



Reduce overall environmental impact of textile production.

Bru Textiles strives to become a Forever Company, creating a positive impact and delivering change to ensure a sustainable future for generations to come. To do this, we are strategically molding our business vision and evolving our sustainability actions according to the [UN Sustainable Development Goals \(SDGs\)](#), and the relevant SDGs within this framework.

This framework provides shared alignment to a unified blueprint and global partnership, the main ambition of which is to combat climate change and create a better, safer environment for all by 2030.

To be effective, we have focused our attention and established specific, measurable, achievable, relevant, and time-bound goals (SMART). Our goals have been centered on 5 key SDGs, that are within our core spheres of influence:

- SDG8:** Decent work and economic growth for ourselves and our partners
- SDG12:** Responsible production & consumption of our textiles
- SDG13:** Taking climate action by understanding our footprint, up and down stream
- SDG16:** Transparency and traceability of all our products
- SDG17:** Partnerships internally and externally of our business to ensure positive change

The challenge for the textile industry is finding suitable sustainable fabric alternatives, many still requiring Research and Technological Development (RTD). This RTD will need to be conducted in partnership with our customers, our mills, our employees, as well as available sustainable resources (natural or recycled).

But, not all change happens immediately and none of us can do this alone - to be effective we have to work together. We want to engage with all our stakeholders to do the right thing.

Our strategy has included the development of practical and easy to use playbooks for suppliers and partners. The objective with the playbooks are to create collaborative paths to sustainability.

About this Playbook

In this Playbook, we share our approach to SDG 12 | Responsible Production and Consumption.



Playbook | We focus on the product and dive deeper in how to measure, manage and reduce the environmental impact of the product, beyond carbon.

Fabrics have an environmental impact, beyond carbon.

Textile production worldwide has a significant impact on the environment, from the use of raw materials, water and related pollution, chemicals, and waste.

The impact from these fabrics depends on the different processes during production, from raw material choice over yarn production and textile formation to dyeing and finishing.

To assess the impact of our products in these categories, we use the [Higg Index](#). From our research, this is the most comprehensive tool, providing a wide range of environmental metrics, based on a wide variety of textile compositions and manufacturing processes used. This will be explained in more detail in the following pages of this Playbook.

We have come to understand that the small things are always the big things and although our direct control over textile production is limited, we cannot expect change within the industry if we do not take measures ourselves. We have implemented actions to help reduce the impact from our own operations, understanding that responsible consumption is also a key focus area.



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Textile production does not only impact climate change but also creates an impact on the environment, through the use of resources and the creation of pollutants.



What is the challenge?

Our global demand for natural resources exceeds the planet's biocapacity. Estimates suggest we need the resources of 1.6 earths to sustain current demand. Even with this challenge, we continue to be wasteful with resources. Vast amounts of materials, which could be used or repurposed, end up in landfills or as pollutants in our environment, impacting biodiversity and our direct living conditions.



Why is it important for you?

Moving towards a more circular economy could deliver benefits such as reducing pressure on the environment, improving the security of the supply of raw materials and increasing competitiveness. Different products utilise different amounts of time and resources during production which in turn influence resource consumption (i.e. energy, water used, etc.). Furthermore, reducing the company's direct pressure on its surrounding environment might have impact on the living conditions of the local communities.



What can businesses do?

Reduce your direct impact by limiting the pollution of the environment as a consequence of your activities and by reducing your operational waste as much as possible. You can reduce your products environmental impact by assessing the impact of the raw materials used - where do they come from and how were they produced - and by encouraging your suppliers to take action to reduce negative impacts.

In this section, we provide guidelines on how to measure and manage the environmental impact of your operations (part I) and products (part II).

Part I | Reduce environmental impact of your operations

Step 1 | Measure your environmental impact

While it is possible to make incremental environmental improvements at your facility about a comprehensive plan, your facility can only maximise environmental performance by setting a long-term strategy that will inform decision-making on environmental management. The installation of an environmental management system such as ISO 14001 can further help to map your environmental impact and set-up a structure to follow-up and reduce this impact.

To be able to properly understand your environmental impact, **it can be valuable for your company to follow up on a set of basic metrics.** These metrics can indicate where your company has potential to reduce its impact and allow for structured follow-up on progress.

Focus on those materials or substances which are discarded from your manufacturing site and which can pollute and contaminate the environment and the surrounding communities. If treated externally, ensure you are aware of how and where those products and materials are treated.

