Gospodarska zbornica Slovenije
Chamber of Commerce and Industry of Slovenia

Urgent Up-Skilling

# Digital technologies for Sustainable Reporting (ESG + CSRD)

Co-funded by the European Union

Digital 4 Sustainability

Urgent Up-Skilling

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# Digital technologies for Sustainable Reporting (ESG + CSRD)

*Use of Digital Technologies for*

*Sustainability Reporting*

Co-funded by the European Union

Urgent Up-Skilling

# This course is provided by:

Gospodarska zbornica Slovenije

Chamber of Commerce and Industry of Slovenia

**January, 2025**

Digital 4 Sustainability
Skills for Europe's Twin Transition

# Agenda

1. CSRD and ESRS Standards.
2. Using digital technologies for effective reporting and examples.
3. Conclusion: how to approach it?
4. Q&A

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## Meet the speaker

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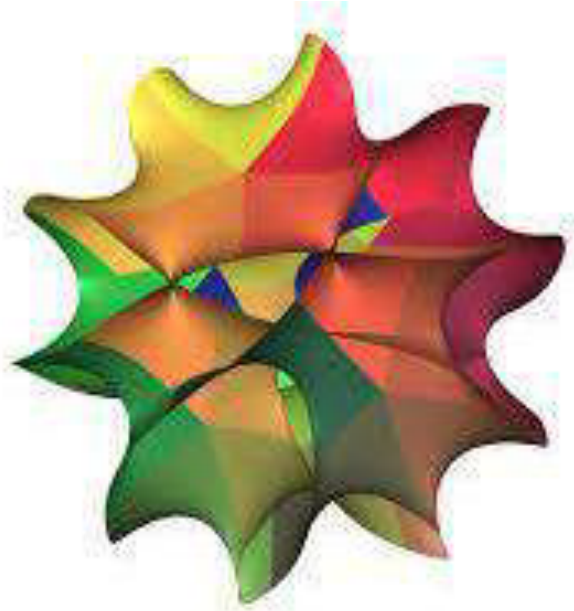
# ESG reporting

1. CSRD.
2. ESRS standards.
3. Link to other Green legislation.
4. Opportunities and challenges.



# ESG and CSRD

- ESG is the collective name for a set of standards used to assess companies on their relationship with the environment, society and governance.
- The CSRD is an EU legislative act that sets reporting requirements for companies on the environmental (E), social (S) and governance (G) aspects of their business.
- The CSRD aims to improve the accessibility, trust and transparency of ESG reports and to better demonstrate the financial value of information on sustainability.
- The CSRD establishes a common starting point for businesses in the EU


# The European Green Deal and the "green wave" of legislation

The European Green Deal is a package of policy initiatives to put the EU on a green transition path, with the goal of achieving climate neutrality by 2050. It supports the EU's transformation into a fair and prosperous society with a modern and competitive economy.

Circular economy
Consumers Biodiversity
Branches Green claims Climate
Packaging Waste Products CO2
Energy Natural environment
Financing Forests
Information Reporting

# The European Green Deal and the "green wave" of legislation

A complete change in the way information is produced and disclosed on sustainability:

- Mandatory and subject to external assurance.
- Equal importance of reporting non-financial and financial information.
- The principle of double relevance.

Reporting compliance with the new European Reporting Standards on Sustainability (ESRS).

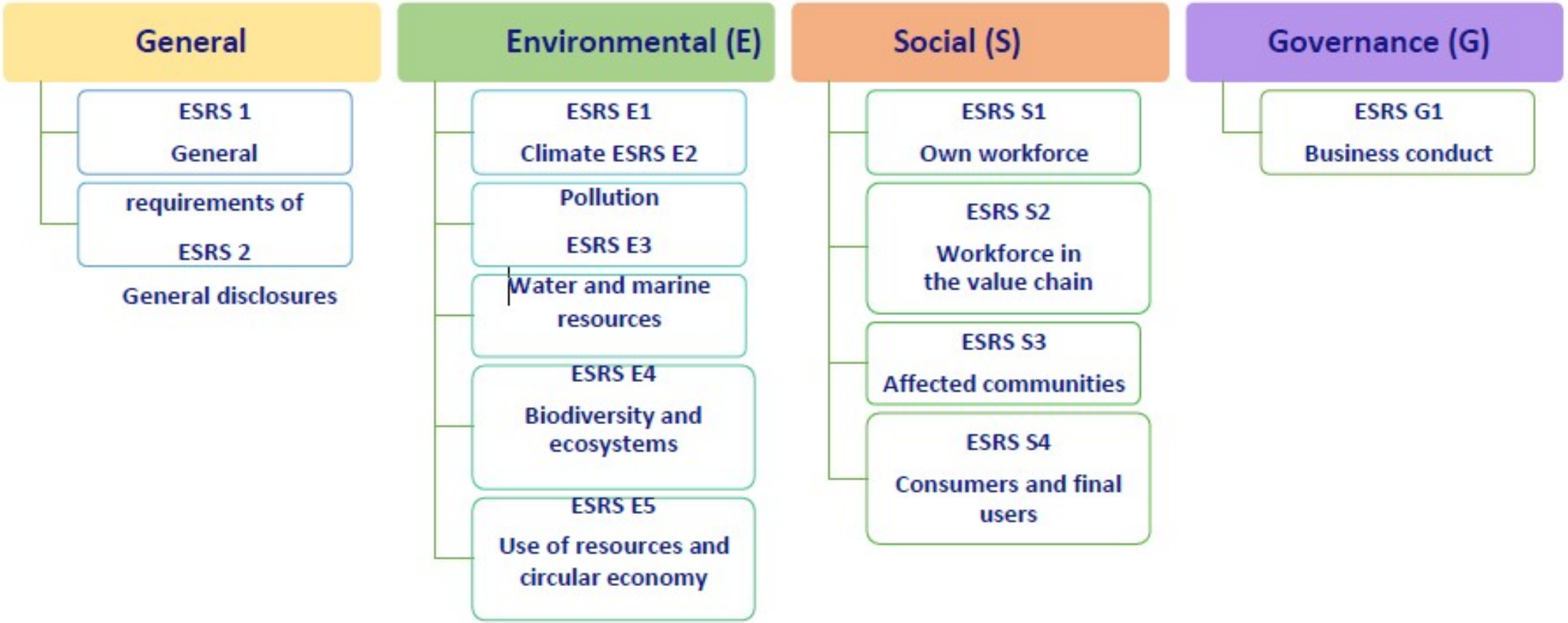
The amendment to the Companies Act (ZGD-1M), which started effective from 18 2024, implements the CSRD into the Slovenian legal order.

Companies will be obliged to report in phases, depending on their size and status: from 2025 to 2024.

Scope of reporting:

- The entire value chain.
- Restrospective and oriented towards the future.
- Short, medium and long term.
- Qualitative and quantitative.

