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Innovative approaches to Sustainable Administration
The study of successful company implementations to optimize
business production processes.

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Abstract

The concept of "Open Sustainability" represents a collaborative and transparent approach to addressing sustainability challenges, actively involving a diverse set of stakeholders. Specifically, Open Innovation emerges as the primary means to generate innovative solutions to environmental and social issues.

Companies can collaborate with non-profit organizations, academic institutions, or other businesses to conceive and implement sustainable solutions.

This thesis aims to provide tangible support to medium to large-sized enterprises that have the resources to initiate change projects. Additionally, it reaches out to startups and small businesses, serving as listeners within the Extended Club and potential providers or co-designers of innovative solutions. The primary objective of this study is to conduct an in-depth analysis of sustainable corporate administration, with a focus on its various subareas.

In particular, the research has focused on examining organizations, startups, and, notably, companies that, through their successful implementations in sustainable administration, can serve as guides and sources of inspiration for other companies looking to enhance the sustainability of their production processes.

The emphasis is on identifying successful practices and strategies, thus promoting a virtuous circle of sharing and mutual learning within the business landscape.

Introduction

The connection between sustainability and open innovation represents a crucial blend in today's business and social landscape.

Sustainability seamlessly integrates with open innovation, an approach that encourages external collaboration and the acquisition of ideas and resources beyond company boundaries to stimulate innovation.

Sustainability is a critical approach that seeks to harmonize the needs of the present without compromising those of future generations. It serves as a bridge between the current and future times, a fundamental idea that invites us to maintain a balance between our current needs and those that will come.

To achieve this goal, it is essential to consider three fundamental pillars: the environment, the economy, and society. The environment lies at the core of sustainability, encompassing the safeguarding of natural and environmental resources, emphasizing responsible utilization to avoid irreversible depletion. This involves resource protection, biodiversity preservation, and active efforts to combat climate change.

The economic aspect of sustainability is equally significant; it aims to ensure that economic activities can sustain available resources over time without depleting them or creating social disparities. This involves adopting business models that integrate social and environmental responsibility, along with business practices that minimize negative impacts on the environment.

The third pillar, social sustainability, focuses on equity and social justice. It involves ensuring that everyone has access to essential goods, such as education, healthcare, and dignified employment, while respecting human rights and reducing inequalities.

Sustainability, therefore, is a multifaceted journey that requires the harmonious balance of these three fundamental aspects to secure a better future for all while protecting resources for future generations.

The traditional model of innovation, which relied mostly on internal resource development, has undergone a fundamental evolution due to open innovation, which was born from Henry Chesbrough's idea.

The interaction between sustainability and open innovation is like an embrace between two key concepts that shape how businesses operate and address global challenges. This synergy offers numerous significant advantages in various domains.

First and foremost, the collaborative approach within open innovation becomes a crucial ally in the quest for sustainable solutions. Organizations are encouraged to collaborate and share knowledge and resources with a wide range of stakeholders, including universities, non-profit organizations, other businesses, government entities, and individuals.

This multi-stakeholder collaboration is essential to tackle environmental, social, and economic challenges comprehensively and innovatively.

Secondly, open innovation serves as a launching pad for sustainability-driven innovation. Through idea-sharing and collaboration, new technologies, business models, and methodologies emerge to improve environmental impact and promote more efficient resource utilization.

This innovation process focuses on sustainable solutions to address environmental challenges.

Additionally, open innovation opens doors to new ideas and resources from external sources. This broader access is valuable for the development of sustainable solutions efficiently and comprehensively, enabling businesses to identify more eco-friendly alternatives and business models that reduce environmental impact.

In summary, open innovation and sustainability collaborate to promote innovation and the creation of solutions aimed at improving the impact of businesses on the

environment and society. This partnership helps to develop a more complete and responsible approach to current challenges, creating an innovation vision that crosses traditional boundaries and aims to have a positive and lasting impact across the globe.

Chapter 1

Sustainable administration from an economic, social, and business perspective

Sustainable administration is a concept that concerns a company's ability to manage its activities in a way that creates long-term value while respecting the environment, social well-being, and fair and forward-thinking governance. It is an approach that considers the interests of all relevant stakeholders for the company, such as workers, suppliers, customers, investors, and the community. Sustainable administration is based on ESG criteria (Environmental, Social, and Governance), which represent the parameters for assessing a company's performance in terms of environmental, social, and governance impacts.

Sustainable administration is important because it can help organizations and systems improve their performance, efficiency, innovation, and reputation.

In fact, effective sustainability management can contribute to achieving various objectives, including:

- Global economy management: Sustainability management enables organizations to reduce fuel costs and mitigate health impacts resulting from water and air pollution.

- Ensuring a sustainable future: Sustainability management promotes sustainable development and is a constructive approach to ensuring a

sustainable future. Widespread adoption in both the private and public sectors is essential for success.

- Ensuring long-term growth: Sustainability has become a priority in various sectors. Companies have recognized the importance of taking sustainable actions to survive in the future so that organizations worldwide can gain an advantage through sustainability management and ensure linear growth in the long term.

As a result, this approach aims to reconcile the needs of economic development with environmental protection and social well-being. The goal is to ensure the sustainability of human activities in the long term, preserving natural resources and improving people's quality of life. It combines the art and science of management with environmental policy.

In a sense, it seeks to correct the dynamics of modern management by moving away from pure financial manipulation and towards resource allocation and mitigation.

The success of this management approach focuses on productive analysis and the implementation of the most effective measures and strategies.

The increase in production costs for businesses due to the effective depletion of natural resources has made it extremely important to invest in sustainable technologies, policies, and strategies that ensure the highest return on investment.

The foundation of sustainability management is to understand human dependence on nature and use it to ensure the collective good of all.

1.1 Sustainable Administration in Business

Sustainable administration in a company manages environmental and social impacts as well as economic ones, satisfying the present without compromising the future. It integrates sustainability dimensions into policies and operations, improving reputation, efficiency, innovation, and employee engagement.

Benefits include reducing operational costs through eco-friendly technologies, improving corporate image, adapting to environmental regulations, and reducing waste.

The benefits are reflected in public image, cost savings, compliance, and employee satisfaction, promoting sustainable practices that are attractive to consumers.

1.1.1 Economic Impact

The adoption of sustainable administration practices in a company can have several positive economic impacts. Even though there may be some initial costs associated with transitioning to sustainable practices, the long-term benefits would outweigh these expenses.

Among the economic benefits, we can distinguish:

- Cost savings through eco-sustainable practices that reduce resource consumption, energy, and waste.
- Improved efficiency through process optimization and increased productivity.
- Enhanced reputation and brand value, attracting sustainability-conscious customers and investors.
- Reduced regulatory risks through compliance with environmental regulations.
- Stimulus for innovation and competitive advantage through the development of new sustainable technologies and products.
- Facilitation of access to capital with lower risk for investors.
- Assurance of long-term viability in the evolving business environment by adapting to market and consumer needs.

1.1.2 Brand Image

Corporate sustainable administration enhances the brand image, positively influencing consumers and stakeholders. Environmental responsibility, at the core of this transformation, demonstrates a commitment to eco-sustainability and creates leadership in the field, increasing customer loyalty and promoting a favorable view of the brand. Social responsibility, a part of sustainable practices,

promotes ethical standards, workplace equity, and community well-being, thereby gaining greater media visibility and strengthening public relations. Furthermore, engagement in sustainability attracts investors and collaborators, opens new opportunities, and improves corporate adaptability, enhancing the brand's image.

1.1.3 Employee Satisfaction

Employee satisfaction is crucial for business success. Implementing sustainable management that considers environmental and social impacts can improve this satisfaction. Sustainable companies show increased employee engagement, well-being, and productivity due to a sense of purpose derived from positive contributions to society. Prioritizing sustainability creates an ethical corporate culture, promotes a cohesive work environment, and stimulates innovation. Well-being initiatives, work-life balance, eco-friendly facilities, and physical/mental health contribute to enriching the employee experience, and investments in sustainability-related training foster learning and satisfaction. Additionally, sustainable management encourages a rewarding work environment and promotes employee well-being and engagement.

1.2 Effects of Sustainable Administration on the Environment

Attention to sustainability is crucial in the business world, compelling sustainable practices to become essential for owners, executives, and administrators. Human industry is responsible for climate change, necessitating awareness and change. Corporate sustainability involves managing a company without harming the environment.

A "green" company acts in favor of the environment, contributing to the community and an economy that leads to a healthy planet. Environmental benefits include the reduction of greenhouse gas emissions, efficient resource use, and improved waste management.

Reducing greenhouse gas emissions is a key objective for sustainable companies, achievable through efficient technologies, renewable sources, and reduced energy consumption.

Energy-saving measures and conservation reduce dependence on fossil fuels and, consequently, environmental impact.

Sustainable management focuses on waste reduction, promotes recycling, and encourages responsible water practices. In conclusion, companies with a circular economy, through recycling and reusing, reduce resource demand and environmental impact, developing environmentally friendly products with a lower impact from procurement to the end of the product's lifecycle.

1.3 Society and Sustainable Administration

A cornerstone of sustainable administration lies in promoting social equity. This involves the detailed design of policies and practices that support principles of justice, equity, and inclusion. By addressing existing social disparities, sustainable administration commits to creating an environment where all members of society have equal opportunities and fair treatment. At the heart of sustainable administration is a deep interaction with local communities and stakeholders.

This involvement goes beyond surface-level interaction; it is a genuine effort to understand the needs, concerns, and aspirations of the community, enabling active participation in decision-making processes.

Education and skill development are powerful tools in the realm of sustainable administration. By investing in initiatives that promote learning and skill acquisition, sustainable administration empowers individuals to fully realize their potential, enabling them to make meaningful contributions to society and contribute to a more prosperous and inclusive community.

Ensuring access to affordable housing and implementing sustainable urban planning strategies are fundamental pillars of sustainable administration. This contributes not only to improved living conditions but also to reduced environmental impact in urban areas, creating a harmonious balance between

human needs and the ecosystem. It also involves developing community-oriented infrastructure that meets current needs while preserving the needs of future generations.

1.4 Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) are a set of 17 global objectives adopted by the United Nations in 2015 as a universal call to end poverty, protect the planet, and ensure that by 2030 all people can enjoy peace and prosperity. They cover a wide range of themes, such as health, education, gender equality, climate change, biodiversity, justice, and partnerships.

The SDGs are inclusive, aiming not to leave anyone behind and prioritizing progress for those who are most disadvantaged. They build on decades of work by countries and the United Nations, including the Millennium Development Goals (MDGs), eight goals to reduce extreme poverty by 2015.

They also reflect new challenges and opportunities arising from the digital revolution and growing awareness of the climate crisis.

Progress towards the SDGs is measured by a set of 231 indicators that monitor the outcomes and means of implementation for each goal.

Playing a key role are the United Nations, which support and monitor the implementation of the SDGs through various mechanisms such as the High-level Political Forum on Sustainable Development (HLPF), the United Nations Development Programme (UNDP), and the United Nations Statistical Commission.

1.4.1 Sustainable Administration and Impact on the Sustainable Development Goals (SDGs)

Working on the theme of sustainable corporate administration primarily contributes to Sustainable Development Goal number 12 (SDG 12), which is "Ensure sustainable consumption and production patterns." This goal aims to promote resource efficiency, waste reduction, sustainable waste management, and

responsible consumption to achieve sustainable economic development and reduced environmental impact.

Corporate sustainable administration aligns with this goal as it aims to integrate sustainable practices into business activities, considering the environmental and social impacts of corporate operations in addition to economic ones. This contributes to reducing the environmental impact of company activities, promoting ethical practices, reducing waste, and optimizing resource use, all of which are crucial for achieving the objectives of SDG 12.

Although not directly related to sustainable administration, there are indirect connections between Goal 8, "Decent Work and Economic Growth," and sustainable practices in business. For example, the adoption of sustainable administration policies can positively influence the creation of decent jobs and the promotion of sustainable economic growth.

The adoption of sustainable practices can improve operational efficiency and reduce costs, thus contributing to preserving and increasing corporate profitability. This can, in turn, create long-term investment and economic growth opportunities. Additionally, a company committed to sustainability may attract customers and investors who value social and environmental responsibility, further contributing to the company's growth.

Furthermore, Sustainable Development Goal number 9 (SDG 9), "Industry, Innovation, and Infrastructure," although not directly related to sustainable administration, has significant connections with sustainable management practices in companies.

Sustainable administration in companies can contribute to achieving Goal 9 through various avenues:

- Technological Innovation: The adoption of low-impact environmental technologies and innovative solutions can contribute to corporate sustainability by reducing the environmental impact of operations.
- Energy Efficiency and Sustainability: Companies that adopt sustainable energy management practices can contribute to reducing energy

consumption and greenhouse gas emissions, aligning with goals to reduce environmental impact.

- Sustainable Infrastructure: Sustainable planning and management of corporate infrastructure, such as buildings and facilities, can contribute to reduced resource consumption and environmental impact.

- Promotion of Sustainable Industry: Companies that adopt sustainability policies can promote more sustainable industrialization, avoiding environmentally harmful practices.

- Innovation in Production Processes: Innovation in production processes can enable the production of products and services more efficiently and sustainably.

- Responsible Resource Management: Sustainable management of natural resources can contribute to waste reduction and improved operational efficiency in companies.

1.5 Main Categories of Sustainability Action

The main categories of sustainability action play a crucial role for organizations, addressing current challenges on economic, social, and environmental levels. The implementation of these categories not only contributes to preserving the environment but also has a positive impact on the company's image, profitability, and long-term sustainability in the global landscape. Therefore, sustainability represents not only an ethical obligation but also constitutes a lasting value driver for businesses.

Among the main categories of actions (Fig. 1.5.1):

- Environmental Management: Environmental management is a key element within the sustainability strategies of an organization. It focuses on responsible and sustainable management of natural resources, mitigating environmental impacts, and promoting practices that contribute to the conservation of the ecosystem (e.g., reducing greenhouse gas emissions, conserving natural resources, adopting sustainable waste management practices, and promoting energy efficiency).

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- Corporate Social Responsibility (CSR): CSR represents a voluntary commitment by companies to go beyond simple financial interests. It integrates social and environmental issues into business activities and relationships with stakeholders (e.g., developing initiatives for local communities, promoting ethical business practices and fair working conditions, supporting education and social development). The adoption of CSR not only contributes to the well-being of society and the environment but also serves as a vehicle to improve corporate reputation, increase customer loyalty, and attract investors sensitive to ethical and sustainable values. CSR is commonly seen as an investment in a sustainable future and in the company's responsibility to the community and the environment.

- Sustainable Supply Chain Management: Sustainable supply chain management is a fundamental aspect of corporate sustainability strategies. This practice focuses on the integration of environmental, social, and ethical criteria throughout the entire supply chain, from production to distribution (e.g., evaluating and improving sustainable practices in the supply chain, collaborating with suppliers adopting ethical and environmental standards). This integration not only reduces the overall environmental and social impact but can also enhance the company's reputation, meet growing consumer expectations, and mitigate risks associated with unsustainable practices in the supply chain. Sustainable supply chain management is a crucial element for a company aiming at responsible and future-oriented business practices.

