



**INTERUNIVERSITY PHD COURSE**  
**“SUSTAINABLE LAND MANAGEMENT”**

**Cycle XXXVI**

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<b>Title of the Research Project</b>	Comparative analysis of renewable energy systems for agro-industry buildings.
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**Summary of the Research Project**

In literature reported studies show a profound transformation of the agri-food production sector, becoming into the energetic high consumption production sectors and therefore with high CO<sub>2</sub> emissions.

The energetic consumption and its pollutions depend on type industrial productivity.

For example, such as production and preservation of meat and dairy products, energetic consumption rates are particularly high.

A sustainable vision involves the use of renewable energy sources, which must be integrated into harmonious way with the production building, in turn made more efficient with various solutions to increase energetic efficiency in some sectors of the agri food industry, distinguishing them mainly by production type.

The research will be carried out both using simulation software for efficiency energetic interventions, and experimental collected data at the Experimental Center of the University of Bari, in Valenzano.

A comparative analysis of the data's experimental test will be performed with the data found in literature and simulation results.

In particular on the basis of the energetic efficiency interventions to be carried out in the sectors existing production plants in the area, also allowing us to be able to make a budget energy requirement and savings potential.

The obtained data will be compared with respect to some realities of the sector at national level.