

Austrian Success Stories in Supply Chain Responsibility

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Many companies view supply chain responsibility as an additional cost factor, while some regard it as a strategic success factor. Going beyond mere commercial transactions and cultivating collaborative exchange and cooperation with suppliers, these leading companies are establishing responsible supply chains – and concurrently gaining strategic advantages. This report presents 12 case studies of leading companies that have done just this and achieved substantial competitive advantages by using innovative solutions in supply chain responsibility. The selected cases span diverse sectors, company sizes, ownership structures and locations, with an emphasis on companies headquartered or prominently located in Austria.

By closely and strategically collaborating with suppliers, the companies presented in this report were able to gain better insights into technologies and competitive landscapes, allowing them to implement informed and tactical improvements that no company could achieve alone. This approach led to reduced complexity, safeguarding the supply of raw material and intermediary goods, simplified communication, increased reaction times and enhanced collaborations. Some companies invested in selected suppliers and reinstated dormant production sites in Europe, while others secured their ability to deliver even in times of crisis or improved their product quality. Through this deeper understanding of supply networks, the featured companies were able to co-design them in a more resilient way and gain additional competitive advantages, as they became more reliable, faster, customer-oriented and thus more attractive for customers and industrial buyers.

The findings derived from this study underscore that the primary aim of economic policy interventions should be to enable companies, value chains and supply networks to organise themselves as a holistic system and in a targeted, responsible, resilient, and sustainable manner. Consequently, support should be directed towards companies, value chains and supply networks, cultivating an awareness of their interdependencies.

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This study was commissioned and financed by the Austrian Federal Ministry of Labour and Economy (BMAW) and conducted by the Institute for Managing Sustainability at the Vienna University of Economics and Business.

Challenges in Supply Chain Responsibility

In essence, supply chain responsibility revolves around ensuring that products and services are produced, processed, and distributed throughout the entire supply chain while adhering to social, environmental, and ethical standards. A particular challenge lies in the increasing globalisation of supply chains and their often opaque nature. It is the responsibility of companies to proactively engage with their own resources and closely monitor their supply networks to ensure compliance with these standards.

Any definition of supply chain responsibility is closely tied to numerous national, international, and European laws and regulations. It is also defined from various perspectives within the realm of academia and implemented differently in corporate practices. This diversity of approaches and perspectives, coupled with the global nature and opacity of supply chains, presents a range of challenges to the implementation of supply chain responsibility.

The **OECD Guidelines for Multinational Enterprises** were initially published in 1976 and have been updated four times, with the latest revision occurring in 2023. Prior to 2023, they were referred to as the 'OECD Guidelines for Multinational Enterprises' in English; this has now been updated to the 'OECD Guidelines for Multinational Enterprises on Responsible Business Conduct'.¹ This serves as a code of conduct that encompasses directives and general principles for companies in the following areas.

- Through the **disclosure of information**, companies should be transparent about their business activities and inform the public about social and environmental issues and risks.
- Respect for **human rights** is a prerequisite in all areas of corporate business activities and applies across the entire scope of a company's operations. This is aimed at preventing inhumane conditions existing anywhere within a company's sphere of influence.
- The guidelines on **employment and industrial relations** describe fundamental principles for the collaboration of involved parties that include freedom of association, collective bargaining, promoting constructive collaboration between employee representatives and management, and ensuring that the work environment is free of discrimination.
- The impacts of company activities on the **environment** should be identified and documented in the most comprehensive and transparent manner possible. The guidelines align with international standards and agreements in this regard.
- To **combat bribery and other forms of corruption**, companies are encouraged to implement and enforce regulatory compliance within the organisation. These regulations are designed to ensure that the company neither offers nor accepts bribes and benefits.
- Fair business practices include a consideration of **consumer interests**, ensuring that personal data is not misused and that customers are adequately informed about products and services.

¹ OECD (2023)

- Companies are encouraged to incorporate **science and technology** in their business practices as a way of generating innovations. This includes disclosing research and development results and collaborating with research and educational institutions while respecting intellectual property rights.
- Companies commit to engaging in fair **competition** by adhering to competition regulations and avoiding agreements and collusion with competitors. This, in turn, contributes to economic growth and promotes fair market conditions.
- The **taxation** guidelines form the basis for cooperation with the relevant authorities. Companies contribute to the public finances by paying their taxes promptly and providing any and all information, as required by law.

In 2018, the OECD published the **OECD Due Diligence Guidance for Responsible Business Conduct** to facilitate the implementation of the guidelines. This document provides specific measures and approaches to promote responsible business conduct and underlines the importance of collaboration among all stakeholders. A key instrument for implementing the OECD Guidelines is the use of due diligence processes, in which companies assess the consequences of their business activities on the supply chain, environment, and society, and develop and implement improvement measures. National contact points have been established in the 51 countries that have committed to implementing the OECD recommendations; these have two main functions: On one hand, the national contact points are responsible for promoting and disseminating the OECD guidelines to enhance their effectiveness. On the other hand, they address alleged violations of the OECD guidelines by working collaboratively with the parties involved through consultation and mediation to seek a constructive resolution of conflicts.

Beyond the OECD Guidelines, there exists a multitude of other international frameworks that address companies and consider their direct and indirect impacts on the environment, people, and future generations.

The EU Commission has ruled that **Corporate Social Responsibility (CSR)** sets out a company's responsibility for all its direct, indirect, intended, and unintended impacts.² However, the resulting complexity can be challenging for many companies, especially when it comes to the indirect effects within complex supply chains.

The United Nations' **Sustainable Development Goals (SDGs)** serve as a crucial and widely adopted reference framework for the medium- and long-term strategies of large global companies.³ However, the operationalisation of these goals into specific corporate objectives, and their translation into Key Performance Indicators (KPIs), is still in the early stages.

² Findler, F., Martinuzzi, A. (2015)

³ Vogel-Pöschl, H., Martinuzzi, A., Schönherr, N. (2020)

Sustainability reporting, as set out in the **Global Reporting Initiative (GRI)**, is a global benchmark and necessitates a comprehensive assessment of all impacts.⁴ However, the methods used for materiality analysis in this context have significant weaknesses.

In terms of corporate climate change mitigation, the **Greenhouse Gas Protocol** and the associated assessment of indirect climate impacts (from suppliers and throughout the product life cycle) pose methodological challenges for many companies, especially when dealing with complex value chains.⁵

Responsible sourcing is increasingly being demanded by both policymakers and civil society to ensure that the digitisation and decarbonisation of products and production processes do not have negative effects on people and the environment in the countries where key raw materials are extracted.⁶ In this context, supply chain security and resilience are becoming increasingly important, as demonstrated by the global shortage of microchips, the current gas crisis, and the ongoing supply chain issues resulting from the COVID-19 pandemic.⁷

In recent times, there has been increasing demands, in both national and international regulations and guidelines, for companies to take responsibility for impacts beyond their facilities and locations. For example, in 2017, France enacted the national law known as 'Loi de Vigilance,' which obligates companies to establish a due diligence plan concerning the respect for human rights and the environmental impacts of their suppliers and operations. This law applies to companies with over 5,000 employees in France, and to companies based in France with over 10,000 employees globally. In Germany, at the beginning of 2023, the 'Law on Corporate Due Diligence in Supply Chains' came into effect which applies to companies with over 3,000 employees (due to be reduced to 1,000 employees in 2024) or those exceeding specific revenue thresholds. Similar initiatives have been introduced in the Netherlands, Norway, Switzerland, the United Kingdom, and the state of California in the USA.⁸

A new directive on supply chain responsibility is currently being prepared at the European level. On 23 February 2022, the European Commission presented a proposal for the Corporate Sustainability Due Diligence Directive (CSDDD). However, the general orientation of the European Council and the position of the European Parliament moderately differ from the Commission's proposal. Political deliberations on the CSDDD are still ongoing, and it is expected that the final directive will be adopted by the end of this year. The directive identifies the negative impacts of corporate activities on people and the environment, including indirect effects along the supply chains. For example, it addresses the protection of human rights (preventing child labour and exploitation) as well as the preservation of the environment (safeguarding biodiversity and preventing environmental pollution). In case of non-compliance

⁴ Adams, C. A., Alhameed, A., He, X., Tian, J., Wang, L., & Wang, Y. (2021)

⁵ Russell, S. (2019)

⁶ Sturman, K., Rogers, P., Imbrogiano, J.-P., Junior, R., & Ezeigbo, C. (2018).

⁷ Allam, Z., Bibri, S. E., & Sharpe, S. A. (2022).

⁸ Burton, A., Eggenweber, K., Rainer, M., Riegler, M., & Scholz, M. (2022).

by companies, the draft directive calls for a monetary penalty, which is to be calculated based on the global net turnover of a financial year. The European Parliament has even proposed a penalty of at least 5% of the global net turnover for a financial year. The final text of the directive has not been approved yet, but based on the general orientation of the European Council, the following companies are expected to fall within the scope of the CSDDD:

- Companies with **headquarters in the EU** which had an **average of over 500 employees** in the previous financial year and a **worldwide net annual turnover of over 150 million euros**. If a company did not meet this threshold in the previous year but serves as the ultimate parent company of a corporate group with at least 250 employees and a global net revenue of over 40 million euros, of which at least 20 million euros were generated in a high-risk sector, the company could also fall under the directive.
- Companies **not headquartered in the EU** with a **worldwide net annual turnover of over 150 million euros in the EU**. Companies **from non-member states which generated less than 150 million euros of which at least 40 million euros were generated in the EU** could also fall under the directive.
- Companies that do not fall into these categories will be affected by the directive if they have **business relations to a prosecuted company**.

Many companies are aware of their expanded supply chain responsibilities but often view it as an additional cost or a risk to productivity, profitability, and their 'Licence to Operate'. However, there are also companies actively working on innovative solutions, seeing supply chain responsibility as a strategic opportunity to differentiate themselves from competitors through excellence and being able to demonstrate the business case for this type of corporate responsibility. These companies are the focus of this study.

The aim of this study is to provide insights into the business case for supply chain responsibility, and create case studies that will attract public attention, that are both representative and replicable, and that may provide inspiration and guidance for other companies and economic policymakers. In the following chapters, success stories from Austrian companies regarding supply chain responsibility are scientifically prepared and presented to the wider public in an engaging format. The goal is to make a significant contribution to shifting the discussion around supply chain responsibility from an additional cost and complexity factor to a strategic success factor, supported by concrete business cases.

In the selection of case studies, great care was taken to ensure that there is a wide distribution across industries, sizes, ownership structures, and locations. Preference was given to companies headquartered, or with significant operations, in Austria. Another selection criterion was to represent a diverse range of sectors. The interviewed companies are involved in various industries namely chemicals, food and beverages, raw materials, electronics, construction and building materials, machinery, and steel construction.

In the first step, we contacted companies that have been collaborating with the Institute for Sustainable Management at the Vienna University of Economics and Business for many years, including partners from current and past EU-funded projects such as RE-SOURCING and SUMEX, that have shown a high level of commitment to supply chain responsibility and due diligence.

Then, key networks and stakeholders in Austria (e.g., Sustainable Styria Business Initiative, ÖkoBusiness Vienna, Environmental Service Salzburg, and respACT) and expert organisations (e.g., FH Wieselburg, Denkstatt, Stenum, and 'Verantwortung zeigen') were asked for recommendations. This resulted in a list of 71 companies, categorised by sector, company size, and location, all of which were subjected to an initial analysis using publicly available information taken from sources such as company websites, annual reports, and sustainability reports.

A short-list of 23 companies was then created from this list, all of which were approached for an interview; twelve of them agreed to be interviewed and were willing to be the subject of a case study. They form the empirical basis of this study and, due to the systematic sampling method deployed, are widely distributed across industries, sizes, ownership structures, and federal states.

