

FINDR – Fast and Intuitive Data Retrieval for Earth Observation

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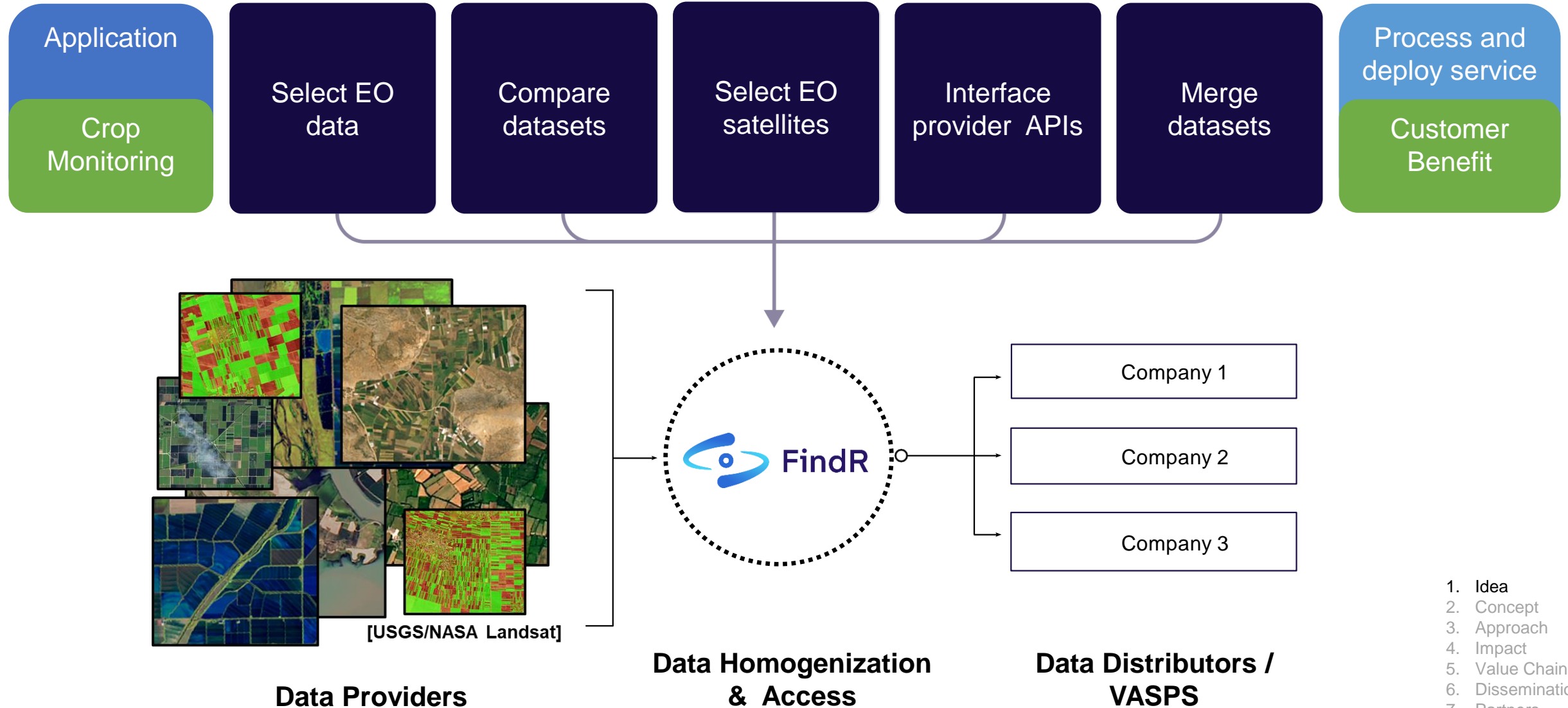
Kick-off cofunded Projects Seminar
17-18th March 2021



Agenda

1. Idea
2. Concept
3. Approach
4. Impact
5. Value Chain
6. Dissemination
7. Partners

The Challenge and its Answer



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Concept: Define the Application

- 1 Select Time and Region of Interest
- 2 Select or Create Application
- 3 Specify Requirements



Area

Reset area



Satellites specification

Reset filters

Spectrum

HF

SAR

✓ VIS

✓ IR

Subspectra

VHF

UHF

VIS

✓ NIR

Resolution

0.1m 1m 2m 5m 10m 20m 50m 100m 1km 10km

Advanced options

☐ Free data only

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Concept: Retrieve Your Data

1 Availability
Comparison Chart

2 Specifications,
Provider and Preview

3 Format Selection for
Homogenization

The screenshot displays the FindR web application interface. The top navigation bar includes the FindR logo and a user profile for Max Gulde. The main content area is divided into a sidebar and a central panel. The sidebar on the left contains a 'Change settings' link and a 'Sensor type' filter. Below this is a 'Coverage summary' section with a timeline from 00:00 to 05:00 CEST. A list of sensors is shown with their respective coverage bars: Flock (197), AISSAT (2), NORSAT (2), SkySat (15), WorldView (4), GeoEye-1, RadarSat, KOMPSAT (4), CE-SAT 1, TripleSat (3), TeLEOS-1, and Deimos (2). The central panel displays the selected sensor's specifications for Sentinel-2A MSI. It includes a table with the following data:

Platform	Sentinel-2A
Sensor	MSI
Timestamp (UTC)	02:55 – 02:57
Timestamp (local)	03:55 – 03:57
Target coverage	100%
Resolution	20.1m
Spectra	19%
Bands	VIS, IR

Below the table, the 'Suggested output format' section shows two options: 'Sentinel 2 L2A at 10m' (selected) and 'Landsat-7 L2 at 30m'. To the right of the specifications, there is a 'Satellite provider' section with the Copernicus logo and a 'Download' button. Below this is a preview image of a satellite view of a forest. The right sidebar contains an 'Export' button and another coverage timeline.

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Research approach & activities

- **Scalability:**
scalable processing infrastructure including **distributed data** infrastructures with caching optimization for large scale data
- **Search and Access:**
Archive search including **cloud detection + accurate near-future forecasts on data availability and cloud cover** for all major existing EO systems enabling faster and better-informed decisions
- **Homogenization:**
radiometrically, spatially, and spectrally adaptation of various sources to a common specification for information complementation

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Potential impact

- **Existing and new applications** (e.g. crop-yield optimization + prediction)
 - Reduced entry barriers
 - Increased data availability
 - Reduced maintenance
 - Reduced integration effort
- **Boost VASP uptake of EO-data/-information** products by reduced effort to interface with different providers
- **Spill-over effects** from the **agricultural** sector **to other markets** such as water resources management infrastructure, urban and marine monitoring
- **Spin-Of** for commercialization **beyond project duration**

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Cooperation with Stakeholders / value chain

- **VASP as Project Partner**
- Work package on end user engagement
 - End User Identification
 - Application Test
 - Field Trials
- **Operational one-season run** with VASP crop monitoring application **using FINDR data**

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Dissemination and outreach

- Conferences, Workshops and exhibitions
- Journal Papers and other Publications
- Website
- Social Media
- **Webinars and massive open online courses**
- **FINDR Workshop**

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Project Partners



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LET'S KEEP IN TOUCH!

Please feel always free to reach out to us.

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Thank you for your attention!