KBBE.2013.1.2-03 project
“Major crops”
Integrated approach towards small grain cereal production and diversification in Europe

WHEALBI: WHEAt and barley Legacy for Breeding Improvement
Started January 1st, 2014
Granted 5 M€ for 5 years

EU ranks first for wheat (137 Mt) and barley (53 Mt) production

Genetic progress must be speed up: needs for new methods

But cereal yields are stagnating in EU

Expected effect of climate change (% loss in brown) on world Cereal Production 2050
(Nelson et al., 2010, www.ifpri.org)

Objectives
- Development of guidelines and protocols for Next Generation Valorization and Utilization of PGRFA (Plant genetic resources for food and agriculture) collections
- Characterizing exome sequence to promote genome-based improvement
- Characterizing adaptive traits in selected germplasm

Objectives
- Develop and Apply Statistical methods to exploit HT genotyping/phenotyping information
- Allele mining of key adaptive genes
- Transferring genome and phenome knowledge into applied breeding programmes
- Adapting crop management systems to climate and citizen’s concerns on environment and well-being
WP6 – Genome-assisted pre-breeding and pre-breeding methods: Jacob Lage, KWS-UK

T6.1: Introgression of wide allelic diversity into elite barley and wheat varieties

T6.2: Introgression of targeted genomic regions into elite barley and wheat varieties

T6.3: Modelling exotic alleles introgression into elite germplasm

WP7 – Innovative crop management practices to identify wheat and barley ideotypes with enhanced performance under sustainable farming practices

T7.1: Improve grain yield & quality stability

T7.2: Conservation management

T7.3: Organic husbandry

WP8 – Dissemination, training and technology transfer

WP Leader: Sébastien Crépieux (Arcadia)

Task 8.1: Education, training, technology transfer and dissemination to the scientific community

Task 8.2: Dissemination to plant breeders, farmers, cooperatives and agro-community (M1 – M60)

Task 8.3: Stakeholder platform and policy makers (M24 – M60)

Task 8.4: Reach the general public and raise awareness of young public for plant sciences

Task 8.5: Interactions with other international/European/National running projects/initiatives and joint dissemination issues

WP9 – Project Management

WP Leader: Ronan Pendu (INRA-transfert)

Task 9.1: Project monitoring (M1-M60)

Task 9.2: Administrative and financial management (M1-M60)

Task 9.3: Establishment and management of the project Collaborative Workspace (M1-M60)

Task 9.4: Organisation of the kick-off and the project meetings (M1-M60)

Task 9.5: Management of Intellectual property (M1-M60)