User Manual

Subscription or Sign In

The IRRAD-Data-Manager (IDM) allows access only to users that are registered in the *irrad-ps-users* mailing list (e-group) of CERN. Users that do not have a CERN account can still register to the mailing list through a lightweight account requested in this portal. If the user is already subscribed in the mailing list then he/she can directly sign in as shown in Figure 1.

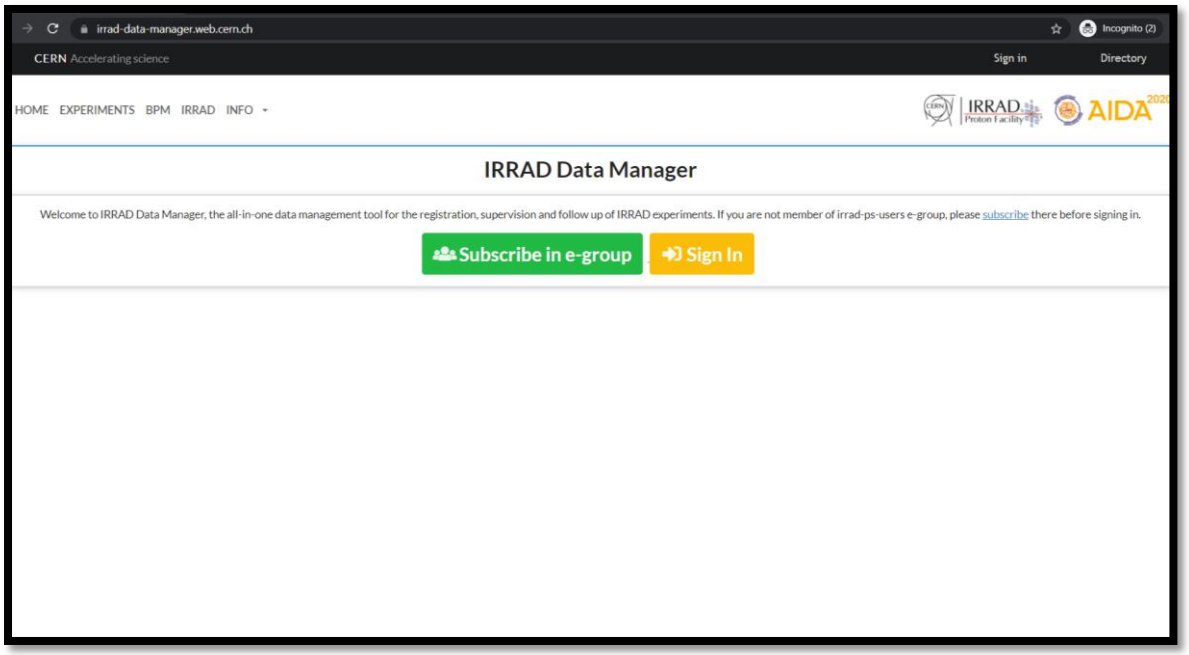


Figure 1: External home page of IDM

Data Registration

As shown in Figure 2, once the user logs in IDM there are two options. *My Experiments* button shows already saved experiments while *Create Experiment* registers a new experiment.