# 12 ESRS sustainability reporting standards

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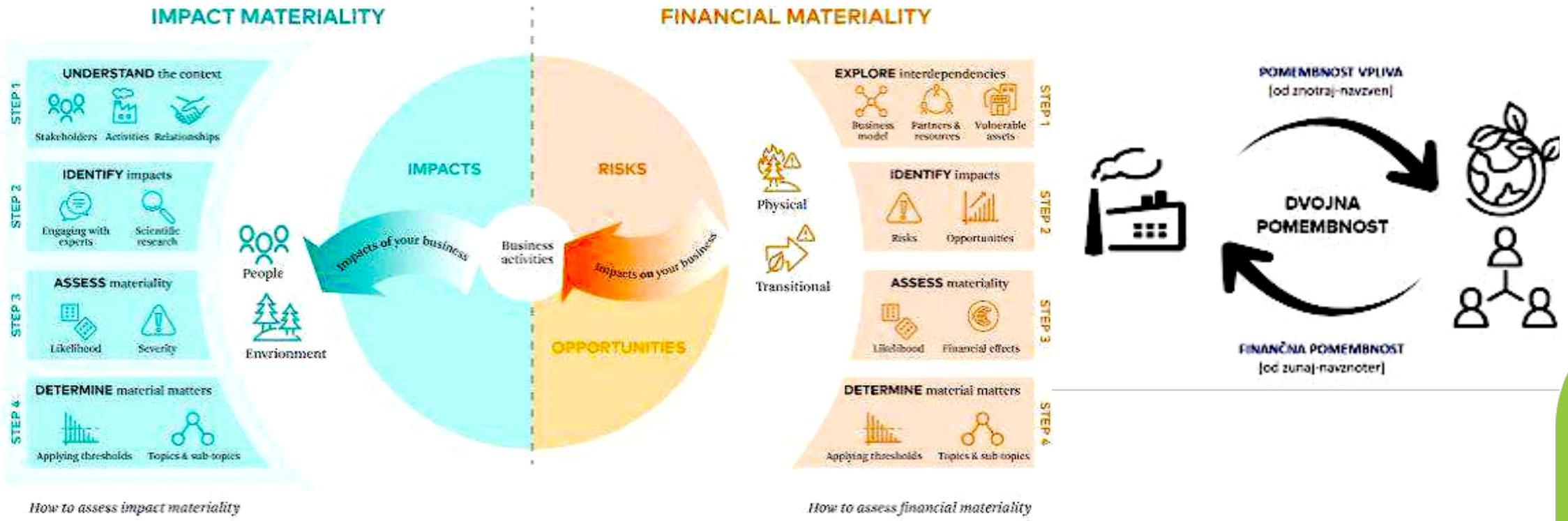
# The principle of dual relevance at the heart of reporting




*How to assess impact materiality*

*How to assess financial materiality*

# ESRS Overview E5: Resource use and the circular economy

- ESRS 2: General Disclosures.
- ESRS 2 IRO-1: Description of the procedures for identifying and assessing significant impacts, risks and opportunities related to the use of important resources and the circular economy.
- E5-1: Policies related to resource use and the circular economy
- E5-2: Actions and resources related to resource use and the circular economy.

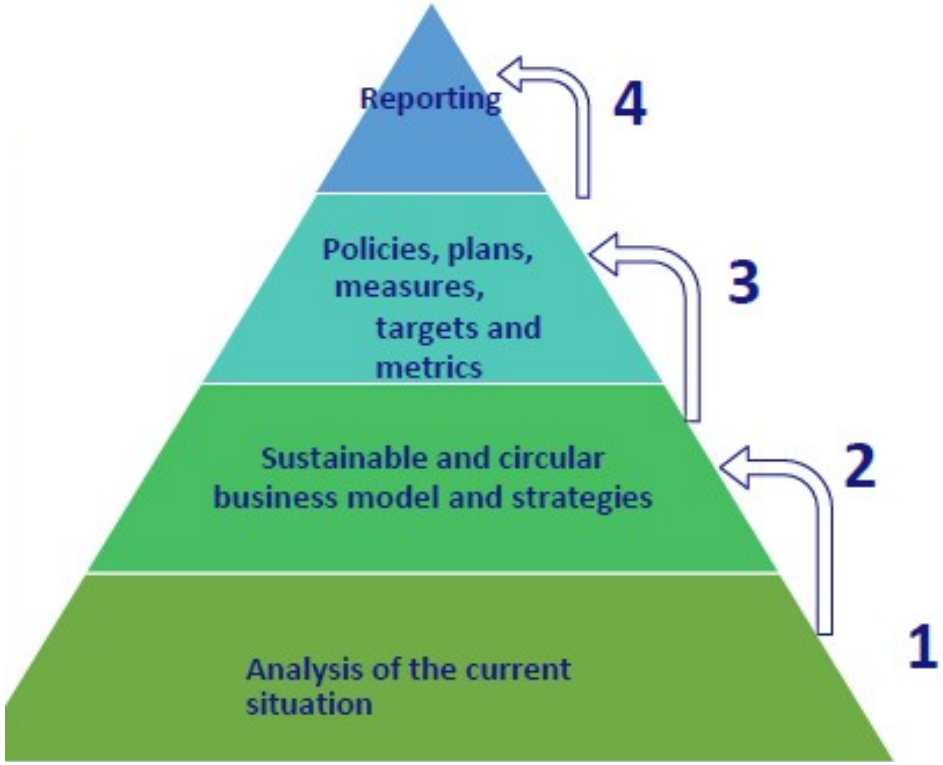
Managing impacts, risks and opportunities

- E5-3: Targets related to resource use and circular economy (ESRS 2 DC-T).
- E5-4: Resource inflows.
- E5-5: Resource outflows.
  - Products and materials.
  - Waste
- E5-6: Potential financial impacts arising from impacts, risks and oopportunitiess related to the use of important resources and the circular economy.

Metrics and targets

# The relevance of ESRS E5 for companies in the case of materiality

- Rethinking the business model and strategies in line with aspects of sustainability and the circular economy and their possible redesign
- New types of information and data required for reporting.
- Keeping new records.
- New internal processes and  controls.
- Ensuring the integrity and credibility of data is crucial importance.



# Example: the Fairphone company

| KPI Name | Result 2022 |
|---|---|
| **Outcome KPI** | |
| KPI 1: Fairphones sold | 115,681 |
| KPI 2: Longevity score | 5.5 |
| KPI 3: E-waste neutrality | 100% |
| KPI 4: Fair materials | 40% |
| KPI 5: Fair factories | 63% |
| KPI 6: Industry influence score | 19<br>(60) |
| KPI 7: Net financial results | 44 |
| **Impact KPI** | |
| E-waste avoided | 15 |
| CO2 avoided | 999 |
| People benefiting | 28,926<br>(83,803) |

**KPI 7: NET FINANCIAL RESULTS**


**Our results**

| Fairphone Financials | | |
|---|---|---|
| Financials (€ '000) | 2021 | 2022 |
| Revenue | 36,962 | 58,998 |
| EBITDA | 5,687 | 4,484 |
| Normalized EBITDA | 2,190 | 4,484 |
| Net result (€ '000) | 3,876 | 44 |

Ultimately, our industry peers will be wondering what this all translates to in terms of money. It's our mission to establish and demonstrate a market for fair and sustainable consumer electronics. This also entails showing that a mission-driven company can achieve a profit through purpose. And that's what we have been doing since achieving profitability in 2020.