1. The **Greiner Group**, headquartered in Kremsmünster, Upper Austria, is an international company, with a strong presence in Austria, that is an umbrella group for several businesses. The company manufactures plastic and foam solutions, as well as machinery and equipment for various industries.
2. The **Semperit Group** operates in the chemical industry, specialising in the production of industrial rubber and plastic products. From its Austrian roots, Semperit has evolved into an international business partner, known for its solutions serving healthcare, manufacturing, and the mobility sector.
3. **Nespresso** is a subsidiary within the Nestlé Group and is a leading provider of coffee and coffee machines. The Swiss-based company promotes a sustainable coffee supply chain, from bean to end product through various initiatives, and has a retail presence in Austria, as well as a chain of boutiques.
4. Originally founded in Austria, **Kelly Snacks** produces and distributes a variety of savoury snacks. Since 2008, it has been part of the German Intersnack Group, a consortium of snack and food brands with a presence in Austria, Slovenia, and Switzerland.
5. **RHI Magnesita**, an international provider of refractory solutions, was formed through the merger of the Austrian RHI AG and the Brazilian Magnesita Refratários SA. The company demonstrates how supply chain responsibility and sustainability can be adopted and prioritised in an energy- and resource-intensive industry.
6. **Stoelzle Glass Group** was founded in Austria and is a global provider of glass packaging. The company showcases how supply chain responsibility can be implemented from the very beginning of the supply chain.

7. Headquartered in Wieselburg, Lower Austria, the **ZKW Group** is a global provider of lighting systems. The company works on innovative lighting technologies and contributes to responsibility and sustainability in the automotive industry.
8. **Infineon Technologies AG** is a global manufacturer of semiconductor solutions, with several production facilities, including one in Villach, Carinthia. The company operates in a complex supply chain and implements various measures to encourage supply chain responsibility.
9. As part of the French Saint-Gobain Group, **Saint-Gobain Austria** comprises various companies in the construction industry, such as Rigips and Kaimann. Saint-Gobain Austria serves a significant part of the Southeast European market and is part of an international supply chain.
10. **Rhomberg Bau**, based in Vorarlberg, is particularly active in the DACH region (Germany, Austria, Switzerland). The company offers construction services, from planning to execution, and prioritises investments in sustainable and forward-looking construction projects.
11. **EVVA Sicherheitstechnologie GmbH** provides access control systems and primarily collaborates with European suppliers. The company has Austrian roots and is headquartered in Vienna.
12. As a medium-sized, family-owned company with headquarters and production facilities in Austria, **FAHNENGÄRTNER** demonstrates how even a comparatively small business can take responsibility for its supply chains. With around 100 employees, the company actively strives for sustainability and responsibility across their supply chain, from raw materials to the end product- flags and textile promotional items.

The following table provides additional information about the twelve companies. The values are rounded figures, based on the companies' disclosures.

Sector	Company	Products	Head-quarters	Company Structure	Employees (Total)	Employees (in Austria)	Locations (Total)	Locations (in Austria)	Annual Turnover (2022)	Source
Chemicals	Greiner Group	Plastic and foam solutions	Krems-münster, AT	Family-owned corporation with three business units	11,600	2,290	120	24	€2.33 bn.	Greiner Nachhaltigkeitsbericht 2022
	Semperit Group	Rubber and plastic solutions	Wien, AT	Group with five business units	6,500	900	35	2	€1.06 bn.	Semperit Geschäftsbericht 2022
Foods and Beverages	Nespresso	Coffee and coffee machines	Lausanne, CH	Part of the Nestlé Group	13,000	480	802	19	€94.4 bn. (Group)	Nespresso - Facts and Figures
	Kelly Snacks	Savoury snacks	Vienna, AT	Part of the Intersnack Group, umbrella with seven brands	400	400	44 (Intersnack)	2 (Kelly Snacks)	€3.7 bn. (Intersnack)	Kelly Snacks - Unsere Standorte
Raw Materials	RHI Magnesita	Refractory solutions	Vienna, AT	Result of the merger of RHI AG and Magnesita Refratários SA	13,600	1,680	59	7	€3.3 bn.	RHI Magnesita Jahresbericht 2022
	Stoelzle Glas Group	Glass packaging	Köflach, AT	Group with four business units	3,300	450	13	2	€144 m(in AT)	Stoelzle Nachhaltigkeitsbericht 2019
Electronics	ZKW Group	Lighting systems	Wieselburg, AT	Corporation	9,000	3,200	12	3	€1.15 bn.	ZKW Gruppe - Kennzahlen
	Infineon	Semiconductors	Munich, DE	Corporation	56,200	5,400	87	5	€14.2 bn.	Infineon Austria Geschäftsbericht 2022
Construction and Building Materials	Saint-Gobain Austria	Lightweight construction	Bad Aussee, AT	Part of the Saint-Gobain Group	168,000 (Group)	350	800	4	€51.2 bn. (Group)	Saint-Gobain Annual Report 2022
	Rhomberg Bau	Building, infrastructure, and engineering construction	Bregenz, AT	Part of the Rhomberg Group	3,500 (Group), 850 (Rhomberg Bau)	800	11	5	€418m (Rhomberg Bau)	Rhomberg Bau - Organisation
Machinery and Steel Construction	EVVA	Access control systems	Vienna, AT	Family-owned	790	480	13	1	€86m	EVVA - Unternehmen
	FAHNENGÄRTNER	Textile promotional items and flag technology	Mittersill, AT	Family-owned	100	100	1	1	€8m	FAHNEN GÄRTNER - Unternehmen

Overview of the twelve companies (estimated values)

The main data source for the case studies was a series of guided, qualitative interviews conducted with individuals responsible for sustainability and supply chain management and covering the topics laid out below.

Activities	<ul style="list-style-type: none"> • Which activities have already been implemented? • What other activities are planned? • What is particularly innovative about them?
Motives and Expectations	<ul style="list-style-type: none"> • What were the motives behind the implementation, and what were the expectations of the supply chain and of society as a whole? • What expectations were placed on the implementation? • Did the results coincide with these expectations?
Implementation	<ul style="list-style-type: none"> • Which factors have influenced the implementation positively, and which negatively? • Which factors—especially from the institutional side—have, or would have, facilitated or improved the implementation?
Successes	<ul style="list-style-type: none"> • Was the implementation successful? • How is success measured by the company? • In what ways did the implementation affect the company's performance?
Obstacles	<ul style="list-style-type: none"> • What factors would have led to the implementation failing? • What stands in the way of greater success in the future?
Miscellaneous	<ul style="list-style-type: none"> • Which national, EU, and international framework conditions should be adopted or established to maintain or further expand supply chain responsibility as a business success factor?

In addition, business and sustainability reports were analysed, and supplementary documents and information were processed. The focus was on providing a detailed description of the supply chain responsibility measures that were implemented, the motivation to go beyond the legal minimum, and the benefits derived from such commitments for the company, its customers, and other stakeholders. As a scientific evaluation method, single-case studies and a comparative cross-case analysis were conducted to create a general business case for supply chain responsibility. All case studies presented in this report were validated by the companies involved.

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Success Story Greiner Group

Due Diligence and Sustainability in the Plastics Industry. Greiner is a globally leading provider of plastic and foam solutions. Operating under the umbrella of Greiner AG, the company operates in three different divisions: Greiner Packaging manufactures plastic packaging for the food and non-food sector, Greiner Bio-One produces sampling systems for human and veterinary medical samples, and NEVEON offers polyurethane soft and composite foams for various applications. The main customer groups include the packaging, furniture, sports, automotive, medical technology, and pharmaceutical sectors. The Greiner Group employs nearly 12,000 people in over 30 countries. The supplier network encompasses several thousand suppliers.

In 2022, Greiner revised its existing supplier and business partner Code of Conduct for Suppliers and Business Partners, which represents a commitment and provides guidance. The Code of Conduct (CoC) focuses on sustainability issues and encompasses ethical, environmental, social principles and human rights. The Sustainable Sourcing Policy – which has also been issued recently by Greiner - follows the CoC and additionally sets guidelines for what must be considered particularly in procurement. Based on this foundation, Greiner continuously develops new initiatives to ensure environmental protection, workplace safety, resource efficiency, and human rights in its supply chains.

Two success stories within the Greiner Group are at the core of this study: **Building trust in the supplier network** and **creating financial incentives** for supply chain responsibility. Both initiatives aim to raise awareness of responsibility and sustainability in the supply chain, both within the company and across the supplier network. They lead to increased transparency in the supply chain, strengthen collaborations with suppliers, and result in numerous improvements.

Building Trust in the Supplier Network

Communication Barriers in Supply Chains. Many companies are open to improvements in sustainability and responsibility, but at times, they have limitations about providing their customers and clients with insights and details of their production and their own supply chains. In some cases, a supplying company may refuse collaboration when confronted with particularly ambitious demands from a client. This complicates the client's ability to fulfil its due diligence, act responsibly, and comply with legal requirements.

Long-standing and Intensive Collaboration. While traditional transactional agreements involve the exchange of goods for services, long-standing and intensive collaboration creates space for mutual development among the involved companies. The trust required for this is fostered through continuous information and data exchange between Greiner and its suppliers.

Greiner's Active Presence. The Greiner Group does not delegate responsibility for due diligence solely to external service providers (such as auditors, consultants, certifiers). Instead, they visit important suppliers of the company depending on the situation, with the purchasing management and quality assurance teams present on-site. Moreover, there is a continuous exchange of information that goes beyond mere procurement relationships. This allows Greiner to gain insights into the operational practices of their suppliers and support them in

developing and optimizing their processes sustainably. Specifically, Greiner provides expertise and assistance. If a supplier, for instance, aims to make its processes more sustainable, the Greiner Group offers their expertise to develop joint solutions. Thus, not only are the requirements of the Greiner Code of Conduct for Suppliers and Business Partners conveyed, but processes outside the traditional transaction agreement are also influenced, laying the foundation for close partnerships. Particularly when requirements on suppliers exceed the legal minimum, such intensive communication is essential to understand the suppliers' needs, capacities, and room for action and optimize solutions accordingly.

Emphasis on Improvements. If suppliers encounter difficulties in implementing measures or violations of requirements are identified, joint solutions are pursued, and deadlines for improvement are set. If the situation does not improve and the specified measures are not met on-site, this could ultimately lead to the termination of the collaboration.

Creating Financial Incentives

Establishing Sustainability Goals in the Company.

Many companies have published sustainability reports, established management systems, and created sustainability strategies in recent years. However, the goals outlined in these strategies are rarely tied to financial incentives, which puts them at risk of being overshadowed by financial, profit, and growth objectives. This problem becomes particularly acute when corporate responsibility extends to supply chains, as many suppliers prioritize economic goals, potentially relegating sustainability to a secondary consideration. Therefore, financial incentives are a crucial lever for establishing sustainability goals both within the company and throughout the supply chains. In 2022, Greiner took its first steps towards considering environmental, social, and governance (ESG) factors in a bond issuance.

Alignment with Environmental, Social, and Governance (ESG) Factors.

Within the context of its sustainability strategy, known as the "Blue Plan," the Greiner Group has defined various objectives related to suppliers. These objectives include signing a Code of Conduct for Suppliers and Business Partners and providing training to employees involved in procurement among other topics.

A Green Bond. In October 2022, the Greiner Group issued a "green bond" amounting to EUR 172 million, with the interest rate tied to three sustainability goals it aims to achieve by 2030:

- Achieving 100% renewable energy throughout the group
- Attaining a 40% female representation in leadership positions
- Ensuring that 99% of strategic suppliers are rated with at least 50 points by EcoVadis.

If these goals are met, the interest rate is lower; if they are not met, it is higher. This creates a strong financial incentive within the Greiner Group to take sustainability ambitions seriously in its operational practices. The achievement of these goals is verified annually by an external financial consultancy.

Impact on the Supply Network. One of Greiner's three sustainability goals directly affects the supply chain. By 2030, 99% of suppliers with a purchase value of over EUR 500,000 must possess a valid EcoVadis certificate and achieve a minimum score of 50 points. EcoVadis, the world's largest provider of sustainability assessments, evaluates companies based on environmental, social, and ethical criteria, assigning a score ranging from 1 to 100. In practice, this means that the Greiner Group expects such an assessment from its over 700 key suppliers, including not only raw

material suppliers but also service and transportation companies. Since EcoVadis continually improves its assessment criteria and requires companies to recertify annually, close collaboration and regular communication between suppliers and procurement teams are essential. This allows Greiner to assess the support that suppliers need to improve their own sustainability performance continually.

External Commitment as an Internal

Lever. By linking internal goals and external financing, the company commits itself externally to achieving its supply chain-related objectives. This involvement goes beyond procurement or production planning and also includes the company's finance departments. Consequently, Greiner raises awareness in areas where sustainability has traditionally played a subordinate role, sensitizing all employees.

Impact on Others. By demonstrating its sustainability ambitions externally and acting along the supply chain, the Greiner Group takes a pioneering role and raises awareness not only among its suppliers but also among other companies, emphasizing the commitment to sustainability.