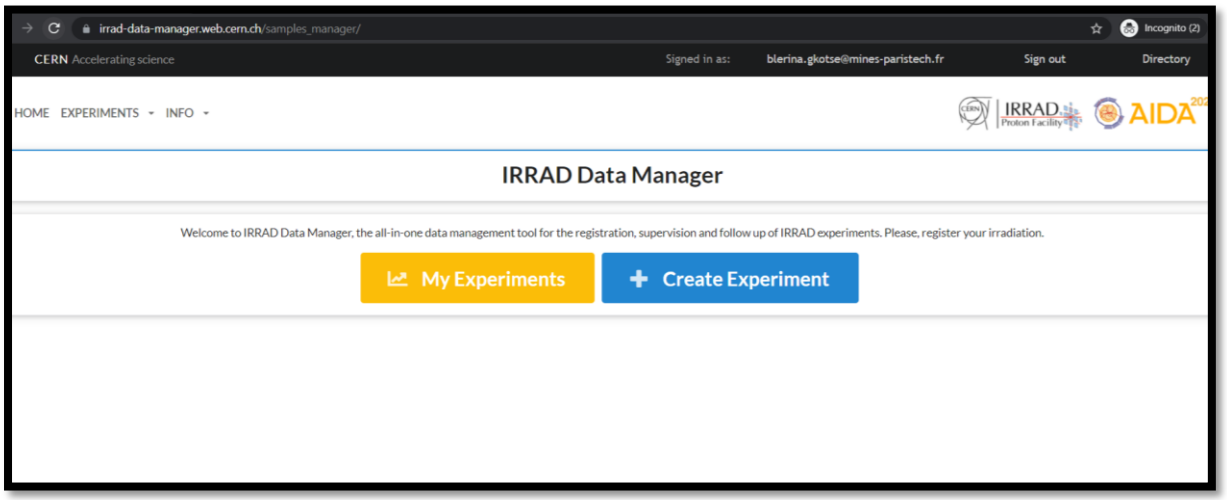


Figure 2: Home view for a logged-in user

The experiment registration is performed by filling the form shown in Figure 3. The information requested is an indication of the irradiation experiment that need to be planed. Detailed information about the samples will be provided once the experiment gets validated.

