

Open Access Infotag

24.10.2017

Forschungsdatenmanagement



Forschungsdaten – eine wertvolle Investition



Source: [European Space Agency: Rosetta and Philae at comet](#),
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Rosetta & Philae

Dauer:

- >10 Jahre Entwicklung
- 10 Jahre vom Start bis zu den ersten wissenschaftlichen Daten

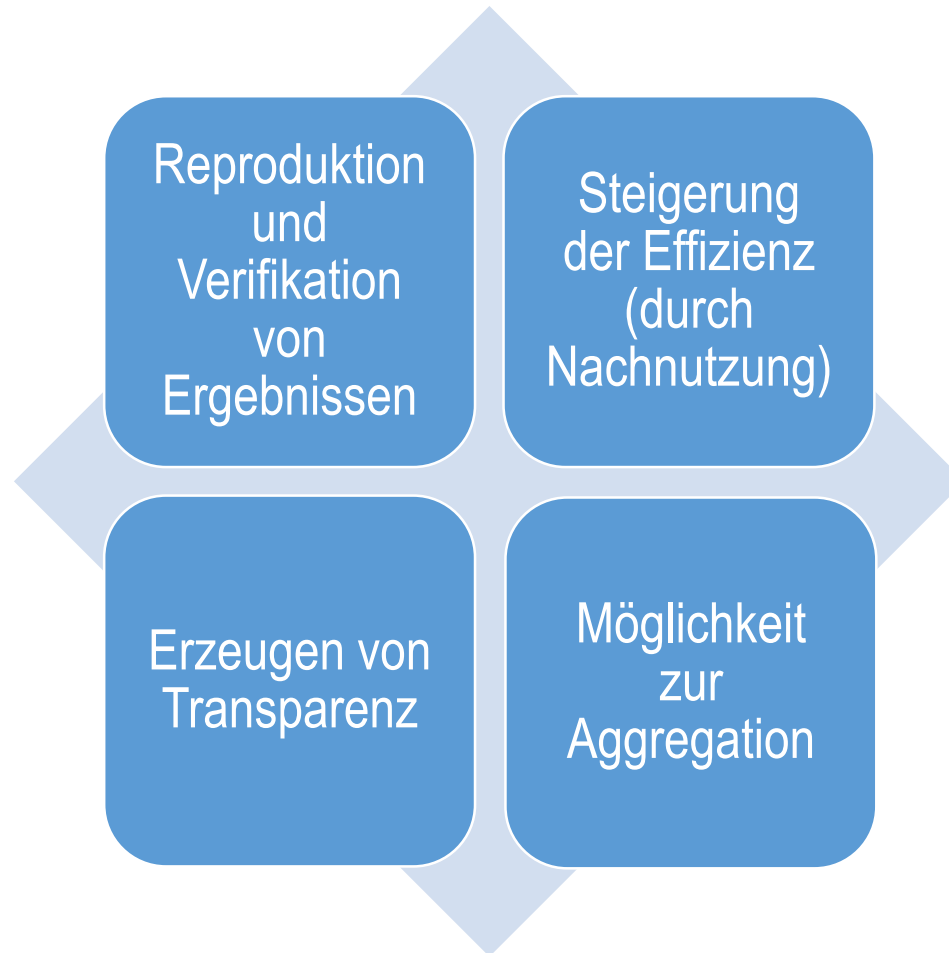
Kosten:

- Über € 1.000.000.000

Ergebnisse:

- Einige „coole“ Fotos
- Viele Daten
- *Eine radikal neue Theorie über den Ursprung des Sonnensystems?*

Forschungsdatenpublikation: warum?



Grundlegende Fragen

Organisation und Speicherung

- Können Sie finden, was Sie brauchen und zum Zeitpunkt wenn Sie es brauchen?
- Sind Ihre Daten sicher gespeichert? Haben Sie einen Backup-Plan implementiert?



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Dokumentation

- Ist die Bedeutung aller Daten und der Verarbeitungsschritte bekannt, klar?
- Bleibt die Information verständlich, wenn Sie sie später wieder aufrufen?



Weitergedacht...