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# Relationship with other Green Deal legislation

- European Deforestation Regulation (EUDR).
- Corporate Sustainability Due Diligence Directive (CSDDD).
- The Ecodesign of Sustainable Products Regulation (ESPR).
- EU taxonomy.
- Sustainable financing.
- Waste.



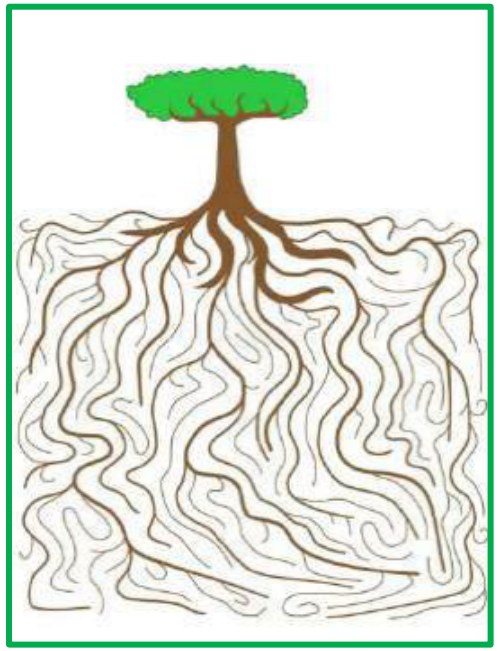


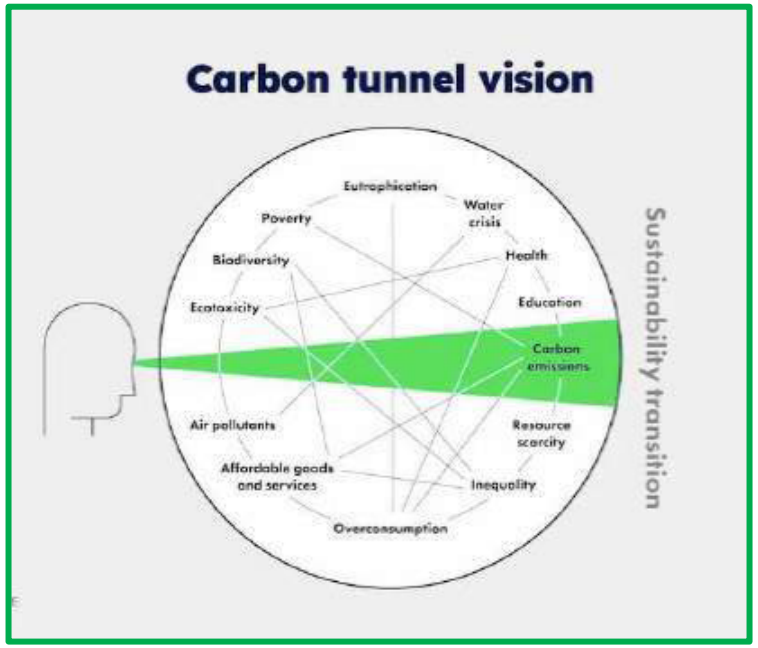
# Benefits and opportunities


- A comprehensive knowledge and understanding of the company's activities as part of the environment in which the company wants to be successful and of on which depends.
- Adapt effectively to changing external conditions.
- Creating an "intelligent" business model.
- The company's position in the sustainable and circular value chain of European producers is secured.
- Access to critical resources and materials.
- Access to sustainable finance.
- Promoting long-term cooperation and stability in stakeholder relations.

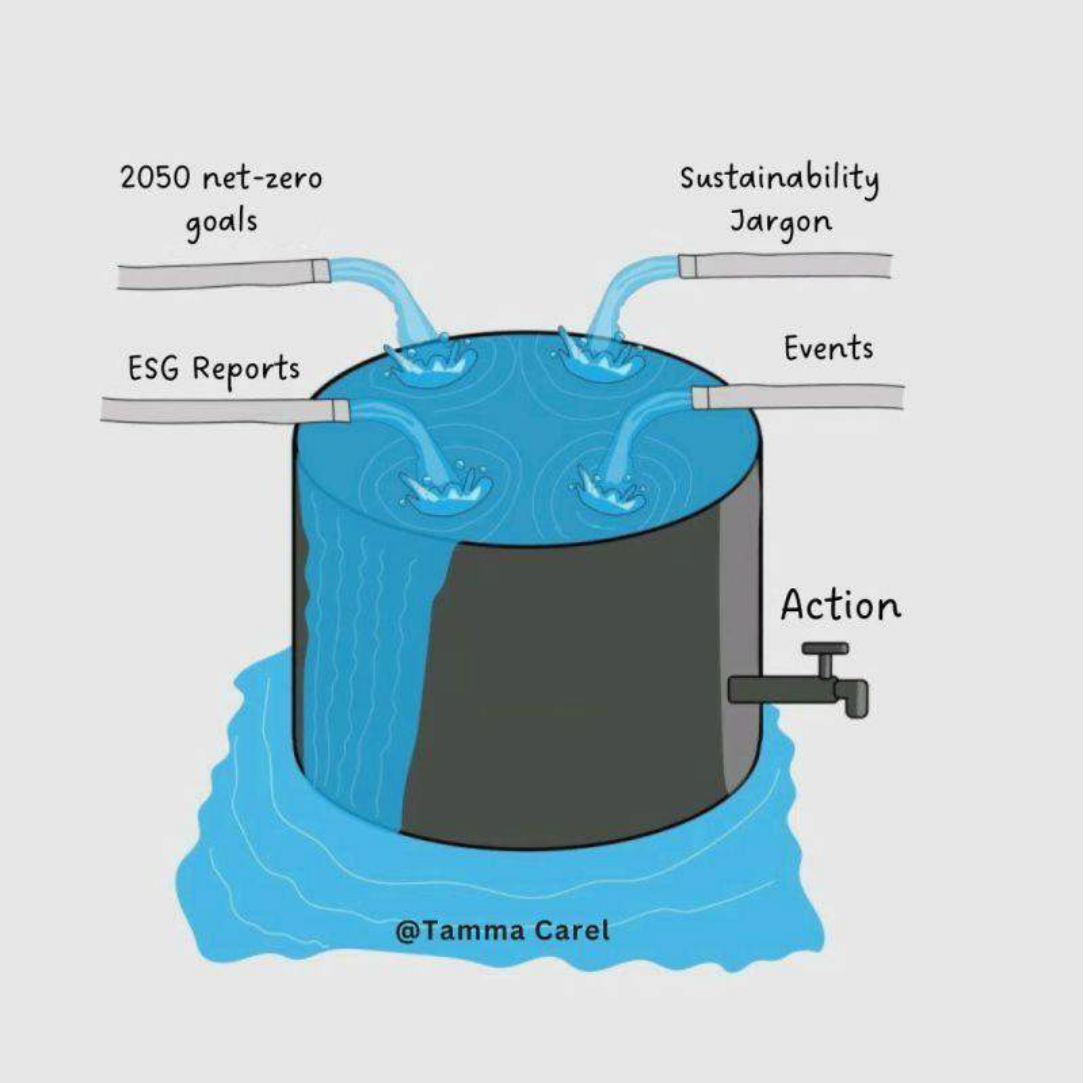
# Challenges

- The scale, complexity and
- Oversimplification.
- Change.
- Extra work.
- Time.
- Costs.
- Education.
- Report as the sole
- objective/outcome..