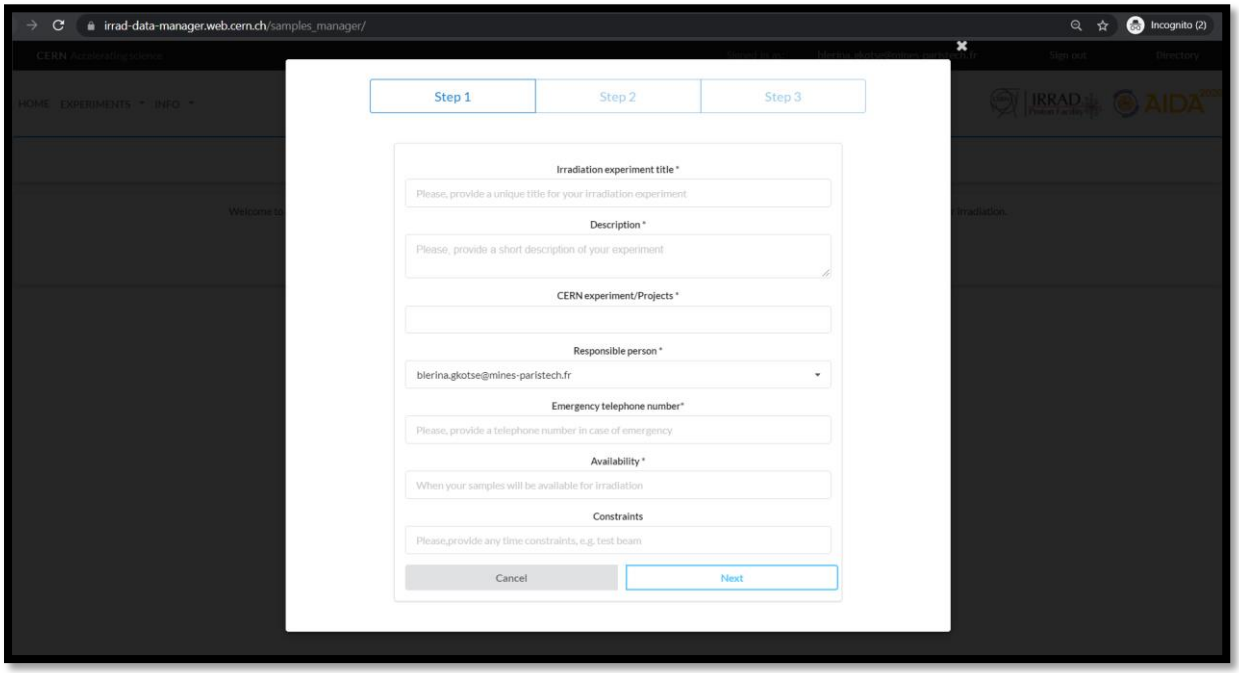


Figure 3: Registering a new experiment

Experiment Fields

- **Irradiation experiment title** (Field required): A unique name for the irradiation experiment.
- **Description** (Field required): Short description of the irradiation experiment.
- **CERN experiment/Projects** (Field required): CERN Experiment that the irradiation experiment is associated, if does not exist users can fill a new one.
- **Responsible person** (Field required): The e-mail of the person that will be responsible for the specific irradiation experiment.
- **Emergency telephone number** (Field required): A telephone number in case of emergency.
- **Availability** (Field required): The time that the samples will be ready for irradiation.
- **Constraints** : Any constraints regarding the irradiation experiment (e.g. time constraints due to test beam)
- **Irradiation type** (Field required): The radiation field required:
    - protons: normal IRRAD operation based on the proton.
    - heavy ions: if beam schedule allows some weeks per year.
    - pions: irradiation campaigns at Paul Scherrer Institute – PSI once every 2-3 years, depending on the request and the PSI availability.
- **Number of sample**s (Field required): An estimation of the total number of samples to be irradiated.
- **Category** (Field required)**:** Three categories of irradiation experiments are provided in the IRRAD facility:

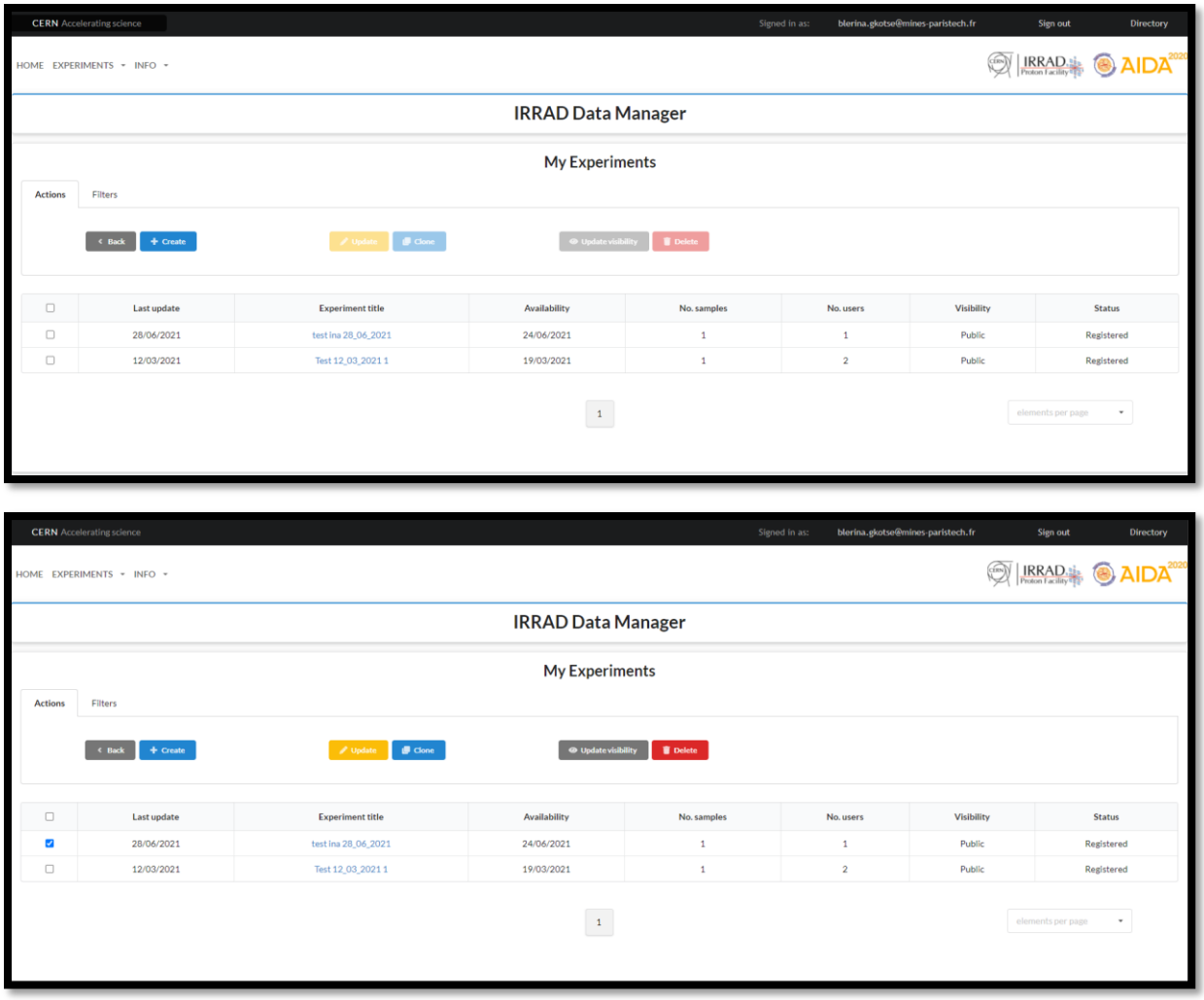
- Passive Standard: irradiation without readout electronics for an irradiation area of 5×5 mm^2, 10×10 mm^2 or 20×20 mm^2. Users should select at least one irradiation area.
- Passive Custom: irradiation without readout electronics of bigger or smaller irradiation area than the Passive Standard category. Some
- Active: irradiation with readout electronics

