Root2Res

Root phenotyping and genetic improvement for rotational crops resilient to environmental change

Mid-term symposium

Introduction

ESA Congress, Rennes 29/08/2024

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Root2Res:

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General objectives

OB1: Define, identify, and test root/rhizosphere ideotypes for a changing environment in crops common to rotational systems in Europe

OB2: Define and provide a complete set of tools to consider root traits

OB3: Identify, develop, and multiply germplasm and populations for phenotyping activities at different scales and use material to identify new candidate genes and markers connected to root traits and their plasticity, and enable novel pre-breeding germplasm, for all crops

OB4: Quantify plasticity of extended root phenotype for germplasm/populations identified in OB3 under a range of environmental conditions, including the identification of the relevant root trait, its interrelation with other characteristics (trade-offs) and the consequences for carbon sequestration

OB5: Actively engage with relevant stakeholders and disseminate new knowledge on the use of root and rhizosphere traits to develop resilience to environmental change, while also exploiting the results to provide tools and products which improve the sustainability of agriculture with environmental change

Crops

- Cereals: barley (spring and winter), durum wheat (bread wheat)
- Tubers: potatoes and sweet potatoes
- Legumes: faba bean (lentils, peas)

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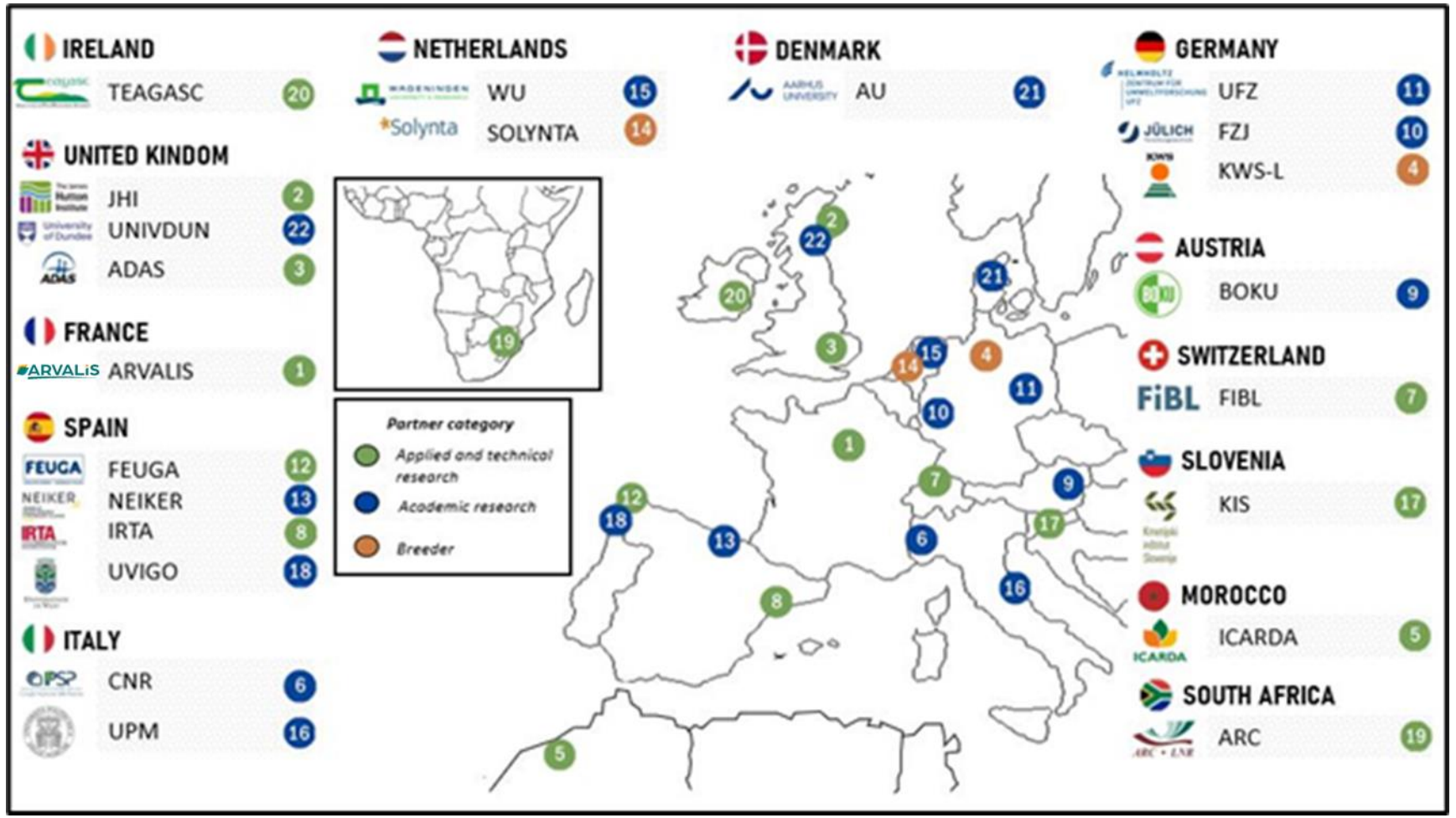
The partnership