Kuration und Austausch

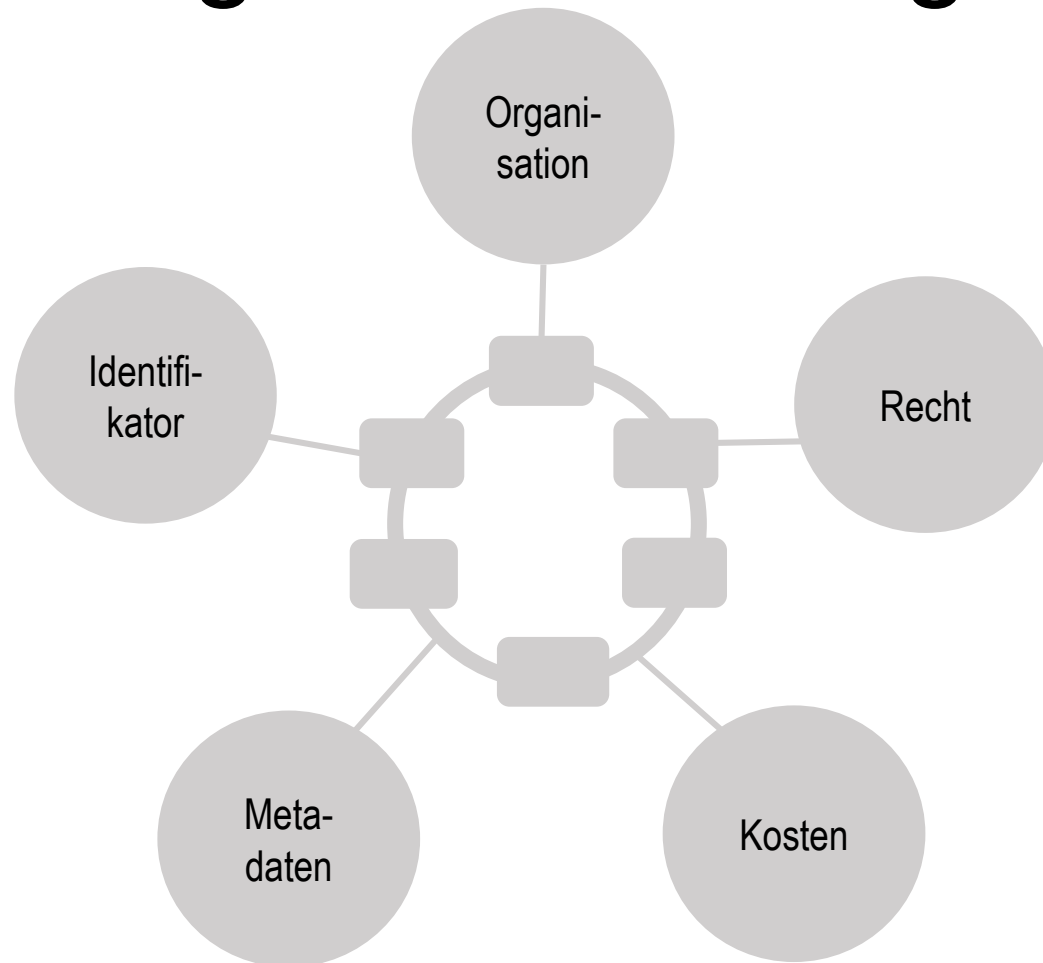
- Wie sieht der langfristige Plan für die Daten aus?
- Können Sie sie anderen Forschenden zur Verfügung stellen?
 - Viele Förderer verlangen dies
- Gibt es ein Repository oder Archiv, in dem Sie Ihre Daten ablegen können?
- Was benötigen Sie heute, um all dies zu unterstützen, einfacher zu gestalten?



Lebenszyklus Forschungsdaten



Querschnittsaufgaben im Forschungsdatenmanagement



Warum Forschungsdatenmanagement aus Sicht der Forschenden?

1. Verbesserung der Forschung durch Organisation der Daten
 2. Gute wissenschaftliche Praxis
 3. Data Sharing mit Kolleginnen und Kollegen
 4. Forschungsdatenpublikation
 - Von einer wachsenden Anzahl von Journals gefordert
 - “Belohnung” von Datenpublikationen durch Zitationen
- Möglichkeiten für “neue” Forschung
 - Rückkoppelungen zwischen empirischen und modellhaften Forschungsansätzen
 - Forschungsfragen in vollständig anderen Disziplinen oder Zusammenhängen

Forderungen von DFG, EU und Co...