Next Steps. To further expand the impact on different levels within the supplier network, Greiner intends to motivate suppliers to set ambitious sustainability or climate goals, known as Science-Based Targets. These targets are submitted and verified through the Science-Based Targets Initiative, a collaboration of international organizations such as the UN Global Compact, the World Resources Institute, WWF, and the Carbon Disclosure Project. The initiative ensures that goals are formulated in alignment with the latest state of knowledge of climate research, as required to achieve the objectives of the Paris Agreement. Since 2015, over 1,000 companies have joined the initiative to set science-based climate goals. In 2022, Greiner submitted Science-Based Targets that include ambitious objectives for suppliers. A key sub-goal is to encourage the suppliers responsible for 80% of Greiner Group's indirect CO₂ emissions to set their own climate goals through the Science-Based Targets Initiative by 2027. To provide expertise to suppliers in this regard, Greiner relies on the Carbon Disclosure Project, a recognized international platform for climate-relevant data, and focuses on enhanced training for both Greiner Group's procurement departments and its suppliers.

Greiner AG Business Case

Assessing Risk Across the Entire Supply Network Together. The Greiner Group is willing to provide its suppliers with insights into its own production processes. This benefits the company by gaining a comprehensive overview and thus transparency across the entire supply network in collaboration with its suppliers. Simultaneously, close cooperation with suppliers can drive innovation on both sides. Based on this foundation, risks within the supply network can be better assessed, strategies for risk mitigation can be developed, and synergies can be leveraged.

Supply Capability in Times of Crisis. A more comprehensive view of the supply network also impacts Greiner Group's supply capability. Through continuous exchange with cooperation partners, Greiner is aware of the current priorities among suppliers, enabling a good understanding of, for instance, the origin of purchased materials. If there are difficulties in the delivery of specific raw materials, flexible and timely responses can be made.

Enhanced Negotiation Position. Through close collaboration, not only are risks minimized and the company's responsiveness strengthened, but the negotiation position with potential suppliers is also improved. For example, if Greiner Group is aware of the price trends of raw materials, the company can assess realistic procurement prices. With a better negotiation position, procurement professionals can also incorporate sustainability and responsibility aspects into the decision-making process.

Proactive Approach to Due Diligence. Greiner Group proactively addresses new legal and market requirements, consciously taking a leading role. Through the trust and awareness of responsibility established along the supply chain, the company fulfils its due diligence and creates societal and environmental value. By ensuring transparency along the supply chain, Greiner Group, together with its suppliers, can shift from reactive to proactive actions, not only guaranteeing supply capability but also maximizing its own ability to act.



Success Story Semperit Group

Responsibility in the Chemical Industry. Founded in 1824, the Semperit Group is an internationally operating company headquartered in Vienna. While Semperit was known for decades as a producer of car tires, this business segment was sold to Continental in the mid-1980s, and the tire production in Austria ceased in 2002. Today, Semperit employs more than 6,500 people worldwide at 16 production sites and specializes in the manufacture of rubber and plastic products for various sectors (transport, manufacturing, mining, etc.), the construction industry, and the healthcare industry. The company's products are divided into five business segments: hydraulic and industrial hoses, conveyor belts, molded and extruded products, window profiles and elastomer sheets, as well as medical gloves, with the sale of the medical segment signed in December 2022.

The Semperit Group is closely connected to the chemical industry as a customer, as the production of rubber and plastic products involves chemical processes and the use of various chemical compounds. In the chemical industry the focus lies in safety and sustainability requirements along with the associated corporate responsibility.

Semperit sees itself as a leader in the rubber industry and applies the high standards of the chemical industry to its own suppliers. The company thus establishes a standardized, industry-wide approach to supplier evaluations and audits, the results of which are shared within the 'Together for Sustainability' initiative. With this initiative, members of the chemical industry can **collectively engage with suppliers.**

Collectively Engaging With Suppliers as an Industry

The Chemical Industry: Quality, Sustainability, and Societal

Relevance. The chemical industry faces the challenge of meeting high-quality standards while ensuring sustainability and responsibility. Customers place great importance on high-quality products that meet their requirements. At the same time, the industry is of high societal relevance as it supplies critical and strategic sectors. Sustainability and responsibility in the supply chain are becoming increasingly important and taken for granted in purchasing decisions, including supplier selection. Semperit also confronts these requirements and collaborates with other companies in the chemical industry to advance supply chain responsibility across the entire industry.

Holding Suppliers Accountable. To meet customer requirements, Semperit engages with its suppliers through audits and evaluations. The company conducts annual assessments of its strategic suppliers using external audits and self-assessments. Suppliers are rated in different areas and assigned points. If a supplier scores less than 45 percent of the points, Semperit initiates a dialogue. In this process, Semperit analyses production processes together with its suppliers and examines which audit requirements were not met. Subsequently, measures for improvement are jointly decided upon, and their implementation is monitored by the company's procurement department. This ensures close collaboration with suppliers and establishes a foundation for meeting

the ever-growing demands as a manufacturer.

Expanding Outreach in the Supply

Network. To make the entire industry more sustainable, Semperit extends its collaboration and supplier development efforts to the entire supply network. To achieve this goal with the available resources, the company joined the sector initiative 'Together for Sustainability' (TfS). TfS is a coalition of approximately 40 international companies in the chemical industry that promote responsibility and sustainability in the chemical sector. TfS promotes a common assessment and audit method for evaluating supplier sustainability performance. This method covers aspects such as the environment, health and safety, labour practices, ethical business conduct, and supply chain transparency. By sharing assessment tools and collaborating on supplier evaluations, TfS member companies can pool their resources and enhance efficiency in assessing and improving their suppliers' sustainability performance.

Shared Information Along the Supply

Chain. TfS members are certified by EcoVadis and conduct supplier audits and self-assessments with EcoVadis. Through collaboration among various companies, data is exchanged. This allows companies like Semperit to access existing audit results from other TfS members and obtain data on suppliers. As a result, Semperit does not need to conduct its own assessments for these suppliers but can

rely on existing data, thereby increasing transparency in its supplier network. The Semperit Group was awarded the EcoVadis Platinum Medal for its efforts regarding supply chain responsibility. TFS members regularly come together to review and discuss the initiative's approach for compliance with regulations and standards. These meetings also address current topics relevant to companies in the chemical industry, such as Product Carbon Footprints or carbon-neutral production. The exchange and discussions in TFS meetings provide member companies with the opportunity to benefit from the experiences and knowledge of other businesses. Through this collaboration, the standard for responsibility and

sustainability in the chemical industry is continuously improved.

Preparing for Ever-Increasing Demands. In addition to conducting and processing supplier audits, TFS provides its members with information and training materials. Companies collaboratively address current topics related to supply chain responsibility and prepare them as informational material for members and suppliers. By distributing these materials within the company and the supplier network, additional information flows and awareness are created. This not only captures current trends but also anticipates future developments and enriches them with the industry's collective knowledge.

Semperit Business Case

Collaboration on Different Levels. Semperit maintains close and continuous contact with its supplier network. The company's presence enables the joint development of products and processes with an improved sustainability profile. Furthermore, Semperit ensures communication flows within the chemical industry through its membership in Together for Sustainability. The collaboration of various companies under this initiative promotes ongoing communication, establishes a trust base in the industry, and enables long-term partnerships.

Expanded Outreach Through Transparency in the Supply Network. Cooperation within the chemical industry creates transparency in the supply network through the exchange of information. The evaluation by EcoVadis ensures data quality while also ensuring a consistent approach across the industry. As a result, Semperit can better utilize existing resources and expand collaboration to more suppliers.

Risk Assessment and Mitigation. Increased transparency in the supplier network allows Semperit to conduct more comprehensive supplier evaluations and enhanced risk assessment. The information obtained through cooperation with Together for Sustainability is used to optimize internal decision-making processes. For example, suppliers are selected and assessed based on an extended number of criteria. This reduces risk in the supply chain and ensures operational capability during crises. Furthermore, by collaborating with partners in the Together for Sustainability initiative, resources are pooled which would not be available to the company alone.

Optimizing Processes Based on Experiences. The experiences gained from collaborating in the chemical industry can also be applied by Semperit to other business areas, such as the construction industry. Engaging with current issues, such as sustainability and responsibility, allows the collection of data and expertise. This information is then used to adjust/optimize internal processes, enabling proactive and timely responses to customer requirements.



Success Story Nespresso

Social Responsibility in the Coffee Supply Chain. Nespresso was founded in 1986 and employs more than 14,000 employees in 83 countries. It is one of the world's largest providers of coffee and coffee machines. The coffee capsules are produced in three facilities in Switzerland and sold worldwide through the company's boutiques and distribution locations.

The cultivation of coffee requires specific temperatures and weather conditions, with the largest coffee-growing regions located along the equator. The work on coffee farms often involves poor labour conditions and limited social support. In 2003, Nespresso established the 'AAA Sustainable Quality™' program in collaboration with the Rainforest Alliance, an organization dedicated to protecting rainforests and promoting the sustainable use of natural resources. This program emphasizes quality, efficiency, and responsibility in the supply chain and supports coffee farmers in implementing sustainable and environmentally friendly cultivation practices, securing higher incomes, and improving the quality of coffee. The program currently supports over 150,000 coffee farms in 18 countries.

As a member of the Rainforest Alliance Network, Nespresso is committed to protecting the rainforest and improving the living conditions of coffee farmers. Two success stories highlight the company's responsible supply chain management: **enabling coffee cultivation in former crisis areas** and **enhancing transparency in the coffee supply chain through technical innovations**. With both initiatives, the company takes on social responsibility in developing countries while ensuring the high quality of its products.

Enabling Coffee Cultivation in Former Crisis Areas

A Global Supply Chain. Coffee beans are grown on plantations in Africa, Asia, and Latin America, while the ground coffee is consumed worldwide. The supply chain, from bean to the finished beverage, extends across the globe, making it challenging to oversee the various stages of production. Since coffee bean production primarily occurs in economically weaker countries and regions, a company's responsibility for a sustainable supply chain must also extend to these sourcing locations.

Knowing Farmers by Name. At the beginning of the supply chain are over 150,000 farmers organized in various cooperatives. To effect positive changes at the start of the supply chain in economically disadvantaged regions, Nespresso established the "AAA Sustainable Quality™" program in collaboration with the Rainforest Alliance in 2003. Within this program, more than 490 agronomists and agricultural experts assist farmers in further developing coffee cultivation and making it sustainable. Nespresso is present on the ground through the program and the experts they finance, gaining an understanding of local conditions and continuously promoting social and ecological sustainability on the farms. This direct collaboration enables the improvement of working conditions, farmer income, and the local ecological balance, while simultaneously enhancing the quality of the beans and the coffee.

The AAA Sustainable Quality™ Program. The inclusion of a farm in the AAA Sustainable Quality™ program is subject to different requirements, such as respecting human rights and providing evidence of not using prohibited chemicals. Once a farm is admitted to the program, fair working conditions and regenerative agriculture are promoted, and the quality of cultivation is continuously improved. The focus is on the long-term sustainability of the farms, achieved through water treatment facilities, agroforestry, and sustainable land use among others. By establishing long-term partnerships and Nespresso's willingness to pay higher prices for better quality, the farms are financially secured, enabling sustainable cultivation and more comprehensive environmental protection.

Economic Incentives for Improving Cultivation Conditions. Collaboration ensures high bean quality both during cultivation and after harvesting. If the beans meet Nespresso's requirements, the company pays an additional premium to further motivate farmers to continuously develop cultivation and harvesting practices.

Coffee Cultivation for Economic Development.

Regions where coffee beans are grown are often marked by crises, political instability, and social conflicts. Nespresso addresses this by introducing the "Reviving Origins" product line, aimed at re-establishing former coffee farms in crisis areas such as Congo or Uganda. In regions where coffee cultivation had been abandoned due to civil wars and social conflicts, Nespresso provides financial support and expertise to revive old coffee plantations. This creates new and secure jobs, sustains livelihoods, and ensures fair working conditions. Sustainability and environmental

responsibility are thus promoted right from the regeneration of the cultivation areas and in the training and education of the farmers.

A Pioneer in the Coffee Industry.