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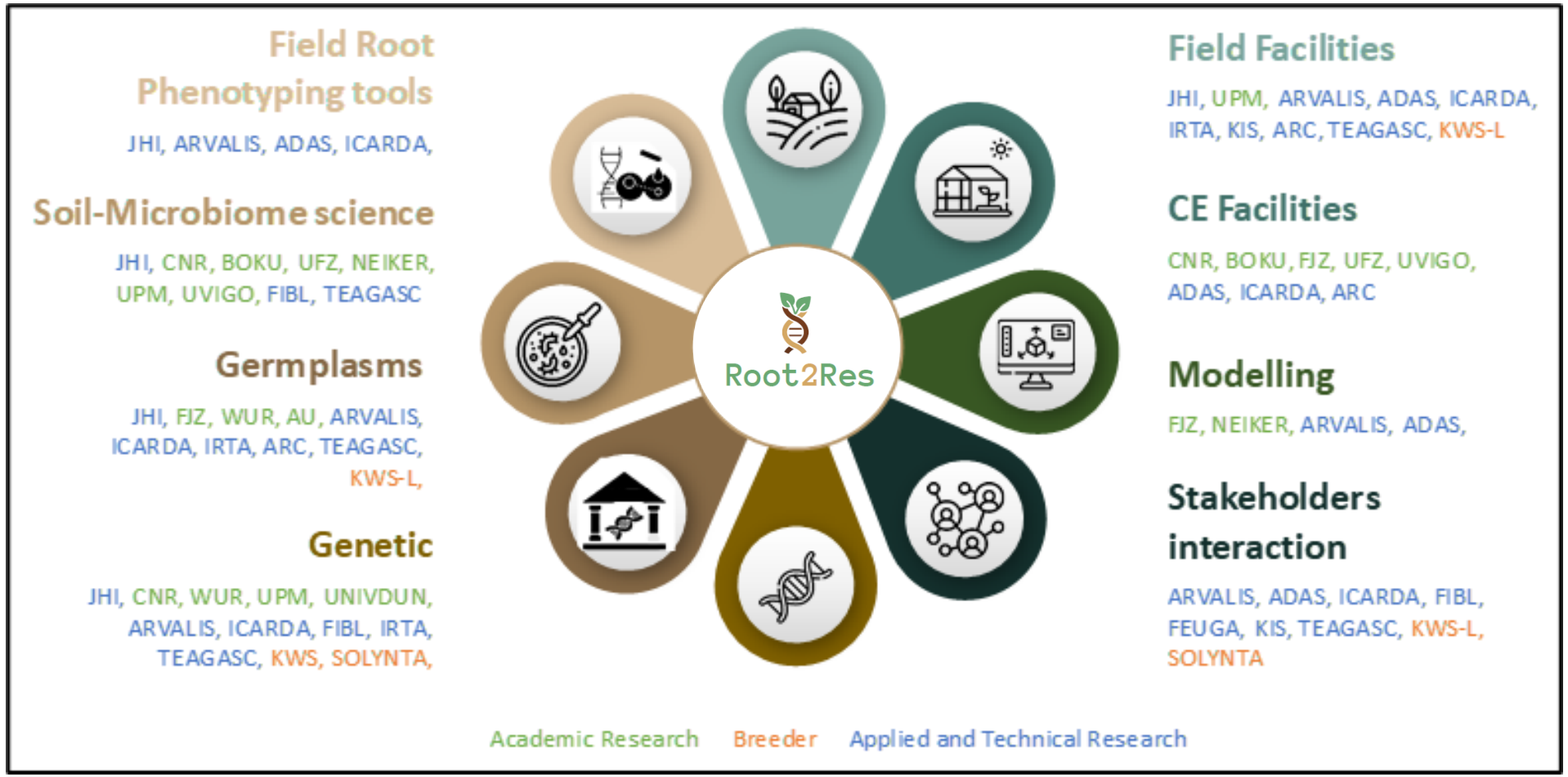

