3 years of experience developing the Green Deal Data Space

Innovative governance and digital tools for the GDDS

📅 **Date**: 24-25 June 2025

📍 **Location**: VRVis GmbH, Ares Tower, Donau-City-Straße 11, 1220 Vienna, Austria (Close to the ESA Living Planet Symposium)

🛠️ **Organized by**: AD4GD, FAIRiCUBE, USAGE, B-Cubed

💻 **Online Link:**

https://teams.microsoft.com/l/meetup-join/19%3ameeting_MGMzNzY4YjctMzgxYy00MmMwLThlY2UtZmZkNjUyYmRhMjhh%40thread.v2/0?context=%7b%22Tid%22%3a%22a402834d-ed65-412e-8c92-76b0675b4e39%22%2c%22Oid%22%3a%2206fe415d-c831-460f-8a90-f5c07a786285%22%7d

AGENDA

Tuesday 24th June, 2025: Demonstrations and Workshops		
9:00-9:30	Registration [Room 1]	
9:30-9:45	**Welcome**	**Title:** Welcome and Siblings Introduction
	Room: Room 1 **Speaker:** Katharina Schleidt (DataCove, FAIRiCUBE) **Short description:** Welcome participants and introduce the goals of the event. Present a brief overview of the four Horizon Europe projects (AD4GD, FAIRiCUBE, USAGE, B-Cubed) contributing to the Green Deal Data Space vision.	
9:45-10:00	**Keynote**	**Title:** What Really Defines the Green Deal Data Space?
	Room: Room 1 **Speaker:** Joan Masó (CREAF, AD4GD) **Short description:** This keynote sets the conceptual foundation for the event by reflecting on key dimensions of the current status of the development of the Green Deal Data Space.	
10:00-10:15	**Keynote**	**Title:** What is the EuroGEO GDDS Action Group?
	Room: Room 1 **Speaker:** Alba Brobia (CREAF, AD4GD) **Short description:** The Green Deal Data Spaces (GDDS) Action Group focuses	

	on defining how the GDDS could contribute to the Group on Earth Observations (GEO). This keynote showcases the multifaceted agenda of the group.	
10:15-10:30	**Coffee Break [Zwischenraum]** • **In the meanwhile - Online Demo -** Splashboard Graphical User Interface - Kristian Berwanger (FIT, AD4GD) [Room 1]	
10:30-11:45	**Live Demonstrations**	**Title:** Data Space technologies from the sister projects - Part I
	Room: Room 1 **Chair:** Victoria Lush (AU, AD4GD) **Short description:** A series of 5 short demos showcasing core technologies and methodologies developed across the sister projects. Each demonstration highlights a distinct technical challenge addressed within the Green Deal Data Space context. **Demo 1** • **Title:** The Green Deal Information Model for semantic Interoperability • **Speaker**: Raul Palma (PSCN, AD4GD) • **Short Description:** This demo shows AD4GD semantic interoperability approach in practice. The approach is based on the three main pillars: the Green Deal Information Model (GDIM) defining the data elements relevant to the GD application domain along with their associated semantics/meaning, leveraging existing standards and models; data harmonization pipelines enabling the harmonization of data according to those models; the provision of integrated data access interfaces. This demo will show how these components have been used in one of AD4GD pilots. **Demo 2:** • **Title**: The use of Eclipse Data Connectors in the GDDS • **Speaker**: Raul Palma (PSNC, AD4GD) & Ignacio Elicegui (ATOS, AD4GD) • **Short Description:** This demo shows the Minimal Viable Data Space based on Eclipse Data Connectors (EDC) that has been deployed and used in AD4GD. The components are based on the open source software with some extensions and improvements from AD4GD and other sources. We will show how the connectors can be used to create assets and contract definitions, and how they can be found, negotiated and exchanged. We will show some AD4GD assets as an example. **Demo 3:** • **Title**: TAPIS connecting to data in the data space • **Speaker**: Joan Masó (CREAF, AD4GD) • **Short Description:** We will illustrate how TAPIS is able to extract the list of resources in the GDDS, select one, starts the negotiation process until	

<table>
<tr><td></td><td colspan="2">it gets the download URL and extracts the data. If the data is a file it is shown as a table. If the data is a service, TAPIS tries to adapt and explores the service.