DFG

- Leitlinie zum Forschungsdatenmanagement Oktober 2015
 - Datenmanagementplan erarbeiten
 - Forschungsdaten möglichst publizieren
- Mittel für das Forschungsdatenmanagement können mit beantragt werden

Horizon 2020 - European Commission

- „Data pilot“: Ein Datenmanagementplan ist verpflichtend; zugrundeliegende Daten müssen veröffentlicht werden; übrige Daten auf freiwilliger Basis; es gibt eine Opt-Out-Möglichkeit für sensible Daten

Beispiel: SFB 1002

Elektronisches Laborbuch



Paper lab notebook

OCTOBER 15 1998

DIGEST:


2 µl p116 Met25 2.5 µl p6EM6.2HA Eno24/AA
 4.5 µl UNIVERSAL B 4.5 µl UNIVERSAL B
 22.5 µl H₂O 22.5 µl H₂O
 0.5 µl BstHI 0.5 µl BstHI
 0.5 µl EcoRI 0.5 µl EcoRI
 → D CIP

LIGS:

6 µl p116 Met25
 2 µl Eno24/AA / H₂O
 1.9 µl H₂O
 3 µl T4-LIG B
 0.5 µl T4-LIGASE

AND TRANSFORM AFTER 4h OF LIGATION

DIGEST TEMPLATE-DNA FOR MAKING RNA:




Electronic lab notebook (ELN)

Close Save as Template Delete Sign

Home / AG Lehnart Demo / Experiments / Experiment 1 based on Template AG Lehnart STED Microscopy Image Acquisition

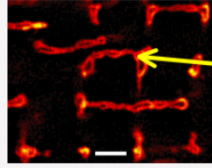
Name: Experiment 1 based on Template AG Lehnart STED Tags: di-8-ANEPPS, STED, Microscopy, Fluorescence SD381

Microscopy Image Acquisition

Publication Tag Search... AND OR Add Go

Wagner et al. 2012

`<field id="229625">
 <fieldName>Primary antibody</fieldName>
 <fieldType>STRING</fieldType>
 <lastModifiedDate>2015-08-26</lastModifiedDate>
 <fieldData>https://hdl.handle.net/11022/umg-sfb1002-antibody-primary-119</fieldData>`



Signal

Audit: My RSpace Activity
 You can filter this audit by Actions and Date Range
 Get Audit Report

You found 482 hits.

Dye	Time	User	Action	Type	Resource	Name
di-8-ANEPPS	2016-04-21 15:38:12	Dr. Harald Kusch	READ	RECORD	SD381	Experiment 1 based on Template AG Lehnart STED Microscopy Image Acquisition
Excitation in nm	2016-04-21 12:21:12	Dr. Harald Kusch	READ	RECORD	SD366	Experiment 1 based on Template - AG Lehnart - Western Blot - Immuno detection for Western Blotting
490	2016-04-21 11:54:56	Dr. Harald Kusch	DELETE	RECORD	SD499	Untitled document
	2016-04-21 11:54:56	Dr. Harald Kusch	DELETE	RECORD	SD505	Untitled document
laser	2016-04-21 11:42:08	Dr. Harald Kusch	READ	RECORD	SD353	Template - AG Lehnart - Western Blot - Immuno detection for Western Blotting

pulsed diode laser (Pico TA 490, Toptica)

TR32DB: Datensuche über Kartenfunktion

Login

WebGIS

Advanced Search

Map Search

Browse by DOI

Browse by Topic

- Soil
- Vegetation
- Atmosphere
- Land Use
- Remote Sensing
- Topography
- Other Data

Browse by Type

- Data
- Basic Geodata
- Reports
- Presentations
- Publications
- Pictures

Browse by Region

Browse by Phase

Browse by Cluster

Map search

Search for project data using a map feature. Only project data with geographic information are visualized. Depending on the zoom-level marked positions are clustered into yellow, blue or red circles. The number of markers inside the circle. Select a cluster or zoom-in to dissolve the clustering. Filter options for a refined marker configuration can be chosen in the menu below the map.