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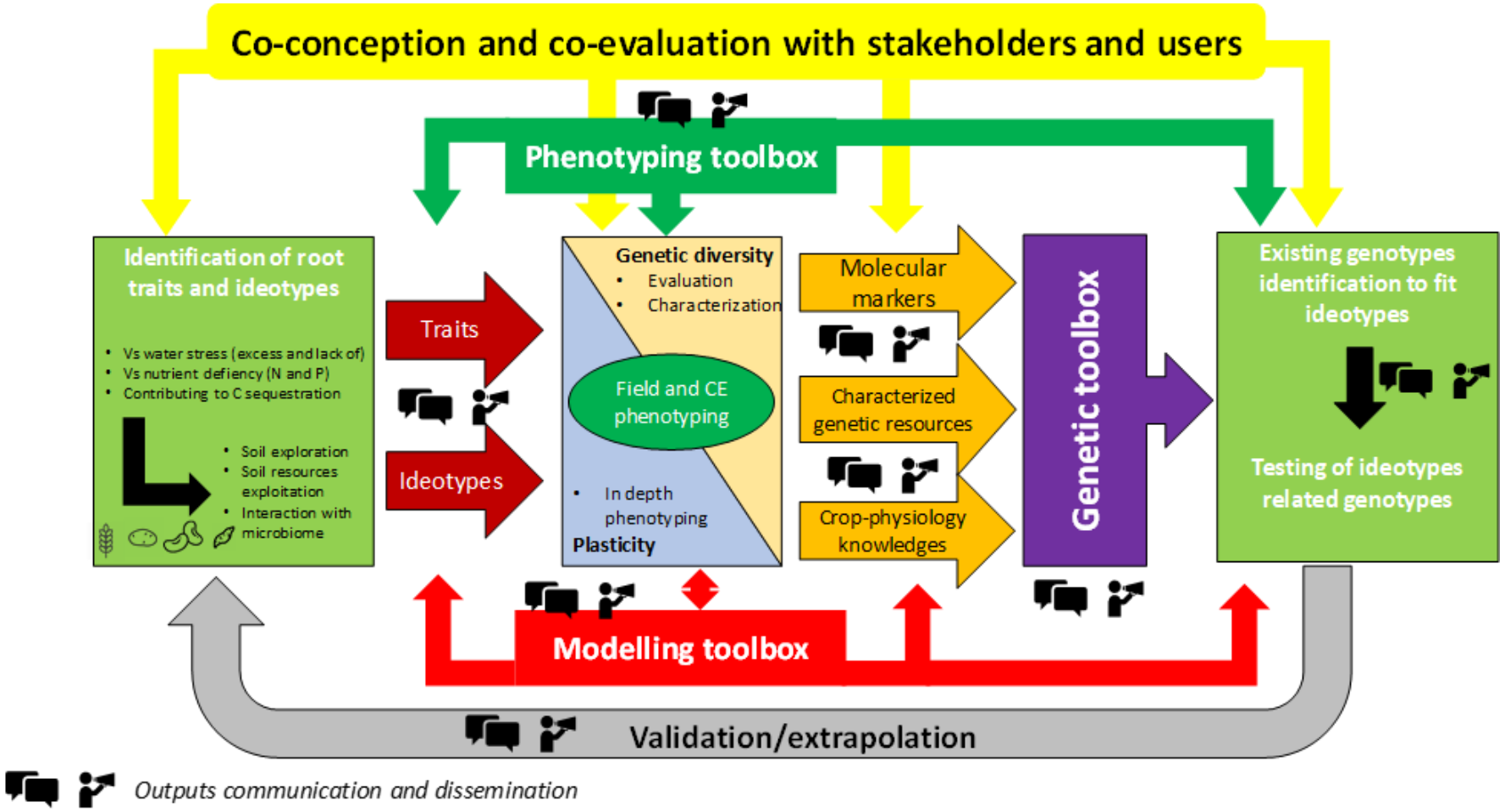
General concept of the project



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Root2Res: How to stay connected with the project

Communications and dissemination

Website : www.root2res.eu

Social media

Events

Root2Res at Les Culturales

Jul 30, 2023 | News

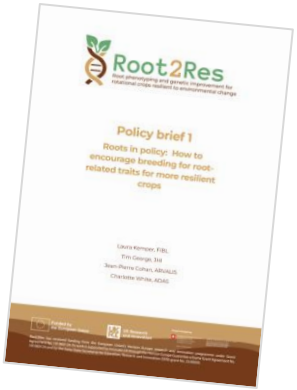
Videos

Sampling exudates and rhizosphere soil - BOKU and FiBL
Minirhizotron - ARVALIS

Zenodo Open Repository

Practice abstracts

Policy brief



Articles

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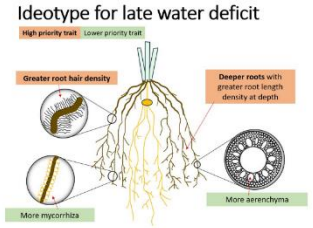
Root2Res: Program of the morning

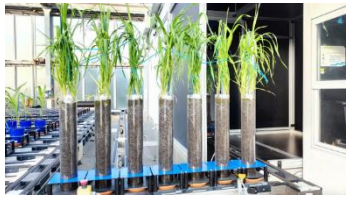


Which priority root/rhizosphere traits will best contribute to resilience to abiotic stress?

Christina Baxter from ADAS

Innovation on root/rhizosphere traits phenotyping methods in field and controlled conditions for breeding and agronomic studies

Katia Beauchêne from ARVALIS



How to define and handle plasticity for root/rhizosphere traits against abiotic stress?

Raffaella Balestrini from CNR (JP Cohan – Arvalis)

Panel discussion with 2 invited experts : Edith Le Cadre and Karel Klem (thanks to them !)

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Thank you for your attention

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