- Operational Efficiency: Sustainable operational efficiency aims to optimize business processes to reduce environmental impact and improve economic and social performance. Founded on the idea that efficiency should be sustainable in the long term, this concept not only contributes to reducing environmental impact but also generates economic savings through more efficient resource management (e.g., optimizing business processes to reduce environmental impact, implementing sustainable technologies, reducing the use of non-renewable resources). Beyond financial benefits, it demonstrates a concrete commitment to sustainability, acting as a point of

differentiation in the market and attracting consumers and investors sensitive to environmental values.

- Transparency and Reporting: Transparency and reporting are fundamental pillars in the sustainability strategy of an organization. These elements enable open and clear communication of actions taken, generated impacts, and future perspectives. In addition to meeting stakeholder expectations, transparency and reporting significantly contribute to building trust and consolidating the organization's reputation as a responsible company committed to sustainability (e.g., sustainability reporting through periodic reports, transparent communication of initiatives and impacts). This transparent commitment creates a lasting bond with stakeholders, strengthening credibility and demonstrating a constant willingness to act ethically and sustainably.

- Sustainable Technological Innovation: Sustainable technological innovation involves the development and implementation of new technologies aimed at meeting current needs without compromising the ability of future generations to do so. This approach relies on technologies designed to reduce environmental impact, promote sustainability, and contribute to mitigating climate change (e.g., investing in research and development of low environmental impact technologies, adopting innovative solutions to address environmental and social challenges). Foundational for addressing global challenges, sustainable technological innovation can guide the transformation of key sectors and promote environmentally and socially respectful practices. Its conscious adoption represents a significant step toward building a more sustainable and resilient future.

- Stakeholder Engagement: Stakeholder engagement represents an essential process in the realm of corporate sustainability, involving interaction and active collaboration with all interested parties. Stakeholders, whether individuals or groups, have the potential to influence or be influenced by an organization's activities. This interaction is crucial to understanding the expectations, needs, and concerns of stakeholders, creating the basis for lasting relationships based on mutual trust. Not only does stakeholder engagement contribute to the creation of positive relationships, but it also

allows for the incorporation of diverse perspectives in the company's decision-making process. This collaborative approach emerges as a fundamental element to ensure effective corporate sustainability and to responsibly address the needs of society and the environment.

- Education and Training: Education and training are fundamental elements for building a corporate culture centered on sustainability. These pillars are essential for raising awareness among employees, leaders, and other stakeholders about sustainable practices, providing them with the skills necessary to integrate such approaches into their daily work routines. Through education and training, the foundation is laid for corporate sustainability awareness, equipping individuals with the knowledge needed to adopt practices and make decisions that reflect a long-term commitment to the well-being of the environment and society.

- Adoption of International Standards: The adoption of international standards is a key element in promoting and implementing sustainable practices within an organization. These standards provide globally recognized guidelines, contributing to establishing and evaluating business performance in terms of sustainability. This adherence provides a structured framework guiding an organization's commitment to sustainability, simplifying the comparison with other entities worldwide. An approach compliant with international standards not only demonstrates commitment to responsible business practices but also contributes to building stakeholder trust and strengthening the organization's position in the global sustainability landscape.

- Social Impact Assessment: Social impact assessment is a critical process aimed at measuring and understanding the effects of an organization's activities on society, with a specific focus on well-being, equity, and development. This assessment provides detailed information on the influence that an organization has on the community and individuals involved. It goes beyond simple numerical analysis, offering an in-depth view of direct and indirect impacts. Social impact assessment is not only an objective measure of the organization's effects on society but also serves as a driver for significant improvements in business practices. Through this

critical analysis, an organization can identify areas where positive changes can be made, promoting the well-being of the involved communities. Additionally, social impact assessment plays a key role in building a positive and responsible corporate reputation. Transparently communicating the results of this assessment not only strengthens the organization's credibility but also demonstrates its commitment to conscious and community-oriented management.

These action categories provide an overview of the diverse facets through which an organization can integrate sustainability into its operational processes and overall culture.

1 Environmental Management

- Reducing greenhouse gas emissions
- Conserving natural resources, adopting sustainable waste management practices.
- Promoting energy efficiency

3 Sustainable Supply Chain Management

- Evaluating and improving sustainable practices in the supply chain.
- Collaborating with suppliers adopting ethical and environmental standards

5 Transparency and Reporting

- Sustainability reporting through periodic reports
- Transparent communication of initiatives and impacts

7 Stakeholder Engagement

- Identify all individuals, groups, or organizations that may be affected by or can affect the project or decision.
- Involve stakeholders in decision-making processes when appropriate.

9 Adoption of International Standards

- Adopting ISO 14001 to establish an environmental management system, promoting sustainable practices, and reducing its environmental impact.
- Adopting ISO 50001 to improve energy efficiency, reduce energy consumption, and minimize its environmental impact.

2 Corporate Social Responsibility (CSR)

- Developing initiatives for local communities
- Promoting ethical business practices and fair working conditions
- Supporting education and social development

4 Operational Efficiency

- Optimizing business processes to reduce environmental impact.
- Implementing sustainable technologies
- Reducing the use of non-renewable resources

6 Sustainable Technological Innovation

- Investing in research and development of low environmental impact technologies
- Adopting innovative solutions to address environmental and social challenges.

8 Education and Training

- Attending a workshop on business ethics and corporate responsibility.
- Conducting a training session on using a new customer relationship management (CRM) software.
- Sending high-potential employees to leadership

10 Social Impact Assessment

- Invest in research and development for innovative, sustainable technologies;
- Set up a monitoring system to track the project's sustainability performance throughout its lifecycle.
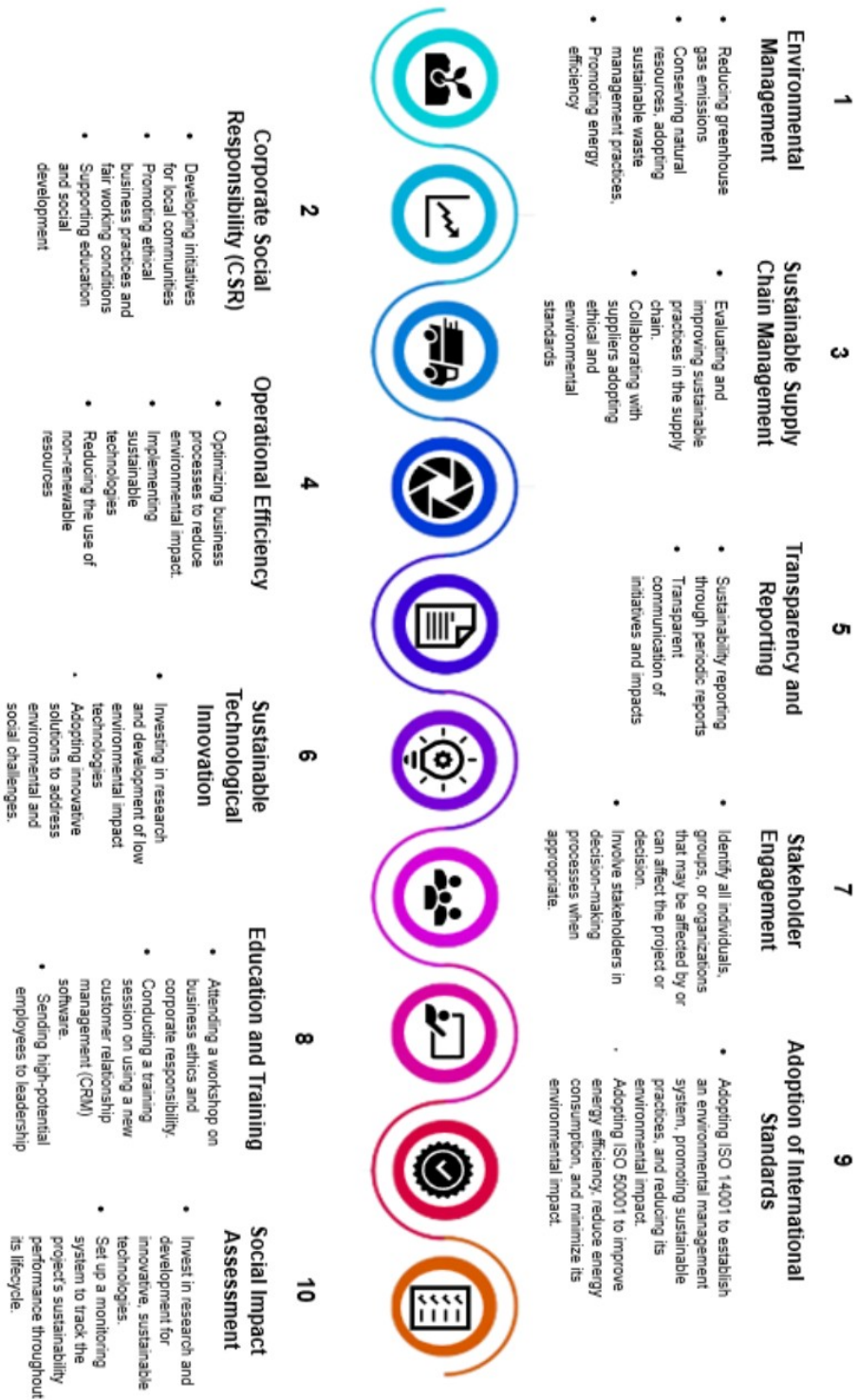
Figure 1.5.1 Main Categories of Sustainability Action

Chapter 2

Subfields of Sustainable Administration

The administrative processes of a company encompass the set of activities and procedures necessary to manage and regulate the daily and strategic operations of the organization. Each company may have specific administrative processes based on its industry and organizational size. However, the main objective of administrative processes is always to ensure operational efficiency, accurate resource management, and the achievement of business objectives.

2.1 Human Resources Management (HR)

Approaching human resources management (HR) with a perspective of sustainable administration in a company goes beyond mere employee engagement. This approach carefully considers the environmental, social, and economic impacts of business operations.

The fundamental goal of Sustainable HRM is to translate corporate sustainability objectives and strategies into concrete actions by adopting HR policies and practices that prioritize equity, development, and employee well-being while maintaining a strong commitment to environmental protection.

Among the primary responsibilities of the HR Manager, several crucial components emerge.

One of these is the creation of a sustainability-oriented corporate culture, reflected in the adoption of practices and choices consistent with this perspective. This includes employee selection and training, the promotion of sustainable policies and practices, and the encouragement of active employee involvement.

This can translate into initiatives such as flexible working hours, offering telecommuting options to reduce transportation-related emissions, and promoting a healthy work-life balance.

Additionally, the HR Manager can play a crucial role in ensuring continuous employee training. This training aims to raise awareness among employees about sustainability issues and to select new resources that align with the company's sustainable policies.

The topics covered may range from energy efficiency to water conservation, waste reduction to recycling, biodiversity preservation to sustainable procurement.

In conclusion, sustainable human resources management represents the coherent integration of sustainability objectives and strategies into HR policies and practices. This synergy can lead the company to reduce its environmental impact, promote ethical and responsible practices, and simultaneously enhance employee well-being and engagement.

2.2 Financial Management

Financial management within the context of sustainable administration plays a fundamental role in achieving corporate sustainability objectives.

The primary goal of sustainable financial management is to ensure that financial resources are allocated responsibly and in line with the company's sustainability objectives. This involves a series of practices and strategies aimed at integrating economic, social, and environmental aspects into financial resource planning and allocation.

One key component is responsible investment, which involves choosing investments that not only generate financial returns but also contribute to environmental and social sustainability goals. This can include investments in companies that adopt sustainable practices, such as energy efficiency or low-carbon production.

Furthermore, sustainable financial management can involve allocating financial resources to internal or external projects that promote sustainability. For example, the company could invest in initiatives to reduce environmental impact, such as adopting clean technologies or waste reduction, which not only support corporate sustainability but also generate long-term savings.

Transparency is another crucial aspect. Openly and transparently communicating how financial resources are used can help build trust between the company, investors, and other stakeholders. This transparency can also extend to disclosing information about financial performance and the environmental and social impacts of the company.

Finally, sustainable financial management may involve adopting risk strategies that also consider sustainability aspects, such as assessing risks associated with climate change or social issues in the financial decision-making process.

2.3 Procurement Management

The sustainable approach to procurement management in a company represents a methodology that considers the environmental, social, and economic impacts of business operations throughout the entire supply chain.

This way of operating involves the adoption of responsible procurement practices that carefully consider the consequences associated with the choice of suppliers and purchased products.

One of the initial phases involves selecting sustainable suppliers, highlighting the importance of collaborating with partners who demonstrate a concrete commitment to sustainability. These suppliers not only use recycled materials or source from sustainable sources but also embrace ethical and environmental standards that reflect the company's responsibility ideals.

Another fundamental pillar is the evaluation of the supply chain, leading to a thorough examination of sustainable practices adopted by suppliers throughout the entire process, from production to packaging and distribution. This thorough analysis allows for the identification of strengths and areas for improvement,

helping the company make informed decisions about supplier selection and ongoing collaboration.

Reducing environmental impact is an ambitious goal that can be achieved through thoughtful procurement choices. This can involve purchasing products with minimal or plastic-free packaging, thus minimizing waste production, and optimizing resource efficiency.

A winning strategy to promote sustainability is the promotion of local procurement. Optimizing the distances between suppliers and the company not only reduces carbon emissions related to transportation but also supports the local economy and surrounding communities.

A focus on the use of recyclable materials adds another level of sustainability, such as choosing materials that can be easily reused or recycled after the products' use, contributing to closing the loop of product life cycles and reducing environmental impact.

Furthermore, innovation in materials represents an area of growth potential for the company, as collaboration with suppliers can lead to the development of new sustainable solutions that, in turn, contribute to creating products with a lower ecological footprint.

Considering the phases, communication and transparency are fundamental. Sharing with stakeholders, including customers, the actions taken, and practices adopted to promote sustainable procurement creates trust and demonstrates a tangible commitment to sustainability.

In general, adopting a sustainable approach in corporate procurement management involves a thorough reflection on the overall impacts of business operations in procurement decisions.

This approach can not only contribute to reducing the company's environmental impact but also promote ethical and responsible behavior, enhance corporate reputation, and strengthen relationships with stakeholders.

2.4 Sales Management

In the realm of sales management, sustainable administration aims to promote environmentally friendly products, ethical business practices, and engage customers in responsible consumption. This can help reduce the environmental impact of sales-related business operations and promote a sustainable lifestyle among customers.

A key aspect of sustainable sales management is the attention to the production and marketing of eco-friendly and sustainable products. This involves the design and promotion of products with a lower environmental impact throughout their lifecycle, including production, use, and disposal.

These products can be made from recyclable materials, have higher energy efficiency, or contribute to reduced carbon emissions. Furthermore, sustainable sales management can involve the adoption of eco-friendly packaging practices and the promotion of recycling and reuse among customers, encouraging conscious purchasing and product durability.

Another important aspect is the promotion of ethical and transparent business practices. This means being honest with customers about product features, environmental impacts, and production conditions.

Companies can adopt clear and verifiable communication policies that inform customers about sustainable choices available and the benefits of those choices.

Finally, sustainable sales management can involve engaging customers in adopting responsible consumption practices through education and awareness programs. These programs inform customers about the benefits of sustainable consumption and encourage them to make conscious choices.

2.5 Production Management

In the context of production management, the primary goal is to produce goods responsibly, aiming to minimize the use of natural resources, reduce waste, and promote ethical practices throughout the entire production chain. In this area,

several opportunities arise for adopting practices that consider the environmental, social, and economic impacts of operations.

