



# CSRD Readiness & Double Materiality Assessment

## Detailed Anonymised Case Study Report

Industrial Manufacturing Group | Netherlands / European Context

### Report purpose

This report combines the uploaded CSRD methodology papers, value-chain description, handouts and Excel workbooks into one detailed, public-safe case study. It includes selected anonymised extracts from the actual work: ESRS topic mapping, IRO counts, materiality scoring examples, stakeholder engagement logic, benchmark inputs and filtered material IRO tables.

| Field                      | Details                                                                                                                                          |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Project title              | CSRD Readiness & Double Materiality Assessment for an Industrial Manufacturing Group                                                             |
| Portfolio position         | Completed CSRD readiness and DMA preparation workstream                                                                                          |
| Client identity            | Anonymised European industrial manufacturing group                                                                                               |
| Evidence used              | Methodology papers, value-chain document, CSRD handouts, long-list workbook, stakeholder analysis workbook, materiality prioritisation workbooks |
| Public-safe evidence level | Selected anonymised tables, counts, topic examples and scoring logic included                                                                    |
| Prepared date              | 02 June 2026                                                                                                                                     |

# 1. Executive Summary

This case study demonstrates how MADESAT supported CSRD readiness and double materiality assessment preparation for an anonymised European industrial manufacturing group. The work translated CSRD and ESRS requirements into a structured internal process covering scope definition, value-chain mapping, stakeholder engagement, topic long-listing, impact-risk-opportunity mapping, material topic prioritisation, internal communication and documentation for future reporting readiness.

The work was supported by actual methodology documents and spreadsheet-based analysis. The material topic workbooks show a long list of 173 impacts, risks and opportunities, of which 38 were identified as impact-material IROs and 24 as financially material IROs in the prioritisation workbook. The stakeholder analysis workbook contains a structured engagement calculation for 53 stakeholder groups/subgroups.

| Key case-study metric                 | Value / evidence                                                                                                                                      |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| IRO long list                         | 173 impact, risk and opportunity entries in the material topic priority workbook                                                                      |
| Impact-material IROs                  | 38 entries marked impact material                                                                                                                     |
| Financially material IROs             | 24 entries marked financially material                                                                                                                |
| Stakeholder groups/subgroups reviewed | 53 rows in the engagement calculation sheet                                                                                                           |
| Workbook evidence base                | 36 worksheets reviewed across uploaded Excel workbooks                                                                                                |
| Main reporting outputs                | DMA methodology, value-chain map, stakeholder logic, IRO long list, prioritisation workbook, internal CSRD handouts and audit-readiness documentation |

## 1.1 Evidence charts

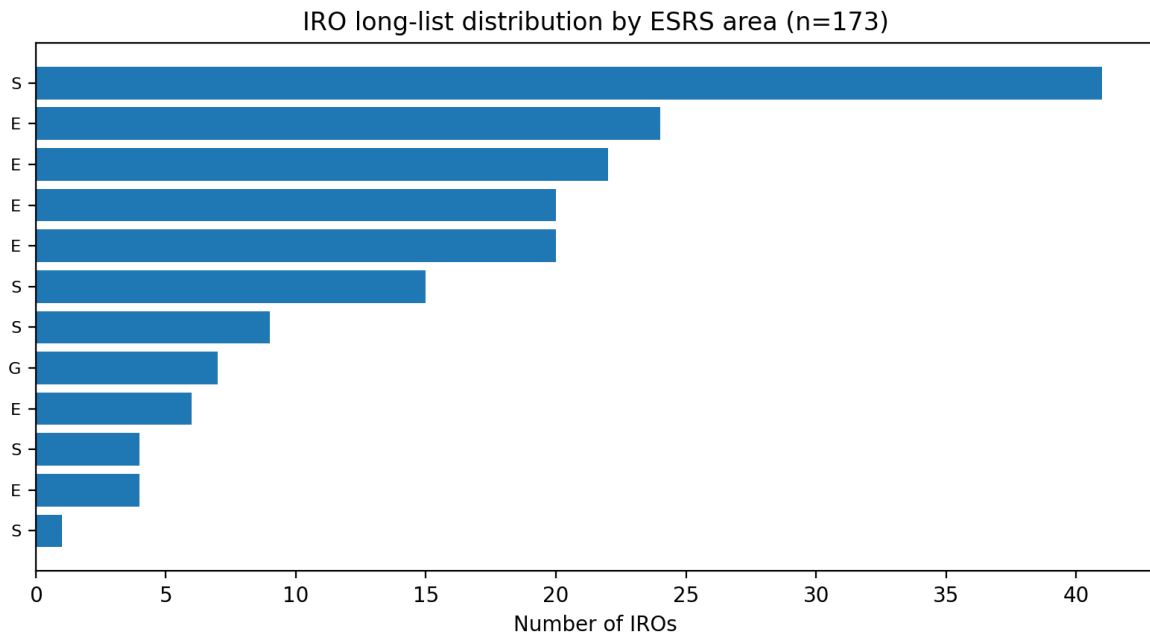


Figure 1. IRO distribution by ESRS area, based on the material topic priority workbook.

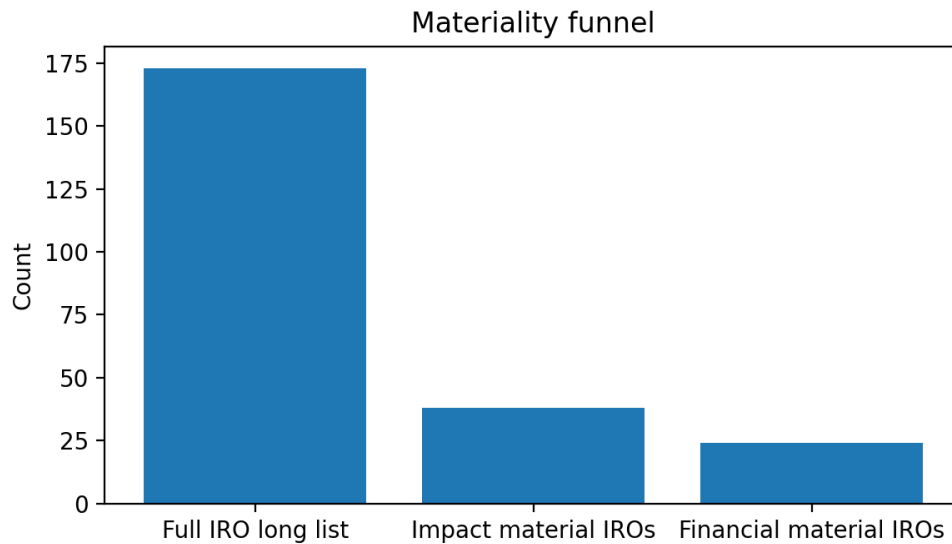


Figure 2. Materiality funnel from IRO long list to impact-material and financially material IROs.

## 2. Anonymised Client and Project Context

| Field                 | Details                                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client type           | European industrial manufacturing group with multiple operating entities across Europe, the United Kingdom and the United States.                                               |
| Business activity     | Design, manufacture, supply and installation of engineered steel-based industrial products.                                                                                     |
| Operational footprint | Raw material sourcing, steel processing, wood and component inputs, engineering, purchasing, fabrication, coating, logistics, installation and after-sales service.             |
| Regulatory driver     | Preparation for CSRD-aligned sustainability reporting and ESRS-based double materiality assessment.                                                                             |
| Core need             | Create a structured internal foundation for DMA, stakeholder engagement, ESG topic mapping, IRO identification, material topic prioritisation and future audit-ready reporting. |

### 2.1 Challenge

The organisation needed to move from general CSRD awareness into a structured double materiality assessment process. The challenge was not only understanding the regulation; it was translating CSRD and ESRS into a practical workflow that could be used by management, departments, sustainability partners and future reporting stakeholders.

