



# PEARL

## Case Study

### Module 3

### Germany



# Case Study Identification

**Case Study Title:** Mapping ESG Risks in a Small Metal Components Manufacturer

**Partner Institution:** TVW GmbH

**Country:** Germany

**Sector /Industry:** Manufacturing / Metal Components

**SME Profile:**

**Company size (micro / small / medium):** Small Enterprise

**Ownership structure (family-owned, partnership, etc.):** Family Owned

**Market scope (local / regional / international):** Regional / National with indirect supply chain exposure

## 2. Relevant PEARL Curriculum Module(s)

**Primary Module:** Module 3 – ESG Risk Analysis and Materiality Assessment

**Secondary / Supporting Modules:** Module 2 – ESG Onboarding, Vision and Responsibility; Module 4 – ESG Strategy and Implementation; Module 5 – Reporting, Communication and Branding

## 3. Learning Purpose of the Case

### **What ESG challenge, decision, or dilemma does this case illustrate?**

This case illustrates the challenge of identifying and prioritising ESG risks in a small manufacturing company that has no formal ESG management system but is increasingly affected by customer requirements, energy costs, supply chain expectations and future reporting pressures. The central dilemma is that the management team understands that ESG is becoming relevant, but it does not know where to start. The company faces several possible ESG issues, including high electricity use, dependence on steel suppliers, waste from production offcuts, occupational health and safety risks, and missing documentation on supplier practices. Without a structured materiality assessment, the company risks focusing on visible but less material topics while overlooking more significant financial and impact-related risks.

### **Why is this case relevant for SMEs?**

The case is relevant for SMEs because many small manufacturers are indirectly affected by ESG expectations even when they are not directly subject to detailed sustainability reporting obligations. Customers, banks and larger supply chain partners increasingly ask for information on emissions, energy efficiency, supplier responsibility and risk management. SMEs often lack dedicated sustainability staff, formal data systems and internal ESG expertise. This case shows how a small business can use simplified ESG risk analysis, value chain mapping and double materiality thinking to move from general concern to structured prioritisation.

### **Which competence gaps (knowledge, skills, attitudes) does it address?**

The case addresses competence gaps in ESG terminology, value chain analysis, stakeholder identification, impact and financial materiality, ESG data collection and the translation of risk findings into strategic priorities. It also addresses attitudinal gaps, particularly the tendency to perceive ESG as a compliance burden rather than as a tool for reducing operational, financial and reputational risk.

## 4. Case Context and Background

Meyer Precision Parts GmbH is a small German manufacturer of customised metal components for machinery producers, repair companies and industrial equipment suppliers. Its core activities include cutting, milling, drilling, surface treatment and small-batch assembly. The company is known for high quality, fast delivery and long-standing customer relationships. At the beginning of the case, its ESG maturity level is low to medium. Some good practices already exist, such as careful waste separation, regular safety briefings and a long-term relationship with local suppliers. However, these practices are not documented as part of an ESG system, and the company has never carried out a structured ESG risk analysis.

The immediate pressure comes from three directions. First, one of the company's largest customers has sent a supplier questionnaire asking about energy consumption, CO<sub>2</sub> emissions, occupational safety, anti-corruption measures and the origin of key raw materials. Second, the company's bank has requested more information about sustainability-related risks before renewing a credit line for new machinery. Third, rising energy prices have made production costs more volatile, and management is concerned about future competitiveness. Internally, the company faces several constraints. There is no ESG manager, and the finance manager is already responsible for quality management, HR administration and supplier documentation. Production staff are sceptical because they fear ESG will create additional paperwork without operational benefit. Data is scattered across electricity bills, waste disposal invoices, purchasing records and occupational safety documents. The managing director wants to respond professionally but does not want to overburden the company with a complex corporate reporting system designed for large firms.

## 5. ESG Challenge / Problem Statement

The central challenge is the absence of a structured ESG risk and materiality assessment. Meyer Precision Parts has several ESG-related issues, but management cannot clearly distinguish between topics that are important for image, topics that create real operational or financial risk, and topics where the company has significant environmental or social impact. The company needs to understand which ESG risks are most relevant along its value chain and which stakeholders influence or are affected by these risks.

