Instructions for sharing
research data in the BRIDGE of Knowledge repository

In 2020, the BRIDGE of Knowledge website was expanded with the Repository of Open research Data (Fig. 1), which meets the FAIR principles and requirements of funding agencies such as the NCN.

These instructions explain how to share your research data in the BRIDGE of Knowledge repository and use functionalities that allow you to effectively promote your scientific and research contributions.
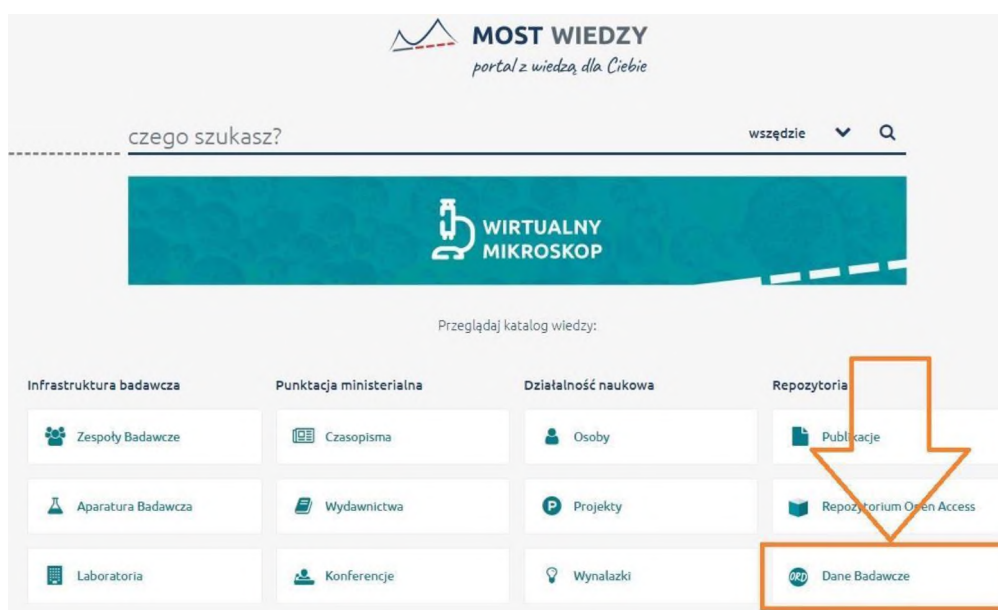

Fig. 1 BRIDGE of Knowledge repository

In the BRIDGE of Knowledge repository, researchers from the largest Pomeranian universities (Gdańsk University of Technology (PG), University of Gdańsk (UG), Medical University of Gdańsk (GUMed)) and holders of special vouchers can deposit their research data free of charge. Every PG researcher with an active user profile on the BRIDGE of Knowledge website can deposit research data in the BRIDGE of Knowledge repository. Researchers from UG and GUMed, after creating a user profile on the BRIDGE of Knowledge website, are granted privileges by the IT Service Centre of Gdańsk University of Technology within a few days of sending an e-mail requesting privileges. For researchers from other universities, only voucher holders may be authorised to deposit research data in the BRIDGE of Knowledge repository. A researcher from another university, after logging in to their user account, is redirected via a special link attached to the voucher to a place where they can enter a one-time code. The one-time voucher code gives unlimited privileges to any account holder on the BRIDGE of Knowledge website.

