| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Environmental Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Companies | Present information under the principles of objectivity and transparency in accordance with the thematic disclosure requirements established by the ESRS for each specific case involving any aspect of digitalization.<br><br>Expected financial effects of material physical and transition risks and potential opportunities related to climate change in digitalization (ESRS).<br><br>Define models and mechanisms to achieve environmentally sustainable business growth and development in the digital domain (Carl & Hinz, 2024).<br><br>Set out preventive actions regarding environmental damage arising from digital transformation. | | Actions and resources related to climate change policies and the setting of targets related to climate change mitigation and adaptation (ESRS): with special reference to the specific reduction of GHG emissions through the deployment of renewable energy, energy efficiency, approaches to climate change adaptation, and ways of mitigating the physical risks in which digital transformation is involved.<br><br>Climate change adaptation (ESRS): Description of the processes used to identify and assess material impacts, risks, and opportunities related to climate change in which digital transformation is involved. | Measure and reduce the carbon footprint generated by large volumes of data (CDR Building Bloxx).<br><br>Reference, depending on the size of the data centre or its outsourcing, to water consumption for cooling data storage and data management systems.<br><br>Description of energy-efficient data management and how a reduction in energy consumption is pursued (Elliott et al., 2021). | Provide information on potential climate-related opportunities linked to digitalization (ESRS): the expected cost savings from climate change mitigation and adaptation actions and the potential market size or changes in net revenues derived from low-carbon products or services.<br><br>Use of eco-labelling systems.<br><br>Publicly classify the products and services offered for sale according to the environmental impact they generate and their relationship with digitalization. |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Environmental Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Companies | Policies related to climate change mitigation and adaptation (ESRS): the company must specify whether its policies address climate change mitigation, climate change adaptation, energy efficiency, and the deployment of renewable energy.<br><br>Environmental control, auditing, and monitoring programmes with the corresponding financial allocation to make their implementation possible.<br><br>Policies and commitment to disclose and break down, in accordance with the ESRS, total energy consumed in MWh (ESRS).<br><br>Development of corporate policies for the management of new waste from technological products, defining a system for handling obsolete products used by the company itself and those sold to customers. | | GHG removals and GHG mitigation projects financed through carbon credits, and information on the company's systems for setting internal carbon prices (ESRS).<br><br>Circular economy (ESRS): Description of the processes used to identify and assess material impacts, risks, and opportunities related to resource use and the circular economy. The company must describe the process for identifying these impacts, risks, and opportunities, detailing the methodologies, assumptions, and tools used to assess its assets and activities in order to identify risks in operations and in the value chain.<br><br>Measure and reduce the carbon footprint generated by the company's digital transformation (CDR Building Bloxx). | Efficient reduction of energy consumption from data and technologies by promoting intelligent systems for energy efficiency in consumption and the use of renewable energy (Watson et al., 2010).<br><br>Disclosure and breakdown, in accordance with the ESRS, of total energy consumed in MWh derived from data collection and processing (ESRS).<br><br>Use of own or external CO2-neutral data centres (CDR Building Bloxx).<br><br>Measure, report, and minimise energy use in data centres, whether owned by the company or by members of the supply chain (International Corporate Digital Responsibility Manifesto). | Explain the digital and technological resources aimed at achieving a sustainable business model committed to the circular economy (Centobelli et al., 2020).<br><br>Define the business model according to a transition plan to mitigate climate change and provide the information specified in Disclosure Requirement 4 (SBM) of ESRS E1-1.<br><br>Development of technological innovations to reduce negative environmental impact and analyse the product life cycle, especially in digital and technological products. |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Environmental Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Companies | | | Measure and report energy consumption from renewable sources used in offices, processes, structures, facilities, IT, digital and technological resources, travel, vehicle fleets, and machinery (International Corporate Digital Responsibility Manifesto).<br><br>Collect information on air, water, and soil pollution, living organisms, food resources and other substances, the use of hybrid and marine resources, and other aspects linked to biodiversity and ecosystems caused by the company's structures and processes (ESRS): the ESRS set out the general and specific disclosure requirements and application requirements. The company must determine how this may be affected by its specific implementation of digital transformation.<br><br>Use of smart charging control for electric cars, fleets, and facilities (CDR Building Bloxx). | | |
