

DSM-Steelcase Case Study



Megann Head

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mhead1@steelcase.com

Steelcase

1A. GOAL

The Product:

Focus on a component of a chair (32 Seconds): a back-arm made of DSM polyamide 6 (called “Akulon”). This component connects the back and seat together.



The Goal:

Ideally, the assessments results could be used by:

- **Design and R&D:** better choose **materials types** according to their social impacts
- **Purchasing:** better choose future **suppliers** and implement **actions plans** (incl. specifications in our Request For Proposals documents) with current suppliers
- **Strategy:** reshape the **strategic goals** of the company
- **Communications & Marketing:** reshape the **way social aspects are communicated** both externally and internally.

1B. SCOPE

The product value chain:

DSM suppliers ⇒ DSM ⇒ Injection molding company ⇒ Steelcase ⇒ Chair's user

Life-cycle stages: from materials production until use phase were in scope:

- **Materials** production: DSM and a DSM supplier
- **Component** production : injection molding at a Steelcase's supplier
- **Assembly and completion** of the final product: assembly of the task chair at Steelcase
- **Use**: consumer
- *End-of-life, transportation, and some of the materials production steps were kept **out of scope** considering the limitations in time and availability of the data. The consumer's "experienced well-being" was kept out of scope.*

2. ASSESSMENT

The approach

We've chosen the **scale based approach**

Difficulties and advantages

- Difficulties: **Data collection, allocation** of some input data to the product.
- Advantages: The **scale based approach** takes much less time than the quantitative approach.



3A. DATA

Data sources

Mostly **primary** data used.

Several departments have been contacted for the related data collection, depending on the involved companies:

- ✓ HR (Steelcase's workers and local communities)
- ✓ Standards / Certifications (consumer)
- ✓ Research dept. on end users (consumer)
- ✓ Plant director (injection molding supplier)
- ✓ DSM & suppliers

Most data were available.

Data collection difficulties

- **1st difficulty:** get people's time, as this case study was not a priority.
- **2nd difficulty:** make sure we were properly understanding some of the indicators.

3B. DATA COLLECTION PROCESS

Questionnaire sent to departments involved

Stakeholder: Workers

Social topic: Health and safety

Goal: The company or facility ensures that all workers receive adequate health & safety training or awareness in line with the requirements of their job function and required by local law, including the use of any essential personal protective equipment (PPE). Such training or awareness is also provided for new or temporary contracted and reassigned workers, and is refreshed periodically.

Question 1: Health and safety training is provided.

Yes

No

Goal: The company or facility has clearly delegated and defined lines of duty and responsibility throughout all levels of the organizational structure, from shop-floor workers to management. A management representative with appropriate authority, support and resources is responsible and accountable for the implementation of the health and safety policies and procedures.

Question 2: Lines of duty and responsibility for health and safety are defined.

Yes

No

Goal: The company or facility involves workers in the design, development and review of health and safety programs and sets targets set to reduce the level of accidents.

Question 3: Workers are involved in the design, development and review of health and safety programs.

Yes

No

Question 4: Targets are set to reduce the level of accidents.

Yes

No

Social topic: Wages and social benefits

Goal: Wages and social benefits meet at least legal or industry minimum standards, and are rendered in full compliance with all applicable laws.

Question 1: Percentage of workers whose wages and social benefits meet at least the legal or industry minimum wage, and are rendered in full compliance with all applicable laws:

Answer format: %

Question 2: Percentage of workers who are paid a living wage:

Answer format: %

5. CONCLUSIONS

Main observations

- Such a social assessment could be performed on most of office furniture products.
 - Particularly, the assessments should focus on the analysis of both the materials production stages
- The assessment would help make better choices in terms of materials, suppliers
- Could also be used to get a better evaluation of the well-being provided by the products Steelcase develops
- Limitations in the data availability and uncertainty should be kept in mind, especially when considering allocation of quantitative metrics

5. OPERATIONALIZATION AND ADDED VALUE

Additional remarks / questions from Steelcase and DSM:

- How to **guarantee the data quality** and create the right level of confidence regarding the collected answers (i.e. risk mitigation strategy)? Suggestions might be to request extra evidence that substantiate the answers, or perform audits.
- Within the boundaries of throughput time and time spent of this case study, it was **difficult to assess the end of life stage**. For future case studies we would recommend to create a kind of database with end of life principles and data.
- For this test we looked at one part of an office chair. The question is **how to allocate the social impacts of a whole chair** which could consist of many components:
 - A chair is made of about 300-400 parts, of various weights (from a few grams to a few kg) and materials types.

5. OPERATIONALIZATION AND ADDED VALUE

Additional remarks / questions:

- **Data collection could probably be optimized** if data are **collected together** with environmental data, for instance for LCAs, certifications, CSR reports, etc.
- Product Social Impact Assessments can provide **additional data that can be used for CSR communications**, with the difference that with this type of assessment there is a more important focus on specific products and/or specific life-cycle stages (e.g. external production).
- Assessments like this **can potentially create new information that can be used in marketing**, for instance new information on **improved experienced well-being** (including, for instance, comfort) by the end-user. In this case we could not test this, but we can imagine that if you assess a whole product, market research can help to provide information for experienced well-being.