European projects at Agroscope – INVITE & INNOVAR

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➢ **2 projects:** **INVITE & InnoVar**

➢ **1 common objective**: increase efficiency in variety testing and promote the adoption of varieties with a lower dependence on external inputs, lower environmental impact and higher resilience to face climate change

INVITE = INnovations in plant **V**ar**I**ety **T**esting in **E**urope to foster the introduction of new varieties better adapted to varying biotic and abiotic conditions and to more sustainable crop management practices (several crops)

Specific tasks treated at Agroscope in collaboration with European partners (FR, CZ, ES, BE…):

• WP 2.4: development and evaluation of non RGB low-cost field phenotyping tools → Wheat

• WP 5.3: development and evaluation of new protocols to integrate the sustainability and resilience criteria (organic VS conventional) → Wheat

• WP 6.1: Implementation, and demonstration of INVITE new methods and tools for optimized VCU testing networks → Wheat & Maize

Innovar = Innovations in plant **var**iety testing to augment and improve the efficacy and accuracy of variety testing and decision-making using different approaches (mainly wheat):

• Genomic
• Phenomics
• Machine learning
• Use of historic data, implementation, expansion and harmonization of European database

Specific tasks treated at Agroscope in collaboration with European partners (21 partners from 10 countries):

• Bread wheat trials: core trials with varying levels of inputs (i.e. full, minimal & optimized)

INVITE-InnoVar collaboration:

➢ Standardization: standard definitions and methods of assessment of measured traits
➢ Common varieties: common subset of standard varieties.
➢ Trial Sites: complementarity in management to allow comparing results from the two projects.
➢ Testing Outputs: at the end of projects, each project can test the tools and outputs developed by the other.

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