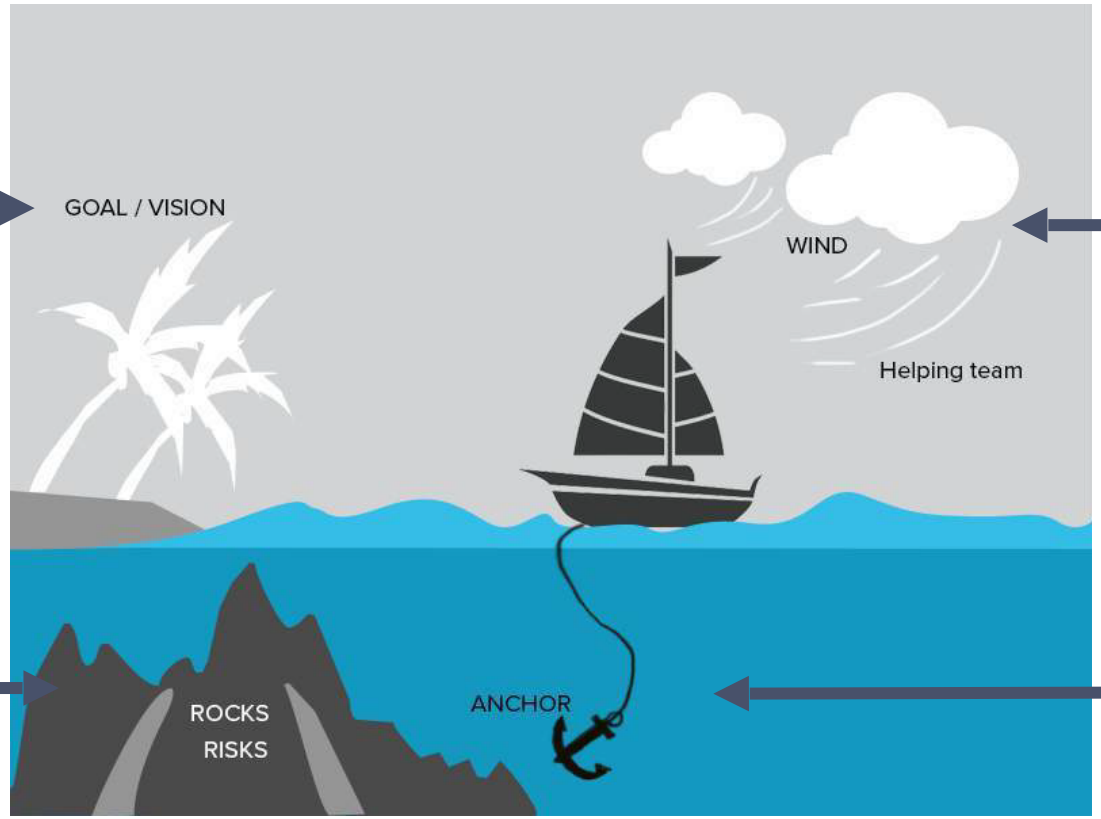


# Report as the only result



# Ensuring compliance with the CSRD is as ...

**CSRD Sustainability Report**




**Report Digital technologies**

**Digital technologies**

**Management support, lead person**

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# Using digital technologies for reporting on sustainability

1. The double gateway: 'Green and Digital Europe'.
2. The role of digital technologies and tools.
3. Big Data, Analytics and Artificial Intelligence.
4. Blockchain.
5. Specialised .

# The double transition: a green and digital Europe

Digitalization is key to achieving the Sustainable Development Goals because:

- It enables.
- Supports.
- It simplifies.
- It offers new solutions..

# The role of digital technologies and tools for CSRD reporting

- The CSRD requires a digital approach from the outset.
- Achieving the CSRD requirements without specialized software would be very difficult, if not impossible.
- Digitizing sustainability reporting can make the process more efficient and cost-effective.
- Digital systems can ensure the accuracy and consistency of the data underlying reporting.
- Data analysis, automation, blockchain and artificial intelligence offer innovative solutions to the complex challenges of CSRD compliance.

# Scope of reporting

- Scope of reporting:
- The entire value chain.
- Retrospective and forward-looking.
- Short, medium and long term.
- Qualitative and quantitative.

# The challenge: data

- Large amount of data needed.
- Complexity of collection.
- Many different sources and types.
- Credibility, transparency and verification.
- The complexity of the analysis.
- Complexity of interpretation.

# Big data, analytics and artificial intelligence

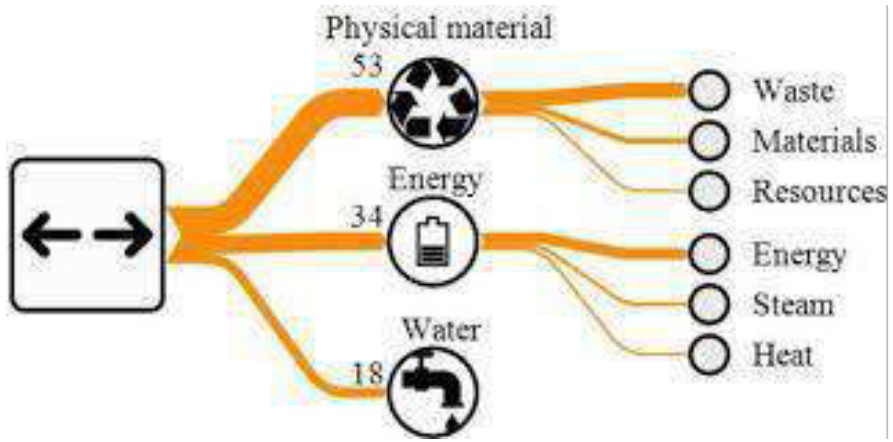

- advanced data analysis tools, companies can extract valuable insights from their sustainability data to provide a solid basis for their reports.
- AI can analyze patterns and trends in large sets, companies to predict future sustainable results and adjust their strategies accordingly.
- Predictive analytics can help companies identify potential areas of risk, enabling them to reactive action.
- Project management tools help manage the data collection process with features including descriptions of data points and data extraction formats.

