

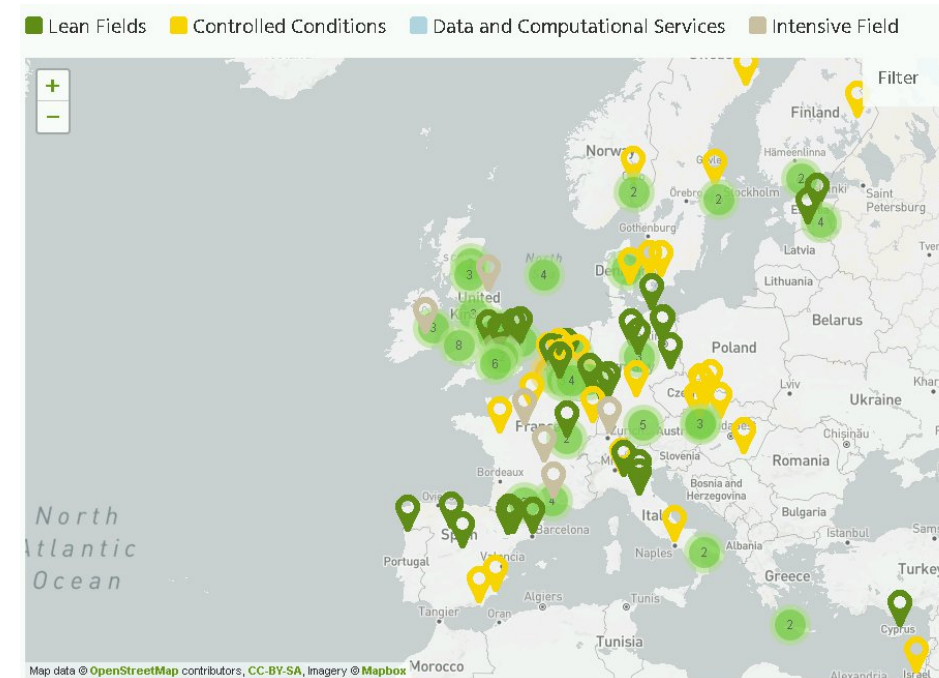
A large, light blue, stylized leaf graphic is positioned on the left side of the slide, partially overlapping the title text.

➤ Towards an european e-infrastructure for plant phenotyping

Vincent Negre

EGI conference 2022, EGI-ACE Lightning Talks

- **Phenotyping communities**



Mission

Developing infrastructures and providing access for multi-scale phenotyping to analyze genotype performance in diverse environments and quantify the diversity of traits



