

RECUPERACIÓ DE PANELLS FOTOVOLTAICS

CIP ECOINNOVATION First application and market replication projects Call 2012

PV-Mo.Re.De. is a mobile plant for the recycling of disused photovoltaic modules aimed at recovering raw materials and energy

Recovery of waste:

- Aluminum
- Glass
- Copper
- Fotosensible metals
- Light Compounds: plastics like EV, Tedlar, silicones



Quantification of the **environmental and economic impact** of recycling PV panels

PARTNERS :



ITALIA
FRANÇA

INNOVATIVE AND SUPERIOR TECNICAL SOLUTION





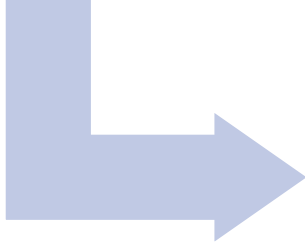
Three metal boxes
(first trimming, grinding, metals split up and service area)



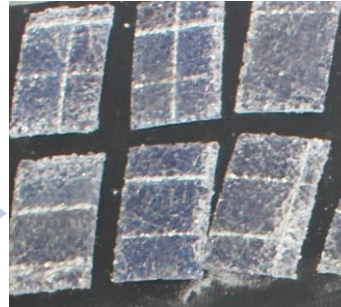
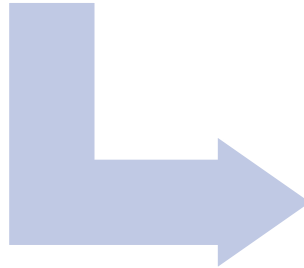
Side doors (2 on every box)




