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# PRACTICES TO PROMOTING EDUCATIONAL AND SOCIAL INCLUSION

CRF Cooperative Society Finalized Research  
Research Body pursuant to the European Directive 2006/C 323/01 EC 800/2008 Regulation

# CRF MISSION

- ✓ Stimulate
  - ✓ Practical application
- ✓ Deepen
  - ✓ The individual subjects
- ✓ Empower
  - ✓ Giving value to the rules

## Addressed to:

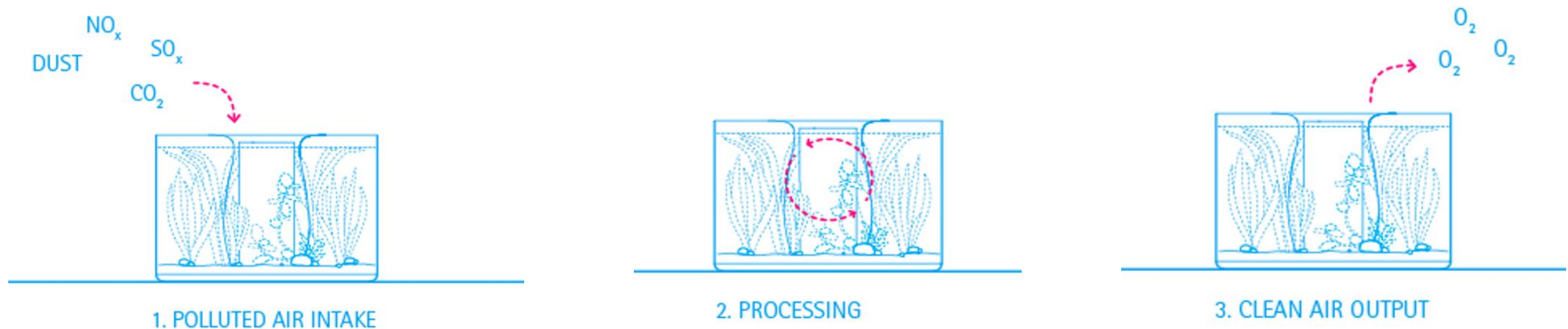
- ✓ Students
- ✓ Disadvantaged subjects
- ✓ Disabled people

Educational aquarium

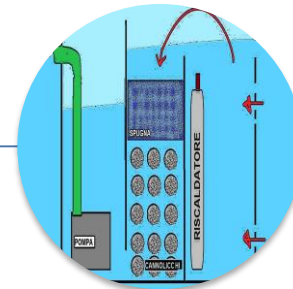
# The project

The project called *Educational Aquarium* consists in an aquarium-type device acting as an air purification system of a confined environment.

This particular and innovative aquarium system is a biochemical washing system based on the capacity of water to remove airborne pollutants from the air. The living biomass of the aquarium carries out the biochemical depuration of the water



# THE PROGRAM



- **KNOWLEDGE**
  - of the mechanisms



- **MANAGEMENT**
- development of tasks

# THE PROGRAM

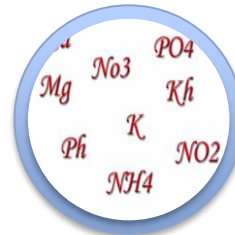
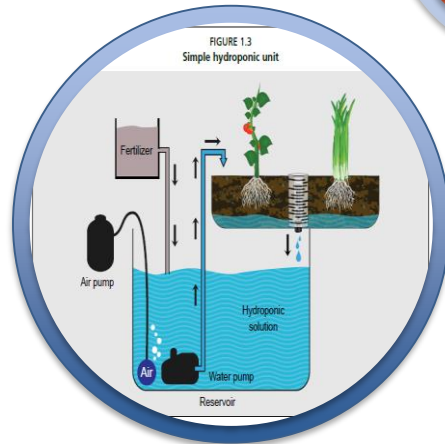
The first part of the project focuses on understanding the aquarium ecosystem as a useful teaching tool to develop knowledge about the functioning and management mechanisms of virtuous cycles that spontaneously establish themselves in nature.

The second part of the project aims to investigate the innovative aspects related to the effectiveness of the proposed system to remove airborne pollutants.

# THE PROGRAM

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- components



- parameters

# TARGETS

The goal is to create a model of *non-formal education*, mainly aimed at stimulating in the students the practical application of disciplinary subjects (mathematics, physics, chemistry, biology) through their implications on a real case.

- ✓ To encourage the orientation of students to enhance personal vocations and individual interests.
- ✓ Increase motivation with regard to scientific commitment.
- ✓ Learn to recognize the value of rules and personal responsibility; become actively and consciously involved in the project, with a spirit of initiative and collaboration.
- ✓ Improvement of communication and team-work skills.



*3i* Lab

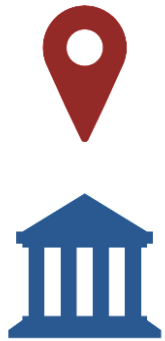
# The project

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3iLab is a lab designed to transfer to its users the know-how and skills necessary to use machines and digital technologies on their own.