These strategies form the cornerstone of a responsible approach that not only looks at production efficiency but also at the well-being of the planet and the involved communities.

One front where the company can act is energy efficiency. This means investing in innovative technologies and optimizing production processes to reduce energy consumption, which could translate into adopting energy-efficient machinery or using LED lighting systems that provide brightness with fewer resource demands.

Another crucial area is waste reduction. Through careful monitoring of various production processes, the company can identify areas where material or resource waste occurs.

At this point, it is possible to intervene with more judicious management strategies, leading to a significant reduction in waste and better resource utilization.

The choice of materials is another strong point: opting for materials from sustainable or recycled sources can significantly reduce the environmental impact of the entire production process. For example, in the clothing industry, the company could prefer organic or recycled fabrics over traditional petroleum-based materials.

Another winning strategy to promote sustainability is designing products with a longer lifecycle that require fewer resources to produce and transport, contributing significantly to the overall reduction of environmental impact.

The company can also focus on designing products that facilitate disassembly and recycling at the end of their lifecycle.

To make this approach more comprehensive, the search for recognized sustainability certifications and standards becomes crucial.

These certifications attest to the company's commitment to sustainable production, providing a kind of guarantee to external stakeholders of the ethical and environmental quality of the products.

In addition to implementing the strategies mentioned above, it is essential to adopt a monitoring and reporting system. These tools allow for the assessment of the environmental impact of production over time, enabling continuous improvement of practices and clear, transparent reporting of the company's sustainable performance.

2.6 Inventory Management

Inventory management geared towards sustainable corporate administration is a crucial element in the realm of responsible and ethical practices. Inventory, which involves the collection and control of held resources and products, can become fertile ground for the adoption of strategies that consider the environmental, social, and economic impacts of business operations.

One of the initial challenges is to reduce waste. Through accurate monitoring of inventory levels and stocks, the company can identify areas where excess or product accumulation occurs. Not only would this result in cost savings, but it would also help reduce environmental pressure and avoid unnecessary resource consumption.

Furthermore, inventory management can involve optimizing replenishment processes to induce the company to work to avoid order overlaps and plan deliveries more efficiently, reducing the number of shipments and the consequent environmental impact of transportation.

Another aspect is the choice of suppliers and partners who share the same sustainability values. Opting for business partners who adopt responsible practices, such as using sustainable materials or low-carbon production processes, can extend the principle of sustainability throughout the entire supply chain.

The use of tracking and automated management systems can improve the accuracy of demand forecasting and contribute to more efficient inventory management, which, in turn, reduces waste and optimizes resource use.

2.7 General Administration Management

General administration management is a fundamental component for the success of any company. It encompasses a set of activities related to human resource management, accounting, finance, and administrative operations management.

One area where sustainable administration can have a significant impact is in reducing resource consumption. This can be achieved through the implementation of energy-saving policies, optimization of paper and consumable materials use, and digitization of administrative processes to reduce waste production and natural resource consumption.

Regarding accounting, the application of sustainable administration increases the ability to integrate financial performance with environmental and social aspects, transforming traditional financial transaction recording into a broader and more comprehensive framework.

In addition to recording monetary transactions, this practice involves collecting data on responsible resource use, greenhouse gas emissions, water consumption, waste management, and the social impact of corporate actions.

A notable aspect is the analysis of sustainable impact. This involves examining how business operations can affect both the environment and the surrounding society and investigating energy efficiency in procedures, prudent natural resource management, and the company's interaction with the local community.

In this way, accounting goes beyond mere financial reporting, becoming a tool to assess the real impact of an organization, not only in economic terms but also in environmental and social dimensions.

Furthermore, the adoption of advanced technologies can simplify and optimize administrative operations, reducing the need for resources and materials. For

example, implementing digital document management systems can reduce paper dependency and facilitate efficient information sharing and storage.

2.8 Information Technology (IT) Management

Information technology (IT) management is of utmost importance in achieving corporate objectives. This area encompasses various activities related to overseeing information systems, ensuring data security, managing information, and administering business operations.

Optimizing IT infrastructure, for example, can be achieved by using energy-efficient hardware and software, reducing electricity consumption and greenhouse gas emissions.

The adoption of virtual servers or cloud computing can reduce the need for physical hardware and optimize resource use.

Sustainable IT management may also involve implementing responsible disposal policies for obsolete hardware. Recycling or proper reuse of electronic devices can reduce the environmental impact of electronic waste. Additionally, information security is a crucial aspect of IT management. Protecting sensitive data not only preserves the company's reputation but can also prevent potential breaches that would require extra resources to resolve.

In conclusion, raising staff awareness of sustainable practices in the use of devices, email communication, and data management can contribute to creating an even more environmentally conscious and committed corporate culture.

2.9 Marketing and Communication Management

Sustainable marketing and communication management present an opportunity for the company to align its business objectives with a commitment to sustainability, not only enhancing corporate reputation but also demonstrating a genuine dedication to promoting positive changes in society and the environment.

This process plays a key role in interacting with customers, building corporate reputation, and effectively conveying crucial messages.

Within the context of corporate sustainability, marketing and communication management can take on an even more significant dimension.

The company commits to operating in harmony with the environment, promoting stakeholder engagement, and cultivating an ethical and long-term culture.

The integration of sustainability into marketing and communication management involves adopting practices that reflect these values, such as selecting eco-friendly raw materials for advertising materials, choosing suppliers aligned with sustainability policies, and harnessing digital platforms to reduce the use of physical materials.

A key aspect is forming partnerships with suppliers who share these values. Collaborating with entities that embrace a sustainable approach extends the positive effect throughout the supply chain, creating a greater impact.

Furthermore, the implementation of innovative technologies, such as the use of analytics to better understand customer needs or automation to reduce waste, can contribute to sustainable marketing initiatives.

In conclusion, another crucial element is employee training. Educating staff about sustainable marketing strategies, responsible data use, and promoting messages consistent with corporate ethics contributes to more effective communication activities.

2.10 Supplier Relationship Management

Supplier relationship management is a critical element for the effective operation of any company. It involves collaboration, negotiation, and maintaining relationships with suppliers of goods and services, with the goal of meeting the needs of the company and customers. However, within the context of corporate sustainability, this management takes on a new dimension.

The company commits to selecting suppliers who share sustainability values and promoting ethical and responsible behaviors throughout the entire supply chain. A first step is supplier evaluation.

The company can develop evaluation criteria that go beyond price and quality, also including sustainability indicators. Suppliers that adopt eco-friendly practices, respect labor rights, and operate in line with environmental regulations become preferred partners.

Collaboration with suppliers is a key pillar: together, they can explore solutions to reduce environmental impact and improve operational efficiency, such as working on sustainable packaging, optimizing logistics, or promoting the use of renewable energy.

The implementation of sustainability standards in supplier relationship management can be accompanied by monitoring tools, enabling the company to require suppliers to account for their sustainable practices and conduct periodic audits to ensure compliance.

Transparency is fundamental, as openly communicating with suppliers about sustainability requirements and the company's expectations helps establish strong and trust-based relationships.

Finally, the promotion of sustainable practices among suppliers can be incentivized through contractual agreements that include rewards for sustainable performance or penalties for violations of predetermined criteria.

2.11 Policy and Compliance Management

Policy and compliance management involves a set of activities related to defining corporate policies, risk management, compliance with regulations, and administrative activities.

Corporate policies establish guidelines and principles that guide the actions and behaviors of employees and executives, while compliance refers to adherence to laws, regulations, and rules governing the company's operations.

When it comes to sustainable administration in the company, policy and compliance management takes on a new dimension: it means incorporating sustainability practices and principles into corporate policies and processes, ensuring that the company operates in harmony with the environment, communities, and social norms.

A significant aspect is the integration of sustainability policies into existing corporate policies, which may include implementing policies that promote efficient resource use, waste reduction, biodiversity protection, and respect for human rights.

Sustainable compliance management requires a careful assessment of relevant environmental, social, and ethical regulations for the industry in which the company operates. This involves adopting standards that are more rigorous than those required by law to ensure a positive impact on society and the environment.

Collaboration with external stakeholders, including suppliers, customers, civil society organizations, and other stakeholders in defining and implementing corporate policies, contributes to a more inclusive and sustainable approach.

The implementation of monitoring and reporting systems is essential to verify the effectiveness of sustainability policies and practices. Measuring corporate performance against sustainability objectives helps identify areas for improvement and ensures a process of continuous adaptation.

Finally, corporate leadership plays a fundamental role in promoting a culture of sustainability through leading by example, communication, and encouragement of compliant behaviors.

2.12 Quality Management

Quality management refers to a set of activities related to quality control of the company's products and services, management of production processes, and administrative activities.

Quality relates to the conformity of products or services to standards and customer expectations, while sustainability involves considering the long-term impacts on the planet and society.

Incorporating sustainable administration into quality management implies adopting practices that not only meet quality requirements but also minimize environmental impact and promote the well-being of people involved in the production and use of products.

Several key elements of quality management with a sustainable administration approach include:

- Sustainable Materials: Using materials from sustainable and recyclable sources for product production. This can include choosing low-impact raw materials and eliminating toxic substances.

- Eco-efficient Processes: Optimizing production processes to reduce energy and resource waste. The adoption of more efficient technologies and methods can help reduce environmental impact.

- Eco-friendly Design: Designing products with a longer lifecycle and requiring fewer resources for production and transportation. This involves considering the entire product lifecycle, from design to end-of-life disposal.

- Monitoring and Evaluation: Implementing monitoring systems to assess product quality and its sustainable impact. This data can be used for continuous improvement.

- Employee Engagement: Raising employee awareness about sustainability and involving them in identifying innovative solutions to improve product quality can create an even more environmentally conscious and committed corporate culture.

- Collaboration with Sustainability-Minded Suppliers: Extending efforts of sustainable quality management throughout the supply chain by selecting suppliers that adopt sustainable and ethical practices, such as using sustainable materials or low-carbon production processes.

- Obtaining Recognized Certifications: Obtaining recognized certifications that attest to product quality and sustainability can enhance corporate

reputation and customer trust. Some common certifications include ISO 9001 for quality management and ISO 14001 for environmental management.

- Transparent Communication: Transparently communicating quality and sustainability management practices to customers and stakeholders demonstrates the company's commitment to ethics and sustainability. This can be done through sustainability reports, including sustainability information on the company's website, and participating in sustainability disclosure programs.

Chapter 3

Technologies Involved in Sustainable Administration

Sustainable administration serves as a compass guiding the management and oversight of public services and resources. It is a proactive approach aimed at ensuring that these services operate with the utmost efficiency, effectiveness, fairness, and responsibility while also striving to strike a harmonious balance between society's immediate needs and the long-term health of our environment.

In every sector, various technological innovations play a crucial role in advancing sustainable development goals.

3.1 Digital Technologies

Digital technologies in sustainable administration can be likened to intelligent tools that help improve public services and their management by making things faster, simpler, and more accessible while also respecting the environment and people.

Various digital technologies can be employed for this purpose:

- Digital Operations: This means using computers and phones to make public services smoother and faster. For example, people can pay taxes online or use apps for government services. This helps save time, money, and reduces errors. A large mining company in Europe has used smart technologies to monitor energy consumption and reduce pollution.

- Digital Product and Service Design: This process aims to develop solutions based on digital technology that meet customer needs and improve user experience. It involves designing things so that they are beneficial both for people and the planet. For example, there's a concept called Digital Public Technology (DPT) that uses digital tools to create things that contribute to important goals like the Sustainable Development Goals (SDGs).

- Cloud Computing, Internet of Things (IoT), and Blockchain: These technologies are revolutionizing how businesses manage their operations. Cloud computing allows companies to store and manage their data and applications on remote servers rather than local servers. This can reduce data management costs and improve data accessibility for employees. The Internet of Things (IoT) refers to connecting smart devices, such as sensors and cameras, to the internet. This enables companies to collect real-time data about their products and processes, improving efficiency and productivity. Blockchain is a distributed ledger technology that enables the creation of secure and immutable digital records and can be used by companies to ensure data and transaction security.

- Artificial Intelligence (AI) and Advanced Analytics: AI can be adopted by companies to automate processes, improve efficiency, and reduce costs. For example, it can be used for natural language processing, computer vision, and automated planning. Advanced analytics, on the other hand, enables companies to analyze large amounts of data to identify trends and patterns. This can be useful for improving productivity, product quality, and customer satisfaction.

3.2 Renewable Energy Technologies

Renewable energy technologies are special tools that use sources like sunlight, wind, water, plants, and geothermal heat to generate energy, heat, or fuel without harming the environment. These technologies are crucial for making public services and government operations sustainable.

They can contribute by reducing pollution, offering new ways to obtain energy, and benefiting our communities.

There are several ways in which renewable energy technologies can improve government operations and care for the Earth:

- Reducing Greenhouse Gas Emissions: Implementing measures to improve energy efficiency, such as using LED lights and optimizing production processes, or using renewable energy sources like solar and wind power, are essential to reduce electricity consumption and greenhouse gas emissions within a company. Investing in sustainable mobility, responsible waste management through recycling, and obtaining environmental certifications demonstrate commitment to reducing greenhouse gas emissions and sustainable practices.

- Increasing Energy Security and Access: To ensure increased energy security and data access within the company, it is essential to adopt technologies and practices that optimize energy consumption and improve access to information. Concerning energy security, implementing energy-efficient technologies can reduce energy consumption and contribute to the company's energy stability. Regarding data access, adopting digitalization technologies for company processes, such as digital document management and online communication, can significantly improve information accessibility for employees. Additionally, the use of sustainable mobility technologies, such as electric vehicles or ride-sharing systems, not only reduces greenhouse gas emissions related to employee travel but also facilitates access to the company.

- Diversifying the Energy Mix: Renewable energy technologies can make the company's energy system more diverse and robust. Relying too heavily on a

single energy source, such as fossil fuels, can lead to various risks. For example, if something were to happen to that source, there could be a shortage, and prices could increase significantly.

- Creating Socioeconomic Benefits: In the company, implementing sustainable mobility technologies, such as the use of electric vehicles or the adoption of ride-sharing systems, can reduce greenhouse gas emissions related to employee travel and improve air quality in the surrounding area. Also, promoting diversity and inclusion within the company can create a more equitable and respectful work environment. This commitment can be reflected in hiring policies that promote diversity and inclusion, as well as employee training to enhance cultural diversity understanding. Finally, the adoption of ethical and sustainable practices in business operations not only improves the company's reputation but also generates a positive impact on the surrounding community.

3.3 Green Infrastructure Technologies

Green infrastructure technologies encompass a set of tools and practices aimed at enhancing the environmental sustainability of business activities.

These technologies embrace various solutions, including the use of renewable energy sources such as solar and wind energy, the implementation of energy efficiency approaches like LED lighting and production process optimization, as well as the promotion of sustainable mobility through the adoption of electric vehicles or ride-sharing systems.

Additionally, green infrastructure technologies also encompass responsible waste management through practices like recycling and promote diversity and inclusion within the company.

The implementation of these technologies results in a reduction of the environmental impact of business operations and improves the sustainability of the company itself.

Furthermore, it contributes to enhancing corporate reputation and generating a positive impact on the surrounding community.

