DMP title

Project Name My plan (FWO DMP) - DMP title **Principal Investigator / Researcher** Weiming Qiu **Institution** KU Leuven

1. General Information Name applicant

Weiming Qiu

FWO Project Number & Title

1252322N Operationally Stable Perovskite Light Emitting Diodes at High Radiance

Affiliation

KU Leuven

2. Data description

Will you generate/collect new data and/or make use of existing data?

Generate new data

Describe in detail the origin, type and format of the data (per dataset) and its (estimated) volume. This may be easiest in a table (see example) or as a data flow and per WP or objective of the project. If you reuse existing data, specify the source of these data. Distinguish data types (the kind of content) from data formats (the technical format).

Type of data	format	Volume	How created
films, devices and demos	Physical data	N/A	Film and device fabrication in lab
the lab journals documenting the lab activities , data generation and processing protocols;	txt; OneNote;	100MB to 1GB	Through documentation
Raw and processed data from electrical measurement; Images from GIWAXS measurements; atomic force microscopic imagers; X-ray diffraction patterns; SEM images;	txt; PNG; tiff	5GB-50 GB	Measured from the corresponding tools
the presentations, reports and manuscripts, etc.	.doc;.ppt	100 MB to 1GB	Writing

3. Legal and ethical issues

Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to your file in KU Leuven's Register of Data Processing for Research and Public Service Purposes (PRET application). Be aware that registering the fact that you process personal data is a legal obligation.

• No

Privacy Registry Reference:

Short description of the kind of personal data that will be used:

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, add the reference to the formal approval by the relevant ethical review committee(s)

No

Does your work possibly result in research data with potential for tech transfer and valorisation? Will IP restrictions be claimed for the data you created? If so, for what data and which restrictions will be asserted?

Yes

The methodology for film fabrication and the device structure design may be patentable if the results are considerred to be breakthrough. The host institute has an active patenting strategy whereby new results are screened for IP protection and patentability before publications are sent out.

Do existing 3rd party agreements restrict dissemination or exploitation of the data you (re)use? If so, to what data do they relate and what restrictions are in place?

No

4. Documentation and metadata

What documentation will be provided to enable reuse of the data collected/generated in this project?

- 1. The methodologies for sample fabrication will be documented such that they can be repeated by others.
- 2. The instruction on measurement protocols will be described.
- 3. The sample numbers and the measurement data will be written down in the lab note

Will a metadata standard be used? If so, describe in detail which standard will be used. If no, state in detail which metadata will be created to make the data easy/easier to find and reuse.

• No

5. Data storage and backup during the FWO project Where will the data be stored?

The data will be stored in Microsoft Cloud OneDrive as well as Microsoft Sharepoint of the research group.

How is backup of the data provided?

The data are stored in Cloud-based servers such that they will not lost even the personal labtop crushes

Is there currently sufficient storage & backup capacity during the project? If yes, specify concisely. If no or insufficient storage or backup capacities are available then explain how this will be taken care of.

Yes

The capacity of OneDrive is 2TB and of the sharepoint is 5 TB

What are the expected costs for data storage and back up during the project? How will these costs be covered?

The cost for data storage is covered by KU Leuven

Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

The cloud based data are only shared with the relavent persons with secured link or password

6. Data preservation after the FWO project

Which data will be retained for the expected 5 year period after the end of the project? In case only a selection of the data can/will be preserved, clearly state the

reasons for this (legal or contractual restrictions, physical preservation issues, ...).

All the data mentioned above will be retained for the expected 5 years

Where will the data be archived (= stored for the longer term)?

The data will be archived by the microsoft sharepoint of the research group

What are the expected costs for data preservation during the retention period of 5 years? How will the costs be covered?

KU Leuven has continueous subscription to Microsoft Cloud for all the period

7. Data sharing and reuse

Are there any factors restricting or preventing the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?

No

Which data will be made available after the end of the project?

The full dataset will be available to the research group and to others on reasonable request

Where/how will the data be made available for reuse?

• Upon request by mail

When will the data be made available?

• Upon publication of the research results

Who will be able to access the data and under what conditions?

Before publication, the data are restricted to members of the research group. However, it can be made available to others after publication.

What are the expected costs for data sharing? How will the costs be covered?

No specific cost is foreseen at the moment for the data sharing

8. Responsibilities

Who will be responsible for data documentation & metadata?

Dr. Weiming Qiu will be responsible for data documentation

Who will be responsible for data storage & back up during the project?

Dr. Weiming Qiu shall take responsibility to preserve the data during the execution of the project

Who will be responsible for ensuring data preservation and reuse?

Dr. Weiming Qiu will be responsible for this

Who bears the end responsibility for updating & implementing this DMP?

The PI bears the end responsibility of updating & implementing this DMP.