DATA MANAGEMENT PLAN

# 1. Data description and collection or re-use of existing data

## How will new data be collected or produced and/or how will existing data be re-used?

Measurement data - in the course of experimental research.

Digital files and databases - under numerical modeling.

Spreadsheets - as part of the reduction and processing of measurement data.

Digital photos and video files - as part of the visualization of measured phenomena.

Photographic documentation of an experimental rig construction process.

Personal data of project participants as part of the formal procedure of their participation in the project (employment,

settlements).

[w języku angielskim]

## What data (for example the types, formats, and volumes) will be collected or produced?

Image files: jpg, png, tiff, bmp

Video files: mp4, wmv

MS-Office files: doc, docx, xls, xlsx, ppt, pptx

Special software files for numerical modeling, thermographic analysis, CAD design, LabView environment.

It is estimated that the total volume of raw and processed data collected during the project should not exceed 4 TB.

# 2. Documentation and data quality

## What metadata and documentation (for example methodology or data collection and way of organising data) will accompany data?

Selected data will be facilitated by open research data repository, the 'MOST Wiedzy' (Bridge of Knowledge) platform

provided by Gdansk University of Technology, with general metadata standards. Metadata description will be stored in

JSON-LD format. Data manager will be identified and authorized by ORCID number. Data manager (PI) will develop an

ordered naming of files and media and will lead its evidence.

## What data quality control measures will be used?

The data will be cataloged in a standardized way fulfilling the requirements of FAIR standards. The data available in an

open repository will have DOI assigned and the will be positioned to ensure its accessibility.

The project will be realized by an appropriately trained team, which has extensive experience and will ensure data

security and implementation of appropriate procedures.

# 3. Storage and backup during the research process

## How will data and metadata be stored and backed up during the research process?

The data will be stored on a dedicated computer at the experimental rig, on portable hard drives and durable media

such as DVD-R, in several copies. Data backup will be performed at the end of each research cycle.

## How will data security and protection of sensitive data be taken care of during the research?

There is no provision for data storage in the so-called cloud.

The computer at the experimental facility will not have a permanent connection to the Internet. Regardless, active

anti-virus and password protection will be provided.

# 4. Legal requirements, codes of conduct

## If personal data are processed, how will compliance with legislation on personal data and on data security be ensured?

In the case of personal data of the project participants, the RODO procedures will be applied.

## How will other legal issues, such as intelectual property rights and ownership, be managed? What legislation is applicable?

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The ownership and management of any intellectual property developed in collaboration relating to the Project remain

in the rights of the Gdansk University of Technology and the research team members in accordance with the law and

institutional regulations. The data and results will be published in open-access model under the one of the Creative

Commons licenses.

# 5. Data sharing and long-term preservation

## How and when will data be shared? Are there possible restrictions to data sharing or embargo reasons?

The part of the data will be published in open research data repository (MOST Wiedzy)

The part of the data will be published in scientific journals which may also require raw data publication.

## How will data for preservation be selected, and where will data be preserved long-term (for example a data repository or archive)?

All research data gathered during the project will be archived for at least 10 years and accessible only on direct request

and with the PI permission.

The MOST Wiedzy platform will be the main data repository for selected data sharing.

The data provided in the repository will fulfill FAIR requirements and will be categorized and labeled according to the

standard file formats.

## What methods or software tools will be needed to access and use the data?

Standard office software, pdf viewer/editor, image and video viewers or processing software, dedicated software for

special data and file formats.

## How will the application of a unique and persistent identifier (such us a Digital Object Identifier (DOI)) to each data set be ensured?

The datasets provided in the repository will have the DOI assigned.

# 6. Data management responsibilities and resources

## Who (for example role, position, and institution) will be responsible for data management (i.e the data steward)?

Open Science Competence Center (pg.edu.pl/openscience) - established by GUT will be responsible for DMP and data

storage and dissemination. Project PI (Michal Klugmann) will be responsible for the procedures assessment and overall

data quality.

## What resources (for example financial and time) will be dedicated to data management and ensuring the data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?

No additional resources are needed.Michał Klugmann, Politechnika Gdańska 649578