

Maturity Model for Assessing the Sustainability of a Production Network

	Environment Sustainability				
	Level 1	Level 2	Level 3	Level 4	Level 5
Materials and resource use and efficiency	Unstructured initial measures to reduce raw material and material consumption are already being implemented at the production site.	Systematic recording and documentation of raw material and material consumption by quantifying input and output quantities (e.g., waste) in physical units (e.g., kg, m³). Initial categorization of raw materials and materials (e.g., according to their type, hazard potential, or potential for reuse). Preparation of regular reports on raw material and material consumption.	Analysis of systematically recorded material consumption to identify reduction potential. Proactive design of production processes to increase material efficiency (e.g., reduce material requirements or shortening process steps) and to close process cycles (e.g., recycling waste or using waste heat).	Material consumption is considered throughout the entire product life cycle and value chain (e.g., through sustainability certificates or supplier self-assessments). Assess material use by taking into account availability risks, ecological environmental impacts, and social conditions (e.g., through criticality analyses). Promote cooperation and knowledge exchange within the production network.	Companies are taking proactive steps to develop new, sustainable product innovations, production and manufacturing technologies, and business models based on renewable resources, and to establish closed-loop systems. To this end, they are using data-based models and optimization algorithms to continuously evaluate and improve material use and efficiency, as well as actively researching and developing more sustainable material alternatives. Companies are cooperating and exchanging knowledge along the entire value chain to promote the sustainable use of materials.
Circular economy and recycling	Uncoordinated recycling activities at individual production sites. Measures are sporadic and reactive. Often, they only aim to comply with the minimum legal waste disposal requirements (i.e., waste is usually disposed of without being systematically separated for recycling). There are no formulated targets or key indicators to measure the recycling rate.	Initial key indicators on the recycling rate are collected and monitored on a site-specific basis. Recycling targets are defined for individual sites. Most sites have defined processes for the systematic collection and separation of waste (e.g., packaging, production waste, or recyclable and non-recyclable materials). Initial transactional cooperation with external recycling service providers.	The recycling rate is an important key performance indicator that is integrated into the management system and reported on regularly. Product design considers recycling aspects (e.g., material selection and ease of disassembly) to enable a high recycling rate at the end of the product's life cycle. Production processes are improved to minimize waste and enable the closure of process cycles (e.g., reuse of production residues). Suppliers must either comply with recycling standards or supply recycled materials.	The products being developed contain a high average proportion of recycled materials, which are in turn recyclable at the end of the product life cycle. The company has framework agreements with recycling companies and cooperates with customers to establish product and packaging take-back systems, closing material cycles. Cradle-to-cradle principles are consistently applied when developing new products and processes.	The company develops innovative, circular economy business models (e.g., product-as-a-service) to maintain control over the materials used throughout their entire life cycle. Through strategic partnerships with recyclers and suppliers, new recovery and recycling paths are being developed, the company proactively invests in researching and developing new recycling technologies and sustainable materials that are nearly 100% recycled and recyclable. It acts as a role model and actively supports political and social initiatives that promote the circular economy.
Energy consumption	Initial, unstructured energy-saving measures are implemented (e.g., turning off lights or machines). Energy consumption is not yet systematically recorded and quantified.	Energy consumption is systematically recorded and documented. Relevant key indicators are established (e.g., specific energy consumption in kWh per machine or production site). Regular reports on energy consumption are produced.	Analysis of recorded key indicators to identify potential for reducing energy consumption. Energy consumption is anchored in internal incentive systems, and process analysis are conducted to identify energy-saving potential. Derivation of targeted measures to reduce energy requirements (e.g., purchasing more energy-efficient technologies), and implementation of energy-saving measures.	The consideration of energy consumption is extended to the entire product life cycle and value chain.	The company proactively develops sustainable product innovations, production technologies, and business models that minimize energy consumption. To this end, it uses data-based models and optimization algorithms to continuously evaluate and improve energy consumption throughout the entire value chain. The company also actively conducts research and development to reduce energy requirements and consumption.
