business models, and sustainability regulation in business

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Abstract: The clock of the end of the world was moved forward again at the beginning of 2026. At the same time, updated megatrends and 2026 trends were published, and consideration was given to how to continue anticipating adverse factors and strengthen sustainable development measures through corporate actions. If there is no healthy planet, there is no business. On the other hand, the EU-level sustainable development directives will be relaxed, for example, through Omnibus I. Despite this, Finnish companies, for example, have incorporated sustainability factors into their strategies and are ready to continue promoting sustainability through regulatory compliance and circular-economy business models. To support this, the ImpAct project at Laurea and Haaga-Helia has designed a tool to facilitate VSME reporting. From the perspective of foresight and circular-economy business models, the Finnish SME Bioscale, for example, aims to minimize food waste in practice, thereby strengthening the planetary dimension.

Keywords: circular economy business models, sustainability, VSME, megatrends

1 Introduction

The world, our planet, is in constant change. We should be aware of the condition to which we return the planet for the next generations. The development can be estimated, e.g., using megatrends that affect behavior, demography, and businesses. After the Corporate Sustainability Reporting Directive (CSRD) was mitigated in 2025, the Voluntary Sustainability Reporting Standard for SMEs (VSME) took shape to guide companies. The wording of the regulations may be difficult for SME

representatives to understand. For this reason, the ImpAct project decided to use legal design to develop the VSME tool, a tool for SMEs to support company representatives in reporting. The discussion around sustainable business models continues to focus on circular economy business models and their productivity and profitability. Therefore, comparable examples of real businesses are also important for ideation. In this paper, we address megatrends, VSME, circular-economy business models, legal design, the results of the ImpAct project, and the Bioscale example.

2 Theoretical background

2.1 Megatrends

We live in a time where only change feels permanent. To perceive the big picture over the long term, megatrends support thinking and planning. In Finland, the last time Sitra held the megatrends publication event was in January 2026.

Megatrends describe continuity and gradual change, helping to perceive root causes and the overall picture of change, and to put together a trajectory of global change shaped by phenomena. Megatrends can be used to consider, for example, different possibilities for building the future. In Finland, the focus on megatrends focused on topics ranging from the importance of people and culture to a long-lived society, from the significance of power and politics to the transformation of the world order and the power of democracy, from the importance of nature and resources to adaptation and renewal, and from the significance of technology and the economy to the transformation of the foundations of society through the impact of artificial intelligence. By leveraging megatrends, companies can identify opportunities to build a sustainable future and maintain Earth's carrying capacity. We only have one Earth, and we must keep it habitable for future generations as well. This is influenced by the geographical and political frameworks within which we are building a sustainable future together. Sustainability and new technologies require, among other things, new expertise and new materials. The circular economy is one option within the boundary conditions to ensure resource availability. [1]

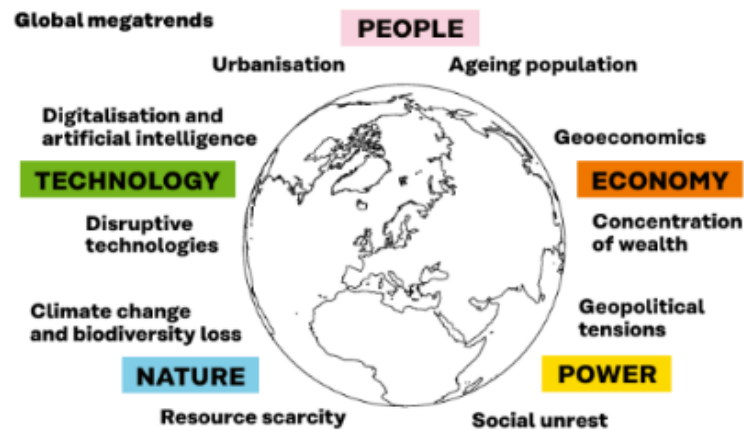


Figure 1
Global Megatrends [1].

