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WHEALBI is a European FP7 project granted 5 M€ for 5 years starting January, 2014. It involves 18 partners in 9 countries and aims at **improving European wheat and barley production in competitive and sustainable cropping systems.**

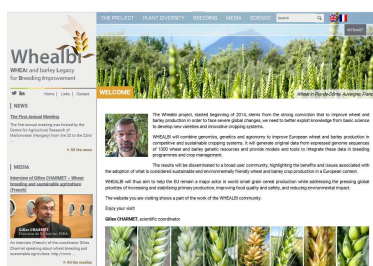
Germplasm will be selected and characterised by next-generation-sequencing. Adaptive traits will be evaluated in both transnational field experiments and precision phenotyping platforms. Germplasm will be

stored in a bio-repository and associated data in knowledge bases that will **represent a valuable legacy to the community.** Whole genome association scans will be conducted for several traits, signatures of adaptive selection will be explored, and allele mining of candidate genes will reveal new variation associated with specific phenotypes. Pre-breeding tools will be developed to optimize the efficiency of allele transfer from unadapted germplasm into elite breeding lines. New methodologies will explore how to optimally exploit the large amount of new genotypic and phenotypic data available. Ideotypes with improved yield stability and tolerance to biotic and climatic stresses will be designed and provide proof of concept of the efficiency of genome and phenome assisted selection. Ideotypes and reference varieties will be evaluated in innovative cropping systems, particularly organic farming and no-till agriculture, and an economic evaluation will be conducted.

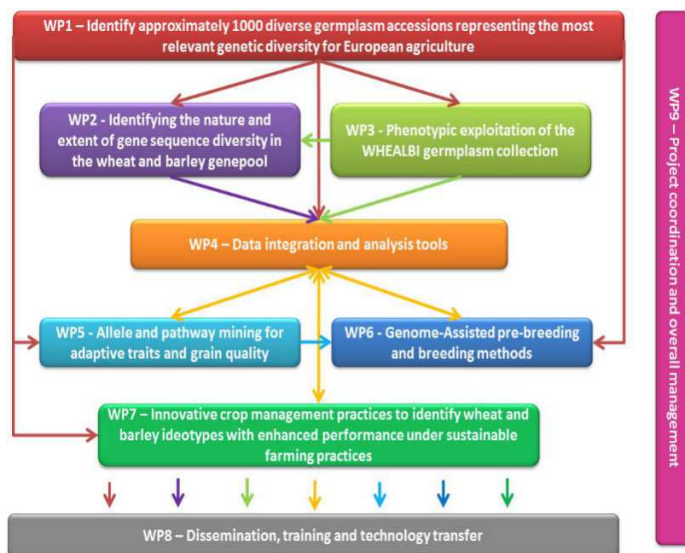
Results will be disseminated to a broad user community, highlighting the benefits and issues associated with the adoption of sustainable wheat and barley crop production. WHEALBI aims to help the EU **remain a major actor in world small grain cereal production** while addressing the pressing global priorities of improving food quality and reducing environmental impact.



Workflow of the scientific workpackages of WHEALBI

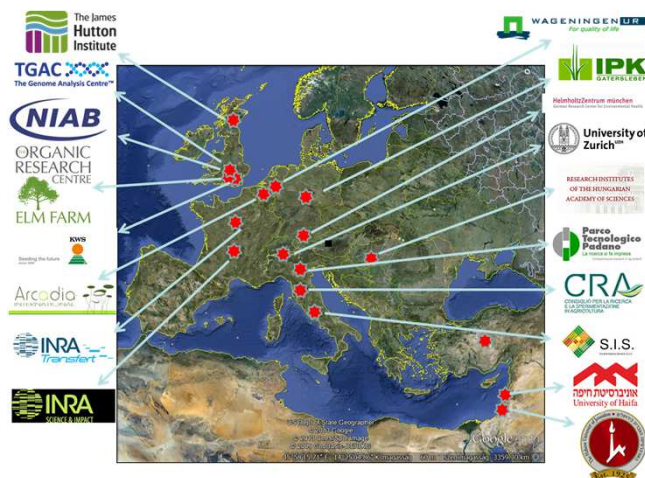


Infos : www.whealbi.eu



LIST OF PARTNERS

- 1- INSTITUT NATIONAL DE LA RECHERCHE AGRONOMIQUE (INRA)- Coordinator - France
- 2- JAMES HUTTON INSTITUTE (JHI), Scotland, UK
- 3- LEIBNIZ – INSTITUTE OF PLANT GENETICS AND CROP PLANT RESEARCH (IPK), Germany
- 4- FOUNDATION STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK, RESEARCH INSTITUTE PRAKTIJKONDERZOEK PLANT & OMGEVING/PLANT RESEARCH INTERNATIONAL (DLO) Netherlands
- 5- HUNGARIAN CENTRE FOR AGRICULTURAL RESEARCH (ATK), Hungary
- 6- ITALIAN AGRICULTURAL RESEARCH COUNCIL (CRA), Italy
- 7- THE GENOME ANALYSIS CENTRE (TGAC), UK
- 8- ZENTRUM MÜNCHEN DEUTSCHES FORSCHUNGSZENTRUM FÜR GESUNDHEIT UND UMWELT (GMBH) (HMGU) Germany
- 9- UNIVERSITY OF HAIFA (HU), Israel
- 10- PARCO TECNOLOGICO PADANO (PTP), Italy
- 11- NATIONAL INSTITUTE OF AGRICULTURAL BOTANY (NIAB), UK
- 12- PROGRESSIVE FARMING TRUST LTD T/A ORGANIC RESEARCH CENTRE (ORC), UK
- 13- UNIVERSITAET ZUERICH (UZH), Switzerland
- 14- KWS UK Ltd (KWS), UK
- 15- SOCIETA ITALIANA SEMENTI (SIS), Italy
- 16- INRA TRANSFERT (IT), France
- 17- ARCADIA (ARCADIA), Belgium
- 18- HEBREW UNIVERSITY OF JERUSALEM (HUJI), Israel



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