Energy mix	Primary use of conventional energy sources with a detailed breakdown by energy source.	Differentiation of energy consumption by conventional and renewable energy sources and recording of the percentage share of renewable energies used to cover energy demand.	Systematic recording of the percentage share of renewable energy and evaluation of the energy mix for each production site based on its geographical location and climatic conditions.	Initial use of data-based models and optimization algorithms aligns the configuration of the production network with an improved energy mix or a higher percentage of renewable energy.	The energy mix is proactively managed as part of a holistic, data-driven sustainability management system. It is an integral part of the continuous strategic adjustment of the production network configuration. As an industry pioneer, the company uses only renewable energy.
Emissions	Emissions are mainly perceived as a direct consequence of fossil fuel consumption. A detailed breakdown by specific emission types (e.g., CO ₂ , particulate matter, noise) or their sources within the production network (e.g., production or logistics) is only carried out in isolated cases.	Relevant emissions (e.g., CO ₂ , particulate matter, SO _x , and NO _x) are differentiated, and their sources within the production network are identified (i.e., production or logistics). Initial measures for emission reduction are derived and implemented on this basis.	Detailed energy and emissions accounting that differentiates between the resulting emissions from production and logistics and includes site-specific emission factors (e.g., energy mix and energy consumption). Based on this, measures to reduce emissions are derived and implemented.	Initial use of data-based methods and optimization algorithms actively aligns the configuration of the production network with a reduced amount of production and logistics-related emissions. Cause-and-effect graphs transparently illustrate the factors influencing these emissions, helping to derive and implement measures for reducing emissions.	As part of a holistic, data-based sustainability management system, emissions are proactively and adaptively managed. This enables the timely implementation of measures to reduce emissions. Emission reduction is an integral part of the continuous strategic adjustment of the network configuration. As an industry pioneer, the company actively participates in developing standards and sustainability initiatives to reduce emissions.
Waste and wastewater management	The total quantities of waste and wastewater are primarily recorded from a financial perspective in order to reduce disposal costs and comply with basic legal requirements. In isolated cases, waste or wastewater is differentiated by specific types (e.g., hazardous/non-hazardous) or disposal methods (e.g., recycling, thermal recovery, landfill).	Waste is differentiated and categorized according to type (e.g., hazardous/non-hazardous) and potential disposal routes (e.g., recycling, composting, thermal recovery, or landfilling). Similarly, wastewater is differentiated and categorized according to its quality, properties, and origin (e.g., fresh water, other water with a dry residue value greater than 1000 mg/L). Initial measures are implemented to reduce waste or improve recycling (e.g., increasing the recycling rate).	Implementation of standardized accounting methods for waste and wastewater in accordance with relevant standards (e.g., Global Reporting Initiative (GRI) standards for waste and wastewater), taking into account site-specific infrastructures (e.g., water availability or disposal options). The established waste and wastewater management system is verified through certifications (e.g., according to ISO 14001).	Initial use of data-based methods and optimization algorithms to evaluate waste and wastewater reduction measures. This evaluation considers site-specific conditions (e.g., availability of water and disposal infrastructure) as well as the three dimensions of sustainability, and conflicting goals (e.g., transport emissions for recycling vs. landfill). Waste and wastewater management is an integral part of strategic network planning.	The company plays a pioneering role in industry-wide and socio-political initiatives to develop and establish standards and best practices in this field. The company uses data-based models and optimization algorithms to continuously evaluate and improve waste and wastewater management throughout the entire value chain. It actively conducts research and development in this area.
Land use and biodiversity	The total area of production sites is recorded manually and in a non-standardized manner, primarily for cost control or basic legal reporting requirements. No detailed differentiation is made between types of land use (e.g., production, logistics, or green spaces) or any connection to local ecology. Respect for biodiversity plays no role.	Differentiation by the type of land use (e.g., production, logistics, or green spaces) and recognition of the geographical location of production sites as a factor influencing potential environmental impacts. Initial site-specific considerations regarding the importance of local ecology (e.g., type of land used or proximity to protected areas) or biodiversity.	Implementation of standardized accounting methods for land use (e.g., land use per site) and initial quantitative assessments of the impact on biodiversity, taking into account local ecological conditions (e.g., ecoregions or number of potentially lost species per m²). The geographical location of each site is compared with relevant ecoregions (e.g., the 867 ecoregions defined by the WWF).	Initial use of data-based methods and optimization algorithms to evaluate the network configuration, improving its impact on land use and biodiversity across the entire network. Specific models, such as the species-area relationship (SAR) or potential species loss (PSL), are used to predict and assess the loss of biodiversity.	As part of a holistic, data-based sustainability management system, the company implements proactive measures to improve land use and biodiversity (e.g., creating habitats on factory premises, supporting local ecosystem projects, or minimizing sealed surfaces). The company is a pioneer in designing and restoring ecosystems at its sites and is a driving force behind industry-wide and socio-political initiatives to develop and establish standards and best practices for biodiversity and sustainable land use.