The knowledge gained from the AAA Sustainable Quality™ program has been further developed into the Regenerative Coffee Scorecard by the Rainforest Alliance in collaboration with Nespresso, and is available to the entire coffee industry. Thus, Nespresso not only takes responsibility for ecological and social actions within its own supplier network but also contributes to improving cultivation conditions throughout the industry.

Enhancing Transparency in the Coffee Supply Chain Through Technical Innovations

Digital Innovations for the Supply Chain. The large number of coffee farmers, the long processing routes, and the complexity of the supply chain are challenging to track using conventional methods. To enable transparency and traceability, Nespresso leverages digital innovations. These innovations provide a comprehensive overview of the supply chain and deliver secure information about the coffee bean processing steps while also enabling the company to provide customers with more precise product information.

Utilizing Blockchain Technology. In collaboration with the software company OpenSC, Nespresso has pioneered the use of blockchain technology to store and verify information about processing steps in the supply chain. This involves the decentralized recording of information, which, once recorded, cannot be deleted. By employing blockchain technology, all stakeholders involved in the supply chain can access shared information in real-time, minimizing delays, errors, and fraud. Additionally, customers are educated about responsible supply chains and can make informed purchasing decisions.

Nespresso Business Case

Partnerships for Joint Development. Nespresso collaborates with the Rainforest Alliance to achieve the goal of a responsible coffee industry. This partnership facilitates cooperation among various partners in the supply network and the exchange of experiences, knowledge, and expertise in the coffee industry.

Creating Change at the Source. Nespresso's AAA Sustainable Quality™ Program intervenes at the beginning of the supply chain. Supporting farmers and having a local presence enables Nespresso to ensure sustainability and social responsibility. As a major player in the coffee industry, Nespresso establishes a foundation of trust for effective collaboration with farmers, enhances transparency and accountability in the supply chain, and guarantees fair working conditions.

Innovation and Technology. Initiatives that start at the raw material source ensure transparency throughout the supply chain and enable technological innovations such as the use of blockchain technology. Customers are informed about the conditions in the coffee supply chain and actively involved in the coffee processing process.

Ensuring Quality and Exclusivity. Transparency in the cultivation of raw materials and throughout the supply chain provides deep insights into harvesting and processing processes. This insight leads to better control over the quality of Nespresso's beans and coffee. The close collaboration with farmers allows the company to ensure specific quality requirements and characteristics of the harvested beans, guaranteeing high-quality coffee.



Kelly Snacks

Success Story Kelly Snacks

Taking Responsibility for Health in Developing Countries. Kelly Snacks is an Austrian company specialized in the production and distribution of savoury snacks. Founded in 1955, the company employs approximately 400 people across several locations in Austria. Under the brand name Kelly Snacks, the company encompasses multiple brands such as Kelly's, Soletti, POM-BÄR, ültje, and funny-frisch. Since 2008, Kelly Snacks has been part of the **Intersnack Group**, a German family owned company with around 14,000 employees, 42 production facilities worldwide, and an annual turnover of approximately 3.7 billion euros. The Honest Cashew Initiative presented in this report was initiated by the Intersnack Group and implemented in Vietnam and India.

The cultivation and processing of the used raw materials are highly dependent on specific climatic zones, resulting in complex and globally spread supply chains. The company's suppliers are, therefore, distributed worldwide: peanuts from Bolivia and India, walnuts from California, macadamia nuts from Malawi, and cashews from Vietnam and India. In 2014, Intersnack introduced a Responsible Sourcing Policy that obligates suppliers to adhere to fair labour conditions and international standards throughout the entire supply chain. Additionally, individual projects to improve working and living conditions in the countries of origin of various nuts are promoted.

Under the Honest Cashew Initiative, Intersnack and Kelly voluntarily assume social responsibility and contribute to **improving health and fair working conditions in developing countries.**

Improving Health and Fair Working Conditions in Developing Countries

The Cashew Supply Chain. The global cashew supply chain is complex and spans continents, with Cambodia and Ivory Coast being the primary producers of raw cashew nuts, and Vietnam and India serving as major processing hubs for cashew kernels. The process from cashew nut harvesting to its use in the food industry can take up to four months, posing challenges for production and sales planning. The complexity of the Intersnack Group's global supply chain necessitates transparency and uniform quality standards across various partners worldwide.

Health Risks and Poor Working Conditions. Cashew nut harvesting and processing are predominantly manual tasks, demanding substantial labour efforts. Due to the seasonality of raw nut harvesting, work takes place in factories employing up to 3,000 workers who often travel from various regions to live on the factory premises during the season. These workers face health risks during nut processing and typically work in precarious employment conditions. Improving these conditions was a difficult challenge for Intersnack due to the lack of transparency in the supply chain and its challenges to directly influence on-site conditions. Hence, Intersnack needed a holistic solution to address this situation.

The Birth of the Honest Cashew Initiative. In 2016, Intersnack established a joint venture, the Intersnack Cashew Company (ICC), in response to the supply chain's lack of transparency. This allowed the company direct access to three factories in Vietnam and two in India. The factories employ a "Single Roof Processing" approach, concentrating all processing activities within a single facility. This ensures transparency and control over the origin and processing of cashews. In 2021, this initiative evolved into the Honest Cashew program, focusing on improving conditions for farmers.

Improved Conditions through Presence and Communication. By acquiring these factories, ICC gained direct influence over working conditions at the factories and in the countries of origin. Local presence created a communication base and provided insights into processing operations. Consequently, technical innovations were introduced which significantly reduced manual labour while reducing health risks, shortening work hours, and enhancing factory productivity.

Collaborative Development of Suppliers.

ICC supplies about two-thirds of the Intersnack Group's cashew nut requirements through its five factories. The remaining 30% is externally sourced directly from the countries of origin. Collaborating with local exporters and farm cooperatives ensures that working conditions for externally procured raw nuts

align with ICC's standards. Furthermore, ICC is actively involved in developing cashew farms in Africa, the primary growth market for cashew cultivation. Leveraging its experience from the Honest Cashew Initiative, the company has been able to contribute to the development of farm cooperatives in other countries, such as Cambodia (for cashews).

Kelly Snacks/Intersnack Business Case

Trust and Strong Communication. Through collaboration and supplier development, the company ensures a joint approach, creating transparency, trust, quality standards, and a strong communication base throughout the supply chain.

Enhancing Resilience Through Transparency. Intersnack's adoption of the Honest Cashew Initiative marks a significant step toward consolidating its supplier network and establishing transparency in the cashew supply chain. This move has allowed the company to innovate its cashew nut processing methods and enhance its ability to respond during crises. The strengthened resilience of the company also extends to its entire supply network through partnerships with suppliers.

Social Responsibility as the Foundation for Network Improvements. The Honest Cashew Initiative exemplifies Intersnack's active and socially responsible approach. By initiating changes and improvements within its supply network, the company takes responsibility and lays the foundation for quality standards and sustainability across the entire supply network.

Continuous Improvements for Long-Term Success. The success of this initiative required a long-term perspective. The cumulative impact of small changes leads to improvements throughout the organization and the entire supply network. Despite challenging market conditions, the company sets a positive example, establishes a trustworthy communication basis within the supply network, and gains knowledge and expertise for its own operations. With these experiences, Intersnack creates a foundation for technological and social advancements.



RHI MAGNESITA

Success Story RHI Magnesita

Sustainability and Responsibility Following a Major Corporate Merger. RHI Magnesita was formed in 2017 through the merger of the Austrian RHI AG and Brazilian Magnesita Refratários SA. The company is an international producer of refractory products, systems, and services. Refractory products must withstand high temperatures in their use and are employed in the production processes of the steel, cement, non-ferrous metals, energy, and chemical industries, as well as in the glass, limestone, paper, and pulp industries. RHI Magnesita utilizes dolomite and magnesite in the production of over 120,000 different products, which are manufactured at temperatures exceeding 2,800°C. With approximately 13,500 employees worldwide at 33 primary production sites and 70 sales locations, RHI Magnesita has a global presence, with its headquarters located in Vienna, Austria.

The company aims to reduce emissions in their production processes and wants to achieve carbon neutrality in its production processes by 2050. To this end, various measures are already being implemented at both strategic and operational levels. Here, two key initiatives are highlighted: **integrating responsibility into the procurement process** and **turning customers into suppliers**. Both initiatives are geared towards fostering a broad awareness of responsibility and sustainability within the company, among customers, and among suppliers. Partnerships are driving the reduction of CO₂ emissions, and technological innovations are ensuring the quality of recycled materials.

Integrating Responsibility into the Procurement Process

The Merger of Two Companies as an Opportunity.

RHI Magnesita was established in 2017 through the merger of RHI AG and Magnesita Refratários SA. In most cases, when two companies merge, the primary focus is on building a unified new corporate structure, coordinating various departments, and enhancing internal communication. However, RHI Magnesita made sustainability an integral part of the newly formed company's structure right from the start. This involved shaping all corporate processes from the leadership level and involving the operational level in decision-making.

From Project to Day-To-Day Business.

Following the merger, RHI Magnesita initiated a pilot project in Europe, where procurement professionals, in addition to their operational procurement roles, took on the responsibility for sustainability in supply chains. This initiative integrated social and environmental considerations into the daily work of procurement and gave them equal consideration. By the end of 2021, experts from the project group were distributed throughout the entire company, and the integration of sustainability and supply chain responsibility in procurement was implemented globally. Procurement staff now report sustainability and responsibility topics directly to the company leadership.

Sustainability in Operational Procurement Decisions.

The decisions of those responsible for sustainability

directly impact approximately 120 employees across all procurement departments worldwide. To support them in their efforts, recommendations for action with concrete decision-making tools are employed, such as using existing EcoVadis ratings and their corresponding scores in supplier selection.

Digital Decision Support and 'Management by Walking Around'.

Digital decision-making tools and trainings are used to involve higher management levels, such as procurement leadership, ensuring comprehensive communication and ongoing exchange across various hierarchical levels and functions. Additionally, the daily informal exchange is also crucial when sustainability experts demonstrate their presence in the company, creating awareness in the daily corporate routine.

Combining Multiple Perspectives on Sustainability.

RHI Magnesita integrates responsibility into its daily corporate operations at both strategic and operational levels. Clearly defined responsibilities and support from top management levels facilitate the collaborative development of strategic topics. Additionally, a global perspective is harmonized with a multitude of regional viewpoints. Through this diverse interplay, sustainability issues can be examined and implemented comprehensively, fostering responsibility throughout the entire organization.

Turning Customers into Suppliers

Recycling in the Refractory Industry.

In the refractory industry, half of the company's internal greenhouse gas emissions stem from the production process, which requires extremely high temperatures. Recycling used products from customers and using them as raw materials in the production process not only reduces emissions but also cuts costs. However, maintaining high product quality necessitates adjustments to production processes, which, in turn, require technological innovations in the recycling and the transportation of waste materials. RHI Magnesita is at the forefront of developing such technical innovations, aiming for the highest possible quality and competitive prices in materials processing for the refractory industry. The goal of achieving at least a 10% share of secondary raw materials by 2025 was already surpassed in 2022. Furthermore, since 2022, RHI Magnesita has been involved in a joint venture specializing in raw material recovery in the refractory industry.

The Role of Customers. RHI Magnesita retrieves used products from its customers, processes them, and incorporates them into the production of new items. It is essential to have insight into the production processes at the customer level to ensure the proper handling of secondary raw materials in recycling. The company obtains the necessary information through a dedicated organizational unit that collaborates with businesses using RHI Magnesita's products. By doing so, RHI Magnesita turns its own customers into suppliers and promotes responsibility throughout the entire supply chain.

Changing Perceptions of Products. In many sectors, the use of recycled materials is negatively perceived due to concerns about lower quality. RHI Magnesita, through technological innovations, can guarantee quality even with recycled materials and actively communicates this to its customers. This approach enables the company to produce sustainably and economically, improve the image of recycled raw materials, and convey the benefits of recycling processes compared to many other companies.

RHI Magnesita Business Case

Exchange and Trust in the Supply Network. RHI Magnesita fosters regular exchange with both suppliers and customers, creating a platform for jointly discussing and developing ideas, promoting networking, and encouraging collaboration. Conversations among partners lead to the exchange of information and insights into each other's business processes. Through open communication within the supply network and intensive interaction, a foundation of trust is established along the supply chain, providing opportunities for technological innovations.

Partnerships for Innovation. The establishment of the joint venture Mireco combines the expertise of RHI Magnesita and Horn & Co. Group, a globally active provider of recycling solutions. This collaboration facilitates the sharing of technical know-how and business contacts. The combined knowledge of these two companies promotes recycling in the refractory industry and sets the stage for technological innovations.