2.2 Voluntary Sustainability Reporting Standard Framework

The purpose of the CSRD initiative was to simplify and harmonize the corporate responsibility framework and to make comparisons between companies of different sizes more comparable and easier to understand, for example, by committing companies to implementing the Green Deal and sustainable development. [2]

As the world changes, the European Commission's perspectives seek to adapt to both short- and long-term needs through directives and regulations. This can be seen, for example, in the development of the CSRD initiative into a directive, and in the issues that have supplemented or lightened it, such as Omnibus I [3], the Biodiversity Loss Regulation [4], the Ecodesign Directive [5], and the Green Claims Directive [6].

Regarding the double materiality analysis included in the CSRD relief, the reporting obligation for more than 1,000 data points would apply only to Europe's largest companies. As these smaller companies continued the sustainability measures they had begun, EFRAG developed a lighter regulatory framework, VSME, based on the new CSRD. [7]

VSME is a voluntary standard developed to support sustainability reporting by unlisted micro, small, and medium-sized enterprises, enabling them to report on the actual and likely positive and negative impacts of their business activities on people and the environment in the short, medium, and long term. In addition, it can be used to report on the actual and likely impacts of environmental and social issues on the company's position, success, and revenue stream in the short-, medium-, and long-term. [8] The information used in reporting must be appropriate, truthful,

comparable, understandable, and verifiable. In VSME reporting, the company defines the scope and content of its reporting, which it can specify and expand if it wishes. Reporting after the first year must be proportional to prior years' reporting so that changes between years are clearly visible. [9]

Regulatory frameworks, directives, and regulations can be difficult for business representatives to understand. To support the consideration and completion of these, the ImpAct project produced understandable, easily accessible tools using legal design, such as a form and a PowerPoint slide set, that can be used to address the topics from the company's perspective.

2.3 Circular economy business models

Unsustainable consumption habits combined with urbanization lead to the generation of urban waste. The circular economy can be used to produce solutions through both top-down and bottom-up activities that focus on improving the mobility of resources and information. [10] The use of circular economy business models is emerging in response to growing global sustainability concerns and resource scarcity. They serve as tools for a sustainable future, for example, by extending product shelf life and reducing reliance on non-renewable natural resources, thereby making economic development more sustainable. In addition, they can strengthen reuse, repair, refurbishment, and reduction. [11] Circular economy business models examine how to create resource-efficient life cycles in which, for example, raw materials are mined or processed in different ways and places before their end use. Each has its own life cycle, which consists of distinct stages. [12]

3 Legal Design and Sustainability Rights

Through legal design, the aim is to achieve a human-centered and participatory functioning of the legal system, for example, through visual design. Legal design, for example, improves accessibility for laypeople. Legal design can be used, for example, to solve process and usability problems by addressing people's needs and opportunities. In this way, problems can be solved quickly and comprehensively through cooperation among different parties, and as comprehensibility increases, it becomes easier to navigate the legal system. User-centered thinking in legal design offers an opportunity to prevent challenging situations.[13][14]

When discussing legal design, Corrales Compagnucci, Barton, and Haapio are associated with the principles of knowledge design and legal approaches that anticipate and prevent legal welfare issues. [13].

The design of sustainability rights involves using visualizations to facilitate and clarify the processing of sustainability data (regulations, directives, agreements, etc.), establishing clear language standards, producing data with digital tools, and incorporating design models into the company's processes and legislative drafting. The formulation of sustainability regulation includes choices and various value bases, as well as consideration of the implementation, understanding, and enforcement of laws. [15]

4 Results

After the CSRD was eased in 2025, the VSME standard took shape to guide SMEs, for example. The wording of the regulations may be difficult for SME representatives to understand. For this reason, the ImpAct project decided to use legal design to develop the VSME tool, which supports company representatives in reporting.

Biovaaka, which uses the circular economy business model, can apply, e.g., the guidelines developed by the ImpAct project to clarify sustainability regulations and support and facilitate sustainability work. The instructions were presented in a way that made the step-by-step progression of the topic more natural. Using the instruction form, the company's representative can clearly explain the company's requirements under the Sustainability Act. The starting point for the form is to consider who, which sustainability law or regulation, in what kind of situation the need arises, and why it is needed. After this basic information, we consider what happens if someone does not receive or understand the necessary law or regulation, e.g., a risk assessment is carried out. After the risk assessment, the content of the law or regulation is described in an understandable, precise, and concrete manner to meet the needs of the company's representative. This encompasses an accurate description of what each person should, must, or cannot do. The description should use appropriate, respectful language in concise sentences with familiar, precise terms for the company's personnel. If difficult terms are encountered in the topic, they should be explained clearly and, if necessary, illustrated with examples and diagrams. In the same context, a link to the original act or website must be included so that future amendments to the act can be followed. Regarding the company's internal materials, the necessary information and links are added to ensure they reach users at the right time, comply with applicable laws and regulations, and remain up to date and ready for updates. The instructions will be made comprehensible to users, and the wording will be updated as necessary.