The work needed to answer operational questions: which entities and value-chain activities are in scope, which stakeholders should be engaged, what impacts, risks and opportunities should be considered, how should topics be prioritised, and what documentation should be retained to support review, gap analysis and future assurance discussions.

## 3. Role of MADESAI

MADESAI supported the CSRD readiness and double materiality assessment workflow by converting regulatory requirements into methodology, documentation and decision-support tools. The role combined ESG research, ESRS interpretation support, value-chain mapping, stakeholder analysis, engagement strategy design, IRO long-list development, material topic prioritisation and internal capability-building material.

| Role area                             | What was done                                                                                   | Expertise demonstrated                                                          |
|---------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Regulatory-to-operational translation | Converted CSRD/ESRS expectations into a DMA methodology with scope, time horizon, ownership and | Ability to turn abstract reporting regulation into a usable management process. |

| Role area                     | What was done                                                                                                         | Expertise demonstrated                                                              |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                               | process steps.                                                                                                        |                                                                                     |
| Value-chain analysis          | Mapped upstream, internal and downstream activities from raw materials and energy to installation and downstream use. | Ability to connect sustainability reporting to real manufacturing operations.       |
| Stakeholder engagement design | Built stakeholder categories, relevance scoring, accessibility logic and engagement strategies.                       | Ability to structure stakeholder input for both impact and financial materiality.   |
| IRO and topic mapping         | Built a topic universe using ESRS, benchmark tools, workshop inputs and sector research.                              | Ability to create traceable ESG evidence rather than generic sustainability claims. |
| Prioritisation logic          | Prepared impact and financial scoring logic and filtered material IROs.                                               | Ability to support decision-ready double materiality preparation.                   |
| Internal communication        | Prepared CSRD handouts to explain CSRD, DMA, reporting relevance and stakeholder contribution.                        | Ability to build organisational understanding and contributor alignment.            |

## 4. Evidence Base and Work Product Register

The case study is built from methodology documents, internal handouts and Excel workbooks. The register below shows what each evidence source contributes. For publication, raw workbook screenshots should still be avoided; the clean tables in this report are safer and more professional.

| Evidence source                        | Type                 | Actual content used in this report                                                                                                 |
|----------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| CSRD methodology paper                 | PDF methodology      | DMA purpose, scope, perspectives, time horizons, process steps, ownership, stakeholder logic and reporting-readiness plan.         |
| Updated methodology paper              | PDF methodology      | Expanded value-chain mapping, stakeholder segmentation, desktop research method, around 173 IROs linked to ESRS topics/subtopics.  |
| Value-chain description                | PDF process document | Operational breakdown from upstream raw materials/energy to internal production/logistics and downstream service/use.              |
| Internal CSRD handouts                 | PDF handouts         | CSRD explanation, double materiality overview, reporting timeline, leadership contribution and internal communication structure.   |
| DMA long-list workbook                 | Excel workbook       | ESRS topic list, benchmark inputs, peer/customer lists, SASB, MVO Risk Checker, MSCI, ENCORE and workshop inputs.                  |
| Stakeholder analysis workbook          | Excel workbook       | Internal/external stakeholder maps, relevance scores, accessibility logic, engagement calculations and representation planning.    |
| Material topic prioritisation workbook | Excel workbook       | 173 IRO entries, impact scoring, financial scoring, materiality thresholds, impact-material and financially material IRO extracts. |

### 4.1 Workbook and worksheet coverage

| Workbook                                        | Worksheet                       | Rows | Columns | Purpose                          |
|-------------------------------------------------|---------------------------------|------|---------|----------------------------------|
| DMA Long List of Material Topics v1.2           | ESRS Topic List                 | 92   | 4       | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | Possible Table List of Options  | 68   | 7       | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | Checklist for Companies ESG     | 92   | 18      | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | Competitors (Selected incl.)    | 56   | 4       | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | Long List of Customers          | 47   | 6       | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | List of Selected Key Customers  | 55   | 7       | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | SASB Materiality Finder         | 62   | 14      | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | MVO Risk Checker                | 97   | 13      | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | MCSI Industry Materiality Map   | 47   | 8       | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | ENCORE                          | 42   | 38      | Long-list and benchmark workbook |
| DMA Long List of Material Topics v1.2           | Bee Improve Workshop List       | 165  | 10      | Long-list and benchmark workbook |
| Internal Prioritization of Material Topics v1.6 | ESRS Sub Topic List             | 91   | 3       | Internal prioritisation workbook |
| Internal Prioritization of Material Topics v1.6 | ESRS Sub-Sub Topic List         | 92   | 4       | Internal prioritisation workbook |
| Internal Prioritization of Material Topics v1.6 | Rules                           | 14   | 1       | Internal prioritisation workbook |
| Internal Prioritization of Material Topics v1.6 | ESRS TOPIC Based Prioritization | 179  | 14      | Internal prioritisation workbook |

| Workbook                                        | Worksheet                       | Rows | Columns | Purpose                                       |
|-------------------------------------------------|---------------------------------|------|---------|-----------------------------------------------|
| Internal Prioritization of Material Topics v1.6 | Long List Material Topics       | 58   | 9       | Internal prioritisation workbook              |
| GMT Document for Stakeholder Analysis v2.5      | Read me                         | 39   | 25      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Stakeholder(Silent)             | 3    | 22      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Stakeholder(External)_v1        | 32   | 29      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Stakeholder(Internal)_v1        | 54   | 23      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Read Me (Stakeholder Eng. Deci) | 158  | 7       | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Stakeholder Relevance Calc.     | 59   | 39      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Engagement Calc Sheet           | 54   | 19      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Representation Sheet_v1         | 169  | 11      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Switch to Focus Group           | 76   | 13      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Representation Sheet_v2         | 168  | 11      | Stakeholder analysis workbook                 |
| GMT Document for Stakeholder Analysis v2.5      | Representation Sheet_v3         | 169  | 12      | Stakeholder analysis workbook                 |
| Material Topic Prioritization                   | ESRS TOPIC Based Prioritiza (2) | 179  | 14      | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | ESRS Sub Topic List             | 91   | 3       | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | ESRS Sub-Sub Topic List         | 92   | 4       | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | Rules                           | 14   | 1       | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | Long List Material Topics       | 58   | 9       | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | Material Topic Priority         | 182  | 19      | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | Impact Material IROs            | 39   | 12      | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | Finance Material IROs           | 25   | 12      | Materiality scoring and filtered IRO workbook |
| Material Topic Prioritization                   | Stakeholder Engagement          | 155  | 11      | Materiality scoring and filtered IRO workbook |

## 5. DMA Methodology Structure

### 5.1 Process model

| DMA stage                                              | Work performed                                                                             | Output / decision use                                                                       |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| Step A - Define starting points                        | Defined DMA purpose, scope, perspectives, time horizons, ownership and project plan.       | Created boundaries and accountability for the assessment.                                   |
| Step B - Compose topic list                            | Built topic universe using ESRS, workshop input, sector/peer research and benchmark tools. | Created a defensible long list of IROs and topics.                                          |
| Step C - Identify value chain and stakeholders         | Mapped upstream, internal and downstream activities and stakeholder groups.                | Linked sustainability matters to the actual business model and affected/influencing groups. |
| Step D - Completeness check and short-list preparation | Mapped topics to value-chain areas and stakeholders, then prioritised and filtered.        | Converted broad ESG universe into a manageable set for further validation.                  |
| Step E - Impact and financial assessment               | Prepared assessment logic for impact materiality and financial materiality.                | Supported decision-making on material topics and future ESRS disclosure scope.              |

### 5.2 Scope and boundary logic

| Scope component          | How it was handled                                                                                                                            |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Operational boundary     | The assessment followed an operational group boundary similar to consolidated reporting logic.                                                |
| Value-chain view         | Own operations plus upstream and downstream value-chain relationships were considered.                                                        |
| Materiality perspectives | Impact materiality and financial materiality were treated separately and then combined in the DMA logic.                                      |
| Time horizons            | Short-, medium- and long-term horizons were used to structure risks, opportunities and management response.                                   |
| Review cycle             | A full DMA cycle was supported by selective interim reviews when major business changes occur, such as new markets, products or acquisitions. |