In the case of selecting *Passive Custom* or *Active* category, some additional information should be provided. These are:

- Type (Field required):
  - Cold box irradiation (-25°C): samples get irradiated inside a cold box with temperature down to (-25°C).
  - `Cryostat (< 5 K):` samples get irradiated inside a cryostat with temperature less than `5 K`.
  - `Room temperature (~ 20 °C):` samples get in room temperature `(~ 20 °C).`
- `Irradiation area` (Field required)`: The area of the samples that is going to be irradiated.`
- `Modus operandi` (Field required)`: Details about the way of operation.`

- **Requested fluence (** protons/cm²**)** (Field required)`: Requested values of fluences for the different samples. The correspondence of the fluences with the samples will be done when the experiment will be validated.`
- **Types of sample** (Field required)`: Material type of the samples E.g. silicon detector, fiber optics, etc.`
- **Additional Comments**: Any additional comments for the irradiation experiment.
- **Please accept terms and conditions** (Field required)**:** Acknowledgement of the terms and conditions of IDM and irradiation experiment operation in the IRRAD facility.
- **Would you like to make your experiment details public to other IRRAD users. This will allow you to view other users' experiments, too**: By accepting this field, the experiment details will be visible to other IDM users through *SHARED EXPERIMENTS* page and the users will be allowed to view other shared experiments, as well.

Once the experiment is registered, it will appear in the list of experiments.
Users need to wait the validation of the experiment by a member of the facility team that has administrator rights before being able to add the samples details or additional users to their experiment.



Shared Experiments

In addition to the main functionalities, the users have also the possibility to see other past or ongoing experiments of the facility (if the permission is given by the experiment responsible person) in order to find any useful information or publication for them or contact the responsible person for more information. An example of the history page is shown in Figure 9.