# ESRS E5 Material Flow Analysis (1)

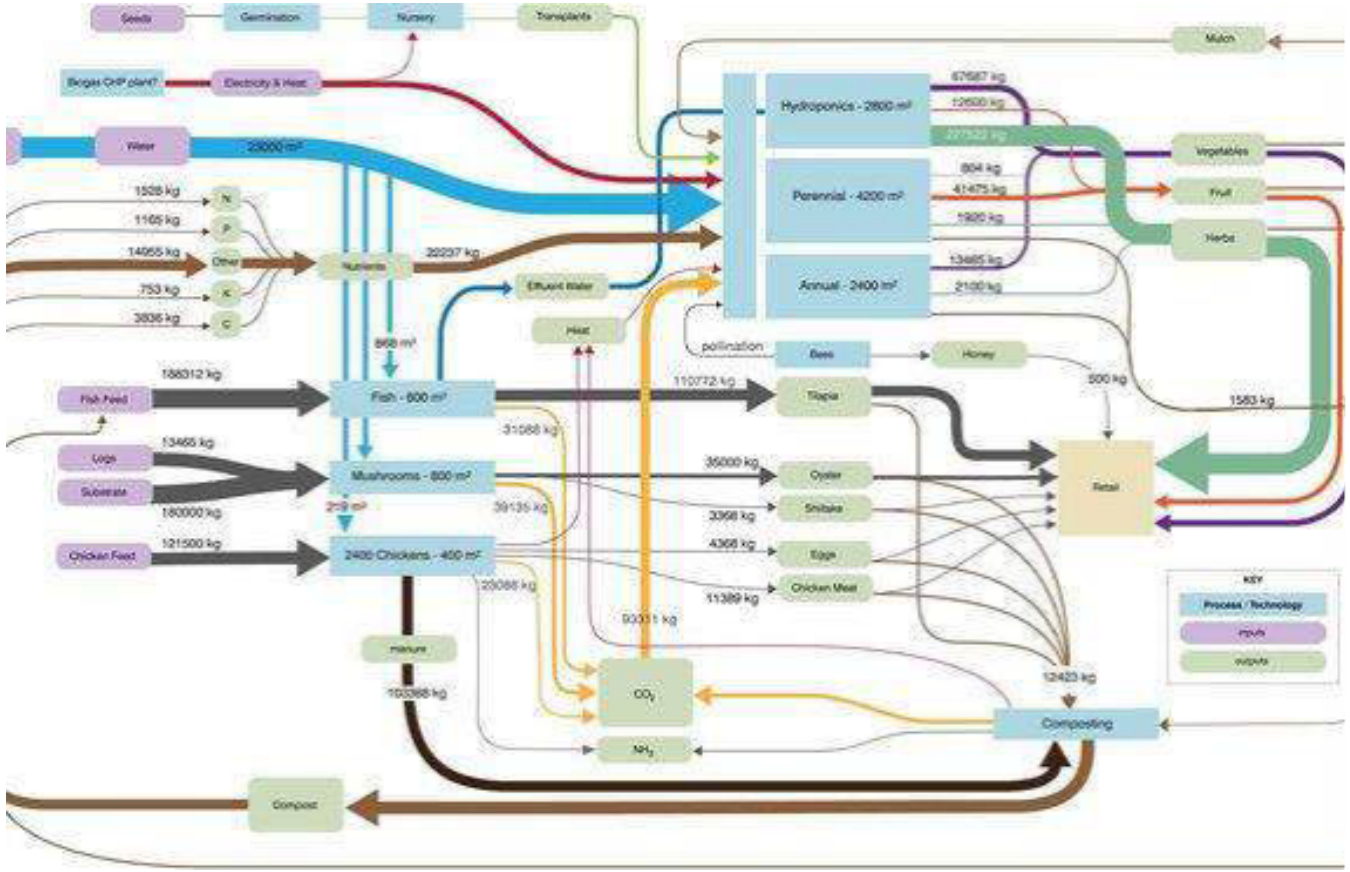
- MFA is a data-driven tool for managing the flow of resources, materials and energy.
- It involves a detailed study of the flows of input, processing and output of materials in different production systems.
- This tool is widely used in supply chains and management.
- Analysis of the flow of resources, materials and energy supports the achievement of the objectives:
- Reduce waste and pollution.
- Increasing resource, material and energy efficiency.
- Using by-products and waste from one process

as a source for another process.

- BASF, Bayer, Novo Nordisk.



