

# REFITTING MACHINE

**Arduino expert for the recovery of obsolete machines**

## The Toolkit

To provide high-quality knowledge and skills needed to modernize existing machinery in order to make them “smart” and more adapted to the nowadays requirements of the manufacturing industry.

## ICT Tool

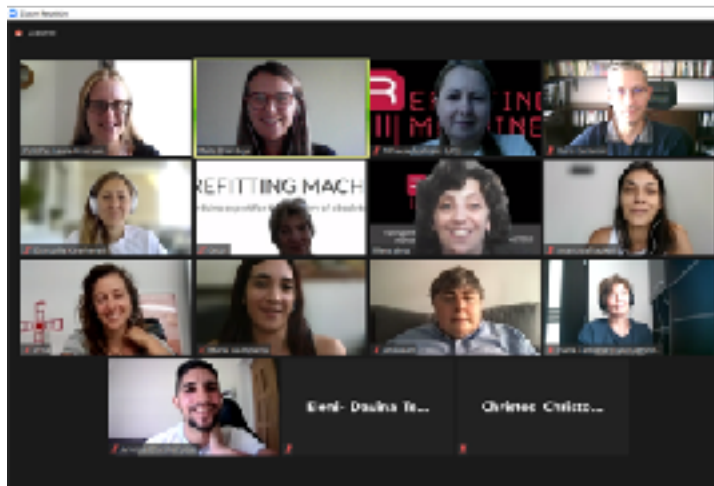
The tool for Competence Assessment to evaluate the knowledge and starting skills of the educators, identify the needs of the specific target in order to provide them with useful skills so that they can enter the world of work.

## e-Learning Platform

An open education digital platform for the provision of the training material developed throughout the project.

## Training of refitting Machines Trainers Reduce, Reuse and Recycle

From 8th to 10th of September 2021 members of the REFITTING MACHINE partnership participated in a series of training workshops and presentations to share their knowledge and expertise in the project field. The training was on Zoom and was coordinated by the Italian project coordinator Petit Pas. During the 3 days participants shared ideas and information and developed aptitudes and skills which are necessary to improve their capacity to efficiently use the resources created.



Among the workshops we can mention the assessment tools for technical competences, the testing phase which provides feedback on current levels of expertise, the gamified e-learning platform. Ludor hosted a presentation on the design and engineering of simple parts needed for machinery revamping & 3D printing for production of the parts needed for machinery revamping.

The second day started with presentations on the effects and advantages of using technology that is useful for machinery revamping. The discussion focussed on the social, economic and ecological impact that the revamping process entails, exemplified and highlighting benefits with case studies. The last day of the training focussed on practical aspects, hardware components and software programs relevant for the machinery revamping process, supporting the claim that the revamping process does have a very beneficial effect on both environment and the users.



Presentations included practical tasks that contributed to a nice, interactive and relaxed atmosphere and films highlighted the importance of developing modernized equipment by reusing all the valid pieces that can be used.

At the end of each day a feedback session was organised where all participants mentioned the most important ideas and stated their personal opinions.

## REFITTING MACHINE BLOG

Don't forget to have a look also, at our **blog**! The partners of the "Refitting Machine" project are committed to post constantly updates and interesting articles about Arduino, technology, and machinery revamping. Our latest articles focus upon Circular Economy, digital and STEM education, engineering, and many more.



To keep track of all the activities implemented in the "Refitting Machine - Arduino expert for the recovery of obsolete machines" project, stay tuned in our [website](#) and see how the learning path is going further!

**PROJECT PARTNERS**



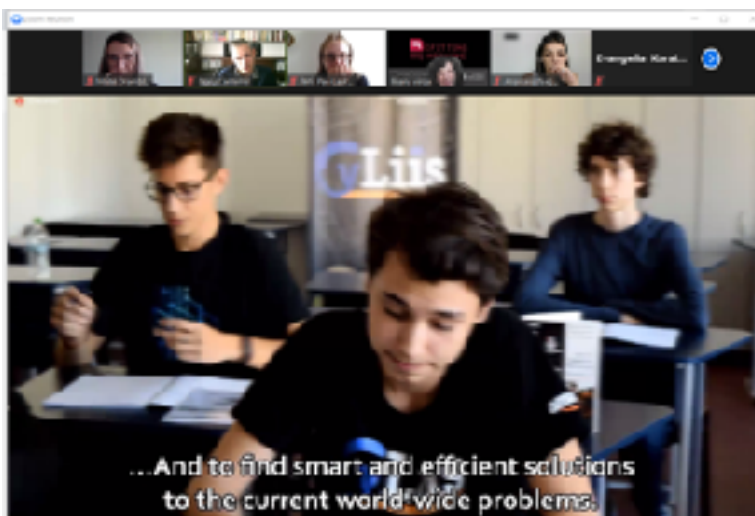
**VISIT OUR NEW WEBSITE:**



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**International Pilot Testing**

In March - May 2021 a piloting session was organised at the level of the partnership where all project organisations tested the designed modules and IOs on a minimum set of 20 participants and coordinated by specialists in STEM fields. Due to the international situation that did not allow at the time face to face meeting the testing was done online. The test contained two parts: the first that tested IO1 and IO3, the curricula and the gamified platform and the second that tested IO2 (ICT TOOL). Students were presented a pre and post questionnaire to assess their knowledge in the field and had to create accounts on both platforms. The feedback was collected at the level of partnership and national reports were designed to allow for the fine-tuning of the IOs.



LIIS and Ludor decided to test as a joint effort and selected students with a background in STEM ages 16-19. The students created accounts and went through the proposed modules showing interest in the case studies presented. Even if most of them have a good command of IT skills they found the information presented to be very useful and the platforms extremely interactive. All activities were performed online, the questionnaires applied were created with google forms, students were directed towards the project site to find out about the activities of the project