Some examples of these technologies include:

- Geographic Information Systems (GIS): These are digital tools that allow companies to collect, organize, analyze, and visualize geographical data effectively. Using GIS, companies can plan and make informed decisions, manage resources and assets, monitor activities and flows, analyze complex data, engage customers, assess impacts and risks, and manage green infrastructure. In this way, GIS offers numerous advantages and optimization possibilities for business activities.

- Integration of electric vehicles and corporate car-sharing systems strengthens the commitment to sustainable mobility, helping to mitigate greenhouse gas emissions associated with business travel.

- Responsible waste management through recycling and waste separation demonstrates a conscious approach to waste management and improvement of the overall ecological footprint.

- Technologies for optimizing production processes and digitalization represent a dual advantage: they not only improve operational efficiency but also reduce resource and energy consumption. At the same time, the implementation of solutions like green roofs and living walls not only contributes to improving air quality and the temperature of corporate environments but also serves as a tangible symbol of commitment to a more sustainable lifestyle.

- Environmental monitoring systems and the use of innovative technologies for process digitalization demonstrate the company's willingness to operate transparently and environmentally responsibly.

Chapter 4

Open Innovation - Technology Transfer

Open Innovation is a paradigm that actively encourages organizations to develop collaborative relationships with external partners, including various entities such as universities, research institutions, customers, suppliers, competitors, and others.

This collaborative approach aims to leverage the vast knowledge, resources, and capabilities present beyond the boundaries of a company, all with the goal of promoting innovation.

At the same time, technology transfer represents a dynamic process focused on the transmission of scientific or technological expertise, methodologies, or discoveries from one organizational entity to another. This exchange is undertaken with the explicit goal of creating new products, services, or processes or improving existing ones.

These two concepts, Open Innovation and Technology Transfer, are closely intertwined, and their combined application offers the potential to improve innovation performance and the overall competitiveness of an organization.

The implementation of such interaction can take the form of Open Innovation platforms. These digital platforms, situated within the realm of the Internet, provide organizations with a channel to openly communicate their challenges or problems to a wide and diversified network of potential problem solvers.

These solvers, coming from various backgrounds, can then present their inventive solutions, often in exchange for rewards or recognition.

Through these platforms, companies gain access to a knowledge pool oriented toward solutions that were previously scattered and largely undiscovered, effectively addressing their technical complexities and design efforts.

4.1 Polytechnic of Turin

Polytechnic of Turin is actively engaged in the transfer of knowledge and technologies for the social, economic, and industrial development of the country.

Technology transfer activities within the university aim to improve research outcomes and support the growth and competitiveness of companies in the region.

These activities provide comprehensive support in defining measures and standards that enable sustainable development to address technological and social changes impacting the entire community.

Polytechnic of Turin is actively structuring an Innovation Ecosystem, which is based on the development of skills and research outcomes and culminates in the transfer of this knowledge to society at large.

The innovation ecosystem built around Polytechnic ensures comprehensive coverage of the technology transfer process and can accelerate both the development and adoption of new technologies, bringing together innovation supply, companies representing potential demand, and financial sector players.

The system is based on three areas of intervention:

- Generation of knowledge and entrepreneurship training.
- Technological development.
- Technology transfer to the industrial world and society.

Polytechnic of Turin collaborates with a network of strategic partners within its Technology Transfer System, each of which brings specific expertise, services, and networks that integrate in a complementary and synergistic manner.

This ecosystem begins with methodological and research support provided by EIC, passes through the I3P Business Incubator, and includes the Links and LifTT Foundations, the Piemonte Innova Foundation, and the Companies di Sanpaolo Foundation.

Among the partners playing a fundamental role for Polytechnic are the Competence Industry Manufacturing 4.0, the national reference point for manufacturing companies oriented towards process digitalization.

Moreover, relationships with Venture Capital are of great importance: Polytechnic has established specific Partnership Agreements with entities such as Vertis, Eureka! Venture, and CDP Venture Capital, covering multiple technological sectors.

The set of collaborations extends to Netval, the Italian association that brings together Universities, Public Research Organizations, IRCCS, and other organizations engaged in promoting innovation and technology transfer.

4.2 Professors at Italian Universities in the Field of Technology Transfer

The field of Technology Transfer, which involves the transfer of technologies and knowledge from academic research to businesses and society at large, engages numerous professors and researchers at various Italian universities.

Known for their work in the field of technology transfer in Italy, some notable figures include:

- Prof. Giovanni Azzone (Politecnico di Milano): Prof. Giovanni Azzone is a prominent figure in the field of technology transfer in Italy and has been involved in various initiatives to promote collaboration between universities and industry.
- Prof. Stefano Paleari (Università Bocconi): Prof. Stefano Paleari is an expert in technology transfer and teaches at the School of Management at Università Bocconi.

- Prof. Alberto Ferraris (Università di Torino): Prof. Alberto Ferraris is involved in research projects related to technology transfer at the Department of Management at the University of Turin.
- Prof. Marco Frey (Università di Milano-Bicocca): Prof. Marco Frey is an expert in innovation management and technology transfer at the Faculty of Economics at the University of Milano-Bicocca.
- Prof. Massimo Colombo (Politecnico di Milano): Prof. Massimo Colombo is a well-known scholar in technological innovation and entrepreneurship and teaches at Politecnico di Milano.
- Prof. Diego Zandrini (Università di Roma "La Sapienza"): Prof. Diego Zandrini is involved in technology transfer and innovation management projects at the University of Rome "La Sapienza."
- Prof. Paolo Volpin (London Business School / Università di Torino): While primarily working at the London Business School, Prof. Paolo Volpin is an Italian financial economist known for his work on corporate governance and technology transfer.
- Prof. Francesco Rullani (Università di Bologna): Prof. Francesco Rullani is involved in research projects on innovation management and technology transfer at the University of Bologna.
- Prof. Stefano Micelli (Ca' Foscari University of Venice): Prof. Stefano Micelli is known for his work on innovation and sustainability and has contributed to technology transfer initiatives in Venice.

4.3 International Professors in the Field of Technology Transfer

The field of Technology Transfer is global, and several internationally renowned professors and researchers focus on developing programs and strategies that can help global businesses promote more sustainable administration of production processes.

These experts have significantly contributed to understanding the dynamics and challenges related to technology transfer and innovation management on a global scale.

Some of the leading figures and developers in this field include:

- Prof. David Teece (University of California, Berkeley, USA): Prof. Teece is an authority in the field of innovation and intellectual property management and is known for his work on the acquisition and management of technological resources.
- Prof. Henry Chesbrough (UC Berkeley / ESADE Business School): Prof. Chesbrough is one of the pioneers of the concept of "open innovation" and is the author of the book "Open Innovation: The New Imperative for Creating and Profiting from Technology."
- Prof. Myra Hart (Harvard Business School, USA): Prof. Myra Hart is an expert in entrepreneurship and technology transfer and has contributed to the development of educational programs on these topics.
- Prof. Rosemarie Ziedonis (Boston University, USA): Prof. Rosemarie Ziedonis is a scholar of industrial economics and focuses on analyzing technology transfer and innovation dynamics.
- Prof. Annabelle Gawer (University of Surrey, UK): Prof. Annabelle Gawer is a researcher in the field of digital platforms and open innovation, with a particular focus on technology transfer.
- Prof. Fiona Murray (MIT Sloan School of Management, USA): Prof. Fiona Murray specializes in innovation and technology transfer in high-tech sectors.
- Prof. Gary Dushnitsky (London Business School, UK): Prof. Gary Dushnitsky is a scholar of innovation and technology transfer with a particular focus on startups and emerging enterprises.

4.4 Research Centers and Organizations

4.4.1 World Business Council for Sustainable Development (WBCSD)

World Business Council For Sustainable Development (WBCSD)

The World Business Council for Sustainable Development (WBCSD) is a global organization comprised of leading companies committed to promoting corporate sustainability.

The organization works on several fronts to advance sustainability in business processes. This includes the development of guidelines and standards to improve the sustainability of production processes, creating a platform for sharing best practices among member companies, collaborating with governments and non-governmental organizations to promote global sustainability, promoting innovation in sustainable production practices, and advocating for policies and regulations that promote sustainability.

In summary, WBCSD plays a vital role in encouraging companies to become more sustainable in all aspects of production processes, helping to reduce the environmental and social impact of business activities and promoting a more sustainable vision of business on a global scale.

4.4.2 Sustainable Apparel Coalition (SAC)

Sustainable Apparel Coalition

The Sustainable Apparel Coalition (SAC) is a leading organization in the apparel and textile sector committed to promoting sustainability across the industry. By bringing together companies, fabric manufacturers, NGOs, and other key stakeholders, SAC aims to improve sustainability throughout the entire clothing production chain.

Its initiatives include the development of the Higg Index for assessing environmental impact, promoting transparency in supply chains, fostering member collaboration, advocating for sustainability goals, and providing training and support to companies.

SAC's primary goal is to reduce the environmental impact of the apparel sector, improve working conditions, and offer more sustainable options to consumers.

4.4.3 Clean Production Action (CPA)

Clean Production Action | Clean Production Action designs and delivers solutions for green chemicals, sustainable materials and environmentally preferable products. We network with NGOs, governments and businesses to develop pragmatic tools and strategies that advance a healthy economy, healthy environment and healthy people.

Clean Production Action (CPA) is a non-profit organization dedicated to promoting safe and sustainable production in the chemical and material manufacturing sectors.

Its primary goal is to reduce the use of hazardous chemicals in production processes and supply chains, thereby contributing to improved environmental sustainability and product safety.

This goal is achieved through a range of key initiatives, including comprehensive chemical assessments, promotion of safer alternatives, certification programs, industry collaboration, outreach and training, and research and development projects.

CPA is globally recognized for its commitment to promoting cleaner and safer production, helping to reduce the negative impacts of hazardous chemicals, and improving material management in the industry, with a focus on protecting human health and the environment.

4.4.4 Sustainable Purchasing Leadership Council (SPLC)

Sustainable Purchasing Leadership Council | SPLC

The Sustainable Purchasing Leadership Council (SPLC) is a nonprofit organization in the United States dedicated to promoting sustainable purchasing practices in organizations and businesses.

Its primary goal is to guide the adoption of procurement strategies that consider the environmental, social, and economic impact of purchased products and services.

SPLC's key activities include developing standards and guidelines for sustainable procurement, certification programs to recognize organizations adopting these practices, promoting collaboration and knowledge sharing, training, and

supporting organizations in adopting sustainable practices, and monitoring and evaluating the effectiveness of sustainable purchasing strategies.

SPLC plays a significant role in promoting responsible procurement, helping to reduce the negative impact on the planet and society resulting from supply chains and promoting corporate social responsibility.

4.4.5 Center for Corporate Sustainability Research (CeRSA)

The Center for Corporate Sustainability Research (CeRSA), located at the University of Turin, is a key player in promoting corporate sustainability in Italy.

Its main mission is to encourage companies to adopt more sustainable practices in all dimensions, including administrative ones. To achieve this goal, CeRSA is dedicated to research, education, and collaboration with businesses, institutions, and non-governmental organizations (NGOs).

Ultimately, CeRSA contributes to promoting corporate sustainability in Italy by fostering a more responsible approach in the administrative and operational processes of businesses.

4.4.6 Center for Sustainable Business (CSB)

NYU Stern Center for Sustainable Business - NYU Stern

Located at the NYU Stern School of Business in the United States, the Center for Sustainable Business (CSB) is an organization or entity that promotes sustainability in business activities. It can operate as a research center, an academic facility, or a non-profit organization, depending on its specific mandate.

The CSB works to encourage companies to integrate sustainability into their practices, decision-making processes, and business strategies.

Its activities may include sustainability research, the creation of educational resources, consultancy services for companies, and the promotion of best practices in sustainability.

Chapter 5

Open Innovation - Collaborative Innovation

Collaborative Innovation and Open Innovation are often used interchangeably, but they have distinct meanings.

Collaborative innovation is the process in which an organization collaborates with other entities, such as businesses, institutions, or research organizations, to develop or bring an innovation to the market.

This cooperation can involve interactions with suppliers, customers, competitors, consultants, universities, and public research entities whose main goal is to tap into the partner's reservoir of knowledge and experience, especially tacit knowledge they possess.

In contrast, Open Innovation encompasses a broader concept that includes collaborative innovation within its scope.

Open Innovation outlines a model of innovation in which companies are encouraged to cultivate collaborative relationships with various actors within their operational ecosystem. This approach involves harnessing ideas, insights, and expertise both from external and internal sources and efficiently managing the exchange of knowledge across organizational boundaries.

Open Innovation extends to all possible avenues through which a company can access technological advancements.

In contrast, collaborative innovation is more focused on a methodology for companies to jointly develop new technologies and tangible creations.

5.1 Medium/Large Italian Companies and Sustainable Process Management

5.1.1 Enertronica

<u>Enertronica | The New Smart Utility</u>

Enertronica, as a company specialized in the renewable energy and power electronics sector, plays a key role in promoting sustainability in corporate production processes. Its solutions offer several advantages that contribute to both economic and environmental sustainability for businesses.

One of the primary areas where Enertronica makes a significant impact is in reducing energy costs. By promoting innovative energy solutions such as photovoltaic inverters and energy storage systems, businesses can generate and manage renewable energy autonomously.

This not only reduces energy costs but also promotes greater stability in energy supply, contributing to financial sustainability for companies.

Additionally, the company actively engages in energy efficiency by designing systems that maximize the use of electrical energy, reducing waste and contributing to environmental sustainability.

Intelligent energy management is another key point: thanks to Enertronica's solutions, companies can monitor and optimize energy consumption in detail, identifying areas where efficiency can be improved, and costs further reduced.

Transitioning to renewable energy sources and adopting advanced energy management technologies allows companies to reduce greenhouse gas emissions and the overall environmental impact of their production processes while complying with environmental regulations and sustainability standards.

Finally, investing in Enertronica's sustainable energy solutions represents an investment in the future. Companies can benefit from long-term sustainability, reduced expenses, and increased resilience to energy-related shocks.

5.2 Startups in the Field of Sustainable Administration

5.2.1 Personio HR

<u>HR Software per la gestione del tuo personale | Personio</u>

Personio is a European startup with a clear mission: to simplify human resource management within small and medium-sized businesses.

Its primary goal is to enhance the productivity and efficiency of these companies by offering a comprehensive solution to manage all aspects of the employee lifecycle.

- The core features and functionalities of Personio range from human resource management to performance evaluation, recruitment, and integration with other business software:
- Organizational Chart Management: Personio allows you to create and manage organizational charts, providing a visual overview of the company's organizational structure.
- Employee Management: It enables the collection, storage, and management of employee information, including personal details, contracts, working hours, and leaves.
- Performance and Development Management: The startup provides tools to define individual and team objectives, assess skills, gather feedback, plan career paths, and provide ongoing training. This helps companies maximize their employees' potential.
- Leave and Absence Management: Automates the process of requesting and approving employee leaves and absences.
- Document Management: It offers a system for storing and sharing employee-related documents, such as employment contracts, certificates, and other relevant documents.

- Recruitment Management: Simplifies job posting, candidate selection, recruitment process tracking, candidate communication, and onboarding of new employees, making the recruitment process more efficient.
- Payroll Administration: Streamlines administrative tasks related to personnel management, such as payroll preparation and contract deadline management.
- Reporting and Analysis: Provides tools for generating reports and analyses related to personnel data.