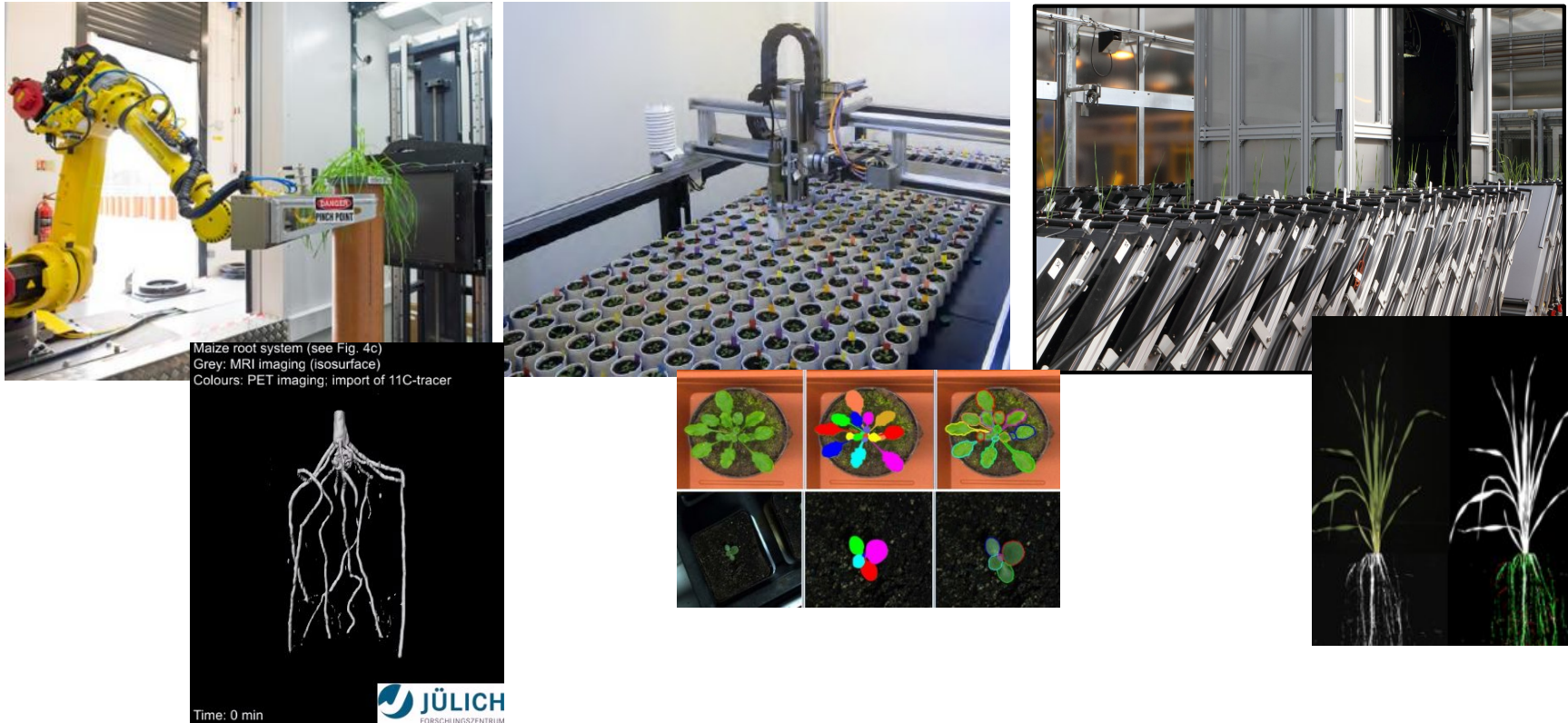
Objectives

Develop an integrated pan-European infrastructure of instrumented facilities available to the user community

Link data acquisition to a European-level data information system and modelling

Develop, evaluate and disseminate knowledge and novel technologies providing innovative opportunities for academia & industry

1. Facilities for high resolution, high throughput phenotyping



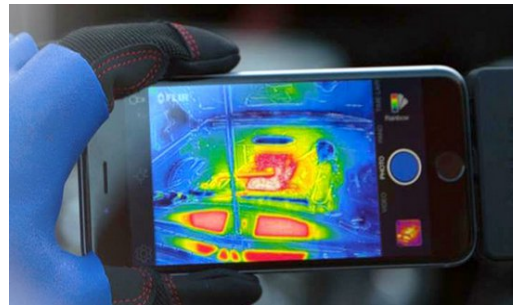
2. Semi-controlled field systems for high throughput phenotyping