Resilience and Risk Mitigation Across the Supply Chain. Incorporating sustainability aspects into supplier evaluation and decision-making enhances reliability and availability throughout the supply chain. The exchange within the supply network and the gained insights establish partnerships and enable timely actions in crisis situations. RHI Magnesita's organizational structure ensures timely information exchange both within and outside the company.

Proactively Addressing Future Challenges. Even in the refractory industry, there is a growing customer demand for increased sustainability and responsibility. There is significant potential for innovation, particularly concerning climate-related emissions. Positioned close to the source of raw materials, RHI Magnesita can exert influence on sustainability and responsibility right at the beginning of the supply chain and proactively respond to future regulatory requirements.



STOELZLE GLASS GROUP

Success Story Stoelzle Glass Group

Responsibility in the Glass and Raw Materials Industry. The Stoelzle Glass Group is an international company based in Austria, specializing in the production of glass packaging for spirits, pharmaceuticals, perfumery, cosmetics, food, and beverages. Founded in 1805, the company employs over 3,300 people worldwide across 7 glass factories and 4 decoration facilities.

The primary raw material for glass production is quartz sand, sourced by the company in Austria. Other raw materials such as dolomite, soda, and limestone powder are obtained from across Europe. Given that glass is often considered a sustainable form of packaging, consumer and industrial demands regarding sustainability and responsibility are high. These issues are embedded in the Stoelzle Code of Conduct for Suppliers and Business Partners, which forms the basis for collaboration in the supply chain. The code not only regulates responsible business practices but also sets requirements for sustainable raw materials.

While digitization is well advanced in other industries, suppliers to the Stoelzle Glass Group are often small companies with limited personnel and financial resources for digital solutions. Therefore, the Stoelzle Glass Group implements various measures to **promote digitization in the raw materials industry**, such as the joint development of a web-based CO₂ management tool for suppliers (Sigreen) in partnership with Siemens.

Promoting Digitization in the Raw Materials Industry

Emissions in Glass Production. Glass production is characterized by high temperatures and an energy-intensive process, resulting in significant environmental impacts. Even so, indirect climate-related emissions, stemming from factors such as energy sources used and the transportation and extraction of quartz sand, should not be underestimated.

Digitalization in the Glass Supply Industry Is Still in Its Early Stages. The Stoelzle Glass Group sources its sand for glass production from Austria and collaborates with European suppliers. Many of these suppliers are small businesses often lacking the personnel and financial resources to digitize their daily operations. Consequently, calculating the overall product-related emissions (the Product Carbon Footprint) is challenging, information and data exchange are difficult, and cross-business information about the supply network is scarcely available.

Information Transparency and Collaboration. To address these challenges, the Stoelzle Glass Group has implemented Siemens' web-based CO₂ management platform, Sigreen. Sigreen facilitates the exchange of emissions data throughout the entire supply chain, starting from raw materials and extending to packaging materials. Combined with the measurement of material and energy flows, facilitated by the recently introduced Simatic Energy Manager PRO in all facilities, Sigreen enables real-time

Product Carbon Footprints for all glass products. Digital measurement and processing of production and energy consumption data occur at the level of individual product batches, providing detailed emissions values and optimization opportunities within the production processes. As a result, the Stoelzle Glass Group has improved energy efficiency, optimized production, and gained more transparency regarding its manufacturing processes.

Reducing Communication Efforts. To minimize the burden of climate monitoring for both Stoelzle and its suppliers, the platform was designed to be open and compatible with other systems from the outset. Additionally, it is offered as a web-based service, allowing suppliers to select relevant services and access or input corresponding data. Moreover, the platform can process approximation values and industry benchmarks instead of real measured data, reducing the effort for suppliers. The calculation of Stoelzle's product carbon footprints combines the actual measured production data from glass manufacturing with industry benchmarks from the raw materials industry.

Strong Presence with Regional Suppliers. The Stoelzle Glass Group emphasizes regionality and maintains a strong presence with its suppliers. Regular visits and a solid communication base enable the discovery of potential issues and untapped optimization potential

among suppliers, facilitating collaborative improvements. Simultaneously, sustainability and responsibility gain higher significance throughout the entire supply chain.

Considering Sustainability and Responsibility in Procurement Decisions. Sustainability and social responsibility are integrated into supply chain monitoring. They are now factored into procurement decisions, carrying equal weight with quality and price. This allows the establishment of emission-related thresholds for suppliers. Furthermore, the

Sigreen platform enables the processing of product-related emissions data for complex supply networks and entire industries.

Collaborative Development. When selecting suppliers, the Stoelzle Group considers quality, price, social responsibility, and sustainability. If challenges are identified, the company invests in the collaborative development of its suppliers and strengthens cooperation through repeated visits. Here, the company's regional supply chain facilitates ongoing communication with suppliers.

Stoelzle Business Case

Resilience Through Regional Focus. The supply chain of the Stoelzle Glass Group primarily consists of regional and European suppliers, resulting in short communication channels and transportation routes. Through this close collaboration, Stoelzle ensures continuous information exchange and flexibility during crisis situations, thereby strengthening the resilience of the supply chain.

Promoting Responsibility Through Partnerships. The close collaboration with suppliers has provided Stoelzle with insights into the challenges of the entire supply chain. As a result, the company was able to adapt to the circumstances of its suppliers and develop a customized solution with Siemens that supports responsibility and sustainability. The combined expertise of Siemens and the Stoelzle Glass Group establishes a platform that has positive effects on the regional glass supply industry.

Revealing Potential for Optimization. With real-time access to production data and emissions data provided by suppliers themselves, Stoelzle can gain a fresh perspective on its manufacturing processes and emissions data across value-added stages. This allows the identification of improvement opportunities, both within its own production and among its suppliers.

Promoting Digital Availability of Data. By developing Sigreen, Stoelzle ensures that data is available digitally, secure, and up to date across the entire supply chain. The company takes a web-based approach that requires no additional resources from its suppliers, enabling collaborative efforts within the supplier network.



Success Story ZKW Group

Responsibility as a Supplier in the Automotive Industry. The ZKW Group specializes in innovative premium lighting systems and electronics. Founded in 1938 and headquartered in Wieselburg (Lower Austria), the company is a major supplier of electronics to the global automotive industry. Its product range includes headlamps, fog lamps, rear lamps, turn signals, interior and license plate lamps, as well as electronic modules. Responsibility in supply chain management is implemented at the ZKW Group through a supplier code of conduct that also includes sustainability standards. All suppliers of the company must meet the requirements set out in this code, with a particular focus on climate protection. The company aims to achieve climate-neutral production processes by 2025 and climate-neutral products by 2038.

ZKW is proactively addressing the needs of its customers by **making products and production processes carbon neutral** and by paying **special attention to conflict minerals**. Both measures allow the company to prioritize its responsibility for sustainability and a proactively respond to customer demands.

Creating Carbon Neutral Products and Production

Climate Protection in the Automotive Industry Supply Chains. As a supplier to the automotive industry, ZKW faces increasing customer expectations with regard to Environmental, Social, and Governance (ESG) issues, especially in the premium segment, where comprehensive sustainability standards are expected. Climate protection plays a prominent role in this context, with concerted efforts to reduce CO₂ emissions throughout the entire supply chain. This places new demands on production processes and product design.

On the Road to Carbon Neutral Automotive Manufacturing. The goal of the Polestar Green Electronics Project was to design a car where all the climate impacts of each component are calculated and optimized during production, ultimately resulting in a carbon neutral car. This involved assessing the emissions of each component of a car by determining the product-specific carbon footprints of all suppliers involved. ZKW participated in this highly innovative project as an electronics supplier, adjusted its production processes based on the project's findings, and continued to work on the sustainability of its production even after the project was completed.

Achieve Carbon Neutrality in Production at All Sites by 2025. ZKW has set itself the goal of achieving carbon neutrality at all production sites by 2025. This will be achieved through measures such as the use of energy-efficient machinery and equipment. In addition, ZKW is reducing indirect climate emissions by using green energy sources. The company also holds its suppliers accountable for reducing emissions and using green energy. Each of its more than 1,000 suppliers is required to provide a timeline for implementing climate protection measures, and their progress is closely monitored.

Close Collaboration in Build-to-Print Parts. In the case of build-to-print parts, ZKW not only specifies the characteristics of the products and components it purchases, but also the manufacturing processes. This results in a very close collaboration between ZKW and a select number of suppliers, leading to a high level of information transparency within ZKW regarding these supply chains.

Special Attention to Conflict Minerals

Conflict Minerals in the Automotive Industry. Conflict minerals are natural resources, raw materials, and goods that are mined or extracted in conflict regions and high-risk areas, often illegally and without government control. They are associated with systematic violations of human rights and international law. The main conflict minerals are tin, tantalum, tungsten, and gold, which are often mined in the eastern Congo. These minerals pass through numerous locations in neighbouring countries on their way to processing facilities and are used throughout the electronics industry. With the increasing use of electronics in the automotive industry over the last few decades, this issue has become more important in this sector and requires special measures in supply chain management. As an electronics supplier to the automotive industry, ZKW faces increasing customer demands to identify and eliminate conflict minerals from its supply chain.

Avoiding Conflict Minerals Requires Transparency. ZKW works closely with Value Stream Europe, a service company

that collects, consolidates, and regularly reports data on the origin of raw materials from suppliers to ZKW and conducts due diligence analyses. Currently, data is collected and processed from 100 suppliers and 170 smelters.

Ongoing Assessment and Risk Assessment. Because supply chains and regional situations are dynamic, the data is continuously updated and supplemented with media screening and supplier reports. This information is used to create a risk profile for each supplier, which is further enhanced by public business and sustainability reports and geospatial data for to assess environmental risks.

Transparency for Customers and Suppliers. This collaboration provides ZKW with real-time information on the entire supply chain, enabling it to provide customers with transparency on conflict-free materials and early warning of potential risks. This not only meets customer requirements, but also establishes effective communication throughout the entire supply chain and builds pressure for responsibility and transparency.

ZKW Business Case

Risk Assessment Through Increased Transparency. ZKW's efforts to reduce emissions and promote sustainability in the supply chain require a collaborative approach with suppliers. Targeted development of strategic suppliers provides the company with visibility into the supply network and ensures ongoing communication. As a result, ZKW is able to better assess risks, improve resilience, act flexibly, and guarantee supply to its customers in times of crisis.

Improved Competitive Position Through Truly Carbon-Neutral Mobility. A widespread transition to electric mobility reduces carbon emissions from vehicle operation. The Polestar Green Electronics Project broadens the perspective by considering the carbon emissions associated with the production of a car, its components, and the supply chains. By participating in this project, ZKW has further strengthened its sustainability efforts and can, together with Polestar, establish a market position that takes climate protection seriously throughout the supply chains, which can be demonstrated and communicated to potential customers.

Supply Chain Collaboration. ZKW's requirements for suppliers to report on conflict minerals promote awareness of social responsibility in the supply chain. The resulting collaboration in the supply network forms the basis for joint developments and promotes social responsibility in the countries of origin of the raw materials.

Anticipating Customer Requirements. By focusing on sustainability within the company and assuming responsibility in the supply chain, ZKW is proactively addressing the customer requirements in the automotive industry. Through innovative measures, responsibility is implemented throughout the supply chain, creating transparency on various issues and facilitating joint developments.



Success Story Infineon Technologies AG

Supply Chain Responsibility in High-Tech Electronics. Infineon Technologies AG is a German company founded in 1999 with its headquarters in Munich. The company is a global leader in semiconductor manufacturing, with its products used across the entire electronics industry, including automotive, energy management, sensor systems, and the Internet of Things. Operating worldwide, Infineon employs over 56,000 people in more than 100 countries and is part of highly complex supply networks.

Infineon Technologies AG implements a variety of measures to promote responsibility and environmental sustainability while optimizing the complexity of its supply relationships. The following two measures provide interesting insights into the success of supply chain responsibility: **driving standardization through digitalization** as part of the Global Supplier Due Diligence Program and **making production processes more sustainable through raw material processing**. While the first measure fosters transparency and cooperation throughout the supply chain, the second measure contributes to Infineon Technologies AG's CO₂ reduction goals. The company aims to become carbon-neutral by 2030. Both measures take on a broader perspective than short-term profit-seeking, increase resilience, and expand the company's ability to influence outcomes.

