



"Sustainable Design and Process in Textiles
for Higher Education"
greentex

GREEN

Jan 22 - Feb 5, 2024

TTF Gallery

EXHIBITION

Lodz University of Technology
Faculty of Material Technologies and Textile Design (LUT)

Technical University of Liberec
Faculty of Textile Engineering (TUL)

Kaunas University of Technology (KTU)

University of Zagreb
Faculty of Textile Technology (TTF)

University of Aveiro (UA)



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Partners of Erasmus+ project GreenTEX (2021-1-PL01-KA220-HED-000032201)



Lodz University
of Technology



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TUL

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- o Joana Rocha
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GREEN SUMMER SCHOOL RESULTS - "How to deal with textile waste?"

International Green Summer School, University of Aveiro, Department of Economics, Management, Industrial Engineering and Tourism (DEGEIT), Aveiro, Portugal, September 4-8, 2023. 25 students from partner universities divided in 5 international teams gave the answer to the challenge "How to deal with textile waste?" under supervision of 11 international mentors.

| TEAM 1 | TEAM 2 | TEAM 3 |
|--|--|--|
| Zuzanna Niesyto (LUT) Miša Rýdlová (TUL) Laura Kondrataite (KTU) Klarisa Čop (TTF) Bernardo Ye (UA) | Barbara Boltryk (LUT) Ondrej Ludin (TUL) Emilija Sadauskaite (KTU) Antonija Tominac (TTF) | Weronika Józwiak (LUT) Iaroslava Kalugina (TUL) Kamilė Rentauskaitė (KTU) Martina Ivančić (TTF) Márcia Pereira (UA) |

ComfyTex

Co-funded by the European Union

DEFINING THE GOAL

- Lower the textile waste
- Comfortable area in waiting rooms
- Cooperation of industry and people

FOR WHO AND HOW?

- Persona - help and inspiration in creating our idea
- Collecting textile places should have containers
- Education of industry - how to make an idea practical

CONCEPT DEVELOPMENT

- Often feel discomfort in specific types of seats
- Usually have a large quantity of unused textiles
- Wants to take advantage of this situation to help to reuse textiles

COOPERATORS & INVESTORS

- People - donation of textiles
- Charity foundation - raising money for education
- Industry - making pillows
- European Union projects

SOLUTION & SUMMARY

- Making pillows (improvement after the first prototype (quality design))

Project would help in providing comfortability and inclusion people in environmental movement

BEFORE **AFTER**

SUSTAINed

SUSTAINability

1. Textile waste is a global problem. It is estimated that 92 million tons of textile waste are generated each year. This waste ends up in landfills or incinerated, contributing to greenhouse gas emissions and environmental pollution.
2. Textile waste is a significant source of microplastics, which are harmful to the environment and human health.
3. Textile waste is a valuable resource that can be recycled into new products, reducing the need for virgin materials and saving energy.
4. Textile waste is a source of fiber and yarn that can be used to create new products, such as clothing, bags, and home textiles.
5. Textile waste is a source of energy that can be used to generate electricity or heat, reducing the need for fossil fuels.
6. Textile waste is a source of raw materials that can be used to create new products, such as paper, cardboard, and bio-plastics.

TEXTILE waste

- 85% of textile waste is incinerated or landfilled, with only 15% being recycled.
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ReFabric

Problem

The textile industry is one of the most polluting industries in the world, generating a massive amount of waste each year. This waste ends up in landfills or incinerated, contributing to greenhouse gas emissions and environmental pollution.

Idea

The idea is to create a sustainable textile recycling system that can collect and process textile waste into new products, reducing the need for virgin materials and saving energy.

Solution

The solution is to create a sustainable textile recycling system that can collect and process textile waste into new products, reducing the need for virgin materials and saving energy.

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| TEAM 4 |
|--|
| Hanna Marczak (LUT) Laura Vličková (TUL) Vykintė Trakšelytė (KTU) Nika Usmiani (TTF) Martina Manzo (UA) |

POINTEX

The problem

People who want to give textiles a second life often lack the information about the places where they can give them away.

Our challenge

Making reusing clothes more practical and accessible for people.

The Solution

The PoinTEX app includes a map which shows and navigates the users towards many "textile points" where various textiles are collected and donated for further use. The "textile points" consist of bins and donation centers. The map also shows approved sustainable stores to make shopping more conscious. The app is accessible to everyone. It starts locally with potential to grow.

Contribution

The app users are guided to systematically give the textiles away, so they don't end up in landfills or trash.

Download the app now

Co-funded by the European Union

| TEAM 5 |
|--|
| Khushi Mishra, Cezary Dębowski (LUT) Agáta Nosálová (TUL) Ieva Poškutė (KTU) Lea Beličev (TTF) Eduardo Rodrigues (UA) |

Little scraps Big problem

Garment Industry

Clothes are an essential part of our daily lives. Since it is an inevitable part of our lives, the clothing industry creates a lot of waste that in the end has no function and is left on the landfill. So, in order to reduce the amount of waste in clothing industry it was necessary to use the waste and give it a purpose.

Stuffing industry

Stuff toys are a big part of our lives, especially in our childhood. Majority of people get emotional attached to these stuffed friends and are not willing to give it up so easily. They tend to keep, preserve and give them to their children. The production of plush toys from the waste of clothing industry enables not only a drastic reduction of waste in the industry, but also makes everyone's plush toy to be special and unique.

The Garment Industry pays for recycling their waste. The Stuffing industry spends on buying the material for their products. The scraps from the garment can be used as stuffing material. This interdependence between clothing and stuffing industry is sustainable, economical and ethical.

Teddy bear is an example of what can be made out of scraps of clothing industry. Textile scraps can be used for vast variety of products for example stuffing animal beds, toys etc.

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Teachers/mentors: LUT: Monika Malinowska-Olszowy, Katarzyna Zimna, Krzysztof Jastrzębski; TUL: Jana Drasarova, Zuzana Vesela; KTU: Rimvydas Milašius, Daiva Mikučionienė; TTF: Ana Sutlović, Ivana Čorak; UA: Margarita Robaina, Elisabeth Pereira

2. REUSED & RECYCLED DENIM

RECYCLED DENIM, REUSED DENIM & ZERO WASTE PATTERNING



Anna Strířová



Teachers: Pavla Těšinová, Jana Drařarová, Zuzana Veselá, Eliřka Látalová (LUT)

REUSED DENIM AS A MULTIFUNCTIONAL PRODUCTS



Mihaela Juraković



Kruno Jendrijev



Nives Pogačić



Ayna Emina Kapetanović



Selma Imamagić



Teacher: Tihana Dekanić (TTF)

3. NATURAL DYES

„ONLY NATURAL - hygienic mask dyed with natural dyes“



Student project

Valentina Ferenčak,
Selma Imamagić,
Robert Matašić,
Anja Miljković,
Tena Omerović,
Ivona Pranjić,
Ivana Škaper,
Karmela Wolff

Coordination: Ana Sutlović, Teachers: Slavica Bogović, Lea Botteri, Snježana Brnada, Tihana Dekanić, Sanja Ercegović Ražić, Martinia Ira Glogar, Alica Grilec, Željko Knežić, Koraljka Kovač Dugandžić, Lea Popinjač, Ivan Beritić, Branka Brkić, Iva Brlek, Tea Kaurin, Veronika Lovreškov, Anja Ludaš (TTF)