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	Economic Sustainability				
	Level 1	Level 2	Level 3	Level 4	Level 5
Risk management	No preventive identification, assessment, and elimination of risks in the three dimensions of sustainability (ecological, economic, and social). Countermeasures in response to deviations from the plan (i.e., materialized risks) are reactive.	Sustainability-related risks are recorded and assessed on a project- or site-specific basis, and countermeasures are implemented to minimize their impact.	With the help of generic internal company guidelines, sustainability-related risks are recorded preventively on a project- or site-specific basis, assessed, and countermeasures are implemented and subsequently evaluated for their effectiveness.	Sustainability-related risks are identified and assessed preventively on a project- or site-specific basis using standardized internal company procedures, and countermeasures are implemented. The effectiveness of these measures is monitored on an ongoing basis.	Sustainability-related risks are preventively recorded and assessed along the entire value chain (e.g., evaluation of individual mines in raw material procurement) using standardized internal procedures, and countermeasures are implemented. Findings from the monitoring of the effectiveness of these measures are systematically entered into a knowledge database.
Investments	Investment decisions are motivated exclusively by financial considerations, ignoring sustainability criteria entirely. There are no specific budgets or strategic projects aimed at improving sustainability.	Investment needs for implementing sustainability-related projects or complying with sustainability-related requirements are addressed (e.g., fulfilling legal or customer requirements).	Investment planning incorporates sustainability goals (e.g., CO ₂ reduction or improvement of energy efficiency). Investment needs are identified, analyzed, and prioritized based on specific sustainability-related requirements.	The impact of investments on environmental indicators (e.g., energy and water consumption or emissions) is quantified and linked to economic indicators through cause-and-effect relationships.	The company incorporates sustainability-related issues into its objectives and strategic orientation. It uses decision support approaches (e.g., simulation, mathematical optimization, or machine learning) to identify, analyze, and prioritize investment needs.
Sustainable product development	Decentralized product development at the production site focuses primarily on minimizing costs, maximizing functionality, and providing the greatest customer benefit. Sustainable materials are rarely used (material selection based on cost and technical feasibility). Reusing materials or components, as well as considering end-of-life (EOL) strategies are not explicit development goals.	Sustainable materials are only used if there are economic advantages or at the customer's request. Initial efforts to reduce material consumption primarily focus on saving costs (e.g., through lightweight construction). The reuse of materials or components focuses on legal requirements for recycling. Initial concepts for reconditioning and reintroducing components or products into circulation are being developed. EOL strategies are being considered at an early stage (e.g., through a "cradle-to-cradle" design for selected components).	Decentralized development experts contribute their knowledge from similar projects. Systematic use of more sustainable materials and reduction of material requirements (e.g., through bionic structures or lightweight construction). Product development aims to simplify remanufacturing (e.g., through repair- and disassembly-friendly product design). After the development project ends, lessons learned and best practices are recorded in a knowledge database and made available to other development teams.	Decentralized development experts systematically integrate their knowledge to sustainable product development. The development process focuses on remanufacturing, refurbishing, and reusing components and products, following internal sustainability goals. The "cradle-to-cradle" design is applied to all components. Data from the usage cycle is systematically used to improve product design based on actual operating conditions, thereby reducing resource consumption.	The company's strategic objectives include sustainable product development. It drives the development and implementation of fully recyclable materials (e.g., bio-based materials) and designs products for multiple life cycles. The company is a pioneer in creating closed-loop systems, works closely with external partners (e.g., recycling companies), and defines and establishes industry-wide standards for EOL strategies and circular economy approaches.