## 6. Value-Chain Mapping Extract

The value-chain work translated CSRD from a reporting topic into an operating map. Instead of only listing ESG themes, the work identified where those themes could arise in the actual production and delivery model.

| Value-chain area                    | Actual activity categories reflected in the work                                                                                                                                                        | Materiality relevance                                                                                                                 |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Upstream                            | Raw materials/energy; steel coils and plates; wood; chemicals/coatings; operational inputs; suppliers; transport by rail, shipping and road; steel and wood processing; secondary parts.                | Supplier emissions, biodiversity risk, resource use, raw material dependency, transport impacts, human-rights and supply-chain risks. |
| Internal - commercial and technical | Sales discussion, client audit, quotation, sales engineering, deal confirmation, site visit, requirement listing, design and engineering, approval drawings, BOM, production and installation drawings. | Customer needs, data handover, product information, internal controls, quotation assumptions and sustainability demand.               |
| Internal - production and logistics | Purchase, logistics, primary parts supply, secondary parts, manufacturing, fabrication, coating, warehousing, distribution and installation preparation.                                                | Energy, emissions, waste, coating/pollution risks, health and safety, operational efficiency, supplier management and quality.        |
| Internal - support and governance   | HRM, IT, finance, communications, marketing, legal and strategic management.                                                                                                                            | Governance, internal controls, workforce, training, data ownership, risk management and reporting responsibilities.                   |
| Downstream                          | Distribution, on-site installation, post-installation services, maintenance, inspections, upgrades and customer/end-user use.                                                                           | Product lifecycle, customer expectations, installation safety, downstream emissions and information-related impacts.                  |

## 7. Stakeholder Analysis and Engagement Logic

The stakeholder workstream did not stop at listing stakeholders. It used impact materiality relevance, financial materiality relevance, accessibility and adjusted priority to decide how stakeholders should be engaged. This is a strong indicator of implementation-level thinking.

| No. | Group                                 | Subgroup                                                                                | Type     | Class     | Impact | Financial | Total | Priority | Access | Adjusted | Engagement route                    |
|-----|---------------------------------------|-----------------------------------------------------------------------------------------|----------|-----------|--------|-----------|-------|----------|--------|----------|-------------------------------------|
| 4   | Competitors (Direct, Indirect)        | Competitors (Direct, Indirect)                                                          | External | Primary   | 3      | 3         | 6     | High     | 1      | Moderate | Open Survey                         |
| 5   | Customers                             | Direct Customers                                                                        | External | Primary   | 1      | 3         | 4     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 6   | Customers                             | Future Customers (USA/new market segments like Fire Safety, AGVs and AMRs)              | External | Secondary | 0      | 3         | 3     | Low      | 4      | Moderate | Open Survey                         |
| 7   | Customers                             | Key Accounts, Resellers, System Integrators                                             | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 9   | Energy Supplier                       | Energy Supplier                                                                         | External | Primary   | 2      | 3         | 5     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 11  | Government Organizations              | Local Government (Gementee Tholen, City of Wolverhampton Council, Watbrzych municipa... | External | Secondary | 2      | 2         | 4     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 16  | Product Supplier                      | Gas (Product Supplier )                                                                 | External | Primary   | 3      | 3         | 6     | High     | 3      | High     | Interview, Focus Group, Open Survey |
| 17  | Product Supplier                      | Packaging Materials (Product Supplier )                                                 | External | Secondary | 1      | 2         | 3     | Low      | 4      | Moderate | Open Survey                         |
| 18  | Product Supplier                      | Powder Coating (Product Supplier)                                                       | External | Primary   | 3      | 3         | 6     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 19  | Product Supplier                      | Primary and Secondary Parts (Product Supplier )                                         | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 20  | Product Supplier Upstream Value Chain | Product Supplier Upstream Value Chain                                                   | External | Secondary | 1      | 3         | 4     | Moderate | 3      | Moderate | Open Survey                         |
| 21  | Raw material Supplier                 | Steel (Raw material Supplier )                                                          | External | Secondary | 2      | 3         | 5     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 22  | Raw material Supplier                 | Wood (Raw material Supplier )                                                           | External | Secondary | 2      | 2         | 4     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 23  | Strategic Partners in Value Chain     | Banks                                                                                   | External | Secondary | 1      | 3         | 4     | Moderate | 3      | Moderate | Open Survey                         |
| 24  | Strategic Partners in Value Chain     | Financial Consultants (WEA)                                                             | External | Secondary | 0      | 2         | 2     | Low      | 4      | Moderate | Open Survey                         |
| 26  | Sub Contractors                       | Installers                                                                              | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 27  | Sub Contractors                       | Operation: Insurance, Brokers, Auditors etc                                             | External | Secondary | 1      | 3         | 4     | Moderate | 3      | Moderate | Open Survey                         |
| 28  | Sub Contractors                       | Transport                                                                               | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 29  | Sub Contractors                       | Waste Management                                                                        | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 30  | Supplier of Machine and Machinery     | Supplier of Machine and Machinery Equipment                                             | External | Primary   | 2      | 0         | 2     | Low      | 4      | Moderate | Open Survey                         |

| No. | Group       | Subgroup                                                | Type     | Class   | Impact | Financial | Total | Priority | Access | Adjusted | Engagement route                    |
|-----|-------------|---------------------------------------------------------|----------|---------|--------|-----------|-------|----------|--------|----------|-------------------------------------|
| 31  | Equipment   | Advisory Board<br>(Equivalent to ESRS Supervisory Body) | Internal | Primary | 0      | 0         | 0     | No       | 5      | Moderate | Open Survey                         |
| 33  | Departments | Engineering Department                                  | Internal | Primary | 1      | 3         | 4     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |

## 7.1 Stakeholder engagement design principles

| Design principle                           | How it appeared in the work                                                                                                                                                |
|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Relevance before outreach                  | Stakeholders were ranked based on whether they could affect the organisation or be affected by the organisation.                                                           |
| Impact and financial materiality separated | Stakeholder relevance was assessed separately for inside-out and outside-in perspectives.                                                                                  |
| Accessibility considered                   | Stakeholder access scores helped convert theoretical importance into practical engagement plans.                                                                           |
| Engagement method differentiated           | High-priority groups were directed toward interviews, focus groups and surveys; lower-priority groups could be handled by desktop research or not engaged unless required. |
| Representation planning used               | The workbook contained representation sheets to plan coverage across stakeholder groups without overburdening the organisation.                                            |

## 8. Material Topic and IRO Analysis

### 8.1 Topic distribution

| ESRS area                             | IRO count in long list |
|---------------------------------------|------------------------|
| S1- Own Workforce                     | 41                     |
| E1 - Climate                          | 24                     |
| E4- Biodiversity                      | 22                     |
| E2 - Pollution                        | 20                     |
| E5 -Resource use and circular economy | 20                     |
| S2 - Workers in the value chain       | 15                     |
| S4 - Consumer and End Users           | 9                      |
| G1- Business Conduct                  | 7                      |
| E3 - Water and Marine                 | 6                      |
| S3- Affected Communities              | 4                      |
| Entity Specific Disclosure            | 4                      |
| S1 - Own Workforce                    | 1                      |

### 8.2 IRO type distribution

| IRO type                  | Count |
|---------------------------|-------|
| Positive Impact           | 54    |
| Risk                      | 43    |
| Opportunity               | 35    |
| Negative Impact           | 29    |
| Potential Negative Impact | 12    |