| Individual actors (Customers, individuals and society) | | | | | Define digital proposals that enable the acceleration of sustainability in consumer behaviour (International Corporate Digital Responsibility Manifesto). |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Environmental Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Individual actors (Workers and members of the value chain) | | Environmentally responsible working environment and use of digital resources (ESRS): incentive system in the remuneration of members of the administrative, management, and supervisory bodies or other members of the company, such as employees, linked to specific climate-related considerations and to the reduction of GHG emissions.<br><br>Provide training to workers on environmental digital sustainability issues. | | | Seek collaboration with suppliers committed to eco-technological digital solutions and clean technology, positioning and linking the company in the market with partners that invest in environmental sustainability (International Corporate Digital Responsibility Manifesto). |
| Digital or technological actors | Orient autonomous digital and technological actors towards environmental sustainability. | | Define the programmes and algorithms of systems so that digital and technological actors with autonomy can self-manage efficiently in energy and environmental matters. | | |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Environmental Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Public institutions and governments | Prevent greenwashing in the digital transformation of companies: determine which control systems should ensure genuine compliance.<br><br>Analyse whether sustainability reports comply with the application requirements defined by the ESRS in aspects of digitalization.<br><br>Use verifiable offsets so that institutions and other stakeholders can understand the carbon credit market and the offsets the company is required to use, linked to issues of digital transformation (International Corporate Digital Responsibility Manifesto).<br><br>Report on the company's impact according to impact assessments carried out by third parties and/or recognised evaluation systems such as SASB, ESG frameworks, or B Corp in digital matters (International Corporate Digital Responsibility Manifesto).<br><br>Collaborate with governments, public bodies, institutions, and other companies to jointly define and expand the requirements for being considered an environmentally responsible company.<br><br>Reflect in the sustainability report a greater level of ambition than that represented by the current legal framework in the field of digital sustainability.<br><br>Climate change adaptation and mitigation (ESRS): application for public financial aid by companies according to the resilience of their strategy and business model in relation to climate change, in connection with digitalization. | Public-private collaboration programmes to promote education, research, and awareness in environmental matters, with special attention to how these issues affect digital transformation. | | | |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Social Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Companies | The company must define its labour conditions policy, especially with regard to digitalization (ESRS).<br><br>Define the models and mechanisms to achieve socially sustainable business growth and development in digital matters (Carl & Hinz, 2024). | Comply with the disclosure requirements established by the ESRS for digital sustainability statements, providing clear information to the users of those statements. For own employees, workers in the value chain, consumers, users, and other affected groups, the material impacts caused by the company and those directly related to its operations, products, or services must be determined. | Determine how employment restructuring within the company resulting from automation will take place and the modifications that must be applied to the structure and operations.<br><br>Develop a multi-phase plan for sustainable automation (International Corporate Digital Responsibility Manifesto). | | |
| Individual actors (Customers, individuals and society) | The company must comply with the disclosure requirements established by the ESRS according to the type of affected group. | Set parameters regarding equal treatment and opportunities for all in the use of digital and technological resources (ESRS).<br><br>Set health and safety parameters for customers in relation to digital transformation (ESRS). | Adapt digital and technological structures and processes to customers with some type of disability. | Guarantee privacy and access to information for the different interested and affected groups (ESRS). | Determine how the business model will guarantee digital and personal online security and the social inclusion of the consumer and end customer (ESRS). |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Social Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Individual actors (Customers, individuals and society) | Freedom of expression on social networks and digital platforms (ESRS).<br><br>Promotion of trust among the different parts of the digital ecosystem (Carl & Hinz, 2024).<br><br>Implement corporate policies in product development and communication for customers who have difficulties in accessing and using technologies. | Mention in the sustainability report how the company acts towards people as stakeholders in matters of digital well-being, digital inclusion, digital democracy, digital surveillance, and a fair digital economy (Cybertrust, 2021).<br><br>Conduct comprehensive periodic surveys of customers to measure digital well-being and identify future challenges (CDR Building Bloxx). | | Develop a set of principles on the safe, ethical, and effective management of data (United Nations Office for the Coordination of Humanitarian Affairs, 2021).<br><br>Offer guarantees of sovereignty and autonomy to consumers by means of easily understandable summaries on data management and the company's privacy policy, and by providing customers with tools for data management (CDR Initiative).<br><br>Generate active policies within the company to ensure that the biases inherent in algorithms and data analysis can be counteracted (CDR Initiative).<br><br>Provide externally assessed third-party certificates to give customers confidence in the company's data management (Digital Trust Label).