Personio is designed to be a comprehensive and integrated system for human resource management, aiming to reduce bureaucracy and improve employee management efficiency. In an effective corporate training and development process, various stakeholders play crucial roles, including the HR department.

This group is responsible for planning and managing training programs from conception to results analysis, with the primary goal of ensuring that these programs align with the company's strategy and meet employee needs.

However, involvement in the training process is not exclusive to HR. Managers and supervisors also play a fundamental role in identifying their employees' development needs.

They provide valuable feedback and support during the learning journey, helping to identify areas of growth and ensuring that employees have access to the necessary resources to develop their skills.

Furthermore, specialized training and development personnel play a key role. These experts may be tasked with designing and conducting training programs, bringing specific expertise in areas such as educational program design and andragogy (the art of adult education).

Additionally, Personio offers integration with other business software and services, including payroll systems, accounting software, internal communication platforms, and e-learning solutions. This promotes integrated and efficient business management.

5.2.2 Top Consult

Soluzioni per la gestione documentale, conservazione digitale - Top Consult

Top Consult is an IT services company, founded in 1987, dedicated to developing software aimed at improving document management, digital archiving, electronic invoicing, corporate collaboration, and Robotic Process Automation (RPA).

Robotic Process Automation (RPA) (Fig. 5.2.2.1) is a technology that uses software robots or digital workers to automate repetitive, rule-based tasks that typically require human intervention.

RPA can help businesses enhance their efficiency, accuracy, compliance, and customer satisfaction while reducing costs and errors.

Figure 5.2.2.1 RPA Technology

It can be applied to various domains and sectors, such as finance, accounting, human resources, customer service, healthcare, manufacturing, and more.

Top Consult also offers RPA consulting services to help clients identify, design, implement, and manage RPA solutions that meet their business needs and goals. In fact, the company has a team of experts in RPA technology and process optimization that assists clients in every phase of the RPA journey, from strategy to planning to development and deployment.

Top Consult collaborates with leading RPA providers like UiPath, Automation Anywhere, Blue Prism, and Microsoft Power Automate to provide the best RPA tools and platforms to its clients.

A notable achievement of Top Consult is the creation of TopMedia Social NED, an enterprise platform for document management inspired by the concepts and dynamics of social networks and social collaboration.

This solution introduces a new way of working for users and promotes a cultural and organizational transformation within companies, embracing the concept of Social Business.

In conclusion, Top Consult is a reliable partner for businesses seeking advanced IT solutions to improve document management, corporate collaboration, and operational efficiency.

Its wide range of products and services is designed to adapt to the specific needs of clients, regardless of the industry they operate in.

5.3 Contribution of Consulting Companies to Sustainable Administration

Consulting firms can play a significant role in the sustainable management of corporate production processes. Specifically, they can assist companies in identifying areas where they can enhance their sustainability and develop strategies to achieve these goals.

For example, consulting companies can help businesses reduce their waste, improve energy efficiency, and develop more sustainable products. Furthermore, they can help companies understand and adopt sustainable business practices, such as the use of recyclable materials and the reduction of greenhouse gas emissions.

Among the most prominent are Accenture, Deloitte, and KPMG.

5.3.1 Accenture

https://www.accenture.com/it-it

Accenture is a globally leading business consulting company that plays a crucial role in helping businesses implement sustainable management practices.

Relevant are its contributions in the following areas:

- Strategic Consulting: Accenture provides essential support to companies in two main areas, which are the development of customized growth strategies and the improvement of operational efficiency. In the first case, it works closely with businesses to create tailored growth plans that consider the specific challenges and opportunities in their industry and target market. These strategies may involve expanding into new markets, developing new products or services, or diversifying business activities. In the second case, Accenture focuses on optimizing operational processes to enhance business efficiency. This can involve cost reduction, process automation, or simplifying business operations. Additionally, the company offers guidance on resource management, including employee, technology, and financial resource management.
- Reporting Systems: Accenture implements reporting and monitoring systems to collect detailed data on companies' environmental footprint, facilitating both internal and external reporting.
- Sustainable Innovation: By promoting sustainable innovation, Accenture helps companies develop products and services that reduce environmental impact and address sustainability challenges.
- Technology Sustainability: Accenture is involved in technology sustainability, developing solutions to make companies' IT more sustainable.
- Training and Engagement: It offers training and awareness programs to engage employees of companies in promoting sustainability and implementing sustainable practices.
- Collaborations and Partnerships: Accenture collaborates with organizations, research institutes, and strategic partners to address global sustainability challenges and develop innovative solutions.

5.3.2 KPMG

https://kpmg.com/it/it/home.html

KPMG is one of the world's leading consulting and professional services firms, committed to promoting the sustainable management of corporate production processes through a range of services and initiatives:

- Sustainability Consulting: KPMG provides specific consulting services to help companies develop corporate sustainability strategies. This may include setting environmental, social, and ethical goals, as well as identifying opportunities to improve sustainable management of production processes.

- Reporting and Auditing: KPMG can conduct audits and reviews of a company's sustainability performance, ensuring compliance with regulations and standards. These services encompass financial audits, internal audits, IT audits, performance audits, tax audits, environmental and sustainability audits, sustainability and CSR reporting, and standards and compliance reporting.

- Risk and Opportunity Assessment: This service is a key process in the field of auditing and effective and sustainable business management. KPMG collaborates with companies to identify risks and opportunities, carefully assess them, develop strategies to manage risks and leverage opportunities, ensure regulatory compliance, and transparently communicate results to stakeholders.

- Sustainable Practice Development: KPMG is strongly committed to developing sustainable practices for companies. The goal is to promote responsible corporate management and create long-term value for businesses and the environment, as sustainability becomes a central part of corporate strategies.

- Monitoring and Reporting: This is an essential part of KPMG's approach to help companies manage corporate performance, regulatory compliance, and transparent communication with stakeholders. KPMG supports companies in monitoring performance, preparing financial and sustainability reports, ensuring regulatory compliance, assessing key performance indicators (KPIs), managing risks, and communicating with stakeholders. These tools are fundamental for effective and transparent business management, and KPMG plays a key role in their development and implementation.

- Training and Awareness: KPMG offers training programs to raise awareness among employees of companies about sustainability and engage them in promoting sustainable practices in production processes.

- Research and Innovation: The company participates in research and initiatives to promote sustainable innovation, seeking advanced solutions to improve the environmental impact of business processes. KPMG promotes research and innovation through market research, technological innovation, sustainability, investment opportunity assessment, business research and development, academic collaboration, and training programs, contributing to the long-term success of businesses.
- Reporting and Sharing Best Practices: KPMG shares sustainable reports and best practices with companies to inspire and assist them in improving their operations.

5.3.3 Deloitte

Deloitte | Audit, Consulting, Financial Advisory, Risk Management & Tax services and reports | Italy

Deloitte is a company that provides sustainability and social responsibility consulting services to organizations.

The Sustainability and Climate Change Solution, with a team of over a hundred dedicated professionals, offers services aimed at supporting clients in all aspects of sustainability, such as positioning and strategies, ESG risks, HSE management systems, Benefit Corporations, policies, and procedures.

Deloitte has developed an End-to-End design approach for defining "stand-alone" sustainability plans or integrating them into the industrial planning process.

The approach consists of four phases:

1. Discovery Phase: During this phase, Deloitte focuses on identifying sustainability improvement opportunities for its clients. This process may involve a detailed analysis of current operations and business practices to identify areas where changes can be made to increase sustainability.
2. Design Phase: Once improvement opportunities are identified, Deloitte collaborates with the client to develop a detailed strategy and action plan.

This plan may include specific sustainability goals, key performance indicators (KPIs), and implementation guidelines.

3. Delivery Phase: In this phase, the company engages in the actual execution of the action plan. This may involve operational changes, investments in sustainable technologies, staff training, or other initiatives aimed at translating the sustainability strategy into concrete actions.

4. Sustain Phase: Once the action plan is implemented, Deloitte provides continuous monitoring and evaluation services to ensure that sustainability initiatives are maintained and improved over time. This phase may involve progress tracking, identifying new opportunities, and adjusting strategies based on the results achieved.

5.3.4 SustainAbility

SustainAbility - Consulenza certificazione sostenibilità aziende (sustain-ability.consulting)

SustainAbility is a strategic consulting company based in London, specializing in corporate sustainability.

Founded in 1987, SustainAbility has a long history of collaborating with businesses, organizations, and governments to develop sustainable strategies, enhance corporate social responsibility (CSR), and effectively communicate sustainable outcomes.

Among SustainAbility's services and focus areas are:

- Strategic Consulting: SustainAbility offers strategic consulting to help businesses develop a clear vision of corporate sustainability and integrate it effectively into their operations, policies, and processes.
- CSR and Reporting: The company assists businesses in creating sustainable relationships and drafting sustainability reports that transparently communicate progress and commitments.
- Assessment and Benchmarking: SustainAbility evaluates the sustainable performance of companies and compares it to industry benchmarks to identify improvement opportunities.

- Sustainable Innovation: The company helps businesses identify and develop sustainable initiatives and products that can create long-term value.
- Stakeholder Engagement: SustainAbility supports stakeholder interactions to better understand expectations and concerns and integrate them into the sustainable strategy.
- Sustainable Governance: The company helps businesses develop sustainable governance, including board involvement.
- Training: It offers training programs for businesses and professionals interested in sustainability and corporate social responsibility.

SustainAbility is recognized for its innovative thinking and pioneering role in the field of corporate sustainability. It collaborates with companies of various sectors and sizes, helping them address environmental and social challenges and identify opportunities for sustainable value creation.

The company has extensive experience in sustainability projects worldwide and is a trusted source of advice for businesses seeking to develop a sustainable vision and practice.

5.4 Medium/Large International Companies and Sustainable Administration of Production Processes

5.4.1 Siemens

https://www.siemens.com/global/en.html

Siemens is a multinational giant known for its extensive range of solutions aimed at promoting sustainability in corporate production processes.

The company's mission goes beyond providing advanced technologies; it deeply engages in consulting, offering its expertise to help other businesses achieve greater efficiency and reduce the environmental impact of their activities.

Examining closely the key areas where Siemens contributes to promoting sustainability in corporate production processes, several initiatives stand out. Foremost among them is energy efficiency, a critical aspect for any company aiming for sustainability.

Siemens offers a wide range of technologies and solutions aimed at improving energy consumption efficiency, including advanced automation systems, highly efficient motors and drives, and tools for monitoring and controlling energy consumption.

Industrial automation is another area where Siemens excels. Providing advanced automation systems enables companies to optimize their production processes, minimize waste, and ensure better product quality.

Additionally, Siemens is committed to promoting digitization as a cornerstone of sustainability. Integrating cutting-edge technologies such as artificial intelligence and the Internet of Things (IoT) allows companies to monitor their operations in real time and make data-driven decisions, resulting in significant improvements in efficiency and sustainability.

The company is also involved in the renewable energy sector, providing solutions such as wind turbines and solar plants. These solutions enable companies to generate clean energy while reducing carbon emissions and the use of traditional energy sources.

Regarding sustainable mobility, Siemens offers electric vehicle charging systems that enable companies to reduce the environmental impact of their corporate fleets. Additionally, the company is dedicated to sustainable water management, providing technologies and solutions that contribute to reducing water consumption and managing water resources more efficiently.

Finally, Siemens provides advanced analytics tools that allow companies to analyze operational data and identify opportunities to improve the sustainability of their operations.

5.4.2 Zoho

Zoho | Cloud Software Suite for Businesses

Zoho Corporation is a multinational software company based in India that offers a wide range of software applications and services for businesses worldwide.

Founded in 1996 by Sridhar Vembu and Tony Thomas, Zoho has become one of the world's largest and most successful software companies.

The main categories of products and services offered by Zoho are:

- Zoho One: Zoho One is a comprehensive suite of over 40 business applications, including CRM, human resource management software, accounting and finance applications, collaboration tools, marketing software, and much more, providing a complete solution for business process automation. The applications cover various areas, including Customer Relationship Management (CRM), marketing automation, human resource management, accounting, collaboration, and more. This allows businesses to improve operational efficiency, both internal and external collaboration, and customize the software package according to their needs. Zoho One operates on a flexible subscription model that allows businesses to tailor their software needs based on growth and business development.
- Zoho CRM: Zoho CRM (Fig. 5.4.2.1) is one of Zoho's most popular solutions designed for customer relationship management. It helps businesses track and manage customer interactions, sales, and marketing more efficiently.

- Zoho Books: Zoho Books (Fig. 5.4.2.2) is an online accounting software designed for small and medium-sized businesses. It enables financial management, invoicing, bookkeeping, and expense management.
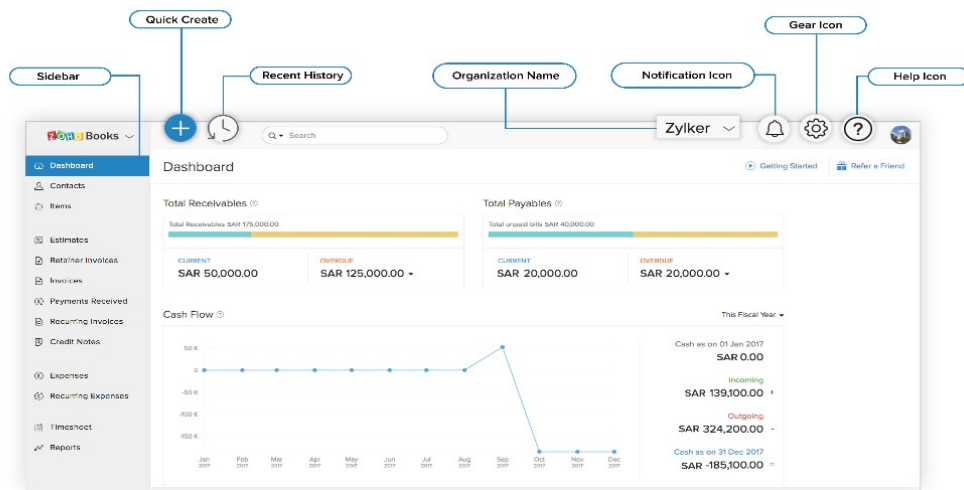

Figure 5.4.2.2 Zoho Book configuration

- Zoho Creator: Zoho Creator is a cloud-based application development platform provided by Zoho Corporation. This platform allows users to create and customize business applications without requiring advanced programming skills. Its key features include no-code development, application customization, integrations with other business applications, mobile app creation, process automation, report and dashboard creation, data security, application publishing and sharing, and user support. Zoho Creator is widely used by businesses of various sizes to streamline business processes and create custom applications to meet their specific needs.
- Zoho Mail: Zoho Mail is a cloud-based business email solution that offers email, calendar, contacts, and collaboration features.
- Zoho Projects: Zoho Projects is a project management platform offered by Zoho Corporation, designed to help businesses plan, monitor, and execute their projects efficiently. Its key features include project planning,

collaboration, deadline management, report generation, integrations with other business applications, support for Gantt charts, agile planning, mobile access, workflow customization, and data security. In short, Zoho Projects provides a comprehensive solution for flexible and efficient project management.

- Zoho MarketingHub: Zoho MarketingHub is a marketing automation platform that helps businesses manage marketing campaigns efficiently across various channels. It offers automation, segmentation, integrations, and analytics tools to enhance the effectiveness of marketing strategies.