### 8.3 Highest-scoring impact materiality examples

| No. | ESRS topic                            | Subtopic                                   | Type                      | Anonymised IRO description                                                                                            | Impact score | Impact material |
|-----|---------------------------------------|--------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------|-----------------|
| 65  | E5 -Resource use and circular economy | Waste (Substances)                         | Positive Impact           | Recycling waste in production                                                                                         | 4.5          | Yes             |
| 29  | S4 - Consumer and End Users           | Information-Related Impacts                | Negative Impact           | We do not make employees/ customers aware of their impact and give them other more sustainable solutions.             | 4.3          | Yes             |
| 7   | E2 - Pollution                        | Air Pollution                              | Negative Impact           | Transportation of goods                                                                                               | 4            | Yes             |
| 13  | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss | Negative Impact           | Transportation of goods                                                                                               | 4            | Yes             |
| 34  | E5 -Resource use and circular economy | Resource Inflows including Resource Use    | Potential Negative Impact | We have no control over the raw material suppliers                                                                    | 4            | Yes             |
| 40  | S3- Affected Communities              | Economic, Social, and Cultural Rights of   | Potential Negative Impact | We currently don't have enough insight and knowledge about potential negative impacts related to forced labor, modern | 4            | Yes             |

| No. | ESRS topic                            | Subtopic                                   | Type            | Anonymised IRO description                                                                                                              | Impact score | Impact material |
|-----|---------------------------------------|--------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------|
|     |                                       | Communities                                |                 | slavery, human trafficking, and child lab...                                                                                            |              |                 |
| 55  | E3 - Water and Marine                 | Water Management                           | Positive Impact | Minimizing waste during production and installation                                                                                     | 4            | Yes             |
| 60  | E4- Biodiversity                      | Resource Inflows including Resource Use    | Positive Impact | Recycling waste                                                                                                                         | 4            | Yes             |
| 61  | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss | Positive Impact | Use of used wood for chipboard, reuse of steel, use of greener steel                                                                    | 4            | Yes             |
| 64  | E5 -Resource use and circular economy | Waste (Substances)                         | Positive Impact | Minimizing waste during production and installation                                                                                     | 4            | Yes             |
| 70  | G1- Business Conduct                  | Corruption and Bribery                     | Positive Impact | Active policy on bribery inside company and towards first tier suppliers                                                                | 4            | Yes             |
| 80  | S1- Own Workforce                     | Equal Treatment and Opportunities for All  | Positive Impact | Participation in apprenticeships/internships, promoting employees to study on next to their work (the organisation Academy initiative). | 4            | Yes             |

## 8.4 Highest-scoring financial materiality examples

| No. | ESRS topic                            | Subtopic                                                               | Type        | Anonymised IRO description                                                                                                                                         | Financial score | Financial material |
|-----|---------------------------------------|------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------|
| 96  | E1 - Climate                          | Climate Change Mitigation                                              | Risk        | the organisation relies on transportation modes with a high carbon footprint to distribute products, which increases the company's overall greenhouse gas emiss... | 4.6             | Yes                |
| 135 | S4 - Consumer and End Users           | Information-Related Impacts                                            | Risk        | Lack of inhouse knowledge about sustainable consumption                                                                                                            | 3.1             | Yes                |
| 99  | E1 - Climate                          | Climate Change Mitigation                                              | Risk        | Willingness of customers to pay for more sustainable options                                                                                                       | 2.7             | Yes                |
| 112 | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss                             | Risk        | Reliance on transportation that has high carbon footprint                                                                                                          | 2.4             | Yes                |
| 124 | G1- Business Conduct                  | Management of Relationships with Suppliers Including Payment Practices | Risk        | Supply chain disruption because of geopolitical instability                                                                                                        | 2.4             | Yes                |
| 169 | S4 - Consumer and End Users           | Information-Related Impacts                                            | Opportunity | Green steel sourcing to create a more sustainable product and always show this as an option in quotes (or as standard with an option to choose a cheaper but le... | 2.4             | Yes                |
| 127 | S1- Own Workforce                     | Working Conditions                                                     | Risk        | Pandemics pose risk for supply chain, work force and business continuation                                                                                         | 2.3             | Yes                |
| 160 | S1- Own Workforce                     | Working Conditions                                                     | Opportunity | Registering near miss accidents in own operations and downstream                                                                                                   | 2.3             | Yes                |
| 138 | E1 - Climate                          | Energy                                                                 | Opportunity | More energy efficient production process                                                                                                                           | 2.1             | Yes                |
| 118 | E5 -Resource use and circular economy | Resource Inflows including Resource Use                                | Risk        | Lack of inhouse knowledge about sustainable production and consumption                                                                                             | 1.9             | Yes                |
| 119 | E5 -Resource use and circular economy | Resource Outflows related to Products and Services                     | Risk        | Failure to integrate reusability and modularity into the product life cycle, compounded by high upfront implementation costs and potential rebound effects         | 1.9             | Yes                |
| 132 | S3- Affected Communities              | Economic, Social, and Cultural Rights of Communities                   | Risk        | We currently lack sufficient data and knowledge regarding potential negative impacts related to forced labor, modern slavery, human trafficking, and child labo... | 1.8             | Yes                |

## 9. Benchmark and Source Inputs

The long-list was not created from one workshop alone. It incorporated external benchmark and risk sources, including MVO Risk Checker, MSCI Industry Materiality Map and ENCORE, alongside ESRS topics and workshop outputs.

### 9.1 MVO Risk Checker sample extract

| No. | Risk / topic                                                        | ESG category  | Anonymised explanation                                                                                                                         | ESRS topic                  | ESRS subtopic                                                                                 |
|-----|---------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------|
| 7   | Environmental Impact of Mezzanine Production and Material Sourcing  | Environmental | Production of mezzanine materials like steel and aluminum contributes to deforestation, biodiversity loss, and pollution. Impacts include C... | Biodiversity and Ecosystems | Impact on State of Species                                                                    |
| 20  | Invasive Species Spread by Shipping Operations                      | Environmental | Shipping products can lead to the spread of invasive species via ballast water and hull fouling, which disrupts local ecosystems and threat... | Biodiversity and ecosystems | Direct Impact Drivers of Biodiversity Loss                                                    |
| 19  | Production of Mezzanine Materials Contributing to Biodiversity Loss | Environmental | Materials such as steel, aluminum, and nickel used in mezzanine production can lead to significant biodiversity loss due to mining, defores... | Biodiversity and ecosystems | Direct Impact Drivers of Biodiversity Loss                                                    |
| 22  | Impact of Nickel Mining on Local Communities and Ecosystems         | Environmental | Nickel mining, especially in subtropical regions, contributes to deforestation and biodiversity loss. Acid mine drainage from nickel mining... | Biodiversity and ecosystems | Direct Impact Drivers of Biodiversity Loss/ Impacts on the extent and condition of ecosystems |
| 24  | Deforestation and Biodiversity Loss in Nickel Mining Areas          | Environmental | Nickel mining in ecologically sensitive areas, particularly in the tropics, contributes to deforestation and loss of biodiversity, includin... | Biodiversity and ecosystems | Direct impact drivers of biodiversity loss/Impacts on the extent and condition of ecosystems  |
| 30  | Environmental Conflicts in India                                    | Environmental | Industrialization and mining activities in India, which are integral to                                                                        | Biodiversity and            | Impacts and                                                                                   |



| No. | Risk / topic                            | ESG category  | Anonymised explanation                                                                                                                         | ESRS topic       | ESRS subtopic                                                                     |
|-----|-----------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------|
|     |                                         |               | the supply chain for materials used in mezzanine production, can le...                                                                         | ecosystems       | dependencies on ecosystem services/<br>Direct Impact Drivers of Biodiversity Loss |
| 31  | Low Environmental Performance in India  | Environmental | The poor environmental performance in India may impact the company's ability to source materials responsibly and comply with environmental...  | Circular Economy | Resource Inflow including Resource Use/ Waste                                     |
| 34  | Low Environmental Performance in Turkey | Environmental | Similar to India, Turkey's low environmental performance could impact the sourcing and environmental responsibility of your supply chain, e... | Circular Economy | Resource Inflow including Resource Use/ Waste                                     |

