

Green Fashion – Sustainable TCLF through Patents and Innovations

This project addresses how new fashion technologies (FashTech) and sustainable practices can transform the Textiles, Clothes, Leather, and Footwear (TCLF) sector. It aims to understand how innovations in fashion can help achieve sustainable development goals (SDGs) and how existing patent law can either support or hinder this shift. The focus is on Polish laws, with comparisons to those in selected EU countries, Brazil, Australia and the United States to uncover best practices.

The European Union's vision for 2030 is for textiles to be long-lasting, recyclable, primarily made from recycled materials, free of harmful substances and produced in a socially and environmentally friendly manner. Protecting and encouraging innovation through intellectual property rights (IPRs) is crucial for this vision. This project will explore how well current patent law frameworks support sustainable practices and suggest improvements to better align legal protections with the economic value of sustainable fashion. Additionally, the study will investigate how local patents can enhance the value of regional products, support local economies, and promote environmental stewardship in the TCLF sector.

Despite recent technological advancements in the apparel industry, with more environmentally focused patents and designs, current legal frameworks often fall short in encouraging sustainable innovation. This research will evaluate the effectiveness of patents in fostering sustainable fashion, aiming to bridge the gap between economic demands and legal protections.

The fashion industry faces significant environmental and social challenges, including excessive water use, toxic chemicals, labour exploitation, and massive waste generation. SDGs provide a roadmap to address these issues. Observations show a growing preference among younger consumers for sustainable products, shifting from high-volume to high-quality consumption. This trend, boosted by advancements in FashTech and a surge in sustainable practices during the COVID-19 pandemic, underscores the need for strong legal frameworks to support sustainable innovations.

The project will comprehensively analyse various aspects, starting with the shift from traditional 'clothing technology' to FashTech and its implications for intellectual property studies. It will review initiatives, recommendations and legal regulations in sustainable development relevant to the TCLF sector. Additionally, the study will examine patent registrations related to sustainable fashion. It will assess how patent law impacts circular economy practices such as recycling and upcycling.

Further analysis will cover the role of patents in protecting eco-friendly technologies and the importance of industrial designs in promoting sustainable fashion. The project will evaluate how green patents distinguish and protect sustainable brands. It will also consider the influence of open licensing models on transparency and collaboration.

The research will explore the role of patents in promoting region-specific sustainable fashion products and address legal responsibilities related to SDGs and greenwashing. Ultimately, the project aims to identify legal solutions that encourage sustainable fashion innovation and evaluate their effectiveness.

This study proposes that current Polish and European regulations do not sufficiently encourage or protect innovation in sustainable fashion due to a lack of clear legal frameworks, leading to a mismatch between legal norms and innovation. The goal is to suggest legal enhancements that support the TCLF sector's shift towards sustainable practices, integrating ecological lifestyles, corporate social responsibility, and responsible consumption trends.

A significant outcome of this research will be preparing a series of English-language articles to be published in renowned, widely accessible international scientific journals. These publications will help highlight the role of patents in enhancing market positioning through sustainability transformations. They will offer valuable insights into how effective legal protections can drive innovation and support adopting sustainable practices in the fashion industry.