**Project selected in the second call of CORE Organic II. Project period: 2013-2015**

| **Acronym** | **Project title** | **Coordinator and countries involved** |
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| COBRA | Coordinating Organic plant BReeding Activities for Diversity | Coordinator: Principal Researcher Dr Thomas Döring, The Organic Research Centre, United Kingdom.Countries: Austria, Belgium (Flanders), Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Luxembourg, the Nederlands, Norway, Slovenia, Sweden, Switzerland, Turkey, United Kingdom |
| Project summary: Organic plant production is currently challenged by several pressure factors. Along with perennial problems such as weed control, climate change is threatening to affect crop production through increasing weather variability. Plant breeding is a crucial factor in creating organic crop production systems that can better cope with such interacting stresses and producers need crop varieties with a) good resistance against pests and diseases, esp. seed borne diseases;b) the ability to react to environmental, esp. climatic variability; and c) high competitiveness against weeds. COBRA aims to support and develop organic plant breeding and seed production with a focus on increasing the use and potential of plant material with High genetic Diversity (Hi-D) in cereals (wheat and barley) and grain legumes (pea and faba bean) through coordinating, linking and expanding existing breeding and research. Although Hi-D-based systems have shown promising results in organic systems and are currently subject to intensive research, their benefits can at present not be exploited, due to agronomic, regulatory and other hurdles. Also, it is currently unclear which plant breeding approaches, Hi-D-based or else, are most efficient to breed varieties for organic agriculture. Therefore, COBRA aims 1) to improve methods ensuring seed quality and health; 2) to determine the potential to increase resilience, adaptability, and overall performance in organic systems by using crop diversity at various levels; 3) to improve breeding efficiency and to develop novel breeding methods to enhance and maintain crop diversity; 4) to identify and remove structural barriers to organic plant breeding and seed production; and 5) to improve networking and dissemination in organic plant breeding. COBRA‟s strength is its focus on coordinating, linking and expanding on-going organic breeding activities in cereals and grain legumes across Europe, drawing together experts from previously fragmented areas. |