

## Product Social Impact Assessment





## Akulon® RePurposed

Roundtable for Product

DSM Case study



### DSM Case study

Version 2.0 – January 2020

The case study was produced by Alexandra Florea and David Morris and was executed as part of the work with the Product Social Metrics Roundtable. This report contains a public summary of the work done.

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## 1 Summary

DSM is a global purpose-led, science-based company specializing in Nutrition, Health & Sustainable Living. Our purpose is to create brighter lives for all, creating value for customers, shareholders, our people, and society-at-large. We are already reaching 2.5 billion people worldwide. To make our ambitions of boosting economic prosperity, environmental progress and societal advancement a reality, we continue to be Purpose-led and Performance-driven.

Our Brighter Living Solutions are products and services that deliver high performance while giving additional benefits to our society and environment. We apply a product life cycle approach to our Brighter Living Solutions, evaluating their social and environmental effect across the value chain. This allows us to identify hot-spots for improvement in our own products and processes, enabling DSM products to improve the sustainability of our value chains.

## Brighter Living Solutions Key sustainability drivers

Innovations and products that are better for the planet (Eco+) and people (People+) based on a product life cycle approach.



Figure 1 Brighter Living Solutions, key sustainability driver of DSM Strategy

With the newest version of the Handbook, DSM has initiated several studies on different product groups to test the methodology and engage the organization to understand the improved social impact assessment tool and identify benefits of its use. The product categories include materials such as recycled polyamide from fishing nets collected from the Indian Ocean, bio-based material from castor oil sourced from India and rapeseed sourced from Western Europe.

This case study was written with the intention for the audience to reflect on the learnings from the process and implementation of improvements internally and refine the assessment of product social metrics.

This case study uses the example for recycled polyamide from fishing nets collected from the Indian Ocean, a product line called Akulon<sup>®</sup> RePurposed. Currently DSM has worked on assessing both the environmental and social indicators of this product line. Studying the social indicators DSM has identified that the product next to risks identified has also an extended positive social impact in terms of job creation and the development of new skills and knowledge of people working in the supply chain (i.e. collecting, sorting, cleaning and processing fishing nets).

Chapter 3 describes in detail a list of steps which define the framework used by DSM to conduct a product social impact assessment and it is explained which processes are needed internally to successfully complete this work.



## **2** Case study

## 2.1 Goal and scope description

The main purpose of this study is to offer a framework for product social metrics for companies (namely large corporations). The framework consists of 3 levels of assurance, which are applied by the company in order to achieve a mature level for integration of social impact assessment in business as usual. This goes hand in hand with the formalised phase of the maturity matrix for the implementation process and engaging and enabling the whole organization as according to Kotter model both described by the Roundtable in the Implementation Guide<sup>1</sup>. DSM is currently assessing several product lines against social indicators and it is a joint effort of multiple functions within the company.

This case study uses the example of Akulon<sup>®</sup> RePurposed, which is recycled polyamide from fishing nets collected from the Indian Ocean. The selected stakeholder groups for this study are workers and local communities and all the corresponding social topics assessed in the supply chain are presented below:

Country	Stakeholder Group	Value Chain	
	Local communities	Workers	Process Steps
	Access to tangible resources Community Engagement Employment & skill development Health & safety	Child labour Discrimination Forced labour Freedom of association and collective bargaining Remuneration Work-life balance Health & safety	Collection fishing nets
			Segregation
India			Washing
			Extrusion
			Production PA6 grade

Table 1: Material themes linked to the social topics of the PSIA Handbook

## 2.2 Product description

With this new product line DSM contributes to cleaner oceans, as instead of disposing discarded fishing nets on the beach or in the sea these are collected for recycling purposes. The product also has an extended positive social impact in terms of job creation and the development of new skills and knowledge of people working in the supply chain (i.e. collecting, sorting, cleaning and processing fishing nets).

Akulon<sup>®</sup> RePurposed is used in high-end applications in the sports and leisure segment such as for example surfboard accessories but can also be used in a wide variety of other applications including furniture and other industrial applications. The production and collection of fishing nets take place in India.



Figure 2 Value chain mapping of case study – Akulon® RePurposed<sup>2</sup>

The next chapter will describe each level of assurance and while all 3 levels can be checked in parallel by different functions within a company, a full integration of social impact assessment cannot be achieved without all 3 levels of assurance together.