Driving Standardization through Digitalization

Creating Efficiency Through Standardization. To effectively manage supply chains, companies must continuously gather information about their suppliers' situations. Typically, this involves sending out questionnaires to gather information about supplier business processes. However, since each customer often develops individual questionnaires, this can lead to significant additional work for suppliers. Infineon Technologies AG reduces this potential burden for its suppliers by utilizing the Integrity Next platform as part of the Global Supplier Due Diligence Program, thus increasing transparency and efficiency. Supply chain due diligence is a top priority for Infineon which is why the company aims to advance the establishment of such standardization standards across industries as a member of the Responsible Business Alliance (RBA), a non-profit industry coalition advocating for sustainability in global supply chains with unified standards.

Sustainability as an Integral Part of Supplier Management. Infineon Technologies AG ensures that all suppliers adhere to fundamental behavioural standards, including sustainability, from its internal supplier code of conduct through the Global Supplier Due Diligence Program. Compliance with these standards is non-negotiable and forms the basis for all business relationships with Infineon. The company also conducts an annual risk analysis to assess compliance with the requirements and evaluates its suppliers in

terms of sustainability as well during this process.

Taking a Unified Approach to Suppliers. For an efficient information exchange, Infineon Technologies AG has chosen the Integrity Next platform, a leading cloud solution for sustainability and compliance monitoring in the supply chain that enables the consolidation of information from suppliers across industries. Suppliers can create a company profile on this platform and upload data and certificates, which are verified for authenticity by Integrity Next. The information is modular and based on international standards and regulations. Due to the modular structure of the platform, customers can decide which information they want to request while not influencing the data structure. This ensures that suppliers do not have to fill out different forms for each customer but only need to keep their profiles up to date. There are no costs associated with creating a profile for suppliers. These costs are borne by the requesting company if they utilize the platform's services.

Risk Reduction Through Data Quality. Infineon Technologies AG creates supplier risk profiles using the data provided by Integrity Next. These profiles are enriched with additional information, such as audit results and business reports, and supplemented through media screening. In the event of increased risk potential, Infineon would initially work with the affected supplier to take steps to minimize

the risk, such as jointly defining a medium-term improvement plan. While continuously monitoring each supplier's risk development, ongoing communication is ensured and collaboration is strengthened. For direct violations of legal requirements, Infineon Technologies AG follows a zero-tolerance approach, which would result in the immediate termination of the business relationship. Upholding human rights and environmental protection throughout its supply chain is a top priority for Infineon as a member of the United Nations Global Compact and the Responsible Business Alliance (RBA). Infineon utilizes the RBA Learning Platform to provide suppliers with access to specific training in the areas of human rights and environmental protection.

Creating Transparency. One example of doing so is in addressing conflict materials, which are materials extracted from mines in conflict areas and therefore require special attention when tracing their origin and processing. As a member of the Responsible Minerals Initiative (RMI), Infineon has committed to a conflict mineral-free supply chain. To achieve this, the company has introduced a uniform approach throughout the corporation based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. This approach is also reflected in the Global Supplier Due Diligence Program. Suppliers are required to pass on requirements to their own suppliers up to the raw material source, enabling traceability back to the mine. This creates transparency and ensures responsibility throughout the supply chain.

Making Production Processes More Sustainable through Raw Material Processing

A Broader Perspective on Recycling.

Unlike the conventional recycling of end products, Infineon Technologies AG is focused on reutilizing its operational and auxiliary materials within the production process. These are materials used and consumed during manufacturing, but which do not remain in the final product, such as wet chemical solvents/etching agents/cleaning agents or various gases (hydrogen, oxygen, noble gases, etc.). Infineon Technologies AG has adapted and developed its production processes to enable the reprocessing of these auxiliary materials in manufacturing.

Process Optimization through Material Flow Transparency.

The company closely collaborates with a recycling service provider specialized in processing and reutilizing operational and auxiliary materials. Achieving material flow transparency allows for a precise analysis of the auxiliary and operational materials used, providing a comprehensive view of internal manufacturing processes and their potential improvements in regard to sustainability. The analyses conducted by the service provider on the reprocessed auxiliary and operational materials offer

opportunities for optimizing Infineon Technologies AG's internal manufacturing processes.

Economic Efficiency through Targeted Processing.

By partnering with external service providers, Infineon Technologies AG can cover a significant portion of its production with recycled auxiliary materials. This approach is both sustainable and economically advantageous, particularly in the energy-intensive semiconductor production sector. Through processing, the company can offset rising material costs to some extent by meeting its needs with recycled materials.

Reusing Non-Reusable Auxiliary Materials.

Additionally, even auxiliary materials that are typically not reusable in semiconductor manufacturing are given a new purpose. For instance, at the Villach site, Infineon will soon operate a hydrogen plant that generates green hydrogen from renewable energy sources on-site. This green hydrogen will be reused as part of a sustainable circular economy, serving a dual purpose in the production process.

Infineon Business Case

Expanding Influence Through Responsibility. To enable sustainable and responsible operations, Infineon Technologies AG collaborates closely with its suppliers. By implementing requirements on supplier level, the company not only fosters awareness of sustainability and collaboration but also extends responsibility within the supply network. The company's active role in the supply chain promotes long-term partnerships and deep supplier relationships.

Becoming a Resilient Company Through Raw Material Processing. Responsibility within the supply chain extends beyond products to also encompass corporate processes. The processing and recycling of operational and auxiliary materials enable responsible management of resources and reveal opportunities for process optimization. This provides Infineon Technologies AG with a new perspective on production processes, in addition to the environmental benefits.

Creating Transparency Through Risk Assessment. Infineon Technologies AG makes supplier risks visible through an intensive evaluation process. The company's top priority is due diligence within its global supply chain. Transparency created through digitization and standardization, along with the information gained, enables the company to proactively address risks and strengthen the supply network.

Ensuring Ability to Act Through Proactivity. Infineon Technologies AG proactively addresses legal and market requirements, ensuring its ability to act through intensive communication with its suppliers. This is supported by close collaboration with suppliers and efforts to drive joint improvements. All of these initiatives enable Infineon Technologies AG to be a future-oriented and competent partner for its customers.



Success Story Saint-Gobain

Supply Chain Responsibility in a Large Corporation. Saint-Gobain is a French corporation with over 160,000 employees worldwide, specializing in manufacturing products for the construction industry, automotive sector, healthcare, and chemicals. Saint-Gobain Austria includes Rigips, a plasterboard manufacturer, Weber, a construction materials producer, Kaimann, a manufacturer of technical insulations, and Isover, a provider of insulation materials.

The construction materials sector operates within a context characterized by a wide range of raw materials, subcontracting, and an increasing emphasis on climate protection. Additionally, construction companies face high customer demands regarding material availability and supply. Over the past years, procurement of construction materials and the supply capabilities of companies have been challenged by various supply chain issues, resulting in increased complexity within the industry as well as Saint-Gobain's supply network.

Saint-Gobain is addressing this complexity through collaboration with predominantly regional and European suppliers and innovative organizational structures in supply chain management. This approach **creates transparency of information within the company** and **ensures handshake quality relationships within the supply network**. The first success story focuses on optimizing internal interfaces, while the second success story builds and guarantees trust within the supply network.

Creating Information Transparency Within the Company

Simplifying Complex Structures Within the Corporation. Corporate structures with diverse business units and locations can often result in untransparent information flows and responsibilities, potentially causing crucial information to elude individual departments. To mitigate this risk, Saint-Gobain has established an innovative organizational structure that ensures close collaboration and ongoing information exchange.

An Integrated Approach to Responsible Supply Chains. Saint-Gobain has consolidated all aspects of the supply chain, including procurement, production planning, and export control, within an integrated Supply Chain division. The strategic procurement department, responsible for long-term procurement planning, works closely with the operational procurement, which manages day-to-day operations at the company's production facilities. This proximity fosters effective information sharing, enhances understanding of different objectives, and enables a unified approach. Through this integration, the efforts across the company's four Austrian facilities can be optimally aligned.

Closing Information Gaps. Saint-Gobain's integrated approach also delineates responsibilities for different areas of the supply chain, specifying which employees are responsible in each case, who needs to be informed, and the timeframe for processing requests. This clear structure facilitates swift and well-informed responses to customer inquiries and emphasizes collaborative efforts among various departments.

Creating Awareness for Sustainability. The integrated Supply Chain division enables Saint-Gobain to incorporate sustainability considerations throughout its own organization and supply chains. Sustainability goals can be defined early in the production planning process, further refined by strategic procurement, and implemented in operational activities. This includes initiatives such as emissions reduction and the use of recycled materials, ensuring a collective effort and collaboration across the entire corporation.

Suppliers Benefit from Clear Requirements. Effective internal alignment allows Saint-Gobain's goals and requirements to be easily communicated to suppliers. This aligns economic considerations with responsibility in the supply chain, leading to increased awareness throughout the entire supply network.

Ensuring handshake quality within the supply network

Social and Environmental Responsibility in the Supply Chain.

When responsibility and information flows are clearly defined within the company, requirements for suppliers can be consistently enforced. The foundation for this is Saint-Gobain's Supplier Charter, which encompasses compliance with social standards such as occupational safety, employee rights, and environmental protection measures. The implementation of these requirements is monitored by the strategic procurement team and complemented by audits and site visits. Here, the integrated Supply Chain division facilitates cross-site collaboration in procurement to ensure a uniform approach towards suppliers and to secure distribution across all sites in case of supply shortages.

Special Assessment of Strategic Suppliers. Strategic suppliers are subject to special attention. The annual procurement, the possible alternatives and the complexity in the product formulation

are used as evaluation criteria. These suppliers are assessed annually by various departments for compliance with the requirements outlined in the Charter. The company maintains continuous dialogue with these suppliers, fostering partnership-based relationships which enables joint development and long-term relationships within the supply network.

Collaborative Developments in the Supply Network.

The long-standing partnerships between Saint-Gobain and its suppliers enable close collaboration and the promotion of sustainability within the supply chain. Saint-Gobain engages with various suppliers to evaluate which ones can collaborate on different company projects with their respective sources. The company encourages the exchange of opinions and ideas, gaining insights into its supply network and its capabilities. With this knowledge, Saint-Gobain can both develop specific suppliers and deepen partnerships while also promoting its own projects and making the company more sustainable.

Saint-Gobain Business Case

Partnerships in the Supplier Network. Saint-Gobain's supply chain primarily consists of regional and European suppliers. This reduces complexity in the supply network, shortens delivery routes, and fosters collaboration with suppliers. Through long-term relationships with suppliers, the company establishes a foundation of trust and builds close cooperation within the supply network.

Transparency within the Organization. Saint-Gobain has reduced interfaces by integrating various departments into the Supply Chain Organization, optimizing internal information flows and raising awareness of the responsibilities of different units. This ensures that information from various departments is readily available, and objectives can be aligned with one another.

Innovative Organizational Structures. By integrating supply chain departments into a single unit, Saint-Gobain has laid the groundwork for further innovative structures within the corporation. This facilitates collaboration not only within supply chain management but also across other departments and corporate levels, closing information gaps and ensuring a unified approach throughout the organization.

Quality Leadership through Reduced Complexity. Through internal optimization and collaboration within the supply network, customer demands can be addressed more quickly and flexibly while fostering responsibility both within and outside the company. This enables Saint-Gobain to enhance responsiveness to customer requirements and maintain quality leadership within the industry.



Success Story Rhomberg Group

Responsible Supply Chains in the Construction Sector. The Rhomberg Group is an Austrian construction company founded in 1886, headquartered in Bregenz (Vorarlberg). The company employs approximately 3,500 people in two business divisions: Rhomberg Sersa Rail Group, specializing in railway technology (which is not the focus of this case study), and Rhomberg Bau Group, engaged in civil engineering, construction, and project development, primarily in Southern Germany, Switzerland, and Austria. The company covers all construction phases, from planning and demolition to construction, renovation, disposal, and raw material processing. They execute projects including office buildings, hotels, residential properties, public buildings, infrastructure, utility construction, and special projects.

In the construction sector, significant decisions are not solely made by service companies like Rhomberg Bau but primarily by clients such as property developers, investors, industrial firms, and private individuals. Responsible supply chains are essential for all of them, especially concerning the climate impact of building materials, construction methods, transportation, health, and social protection for construction workers, as well as the reuse of construction waste in line with the principles of the circular economy.