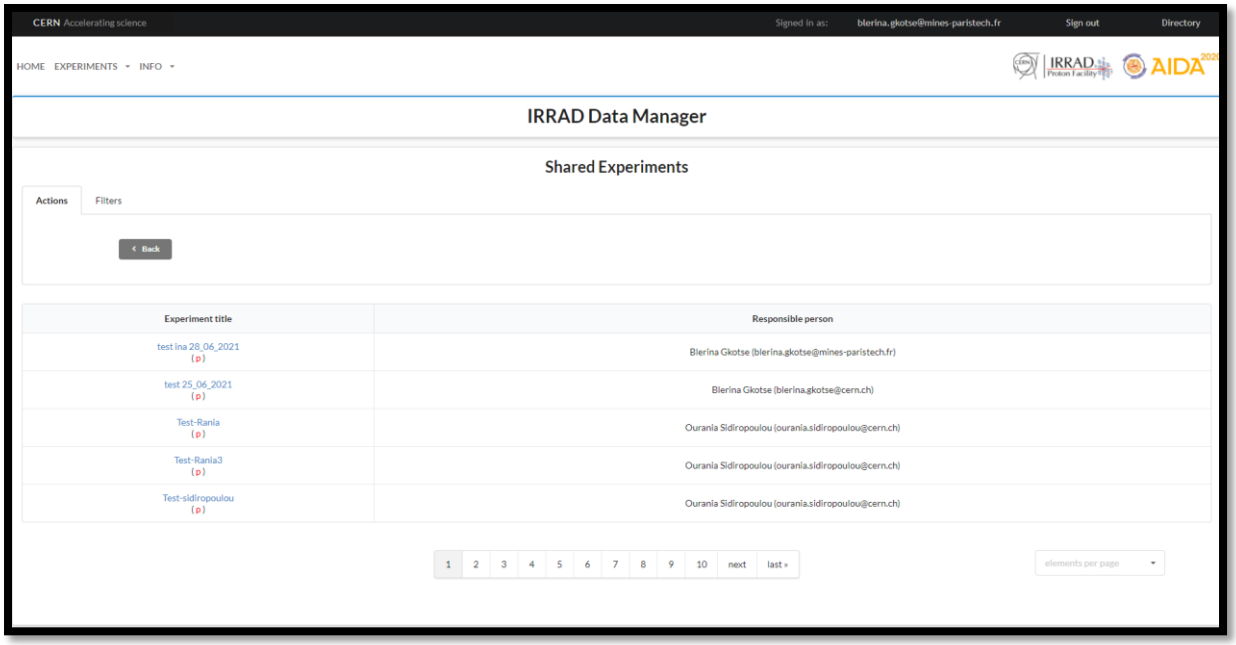


Figure 9: Shared experiments (past and ongoing) page

Additional information and regulations

Dedicated pages accessible from … give information about dose and fluence conversion (see Figure 10) and the IRRAD General Terms (see Figure 11).

