Environmental Impact of Textile Waste: Implementing A Biodegradable Material for Sustainable Fashion

- ELECTRONICS ENGINEERING DEPARTMENT
- INGLÉS II
- MARCOS PENON - LAUTARO GUIGLIONI

- 2024

Introduction

Problem context

Textile Pollution

Introduction

Textile Pollution

Clothes made from Biodegradable material

Purpose of the project

The purpose of this project is to:

*Examine the environmental impact of the textile industry

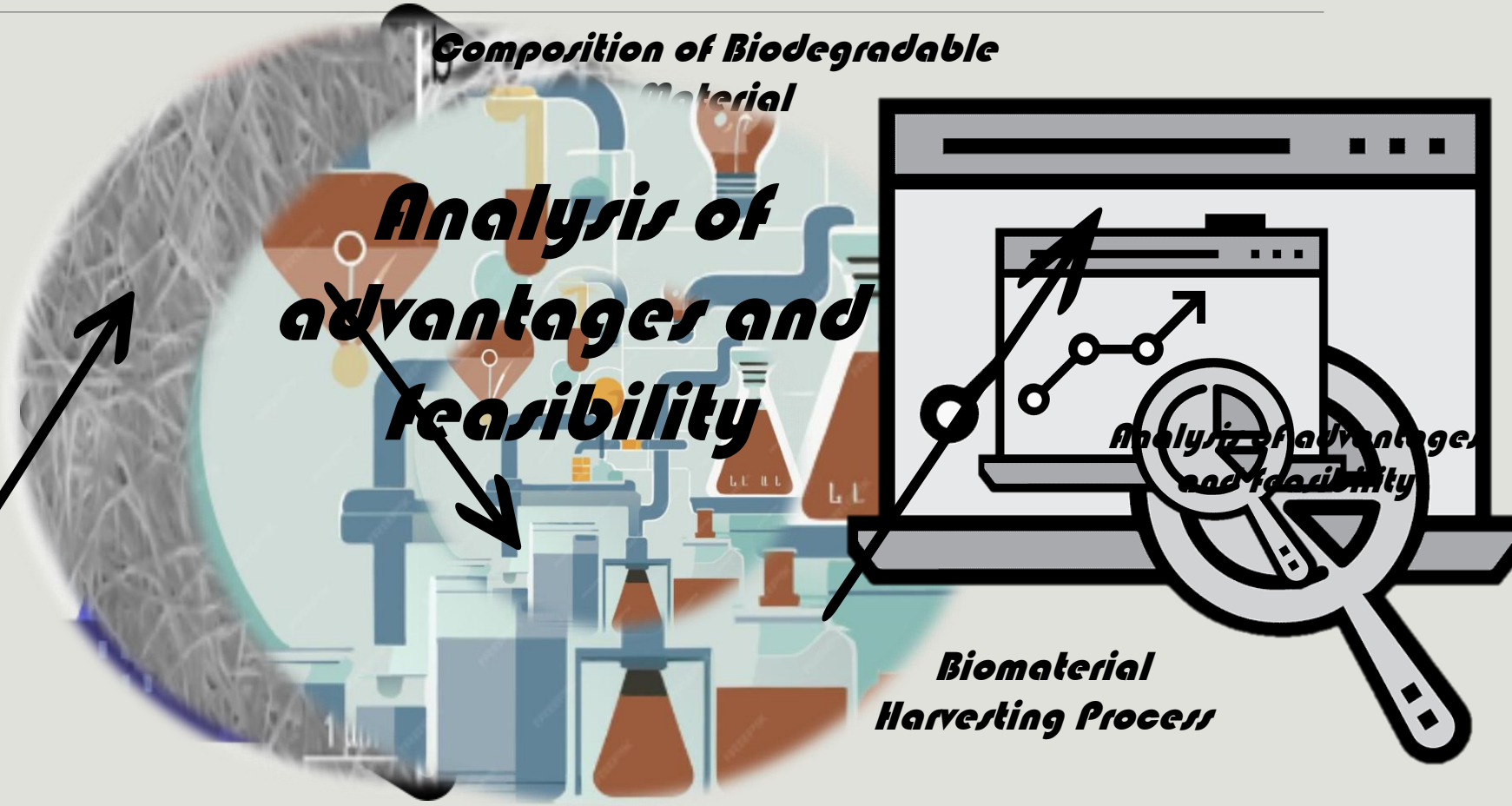
*Propose a sustainable alternative through the use of biodegradable materials, specifically bacterial cellulose.