After logging in to the user account on the BRIDGE of Knowledge website, a research dataset can be added using a special form. Currently, the form can be accessed in two ways. The "Add research data" button is located directly in the research data catalogue (Fig. 2a) or in the research data tab on the researcher's profile with an active profile editing mode (Fig. 2b).
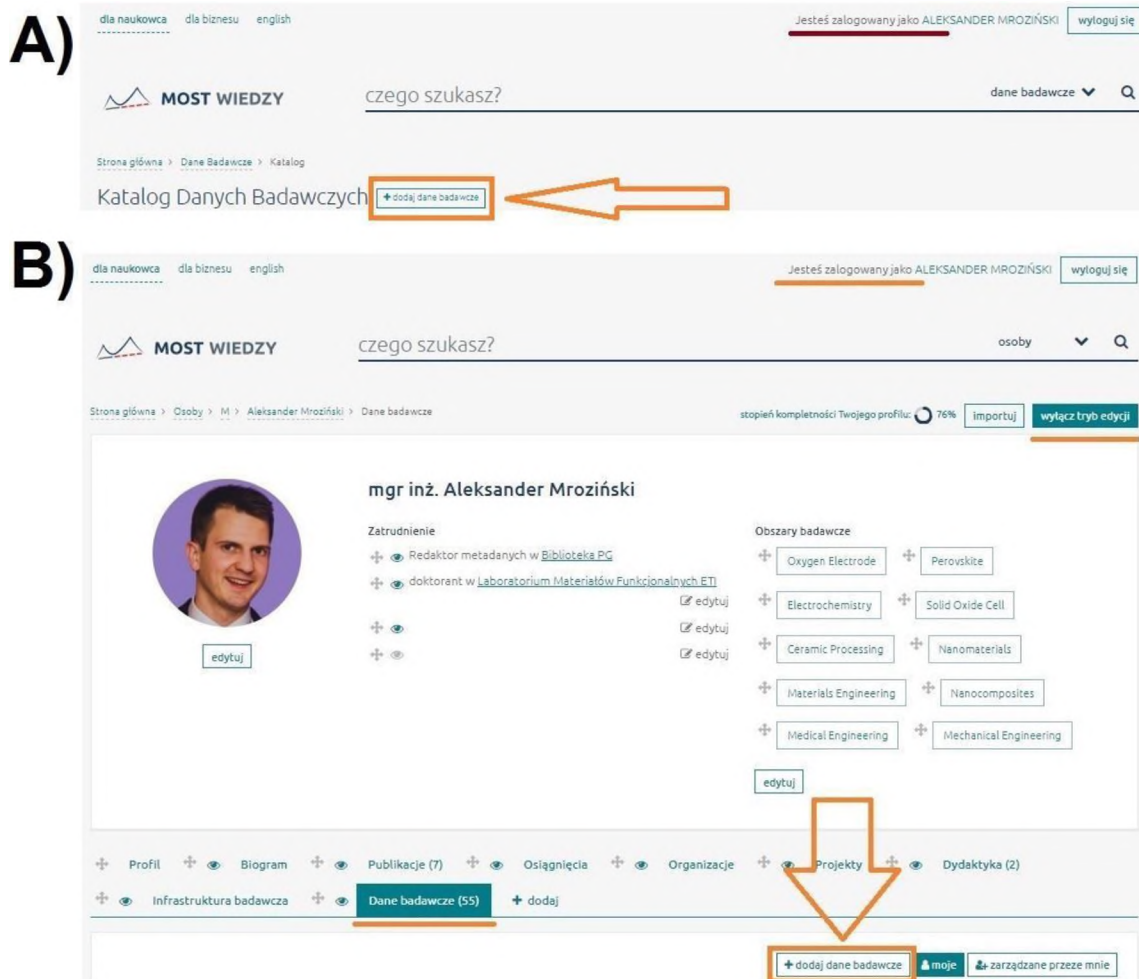
Fig. 2 "Add research data" button

Completing the form consists of three steps. All fields that require text input must be filled in English.

The first step requires you to provide basic metadata related to the available research data, such as: dataset title; authors; keywords; year of data release; etc. A short description of the dataset is also necessary as an abstract. Unless the sharing party specifies otherwise, all elements describing the data (metadata) are shared under the Creative Commons CC0 licence.

Next, attach the data file (if there are multiple files, compress them into a zip archive), specify the software necessary to read the data and select the licence under which the data will be shared. There are multiple variants of Creative Commons licences to choose from, and you can also propose your own licence or the Restricted Access data sharing model.

Finally, verify all metadata together with the attached file and decide whether you want to submit the dataset to be checked by qualified personnel (Fig. 3). A well-prepared dataset will be accepted and published. If any corrections are required (e.g. in the description), the dataset will be returned to the researcher with a request for corrections.
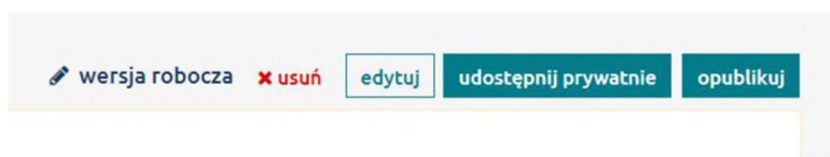
Fig. 3 Available options in step 3 of the form for adding research data

Datasets can have four different statuses:

a) draft – the dataset can be viewed only by the researcher on their profile and cannot be changed at any time (DOI has been reserved but is not active);

b) verified – the dataset is waiting to be evaluated by a qualified employee and the researcher can no longer make changes (DOI is still not active);

c) accepted – the dataset has been published. Anyone (human or computer) can find the metadata and download the dataset (if the licence allows it). DOI is active and assigned indefinitely. The researcher cannot make changes, but can create a new version of the dataset (see paragraph below);

d) shared privately – this status is often used by researchers who wish to make data available to reviewers of a scientific article. Researchers can share a link with anyone (even people without an account on the website) to share their data. The DOI is not active and the researcher can make changes to the dataset. At any time, the researcher can send the dataset for verification for publishing.