5.4.3 Wipro EcoEnergy

Wipro Economy Energy | Who we are (wiproecoenergy.com)

Wipro EcoEnergy, a division of Wipro Limited, stands out for its dedication to promoting energy efficiency and sustainable energy management.

This division is committed to providing a range of services and solutions aimed at supporting companies and organizations in their quest for better energy consumption management, with the goal of promoting environmental sustainability and achieving significant cost savings on energy expenses.

Its offerings include specialized energy consulting, which helps companies identify energy efficiency improvement opportunities through energy data analysis and the design of customized solutions.

Additionally, it provides advanced energy monitoring solutions that allow companies to collect real-time data on energy consumption, thus providing a solid foundation for making informed energy management decisions.

Wipro EcoEnergy leverages cutting-edge technologies such as the Internet of Things (IoT) and advanced data analytics to optimize corporate energy systems, minimizing unnecessary consumption and enhancing overall efficiency.

Moreover, it offers energy management systems that enable companies to plan, monitor, and continually improve their energy performance, ensuring sustainable energy management.

The division can assist companies in implementing practical energy solutions, including the installation of more energy-efficient technologies and equipment.

Wipro EcoEnergy's primary objective is to help reduce companies' energy costs, lower the environmental impact of their operations, and enhance overall sustainability.

These solutions are particularly relevant in a context where more and more organizations are focusing on adopting more sustainable practices to address energy and environmental challenges.

5.4.4 Celonis

Process Mining and Execution Management Software | Celonis

Celonis is a German company specializing in software that focuses on the discipline of Process Mining. This practice (Fig. 5.4.4.1) uses digital data to analyze and monitor business processes, enabling companies to map, visualize, and optimize their operations.
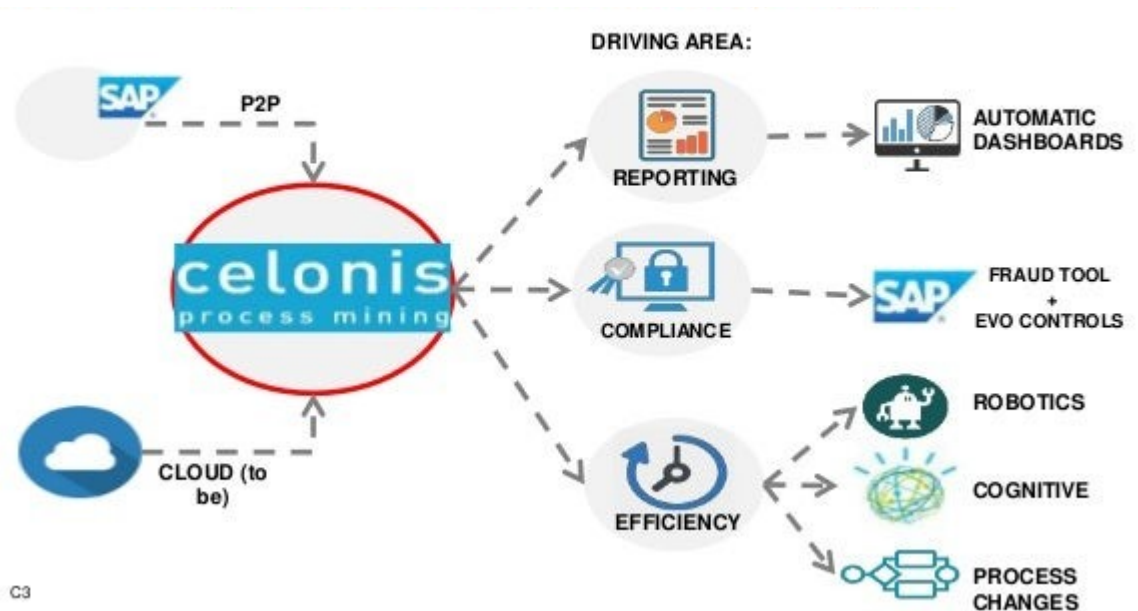

Figure 5.4.4.1 Analysis of Process Mining Celonis

Celonis' Intelligent Business Cloud platform offers a suite of tools that includes Process Mining and Intelligent Business Process Automation (IBPA). Celonis is known for its Process Mining technology, which analyzes business process data to provide a detailed understanding of how these processes operate.

The Celonis Intelligent Business Cloud platform offers several key features:

- Process Mining: The platform uses data analysis to map and monitor business processes in real-time, identifying inefficiencies and improvement opportunities.
- Process Optimization: It provides data-driven recommendations to enhance operational processes and make operations more efficient.
- Real-Time Monitoring: Allows real-time monitoring of business processes, enabling companies to respond quickly to anomalies or issues.
- Advanced Analytics: The platform offers advanced data analytics to extract meaningful insights from business process data.
- Data Integration: It can be integrated with various sources of business data, including ERP, CRM, and others, for a comprehensive view of business processes.
- Process Automation: Helps identify opportunities for process automation, minimizing human errors, and enhancing efficiency.
- Measurable Results: Intelligent Business Process Automation (IBPA) delivers measurable results, including improvements in efficiency, reduction in operational costs, shortened process execution times, and improved work quality.
- Custom Reporting and Dashboards: Provides tools for creating custom reports and dashboards to monitor process performance.

These tools assist companies in discovering, monitoring, and improving their operational processes in real-time. The platform employs artificial intelligence (AI) and machine learning to automate business processes, eliminating repetitive manual tasks and enhancing efficiency.

Celonis serves a wide range of clients, including leading companies in various sectors such as manufacturing, financial services, healthcare, logistics, e-commerce, and many others.

5.4.5 DocuWare

Document Management Software & Workflow Solutions | DocuWare

DocuWare offers document and workflow management solutions to streamline business processes, improve efficiency, and ensure data security. Its platform is used by a variety of industries worldwide to address document and process management challenges.

It implements solutions in the following areas:

- Document Management: The core of DocuWare's business is document management. It provides software that allows businesses to efficiently capture, store, organize, and retrieve digital documents, eliminating paper clutter and simplifying the document storage and retrieval process.
- Automated Workflows: DocuWare also offers tools for creating and automating business workflows. This enables companies to design digital processes, assign tasks, monitor project statuses, and efficiently manage document approvals.
- Cloud and On-Premises Platform: DocuWare offers both cloud-based and on-premises solutions, allowing companies to choose the option that best fits their needs and IT requirements.
- Integrations: The DocuWare platform can be integrated with other business applications, such as ERP systems, CRM software, and accounting software, to enhance data connectivity and consistency.
- Security and Compliance: DocuWare places a strong emphasis on data security and regulatory compliance. Its solutions include encryption features, role-based access control, and the ability to track and log all document-related activities.
- Customers and Industries: DocuWare provides solutions to a wide range of industries, including manufacturing, healthcare, finance, professional services, and more. It is used by businesses of various sizes worldwide.

5.4.6 Sap

Software aziendali innovativi | Contatta SAP Italia | SAP

SAP is a major enterprise software company that provides a wide range of solutions and services, including supply chain and production management

software, which can significantly contribute to the sustainability of business production processes.

To promote administrative sustainability in businesses, SAP applies various production processes:

- Carbon Emissions Monitoring: SAP offers energy and carbon emissions management solutions that enable businesses to monitor and measure the environmental impact of their production operations. This helps companies identify areas for improvement and reduce greenhouse gas emissions.
- Supply Chain Optimization: SAP provides supply chain optimization tools that help businesses reduce waste and costs in transportation, production, and procurement. This optimization contributes to sustainability by reducing resource usage.
- Energy Management: The company offers energy management solutions that allow businesses to monitor and optimize energy consumption in their production operations. This includes the use of energy inverters and other devices to enhance energy efficiency.
- Sustainable Material Analysis: SAP enables businesses to monitor and manage the use of sustainable materials in production. This is important for reducing non-renewable resource usage and promoting more sustainable production.
- Supply Chain Traceability: SAP offers supply chain traceability solutions that allow businesses to monitor the origin and supply chain of materials. This is important to ensure sustainability and ethics in production.
- Environmental Reporting: The company provides environmental reporting tools that allow businesses to transparently communicate their sustainability initiatives and results to consumers, stakeholders, and regulatory authorities.
- Energy Savings and Process Optimization: SAP solutions enable businesses to identify inefficiencies in production processes and make improvements to reduce energy consumption, waste, and operational costs.

- Environmental Data Integration: SAP allows businesses to integrate environmental and sustainability data into their enterprise systems, enabling more effective management of environmental and sustainability issues.

Sustainability has become a fundamental part of modern corporate strategy, and SAP provides the necessary tools to address this challenge effectively.

5.4.6.1 SAP Ariba

SAP Ariba is a leading software solution in the field of Supplier Relationship Management (SRM) and corporate procurement management. This solution is part of the extensive product suite offered by SAP, a global leader in the software and technology industry.

SAP Ariba offers numerous advantages that can help businesses improve their expense management and control procurement and sourcing costs and risks, including:

- Supplier Relationship Management: SAP Ariba enables businesses to establish and effectively manage relationships with their suppliers. This includes the ability to register, evaluate, and collaborate with suppliers in various aspects of business operations, including purchasing, contracts, and payments.
- Procurement Automation: The platform provides tools to automate purchasing processes, simplifying the creation of purchase requests, bid management, order creation, and goods and services receipt.
- Contract Management: SAP Ariba allows for the efficient creation, management, and monitoring of contracts with suppliers. This helps ensure that contracts are adhered to, and agreed-upon conditions are maintained.
- Payment Management: The platform facilitates payment management to suppliers, including electronic invoicing processes, reducing errors and payment delays.

- Data Analytics: SAP Ariba offers data analytics capabilities that enable businesses to gain greater visibility and understanding of their procurement operations and supplier performance.
- Supplier Collaboration: The solution promotes collaboration between businesses and suppliers, allowing them to share information, documents, and communicate more effectively.
- Compliance and Sustainability: SAP Ariba includes features to ensure regulatory compliance and promote sustainability in procurement operations and supplier relationships.

SAP Ariba is widely used across various industries and sectors to enhance the efficiency of procurement operations and maintain positive and collaborative relationships with suppliers.

The platform is scalable and suitable for both small businesses and large multinational corporations looking to optimize supplier relationship management.

5.4.7 British Standards Institution (BSI)

We are the UK national standards body | BSI (bsigroup.com)

The British Standards Institution (BSI) is a leading British organization specializing in setting standards and providing evaluation, certification, and consultancy services related to quality, safety, and corporate sustainability. BSI has shaped best practices for over a century, assisting organizations worldwide in incorporating excellence, building competencies, and fostering sustainable growth.

BSI also offers a wide range of business solutions in addition to its NSB activities, which help companies worldwide improve their outcomes through best practices. Some of these notable services include:

- ISO Certification: BSI provides certification services for a wide range of ISO standards, including ISO 9001 (Quality Management), ISO 14001 (Environmental Management), ISO 45001 (Occupational Health and Safety), and many others.

- Sustainability Assessment: BSI helps companies assess and enhance their environmental and social performance, promoting sustainability in business operations.
- Product Certification: BSI offers product certification services, ensuring that products meet safety, quality, and regulatory compliance requirements.
- Supply Chain Assessment and Certification: BSI evaluates and certifies the sustainability and compliance of supply chains, assisting companies in ensuring that their suppliers meet the required standards.
- Training: BSI provides training programs to help businesses and professionals understand and implement quality and sustainability standards.
- Business Risk Management: BSI supports companies in managing business risks, including those related to quality and sustainability.
- Technical Standards: BSI is involved in the creation and revision of national and international technical standards in various areas, helping establish guidelines and best practices.

BSI is globally recognized as an authority in setting and applying standards for quality, safety, and sustainability. Collaborating with BSI can contribute to improving product and service quality, as well as demonstrating a commitment to sustainability principles in business operations.

5.4.8 EcoVadis

Le valutazioni di sostenibilità aziendale più affidabili al mondo | EcoVadis

EcoVadis plays a crucial role in facilitating sustainability in global supply chains. Its assessment platform (Figure 5.4.8.1) provides companies with the necessary tools to measure, understand, and improve the sustainable practices of their suppliers.

This process not only helps mitigate the risks associated with unsustainable behavior within the supply chains but also contributes to promoting a positive impact on the environment and society.

Figure 5.4.8.1 Evaluation process of EcoVadis

EcoVadis' ongoing assessment enables companies to keep a vigilant eye on the sustainability of their suppliers over time, which is particularly important since sustainability challenges can arise at any moment and require immediate responses. Sharing assessment information and results promotes transparency and encourages suppliers to engage in improvement initiatives.

Additionally, EcoVadis provides valuable reference through sector benchmarks and best practices:

- Sector Benchmarks: EcoVadis utilizes sector benchmarks to evaluate a company's performance in comparison to other companies within the same industry. This approach allows for a more accurate assessment of a company's sustainable performance within a specific context. For example, a food industry company will be compared to other food industry companies.
- Best Practices: The company incorporates best practices into its assessment process based on global and regional sustainability standards, such as the United Nations Global Compact Principles, GRI guidelines for sustainable reporting, and other industry-specific regulations. Companies are evaluated based on how well they adhere to these best practices.
- Assessment Methodology: EcoVadis employs an assessment methodology that covers a range of sustainability criteria, including environment, human rights, corporate ethics, and the supply chain. These criteria are weighted based on their relative importance to the specific industry.
- Supply Chain Assessment: The company does not limit its evaluation to just the parent company but extends its assessment to suppliers, which is particularly important because many companies rely on the sustainability of their entire supply chain.
- Feedback and Improvement: Companies assessed by EcoVadis receive detailed feedback on their sustainable performance.

EcoVadis' approach is valuable for identifying areas of improvement and implementing corrective actions, helping companies identify where they can further enhance their sustainability.

Generating reports on sustainability trends in supply chains allows companies to demonstrate their commitment to corporate social responsibility and compliance with sustainability regulations.

Finally, EcoVadis' support in guiding companies toward greater sustainability contributes not only to improving corporate image but also to mitigating risks associated with unsustainable behaviors, all while maintaining a vigilant focus on corporate sustainability.

Chapter 6

Successful implementations in the field of sustainable administration

As previously discussed, sustainable administration is an innovation approach in which companies seek to grow not only through internal ideas and resources but also through the acquisition of external technological tools and expertise, particularly from startups, universities, research institutes, suppliers, inventors, programmers, and consultants with the goal of making their production processes more sustainable.

6.1 Enertronica

Enertronica, a company specializing in renewable energy and power electronics, has achieved several successful implementations across various sectors:

- Photovoltaic Inverter Systems: Enertronica has implemented photovoltaic inverter systems in many companies and industrial facilities. These systems allow the conversion of solar energy into usable electrical energy. The successful implementation of such systems has contributed to reducing the energy costs for businesses and promoting the use of renewable energy sources.

- Energy Storage Systems: Enertronica has developed and installed energy storage systems that enable companies to store energy produced from renewable sources like photovoltaics. These systems allow companies to use energy more efficiently, reduce demand peaks, and increase the reliability of energy supply.

- Microgrid Projects: Enertronica has successfully implemented microgrid projects for communities, businesses, and critical facilities. These projects create local energy networks that can operate independently or in parallel with the main grid. This increases energy supply resilience and promotes greater sustainability.