# ESRS E5 Material Flow Analysis (2)

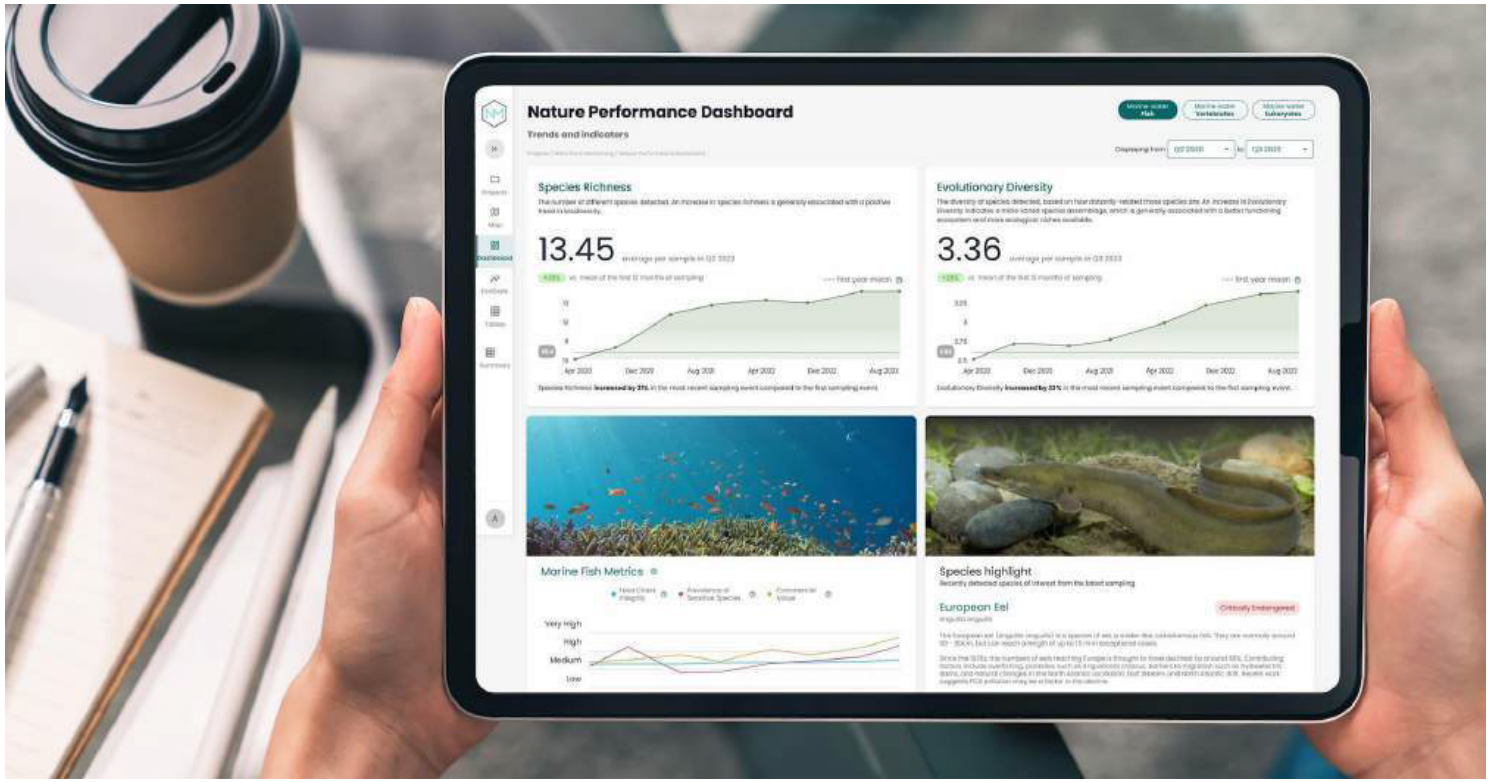


# Biodiversity measurement and monitoring ESRS E4 (1)

- All living things leave traces of their DNA in the environment (eDNA).
- Naturemetrics uses eDNA to identify individual species from small samples of soil, sediment, water and air.
- eDNA gives an accurate picture of the biodiversity in a given area. It provides the most comprehensive overview of the whole spectrum of life, no how difficult it is to detect.
- Monitoring eDNA quickly reveals changes in the environment, allowing adaptive measures to be taken.
- Use for impact reporting.
- Cargill, Purina, WWF, EDF Renewables, Tesco.

NATURE METRICS

# Biodiversity measurement and monitoring ESRS E4 (2)



# Automation (of repetitive tasks)

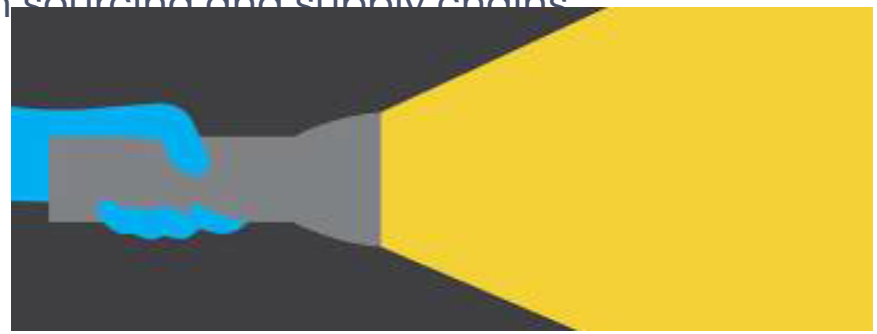
- Given the volume and complexity of data management for CSRD reporting, automation is .
- Software solutions equipped with automatic data collection and reporting can significantly simplify procedure.
- Automated systems can collect data from multiple sources, consolidate it and generate reports in formats that comply with ESRS standards.
- This approach reduces the risk of human error and improves overall efficiency.
- Automation also enables monitoring and reporting on sustainability indicators, which promotes timely decision-making and continuous improvement.
- By automating repetitive tasks, companies can allocate resources to strategic aspects of CSRD compliance, such as improving sustainable practices and promoting innovation.

# Blockchain for transparency and credibility (1)

- A blockchain is a distributed database or ledger shared by nodes in a computer network.
- Maintain a secure and decentralized record of events/transactions.
- It has enormous potential to create trust, transparency and accountability.
- Blockchain's development is multi-directional: it is best known for its key role in cryptocurrency systems, but it is also of great importance for sustainable and circular business.
- By implementing systems, it is possible to ensure an untouchable trace of all transactions and actions, related to sustainability, which greatly increases the credibility and reliability of the reported data.
- Smart contracts, companies can automate processes such as checking the sustainability credentials of suppliers.

# Blockchain for transparency and credibility (2)

- Blockchain can provide transparency and traceability in supply chains: from sourcing to distribution, maintenance, after-sales and end-of-life.
- It offers strong support against fraud, counterfeiting and contamination.
- Enables credible communication of information to customers/buyers on how companies respect social and ethical codes of conduct, how they implement their values in their processes and the environmental impact of their products.
- This allows companies to strengthen their brand and build long-term relationships with their customers.
- It enables transparent reporting on sourcing and supply chains.



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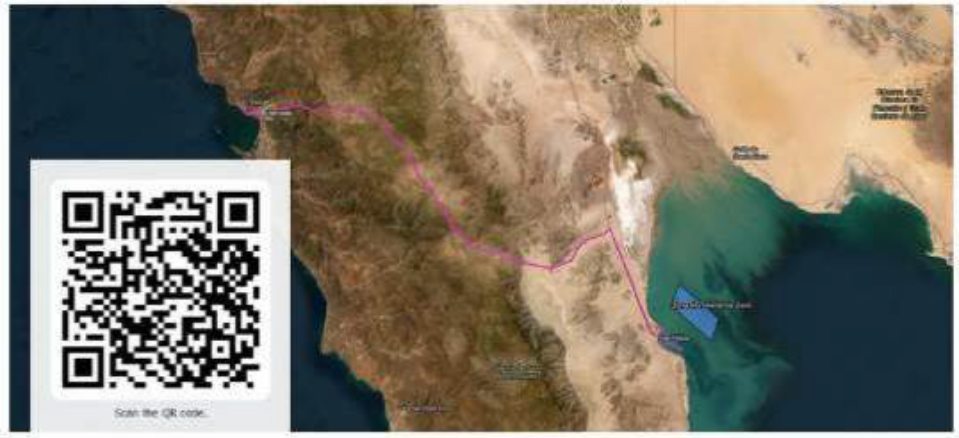
# Traceability, transparency, trust

- ESRS E1
- ESRS E4
- ESRS E5
- ESRS S2
- ESRS S3
- ESRS S4

# Transparency in the supply chain: seafood

- For seafood supply chains, Blockchain enables:
  - Product authentication.
  - Validation of claims and the existence of climate-smart practices.
  - Digitizing and optimizing supply chains.
  - Granular monitoring and asset tracking.
  - Traceability, which includes verification of legal, and sustainability risks.
  - Turning challenges into competitive advantage



A full seafood product journey traced via GoTrace on ProNatura's website

Chainparency

Goldfish™

# Transparency in the supply chain: Fairphone (1)

- Conflict minerals and destructive mining practices in the electronics industry.
- Conflict minerals are a source of significant revenue during wars and military conflicts in a given area and therefore, contribute to violence and exploitation.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# Transparency in the supply chain: Fairphone (2)



| | |
|---|---|
| **KPI 4: Fair materials** | **40%** |
| **KPI 5: Fair factories** | **63%** |