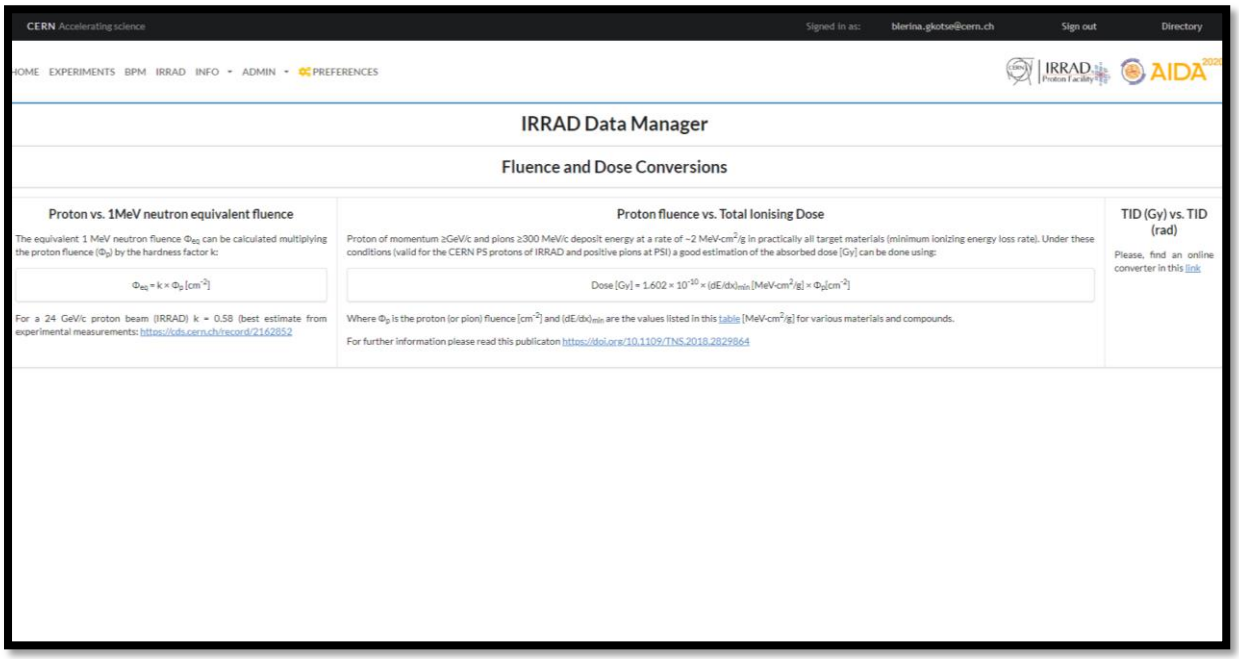


Figure 10: Fluence and dose conversion page

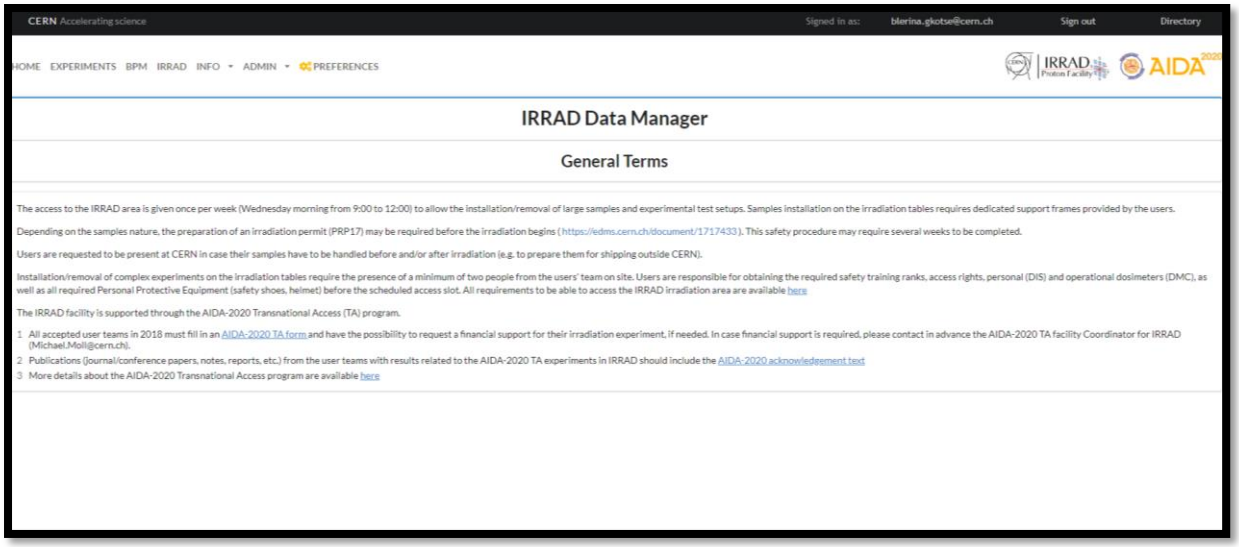


Figure 11: General terms