To be Findable

F1. (meta)data are assigned a globally unique and eternally persistent identifier.
F2. data are described with rich metadata.
F3. (meta)data are registered or indexed in a searchable resource.
F4. metadata specify the data identifier.
If you want to make your data reusable, the first step is ensuring that both humans and machines can find them. In order to achieve that, you should use **persistent identifiers** (e.g., DOI or handle for digital objects, ORCID for authors or ROR for institutions) and describe your data with **machine-readable metadata**.

Persistent identifiers (= PID)

A persistent identifier is a long-lasting reference to digital objects, persons, institutions or other entities. Persistent identifiers are:

- Globally unique
- Persistent
- Resolvable

Persistent identifiers can take the form of a web address (e.g., the ROR for Charles University is https://ror.org/024d6js02), however, it is important to keep in mind that a **URL is not a persistent identifier**. If the content of the website moves, users will only learn that the website does not exist or that the content could not be found. With persistent identifiers, either a redirection is ensured, or information is provided that the content has been removed and it is no longer possible to find it on the Internet.

In academia, you can encounter, for example, the following persistent identifiers:

- Persons: ORCID, ResearcherID
- Publications and journals: DOI, ISSN, ISBN
- Digital objects: DOI, handle
- Organizations: ROR, Ringgold ID, ISNI
- And more...

Some persistent identifiers you can obtain yourself – for example, an author might register and obtain an ORCID for themselves. For others, however, you need a service which is authorised to assign the identifiers – for publications it is typically the publisher, for research data, some repositories may provide this service. When choosing an appropriate data repository, make sure that it assigns a persistent identifier to your data.

Metadata

Metadata are data that describe other data. They might include information such as the name of the dataset, the name of the author, keywords, license information, and more. Both humans and machines use metadata in order to search for data, therefore, it is important to describe your data well, otherwise it becomes very difficult to find them.

When creating metadata, it is recommended to use **standardised vocabularies** and **ontologies**. This ensures that others working in the same field will be able to understand your data easily and it will increase the interoperability of your data, i.e., the possibility to combine datasets from different sources. To find suitable metadata standards, you can use the FAIRsharing.org platform, the DCC list of metadata standards , or the Czech formal open standards .