DMP title

Project Name An efficient hybrid laser-electrochemical machining process for advanced materials (FWO DMP) - DMP title

Grant Title G094920N

Principal Investigator / **Researcher** Dominiek Reynaerts

Institution KU Leuven

1. General Information

Name applicant

Prof.Dr.ir. Dominiek Reynaerts

FWO Project Number & Title

An efficient hybrid laser-electrochemical machining process for advanced materials (G099420N)

Affiliation

- KU Leuven

2. Data description

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

- Generate new data

Describe the origin, type and format of the data (per dataset) and its (estimated) volume, ideally per objective or WP of the project. You might consider using the table in the guidance.

The following datasets will be generated:

- Data on finite element modeling
- Raw measurements of the manufacturing experiments
- Raw images and videos of these experiments
- Published data (publications, public videos etc.)

The total data volume is estimated to be < 500 GB

3. Legal & ethical issues

Will you use personal data? If so, shortly describe the kind of personal data you will use. Add the reference to the file in KU Leuven's Record of Processing Activities. 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)

- Yes

Approval regarding the dual use of the results has been obtained from the ethics committee EC-DMM with reference number D-200204.a

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

In case the research activities lead to patentable concepts or methods, access to these date will be restricted and publication will be postponed until IP protection has been obtained.

Licensing agreements will be negotiated in close collaboration with the KU Leuven TTO. They will be typically restricted by geographical and application sector related criteria.

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 & metadata

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

Raw data will be collected per simulation and experimental test, including a txt file with a clear description of what the data represent and how they were generated. The input-files used for simulations or manufaturing experiments will be kept inside the same folder. The name of the folder will contain the date and the investigator.

The codebook will contain information on study design, methodology, and all information necessary for a secondary analyst to use the data accurately and effectively.

Research methods and practices will be fully documented in separate file.

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 & back up during the FWO project

Where will the data be stored?

Since we will collaborate with researchers from other research units and groups, we will use Box for active use of the data during the project.

How is back up of the data provided?

The data will be stored on the university's central servers with automatic daily back-up procedures.

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 Box account has a capacity of 100 Gb.

For larger data sets (especially videos) extra capacity will be hired.

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

Extra costs are estimated to be below 100 EUR/year and will be booked as a consumable.

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

Only authorized persons will have access to the Box account

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 data will be retained.

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

After the end of the project, the ICT service of the department will assist in archiving all data on a dedicated server.

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

None

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?

All data will be available under the conditions mensioned below.

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?

In view of the possble dual use of the results, sharing of data will be subject to ethical approval. The data to be shared, the party requesting the share, and the purpose of sharing the data will be precisely specified. In case of ethical approval for a specified sharing, and in case sharing of data will not endanger the future explitation of IPR, no further restrictions will apply.

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

None

8. Responsibilities

Who will be responsible for data documentation & metadata?

The researchers working on this project under supervision of the PI are responsible for the DMP.

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

The researchers working on this project under supervision of the PI are responsible for the DMP.

Who will be responsible for ensuring data preservation and reuse ?

After the end of the project, the ICT service of the department will assist in archiving all data. For the 5 years after the project, the PI will be the main contact for requesting access to the data.

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

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