Corporate strategy	Sustainability is not a primary factor in decision-making and is only considered reactively to comply with mandatory laws. There is a lack of explicit long-term orientation and systematic integration of sustainability goals into corporate processes and the business model. The ecological impact of production processes and locations is rarely considered during the network design.	The strategy only considers sustainability aspects selectively and reactively (e.g., due to external pressure (customer requirements) or the potential for cost savings). There is an initial awareness of how the production network configuration influences environmental sustainability goals.	The corporate strategy includes economic, environmental, and social goals defined and communicated by management. A dedicated sustainability department has been established to continuously work toward achieving these goals. Management pursues sustainability in a targeted manner at the operational, tactical, and strategic planning levels and has initiated the development of a sustainable business model.	The company employs a comprehensive internal sustainability management system and a sustainable business model. It actively takes location-specific, sustainability-related advantages into account when designing the production network. Employees are involved in achieving these goals.	Sustainability-related issues are strategically essential for the company's success. The company implements intercompany sustainability management, in which all participants in the production network (production sites, suppliers, customers) proactively contribute to the defined goals. Using data-driven decision-making methods achieves sustainability-related differentiation from the competition.
Partnerships in the network	Transactional and short-term partnerships. No common definition of sustainable values or visions. Suppliers and other partners are evaluated and selected based solely on monetary and technical criteria. Potential ecological risks from partner relationships are not systematically identified, assessed, or mitigated.	Initial sustainability expectations for partners regarding basic environmental standards or legal requirements are established (e.g., the WEEE Directive for recycling or compliance with CO ₂ footprint requirements). Ecological risks in the supply chain are only addressed in the event of acute problems; jointly developed, preventive mitigation measures with partners are lacking.	Partnership communication is systematically coordinated based on jointly defined initial goals and visions for creating sustainable value. When selecting partners, environmentally relevant factors (e.g., those from ISO 14001) are systematically considered. For the first time, the environmental impact of partnerships in the production network is incorporated into the network configuration. Strategic, long-term partnerships are established.	The strategic design of the production network is carried out in close coordination with all relevant partners. The impact of these relationships on sustainability is systematically considered. Sustainable values and visions are defined jointly and translated into monetary targets. A comprehensive approach to the remanufacturing, refurbishing, and recycling of components and products is coordinated with partners and implemented. Mutual knowledge transfer occurs.	The company pursues intercompany sustainability management, supported by a systematic and goal-oriented interaction with external stakeholders (suppliers, customers, research institutions, NGOs). Sustainable values and visions are jointly defined and continuously developed as cornerstones of the entire environment. All collaborations are systematically planned and implemented. These collaborations are carried out on the premise that both parties will reap the greatest possible benefits.
Sustainability standards and awards	There is no explicit intention to use formal frameworks, certifications, or ratings to transparently disclose sustainability performance. Mandatory standards and certifications are fulfilled and documented in a decentralized manner and reported only internally or to relevant external bodies. External sustainability ratings or awards are not pursued strategically. Sustainability requirements are neither systematically communicated nor enforced within the production network.	There is limited and inconsistent disclosure of sustainability information (e.g., to highlight positive aspects). In addition to mandatory certifications, other areas are certified on a voluntary basis. Although the company monitors external sustainability ratings, it does not proactively improve them. It publishes unaudited sustainability reports (e.g. statements). Suppliers are only checked for basic environmental standards or legal requirements in a rudimentary manner, without in-depth assessment or certification.	The company publishes audited sustainability reports (e.g., based on the German Sustainability Code (DNK) or the Global Reporting Initiative (GRI)). Certified environmental management systems (e.g., ISO 14001, EMAS) are implemented for individual areas or locations. The company actively participates in external sustainability ratings (e.g., EcoVadis) and uses them to benchmark its own performance. Suppliers are required to meet standards such as ISO 14001.	Comprehensive and standardized analysis and reporting of all positive and negative environmental impacts (e.g., based on the Value Balancing Alliance (VBA)). The company uses certified environmental management systems across its network. It actively influences external rating methods, is recognized as a pioneer in sustainability performance, and uses ESG ratings strategically to attract investors and inform stakeholders. Mandatory standards, internal guidelines, and targets are centrally defined, recorded as KPIs, and transferred to an internal control system.	The company plays an active role in developing new, stricter global sustainability standards and certifications. As a recognized thought leader, the company sets new sustainability performance benchmarks that influence policy and societal expectations. Mandatory standards, internal guidelines, and targets are centrally defined and captured in KPIs, which are continuously monitored. Reporting is carried out in accordance with applicable guidelines, and the results are communicated and are made publicly available.
