FWO DMP Template

Project supervisors (from application round 2018 onwards) and fellows (from application round 2020 onwards) will, upon being awarded their project or fellowship, be invited to develop their answers to the data management related questions into a DMP. The FWO expects a **completed DMP no later than 6 months after the official start date** of the project or fellowship. The DMP should not be submitted to FWO but to the research co-ordination office of the host institute; FWO may request the DMP in a random check.

At the end of the project, the **final version of the DMP** has to be added to the final report of the project; this should be submitted to FWO by the supervisor-spokesperson through FWO's e-portal. This DMP may of course have been updated since its first version. The DMP is an element in the final evaluation of the project by the relevant expert panel. Both the DMP submitted within the first 6 months after the start date and the final DMP may use this template.

1. General Information	
Name applicant	Jorge Andrés Moncada Escudero
FWO Project Number & Title	1269722N Understanding the emergence of consumer-centric energy systems
Affiliation	☒ KU Leuven ☐ Universiteit Antwerpen ☐ Universiteit Gent ☐ Universiteit Hasselt ☐ Vrije Universiteit Brussel ☐ Other:
2. Data description	
Will you generate/collect new data and/or make use of existing data?	☒ Generate new data ☒ Reuse existing data

Describe the origin, type and format of the data (per dataset) and its (estimated) volume

*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
Input data	Miscellaneous files (.xlsx; .csv; .pdf)	1 GB	Data obtained from different sources, including Elia, International Energy Agency (IEA), and International Renewable Energy Agency (IRENA)
Post-processing input data	CSV files (.csv)	500 MB	Data obtained from different sources, including Elia, International Energy Agency (IEA), and International Renewable Energy Agency (IRENA)
Adoption distributed energy resources model	Julia files (.jl)	20 MB	Model developed in WP1
Cooperation in energy communities model	Julia files (.jl)	20 MB	Model developed in WP2

	Institutional change in energy communities model	Julia files (.jl)	50 MB	Model developed in WP3
	Documentation of the models	text files (.word + .txt)	300 MB	Documentation describing the model developed
	Model results	CSV files (.csv)	3 GB	Simulation results comparing decision making models from different research traditions, including economics, behavioral sciences, and technology diffusion
	Programs for Post-processing model results	R files (.R)	100 MB	Programs developed for post-processing
	Intermediate reports + papers + final report	.word + .pdf	500 MB	All papers and reports written
	Presentations	.pptx	100 MB	All presentations

	I will reuse existing data provided by organizations such as: Elia, International Energy Agency (IEA), and International Renewable Energy Agency (IRENA). These data will be used to parameterize the models developed in this research.

3. Ethical and legal issues	
Will you use personal data? If so, shortly describe the kind of personal data you will use AND add the reference to your file in your host institution's privacy register. *In case your host institution does not (yet) have a privacy register, a reference is not yet required of course; please add the reference once the privacy register is in place in your host institution.*	☐ Yes ☒ No If yes: - 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 ☒ No If yes: - Reference to ethical committee approval:
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 ☒ No If yes, please comment:
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?	☐ Yes ☒ No If yes, please comment:

4. Documentation and metadata	
What documentation will be provided to enable understanding and reuse of the data collected/generated in this project?	• A ReadMe file (.txt) will be used to describe how the data was retrieved/derived, the file format, and references to other important documents. The structure of every ReadMe file is based on the example documentation provided by KU Leuven (https://www.kuleuven.be/rdm/en/README) • All input data and results derived from the models after post-processing will be kept as .csv files withing different folders. Information on the location of the folders and their content will be provided by a ReadMe file. • The agent-based models developed in this research will be documented by using the ODD (Overview, Design concepts, Details) protocol. This protocol serves as an standard template to communicate agent-based models and has been adopted broadly in several disciplines. Furthermore, explanatory comments in code will be provided to facilitate understanding of the models. • Post-processing code will have explanatory comments to facilitate understanding of the approach used to process the data generated by the agent-based models.

Will a metadata standard be used? If so, describe in detail which standard will be used. If not, state in detail which metadata will be created to make the data easy/easier to find and reuse.	☐ Yes ☒ No If yes, please specify: Metadata will be created manually by the researcher containing all relevant data. An excel table will be generated for each file. This table will contain the following metadata: • Title • Author • Subject • Description • Date • Type • Format • Source • Language • Extra

5. Data storage & backup during the FWO project	
Where will the data be stored?	The data will be stored on the personal network drive of the KU Leuven. A copy of these data will be also stored locally on the laptop and on Dropbox
How will the data be backed up?	The changes made in the files that are saved on the laptop will be transferred to the personal drives manually on a weekly basis
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 ☐ No If no, please specify: The KU Leuven personal drive provides 50 GB of storage, which should suffice for the research project Additionally, OneDrive for business provides 2 TB of storage

What are the expected costs for data storage and backup during the project? How will these costs be covered? *Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of **the allocated project budget** to be used to cover the cost incurred.*	Both the costs for KU Leuven drives and OneDrive storage are financed by the KU Leuven
Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?	The personal drive of the KU Leuven, OneDrive, and DropBox can only be accessed with a password chosen by the researcher

6. Data preservation after the end of the FWO project FWO expects that data generated during the project are retained for a period of minimally 5 years after the end of the project, in as far as legal and contractual agreements allow.	
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 obtained during this project will be retained for at least 5 years
Where will these data be archived (= stored for the long term)?	The data will be archived on the KU Leuven network drive (J-drive) of the research group

What are the expected costs for data preservation during these 5 years? How will the costs be covered? *Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of* ***the allocated project budget*** *to be used to cover the cost incurred.*	The network drive J cost 157 euro per TB per year. It is estimated that this project will require about 1 TB. Hence, the costs for 5 year of storage will be up to 785 euro. These costs will be covered by the research group.

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)?	☐ Yes ☒ No If yes, please specify:
Which data will be made available after the end of the project?	All data will be made available to other researchers after the end of the project
Where/how will the data be made available for reuse?	☐ In an Open Access repository ☒ In a restricted access repository ☒ Upon request by mail ☐ Other (specify): The data will be available for reuse by other researchers within the research group. Everything can be retrieved from the archive drive of the research group. Researchers from outside the research group can request specific data via email
When will the data be made available?	Immediately after the end of the project
Who will be able to access the data and under what conditions?	The data will be available to all researchers of the research group. Researchers from outside the research group can request specific data via email

What are the expected costs for data sharing? How will these costs be covered? *Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of* ***the allocated project budget*** *to be used to cover the cost incurred.*	No costs are expected for data sharing

8. Responsibilities	
Who will be responsible for the data documentation & metadata?	Jorge A. Moncada (postdoctoral research fellow)
Who will be responsible for data storage & back up during the project?	Jorge A. Moncada (postdoctoral research fellow)
Who will be responsible for ensuring data preservation and sharing?	Jorge A. Moncada (postdoctoral research fellow)
Who bears the end responsibility for updating & implementing this DMP? *Default response: The PI bears the overall responsibility for updating & implementing this DMP*	Jorge A. Moncada (postdoctoral research fellow)