<br><br>Carry out periodic verification of systems for data collection and management, such as cookies, ensuring that they have genuine business usefulness. | Guarantee through the business model access to digital products for all stakeholders, facilitating connectivity and the acquisition of technical knowledge in technology (International Corporate Digital Responsibility Manifesto). |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Social Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Individual actors (Workers and members of the value chain) | The company must report, through digital tools, on working conditions and measurement parameters regarding employee safety, working hours, adequate wages, social dialogue, freedom of association, collective bargaining, and health and safety (ESRS).<br><br>The company must report, in spaces with digital access, how its strategy and business model determine that workers are a key group of affected stakeholders (ESRS).<br><br>The company must comply with the digital disclosure requirements established by the ESRS according to the type of affected group.<br><br>Set specific work-life balance policies and their parameters through digital tools (ESRS). | Guarantee workers' freedom of expression on digital platforms (ESRS).<br><br>Set parameters regarding equal treatment and opportunities for all, social inclusion, the economic, social, and digital rights of social and cultural groups, diversity, and the protection of persons with disabilities, as applied to workers and other members of the value chain (ESRS).<br><br>Provide online information on the scope of workers' social protection and set health and safety parameters for them (ESRS). | Establish specific measures to guarantee employment restructuring due to automation and the use of other technologies.<br><br>Adapt digital structures and processes to employees with some type of disability. | Guarantee privacy and access to information for the different interested and affected groups (ESRS).<br><br>Develop a set of principles, processes, and tools to support the safe, ethical, and effective management of data (United Nations Office for the Coordination of Humanitarian Affairs, 2021).<br><br>Generate active policies within the company to ensure that the biases inherent in algorithms and data analysis can be counteracted (CDR Initiative). | Develop innovative systems that differ from those of competitors in order to guarantee access for junior and senior talent to the digital and technological means used by the company. |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Social Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Individual actors (Workers and members of the value chain) | Implement corporate policies for the digital and technological training of employees.<br><br>Develop programmes to promote mental health in the workplace, linked to the use of digital media and access to social networks. | Refer in sustainability reports to employees' perception of the digital sustainability developed by the company (Wut et al., 2021).<br><br>Conduct comprehensive periodic surveys of employees and other members of the value chain to measure digital well-being and identify future challenges (CDR Building Bloxx).<br><br>Apply digital disconnection outside working hours, for example through the automatic deletion of emails during those periods (CDR Building Bloxx).<br><br>Provide highly ergonomic spaces and furniture, such as adjustable desks, to adapt to new technological tools for work use, whether on-site at the workplace or in the place of teleworking (CDR Building Bloxx). | | Provide externally assessed third-party certificates to give employees and suppliers confidence in the company's data management (Digital Trust Label). | |
| Digital or technological actors | | Ensure that people's behaviour is not harmfully manipulated for business purposes through the use of technology, digital tools, and data (International Corporate Digital Responsibility Manifesto).<br><br>Orient all company technologies towards human beings so as always to seek their benefit and avoid causing them harm (CDR Initiative). | | | |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Social Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Digital or technological actors | Communicate transparently the company's ability to remotely control digital goods owned by the customer and to access voice-control and artificial-intelligence systems (Grigore et al., 2017). | | Design structures and processes involving digital and technological actors that can be certified by third parties in order to generate trust and transparency (Digital Trust Label).<br><br>Develop systems to avoid unjustified biases arising from the design of certain artificial intelligences. | Report on the existence of systems to guarantee privacy and access to information and data for the different interested and affected groups (ESRS). | Develop systems to allow human participation in the development of technological and digital actors and to ensure that the core of the business model respects people (Carl & Hinz, 2024). |
| Public institutions and governments | Set out a strategic model on the future of employment and the public impact that digital transformation has on employment policies.<br><br>Develop public-private programmes to foster processes of co-creation of positive social impact in digital transformation processes. | Prioritise people by ensuring compliance with labour regulations and public-private collaboration in matters in which technology affects human rights. | | Develop a set of principles to support the safe, ethical, and effective management of data (United Nations Office for the Coordination of Humanitarian Affairs, 2021). | Generate synergies between companies and public bodies to promote responsible digital maturity in the territory where the company operates or in which it conducts business dealings (International Corporate Digital Responsibility Manifesto). |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Social Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Public institutions and governments | Collaborate with governments, public bodies, institutions, and other companies to jointly define and expand the requirements for being considered a socially responsible company, especially in digital issues and the use of technologies.<br><br>Develop policies for managing unemployment arising from digital transformation. | | | | |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Economic and Governance Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Companies | Define the company's specific business ethics and corporate culture (ESRS).