Management	Decisions, both strategic and operational, are primarily made from a financial perspective. A uniform understanding of sustainability has not yet been established. Responsibility for meeting targets and implementing the necessary measures is decentralized within each area of responsibility.	Management recognizes the initial benefits of sustainability activities, especially when they are linked to immediate economic advantages or compliance with basic standards. Management uses economic and individual quantitative ecological and social indicators (e.g., emissions, accident frequency). Locations are responsible for sustainability-related goals.	Management takes an integrative approach to sustainability, playing a pioneering role within the company on sustainability issues. It defines, communicates, and pursues economic, environmental, and social corporate goals in a systematic and risk-related manner. These goals are pursued at the operational, tactical, and strategic planning levels by the respective locations.	Management pursues a holistic internal sustainability management system, defining sustainability-related targets centrally in line with the strategic corporate goals. Based on a central analysis of the entire production network, the targets and measures are implemented directly at the responsible locations.	Management pursues intercompany sustainability management, supported by a systematic, goal-oriented exchange with external stakeholders. Based on ongoing environmental analysis, sustainability goals are defined and operational and strategic goals are derived from them. The company coordinates and monitors the implementation of these goals. Additionally, management participates in socio-political sustainability initiatives, acting as an innovator and active driver throughout the entire environment.

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Knowledge management (best practices)	There are no specific requirements, formalities, or obligations for documenting sustainability-related knowledge. Knowledge is intrinsically available to the respective individuals or departments (i.e., silo structure), is not documented, and is passed on (verbally) as needed.	Sustainability-related knowledge is documented in a rudimentary manner (decentralized) at the place of origin and based on individual assessments. Newly acquired knowledge is shared informally or made available locally at the production site in reports (e.g., project completion reports) for future reference.	A systematic sustainability-related knowledge management system is established to promote the collection, development, dissemination, and application of best practices throughout the production network. A dedicated sustainability department facilitates the exchange of sustainability-related knowledge. Sustainability-related data and information are transparently disclosed (e.g., through audited sustainability reports).	Sustainability-related knowledge management is widely accessible and used throughout the production network. A systematic and goal-oriented exchange of best practices with internal network partners (e.g., production sites and divisions) is firmly established. Additionally, sustainability-related data and information are systematically collected and processed throughout the entire value chain.	Newly acquired knowledge is compared with the state of the art (e.g., project reports, research papers, or patents) and made available. A systematic and goal-oriented exchange of best practices with internal and external network partners (e.g., suppliers, customers, research institutions, NGOs) is firmly established. Additionally, external sources is systematically searched for relevant knowledge and innovations. Data-based analyses are conducted to improve the network configuration using the created database.
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Maturity Model for Assessing the Sustainability of a Production Network

	Social Sustainability				
	Level 1	Level 2	Level 3	Level 4	Level 5
Human rights and ethics	Basic awareness of the importance of human rights in a business context (e.g., prohibition of child or forced labor). However, there are no formalized guidelines or systematic measures.	There are formal guidelines on human rights, and the human rights situation of suppliers is continuously documented. The company has designated contact persons for human rights issues.	A systematic process for identifying, assessing, and mitigating human rights risks is implemented internally within the production network (e.g., regular audits and self-disclosures by suppliers regarding human rights violations). Appropriate measures are taken in the event of violations.	Comprehensive measures are implemented for the continuous improvement and observance of human rights, going beyond contractual obligations. Staff are offered mandatory training programs to raise awareness and prevent human rights violations.	As an active shaper and pioneer in the field of human rights, the company influences standards throughout its entire value chain. The company participates in cross-industry and cross-country initiatives to promote human rights, and it shares its findings and best practices transparently.