- Monitoring and Control Solutions: Enertronica offers advanced solutions for monitoring and controlling energy infrastructure. These solutions enable companies to monitor energy efficiency in real-time and make changes for optimization. The implementation of these solutions has led to increased operational efficiency and significant energy savings.

- Collaborations for Innovation: Enertronica collaborates with other companies and research institutions to develop new sustainable energy technologies and solutions. These collaborations have resulted in successful projects contributing to innovation in the energy sector.
- Advanced Power Electronics: Enertronica provides advanced power electronics solutions for industrial applications, enabling precise control of electrical energy. These solutions have been successfully implemented in sectors such as industrial automation and electric mobility.

6.2 Personio

Personio is a pioneering company in employee management, having developed innovative software that automates and simplifies every aspect of the employee lifecycle, from hiring to evaluation, from compensation management to offboarding.

This solution is particularly aimed at small and medium-sized enterprises (SMEs), offering them a flexible and scalable option that can be tailored to their specific needs.

Personio's successful implementations are diverse and include:

- HR Process Digitalization: Personio has digitally transformed HR processes for over 8,000 clients across Europe, including prestigious companies such as Flixbus, GetYourGuide, N26, and Delivery Hero. These companies have chosen Personio to boost productivity, increase transparency, and enhance the quality of services provided to their employees.
- Expansion into the Italian Market: Starting in 2021, Personio expanded into the Italian market by establishing a dedicated team and creating a localized version of their software. Personio quickly gained the trust of numerous prominent Italian companies, including Bending Spoons, Talent Garden, ProntoPro, and Credimi.

6.3 Top Consult

Top Consult is a robust company that offers a wide range of solutions and expertise for the digitalization of administrative processes, contributing to improved efficiency and regulatory compliance for client companies, which is crucial in modern business processes.

Key implementations in this context include:

- Digitalization for Toyota Material Handling Manufacturing Italy: Top Consult successfully completed a significant project to digitalize administrative processes for Toyota Material Handling Manufacturing Italy, a leading company in the automotive sector. Through collaboration with the technology partner Zucchetti and the implementation of the Mago4 ERP software, Top Consult helped Toyota manage its administrative, financial, logistical, production, and commercial activities more efficiently. This resulted in significant improvements in terms of efficiency, transparency, and the quality of services provided to customers.

- TopMedia Social NED Document Platform: Top Consult adopted an enterprise document platform called TopMedia Social NED, which integrates the principles of social networking and social collaboration into document management. This platform promotes a new approach to work and supports cultural and organizational transformation toward the concept of a "social business." It complies with Italian regulations, offers advanced features, and features an intuitive interface with social elements, contributing to improved document management.

- Electronic Outsourcing Services: Top Consult provides outsourcing services for B2B electronic invoicing and public administration (PA) invoicing. These services include order management through the Network Service Operator (NSO) in compliance with current laws and digital document storage. The company is also accredited as an intermediary for the exchange of electronic documents in XML-UBL format, has obtained ISO 27001 certification, and is a certified provider for document exchange through the PEPPOL system.

6.4 SAP

Implementing SAP solutions for the sustainability of corporate production processes can lead to significant improvements in terms of efficiency, waste reduction, resource consumption, and environmental impact.

SAP offers a wide range of solutions aimed at enhancing sustainability in corporate production processes.

6.4.1 SAP Cloud for Sustainable Enterprises

SAP Cloud for Sustainable Enterprises is a comprehensive package of cloud-based applications designed to support companies in implementing complete sustainability management. This solution seamlessly integrates sustainability metrics into their end-to-end business processes.

SAP Cloud provides specific features that promote resource management responsibility and carbon emissions management at both product and company levels.

The seamless integration and communication between various components foster a holistic approach to sustainability, enabling companies to manage resources responsibly and monitor and reduce carbon emissions, both in products and business operations.

SAP Cloud for Sustainable Enterprises can integrate data and business processes to monitor and manage the carbon footprint, reduce material waste, and promote social sustainability. The goal of this solution is to provide companies with the tools to adopt low-carbon business processes effectively, enabling them to tackle sustainability challenges and move toward a more sustainable future.

6.4.2 SAP Product Footprint Management

SAP Product Footprint Management is a cloud-native solution based on the powerful SAP Business Technology Platform, designed to measure and report greenhouse gas emissions. It provides companies with the ability to calculate the carbon footprint for their entire range of products, considering the entire life cycle of each product.

SAP Product Footprint Management can assess the environmental impact of various production scenarios by integrating emission data from all solutions involved in production process management.

Relevant data from enterprise applications like SAP S/4HANA can be incorporated to calculate the footprint accurately and comprehensively.

A key aspect of this solution is its ability to integrate calculated carbon footprints into end-to-end business processes, ensuring that sustainability information is incorporated into all stages of business operations.

6.4.3 SAP Sustainability Control Tower

SAP Sustainability Control Tower is a cloud-based solution that provides companies with a means to record, report, and act on their sustainability goals.

This solution plays a fundamental role in enabling companies to define their sustainability objectives, monitor their progress, and derive meaningful insights from reliable sustainability data.

Key features of SAP Sustainability Control Tower include:

- Holistic Steering: This feature allows companies to define a holistic direction in sustainability, encompassing environmental, social, and governance (ESG) issues. This enables comprehensive and coordinated management of all aspects related to sustainability.
- Green Ledger: SAP Sustainability Control Tower offers a dedicated "green" ledger for transactional carbon accounting, supporting low-carbon business models. This feature is particularly relevant for companies committed to reducing carbon emissions.
- Beyond ESG Reporting: The solution goes beyond mere ESG metric reporting. It helps build trust and transparency with stakeholders by harnessing the power of data through sustainability metrics and ESG management solutions. This allows companies to derive value from data and demonstrate their long-term commitment to sustainability.
- SaaS Experience: SAP Sustainability Control Tower offers an engaging and user-friendly Software as a Service (SaaS) experience. This helps both SAP

and its customers maintain the agility required to report reliable audit-ready data and leverage ESG data to create long-term value.

6.4.4 SAP Integrated Business Planning

SAP Integrated Business Planning (SAP IBP) is a cloud-based supply chain planning solution that offers a comprehensive set of features to improve business efficiency and profitability.

It includes:

- Integrated Planning: SAP IBP brings together essential elements of the planning process, including demand forecasting, supply chain management, stock optimization, and sales and operations planning (S&OP), enabling a unified and cohesive approach to planning.
- Stakeholder Engagement: One of the primary goals of SAP IBP is to engage stakeholders across the organization in a seamless, integrated planning process. This collaborative approach ensures that all parties are aligned toward profitable solutions.
- Real-time Simulations: SAP IBP offers the capability to conduct real-time simulations of various business scenarios, enabling alignment of demand, supply, and financial models. This allows organizations to make informed decisions and adapt plans as needed.
- Based on SAP HANA: SAP IBP is based on the SAP HANA platform, known for its high performance and in-memory data processing capabilities. It enables real-time and integrated supply chain planning, providing organizations with up-to-date information.
- Transparency and Feasible Planning: SAP IBP focuses on creating transparency in the supply chain planning process. It ensures that generated plans are not only comprehensive but also feasible, providing customers with accurate and reliable delivery dates.
- Scalability: SAP IBP is designed to adapt to business growth. It is a scalable solution that can accommodate an organization's changing needs.
- Integration: SAP IBP seamlessly integrates with other SAP solutions and third-party systems. This integration capability enables a holistic and

interconnected approach to supply chain management, leveraging existing systems and data sources.

6.5 British Standards Institution (BSI)

The British Standards Institution (BSI) is an organization that provides a range of standards and services with the aim of helping organizations become more sustainable and socially responsible, thus contributing to the United Nations Sustainable Development Goals.

BSI offers standards and services that support the adoption of sustainable and socially responsible practices by organizations.

This not only helps preserve the environment and promote social well-being but can also lead to economic savings and waste reduction.

The scope of BSI's operations and its broad base of stakeholders and customers highlight that the most significant contribution to sustainable development occurs through collaboration with other stakeholders, positively influencing a wide range of sectors and industries.

There are concrete examples of companies that have benefited from the implementation of BSI standards in their production processes, including:

Stantec: Stantec, a global leader in the built environment sector, has obtained BSI certifications on a global scale for various international standards.

These certifications have provided Stantec with a significant competitive advantage, strengthening its position as an industry leader.

- Telesoft Technologies: Telesoft Technologies, specialized in designing, manufacturing, and supplying government infrastructure, telecommunications solutions, and cybersecurity products, has successfully implemented a series of BSI management standards. This has contributed to improving the efficiency and quality of its services.
- Fairford Medical: Fairford Medical, a growing company in the healthcare sector, has successfully adopted BS EN ISO 9001. This certification has

helped increase the efficiency and organization of its operations, allowing the company to provide high-quality healthcare services.

- Capgemini: Capgemini, a global leader in IT services and technology consulting, has obtained BSI certification at a global level for international standards ISO 9001 and ISO 20000. This recognition confirms Capgemini's commitment to quality and excellence in IT services, strengthening customer trust.
- Shed Grounds Maintenance: Shed Grounds Maintenance is a small business specializing in providing ground maintenance services. It has obtained BSI certification for ISO 9001 and ISO 14001, demonstrating its commitment to quality and sustainability in its operations.

The work of the British Standards Institution plays a key role in encouraging sustainability and social responsibility in businesses, significantly contributing to global sustainable development goals.

6.6 Deloitte

Deloitte has recently launched its new proprietary framework called "Sustainability Gear" (Fig. 6.6.1) with the aim of providing support to clients in evolving their businesses, guiding them through the adoption of sustainability standards.

This framework is a valuable resource that enables the identification and addressing of key sustainability aspects, relying on specialized expertise in various areas of interest.

Figure 6.6.1 Sustainability Gear

Deloitte's "Sustainability Gear" is divided into two main categories called "Key Enablers" and "Action Levers":

The "Key Enablers" include:

- Strategy: This enabler involves the formulation of a clear vision and guidelines for corporate sustainability. It includes defining areas of focus, means, channels, and necessary content to translate this vision into reality.

- Governance: This aspect pertains to the organizational structure of the company, including key stakeholders, roles, and the corporate culture needed to support the sustainability mission and standards. Governance ensures the achievement of predefined objectives.

The "Action Levers" are divided into three categories:

- Products and Investments: This lever involves products and investments that incorporate sustainability principles and goals. Companies are encouraged to develop products that are more eco-friendly and to invest in sustainable initiatives.

- Organization: This area concerns initiatives directed at company employees and local communities. These are actions aimed at generating positive impacts both environmentally and socially.

- Sustainable Data & Transformation: This lever focuses on addressing sustainability challenges through data utilization. Data is crucial for measuring, monitoring, and improving sustainability performance.

6.7 Accenture

Accenture demonstrates a tangible commitment to promoting corporate sustainability through its work and initiatives in various sectors.

Notably, they have created a sustainability measurement model, a fundamental step in assessing the environmental, social, and governance (ESG) impact of companies.

Accenture has shown its leadership by developing this model, which not only helps companies better understand their impact but also provides a framework for creating value for all stakeholders, demonstrating the company's strong commitment to integrating sustainability into business processes and helping businesses think sustainably.

6.7.1 Collaboration with the World Economic Forum

In collaboration with the World Economic Forum, Accenture has created a framework (Fig. 6.7.1.1) to enhance sustainability within organizations.

This framework is based on 21 management practices, systems, and processes that form the foundation for placing stakeholders at the center and promoting corporate sustainability.
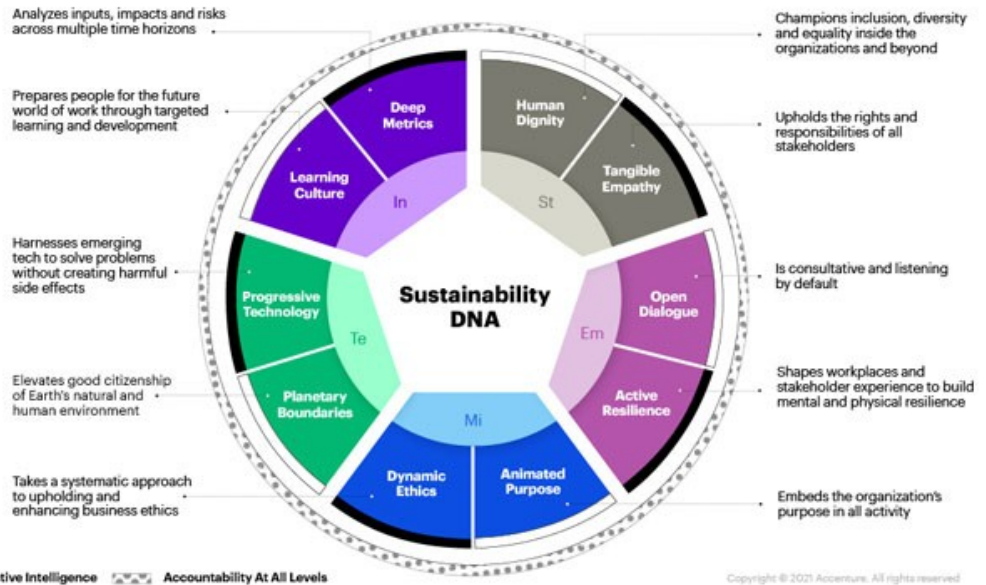
Figure 6.7.1.1 Framework Sustainability DNA

Organizations that deeply integrate stakeholder management generate over 20% more profit, along with a positive environmental and social impact. Companies with a strong "sustainability DNA" on average see a 21% increase in both EBITDA margin and environmental and social impact (Fig. 6.7.1.2).
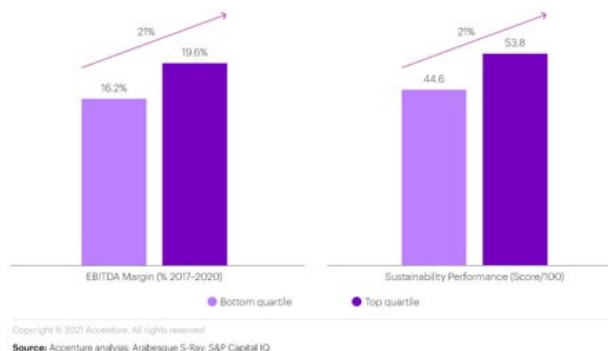

Figure 6.7.1.2 EBITA and positive impact of companies with Sustainability DNA

The incorporation of "Sustainability DNA" in organizations affects behaviors in three distinct ways: by promoting stronger human connections, enhancing collective intelligence, and fostering responsibility at all levels.

To achieve this goal, organizations should follow three fundamental steps in order to create a cycle of change that generates value for stakeholders:

- Diagnosis: This step involves assessing areas where the organization has achieved positive results and identifying where improvements are needed.
- Definition: Here, organizations identify the key actions necessary to achieve their sustainability goals, using a wide range of inputs and diverse approaches.
- Development: This phase involves creating a roadmap based on the organization's vision for change, with clearly defined Key Performance Indicators (KPIs) to measure success.

In conclusion, the framework emphasizes the importance of sustainability as a driver of profit and positive impact, offering a structured path for organizations wishing to enhance their corporate sustainability and stakeholder engagement.

6.7.2 Innovative Projects

Accenture's significant influence in critical sectors such as energy, mobility, finance, healthcare, and consumption reflect the wide range of innovative projects the company has internally generated.

