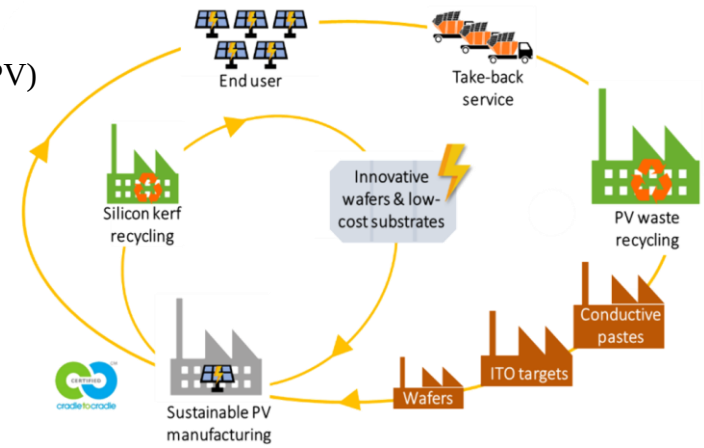
Recycling of silicon based PV modules

A. Main topics

- Exploitation of photovoltaic (PV) wastes as feedstock for the production of new PV panels
- importance of PV recycling processes in the circular economy world



B. targeted audience

- 14-19 years old students

C. Key concepts

- Recycling and reusing
- Importance of PV wastes in the circular economy world

D. Experimental activity

In this experiment, the pupils will firstly assemble and then disassemble a PV mini-panel in order to understand the basic principles behind the important recycling process of PV wastes. The aim of this activity is that the students see first-hand how massive wastes can be managed in order to recovery very important raw materials.
This toolkit, written both in English and in Italian, is very comprehensive and the activities can be carried out by participants from 14 to 19 years old. The deepening of the topics related to the experiment may be done according to the age of the participants.

E. Toolkit material

- Protection glasses and disposable gloves
- 1 domestic flatiron
- 1 wooden cutting board or 1 ceramic tile to be used as heat resistant support
- 2 heat resistant gloves for temperatures up to 250°C (for example, https://www.amazon.co.uk/Karrong-Grilling-Resistant-Certified-Cooking/dp/B07MG5VP97/ref=pd_sbs_201_t_2/257-8358483-1927243?_encoding=UTF8&pd_rd_i=B07MG5VP97&pd_rd_r=87cd134c-97e2-422a-98a6-5852e175b295&pd_rd_w=nNKa7&pd_rd_wg=88DZO&pf_rd_p=e44592b5-e56d-

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44c2-a4f9-dbdc09b29395&pf_rd_r=RNCAWKV8HBP0ZXM42EEC&psc=1&refRID=RNCAWKV8HBP0ZXM42EEC, cost £ 9.99)

- 2 glass slices, 2 EVA sheets and 1 silicon solar cells for each mini-module (these items of course are not available on the market, so please ask by email the RM ambassadors responsible for this toolkit and they'll send them to your school as soon as possible)

F. RM Tutors

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