

The 23 SOLIBAM Partners

Institut National de la Recherche Agronomique (France)

Associazione Italiana per l'Agricoltura Biologica (Italy)

The Organic Research Centre, Elm Farm (UK)

RISØ National Laboratory for Sustainable Energy (Denmark)

Institut Technique de l'Agriculture Biologique (France)

Technical University of Munich (Germany)

Instituto de Tecnologia Quimica e Biologica (Portugal)

Agencia Estatal Consejo Superior de Investigaciones Cientificas/Instituto de Agricultura Sostenible (Spain)

Escola Superior Agraria de Coimbra (Portugal)

Agricultural Research Institute of the Hungarian Academy of Sciences (Hungary)

Scuola Superiore Sant'Anna, Pisa (Italy)

University of Perugia (Italy)

Agroscope Reckenholz-Taenikon Research Station ART (Switzerland)

Institute of Food and Resource Economics (Denmark)

INRA Transfert (France)

University of Pisa (Italy)



Crop breeding companies

Saatzucht Donau - cereal breeding (Austria)

Gautier Semence - vegetable breeding (France)

Agrovegetal - legume breeding (Spain)

Arcoiris - vegetable breeding (Italy)



Institutions from African countries and international organisation

International Center for Agricultural Research in the Dry Areas (International)

Coordination Nationale des Organisations Paysannes du Mali (Mali)

Mekelle University (Ethiopia)



Project Coordinator Veronique Chable (INRA) veronique.chable@rennes.inra.fr
In charge of dissemination activities Riccardo Bocci (AIAB) r.bocci@aiab.it

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Strategies for Organic and Low-input Integrated Breeding and Management

www.solibam.eu



Collaborative Project

Seventh Framework Programme (FP7)
2010 - 2015





The objective of SOLIBAM is to develop novel breeding approaches integrated with management practices to improve the performance, quality, sustainability and stability of crops adapted to organic and low-input systems in Europe and Sub-Saharan

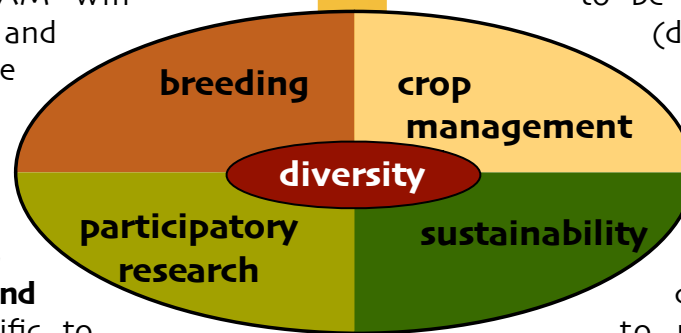


Africa. The underlying hypothesis is that diverse populations in diverse organic and low-input systems are more resilient to stress and can therefore better adapt to environmental variation.



SOLIBAM will **increase within-crop diversity** in organic and low input systems. Field trials across environments will evaluate the behaviour of crops that contain different levels of diversity. New populations and varieties will be developed through innovative methods, e.g. co-breeding within organic systems. However, diversity in crops is in conflict with current seed laws. SOLIBAM will address this issue in Europe and Africa and will also advance the development of **new regulations for protection of varieties**, which balance Plant Breeders and Farmers' Rights. SOLIBAM will develop **participatory plant breeding and management strategies** specific to marginal areas or small scale agriculture in Europe and Africa. All the relevant stakeholders, including end-users and consumers, will be involved in the improvement of varieties for organic and low input agriculture.

SOLIBAM will design, develop and test **innovative arable and vegetable cropping systems** based on high levels of agrobiodiversity. These will be fully integrated to optimise organic and low input farming systems, enabling the impact of breeding and agronomic innovations on the surrounding environment as well as on the **crop nutritional, organoleptic and end-use quality** to be quantified. A series of **cereal** (durum and soft wheat, barley, maize), **legume** (beans, niebé and faba beans) and **vegetable** crops (bean, tomato, broccoli and cabbage) will be tested in different agroecological conditions in Europe and Africa to provide models for various climates and breeding approaches. The **sustainability of SOLIBAM strategies** will be tested in different case studies across countries and recommendations for future approaches will be proposed.



SOLIBAM Workpackages

- WP1. Identify traits for organic/low-input systems
- WP2. Identify and monitor genetic diversity
- WP3. Exploitation of diversity in breeding
- WP4. Exploitation of diversity in management
- WP5. Comparison of conventional/organic breeding
- WP6. Participatory plant breeding and management
- WP7. Breeding/management effects on crop quality
- WP8. Sustainability assessment of innovations
- WP9. Dissemination, training and technology transfer
- WP10. Project coordination and management