Demo 4:
• Title: Creating a data space for cities using open source software components
• Speaker: Jeroen Ticheler (GEOCAT, USAGE)
• Short Description: To allow cities to exchange best practices, tools, algorithms and data, a common data space was deployed in the context of the USAGE project. This data space is based on powerful open source software components that support large parts of today's geospatial infrastructure in- and outside of Europe. These components are deployed as a commercially available SaaS solution that has been further improved for accessibility. The GeoCat Live SaaS instance allows users to publish data through services using GeoServer and describe the resources using GeoNetwork.

Demo 5:
• Title: Alternative for Data Spaces: FACTS
• Speaker: Andreas Matheus (Secure Dimensions, AD4GD)
• Short Description: Federated Agile Collaborative Trusted Systems is an ecosystem that supports agile certificate management for controlling access to data and services and provides an immutable catalog for registering assets. FACTS provides functions to manage certificates about data and services - it does not manage the data itself. Leveraging blockchain technology and SSI (Self-Sovereign-Identifiers), FACTS allows the implementation of a GDPR compliant solution of essentially a global DRM (Digital Rights Management) system for exchanging and processing trusted data and executing trusted services. FACTS puts IPT and liability to assets for supporting critical decision making.</td></tr>
<tr><td>11:45 -12:00</td><td colspan="2">Coffee Break [Zwischenraum]

• In the meanwhile - Online Demo - Bioconnect Graphical User Interface - Kristian Berwanger (FIT, AD4GD) [Room 1]</td></tr>
<tr><td rowspan="2">12:00 -12:15</td><td>Keynote</td><td>Title: I-ADOPT ontology Framework for describing environmental variables. Metadata and data annotation</td></tr>
<tr><td colspan="2">Room: Room 1
Speaker: Barbara Magagna (GO FAIR Foundation)
Short description: An introduction to the I-ADOPT ontology and its relevance for harmonising metadata and annotations in environmental datasets in the GDDS.</td></tr>
<tr><td>12:15-13:15</td><td>Expert Panel</td><td>Title: Lessons Learnt from Projects</td></tr>
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<tr><td></td><td colspan="2">Chair: Lucy Bastin (AU, AD4GD)
Speakers (4):
• Joan Masó (CREAF, AD4GD)
• Katharina Schleidt (DataCove, FAIRiCUBE)
• Maria Ricci (space4environment, FAIRiCUBE)
• Oscar Corcho (Universidad Politécnica de Madrid, USAGE)
Short Description: A multi-project panel discussing challenges, failures, and success stories. Topics include provenance tracking, user engagement, and working with heterogeneous datasets.</td></tr>
<tr><td>13:15-14:45</td><td colspan="2">Networking Lunch Activity: Eat the GDDS!

• [Zwischenraum] Poster presentations
• [Zwischenraum] Thematic Discussion Dynamic
• [Room 1] - Demo: Collection, processing and display of heterogeneous data from different sources in compliance with EU regulations - George Salukvadze (IoT Lab, AD4GD)</td></tr>
<tr><td rowspan="2">14:45-16:00</td><td>Expert Panel</td><td>Title: Common Recommendations for the GDDS</td></tr>
<tr><td colspan="2">Room: Room 1
Chair: Wies Vullings (WU, FAIRiCUBE)
Speakers:
• Katharina Schleidt (DataCove, FAIRiCUBE)
• Raul Palma (PSNC, AD4GD)
• Giacomo Martirano (Epsilon Italia, USAGE)
• Andreas Matheus (Secure Dimensions, AD4GD)
• Joan Masó (CREAF, AD4GD)
Short Description: This session will explore some important topics related to the development of the Green Deal Data Space and that are addressed in the Sister Projects policy brief: data ingestion and harmonization, semantic enrichment, metadata, processing or data exchange.</td></tr>
<tr><td rowspan="2">16:00-17:30</td><td>Live Demos</td><td>Title: Data Space Technologies from the sister projects - Part II</td></tr>
<tr><td colspan="2">Room: Room 1
Chair: Ivette Serral (CREAF, AD4GD)
Demo 1
• Title: Data harmonisation in FAIRiCUBE
• Speaker: Maria Ricci
• Short Description: Discover how Use Case 1 harnessed FAIRiCUBE Hub technologies to transform fragmented, multi-source datasets into structured data cubes. This live demo walks through the harmonization process, highlights key lessons learned, and explores ongoing challenges in achieving FAIR data integration.</td></tr>
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Demo 2

- **Title**: How to use EO data to uncover evolutionary patterns in fruit flies?
- **Speaker**: Sonja Steidl (FAIRiCUBE)
- **Short Description**: A short introduction to environmental association studies based on genomic data in Drosophila melanogaster from Europe. We will demonstrate how to obtain point estimates of comprehensive EO datasets and show how these data can be used for various biological research questions.