3iLab also represents an effective business incubator and a co-working structure to start an entrepreneurial activity or to support the development phase of a new product.

3iLAB proposes itself as an aggregation space, combining performative events and recreational activities to be proposed also to disadvantaged people, in order to train them and promote their job placement.



## EQUIPMENTS AND PREMISES



### DIGITAL LABORATORY:

- 3D PRINTERS
- LASER CUT
- CNC



### COMPUTER/INTERNET STATION:

- DESK
- WIFI
- RELEASE



### TRAINING AREA:

- MEETING ROOM
- BREAK ROOM
- SHARED ENVIRONMENT

# THE PROGRAM



TO PRODUCE  
with new  
technologies

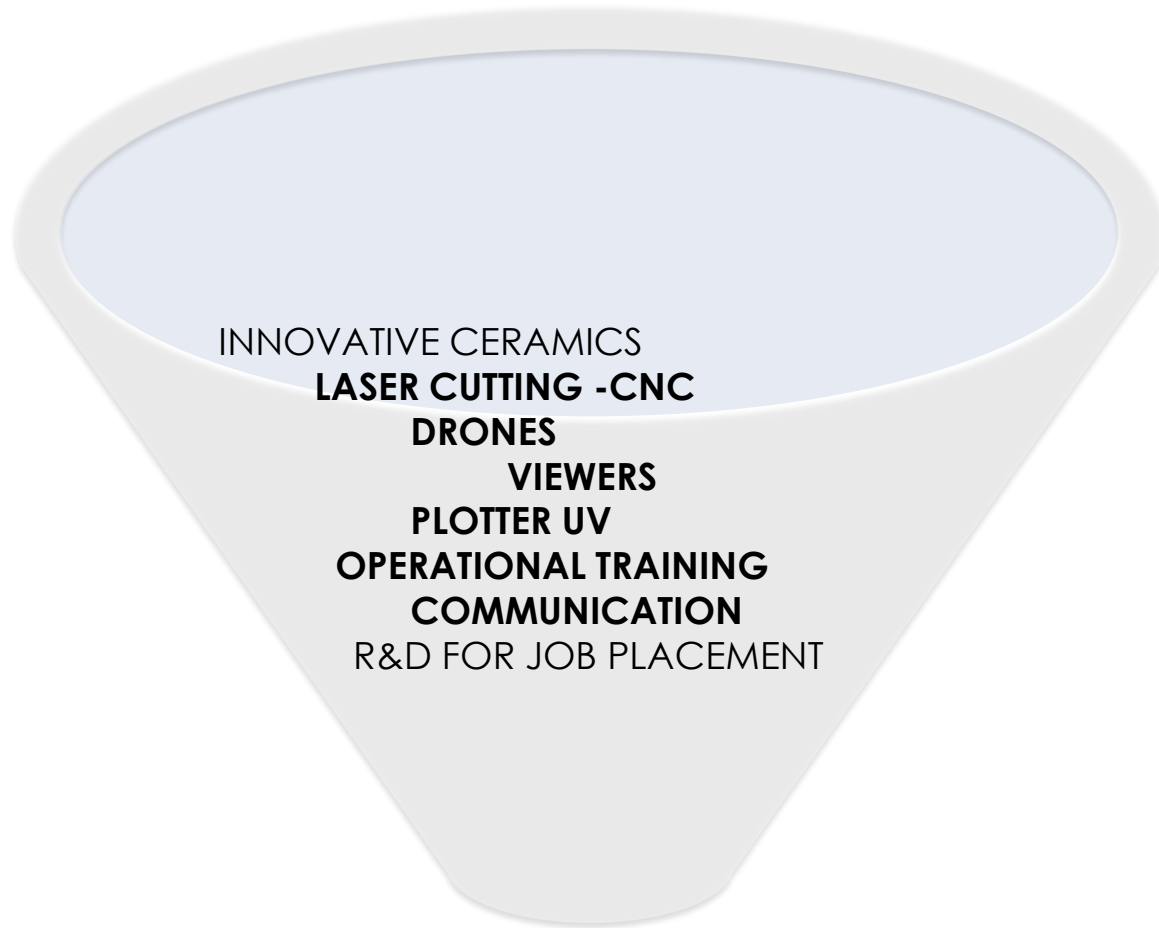


TO DEVELOP  
New  
projects

# TARGETS

The goal of the project is to build up and manage a laboratory for research, training and prototyping activities in order to promote social inclusion.

At 3iLab there are work benches, instrumentation, equipment and CNC machines that allow the creation of artifacts through rapid prototyping techniques supported by digital technologies: 3D printers, numerical control machines, laser cutting machines, UV plotters, VR headset for augmented and virtual reality, drones.



INNOVATIVE CERAMICS

**LASER CUTTING -CNC**

**DRONES**

**VIEWERS**

**PLOTTER UV**

**OPERATIONAL TRAINING**

**COMMUNICATION**

R&D FOR JOB PLACEMENT



**3i LAB**



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