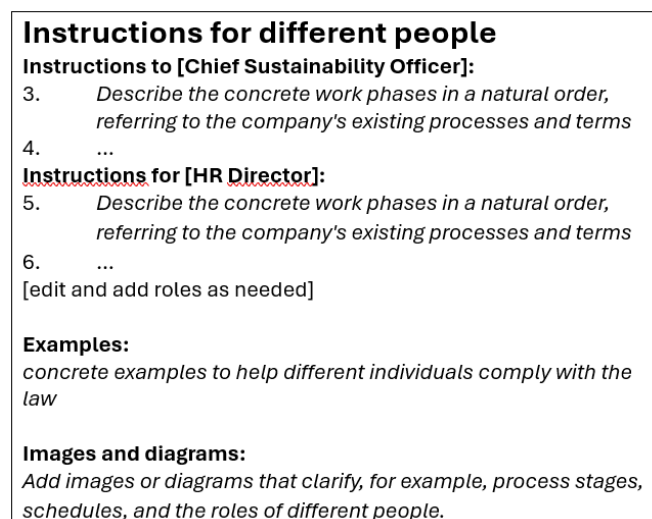


Figure 2

Example of guidelines to clarify sustainability regulations for company representatives.[16]

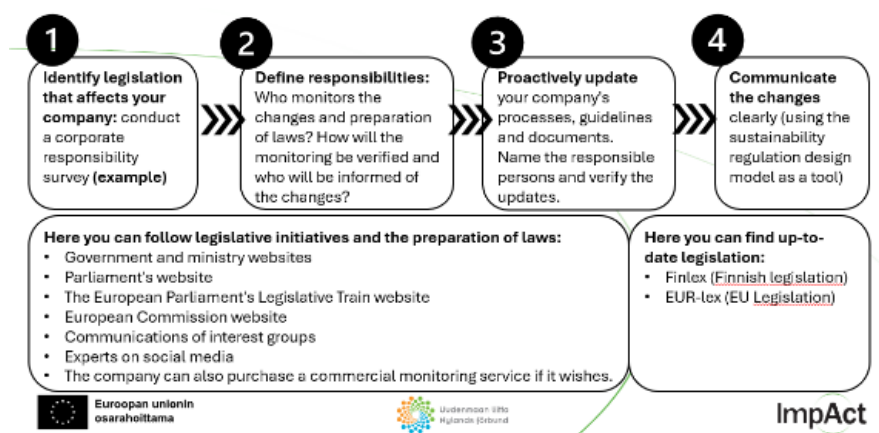


Figure 3

Template for monitoring sustainability regulation. [17]

In the ImpAct project, a sustainability reporting model for the voluntary sustainability reporting standard, published by EFRAG on 17 December 2024, was developed for SMEs, with support for legal formulation. The model, based on the EFRAG Voluntary Sustainability Reporting Standard for non-listed SMEs (VSME), included both a basic and a broader module aligned with the VSME standard's reporting items. When using the model, the document on which the model is based must be used, as the model formulated by the project does not contain all the details or instructions of the document, and it is not a model approved by

EFRAG, but a model formulated in the ImpAct project to support Finnish companies, which is why it is the user's responsibility to verify the current, current requirements.