## 9.2 MSCI Industry Materiality Map sample extract

| No. | Risk / opportunity                | Category    | Explanation                                                                                                                | Weight | ESRS topic                        | ESRS subtopic                                                                                                                                                       |
|-----|-----------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------|--------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | Toxic Emission and Waste          | Environment | Companies are evaluated on the potential environmental contamination and toxic or carcinogenic emissions arising from t... | 0.147  | Pollution                         | Substances of Concern                                                                                                                                               |
| 2   | Carbon Emissions                  | Environment | Companies are evaluated on the carbon intensity of their operations and their efforts to manage climate-related risks a... | 0.147  | Climate Change                    | Climate Change Mitigation                                                                                                                                           |
| 3   | Opportunities in Clean Technology | Environment | Companies are evaluated on their clean tech innovation capacity, strategic development initiatives, and revenue generat... | 0.091  | Climate Change                    | Climate Change Adaption                                                                                                                                             |
| 4   | Raw Material Sourcing             | Environment | Companies are evaluated on the environmental impacts of the raw materials used in their products and their efforts arou... | 0.01   | Resource Use and Circular Economy | -                                                                                                                                                                   |
| 5   | Labor Management                  | Social      | Companies are evaluated on the complexity of their workforce (size, labor intensity, and regions of operation), the rel... | 0.146  | Own Workforce                     | Working Conditions/Equal treatment and opportunities for all                                                                                                        |
| 6   | Health and Safety                 | Social      | Companies are evaluated on their management of workplace safety and the workplace safety standards in the industries an... | 0.096  | Own Workforce                     | Working Conditions                                                                                                                                                  |
| 7   | Chemical Safety                   | Social      | Companies are evaluated on the possible presence of harmful chemicals in their product portfolio, their potential expos... | 0.017  | Own Workforce                     | Working Conditions                                                                                                                                                  |
| 8   | Governance                        | Governance  | This pillar evaluates the impact companies' corporate governance and business ethics practices have on investors. All c... | 0.348  | Business Conduct                  | Corporate culture/<br>Protection of whistleblowers/ Animal welfare/ Political engagement/<br>Management of relationships with suppliers including payment practices |

## 9.3 ENCORE natural-capital sample extract

| No. | Name                       | Dependency / Impact | Materiality type      | Rating | Anonymised explanation                                                                                                     | ESRS topic                 | ESRS subtopic                                                       |
|-----|----------------------------|---------------------|-----------------------|--------|----------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------------------------------------------------|
| 1   | Water                      | Dependencies        | Financial Materiality | Medium | Although less practical, steel production process can take place without the ecosystem service due to availability of s... | Water and marine resources | Water                                                               |
| 2   | Water Flow Maintenance     | Dependencies        | Financial Materiality | Medium | The hydrological cycle, also called water cycle or hydrologic cycle, is the system that enables circulation of water th... | Water and marine resources | Water                                                               |
| 3   | Water Use                  | Impacts             | Impact Materiality    | High   | Examples include volume of groundwater consumed, volume of surface water consumed, etc. Water is used for the quenching... | Water and marine resources | Water                                                               |
| 4   | GHG Emissions              | Impacts             | Impact Materiality    | High   | Examples include volume of carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), Sulphur hexafluoride (SF6), Hydrof... | Climate Change             | Climate change adaptation                                           |
| 5   | Solid Waste                | Impacts             | Impact Materiality    | High   | Examples include volume of waste by classification (i.e., nonhazardous, hazardous, and radioactive), by specific materi... | Pollution                  | Substances of concern/Substances of very high concern/Microplastics |
| 6   | Flood and Storm Protection | Dependencies        | Financial Materiality | Medium | Flood and storm protection is provided by the sheltering, buffering and attenuating effects of natural and planted vege... | Climate Change             | Climate change mitigation                                           |
| 7   | Non-GHG air pollutants     | Impacts             | Impact Materiality    | Medium | Examples include volume of fine particulate matter (PM2.5) and coarse particulate matter (PM10), Volatile Organic Compo... | Pollution                  | Pollution of air                                                    |
| 8   | Water Pollutants           | Impacts             | Impact Materiality    | High   | Examples include volume discharged to receiving water body of nutrients (e.g., nitrates and phosphates) or other substa... | Pollution                  | Pollution of water                                                  |

## 10. Impact-Material IRO Table

The table below shows the filtered impact-material IRO extract from the materiality workbook. Descriptions have been anonymised and shortened for publication. The scoring fields demonstrate that this was a structured assessment, not a narrative-only ESG exercise.