<sup>&</sup>lt;sup>1</sup> de Beer, I.M; Goedkoop, M.J.; Peter Saling; Dave Morris; Alexandra Florea; Anne Laure Hettinger; Diana Indrane; Diana Visser; Ana Morao; Elizabeth Musoke-Flores; Urs Schenker; Massimo Collotta; Bruno Van Parys; Product Social Metrics Implementation Guide, version 1.0, Amersfoort, August 2019

<sup>&</sup>lt;sup>2</sup> <u>https://www.dsm.com/markets/engineering-plastics/en/products/Akulon®/product-info/portfolio/Akulon-RePurposed.html</u> <u>https://uk.reuters.com/video/2019/08/05/eco-surfboards-made-from-the-oceans-tras?videold=583706132</u>



## Framework - measures implemented 3 at organizational level

## 3.1 1st level of assurance - ensure policies are in place

At corporate level, the measures by which DSM ensures any social risk and topic is addressed across the value chain are implemented in the policies for:

1. Business - DSM Business Code of Conduct, where all 3 dimensions for People, Planet and Profit describe the way DSM does business, as for example:

- a. "DSM's solutions should be better for people and/or planet."
- b. "At DSM, we acknowledge and embrace our responsibility to respect human rights across our own business operations, our relationships with other businesses and the communities in which we operate."
- c. "DSM is committed to acting ethically and maintaining a fair and honest business environment for employees, customers, suppliers and communities."

#### ONE DSM Code of Business Conduct Our Mission 3 Our Core Value The culture we want to build The DSM Code of Business Conduct Three Dimensions People: the human dimension Planet: the environmental dimension Profit: the economic dimension 8 Implementation and compliance

#### Figure 3 Outline DSM Code of Business Conduct

2. Purchasing - General Purchase Conditions for Goods and Services, where it is ensured that as part of the purchasing process, the supplier is

#### **DSM General Purchase Conditions for Goods and Services 2016**



12. Sustainability, SHE and Security 12.1 The Triple P (People, Planet, Profit) values, as determined in the DSM Code of Conduct, are essential to DSM (Group) in creating sustainable value. Supplier agrees to comply with the Code of Conduct, which can be found at the DSM website www.dsm.com/content/dam/dsm/cworld/en\_US/documents/dsm-supplier-code-of-conduct.pdf or will be

sent at request. 12.2 Supplier complies with and acts in accordance with all applicable safety, health and environmental instructions, avoid pollution of the soil and the groundwater, limit air and noise pollution on the Customer site, comply with site and site access regulations as well as DSM (Group) (network) security regulations. Supplier must arrange for proper and safe transport and equipment, as well as skilled and qualified staff, able to speak the local languages of the customer and/or English, to work in a safe, healthy and environmentally responsible manner. Customer may audit these aspects of this Agreement. Supplier shall report any irregularity with respect to safety, health and environment and security. In case of an incident, Supplier shall report supervision of DSM (Group) immediately take all measures to clean up, isolate or prevent pollution resulting from such incident.

Figure 4 Snapshot from DSM General Purchase Conditions for Goods and Services

3. Suppliers – Code of Conduct, it is a contract which DSM and the supplier sign to ensure that the purchasing conditions are respected and followed as described, as for example:

complying also with sustainability, health and

safety and security.

- a. "As part of our initiative to identify and mitigate risks of slavery, forced labour and human trafficking occurring in our supply chains each of our suppliers is required to sign up to our Supplier Code of Conduct in order to work with us and is contractually obliged to comply with its terms and DSM's business and ethical standards."
- b. "Our Supplier Code of Conduct expressly prohibits involvement in human trafficking and the use of slavery, forced labour or child labour "

## People, Planet and Profit **DSM Supplier Code** of Conduct

## People: the human dim Non-discrimination Forced labor and child lab Health and safety Life sav e saving rules edom of associatio

Figure 5 Snapshot DSM Supplier Code of Conduct

Vorking hours



## 3.2 2nd level of assurance - ensure methodology is available (People + tool)

DSM has developed alongside and aligned with the Roundtable for Product Social Metrics a tool, which helps to assess the social impact of a product or service. This 'People+ method' covers the following:

- a. Health condition of users
- b. Comfort & wellbeing of users
- c. Working conditions across the value chain
- d. Community development

With the methodology developing, more indicators and stakeholder groups were identified, which helped DSM to improve the current tool. This improved tool gives scores for the different stakeholders and social topics selected, which helps the user to focus on the hotspots and define an action plan to mitigate any non-conformities and risks in the value chain. The People+ tool results in a hotspot analysis breakdown per country, process steps and risk level as presented in Figure 7 below, showing the template.

In Figure 6 a process flow of assessing the risk levels is presented. This process is a proposal currently tested at DSM and it is meant to be applied for each social impact indicator of the stakeholder group assessed for each process step in the value chain. A company may identify their own threshold levels and it is recommended to be in line with the procurement policy of the company. This case study proposes that if risk indicators are collected from a secondary database it cannot receive a low risk score unless confirmed by an audit.



#### Figure 6 Risk Level Assessment for Hotspot Social Impact Indicators

After each social topic is screened through the risk level assessment, an overview of the results per stakeholder group, process step in the value chain and counted risks is produced which forms the basis for the hotspot analysis as presented in Figure 7.

The counted risk levels are shown by the size of the box where the risk level is highlighted. The breakdown is represented by each ring within the diagram, starting with country level, stakeholder group and process step in the value chain. Each process step contains all social topics assessed belonging to the stakeholder group represented.

