



PIONEERING SUSTAINABLE TEXTILES TO REPLACE PLASTIC BASED ALTERNATIVES

Fiquetex

Colombia



Alejandro Moreno



Colombia is synonymous with the fique plant, whose fibrous leaves are often wasted during cultivation. Alejandro has spearheaded the use of fique leaves to manufacture vegan leather, and a versatile fabric suitable for use in packaging materials, carrier bags and footwear. These materials are sustainable, renewable, and compostable; free from plastics and animal products.

Fiquetex's disruptive business model is in alignment with the UN's Sustainable Development Goals (SDGs), encouraging responsible consumption and production, and mitigating the impact of climate change in vulnerable regions. Fiquetex additionally promotes the sustainable use of local ecosystems.

Manufacturers around the world are striving to source sustainable materials which don't contribute to climate change.

Fiquetex is currently in negotiations with manufacturers across four continents. Impoverished Colombian farmers have traditionally viewed crops like coca and marijuana as one of their few routes to profitability, but Alejandro has incentivised the growth of fique crops by paying above historic market rates. This is lifting farmers out of poverty while disincentivising urban flight, an issue which has created huge social challenges across Colombia and other developing nations.





The global drive to minimise plastic usage has become increasingly urgent amid growing awareness of plastic's impact on our oceans and environment.

Colombian textile engineer Alejandro Moreno was inspired to use a native plant to create environmentally sustainable textiles capable of replacing plastic-based alternatives. The resulting multinational business follows a circular economic model, removing CO₂ from the environment and creating invaluable opportunities for Colombian farmers.

Alejandro is an alumni of both the LIF programme and Frontiers, and is also a member of the LIF Community's Alumni Advisory Council (AAC). He is a passionate advocate of LIF: "My business knowledge was pretty narrow, but thanks to the Academy, I've learned a great deal. The respect you're given by people when they hear you're engaged with the Academy is unique." LIF also introduced him to key suppliers across Colombia, as well as engineers in related industries who have proactively helped to resolve manufacturing challenges.

He will run a UK-based company marketing Fiquetex's products, developing partnerships with European businesses while supplying the materials directly from Colombia. Both firms will champion a circular economy by manufacturing and selling compostable and sustainable materials which sequester CO₂ from the atmosphere, making a critical contribution to the battle against climate change.

The Royal Academy of Engineering's Leaders in Innovation Fellowships (LIF) programme supports talented entrepreneurs from around the globe to turn their engineering innovations into impactful, sustainable businesses.

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