| No. | ESRS topic                            | Subtopic                                             | Description                                                                                                                                                                            | Type                      | Source                                            | Scale | Scope | Irrem. | Score |
|-----|---------------------------------------|------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------|-------|-------|--------|-------|
| 1   | E1 - Climate                          | Climate Change Mitigation                            | Not much uptake of green steel yet, as customers do not currently want to pay extra for it                                                                                             | Negative Impact           | 9.04 (SDG Based GMT Questionnaire)                | 3     | 5     | 2      | 3.3   |
| 2   | E1 - Climate                          | Energy                                               | Our production processes cause carbon emissions. We also make use of materials of which the production is very energy intensive (particularly steel) and there are substantial emis... | Negative Impact           | 9.04 (SDG Based GMT Questionnaire)                | 3     | 5     | 3      | 3.7   |
| 3   | E1 - Climate                          | Climate Change Mitigation                            | Our production processes cause carbon emissions. We also make use of materials of which the production is very energy intensive (particularly steel) and there are substantial emis... | Negative Impact           | 9.04 (SDG Based GMT Questionnaire)                | 3     | 5     | 3      | 3.7   |
| 4   | E2 - Pollution                        | Air Pollution                                        | Transportation of goods                                                                                                                                                                | Negative Impact           | 12.04(SDG Based GMT Questionnaire)                | 4     | 5     | 3      | 4     |
| 5   | E2 - Pollution                        | Substances of Concern, Soil Pollution                | Mining and deforestation                                                                                                                                                               | Negative Impact           | 15.03(SDG Based GMT Questionnaire)                | 3     | 4     | 4      | 3.7   |
| 6   | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss           | Negative impact from production by suppliers and in the value chain                                                                                                                    | Negative Impact           | 12.04(SDG Based GMT Questionnaire)                | 3     | 4     | 4      | 3.7   |
| 7   | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss           | Transportation of goods                                                                                                                                                                | Negative Impact           | 12.04(SDG Based GMT Questionnaire)                | 3     | 5     | 4      | 4     |
| 8   | E4- Biodiversity                      | Impact on the extent and Conditions of Ecosystem     | Shipping of materials                                                                                                                                                                  | Negative Impact           | 14.01(SDG Based GMT Questionnaire)                | 3     | 2     | 5      | 3.3   |
| 9   | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss           | Mining and use of wood/deforestation                                                                                                                                                   | Negative Impact           | 15.01, 15.03, 15.05 (SDG Based GMT Questionnaire) | 4     | 3     | 4      | 3.7   |
| 10  | E5 -Resource use and circular economy | Resource Inflows including Resource Use              | No focus on sustainable sourcing of raw materials and criteria for this                                                                                                                | Negative Impact           | 12.02(SDG Based GMT Questionnaire)                | 3     | 4     | 3      | 3.3   |
| 11  | E5 -Resource use and circular economy | Waste (Substances)                                   | Our operational process creates waste                                                                                                                                                  | Negative Impact           | 12.04(SDG Based GMT Questionnaire)                | 4     | 4     | 3      | 3.7   |
| 12  | E5 -Resource use and circular economy | Resource Outflows related to Products and Services   | Not enough focus on recycling and no policy for end of life of products                                                                                                                | Negative Impact           | 12.05(SDG Based GMT Questionnaire)                | 2     | 5     | 3      | 3.3   |
| 13  | E5 -Resource use and circular economy | Resource Outflows related to Products and Services   | We do not make employees and customers aware of their impact and give them other more sustainable solutions                                                                            | Negative Impact           | 12.08(SDG Based GMT Questionnaire)                | 3     | 5     | 2      | 3.3   |
| 14  | S1- Own Workforce                     | Working Conditions                                   | Currently there is no effort to raise awareness about mental or physical health and how to improve these                                                                               | Negative Impact           | 3.04(SDG Based GMT Questionnaire)                 | 4     | 4     | 2      | 3.3   |
| 15  | S1- Own Workforce                     | Working Conditions                                   | Automation will reduce/end low scale work                                                                                                                                              | Negative Impact           | 8.06(SDG Based GMT Questionnaire)                 | 3     | 4     | 4      | 3.7   |
| 16  | S4 - Consumer and End Users           | Information-Related Impacts                          | We do not make employees/ customers aware of their impact and give them other more sustainable solutions.                                                                              | Negative Impact           | 12.08(SDG Based GMT Questionnaire)                | 5     | 5     | 3      | 4.3   |
| 17  | E3 - Water and Marine                 | Water Management                                     | Production process of suppliers and in the value chain (we don't know enough about this yet)                                                                                           | Potential Negative Impact | 6.03(SDG Based GMT Questionnaire)                 | 3     | 4     | 4      | 3.3   |
| 18  | E5 -Resource use and circular economy | Resource Inflows including Resource Use              | We have no control over the raw material suppliers                                                                                                                                     | Potential Negative Impact | 12.04(SDG Based GMT Questionnaire)                | 3     | 5     | 4      | 4     |
| 19  | S3-Affected Communities               | Economic, Social, and Cultural Rights of Communities | We currently don't have enough insight and knowledge about potential negative impacts related to forced labor, modern slavery, human trafficking, and child labor in our value chai... | Potential Negative Impact | 8.07, 16.02(SDG Based GMT Questionnaire)          | 4     | 5     | 4      | 4     |
| 20  | E1 - Climate                          | Energy                                               | A relatively high proportion of usage of renewable energy inside the company.                                                                                                          | Positive Impact           | 7.01, 7.02(SDG Based GMT Questionnaire)           | 3     | 4     |        | 3.5   |
| 21  | E3 - Water and Marine                 | Water Management                                     | Minimizing waste during production and installation                                                                                                                                    | Positive Impact           | 12.02(SDG Based GMT Questionnaire)                | 3     | 5     |        | 4     |
| 22  | E4- Biodiversity                      | Resource Inflows including Resource Use              | Recycling waste                                                                                                                                                                        | Positive Impact           | 12.04(SDG Based GMT Questionnaire)                | 3     | 5     |        | 4     |
| 23  | E4- Biodiversity                      | Direct Impact Drivers of Biodiversity Loss           | Use of used wood for chipboard, reuse of steel, use of greener steel                                                                                                                   | Positive Impact           | 15.01(SDG Based GMT Questionnaire)                | 3     | 5     |        | 4     |
| 24  | E4- Biodiversity                      | Impact on the extent and Conditions of Ecosystem     | Buying from chipboard producers that manage woods responsibly                                                                                                                          | Positive Impact           | 15.02(SDG Based GMT Questionnaire)                | 3     | 4     |        | 3.5   |
| 25  | E5 -Resource use and circular economy | Waste (Substances)                                   | Minimizing waste during production and installation                                                                                                                                    | Positive Impact           | 12.02(SDG Based GMT Questionnaire)                | 3     | 5     |        | 4     |
| 26  | E5 -Resource use and circular economy | Waste (Substances)                                   | Recycling waste in production                                                                                                                                                          | Positive Impact           | 12.04(SDG Based GMT Questionnaire)                | 4     | 5     |        | 4.5   |
| 27  | G1- Business Conduct                  | Corruption and Bribery                               | Active policy on bribery inside company and towards first tier suppliers                                                                                                               | Positive Impact           | 16.05(SDG Based GMT Questionnaire)                | 3     | 5     |        | 4     |
| 28  | G1- Business Conduct                  | Corporate Culture                                    | Strong business ethics can enhance a company's reputation, leading to increased business relationships                                                                                 | Positive Impact           | MCSI Industry Materiality Map                     | 3     | 5     |        | 3.6   |
| 29  | S1- Own Workforce                     | Working Conditions                                   | By employment according to national legislation, i.e. abiding to minimum wages, social securities etc. We pay slightly above the minimum wage.                                         | Positive Impact           | 1.02(SDG Based GMT Questionnaire)                 | 2     | 5     |        | 3.5   |
| 30  | S1- Own Workforce                     | Working Conditions                                   | the organisation scores well on employee happiness and low on sick leave                                                                                                               | Positive Impact           | 3.04(SDG Based GMT Questionnaire)                 | 2     | 5     |        | 3.5   |
| 31  | S1- Own Workforce                     | Equal Treatment and Opportunities for All            | Participation in apprenticeships/internships, promoting employees to study on next to their work (the organisation Academy initiative).                                                | Positive Impact           | 4.03(SDG Based GMT Questionnaire)                 | 4     | 4     |        | 4     |
| 32  | S1- Own Workforce                     | Equal Treatment and Opportunities for All            | the organisation provides a multicultural, multinational context to work in for students/starters and gain these skills. People are allowed to apply for graduation projects and mo... | Positive Impact           | 4.07(SDG Based GMT Questionnaire)                 | 3     | 4     |        | 3.5   |
| 33  | S1- Own Workforce                     | Equal Treatment and Opportunities for All            | Young people get trained or paid schooling                                                                                                                                             | Positive Impact           | 8.05(SDG Based GMT Questionnaire)                 | 2     | 5     |        | 3.5   |
| 34  | S1- Own Workforce                     | Working Conditions                                   | ISO 45001 for our own employees focus on safety                                                                                                                                        | Positive Impact           | 8.08(SDG Based GMT Questionnaire)                 | 2     | 5     |        | 3.5   |
| 35  | S1- Own Workforce                     | Working Conditions                                   | Minimizing agency work to give people direct contracts                                                                                                                                 | Positive Impact           | 10.04(SDG Based GMT Questionnaire)                | 3     | 4     |        | 3.5   |
| 36  | S1- Own Workforce                     | Working Conditions                                   | Profit shares for all employees without using a bonus system                                                                                                                           | Positive Impact           | 10.04(SDG Based GMT Questionnaire)                | 3     | 4     |        | 3.5   |

| No. | ESRS topic                  | Subtopic        | Description                                                                    | Type            | Source                             | Scale | Scope | Irrem. | Score |
|-----|-----------------------------|-----------------|--------------------------------------------------------------------------------|-----------------|------------------------------------|-------|-------|--------|-------|
| 37  | S4 - Consumer and End Users | Personal Safety | Policies in place during Covid that can be reinstated incase of a new pandemic | Positive Impact | 3.03(SDG Based GMT Questionnaire)  | 3     | 4     |        | 3.5   |
| 38  | S4 - Consumer and End Users | Personal Safety | Sustainable reporting                                                          | Positive Impact | 12.06(SDG Based GMT Questionnaire) | 4     | 4     |        | 4     |

## 11. Financially Material IRO Table

The table below shows the filtered financially material IRO extract. The structure separates magnitude from short-, medium- and long-term likelihood, which is critical for financial materiality under CSRD/ESRS-style thinking.