For example, in the case of Akulon RePurposed<sup>®</sup>, reading Figure 8 for the stakeholder group local communities at the production pellets phase, the total of risk level results in low risk because all social topics (which are four in this case as shown in Table 1) result in low risk scores after the risk level assessment. Reading further at extrusion phase, two risk levels are highlighted with a larger box for low risk, which means 3 out of 4 social topics were assigned a low risk score after risk level assessment. By applying the same principle for Figure 9 where workers are assessed at collection of fishing nets phase three risk levels are highlighted for seven social topics which belong to the workers stakeholder group, where 4 social topics received medium risk score, 2 received high risk score and 1 received low risk score.

Following these steps, DSM was able to assess the hotspot analysis for the case studied Akulon RePurposed<sup>®</sup>. The results of this hotspot analysis and score for each social topic are not discussed in this case study in order to be consisted with the purpose of this work, this may follow up in a separate work.



Figure 7 People+ Tool template – Hotspot analysis from risk assessment





Figure 8 Hotspot analysis Akulon® RePurposed – Highlight on local communities



Figure 9 Hotspot analysis Akulon® RePurposed – Highlight on workers

## 3.3 3rd level of assurance – ensure a clear process to assess Product Social Metrics

The framework at the core of this process has its starting point the OECD-FAO Guideline for agricultural supply chain, which DSM finds that it is a framework applicable to any industry.<sup>3</sup>







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1. Map the supply chain

2. Have due diligence policy

3. Assess risks

4. Conduct third party audit 5. Mitigate risks

Figure 10 OECD – FAO Guideline Social Responsible Sourcing Requirements

<sup>3</sup> OECD – FAO Guideline https://www.oecd.org/daf/inv/investment-policy/rbc-agriculture-supply-chains.htm



The steps DSM follows to assess the social impact of their products and services and the teams involved internally along each step are described in this chapter in the following subpoints:

### 3.3.1 Initial request

Assessing the product social metrics is initiated by the business team and strategy, together with the LCA expert team, with the intention to:

- a. Know the value chain
- b. Assess the risks across the value chain and define a mitigation plan
- c. Communicate transparently to internal and external stakeholders

### 3.3.2 Value chain mapping

The LCA expert team together with sourcing/supply chain and process technology experts map the value chain players and production steps of the studied product line.

### 3.3.3 Selection of stakeholders and social topics

The LCA expert team facilitates the selection of stakeholders and social topics and reviews it with the relevant business teams.

### 3.3.4 Data inventory

The LCA expert team together with sourcing/supply chain and technology teams assesses the data collected. The sources of data are presented below:

- a. Primary data supplier code of conduct signed, supplier audits, Ecovadis reports with questionnaires filled by supplier, customer audits and visit reports
- b. Secondary data Risk mapping tools (e.g. Social Hotspot Database, RepRisk), supplier/customer participation in other independent social and environmental standards and associations

#### 3.3.5 Identify risks and scoring

The LCA expert team prepares an overview of all the risks identified and scores them on 3 levels: low, medium and high risks. The LCA expert team provides the scoring and reviews with the relevant business and supply chain teams.

#### 3.3.6 Third party audit

With the risks identified, the business teams conduct a third-party audit to verify the outcome of the risk assessment. The measures taken by the auditee would show how the risk levels could be mitigated:

- a. Controlled and no incidents low risk
- b. Controlled with incidents medium risk
- c. Not controlled high risk

#### 3.3.7 Risk mitigation action plan

The sourcing/supply chain and business teams agree on an action plan to mitigate medium and high risks as resulted from the third-party audit.

## 3.3.8 Communication

The business and LCA expert teams discuss the results and the approach to internal and external communication.



## 4 Learnings and next steps

## 4.1 Stakeholders involved

It is important to have both internal and external stakeholders on board, because challenges may arise when the results are communicated and interpreted. A benefit of conducting the assessment involving internal stakeholders is the engagement of different functions within the company, which gives the opportunity to break down silos and combine different expertise to best assess the risk indicators. With the involvement of external stakeholders, e.g. customers, DSM was able to exchange knowledge about how risk indicators are evaluated and to learn which other social indicators and stakeholders are relevant. It gives the opportunity for collaboration and strengthens external stakeholder relations.

## 4.2 Scoring

Scoring and weighing the risk levels remains a challenge and may be sensitive to subjectivity. DSM continues to work on improving the methodology and improve alignment internally with other relevant functions, like procurement and corporate sustainability to create a consensus for assigning risk levels.

## 4.3 Sustainable portfolio assessment

It is important to align internally on different risk tools used at corporate level and by different functions in order to streamline and simplify data collection and create harmonized reporting tools. These functions may be procurement, sustainability, portfolio management and business functions, which use risk assessments in day-to-day work. This work could also potentially be linked with sustainable product portfolio assessment and in the case of suppliers, be included in the supplier selection program.