

# Consortium

# INnovations in plant Variety Testing in Europe

ACTA	France
AGES	Austria
Agroscope	Switzerland
Arcadia International	Belgium
B3F	Belgium
BioSS	The UK
Bundessortenamt (BSA)	Germany
CPVO	Europe or the European Union
CRA-W	Belgium
CREA	Italy
Euroseeds	Belgium
FIBL	Switzerland
GEVES	France
INHORT	Poland
INRA (Coordinator)	France
INRAE Transfert	France
IRTA	Spain
Naktuinbouw	The Netherlands
NEBIH	Hungary
NIAB	The UK
NPZ	Germany
RCL	Italy
Scottish Government – SASA	Scotland
Teagasc	Ireland
Université d'Angers	France
UKZUZ	Czech Republic
Uni Hohenheim	Germany
Wageningen Research	The Netherlands
Wageningen University	The Netherlands



 [www.h2020-invite.eu](http://www.h2020-invite.eu)  [#INVITEeu](https://twitter.com/INVITEeu)  [INVITE EU](https://www.linkedin.com/company/invite-eu)



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# The project

In the context where agriculture is increasingly being urged to reduce its dependency on external inputs, lower its environmental footprint and cope with more variable climatic conditions, **INVITE** will recommend new tools and approaches in plant variety testing to better assess sustainability and resilience of new varieties to various and changing environmental conditions.

**INVITE** combines scientific & technical expertise spanning a wide range of disciplines from e.g. plant physiology, variety testing, agronomy, genetics, breeding, biostatistics, bioinformatics, modelling, and economics.

The project will promote innovation in plant variety testing by producing and disseminating targeted information to researchers, plant breeders, variety examination offices, advisory services, and farmers. Policy briefs will also be produced for decision makers.

## Objectives

1

The aim of the **INVITE** project is to foster the introduction of new varieties with high resilience towards biotic and abiotic stresses, high adaptation to sustainable management practices and high resource use efficiency.

2

Additionally, **INVITE** will improve variety testing protocols for variety characterisation (DUS) and performance testing (including VCU) to enhance speed, accuracy and efficiency of variety testing.

3

**INVITE**'s objective is also to provide improved information to stakeholders on variety performance under a range of contrasting production conditions for the major crop species that exhibit significant breeding activity in the EU.

4



**CROPS:** apple • lucerne  
maize • oilseed rape •  
perennial grass • potato •  
soybean • sunflower •  
tomato • wheat

# Action plan



1 Identify crop characteristics and bioindicators associated with adaptation to sustainable cropping systems and resilience to variable and more challenging environmental conditions.



2 Develop new phenotyping and genotyping tools to assess bioindicators related to better adaptation to more sustainable crop management practices and enhance accuracy of variety testing.



3 Digitalise phenotyping by proposing high throughput and low-cost phenotyping protocols to improve efficiency of plant variety testing.



4 Build crop models and statistical tools allowing prediction of variety performance under a wide range of agro-ecological environments and crop management practices.



5 Define new procedures for the management of reference collections.



6 Propose organisational innovations to improve variety testing networks.



7 Deliver recommendations to policy makers to improve harmonisation of DUS and VCU testing at the EU level.



8 Design a prototype Decision Support System for Variety Choice (DSS-VC) which will include predictions of variety performance for various environmental and production conditions.