| No. | ESRS topic                             | Subtopic                                                               | Description                                                                                                                                                                            | Type        | Source                  | Mag. | ST | MT | LT  | Score |
|-----|----------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|------|----|----|-----|-------|
| 1   | E1 - Climate                           | Climate Change Mitigation                                              | the organisation relies on transportation modes with a high carbon footprint to distribute products, which increases the company's overall greenhouse gas emissions and contributes... | Risk        | GMT Workshop            | 5    | 5  | 5  | 3.5 | 4.6   |
| 2   | E1 - Climate                           | Climate Change Mitigation                                              | Willingness of customers to pay for more sustainable options                                                                                                                           | Risk        | GMT Workshop            | 4    | 5  | 3  | 1   | 2.7   |
| 3   | E3 - Water and Marine                  | Water Management                                                       | Knowledge gap on water use in the value chain, needs to be investigated                                                                                                                | Risk        | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 4   | E4 - Biodiversity                      | Direct Impact Drivers of Biodiversity Loss                             | Reliance on transportation that has high carbon footprint                                                                                                                              | Risk        | GMT Workshop            | 4    | 3  | 3  | 3   | 2.4   |
| 5   | E5 - Resource use and circular economy | Resource Inflows including Resource Use                                | Lack of inhouse knowledge about sustainable production and consumption                                                                                                                 | Risk        | GMT Workshop            | 4    | 1  | 3  | 4   | 1.9   |
| 6   | E5 - Resource use and circular economy | Resource Outflows related to Products and Services                     | Failure to integrate reusability and modularity into the product life cycle, compounded by high upfront implementation costs and potential rebound effects                             | Risk        | GMT Workshop            | 4    | 1  | 3  | 4   | 1.9   |
| 7   | G1 - Business Conduct                  | Management of Relationships with Suppliers including Payment Practices | Supply chain disruption because of geopolitical instability                                                                                                                            | Risk        | GMT Workshop            | 4    | 3  | 3  | 3   | 2.4   |
| 8   | S1 - Own Workforce                     | Working Conditions                                                     | If standards of living in other countries rise, loss of skilled migrant workers                                                                                                        | Risk        | GMT Workshop            | 4    | 1  | 3  | 3   | 1.7   |
| 9   | S1 - Own Workforce                     | Working Conditions                                                     | Pandemics pose risk for supply chain, work force and business continuation                                                                                                             | Risk        | GMT Workshop            | 4    | 2  | 3  | 4   | 2.3   |
| 10  | S3 - Affected Communities              | Economic, Social, and Cultural Rights of Communities                   | We currently lack sufficient data and knowledge regarding potential negative impacts related to forced labor, modern slavery, human trafficking, and child labor in our value chain.   | Risk        | GMT Workshop            | 3    | 3  | 3  | 3   | 1.8   |
| 11  | S4 - Consumer and End Users            | Information-Related Impacts                                            | Lack of inhouse knowledge about sustainable consumption                                                                                                                                | Risk        | GMT Workshop            | 4    | 3  | 4  | 5   | 3.1   |
| 12  | S4 - Consumer and End Users            | Social Inclusion                                                       | Movement against mega warehousing in Europe (unboxing) may reduce demand for mezzanine installations as regulatory scrutiny and public pressure limit warehouse expansions, impact...  | Risk        | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 13  | E1 - Climate                           | Energy                                                                 | Renewable energy usage; increase own generation of renewable energy and/or increase purchase of renewable energy from suppliers                                                        | Opportunity | GMT Workshop            | 3    | 4  | 3  | 1   | 1.8   |
| 14  | E1 - Climate                           | Energy                                                                 | More energy efficient production process                                                                                                                                               | Opportunity | GMT Workshop            | 4    | 2  | 3  | 3   | 2.1   |
| 15  | E1 - Climate                           | Climate Change Mitigation                                              | Vision of local manufacturing                                                                                                                                                          | Opportunity | GMT Workshop            | 4    | 1  | 3  | 3   | 1.7   |
| 16  | E5 - Resource use and circular economy | Resource Inflows including Resource Use                                | Green steel sourcing to create a more sustainable product and always show this as an option to customers                                                                               | Opportunity | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 17  | S1 - Own Workforce                     | Working Conditions                                                     | the organisation Academy Initiative: expand and structure internationally                                                                                                              | Opportunity | GMT Workshop            | 3    | 2  | 3  | 4   | 1.7   |
| 18  | S1 - Own Workforce                     | Working Conditions                                                     | Exchange between departments at induction & employment stages (in both directions, so not just management shadowing a day on the workfloor)                                            | Opportunity | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 19  | S1 - Own Workforce                     | Working Conditions                                                     | Registering near miss accidents in own operations and downstream                                                                                                                       | Opportunity | GMT Workshop            | 4    | 2  | 3  | 4   | 2.3   |
| 20  | S1 - Own Workforce                     | Equal Treatment and Opportunities for All                              | Showcasing to people with disabilities that they can apply for jobs at the the organisation                                                                                            | Opportunity | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 21  | S1 - Own Workforce                     | Equal Treatment and Opportunities for All                              | Look into enhancing quality of life of people in lowest earning 40% through other means than increased pay, such as access to budget coaching                                          | Opportunity | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 22  | S1 - Own Workforce                     | Working Conditions                                                     | Registering near miss accidents in own operations and downstream                                                                                                                       | Opportunity | GMT Workshop            | 3    | 2  | 3  | 3   | 1.6   |
| 23  | S4 - Consumer and End Users            | Information-Related Impacts                                            | Green steel sourcing to create a more sustainable product and always show this as an option in quotes (or as standard with an option to choose a cheaper but less sustainable produ... | Opportunity | GMT Workshop            | 5    | 1  | 3  | 4   | 2.4   |
| 24  | S1 - Own Workforce                     | Working Conditions                                                     | Employees in industrial machinery manufacturing facilities face health and safety risks from exposure to heavy machinery, moving equipment and electrical hazards, among others. Cr... | Risk        | SASB Materiality Finder | 3    | 3  | 3  | 3   | 1.6   |

## 12. Deliverables and Practical Value

| Deliverable                     | What it contained                                                                          | Practical value                                                                   |
|---------------------------------|--------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| CSRD/DMA methodology paper      | Purpose, scope, ESRS basis, DMA steps, ownership, value-chain and stakeholder logic.       | Created a repeatable process for CSRD readiness and future reporting preparation. |
| Value-chain map and description | Upstream, internal and downstream operating activities from raw materials to customer use. | Made the DMA operational and linked ESG topics to actual business activities.     |

| Deliverable                            | What it contained                                                                                                     | Practical value                                                                     |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Stakeholder analysis workbook          | Internal/external stakeholder groups, relevance scores, accessibility, adjusted priority and engagement routes.       | Helped decide who needed to be engaged and how.                                     |
| Long-list workbook                     | ESRS topic list, benchmark sources, workshop inputs and IRO universe.                                                 | Created a defensible evidence base for material topic screening.                    |
| Material topic prioritisation workbook | 173 IROs, impact scoring, financial scoring, impact-material and financial-material extracts.                         | Supported movement from broad topic universe to prioritised DMA-ready topics.       |
| Internal CSRD handouts                 | CSRD explanation, double materiality introduction, reporting relevance, leadership contribution and project timeline. | Built internal understanding and aligned contributors around why the work mattered. |

## 12.1 Practical value statement

The project helped the organisation convert CSRD from an abstract regulatory requirement into a practical internal workstream. It clarified what needed to be assessed, which entities and operations were in scope, where sustainability impacts and risks could occur across the value chain, which stakeholders needed to be engaged, and how material topics could be prioritised.

For MADESAL, this case demonstrates a high-value advisory capability: structuring sustainability regulation into management-ready process design, evidence registers, stakeholder logic, materiality scoring, and reporting-readiness documentation for industrial companies.