Total weight of non-hazardous and hazardous waste, with a breakdown of the composition and treatment methods

% of waste diverted from landfill or incineration (e.g. prepared for re-use or send to recycling)

Total quantity of wastewater discharged in reporting year

Percentage of wastewater treated and recycled back into your production processes

Step 2 | Reduce direct GHG emissions

Reduce your direct impact by limiting the pollution of the environment as a consequence of your activities and by reducing your operational waste as much as possible.

With regard to the latter, prevention of waste should always be the first most desirable option. Waste that cannot be prevented and cannot be reused, nor recycled should be incinerated for energy recovery. Waste should be diverted from landfill at all cost (see visual).

- 1 **Reduce** the amount of waste produced, by optimising production processes
- 2 **Re-use** waste where possible or convert it to byproducts
- 3 **Recycle** non re-useable waste by sending it to a recycling facility
- 4 **Recover** energy from the waste through incineration or digestion
- 5 Send your waste to **landfill**.

Circular

Linear

Part II | Life cycle environmental impact of yarn and fabric

In addition to the environmental impact of your company's activities, as discussed in part I, analysing and taking action on the environmental impact of your products is a vital step for your business and the sector to become more sustainable. For the textile industry specifically, most attention should go to the life cycle impact of the yarn and fabrics. This impact includes:



Global warming potential

Greenhouse gasses emitted during production of a fabric contribute to global warming. Calculating all emissions during the production of a fabric allows you to assess the global warming potential of that fabric. This topic is discussed in more detail in Playbook | Take Climate Action, which concerns SDG 13.



Eutrophication

Excessive use of fertiliser to grow the crops required for fibre production can cause quick algae growth in rivers and ponds, depleting the water of oxygen and causing large scale fish starvation. This effects both drinking water supply as well as biodiversity.



Water scarcity

Water usage during production of the raw material can be significant, especially so for natural fabrics such as cotton. Limiting water consumption can be vital in water scarce regions where excessive agricultural and industrial water consumption can jeopardise drinking water supply and lead to ecosystem failure.



Resource depletion

The usage of virgin material often results in resource depletion if these materials cannot be replenished by earth at the same rate at which they are extracted. Also the use of fossil fuels adds to this resource depletion, since this is a non-renewable energy source. Shifting towards organic and recycled raw materials can reduce this impact.



Analysing the life cycle environmental impact of the yarn and fabrics you produce or purchase is a challenging task. Ideally, your suppliers can provide you with specific data on the impact generated during the production of the fabrics you have purchased and processed - however your suppliers might not be able to share this data with you. This calls for the need to use sector average values.

Understand the life cycle environmental impact from yarn and fabrics with the Higg Index

The Higg Material Sustainability Index (Higg MSI) is a cloud based tool by the Sustainable Apparel Coalition. This tool is, to our knowledge, the most comprehensive tool to assess the impact of fabrics using sector averages. Although originally built by and for the apparel industry, the lessons learnt apply to household fabrics as well. Important to note is that the Higg MSI focusses on the impact of the production of the fabric. The use-phase is not taken into account.



The Higg MSI allows users to assess the life cycle environmental impact of a specific fabric, based on the different steps in the production of the fabric - from the raw material used, over the yarn and textile formation to the dyeing and finishing. In particular, the Higg Product Tools assess the most important environmental impacts as mentioned above.

	Global Warming	Eutrophication	Water Scarcity	Resource Depletion, Fossil fuels	Chemistry
 Textiles Nylon Knitter 180	15.3 16.1 kg CO ₂ eq	4.61 0.004 kg PO ₄ ---	0.912 1.98 m ³	18.6 272 MJ	9.38 19.6 units
 Textiles Silk Woven	85.5 89.8 kg CO ₂ eq	556 0.541 kg PO ₄ ---	337 730 m ³	52.8 770 MJ	8.12 17.0 units
Raw Material Source	75.6 79.4 kg CO ₂ eq	554 0.539 kg PO ₄ ---	335 727 m ³	44.5 649 MJ	3.20 6.68 units
Yarn Formation Method	4.10 4.31 kg CO ₂ eq	1.26 0.001 kg PO ₄ ---	0.667 1.45 m ³	2.91 42.5 MJ	1.04 2.17 units
Textile Formation	3.29 3.45 kg CO ₂ eq	1.00 9.744e-4 kg PO ₄ ---	0.537 1.17 m ³	2.35 34.3 MJ	1.01 2.12 units
Colouration	2.51 2.64 kg CO ₂ eq	0.405 3.941e-4 kg PO ₄ ---	0.330 0.715m ³	3.05 44.5 MJ	2.87 6.00 units

Learn more about the Higg Index [here](#).

Bru Textiles is eager to work together to make innovative product shifts and reduce the life cycle environmental impact of our products.