4F CROPS
Future Crops for Food, Feed, Fiber and Fuel

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The 4FCROPS project is being funded by 7th Framework Programme (DG Research, KBBE)

4FCROPS is a coordination and support action project (Grant Agreement no 212811)

The project started in the beginning of June 2008 and will last 30 months.

The total budget is 998.520 euros

The consortium is consisted by 12 partners (six Universities and six research organizations or institutes)

The project website is [www.4fcrops.eu](http://www.4fcrops.eu)
The Consortium

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<th>Partners</th>
<th>Country</th>
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<tr>
<td>Center for Renewable Energy Sources - CRES (coordinator)</td>
<td>Greece</td>
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<tr>
<td>University of Catania - UNI.CT</td>
<td>Italy</td>
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<td>Agricultural University if Athens - AUA</td>
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<td>Institute for Energy and Environmental Research - IFEU</td>
<td>Germany</td>
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<td>Agro technology &amp; Food - A&amp;F</td>
<td>Netherlands</td>
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<td>University of Bologna - UNIBO</td>
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<td>National Institute for Agricultural Research - INIA</td>
<td>Spain</td>
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<td>University of Lisbon - UniNOVA</td>
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<td>Institute of Natural Fibres - INF</td>
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<td>University of Agricultural Science in Bucharest - UASB</td>
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<td>National Agricultural Research Foundation - NAGREF</td>
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<td>Baltic Renewable Energy Centre - EC BREC</td>
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FOOD  FEED  FIBER  FUEL
The **main aim** of the 4F CROPS project is to survey and analyze all the parameters that will play an important role in successful non-food cropping systems in the agriculture of EU27 alongside the existing food crop systems.

The **expected impact** of the 4F CROPS project through its main objective is to prove that a competitive bioeconomy though the production of biofuels and biobased products is a viable option for Europe.
Why there is a need for the cultivation of the non-food crops (fiber and fuel crops)?

The need for the cultivation of the non-food crops is supported by the following facts:

- The reform of CAP is going to lead to the release of agricultural arable land
- There is an increasing need for fibers crops (to cover the needs for biobased products)
- There is a need for biofuels that will be produced from dedicated crops (for 2020 the target for biofuels is 10%)
- The climate change is going to force especially the south Europe to shift to other cultivations that will need less water, nitrogen that will have salt tolerance, in other words crops that will not need intensive cultivation
Specific objectives

To review of the **current situation of the Land Use in EU 27** (now, 2020 and 2030) and to assess the **land availability for non-food cropping systems** (WP1 - Land Use in EU27).

To assess the **cropping possibilities of the non-food crops** in the existing agricultural systems (WP2 - Cropping Possibilities).

To carry out a comparative **cost analysis of the food and non-food crops** in short and long term consideration and to evaluate the most critical **socio-economic parameters** (WP3 - Economic analysis and socio-economics impacts).

To evaluate of the most important environmental by means of an **Environmental Impact Assessment (EIA)** and a **Life Cycle Analysis (LCA)** and to indentify **the best options** (WP4 - Environmental analysis).
Specific objectives

- To record the existing policies, the driving forces for the future crops and to make recommendations for measures that should be taken for the co-existence of food and non-food crops (WP5 - Regulatory framework).

- Development of scenarios for promising non-food cropping alongside food cropping systems, be defining systems’ boundaries and evaluating the priorities and trends, in short and long time frameworks (WP6 - Best practices scenarios).

- To disseminate the project findings through the website development, the projects workshops, articles, presentations, fact sheets, leaflets, links with previous and on-going activities, etc. (WP7 - Dissemination and Support actions).
The concept

Apart from food and feed crops, there is a need for growing non-food crops (fibre and fuel crops).

The “4F CROPS” project will

Survey and analyze all the parameters that will play an important role in a successful non-food cropping system alongside the existing food crop system.

The output of the project will be:

Formation of scenarios for successful food and non-food cropping systems taking under consideration the technical parameters (which crops, in which rotation systems, logistics, the role of biotechnology), socio-economics aspects (cost analysis, public acceptance, rural development, farmers income etc), environmental aspects (sustainability), regulatory aspects (co-existence and safety measures when crops using for both food and non-food uses).
Key element to the success of 4FCROPS have the thematic workshops and the Scientific Committee

1st Workshop (17/9/08, Bologna) “Market need of non-food crops and available land use in EU27”

2nd Workshop (24/3/09, Madrid) “Future non-food crops (fibre and fuel) in EU27”

5th Workshop (19/11/2010, Lisbon) “Successful scenarios for the establishment of non-food crops”


3rd Workshop (17/11/09, Poznan) “Can the production of non-food crops be environmentally friendly and economically viable”
Management of 4FCROPS

- A Steering Committee (SC) was nominated made up of Work Packages Leaders and the Coordinator.

- Additionally, to the Steering Committee a Scientific Committee was proposed in the kick-off meeting and is consisted from the members of the whole consortium and selected invited key players that play an important role to the development of the non-food crops in EU27. The invited key players plays a very important role in the key thematic workshops an in 4FCROPS success.
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