## Appendix A - Capability Mapping

| Capability demonstrated         | Evidence from work products                                                              | Public expression                                                                |
|---------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| CSRD/DMA process design         | Methodology documents with DMA steps, scope, time horizons and ownership logic.          | Structured CSRD readiness and DMA methodology for an industrial group.           |
| Operational value-chain mapping | Value-chain document with upstream, internal and downstream processes.                   | Mapped sustainability reporting topics to real manufacturing operations.         |
| Stakeholder strategy            | Stakeholder analysis workbook with relevance, accessibility and engagement calculations. | Designed stakeholder engagement logic for impact and financial materiality.      |
| ESRS and IRO mapping            | Long-list and material topic workbooks with ESRS topic/subtopic mapping.                 | Created traceable ESG topic and IRO mapping for reporting readiness.             |
| Materiality prioritisation      | Material topic priority workbook with impact and financial materiality scores.           | Prepared scoring logic to move from long list to prioritised materiality inputs. |
| Internal communication          | CSRD handouts explaining regulation, DMA and stakeholder contribution.                   | Developed internal capability-building material for management and contributors. |

## Appendix B - Full High/Moderate Stakeholder Engagement Extract

| No. | Group                          | Subgroup                                                                                | Type     | Class     | Impact | Financial | Total | Priority | Access | Adjusted | Engagement route                    |
|-----|--------------------------------|-----------------------------------------------------------------------------------------|----------|-----------|--------|-----------|-------|----------|--------|----------|-------------------------------------|
| 4   | Competitors (Direct, Indirect) | Competitors (Direct, Indirect)                                                          | External | Primary   | 3      | 3         | 6     | High     | 1      | Moderate | Open Survey                         |
| 5   | Customers                      | Direct Customers                                                                        | External | Primary   | 1      | 3         | 4     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 6   | Customers                      | Future Customers (USA/new market segments like Fire Safety, AGVs and AMRs)              | External | Secondary | 0      | 3         | 3     | Low      | 4      | Moderate | Open Survey                         |
| 7   | Customers                      | Key Accounts, Resellers, System Integrators                                             | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 9   | Energy Supplier                | Energy Supplier                                                                         | External | Primary   | 2      | 3         | 5     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 11  | Government Organizations       | Local Government (Gementee Tholen, City of Wolverhampton Council, Wałbrzych municipa... | External | Secondary | 2      | 2         | 4     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 16  | Product Supplier               | Gas (Product Supplier)                                                                  | External | Primary   | 3      | 3         | 6     | High     | 3      | High     | Interview, Focus Group, Open Survey |
| 17  | Product Supplier               | Packaging Materials (Product Supplier)                                                  | External | Secondary | 1      | 2         | 3     | Low      | 4      | Moderate | Open Survey                         |
| 18  | Product Supplier               | Powder Coating (Product Supplier)                                                       | External | Primary   | 3      | 3         | 6     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 19  | Product Supplier               | Primary and Secondary Parts (Product Supplier)                                          | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 20  | Product Supplier               | Product Supplier Upstream                                                               | External | Secondary | 1      | 3         | 4     | Moderate | 3      | Moderate | Open Survey                         |

| No. | Group                                                       | Subgroup                                                    | Type     | Class     | Impact | Financial | Total | Priority | Access | Adjusted | Engagement route                    |
|-----|-------------------------------------------------------------|-------------------------------------------------------------|----------|-----------|--------|-----------|-------|----------|--------|----------|-------------------------------------|
|     | Upstream Value Chain                                        | Value Chain                                                 |          |           |        |           |       |          |        |          |                                     |
| 21  | Raw material Supplier                                       | Steel (Raw material Supplier )                              | External | Secondary | 2      | 3         | 5     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 22  | Raw material Supplier                                       | Wood (Raw material Supplier )                               | External | Secondary | 2      | 2         | 4     | Moderate | 4      | High     | Interview, Focus Group, Open Survey |
| 23  | Strategic Partners in Value Chain                           | Banks                                                       | External | Secondary | 1      | 3         | 4     | Moderate | 3      | Moderate | Open Survey                         |
| 24  | Strategic Partners in Value Chain                           | Financial Consultants (WEA)                                 | External | Secondary | 0      | 2         | 2     | Low      | 4      | Moderate | Open Survey                         |
| 26  | Sub Contractors                                             | Installers                                                  | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 27  | Sub Contractors                                             | Operation: Insurance, Brokers, Auditors etc                 | External | Secondary | 1      | 3         | 4     | Moderate | 3      | Moderate | Open Survey                         |
| 28  | Sub Contractors                                             | Transport                                                   | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 29  | Sub Contractors                                             | Waste Management                                            | External | Primary   | 3      | 4         | 7     | High     | 4      | High     | Interview, Focus Group, Open Survey |
| 30  | Supplier of Machine and Machinery Equipment                 | Supplier of Machine and Machinery Equipment                 | External | Primary   | 2      | 0         | 2     | Low      | 4      | Moderate | Open Survey                         |
| 31  | Advisory Board (Equivalent to ESRS Supervisory Body)        | Advisory Board (Equivalent to ESRS Supervisory Body)        | Internal | Primary   | 0      | 0         | 0     | No       | 5      | Moderate | Open Survey                         |
| 33  | Departments                                                 | Engineering Department                                      | Internal | Primary   | 1      | 3         | 4     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 34  | Departments                                                 | Finance Department                                          | Internal | Primary   | 1      | 4         | 5     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 35  | Departments                                                 | Legal Department                                            | Internal | Primary   | 0      | 4         | 4     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 36  | Departments                                                 | Logistics and Inventory Management Department               | Internal | Primary   | 3      | 4         | 7     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 37  | Departments                                                 | Manufacturing Department                                    | Internal | Primary   | 2      | 4         | 6     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 38  | Departments                                                 | Operations (Company Branding and Marketing) Department      | Internal | Primary   | 0      | 0         | 0     | No       | 5      | High     | Interview, Focus Group, Open Survey |
| 39  | Departments                                                 | Operations (HR) Department                                  | Internal | Primary   | 1      | 3         | 4     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 40  | Departments                                                 | Operations (IT) Department                                  | Internal | Primary   | 2      | 3         | 5     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 42  | Departments                                                 | Operations Department (General)                             | Internal | Primary   | 3      | 3         | 6     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 43  | Departments                                                 | Purchase Department                                         | Internal | Primary   | 3      | 4         | 7     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 44  | Departments                                                 | QHSE Department                                             | Internal | Primary   | 2      | 4         | 6     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 45  | Departments                                                 | Research and Development Department                         | Internal | Primary   | 1      | 3         | 4     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 46  | Departments                                                 | Sales Department                                            | Internal | Primary   | 2      | 3         | 5     | Moderate | 5      | High     | Interview, Focus Group, Open Survey |
| 47  | Global Management Team (Equivalent to ESRS Management Body) | Global Management Team (Equivalent to ESRS Management Body) | Internal | Primary   | 3      | 4         | 7     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 48  | Managing Directors (Equivalent to ESRS Administrative Body) | Managing Directors (Equivalent to ESRS Administrative Body) | Internal | Primary   | 3      | 4         | 7     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 49  | Own Workforce (Excluding MD, GMT and Shareholder)           | Permanent Workers                                           | Internal | Primary   | 3      | 0         | 3     | Low      | 5      | High     | Interview, Focus Group, Open Survey |
| 50  | Own Workforce (Excluding MD, GMT and Shareholder)           | Remote Workers                                              | Internal | Primary   | 2      | 0         | 2     | Low      | 5      | High     | Interview, Focus Group, Open Survey |
| 51  | Own Workforce (Excluding MD, GMT and Shareholder)           | Agency Workers                                              | Internal | Primary   | 1      | 0         | 1     | No       | 3      | Moderate | Open Survey                         |
| 52  | Shareholder                                                 | Schot Family (Shareholder)                                  | Internal | Primary   | 3      | 4         | 7     | High     | 5      | High     | Interview, Focus Group, Open Survey |
| 53  | Stakeholder Trust                                           | STAK (Shareholder Trust)                                    | Internal | Primary   | 2      | 4         | 6     | High     | 5      | High     | Interview, Focus Group, Open Survey |