Basic module	Extensive module
Basic Information • B1 Basis for the preparation of the report • B2 Practices, policies and initiatives for the transition to a more sustainable economy	Basic Information • C1 Strategy: Business model and sustainability initiatives • C2 Practices, policies and initiatives for the transition to a more sustainable economy
Environmental indicators • B3 Energy and greenhouse gas emissions • B4 Air, water and soil pollution • B5 Biodiversity • B6 Water • B7 Circular economy	Environmental indicators • C3 Greenhouse gas emission reduction targets and climate transition • C4 Climate risks
Social metrics • B8 Workforce: Basic Information • B9 Labour force: Health and safety • B10 Labour force: Wages, collective bargaining and training	Social metrics • C5 More information about the workforce • C6 More information on the own workforce: human rights policies and processes • C7 Serious human rights impairments
Governance indicators • B11 Convictions and fines for corruption and bribery	Governance indicators • C8 Income from specific sectors and exclusion from EU benchmarks • C9 Gender distribution of the governing body



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Figure 4
Structure of the VSME report. [18]

SECTIONS OF THE VSME DOCUMENT
 WHERE YOU CAN FIND MORE
 DETAILED INSTRUCTIONS

VSME ID AND TITLE
 OF THE
 INFORMATION TO
 BE REPORTED

B3 Energy and greenhouse gas emissions: Energy consumption

VSME:
29
82–89

INSTRUCTIONS ON
 THE CONTENT OF
 REPORTING

	Renewable energy consumption (MWh)	Non-renewable energy consumption (MWh)	Total energy consumption in 20XX (MWh)
Electricity			
Fuels			
Total			



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Figure 5
Structure of the reporting slides.[18]

By combining reporting and circular economy business models, Biovaaka Ltd has also made the monitoring of everyday food waste a focus of circular economy business models. The company's service is based on easy, fast monitoring of food waste, with clear, comprehensive reporting. It can be targeted at different stages of the process, and, in this way, monitoring food waste provides information to support development and reduce costs. The information obtained from reporting can be used, for example, to plan food orders and production volumes. [19]

Prepared food waste is not limited to discarded ingredients. It already contains labour, planning effort, and professional competence. Energy spent on storage, cooking, and heating is lost, as is water used for preparation and cleaning. In addition, transport-related fuel consumption, logistics, and associated emissions are embedded in prepared food waste. Waste, therefore, represents the loss of accumulated value created along the supply, transport, and service chain. Recent international assessments emphasize that food waste embodies wasted labour, energy, water, transport, and added value across food systems. [20]

Conclusions

Long-term global change does not emerge from regulation alone, nor can it be achieved through isolated business actions. Instead, it requires an interaction among megatrend-based foresight, sustainability regulation, and business models to translate policy objectives into everyday practices. For small and medium-sized enterprises in particular, limited resources, time constraints, and varying levels of regulatory expertise shape how sustainability measures are understood and implemented in practice.

This study highlights the role of legal design as a practical connector between regulatory intent and operational reality. Presenting sustainability regulation in clear language, structured formats, and visually supported steps does not reduce regulatory ambition but supports implementation by making requirements interpretable and actionable. In business environments where sustainability obligations compete with daily operational priorities, clarity becomes a prerequisite for effective compliance and meaningful engagement rather than an added feature.

The case of Biovaaka Ltd. illustrates how circular economy principles can be embedded into routine business activities through feasible measurement and reporting practices at the SME level. At the same time, the findings must be interpreted in light of process-related limitations. The analysis is based on project-driven development work, a limited number of illustrative cases, and a specific regulatory phase within a national context. Rather than generalizing results across all SMEs, the study demonstrates how proportionate reporting models, supported by legal design, can help align sustainability regulation with everyday decision-making. Incremental, context-sensitive actions can thus cumulatively contribute to more sustainable and resilient business practices.

Acknowledgement

The ImpAct project provides free help for monitoring sustainability regulations and reporting for companies. It facilitates monitoring of sustainability regulations and uses legal design to make, e.g., the regulation's wording understandable. It also supports SMEs, particularly in implementing VSME and innovating sustainable

products and services based on circular-economy business models. This article was developed in collaboration with the ImpAct project.

AI tools were used to support language editing, improve clarity and readability, and check the IEEE reference list.

Declaration of Interests

Dr. Jukka Sirkiä is a board member of Biovaaka Ltd., a campus-based startup company originating from LAB University of Applied Sciences and LUT University. Biovaaka Ltd. supports restaurants and professional kitchens in reducing food waste while simultaneously improving sustainability performance and operational profitability.

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