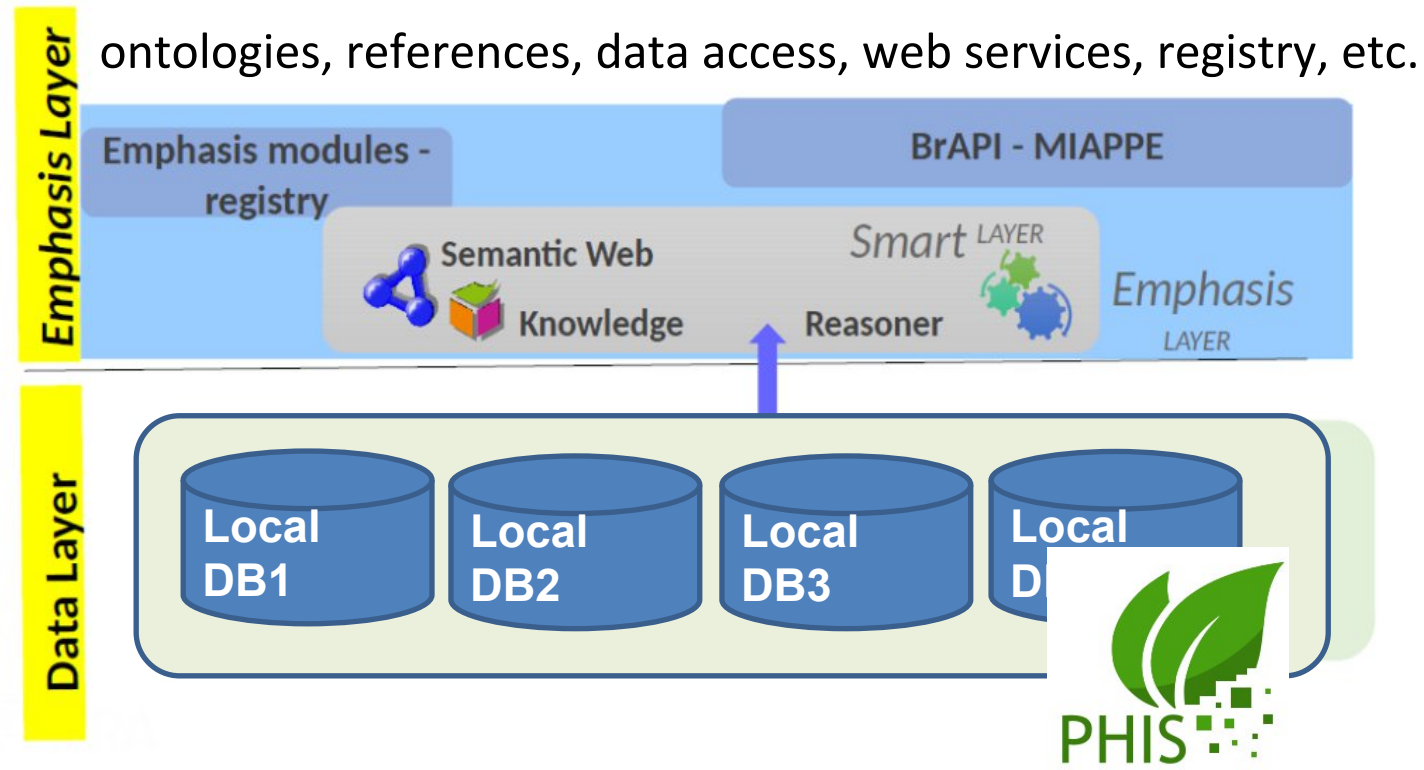
<https://www.youtube.com/watch?v=PsrjRD3eJ34&t=6s>



3. Network of field sites practical experiments



4. Data management and e-infrastructure



Neveu et al. New Phy, 2019.

• Our strategy



- Rely on **EGI infrastructure and services** to build a European e-infrastructure for plant phenotyping.
- Access to these services through the **EGI-ACE program**.
- Setup a **Proof of Concept**.
- Tested by **Early Adopter users** (University of Helsinki, University of Copenhagen, INRAE).
- **Disseminate** services to a wider audience.



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Cloud computing



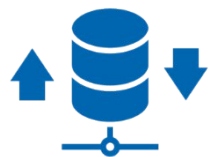
- The **cloud compute service** is used to host our information system (CESNET-MCC provider).
- **Dynamic DNS service** provides a unified, federation-wide Dynamic DNS support.

Authentication



- The **EGI Check-in service** has been integrated as the default authentication system.

Storage



- Connected with the **online storage service** provided by IN2P3-IRES and the FranceGrilles (FG-iRODS).
- Connection with S3 storage and **DataHub** will be tested.



Data analysis

- We are using the Deep Hybrid DataCloud portal to host our DL models.

DEMO

<https://phis.emphasis.fedcloud.eu/egi-demo/app/>



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Thank you for your attention !

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