The digital transformation of Enel to become a global leader in renewable energy is an example of how Accenture helps companies evolve sustainably. In fact, the consulting firm collaborated with the Enel Group in one of the most extensive corporate network virtualization projects globally.

This initiative resulted in operational cost reductions and significantly enhanced Enel's infrastructure flexibility and efficiency.

Additionally, Enel Energia launched the 'Open Energy Digital' initiative in partnership with Accenture, aiming to support small and medium-sized enterprises (SMEs) during a critical period of economic recovery and facilitating the digitalization of their operations.

Furthermore, other projects such as the digital platform for shared and sustainable mobility for Volkswagen and the blockchain solution for tracking carbon emissions

for Mastercard demonstrate Accenture's ability to lead innovation towards sustainability.

6.8 KPMG

KPMG is dedicated to promoting a culture centered around non-financial reporting, non-financial statements, and sustainability reports, making a significant contribution to defining new benchmark standards.

Currently, we are witnessing an ongoing debate involving three important standard proposals put forth by internationally relevant organizations: the International Sustainability Standards Board (ISSB), the US Securities Exchange Commission (SEC), and the European Financial Reporting Advisory Group (EFRAG).

These proposals have the ambitious goal of creating a common set of guidelines for organizations regarding sustainability reporting.

The proposals from ISSB are primarily aimed at investors and focus on the fundamental principles of reporting, including the responsibility to provide data related to sustainability-related risks and opportunities.

In parallel, EFRAG's proposals are broader in their target audience, involving a wide range of stakeholders, including investors, and offer a framework that not only encompasses the basic principles but also includes specific metrics for reporting data on various aspects of sustainability (ESG).

Finally, the SEC's proposal, focused on investors, details precise requirements for reporting data on climate-related issues.

The primary objective underlying these proposals is to create a unified global platform that allows companies to apply consistent standards in generating their sustainability reports, making them directly comparable on an international scale. Furthermore, this process aims to ensure that information complies with disclosure requirements at the local level, thereby contributing to establishing a uniform framework for global sustainability communication.

These efforts aim to promote corporate responsibility and transparency in the context of sustainability, and KPMG actively commits to promoting corporate sustainability through the adoption of new practices and encouraging businesses to consider not only financial but also social and environmental aspects in their development journey.

6.8.1 KPMG Impact

KPMG Impact is an initiative and specific practice of KPMG focused on conceiving and implementing transformative solutions to help companies redefine their business models in a sustainable, long-term manner.

The goals of KPMG Impact (Fig. 6.8.1.1) include:

- Development of Innovative Solutions: KPMG Impact aims to develop innovative solutions that enable companies to adopt a sustainable approach in their processes and business models. This may involve the adoption of advanced technologies, restructuring of business processes, or the implementation of new sustainability strategies.
- Promotion of Long-Term Sustainability: The initiative promotes sustainable practices that not only generate short-term profits but also contribute to a positive impact on society and the environment in the long term.
- Evolutionary Change of Capitalism: KPMG Impact reflects the belief that businesses should evolve beyond the pursuit of profits alone, recognizing the need to address broader social and environmental issues through new models of governance and business.

Figure 6.8.1.1 KPMG Impact

KPMG Impact is a fundamental component of KPMG's efforts to assist businesses in embracing corporate sustainability and taking concrete actions to reduce their negative impact on the environment and society. In fact, through KPMG Impact, companies can access consulting services, research, analysis, and strategy development aimed at guiding them along the path of sustainable transformation.

6.9 Siemens

Siemens is undoubtedly one of the leading multinational companies in the field of engineering and industrial automation, and its impact extends across a wide range of sectors and projects worldwide.

This company has demonstrated remarkable innovation capabilities and successful solution implementations in various fields.

First and foremost, in the field of sustainable mobility, Siemens has shown a strong commitment. It has actively participated in projects aimed at promoting a more

ecological future of mobility, including solutions for high-speed rail transportation and the development of electrified public transportation systems.

A notable example is the contribution made to the electric power system of Sydney's tram, which has contributed to reducing carbon emissions in public transportation.

Additionally, Siemens is a prominent player in the renewable energy sector, particularly in wind energy. The supply of advanced wind turbines worldwide and support for the expansion of renewable energy sources are clear indicators of its commitment to more sustainable energy production.

The company has also established itself as a leader in industrial automation and digitalization, developing cutting-edge solutions that enhance operational efficiency in industries and promote sustainable production.

In the medical field, Siemens offers advanced diagnostic medical equipment and medical imaging systems, which play a crucial role in improving the quality of healthcare and early disease diagnosis, thereby enhancing previously adopted business processes.

The company plays a key role in promoting Industry 4.0, the evolution of industry toward digitization and advanced automation. Siemens' advanced automation solutions aim to improve the productivity and sustainability of manufacturing companies.

Finally, Siemens also provides technologies for sustainable water resource management, including water network monitoring and control systems and wastewater treatment solutions.

6.10 Wipro Energy

Wipro Energy represents a prominent division within Wipro Limited, a renowned company operating in the professional services sector.

The company stands out for its dedication to innovative solutions in the fields of energy, environment, and sustainability, with the primary goal of guiding its clients in transforming their business models toward a more sustainable future.

Among the successful implementations that have marked Wipro Energy's journey in sustainable administration, some notable initiatives stand out, including the launch of the Wipro Industry Innovation Experience for Energy and Utilities, a suite of integrated digital solutions based on Microsoft's cloud.

The goal is to help companies in the energy and utilities sector drive strong, strategic, and sustainable growth, addressing emerging challenges and realizing the potential of a more efficient and sustainable future.

The Innovation Experience creates an immersive 3D environment that showcases how digital solutions can improve wastewater impact management, cognitive energy intelligence, customer experience, energy data centrality, and cybersecurity.

Wipro Energy has also distinguished itself by undertaking high-impact innovative projects in the energy sector.

Among these, the creation of a smart grid for electricity management in India has helped optimize energy resource efficiency in a context of growing demand. In Europe, the company has provided cloud solutions to optimize the operations and maintenance of wind farms, promoting more reliable and sustainable production.

Furthermore, the development of a blockchain solution for tracking and certifying carbon emissions in the oil and gas sector has enabled greater transparency and accountability in the energy industry.

6.11 Zoho

Zoho is an extremely versatile cloud platform known for offering a wide range of integrated solutions for business management.

Through its range of services, spanning from CRM to UCC, accounting to marketing, content production to human resource management, Zoho has proven to be a reliable partner for businesses of various sizes and industries.

Its flexibility and affordability have allowed Zoho to achieve numerous successes in various business contexts.

These successes are the result of its ability to adapt to specific customer needs and provide tailor-made solutions to meet business challenges.

Some examples of success include:

- CRMpartners: A CRM consulting company, CRMpartners, adopted Zoho's "Transnational Localism" concept. This approach combines global presence with a strong focus on local customers. Choosing Zoho as a technology partner for business digitization was driven by Zoho's business model, expertise, investments in research and development, and commitment to customer data protection.
- Zoho Projects: Zoho Projects is an online project management solution that enables efficient goal achievement while adhering to time and budget constraints. With this platform, you can monitor progress in real-time, measure project performance, and efficiently allocate work resources.
- Zoho Sprints: Zoho Sprints is an agile project management tool that allows adaptation to rapid and unforeseen changes. This software integrates with Zoho Projects, offering a hybrid solution that combines traditional and agile methods. You can create flexible plans, collaborate in real-time, track tasks, and view key metrics through reports and dashboards.

Chapter 7

Current Challenges and Future Developments

The sustainable management of corporate production processes represents a crucial and current challenge for businesses aiming to remain competitive and responsible in the global landscape. This responsibility is based on ESG (Environmental, Social, and Governance) principles that assess the environmental, social, and governance impact of an organization's operations. Sustainability is not just about the company itself but also extends to the entire supply chain, as it accounts for approximately 90% of the impact of production processes.

To pursue the goal of making their administration even more sustainable, companies must face various challenges.

7.1 Integration of Sustainability into Business Processes

The year 2023 represents a turning point for European businesses in terms of sustainability. Companies must be prepared to meet more detailed and stringent communication requirements regarding environmental, social, and governance (ESG) aspects.

The integration of sustainability into business processes is a crucial process for addressing environmental, social, and governance (ESG) challenges and adopting more sustainable business models.

It involves the incorporation of sustainable considerations and practices into all phases of business operations, which can include optimizing resource usage, reducing carbon emissions, engaging stakeholders, and promoting ethical business practices.

Implementing this integration can lead to several advantages, including improved corporate reputation, increased operational efficiency, attracting sustainable investments, and greater stakeholder satisfaction.

Therefore, it is important for companies to develop a clear strategy and continually monitor progress to ensure the achievement of sustainability goals.

7.2 ESG Reporting

ESG (Environmental, Social, and Governance) reporting is a process through which companies transparently and comprehensively communicate information about their performance and sustainability initiatives.

This practice has become increasingly important as investors, customers, stakeholders, and regulatory authorities demand greater corporate responsibility in terms of sustainability.

ESG reporting typically includes:

- Environmental Aspects: Information about the management of environmental resources, such as energy usage, greenhouse gas emissions, water consumption, waste management, and environmental impacts.
- Social Aspects: Information about company policies and practices regarding human rights, employee health and safety, community engagement, diversity and inclusion, and social initiatives.
- Governance Aspects: Information about corporate governance structures, including the board of directors, decision-making processes, executive compensation, transparency, and corporate ethics.

  ESG reporting is an important tool for demonstrating a company's commitment to sustainability and social responsibility. Furthermore, it may be required by regulatory bodies or be an integral part of corporate communication strategies.

7.3 Circular Practices in Production Processes

Incorporating circular practices into corporate production processes is at the core of the circular economy, an approach that aims to revolutionize how we interact with resources and the environment.

This philosophy places the goal of reducing waste and maximizing resource use at its center, challenging the traditional linear model of production and consumption.

To embrace circularity in production processes, several key approaches need to be followed:

- Lifecycle-oriented design: Products should be conceived from the start with the idea of how they can be disassembled and recycled at the end of their lifecycle. Consideration should also be given to the possibility of repairing or upgrading products instead of replacing them.
- Use of sustainable materials: Companies should prefer using recycled or renewable materials in their production processes, reducing dependence on finite resources. This choice may also include the adoption of biodegradable or compostable materials to reduce environmental pollution.
- Process optimization: Optimizing production processes is essential to reduce energy and resource consumption. This involves adopting low-impact environmental technologies and eliminating waste through practices like lean manufacturing.
- Recycling and reusing: At the end of a product's lifecycle, it is important to promote recycling and reusing to the maximum extent possible, which may include returning products to the manufacturer for recycling or creating markets for selling used products to new customers.
- Stakeholder engagement: Active involvement of all stakeholders, including employees, customers, suppliers, and the local community, is crucial for the success of the transition to circularity. Collaboration among these parties fosters the creation of a sustainability-oriented corporate culture.

It is worth noting that transitioning to more circular production processes not only significantly contributes to reducing environmental impact but also offers

operational efficiency opportunities and new markets, attracting sustainability-conscious consumers.

Therefore, the adoption of circular practices is not just an ethical imperative but also a key strategy for long-term business success.

7.4 Future Developments

Sustainable management in businesses is a highly relevant and current issue that requires companies to adapt to new market demands and opportunities. Analyzing future trends in this field reveals important developments.

7.4.1 Sustainable Finance

Sustainable finance is a rapidly growing sector that focuses on investments that not only seek profit but also consider how it is generated, considering ESG (Environmental, Social, and Governance) factors.

Recently, this sector has seen significant expansion globally, in Europe, and in Italy, with an increase in the management of sustainable investment strategies and an uptick in operators incorporating ESG criteria.

The key objective of sustainable finance is to create long-term value by directing capital toward initiatives that support the transition to an economy in line with the UN's 2030 goals and the Paris Climate Agreements.

However, despite the growing interest in sustainable finance, uncertainty persists regarding what can be considered truly "green." In this regard, the European Union is working on regulations to prevent the so-called "greenwashing."

7.4.2 Circular Economy

The circular economy, based on the principles of the 4Rs (Reduce, Reuse, Recycle, Recover), represents a new economic paradigm aimed at minimizing waste and maximizing resource efficiency. It is gaining increasing importance and is set to impact companies in various ways soon.

Education and skill development become essential. Employees will need to be prepared to operate in a circular economy, including understanding new sustainable technologies and practices.

Collaboration and partnerships between companies, governments, and non-governmental organizations will be crucial for sharing best practices, collaborating on research and development projects, and creating synergies that promote the transition to a circular economy.

Regulatory aspects play an important role. With a growing emphasis on sustainability and the circular economy, an increase in regulations and incentives that promote this transition is expected. This could include tax incentives for companies adopting sustainable practices or regulatory requirements that mandate waste reduction or the use of recycled materials.

In summary, the circular economy represents a significant opportunity for companies to contribute to environmental sustainability and, at the same time, reap substantial economic benefits. Its adoption will require significant changes at various levels but promises a more sustainable and efficient future.

7.4.3 Social Innovation

Future social innovation in the context of corporate sustainability is a topic of growing relevance as companies increasingly recognize the importance of integrating sustainability into their business processes.

To better understand sustainable innovation, we can compare it to traditional innovation. Like tradition, companies must remain attentive to market needs, experiment with risky projects, and bring a mix of revolutionary and incremental innovations to the market. However, sustainable innovation goes further because it requires companies to continually assess the environmental and social impact of their initiatives.

Looking ahead, companies will face several challenges in the realm of social innovation and administrative sustainability. These challenges include the need to establish well-defined sustainability goals, evaluate the environmental impact of

production processes, actively engage all stakeholders on the path to sustainability, monitor progress toward these goals, and regularly report on this progress.

Moreover, the challenge of sustainable innovation involves the need to constantly seek new ways to enhance corporate sustainability. This can include investments in research and development of sustainable products or services, or the adoption of new business practices and models that promote sustainability.

In conclusion, future social innovation in corporate sustainability represents a significant opportunity for companies. This would not only allow them to contribute to environmental sustainability but also offer substantial economic benefits, making it a strategic choice for long-term success.

Conclusion

The analysis of successful implementations in the field of sustainable corporate administration highlights the crucial role of open innovation in promoting sustainable practices within companies. Companies that have embraced this perspective through the integration of innovative approaches and the synergy of internal and external resources have demonstrated the ability to implement sustainable management practices more effectively and efficiently, positioning themselves as agents of positive change in society.

However, it is essential to recognize that the path toward effective sustainable administration is continually evolving, and future developments will require a consistent commitment with the sharing of knowledge and the creation of synergies among companies.

Therefore, it is fundamental to cultivate an environment in which innovation and sustainability mutually reinforce each other, allowing companies to adapt flexibly to rapidly evolving environmental challenges.

In summary, companies that embrace sustainable administration through open innovation not only promote their own resilience and competitiveness but also contribute significantly to building a sustainable future for generations to come. Looking ahead, success in the realm of sustainable administration will demand proactive leadership, the willingness to overcome obstacles, and an awareness of the long-term impact of business decisions.

Only through collective commitment, consistent application of best practices, and a commitment to a sustainable vision can companies effectively contribute to a future where sustainability is not just an obligation but a fundamental pillar of their identity and success.

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