Working conditions and health protection	The basic legal requirements and regulations (e.g., on working hours and basic occupational safety measures) are complied with. However, there is no systematic documentation or prevention programs. Occupational accidents are addressed reactively after they occur.	Formal guidelines on working conditions (e.g., working hours, wages, equal opportunities, and non-discrimination) and health protection. Accident frequency is recorded (e.g., reportable workplace accidents per year) and initial measures are implemented to prevent workplace accidents. Contact persons are designated to answer questions about working conditions and health protection.	A systematic process has been established to identify, analyze, and mitigate risks related to working conditions and health protection. Data on working conditions (e.g., working hours) and comprehensive accident statistics are systematically recorded and evaluated. Additionally, health promotion measures, prevention programs, and training courses on preventing occupational accidents and promoting health protection are offered.	Working conditions and health protection are continuously improved by systematically collecting data, conducting analyses, and actively involving staff. A system has been established to follow up on these measures. Suppliers regularly conduct self-assessments and audits of working conditions and health protection. Measures are taken in the event of violations.	The company acts as a pioneer and active shaper of working conditions and health protection throughout its entire value chain (e.g., by improving collective bargaining agreements and employment contracts). The company participates in cross-industry and cross-border initiatives to promote exceptional working conditions and health protection standards, sharing its findings and best practices.
Communication with stakeholders	The relevance of social issues and the existence of various interest groups are acknowledged. However, communication is predominantly reactive, in response to direct inquiries or legal obligations. Stakeholder interests are not systematically recorded or documented.	Relevant stakeholders and their basic needs and expectations have been identified. Formal guidelines are in place for communicating about social issues and for dealing with interest groups. Stakeholders have designated contact persons for questions about sustainable practices.	A systematic exchange with stakeholders on social issues has been established. Regular communication and training opportunities on social issues (e.g., supplier newsletters or on-site training for suppliers) are offered, particularly in emerging and developing countries. To build trust, sustainability activities are increasingly aligned with stakeholder interests and expectations.	Intensive, long-term relationships with relevant stakeholders are established to enable a deep understanding of complex social issues and ongoing dialogue. The company publishes transparent, audited sustainability reports that include qualitative and quantitative indicators (e.g., according to GRI standards).	As a pioneer in its field, the company actively shapes industry standards and promotes open communication with all stakeholders. The company transparently communicates its sustainability performance and shares its insights and best practices to inspire other companies.
Local employment	There is a basic awareness of the relevance of jobs and their potential impact. Relevant key indicators (e.g., percentage of local employees) are not yet systematically recorded and are limited to the minimum required by law.	There are formal guidelines for addressing local employment issues to avoid negative consequences. To this end, location-specific requirements and expectations are identified. Suppliers must also record the percentage of local employees.	A systematic management system is in place to create and secure local employment, as well as proactively mitigate negative consequences. Collected key indicators (e.g., percentage of local employees) are systematically analyzed, evaluated, and used for personnel planning. Targeted investments are made in the training and further education of local staff to improve their skills and prospects, and strengthen staff retention.	Creating sustainable local jobs is an integral part of the company's strategy. The company actively promotes job quality and attractiveness (e.g., fair wages, social benefits, or freedom from discrimination). It also publishes transparent key indicators on local employment, delocalization, and migration.	As a pioneer and driver of outstanding standards for sustainable local employment, the company publicly shares its findings and best practices throughout the entire value chain. Any violations of local employment regulations are systematically investigated, and corrective measures are implemented.
Investing in the common good	Investments in the common good are limited to uncoordinated activities that promote the well-being of the local community. Communication with the community is primarily reactive, occurring only when there is an immediate reason (e.g., complaints).	There are formal guidelines that emphasize the importance of participating in and promoting the well-being of the local community. Initial activities or donations to support the local community are carried out (e.g., support for local associations).	A systematic management approach to participating in the local community and proactively promoting its well-being is established. Concrete sustainability initiatives, donations, or infrastructure improvement projects are implemented, and evaluated for effectiveness. Measurable goals are set for investments in the common good (e.g., the annual investment volume for social projects or number of initiatives supported).	Promoting the common good is an integral part of the company's strategy. Employees are actively involved in designing community activities and are encouraged to engage locally. The company establishes long-term strategic partnerships (e.g., with local organizations, authorities, or educational institutions) to develop and implement joint sustainability initiatives. It publishes transparent qualitative and quantitative key indicators on community engagement and its impact.	The company is a pioneer and driver of comprehensive, sustainable community development and social justice throughout its entire value chain. It invests extensively in initiatives that promote far-reaching social justice and prosperity beyond its direct stakeholders. The company openly communicates about its investments in the common good and shares its findings and best practices.