Rhomberg Bau leverages its extensive knowledge of the construction industry and its vast experience from construction projects to **establish a circular economy in the construction sector**. Through innovation and partnerships, they promote responsibility and sustainability in the construction industry.

Establishing Circular Economy in the Construction Industry

Promoting Responsible Supply Chains in the Construction Industry.

In the construction industry, temporary employment, subcontracting, and project-based collaborations are often preferred over long-term partnerships. However, this preference can sometimes compromise the quality or sustainability of construction materials and methods. Moreover, the use of temporary workers and subcontractors can obscure transparency within the supply chain, making it challenging to assign responsibilities for defects and errors. To drive a shift in the construction sector towards long-term and transparent supply chains, Rhomberg prioritizes long-lasting partnerships with regional suppliers.

Incorporating Circular Economy in Supply Chain Management.

Successful implementation of the circular economy in the construction sector requires detailed information about the supply chain, building materials used, and specific plans for building usage, taking into account demolition and recycling processes. Rhomberg nurtures close relationships with suppliers and companies relevant to circular economy practices within the organization. This allows the company to pool expertise and knowledge from all aspects of the construction industry and integrate sustainability into every step of its diverse construction projects.

Integrated Planning of Construction Projects.

Rhomberg Bau's holistic approach to construction processes enables integrated planning of

construction projects. This means that in the planning phase of buildings, the company can assess the carbon emissions associated with the production of building components and identify recycling potential, aligning suppliers and subsidiary companies accordingly, promoting a sustainable construction approach that reduces emissions.

A Dedicated Resource Centre for the Company.

Taking a comprehensive view of a construction project's lifecycle provides a lot of room for innovation at Rhomberg Bau. For instance, in the Rhine Valley, a quarry has been developed for the processing and reuse of raw and construction materials. This resource centre houses a processing competence centre dedicated to recycling construction materials. Here, the company achieves a 100% recycling rate of its own building materials, processing a total of 500,000 tons of construction and recycling materials annually.

Modular Construction Approach.

A modular construction approach contributes to reducing the volume of construction waste at the end of a building's lifecycle. An example is Rhomberg's sustainable modular system called CREE, which reduces raw material consumption by approximately two-thirds. The modular construction approach also enables the reuse of building components for other purposes after demolition. Clients worldwide utilize the CREE construction method under a licensing system, using

regional materials, particularly wood, in their respective countries. Additionally, Rhomberg Bau has a subsidiary company called WoodRocks, which offers clients a guarantee for the retrieval of all materials used in the building at the end of its usage cycle, facilitating efficient recycling and waste minimization.

Creating Awareness Among Suppliers and Clients. Partnerships in the supplier network and the promotion of new

technologies enable Rhomberg Bau to offer its clients sustainable and innovative solutions that go beyond legal requirements. Rhomberg Bau acts as a partner, showcasing various planning, construction, and recycling possibilities. Innovative solutions and new workflows can enhance safety at construction sites for suppliers. For instance, prefabrication of building components can lead to safer work practices and improved workplace safety.

Rhomberg Bau Business Case

Long-term Action through Partnerships. Rhomberg Bau places an emphasis on regional sourcing within its supply network, fostering long-term partnerships and enabling intensive and effective communication. This approach allows the company to rely on transparent supply networks in its projects, ensure supply chain reliability, and guarantee high-quality services.

Transparent Supply Chains and Risk Reduction. By integrating all relevant expertise for a construction project through partnerships, regional suppliers, and subsidiary companies, Rhomberg Bau enhances transparency within the supply network and reduces risks in the supply chain.

Innovations in the Construction Sector. Rhomberg Bau is transforming the construction industry through a highly collaborative approach and the integration of circular economy principles into its business processes. Close collaboration with partners leads to innovative solutions that not only minimize the ecological footprint but also enhance efficiency and quality within the company and throughout the supply chain.

Proactive Response to Market Demands. To offer innovative solutions and promote joint development within the supply chain towards sustainable construction projects, Rhomberg Bau actively engages with new developments and trends in the construction industry. With this holistic approach, the company successfully meets the specific requirements of diverse markets and offers sustainable, efficient, and high-quality solutions.



Success Story EVVA Sicherheitstechnologie GmbH

Supply Chain Responsibility in a Family Business Successful Throughout Europe. EVVA Sicherheitstechnologie GmbH, founded in Austria in 1919 and headquartered in Vienna, is a company with over 790 employees across 10 locations throughout Europe. EVVA specializes in developing and manufacturing mechanical and electronic access control systems.

Modern electronic and mechanical security systems require highly precise and specialized components, which contain sensitive and customized systems. For door systems, specific fittings are needed that not only perfectly match the respective security system but also meet the individual requirements of the installation site. Typically, these fittings are made of brass and copper, which are usually only available through distributors in Asia. The extraction of zinc and copper, which are processed into brass, often occurs under environmentally damaging conditions and unsafe working conditions.

By **strengthening the European economy in the fittings industry** and **enhancing production through secondary raw materials**, EVVA commits itself to responsible supply chain management. This approach promotes transparency and collaboration within the supply network while aligning with sustainable practices and ethical values.

Strengthening the European Economy in the Fittings Industry

Offshoring of the Fittings Industry.

Fittings are the enclosures behind door handles that house electronic systems, which, in turn, regulate access through contact with specific keys and chips or centrally controlled mechanisms and are required to enable centralized and continuous expansion of access control systems. Since fittings are customized with cables and circuit boards, their production requires highly precise work and specialized machinery. The manufacturing of these fittings is labour-intensive, and the procurement of raw materials is more expensive than purchasing finished products. As a result, in the early 2000s, the fittings industry migrated to Asia, particularly to China. Many European manufacturers transitioned into distributors and shifted their manufacturing to the distribution of fittings.

From Asia back to Europe. Like others in the industry, EVVA initially sourced fittings from Asia but encountered difficulties arising from different corporate cultures, work practices, communication, and the distance to manufacturers. These challenges were compounded by the lack of transparency in the supply chains, insufficient financial resources for audits at

distant manufacturers, and delayed responses to market developments due to the long transport routes of products. To achieve greater transparency and closer collaboration with suppliers, EVVA, in partnership with one of its European suppliers in the fittings industry, rebuilt a former fittings production facility in Lithuania. Financial support and a commitment to purchase from EVVA were combined with the technical expertise of a Danish partner company (d line), which provided machinery, production facilities, and employees.

Combining Resources and Sharing Knowledge.

The collaboration between the two companies allowed them to pool resources and expertise, reviving a European production site. Existing machinery at the time of the collaboration was further developed, new technologies were made available at the site, and additional expertise was obtained through cooperation with industry specialists. In addition to increased transparency in the supply network, EVVA was able to shorten response and delivery times, bring raw material processing back to Europe, and ensure high-quality standards in its own production.

Warehousing Instead of Market Purchases.

In many sectors, the trend is moving towards global procurement, which can, however, lead to a lack of transparency and long lead times. EVVA counters this trend with a combination of European production, prioritizing European suppliers, and stockpiling various raw materials. Stockpiling allows the company to avoid having to purchase

products on the market when its own suppliers are temporarily unable to deliver. As a result, EVVA has been able to shift almost the entire supply chain to European suppliers (covering 93% of the supply network with European suppliers). This ensures high-quality services and products, as well as flexibility in responding to customer requests and collaborating within the supply network.

Enhancing Product Quality Through Secondary Raw Materials

Minimizing Harm to People and the Environment. The majority of EVVA's products are made from brass, an alloy of zinc and copper. Both of these raw materials are environmentally critical in their extraction and procurement and are often mined under precarious conditions. Using brass waste as a secondary raw material prevents harm to people and the environment during the extraction of these raw materials.

Production Covered by Secondary Raw Materials. Collaboration with its brass supplier in Germany enables EVVA to utilize secondary raw materials and provides the company with insight into the origin of its materials. One-third of the brass requirements for production are met through the processing of brass scrap generated at EVVA, while the remaining demand is fulfilled by recycled zinc and copper. Recycled brass shavings are used for copper extraction, and electronic scrap is employed to meet the zinc requirements. As a result, EVVA has already transitioned

70% of its material usage in production to recycled materials.

Various Benefits of Using Secondary Raw Materials. In addition to the ecological advantages, the use of secondary raw materials also offers benefits in terms of the processing quality of brass. Recycled brass, due to multiple melting processes, exhibits better processing quality, which is also less damaging on production equipment. Using secondary raw materials allows for cost-effective, machinery-friendly, and quality-maintained production. The availability and quality of these secondary raw materials are ensured through long-term partnerships and continuous communication within the network of raw material suppliers. Raw materials that do not originate from EVVA's own production are sourced from the predominantly European supply chain of the company. Through close collaboration with suppliers, EVVA can guarantee that fair working conditions and social and sustainable responsibility prevail in the procurement process.

EVVA Business Case

Long-Term Partnerships. EVVA gains insights from its suppliers and enhances transparency within the supply network through close partnerships along the supply chain. This fosters a well-established and continuous communication basis within the supply network, promoting corporate sustainability and responsibility.

Collaborative Development and Innovations. EVVA supports its suppliers and collaboratively advances their production capabilities, which expands EVVA's sphere of influence while simultaneously providing greater insight into its own supply chain. It lays the foundation for technological advancements on one hand and awareness of responsibility and sustainability on the other.

Resilience Thanks to European Supply Chains. Through a partnership with another company, EVVA was able to reestablish fittings manufacturing in Europe, strengthening both the partnerships within the supply chain and the company's ability to deliver. This allows EVVA to source and deliver materials more efficiently, respond more flexibly to customer demands, and enhance the European economic landscape through local production.

Competitive Advantage Through Product Quality. Short transportation routes, close collaboration with suppliers, and a continuous communication basis enable EVVA to work closely on the company and its supply chain. This provides the company with a reliable supply of secondary raw materials tailored to production requirements and ensures high product and service quality.



Success Story FAHNENGÄRTNER

Responsibility in a Family Business. FAHNENGÄRTNER is a family-owned company founded in Austria in 1945. With approximately 100 employees at its Mittersill location in Salzburg, the company manufactures and distributes customized textile promotional items, flags, and flag technology, making it Austria's largest flag manufacturer. FAHNENGÄRTNER sells its products to both national and international companies, agencies, associations, as well as private customers.

Despite being relatively small, the company places a strong emphasis on sustainability and responsibility throughout its entire supply chain. FAHNENGÄRTNER uses the short communication channels within the company to deliberately place sustainability and supply chain responsibility at the core of its business activities and to raise awareness among its employees. The company relies on a “common good” concept in dealing with its employees, generates 50 percent of its annual energy through photovoltaics and heat recovery, uses recycled materials in production, and places great importance on supply chain responsibility.

By **taking on significant responsibility with a small company**, FAHNENGÄRTNER ensures long-term partnerships with suppliers and customers, creates transparency in the supply chain, and enables technical innovations in production processes.

Taking on Significant Responsibility With a Small Company

Promoting Responsibility in a Niche Industry. Flag manufacturing is a niche industry that processes highly specialized materials such as textiles and dyes, which are largely manufactured in Asia. For small companies in this industry, it is often not feasible to visit suppliers on-site. Consequently, the possibilities for monitoring and transparency along the supply chain are limited. However, the family-owned company FAHNENGÄRTNER ensures what typically only large corporations can do: it prefers regional and local sourcing over cheaper procurement on other continents, thereby guaranteeing its customers transparency, sustainability, and responsibility in the supply chain.

Flexibility through Decades-Long Supplier Relationships. Internally, the company's employees are trained on sustainability and supply chain responsibility. Externally, FAHNENGÄRTNER delegates this responsibility to its suppliers, some of which it has had long-standing relationships with. Given that the flag industry specializes in individual customer requests, these relationships are of great advantage to FAHNENGÄRTNER. Thanks to its flexible structure, the company can quickly respond to customer demands.

Promoting Regional Suppliers. Some materials needed for flag production must be sourced internationally, primarily from Asia. For these products, FAHNENGÄRTNER is constantly searching for regional and European alternatives while also

expanding existing regional supplier relationships. Long-term partners are visited on-site to gain insights into their production processes, particularly for fabric and dye suppliers, some of which FAHNENGÄRTNER has worked with for over 30 years. By primarily using regional and national suppliers, FAHNENGÄRTNER establishes a continuous communication basis and develops and supports smaller, regional suppliers that often provide specialized products. This ensures fair working conditions and a transparent supply chain based on the company's own standards and regulations.