<br><br>Expected financial effects of technology implementation.<br><br>Define the composition of reinforced ethics committees and their control functions over the effects of digitalization and AI (Floridi et al., 2018).<br><br>Develop sustainable development committees on specific sustainability issues in digital matters (Li et al., 2023).<br><br>Define compliance checks and their implementation and verification guidelines (Gimpel et al., 2018).<br><br>Comply with the ESRS in establishing a framework for how the company must specify its information requirements and online access to them.<br><br>Define digital models to achieve economically sustainable business growth (Carl & Hinz, 2024). | | Implement processes through the use of technologies in order to achieve greater economic sustainability and reduce unnecessary and superfluous expenditure. | Decision-making supported and objectively justified by data.<br><br>Expected financial effects of the implementation of data management systems.<br><br>Development of systems for the protection of intellectual property.<br><br>Data management for the prevention and detection of cases of corruption and bribery (ESRS). | Present the business model in a way that differentiates it from competitors through decision-making supported and objectively justified by data.<br><br>Create spaces on the corporate website to provide information on transparency and to publicise and justify the business decisions adopted and their impact. |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Economic and Governance Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Companies | Establish governance through a Digital Ethics Council or some type of advisory body on digital sustainability, defining its composition and accountability mechanism (International Corporate Digital Responsibility Manifesto).<br><br>Define policies to combat corruption and bribery, protect whistleblowers, and ensure animal welfare where these may derive from the digital transformation of companies (ESRS). | | | | |
| Individual actors (Customers, individuals and society) | Establish protocols to avoid conflicts of interest in the digital sphere and transparency policies with customers (Carl & Hinz, 2024).<br><br>Share part of the economic benefits generated digitally with the parties involved who made the generation of those benefits possible. This includes returns from the monetisation obtained from personal data, a commitment to appropriate taxation, and the promotion of open data (International Corporate Digital Responsibility Manifesto).<br><br>Define policies to combat corruption and bribery, guaranteeing the online privacy of whistleblowers (ESRS).<br><br>Collect information on the expected financial effects of the implementation of technologies and data management and their negative impact on customers and society.<br><br>Guarantee animal welfare if it is altered by any aspect of a company's digital transformation (ESRS). | | | Develop digital security and data management plans, with special attention to customer privacy issues (Xu et al., 2016). | |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Economic and Governance Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Individual actors (Workers and members of the value chain) | Training against corruption and bribery in digital matters (ESRS).<br><br>Corporate policies used to adapt corporate culture towards ethical digital governance practices (Lobschat et al., 2021).<br><br>Establish protocols to avoid conflicts of interest in the digital sphere.<br><br>Manage relations with suppliers that include digital payment practices (ESRS).<br><br>Collect information on the expected financial effects of the implementation of technologies and data management and their negative impact on workers and suppliers.<br><br>Set online transparency policies for company workers and suppliers (Carl & Hinz, 2024). | | Set methods, digital processes, and protocols for the protection of whistleblowers reporting ethically or legally objectionable practices through the company's own channels (ESRS). | Develop digital security and data management plans, with special attention to worker privacy issues (Xu et al., 2016). | |
| Digital or technological actors | Invest in autonomous technologies that allow the company to be positioned among SRI companies on the basis of its overall sustainability criteria.<br><br>Establish ethics codes in Artificial Intelligence with specific systems for monitoring compliance with them (Jobin et al., 2019). | | Implement systems, automated processes, and digital and technological structures for the control of corruption (ESRS). | Develop digital and technological information and data security systems (Mingers & Walsham, 2010). | |

| Stakeholders (Lobschat, 2021) | Dimensions of Digital Transformation (Economic and Governance Sustainability) | | | | |
|---|---|---|---|---|---|
| | Strategic Vision | People | Structure and Operations | Data Management | Value Proposition |
| Public institutions and governments | Determine the company's digital activities and commitments related to the exercise of its political influence and other activities such as pressure-group or lobbying activity (ESRS).<br><br>Collaborate with governments, public bodies, institutions, and other companies to jointly define and expand the requirements for being considered an economically responsible company in its digital transformation process.<br><br>Set online transparency policies for public institutions and governments (Carl & Hinz, 2024).<br><br>Advance towards the European Union's 2030 objectives in terms of competitiveness and digital maturity, the use of artificial intelligence, big data and cloud computing, and the digitalisation of SMEs, through collaboration between companies and public bodies (EU Digital Compass).<br><br>Reflect companies' digital activities and commitments of political influence or influence over public institutions (ESRS).<br><br>Commit to strict legal regulations in matters of digital sustainability (International Corporate Digital Responsibility Manifesto). | | | Provide public data in sustainability reports in accordance with the sustainability information disclosure requirements established for each case in the ESRS. | |