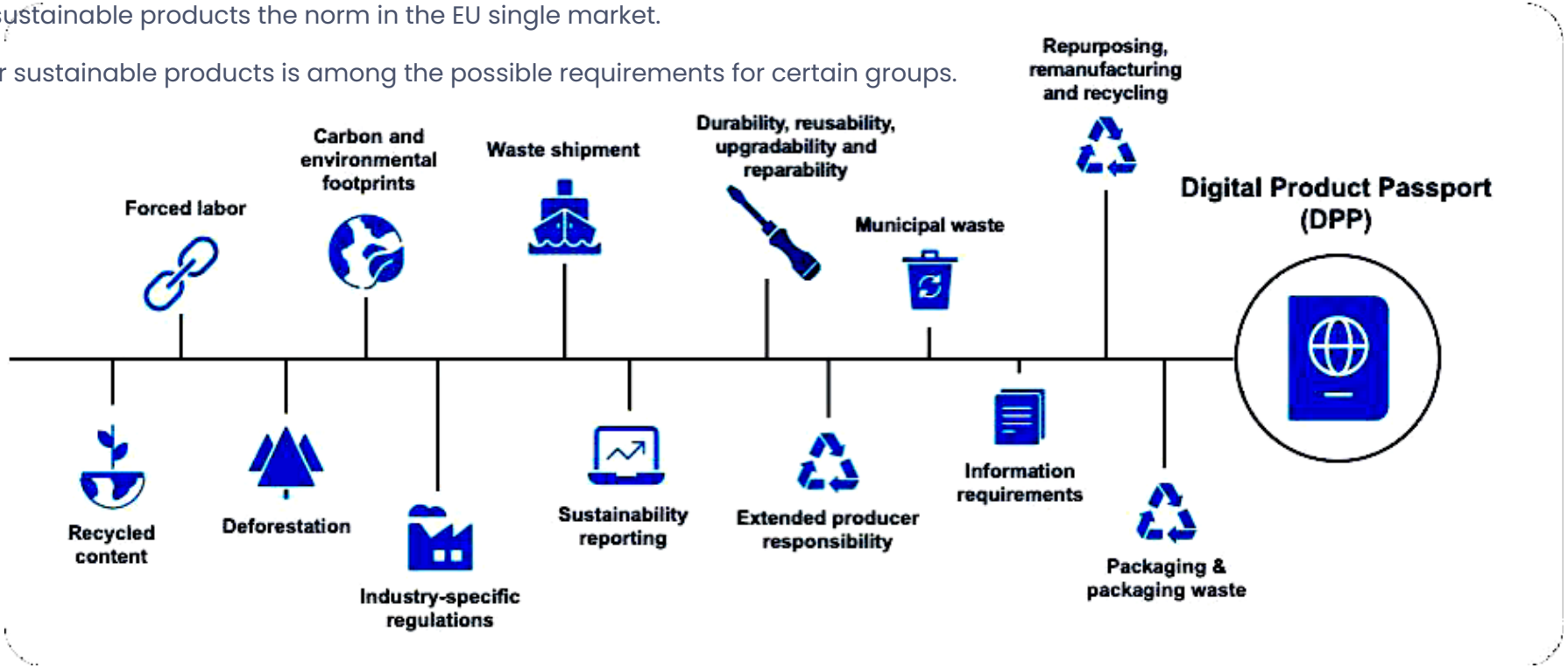
https://www.fairphone.com/hub/en/impact/source-map-transparency/

# Transparency of origin: the MudJeans Digital Passport


MUD JEANS
COTTON LEASE

# Digital passport for sustainable products in the EU

- The Eco-design Regulation for Sustainable Products (ESPR) entered into force on 18.07.2024.
- The EMFF Regulation is part of a package of measures under the CEAP Circular Economy Action Plan.
- The aim is to make sustainable products the norm in the EU single market.
- A digital passport for sustainable products is among the possible requirements for certain groups.

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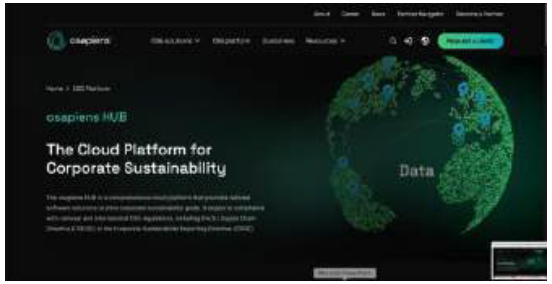
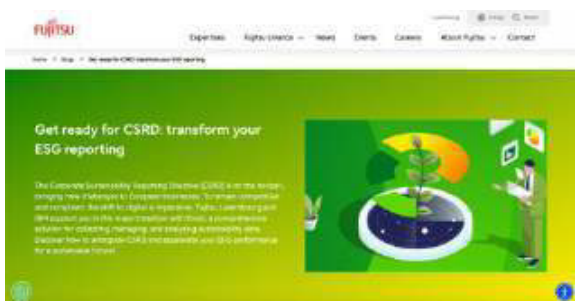
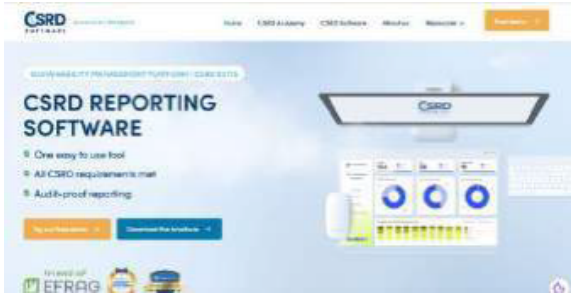
# Data types: primary and secondary data for the CSRD Reporting

