

COBRA

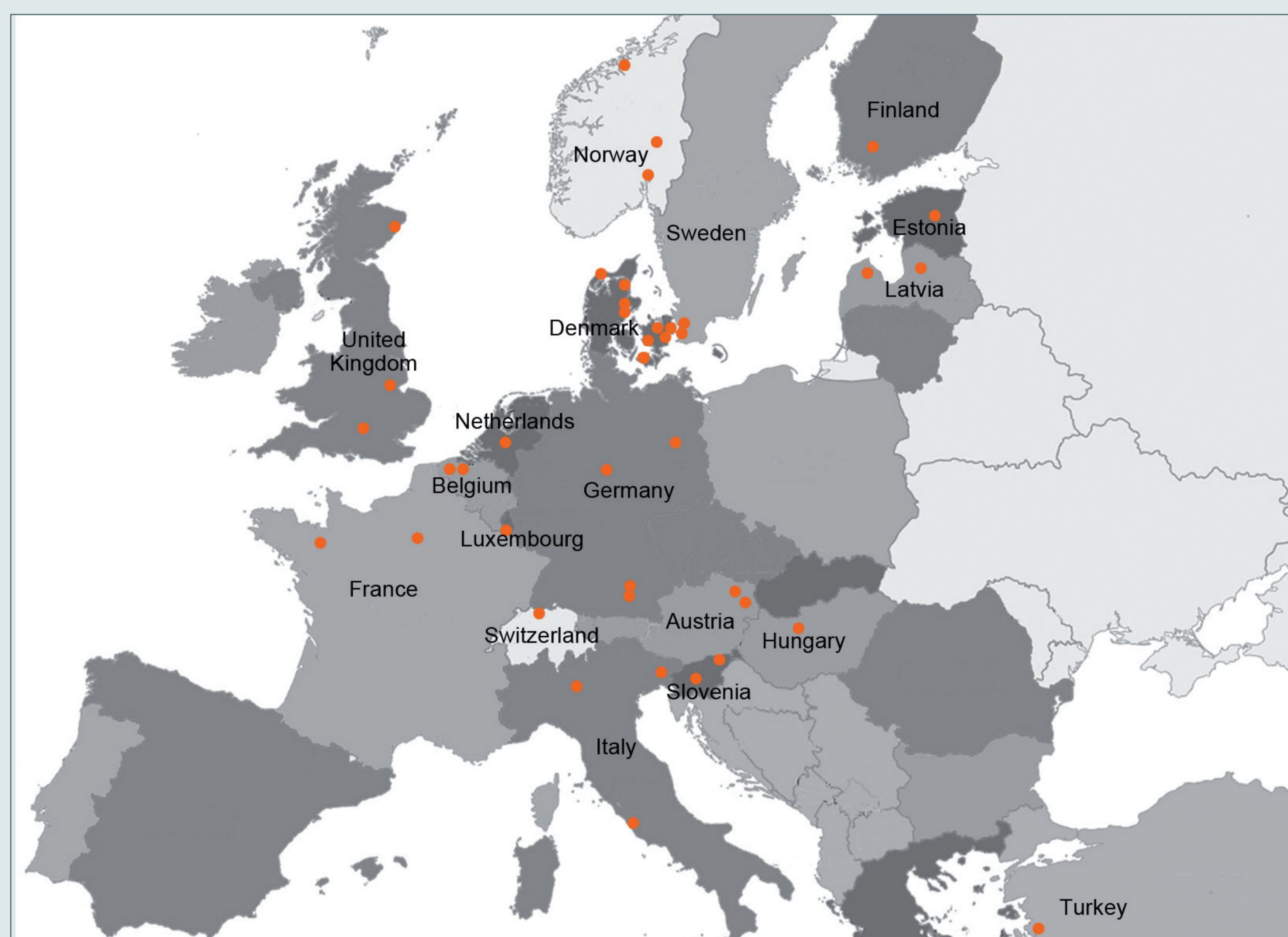
Coordinating Organic Plant Breeding Activities for Diversity

T.M. Pedersen¹, R.D. Girling²,
P. Baresel³, A. Borgen⁴, M.R. Finckh⁵,
S.A. Howlett², L. Ortolani⁶,
B.D. Pearce² and M.S. Wolfe²

1) Knowledge Centre for Agriculture, Agro Food Park 15,
8200 Aarhus N, Denmark, tmp@vfl.dk
2) The Organic Research Centre, Elm Farm, Hamstead
Marshall, RG20 0HR, UK
3) Technical University of Munich, Department of Crop
Science, Emil-Rahmann-Str. 2, 85354 Freising, Germany
4) Agrológica, Houvej 55, 9550 Mariager, Denmark
5) University of Kassel, Department of Ecological Plant
Protection, Nordbahnhofstr. 1a, D-37213 Witzenhausen,
Germany
6) AIAB, Via Piave, 14 - 00187 Roma, Italy

Introduction

A central challenge in organic farming is the lack of suitable plant varieties that are adapted to the conditions of organic agriculture. In addition to the need to react to climatic variation, organic varieties are exposed to highly variable weed and disease pressure. Also, soil fertility cannot be adjusted by the use of quickly available mineral fertilizers. As effective seed treatments are largely missing seed borne diseases play an important role. One of the most efficient and dynamic tools to deal with variable environmental conditions is genetic diversity.



Plant breeding activities for organic agriculture are fragmented across Europe. This represents a unique chance to work in many different environments. COBRA will bring together expertise and experience from scientists, consultants and breeders across Europe. COBRA is a 3-year project established between 42 partners from 18 European countries, led by the Organic Research Centre (UK) and funded by CORE Organic II funding bodies with 3 mill. €.

Objectives

COBRA aims to support and develop organic plant breeding and seed production in Europe and to unleash the potential of plant genetic diversity for organic agriculture by linking up efforts in both pure line breeding and High genetic Diversity (Hi-D) systems in both cereals (wheat and barley) and grain legumes (pea and faba bean). Plant material with higher genetic diversity has great potential in breeding for organic systems, since higher levels of in-field diversity can be used to buffer against higher environmental variability.

The project will focus on five areas of special interest:

- Improved methods to ensure seed quality and health
- Response of crops to multiple stresses
- Improved breeding efficiency
- Funding for breeding and the regulatory framework
- Coordination and networking



Communication

The COBRA project has a public website at www.cobra-div.eu, where additional information about the COBRA project can be found and forthcoming results will be published. A newsletter will be circulated during the project period announcing events and highlighting news from the project. Numerous field days in the different partner countries will support knowledge transfer and networking, as will stake holder workshops and training programs.