Job security	Avoidance of clear legal violations (e.g., with regard to employment contracts, protection against dismissal, or basic employee rights). There are no systematic or planned activities to promote long-term job security or staff retention.	Formal guidelines describing the relevance of job security are in place. Standardized employment contracts and regulated working hours are in place, and these are adhered to.	A systematic process has been established to ensure job security, mitigate negative employment outcomes, and strengthen the relationship between staff and the company. Internal job security indicators (e.g., turnover rate, proportion of permanent employment contracts, utilization of retraining programs) are systematically recorded and analyzed. Staff are considered in restructuring measures and informed early on.	Job security is a key part of the corporate strategy and a major competitive factor. The company offers comprehensive programs for employee retention and career development (e.g., talent promotion or transparent development paths). The company publishes transparent qualitative and quantitative indicators on job security and its impact.	As a pioneer in its field, the company actively participates in cross-industry and cross-country initiatives and collaborations to promote sustainable job security throughout the entire value chain. It also publicly shares its findings and best practices.
Employee development	There is no systematic recording or planning of employee development or qualifications. Training is only offered when there is an immediate need (e.g., for specific job requirements that are directly necessary to meet legal requirements or to fill qualification gaps).	Formal guidelines and concepts are in place for employee development and qualification. Targeted training courses are offered to enhance staff expertise and skills in their current roles.	Structured programs for employee development and qualification are implemented to enable employees to work in different areas of the company. Internal key indicators on employee development (e.g., continuing education hours per employee) are systematically recorded and analyzed to evaluate effectiveness.	Employee development is considered a competitive factor, so long-term partnerships are formed with local educational institutions. Comprehensive programs for employee development and talent promotion are implemented. The company publishes qualitative and quantitative key indicators on employee development and its effects (e.g., turnover rate or investment in further training).	As a pioneer in its field, the company actively participates in cross-industry and cross-country initiatives to develop and improve framework conditions and standards for employee qualifications and development. To this end, it publicly shares its findings and best practices.
Employee engagement and loyalty	Staff satisfaction, motivation, and commitment are not systematically recorded or measured.	Employee satisfaction and motivation are regularly surveyed, and the results are used to improve working conditions.	Internal key indicators on staff retention and turnover (e.g., length of service, proportion of internal job fillings) are systematically recorded and evaluated to assess the effectiveness of measures.	The company acknowledges that employee commitment and loyalty are critical to achieving organizational goals. To increase satisfaction and well-being among employees, the company systematically promotes personal responsibility, motivation, and active participation (e.g., in corporate development or internal sustainability issues).	To inspire other companies and promote positive change throughout the business environment, the company publicly shares its findings and best practices regarding staff engagement and loyalty.
Customer satisfaction	Compliance with all applicable laws and regulations regarding user and product safety is ensured. Product development primarily focuses on technical feasibility and legally required safety features. Customer relationships are transactional, and customer data is not systematically collected.	Customers are provided with comprehensive information about services, products (e.g., energy consumption), and data protection, through publicly available data. Initial measures to increase transparency in customer communication have been planned and implemented. Customer data is systematically collected and secured in accordance with data protection regulations.	Customers are made aware of sustainable consumption patterns. Ethical business relationships (customer relationships) and long-term trust are systematically built through consistent, responsible actions and transparent marketing practices. Regular customer surveys on satisfaction and trust are conducted, and the results are incorporated into product and service development.	Marketing strategies increase the acceptance of sustainable offerings. The company publishes qualitative and quantitative indicators of customer well-being and its impact. It consistently aligns its portfolio with sustainable customer needs and the principles of the circular economy to achieve high levels of customer satisfaction and loyalty.	As a pioneer in promoting customer well-being, the company is driving the development of sustainable consumption patterns throughout the industry and society. The company influences political frameworks, establishes new standards for ethical customer relationships, and publicly shares its findings and best practices.