# FAIRwatch: Advancing the development of a sustainable and ethical watch

Degree programme: BSc in Industrial Engineering and Management Science Thesis advisor: Prof. Dr. Jörg Grimm

Expert: Dr. Maria Franco

The production of watches poses environmental and social challenges, including pollution, deforestation and human rights issues. Growing consumer demand for transparency and responsible practices, especially among the younger generation, is driving the industry's shift towards sustainability. The watch industry bears particular responsibility for the sourcing of raw materials. Consequently, companies need to ensure sustainable supply chain practices.

## **Introduction and Objectives**

The watch industry is Switzerland's third largest export sector and plays a crucial role in the country's economy. But the production of luxury goods, including watches and jewellery, poses significant environmental and social challenges, such as pollution, deforestation and human rights issues. These concerns have increased global demand for transparency and responsible practices throughout the value chain, unsettling the industry. Studies highlight the growing importance of sustainability, driven by consumer expectations, especially among Gen Z and Millennials. With this research, I aim to identify critical sustainability dimensions that must be considered to develop a sustainable and ethical watch; and for which dimensions the watch industry has a particular responsibility or influence in.

## Research Design

The thesis employs a qualitative research approach. In the pre-study, a systematic literature review was conducted to assess the current state of academic knowledge on sustainability in the watch and luxury industries. By analysing the frameworks of the Global Reporting Initiative (GRI) and the Sustainable Devel-

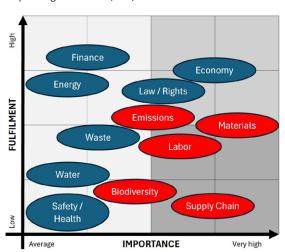


Figure 1: Evaluation of critical sustainability dimensions

opment Goals (SDG) as well as sustainability reports of watch companies and further research, I derived twelve sustainability dimensions. These dimensions were then analysed in detail. To determine their importance and fulfilment in the watch industry and to obtain a complementary perspective on the topic, seven interviews were conducted with sustainability and industry experts.

#### Results

The watch industry bears particular responsibility for the sustainability dimensions highlighted in red, as shown in Figure 1. This applies especially to the sourcing of raw materials, where the watch and jewellery industry alone is responsible for 50% of annual global consumption of gold. The extraction of other raw materials and diamonds is also often problematic, leading to deforestation and habitat destruction, as well as critical working conditions and conflict financing. Furthermore, up to 95% of emissions are generated in the supply chain, rather than within the own company boundaries. Consequently, it is of the utmost importance that companies critically analyse and map their supply chains to identify and address sustainability issues. Increasing the use of recycling and alternative, bio-based materials helps to minimise environmental and social risks. The dimensions highlighted in blue are either slightly less important or the degree of fulfilment is already higher.

#### **Implication and Recommendation**

My work serves as a guideline for watch companies seeking to become more sustainable. Future research should try to map and analyse the value and supply chain of a watch. Conducting Life Cycle Assessments of the different watches and raw materials help to reveal the impact of emissions. Additionally, exploring ways to promote the circular economy could lead to important findings, by reducing the demand for raw material extraction and advancing the development of sustainable and ethical watches.



Christoph Friedrich Klopfenstein Supply Chain and Process Engineering