Each dataset, regardless of its status, can be found on the researcher's account by selecting the option shown in Figure 2 b).

FEATURES

1. Versioning

In the BRIDGE of Knowledge repository, researchers can create new versions of published datasets. New versions are created when a researcher notices an error in an already published dataset or they wish to update the data because the set has been expanded by new results. New versions can only be created from the user account that entered the published dataset. The "Your version" button can be found when viewing the current version of the dataset.

2. Grouping

In the form for adding new research data, there is an optional "series" field, which is advisable to fill in. Multiple datasets assigned to a single series are grouped together on the researcher's profile. Combining datasets in series facilitates the organisation of datasets that are part of a larger project.

3. Propagating metadata to similar datasets

Since many studies use specialised equipment and similar measurement procedures, a lot of metadata is similar. To save time, use the "Copy as new data" function (Fig. 4). This option is available in the research data tab on the researcher's profile with the profile editing mode active for an existing dataset. With this function, a form for adding research data can be opened and filled in exactly like an already existing dataset. Remember to make appropriate changes, e.g. in the title, so that the new dataset differs from the existing one.
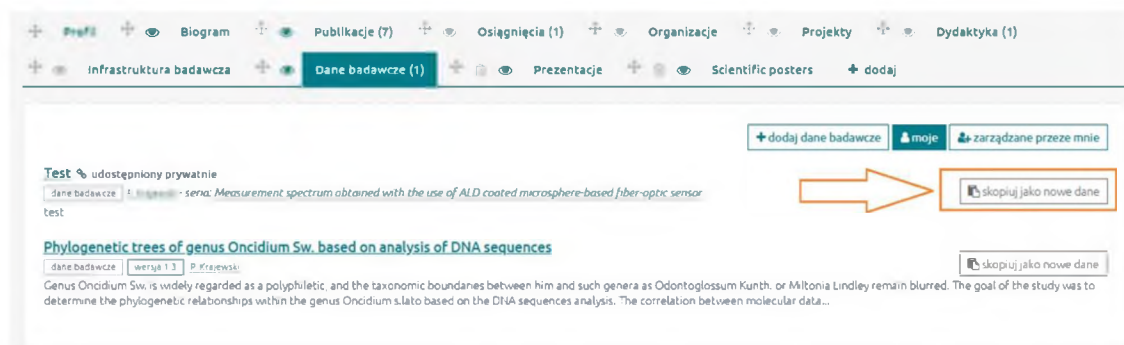
Fig. 4 "Copy as new data" button

4. Restricted Access sharing model

When selecting this option, define the rules of access to data. In this model, metadata is publicly available, but access to published research data is restricted. The data can be accessed only by the dataset creator.

5. Citation

An increasing number of publishers of scientific journals require that research data be made available together with the article. When writing a manuscript, you can refer to research data with the "cite as" option. Citation can also be exported to a bibliography manager.
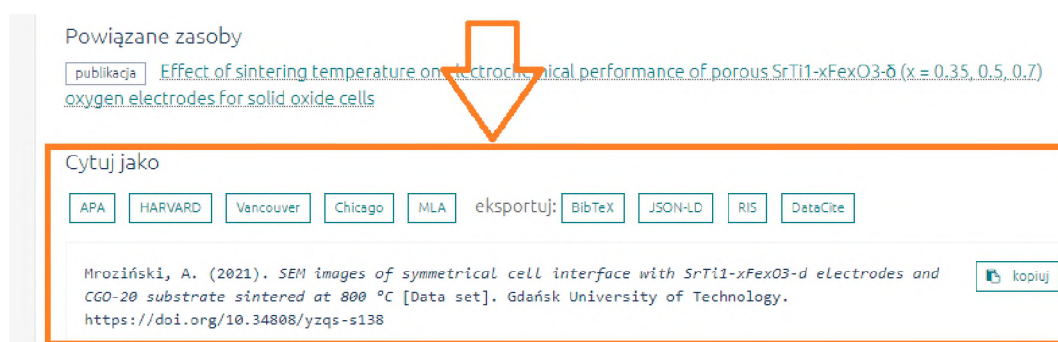

Fig. 5 Location of bibliometric data of the created dataset

6. Virtual microscope

This innovative functionality allows for the use of research data by various social groups, including schools, hobbyists or science enthusiasts, facilitating the use of accumulated tissue imaging without the need to install specialist software. On the home page of the BRIDGE of Knowledge platform, there is a button (Fig. 5) that allows you to go directly to the virtual microscope.

Fig. 6 Button for human tissue viewer

We strongly encourage you to use the BRIDGE of Knowledge repository.

You can find the description of how to prepare data for sharing on the webpage of the Competency Centre of Gdańsk University of Technology (link). For more information, please contact the Competency Centre. We will be happy to help you.

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