*Reduce the environmental footprint of textile production

Map of Presentation

Problem of Textile Pollution

Improvement of The Textile Industry



Impact of this Project

The impact of the project aims to:

*Reduce textile production costs in the long term

*Decrease textile waste and pollution significantly

*Promote sustainable and ethical fashion practices

*Advance the application of biotechnology in industrial production

Problem of Textile Pollution

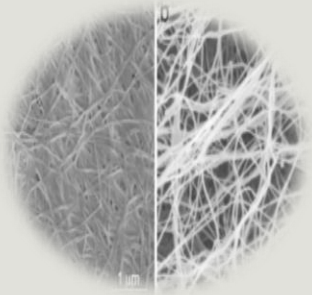
Textile chemical contamination

Huge waste of clothing

Improvement of The Textile Industry

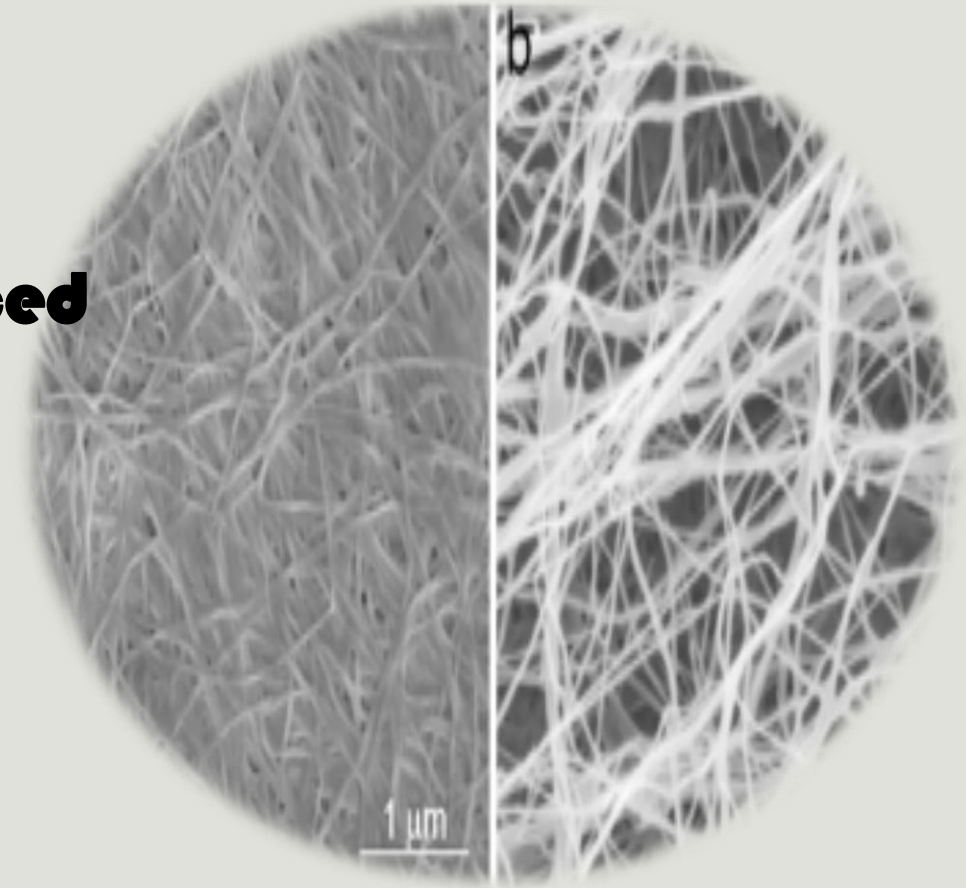
Change to sustainable raw materials

Incentive for new working methods



Material composition

