



SUSTRAINY

Sustainable action Training for Youth



Co-funded by the
Erasmus+ Programme
of the European Union

SUSTRAINY PROJECT



PANORAMA OF SUSTAINABLE BUSINESSES PRACTICES

**FABLAB POWERED BY
ORANGE - DIGITAL
FABRICATION**

The project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



FabLab powered by Orange - Digital fabrication



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Category – Key words	DIY, Open Source, Digital Fabrication, Innovation, Collaboration, Peer Production, Sharing Economy
Who?	FabLab powered by Orange (Warsaw)
Location	Poland
Years of implementation	From 2017 - ongoing
Website	https://fablabwarszawa.pl/strona-glowna



Abstract

Situation

In recent decades, the digital revolution has operated a shift between technologies, leading to the digitization of computation and communication. Neil Gershenfeld, professor at MIT, strongly believed in teaching future generations how to use and create technologies tailored to local or personal needs that the mass market wasn't providing. Digital fabrication under the form of FabLabs has emerged worldwide and their number doubles every year and a half. The first fab lab started as an educational outreach component and progressively became a prototyping platform promoting local entrepreneurship forming a solid network of approximately 1500 FabLabs worldwide. Educational institutions such as schools, colleges and universities have become interested in the hands-on training provided by FabLabs, some even hosted the innovative spaces on their campus.

FabLabs are small-scale workshops designed to educate, innovate and invent by using technology and digital fabrication tools as well as financial means to “make almost anything”. Key principles such as DIY (Do It Yourself) and DIWO (Do It With Others) make FabLabs an open space to meet with likeminded people and exchange ideas.

Design and Implementation

FabLab powered by Orange is open to anyone and provides a large array of options:

- Different rooms dedicated to digital fabrication, craft, electronics, programming...
- Workshops designed for all kinds of audience: women who want to expand their competences required by the modern labor market, young people in upbringing situations, intergenerational audience...

Funding:

It was created in Warsaw by:

- the Orange Foundation (modern education of children and youth.)
- Robisz.to Association (education in the field of new technologies and prototyping)



Concept Addressed

FabLab powered by Orange in Warsaw provides 3D printers, laser plotters, CNC milling machines, electronics... These state-of-the-art resources are available to empower all the “makers” regardless of their skills and experience, to create their own smart devices for finding solutions to their own problems in the most sustainable way.

Relevance

Added value:

- Social impact:
 - Create communities through hands-on experimentation and inspirational exchange
 - Educate of people on new technologies by providing state-of-the-arts tools and equipment
 - Provide vibrating spaces to learn with and from each other on various topics
- Economic impact:
 - Compete with mass market by enabling individuals to design in a creative manner a solution adapted to their problems
 - Overcome the poor availability of spare parts that the market does not provide
 - Help and support local entrepreneurs with an open access to equipment and support in the creative process
- Environmental impact:
 - Support repair culture with retro-engineering of complex and expensive designs to make them available as open source designs for emergent needs
 - Recycle of old materials to prevent waste-management

Challenges to be able to apply and / or improve this type of circular action:

- Find long-term investors and partners to ensure sustainability of the FabLab
- Provide appropriate training for staff and users
- Need to educate and promote FabLab culture (= moving away from traditional consumption model)
- Promote environmental-friendly practices



Tips to implement

- Minimising the waste by collecting materials from local businesses
- Establish partnerships with local individuals/institutions sharing the same core values (zero-waste, creativity, innovation): NGOs, artists... to provide interdisciplinary workshops, courses and exchanges

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