# Specialised software for CSRD reporting

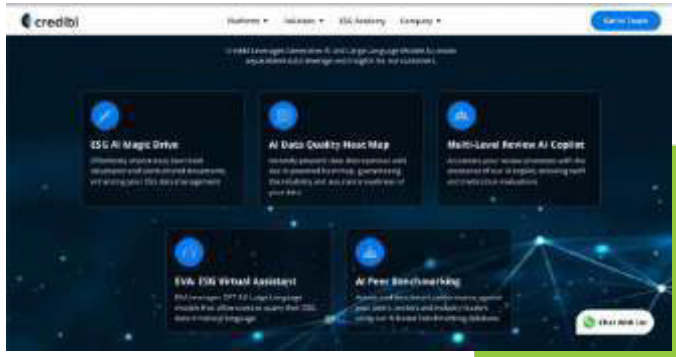






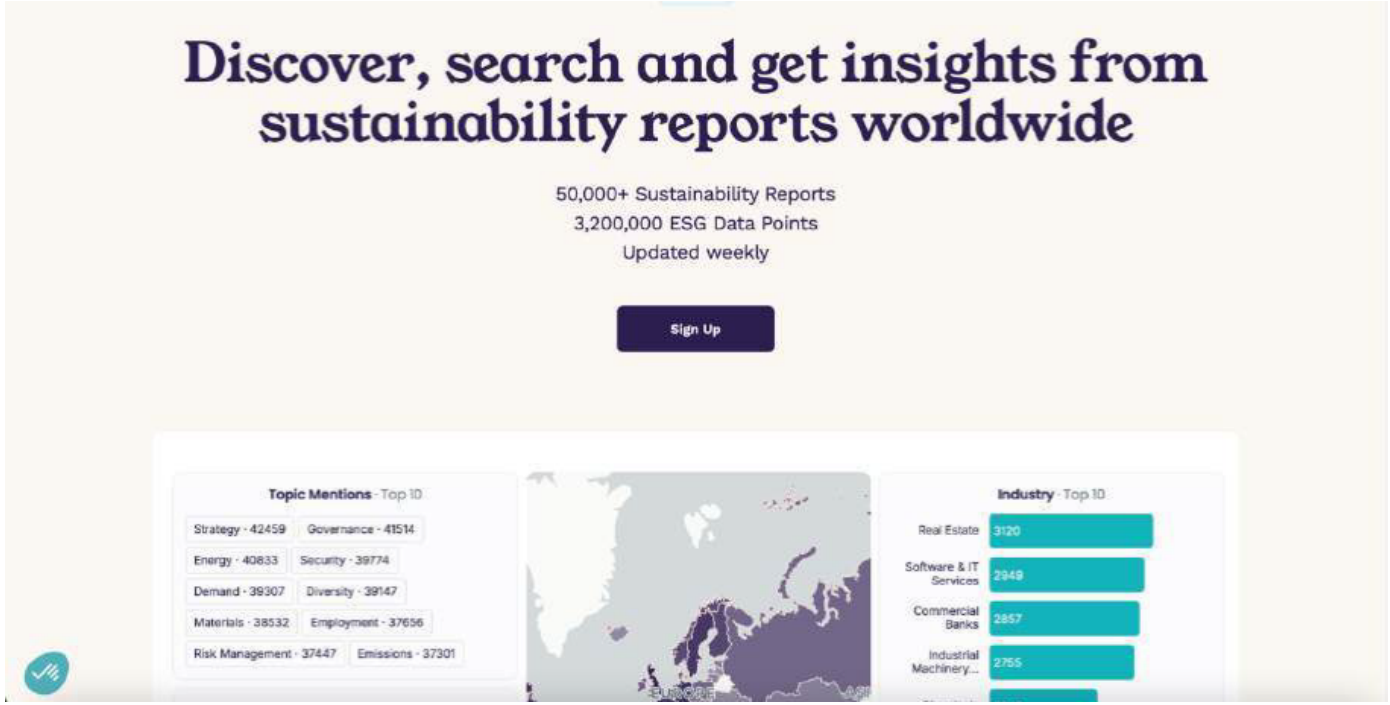




Dual relevance assessment, collection, gap identification, project management, ESRS-specific calculations (CO2, LCA), supply chain, readiness,...

# Specialized software for specific tasks

- CO2 calculation.
- LCA analyses.
- MFA analysis.
- Measuring.
- Confirmation of origin.
- Sensors for measurement and IoT.
- Integration of data from different .
- Data management systems.
- Advanced analytics to streamline data collection and ensure accuracy across the entire value chain.
- Managing the questionnaire process..

# Global Sustainability Reporting Database




https://etoso.io

# Conclusion: how to approach it?

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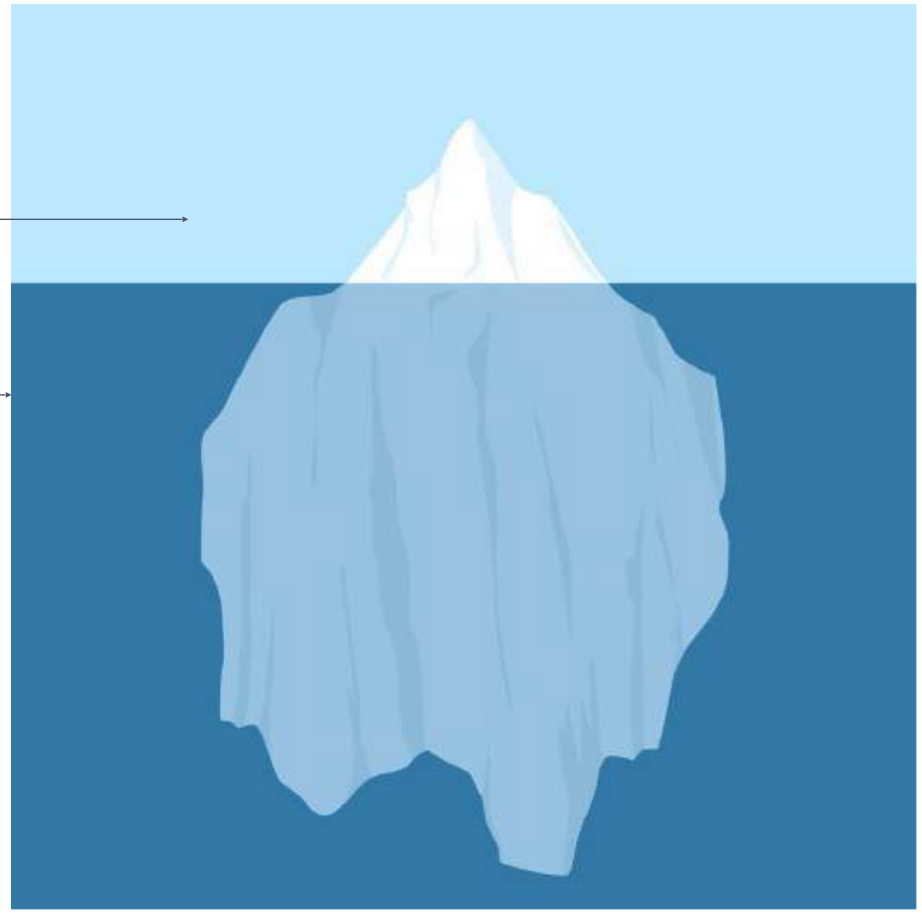
# CRSD Sustainability Report



# Business and Sustainability (1)


+

Sustainability

# Business and Sustainability (2)


**Sustainability**

# How to approach CSRD reporting (1)

- To become familiar with the content of the CSRD and ESRS.
- Identify a lead person, possibly an external expert, to introduce sustainability reporting.
- Determine the relevance of the issue of sustainability in the company's business.
- Review the entire value chain and identify all stakeholders.
- Assess the relevance of each category in terms of the impact on the company and the impact on
- the company (double relevance and health check).
- Check data availability.
- Judging the use of digital technologies: need/benefit.
- Prepare a draft sustainability report: from general to detailed.

# How to approach CSRD reporting (2)

- Fully consider the problem to be solved: what is the objective/purpose?
- Find the least complex solution that addresses both the surface and deeper aspects of the "problem".
- Existing tools can be used initially.
- Cross-functional cooperation and management support is essential.


# Conclusion (1)

- Increasingly stringent sustainability reporting requirements such as the CSRD make technology a powerful ally for companies to measure, reporting and monitoring their sustainability performance.
- Data analysis, automation, blockchain, artificial intelligence and specialised software offer innovative solutions to CSRD compliance challenges.
- These technologies can also help companies use the same data to meet other requirements, their use be• These yond CSRD .
- Centralised data collection and analytical processes will make the audit of sustainability reports more efficient.
- By adopting these technologies, companies can not only meet regulatory requirements more efficiently, but also
- drive their sustainability , turning compliance from a daunting task into a strategic priority.

# Conclusion (2)

- However, it is crucial to recognize that while technology is a powerful tool, its effectiveness depends on strategic vision, commitment to sustainability and the implementation skills of the s human resources.
- Successful use of technology to ensure compliance with the CSRD therefore requires a balance between technical capabilities and human judgement and ingenuity.


# Thank you for your time

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