Filter options for a refined marker configuration

Type	Topic	Subproject	Instrument
-All-	-All-	D7	Rain Gauge
<input checked="" type="radio"/> Data	Atmosphere	D8	Reflectometer
<input type="radio"/> Geodata	Land Use	T1	Scintillometer
<input type="radio"/> Picture	Other	T2	Scintillometer

[916] - Post processed fluxes (2013) of the permanent EC station SEEC001 in Selhausen

[504] - Flux-, meteorological and soil measurements of the permanent EC station SEEC001 in Selhausen

[480] - Flux-, meteorological and soil measurements of the permanent EC station SEEC001 in Selhausen

[479] - Flux-, meteorological and soil measurements of the permanent EC station SEEC001 in Selhausen

[913] - Post processed fluxes the permanent EC station SEEC002 in Selhausen

All available metadata of the dataset are listed below. Some features are available, e.g. download of dataset or additional description file.

Features

[Download Data](#)

Citation

Schmidt, M. 2014. Post processed fluxes the permanent EC station SEEC002 in Selhausen. Accessed from <http://tr32db.uni-koeln.de/data.php?dataID=913> at 2015-06-16.

Identification

Title(s): Main Title: Post processed fluxes the permanent EC station SEEC002 in Selhausen

Description(s): Abstract: This data set contains quality checked flux measurements with error quantification and footprint information of the permanent EC station SEEC002 in Selhausen. The measurement site is located in the Selhausen area, where the dominant land use is cropland. The test site itself consists of a fenced area with the station configuration, mounted sensors and data logger. The excel sheet contains information about the station configuration, the excel sheet. The second tab contains information about the data series that only time series that described in tab 2 are included in this metadata refers to the TEODOOR data set. The third tab contains information about the quality controlled flux, meteorological and soil measurements. The fourth tab allows to display and download all data (if already downloaded) for the permanent EC station. Please contact Ralf Kunkel (r.kunkel@tr32db.uni-koeln.de) to download data via TEODOOR.

Identifiers: **URL:** <http://teodoor.icg.kfa-juelich.de/geodata-search-portal/data-search-portal/relations.php?dataID=913&type=fluxes>

Responsible Party

Creator(s): Resource Provider: Marius Schmidt

Contributor(s): Funder: TERENO (TERrestrial Environmental Observatories) network of the Helmholtz Association
Funder: German Research Foundation (DFG)

Publisher: CRC/TR32 Database (TR32DB), TEODOOR Portal

Topic

TR32 Topic: Atmosphere

Subject(s): CRC/TR32 Keywords: 2m-Temperature, Agriculture, Atmosphere-Land Interaction, Atmospheric Measurement, Canopy Photosynthesis, Canopy Gas-Exchange, Carbon, Climate Station, CO2, CO2 Flux, Crops, EC, Field Scale, Evapotranspiration, Flux Footprint, Friction Velocity, Humidity Measurement, Latent Heat Flux, Meteorology, Momentum Flux, Moisture Sensor, NEE, PAR, Pressure, Radiation, Radiometer, Rainfall Data, Sensible Heat Flux, Soil Moisture, Soil Temperature, Soil Water Content, Surface Fluxes, Turbulent Fluxes, Wind Direction, Wind, Wind Velocity

Topic Category: DDC: 551 Geology, hydrology, meteorology, meteorology
GEMET: carbon dioxide, agrometeorology, hydrology
Climatology/Meteorology/Atmosphere

File Details

File Name: SE_EC_002_fluxes.xlsx

Data Type: Dataset

File Size: 11583 kB (11.312 MB)

Date(s): Available: 2011-05-15

Mime Type: application/vnd.openxmlformats-officedocument.spreadsheetml.sheet

Data Format: ASCII

Language: English

Status: In Process

Constraints

Download Permission: Only TR32

Download Information: To access the data, please use the TEODOOR Portal (http://teodoor.icg.kfa-juelich.de/tereno-online-portal-folder/data-search-portal/data-portals/copy_of_observatorium-efel-niederrheinische-bucht) to set up an user account if you like to download data via TEODOOR. If not the latest data is needed, please also look for yearly data sets of this station in the TR32 data base.

License: TR32DB Data policy agreement

Vielen Dank!

Fragen?

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