Natural polymer produced by bacteria



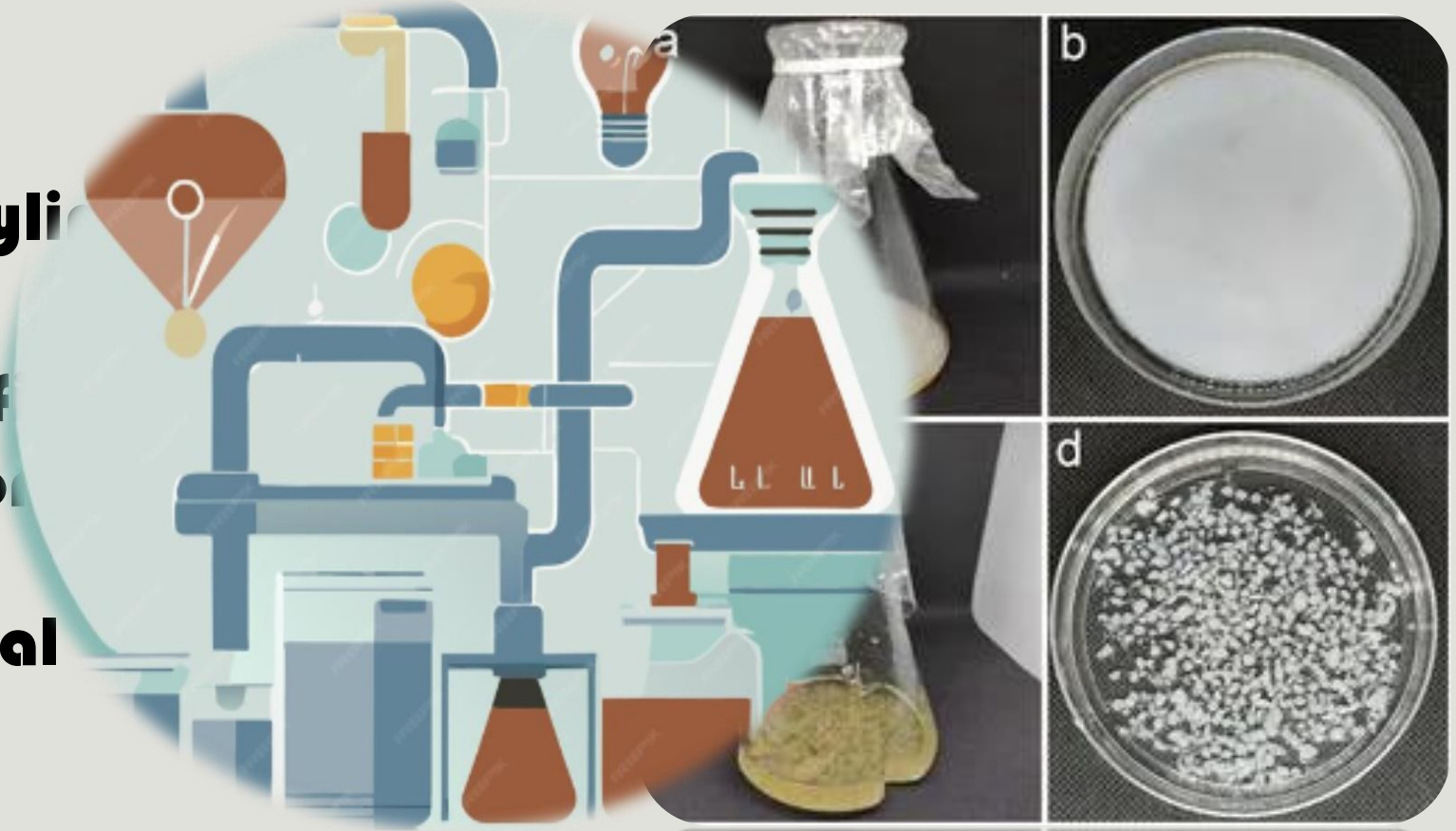
Harvesting proces

The proces consist of:

Cultivation of Gluconacetobacter xyli

Synthesis of cellulose f during fermentatio

Incorporation of natural dyes and ecological additives



Advantages and feasibility

Advantages

Renewable resource

Superior mechanical capabilities

Cleaner process

Natural decomposition

Advantages and feasibility

Feasibility

Production cost

Investment in development

Market acceptance

Conclusion

Although bacterial cellulose faces challenges such as high costs and market acceptance, research and investment can improve the viability and promote its adoption

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