

MAJORCA® 

**Work programme:**

The project started on 01/07/2012  
and will end on 30/06/2014



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA



UNIVERSITÀ DEGLI STUDI  
DI MODENA E REGGIO EMILIA

MAMMA  
ROSA'S  project



**Project objectives**

The main project objective is to drastically reduce the use of non-renewable resources in the manufacturing of a new family of ceramic-tile-like wall and floor coverings.

**Environmental problem targeted**

The environmental problem is the current enormous consumption of non renewable resources, raw materials of natural origin in primis, used to manufacture ceramic coverings, like wall and floor tiles. Considering that the high quality tiles (porcelainized stoneware) have a surface density of 27 kg/square metres, and that the EU production exceeds the 700 millions of square metres, it is evident that such kind of manufacturing activity absorbs huge quantities of valuable materials like sands, feldspars, alumina, zirconia, mullite, clays, not to speak of the water used during processing.

**LIFE11 ENV/IT/036**

**“Low Resources  
Low Energy”**

**Expected results**

- Reduction of non renewable raw materials resources up to 82% weight compared to conventional
- Setup of a demonstrative line for conversion of glass-based waste
- Substitution of currently used natural or synthetic raw materials
- Reduction of energy consumption during firing of the coverings
- CO2 emissions will be lowered
- Complete recyclability of the product at its end of life
- Reduction of energy consumption also in milling operations
- Lower manufacturing cost of the coverings
- Possibility of obtaining curved shapes (for instance to cover columns) by hot bending of the tile, under an applied pressure.