Producer, Seller, and Distributor for Customers. In addition to regional procurement and processing of products, FAHNENGÄRTNER also acts as a distributor for its customers. If a customer's request cannot be fulfilled through the existing regional supplier network, FAHNENGÄRTNER offers alternatives outside of the current network that also align with the company's requirements for its core suppliers. This is achieved, for example, through a combination of international material or product procurement with processing in Austria. Thus, FAHNENGÄRTNER can also assist its customers as a trading partner and promote long-term business relationships on the customer side.

Certified Circular Economy. In its production, FAHNENGÄRTNER follows the Cradle-to-Cradle approach, an economic concept that designs products to be

recyclable at the end of their service life to minimize waste. By not only taking on responsibility in the supply chain but also considering the product life cycle, the company can extend its responsibility beyond the point of sale. The company uses recycled materials in its own production and offers its customers the restoration of purchased flags. Currently, the company holds a Cradle-to-Cradle Silver certification and aims for Gold certification, which goes beyond assessing sustainability in the supply chain to also evaluate social responsibility. To achieve this, FAHNENGÄRTNER continues to work closely with suppliers and relies on mutual trust.

Time and Space for Innovations. The close and trusting collaboration with suppliers enables FAHNENGÄRTNER to optimize internal processes and prioritize the adoption of new technologies, such as the first screen printing machine for flag printing in 1978 and the first double-sided digital printing machine in 2012. As a result, FAHNENGÄRTNER was able to certify its flags (Ökotex Standard 100 certificate) as well as the production chain from raw material to end product (Ökotex STeP certificate) from Ökotex, an international auditing organization in the textile industry.

FAHNENGÄRTNER Business Case

Promoting Transparency Through Regional Sourcing. Prioritizing regional supply chains allows FAHNENGÄRTNER to gain insights into the processes of its suppliers, thereby enhancing transparency regarding raw materials and the supply chain. This enables the company to guarantee long-term collaboration and foster awareness of sustainability.

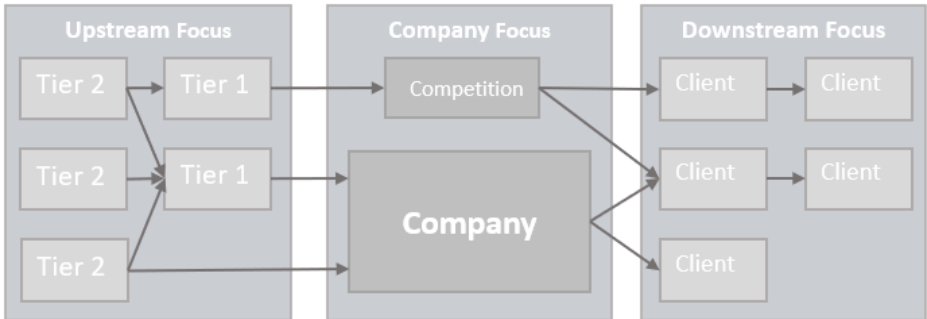
Long-Term Partnerships with Suppliers and Customers. The long-term collaboration within the supply network and the trust built through it enable FAHNENGÄRTNER to respond flexibly, promptly, and extensively to individual customer requirements. The company's range of products and services establishes long-term partnerships both with suppliers and customers.

Innovation. Through supplier partnerships, FAHNENGÄRTNER not only gains insights into the supplier network but also receives input for the development of its own business. This allows the evaluation of which new technologies and services will become relevant for the textile advertising industry based on customer demands. The foundation for these innovations lies in the close supplier relationships, without which new technologies could not be tested.

Company Size as Competitive Advantage. As a medium-sized company in a regional distribution network, FAHNENGÄRTNER differentiates itself from competitors through its offering of printing technologies. By combining production and distribution of its products and services, the company sets itself apart from direct competitors who typically only engage in distribution and source or produce flags in Eastern Europe or outside of Europe. Through its product offering and quality, FAHNENGÄRTNER can ask for a higher price, secure a competitive advantage, and provide its customers with customized products.

The Business Case for Supply Chain Responsibility

Supply chains are becoming increasingly complex, opaque, and subject to a multitude of national and international regulations. The complexity is further heightened by the large number of upstream suppliers and various customer groups and downstream business environments. Supply chains today are not simply linear interactions between orderly stages but rather highly differentiated networks comprising financial, product, material, and information flows. When analysing the business case for supply chain responsibility, however, it is still useful to differentiate between upstream suppliers, downstream customers and consumers, and the company itself and the sector in which it operates.



The success stories in this report demonstrate how various initiatives and measures can be taken at all three stages and how responsibility can be integrated into supply chain management. The examined companies and the presented success stories have a common theme: increased transparency throughout the supply network leads to expanded opportunities for action and cooperation, improved resilience, quality, and delivery capability and, in many cases, a reduction in the complexity of the network.

Upstream Focus

International guidelines, national laws, industry-specific standards, voluntary agreements, auditing procedures, and other measures often aim to enhance transparency and accountability regarding a company's suppliers. Most of the success stories in this study start here; the upstream business case involves gaining greater control, better information, and increased influence over a company's suppliers. Supply chain responsibility with an upstream focus improves communication, information sharing, and trust, strengthening a company's negotiation position and facilitating collaborative innovation and improvements.

Improved Communication, Information, and Trust. Collaborating closely with suppliers through long-term partnerships enables the exchange of knowledge, experience, and expertise, which contributes to a stronger foundation of communication, information sharing, and trust within the supply network, embedding responsibility throughout. Some companies are also able to reduce complexity in their supply network by emphasising regional sourcing, thereby expanding their sphere of influence.

Improved Bargaining Power. Increased transparency enhances a company's bargaining power in procurement, as market requirements on the supplier side, such as trends in raw material prices, can be better assessed, and procurement criteria can be formulated to incorporate responsibility and sustainability as integral components in the negotiations. Through collaboration, companies gain insights that not only foster trust but also improve their negotiation stance.

Collaborative Improvements, Development, and Innovation. When a company shares its expertise with suppliers, it can result in intensive collaboration, allowing supplier-related challenges, and the development of new technologies, products, or solutions, to be addressed together. This collaborative effort enables companies across the entire supply network to enhance their technical leadership or competitive positioning.

Downstream Focus

When a company takes on special responsibility towards its suppliers, this can also impact its customers by increasing the attractiveness of its products and services, or being perceived as a particularly responsible company, leading to positive image effects. The downstream business case, accordingly, lies in a company's attractiveness to its customers through an enhanced product and service portfolio. When companies proactively respond to market and customer requirements while assuming responsibility on the supplier side, it improves the resilience and risk profile of the entire supply network, increases supply capability, and offers customers better quality and products.

Greater Resilience and Improved Risk Assessment. Risk assessment within a supply network, including downstream customers and consumers, and the resilience of the entire system are facilitated through the continuous exchange of information and expertise in the upstream stages. By fostering better collaboration, joint developments, and working with regional suppliers, customer demands regarding supplier evaluations can be met, risks minimised, and a comprehensive view of the supply network guaranteed.

Improved Supply Capability. Improved transparency and resilience can help avoid supply shortages and allows the company to collectively address challenges with a variety of partners throughout the supply network. The combination of improved resilience across the entire supply network and intensive partnerships with suppliers ensures supply and operational capability, especially during times of global crises.

Better Products and Quality. Transparency in the supply network provides insights into both the upstream and downstream landscapes, allowing for the generation of ideas for innovative products and technological solutions. Furthermore, companies can better meet customer demands and take a leading role in their sector. Additionally, a unique product and service portfolio can be established, leading to a significant competitive advantage.

Company Focus

Supply chain responsibility, both upstream and downstream, also has implications for the company itself and the entire sector in which it operates. The business case for acting within a company involves optimised corporate processes, improved operational capabilities and autonomy, and an enhanced external perception of the company and the entire sector.

Optimised Production and Corporate Processes. Well-established supply chain responsibility can provide insights into areas for optimisation, whether in the technical aspects of production, questions regarding corporate structure, or the design of workflows and processes, such as recycling and raw material processing. These optimisations can lead to cost savings or the development of new technologies, products, or services, both within a company and across the entire industry.

Capability and Autonomy. Supply chain responsibility makes companies more autonomous and ensures their long-term operational capability, allowing them to better respond to new and dynamic market and legal requirements. In addition to the societal, environmental, and economic benefits, this can also create a competitive advantage.

Positive External Perception of the Company and the Industry. Supply chain responsibility enables companies to take a leading and exemplary role in terms of due diligence within their industry. Technological and social progress that is fostered right from the start of the supply chain allows for a future-oriented strategy and long-term success. The success stories presented here, regardless of industry, size, and ownership structure, demonstrate how responsibility, transparency, and the resulting competitive advantages can be achieved.

Companies that are particularly committed and successful in assuming supply chain responsibility...

1. Prioritise **critical areas**, such as products, raw materials, and strategic suppliers;
2. Think in **partnerships** rather than transactions;
3. Think in networks and systems by searching for **strategic partners**;
4. Assess the **full risk**, including supply disruptions, image risks, and social conditions on the supply side;
5. Think beyond industry or region and see themselves as part of a **larger system**;
6. Engage with **current topics on the supply side**, as this can lead to innovation and optimisation;
7. Explore **new perspectives** on existing processes and partnerships;
8. Join **sector initiatives** and learn from the experiences of others;
9. Consider not only suppliers but also **customers and competitors** and their supply chain responsibilities;
10. Act **proactively** and think **long-term**.

Recommendations for Economic Policy Actors

The companies and initiatives presented in this report are success stories, demonstrating that voluntary engagement in supply chain responsibility is profitable for committed businesses. The diversity of business cases illustrates that a variety of direct and indirect benefits and strategic advantages contribute to the fact that taking voluntary responsibility, beyond the legal requirements, also brings operational benefits.

During the interviews, the individuals offered suggestions for economic policy actors, whether at the national, EU, or international level and including interest groups or industry associations. If these suggestions were to be implemented, it would facilitate the implementation of supply chain responsibility and bring further benefits to the interviewed companies and beyond, supporting the wider adoption of the measures presented in this report.

Standardisation. Standardisation is a challenge for companies operating in complex supply chains due to the diversity of regulations, standards, and guidelines; some companies are compelled by their customers to report and document similar matters several times through different reporting requirements. Despite the currently developing digital solutions, such as blockchain and AI, no standard has yet been established, and the interoperability of various solutions is not yet guaranteed. Many of the interviewees therefore advocate for greater standardisation of terms and definitions, evidence, verification, and reporting obligations, as well as better specifications to avoid ambiguity and excessive interpretation. Furthermore, those working in globally operating companies point out that they are disadvantaged by the fact that their competitors outside Europe must comply with lower environmental and social standards. They propose international agreements and regimes that contribute to the global application of the same minimum standards and guarantee fair prices in all territories and jurisdictions. Small companies, and those furthest from problematic suppliers in terms of value chain stages, would welcome regulations in these countries that secure minimum standards.

Networking. Although most of the companies presented in this report collaborate closely with their suppliers and customers, they encourage further networking within their industries and across industry-spanning supply chains. They perceive supply chain responsibility as a shared task, not limited to the bilateral cooperation of two companies but rather the establishment of joint initiatives and platforms. As long as opinion, experience, and information exchange are at the forefront, such platforms are considered effective, even if some agreements and collaborations can be problematic if they could potentially break competition law.

Technical Solutions. The interviewees all have high hopes for technical solutions that enable automatic information exchange, quality assurance, and decision support. Economic policy actors should support the development and implementation of digital solutions, so even small companies can be integrated into cross-supply chain data exchange with manageable effort. There is hope, too, that current gaps in documentation could be closed through industry-specific approximations. On an aggregated level, data on value chains should be made as accessible as possible to the public, while the development of corresponding digital tools should be promoted or provided by the public sector. This transparency is expected to have a positive impact on public perception and political decisions.

Circular Economy and Sustainable Development. Some companies view supply chain responsibility as part of a broader commitment to sustainable development and the circular economy. They endorse broader corporate responsibility for the products they circulate, financial incentives for the circular economy, and taxation of environmentally harmful or poorly produced products. In addition to climate change mitigation, resource conservation and the circular economy should play a greater role in public debate and be considered in purchasing decisions.