SOURCING RAW MATERIALS

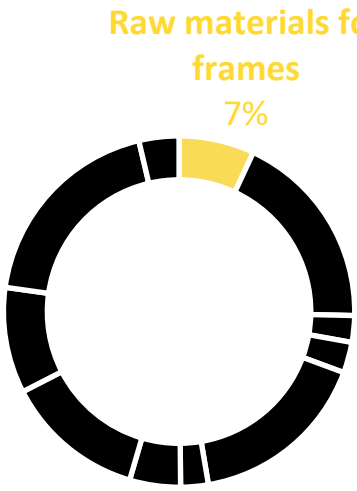
THE CHALLENGES

IN THE WORLD

The extraction of raw materials is responsible for the destruction and artificialisation of natural environments (quarries for metals, cultivation for agricultural materials, deforestation for wood, etc.), and contributes to the overexploitation of natural resources.
According to IPBES[1], the destruction of habitats and the over-exploitation of resources are the two main causes of biodiversity loss (ahead of climate change and pollution).
Extracting and manufacturing raw materials also requires the company to pay close attention to its suppliers: do they comply with satisfactory environmental and social standards? Companies that give orders must ensure that this is the case: this is known as the duty of care (see below).

FOR THE OPTICAL SECTOR

According to the life cycle analysis of a pair of glasses[2], the raw materials used in the frames account for 7% of their environmental impact. Of course, beyond the environment, the social impact must also be considered, particularly for metals whose extraction is often carried out in countries where standards are poorly developed.



[1] IPBES: Intergovernmental Platform on Biodiversity and Ecosystem Services. This is an international group of experts on biodiversity (the equivalent of the IPCC for climate).

[2] Life cycle analysis carried out by Ace & Tate on a pair of acetate glasses. See the sheet “RSE, what is it about?”

WHAT DOES THE LAW SAY?

RAW MATERIALS & ENVIRONMENTAL CLAIMS

"Biodegradable", "responsible material"... the use of environmental claims to describe raw materials is becoming increasingly controlled, particularly with the arrival in Europe of the Green Claims Directive.

DUTY OF CARE: THE (FUTURE) CSDD (CORPORATE SUSTAINABILITY DUE DILIGENCE DIRECTIVE)

If adopted by the European Council, the directive proposed by the European Commission in February 2022 should require companies to publish and implement a due diligence plan on sustainability and human rights issues.
It would introduce the concept of "duty of care" into European law.
This means that companies will have to carry out assessments to identify sustainability risks, or risks related to human rights abuses, throughout their supply chain (including their suppliers and business partners). They will also have to take measures to prevent these risks and abuses throughout their value chain.

WHERE TO START?

TRACING RAW MATERIALS

Of course, the first step is to obtain the best possible traceability of the raw materials used in your products, so that you can identify their components and the operations carried out on them... and thus better identify their impact!

CHOOSING RAW MATERIALS

It cannot be repeated often enough: there is no such thing as a "responsible" material. It all depends on use and context! Ideally, of course, LCAs should be carried out on frames made from different materials to determine which has the least impact. Nevertheless, here are a few guidelines for choosing materials for your products, bearing in mind that the most important thing is to minimise the quantity of raw materials used!

Recycled plastic: impacts depend on the type of plastic and the percentage of recycled plastic. Two types of plastic are of interest from an environmental point of view, for which efficient recycling facilities exist in most countries:

- PET (Polyethylene Terephthalate).
- Polyethylene

Recyclable materials: they are not necessarily made from recycled materials, but they can be recycled. Actual recycling depends on the country of use, the maturity of the waste treatment infrastructure and the markets for secondary materials. Favouring single-material products optimises product recycling.

Metal: use of non-renewable resources, with transformation at very high temperatures, which

consumes a lot of energy. It is nevertheless recyclable and often recycled because of its value. However, it is still difficult to know the percentage of recycled metal in the material supplied. Nevertheless, it is a solution for manufacturing a lighter frame that has less impact (particularly during the transport phase).

Titanium: this is an interesting metal which, for a smaller quantity of material used, can offer real qualities of strength and flexibility. This is a relevant choice in the context of spectacle frames.

Bio-acetate: cellulose acetate is a plastic made from cellulose (obtained from cotton or wood). Derived from biomass (a renewable resource, unlike fossil fuels such as petrochemicals), it has a better reputation than other plastics because it sounds “natural”. Many commercial names suggest the idea of biological sourcing, plant-based, etc. It is a biodegradable plastic... which does not mean that it is compostable (compostable materials or products have to be certified by an established standard!). It is also a material that undergoes numerous industrial chemical processes using solvents and other compounds.

Phthalate-free: this means that there are no phthalates in the products, most of which are banned under the Reach Act anyway! It is not an environmental benefit, but it is linked to health.

CREDIBLE CERTIFICATIONS

Global Recycled Standard (GRS): this certifies the recycled content of a product and validates compliance with social and environmental criteria, while imposing restrictions on the chemical composition of products.

COMMITTING SUPPLIERS

Ensuring that suppliers meet certain standards in terms of social and environmental commitment can be done in several ways:

- Choosing suppliers: include CSR criteria with minimum thresholds to be met.
- Raising awareness: define a responsible purchasing charter and get all suppliers to sign it.
- Evaluation: send out a questionnaire to find out more about suppliers’ social and environmental commitments, check their Ecovadis rating, carry out on-site audits, etc.
- Support: co-constructing avenues for improvement, co-investing in more environmentally efficient tools, etc.

ECOVADIS

EcoVadis is a platform that enables clients to assess and compare the CSR commitment of service providers.
All companies can be listed and given a score (0-100). Above a certain score, medals (bronze, silver, gold) are awarded.

THEY DID IT

ACTIONS RESULTING FROM APPLICATIONS FOR THE SILMO 2023 CSR PRIZE

CHOICE OF RAW MATERIALS

- Carrying out LCAs to guide the choice of raw materials, and training product teams in eco-design – BOLLÉ BRANDS

- Use of local raw materials from waste recovery (recycled shellfish, cellulose acetate eyewear production offcuts) with a 100% recycled range – FRIENDLY FRENCHY

- Range of 95% recycled metal frames – MODO EYEWEAR

SUPPLIER COMMITMENT

- Questionnaire sent to suppliers with demanding environmental and social clauses, plus on-site verification – OPAL DEMETZ