- **WEIGHTING and CLEANING UP : ALUMINUM FRAME EXTRACTION**



- **FEEDING PANEL TO MACHINE and REDUCTION - 100x100 mm PIECES**





STAGE 1
CRASHING and SUCTION
25mm HOLES SCREENING OF
THE MATERIAL
SUCTION THROUGH 6mm
HOLES



STAGE 2
CRUSHING THROUGH
HAMMER MILL and
VIBRATION SCREEN
FOR SEPARATION OF
MATERIALS <2mm



FIRST MATERIAL
GLASS 6mm
READY FOR BAKING

OTHER MATERIALS
6mm FRACTION
READY FOR STAGE 2



SECOND MATERIAL
CDR –
substitute fuels
for amounts
> 2mm

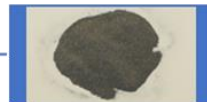


CIRCULAR SCREENING
THREE SEPARATION STAGES

FIRST STAGE
2-0.5mm
PLASTIC and
COPPER

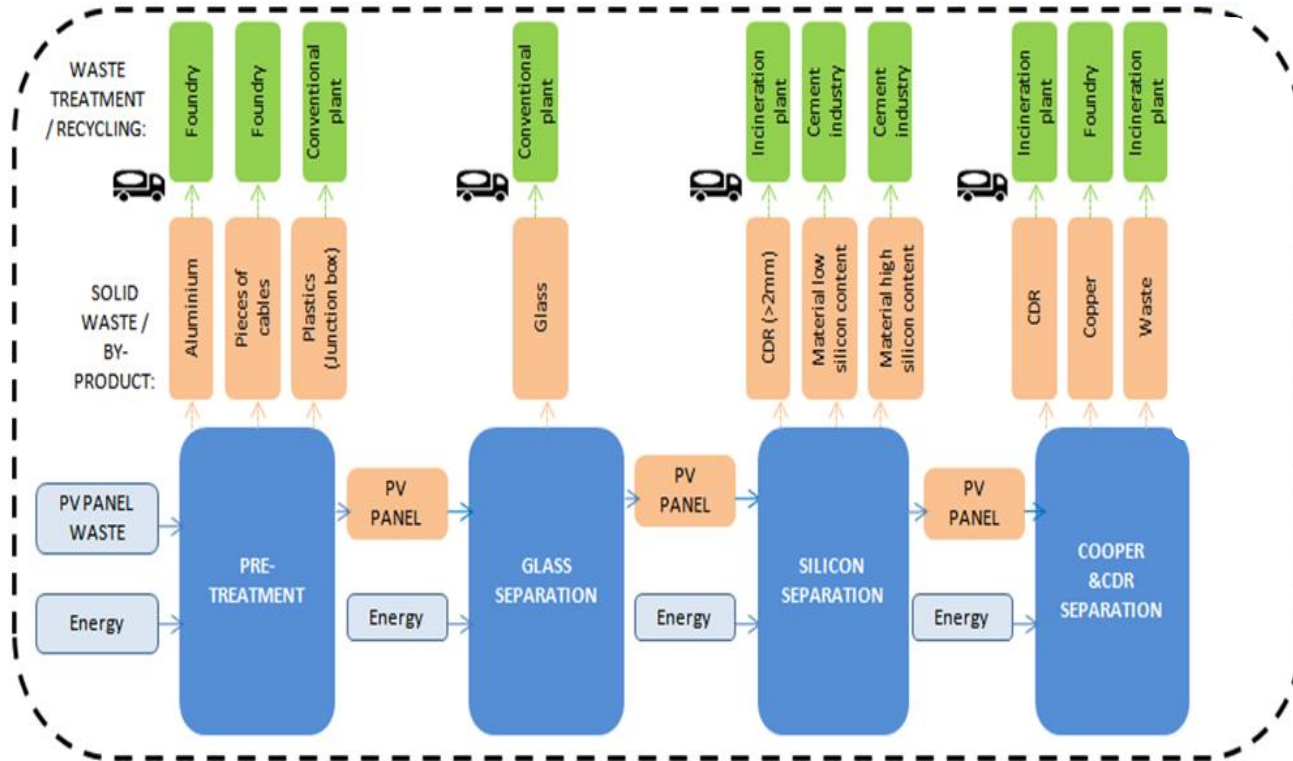


SECOND STAGE 0.5-
0.315mm
PHOTOACTIVE DUST
and PLASTICS



THIRD STAGE
<0.315mm
PHOTOACTIVE DUST

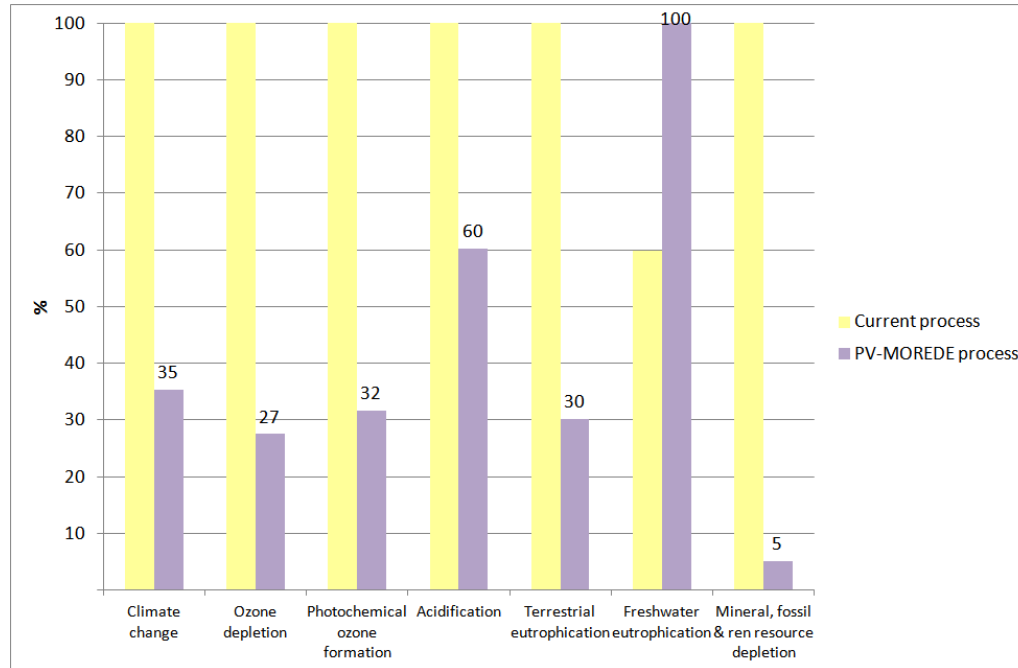




THE FUNCTION:
is to treat first generation PV Panels (c-Si) /obtain different types of recoverable waste products: glass, plastics, copper, silicon.

FUNTIONAL UNIT :
To treat 20 kg of a PV waste panel

Comparativa entre reciclatge convencional i PV-MOREDE



DISSENY PEL DESMUNTATGE

R+D+i

Economia Circular

NOUS MATERIALS

Ecodisseny

Eficiència

*Recerca
avançada*

RECICLABILITAT

Sostenibilitat

SEGONA VIDA

Energies renovables

**DISSENY PER LA
RECICLABILITAT**

integració

Flexibilitat

Residu=Recurs

Reutilització

LEITAT

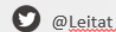
managing technologies



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