The main problem is not a lack of goodwill, but a lack of prioritisation. Management initially considers launching a general "green company" communication campaign, but the available evidence suggests that the more urgent issues are energy dependency, material sourcing, production waste, occupational health and safety, and customer-driven supply chain transparency. Without an ESG risk analysis, the company may invest time and money in low-impact activities while failing to address the topics most likely to affect customer relationships, financing conditions and operational resilience.

## 6. Data, Evidence, and Inputs

The company collects simplified internal data for the previous business year. Electricity consumption was mainly driven by CNC machines, compressed air and lighting. Natural gas consumption for heating and process-related use was 42,000 kWh. Steel and aluminium purchases represented 46% of total input costs. Around 18 tonnes of metal offcuts were generated, of which approximately 85% were collected by a recycling contractor, but the company had no systematic record of material efficiency per product line. Waste oil and cooling fluids were handled by a certified disposal provider, but documentation was stored manually and inconsistently.

Occupational health and safety records showed four minor accidents and one near-miss incident in the previous year. Employee turnover was low, but several skilled workers were above 55, creating a future skills risk. Training was mostly informal and job-based. No formal diversity or inclusion policy existed, though the workforce included employees from several national backgrounds. Supplier information was limited. The company had 18 recurring suppliers, but only three had provided any sustainability-related documentation. The most important steel supplier was located within the EU, while some specialised components were sourced from distributors whose upstream origins were unclear.

Stakeholder input was gathered through short interviews with the managing director, finance manager, production supervisor, two employees, three key customers, the bank relationship manager and the waste disposal provider. Customers highlighted product quality, delivery reliability, emissions data, supplier transparency and compliance with basic labour and safety standards. Employees focused on safe working conditions, reliable employment and practical training. The bank focused on energy cost exposure, investment planning and general ESG risk awareness. The management team identified regulatory pressure, customer expectations and rising input costs as the most important business drivers.

## 7. Suggested Tools from the PEARL Toolbox

The Value Chain Analysis can be applied to map the company's upstream inputs, core production processes and downstream customer relationships. It helps learners identify where ESG risks occur, from raw material extraction and supplier practices to energy-intensive production and customer requirements for transparent documentation.

The Stakeholder Analysis can be used to distinguish between affected stakeholders and users of sustainability information. Employees, production workers, local residents and suppliers are affected by operational practices, while customers, banks and future business partners use ESG information to assess reliability and risk.

The ESG Gap Analysis can be applied to compare existing practices with a more systematic ESG management approach. It would reveal that some practices exist, such as recycling and safety briefings, but are not yet structured, measured or assigned to clear responsibilities.

The ESG Risk-Opportunity Matrix can help prioritise issues according to likelihood and impact. For Meyer Precision Parts, high-priority risks include energy price exposure, lack of emissions data for customer questionnaires, supplier transparency gaps and occupational safety documentation. Opportunities include reduced energy costs through efficiency measures, stronger customer retention and improved access to financing.

The ESG Materiality Analysis can be used to translate the longlist of ESG topics into a materiality matrix. Topics such as energy use, emissions, resource efficiency, supplier transparency, occupational safety and workforce skills would likely appear as material because they combine impact relevance with financial and stakeholder relevance.



## 9. Expected Learning Outcomes

**After working on this case, which KSAs will learners be able to develop?**

***(Aligned with Related competences (ref. PEARL framework))***

After working on this case, learners will be able to identify ESG risks in a typical manufacturing SME and distinguish between general sustainability topics and material ESG risks. They will understand how to map ESG issues along the value chain and how upstream suppliers, internal processes and downstream customer requirements can create different types of ESG exposure.

Learners will be able to apply stakeholder analysis to determine who is affected by the company's ESG impacts and who uses ESG information for decision-making. They will also be able to explain the principle of double materiality in practical SME terms by assessing both the company's impact on people and the environment and the financial relevance of ESG risks for the company itself.

Learners will develop the ability to work with simplified qualitative and quantitative ESG data, such as energy use, waste volumes, accident records, supplier information and customer requirements. They will be able to derive a materiality shortlist from a broader risk longlist and explain why prioritisation is essential for SMEs with limited resources.

Learners will also strengthen practical attitudes required for ESG work in SMEs: realism, proportionality, evidence-based decision-making and a focus on business relevance rather than symbolic action. They will recognise that ESG risk analysis is not only a reporting exercise but a foundation for strategic resilience, customer trust and operational improvement.