Demo 3

- **Title:** Biodiversity Data Cubes: creating species data cubes using GBIF data and the EBVCube format.
- **Speaker**: Lina Estupinan (iDiv, B-Cubed)
- **Short Description:** In an effort to unlock biodiversity data workflows and increase the adoption of FAIR principles, B-Cubed has partnered with GBIF to develop a new feature that efficiently harvests species occurrences aggregated in space and time. We will demonstrate how to create species occurrence cubes and link them to EBVCubes, a standardized geospatial data format tailored for biodiversity applications. Both processes provide DOIs, ensuring the data can be found and cited, and that the results can be used for further analysis and decision-making.

Demo 4

- **Title**: Occurrence based Habitat Classification
- **Speaker**: Heimo Rainer & Susanna Ioni (Natural History Museum Vienna, FAIRiCUBE)
- **Short Description**: The UC5 approach and results on habitat distribution prediction using species occurrence and Earth Observation (EO) data will be presented (poster), along with interactive maps displaying the distribution of indicator species for the case study EUNIS Habitat S22 (Alpine and subalpine ericoid heath), as part of an evaluation that challenges the EUNIS habitat classification system.

Demo 5

- **Title**: Data4Land Process
- **Speaker**: Vitalii Kriukov (AU, AD4GD)
- **Short Description**: Data4Land command-line tool is used to enrich land-use/land-cover time series with OpenStreetMap data and World Database on Protected Areas. The enhanced datasets with the user-defined configuration of ecological parameters, such as landscape resistance of biodiversity stressors, are useful for follow-up applications in habitat connectivity, nature conservation, and spatial planning (Conefor, Graphab, Circuitscape and other tools).

Demo 6

- **Title**: Water Quality and Availability Indices for Small Urban Lakes
- **Speaker**: Malte Zamzow (KWB, AD4GD)
- **Short Description:** In order to support decision-making in the

	management of small urban lakes, available data was collected and combined for more efficient use. New data was created and evaluated based on the water quality and availability needs of these lakes. This presentation focuses on using satellite and citizen science data to increase knowledge of small urban lakes in Berlin.
17:30-18:00	**Networking**
	Open floor for networking, informal discussion, and poster/demo booth interactions
Wednesday 25th June, 2025: Policy Brief Presentation	
8:30 - 9:00	Registration [Room 1]
9:00 - 9:15	**Keynote** — **Title**: Where do we stand with dataspaces in Europe?
	Room: Room 1 **Speaker:** Christoph Mertens (IDSA) **Short description:** An overview of the European dataspace landscape, key concepts, and progress made across sectors.
9:15-10:15	**GDDS Demonstration** — **Title**: Sibling Projects Outcomes and GDDS demonstration
	Room: Room 1 **Introduction:** Katharina Schleidt (DataCove, FAIRiCUBE) **Demonstration:** Raul Palma (PSNC, AD4GD) **Short description:** A joint presentation and demo showcasing how the four projects have converged on a common solution for the Green Deal Data Space based in Eclipse Dataspace Connectors connecting siblings datasets.
10:15-10:30	Coffee Break [Zwischenraum]
10:30-11:00	**Talks** — **Title:** The Present and the Future of the GDDS
	Room: Room 1 **Speaker:** • Mark Dietrich (SAGE) • Andreas Matheus (SecureDimensions, AD4GD) **Short description:** Forward-looking interventions exploring long-term impact and implementation potential of GDDS building blocks.
11:00-11:50	**Policy Brief Launch** — **Title:** Unlocking the full potential of the Green Deal Data Space
	Room: Room 1 **Chair:** Diego de la Vega (CREAF, AD4GD)

	Speaker: Katharina Schleidt (DataCove, FAIRiCUBE) **Panelists:** ● Joan Masó (CREAF, AD4GD) ● Quentin Groom (Meise Botanic Garden, BCUBED) ● Giacomo Martirano (Epsilon Italia, USAGE) ● Andreas Matheus (Secure Dimensions, AD4GD) **Short description:** Official launch of the jointly authored Policy Brief, followed by a discussion on how its recommendations can shape the future development of European environmental data spaces.	
11:50-12:00	**Closing**	**Title:** Wrap up and final remarks
	Room: Room 1 **Speaker:** Joan Masó (CREAF, AD4GD) & Katharina Schleidt (DataCove, FAIRiCUBE)	