

## 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	Roel Leus
FWO Project Number & Title	<i><b>G0D2622N Project planning with secrecy, monitoring, and interdiction</b></i>
Affiliation	<input checked="" type="checkbox"/> KU Leuven <input type="checkbox"/> Universiteit Antwerpen <input type="checkbox"/> Universiteit Gent <input type="checkbox"/> Universiteit Hasselt <input type="checkbox"/> Vrije Universiteit Brussel <input type="checkbox"/> Other:
2. Data description	
Will you generate/collect new data and/or make use of existing data?	<input checked="" type="checkbox"/> Generate new data <input checked="" type="checkbox"/> Reuse existing data

<p>Describe the origin, type and format of the data (per dataset) and its (estimated) volume</p> <p><i>If you <b>reuse</b> existing data, specify the <b>source</b> of these data.</i></p> <p><i>Distinguish data <b>types</b> (the kind of content) from data <b>formats</b> (the technical format).</i></p>	<p><b>The research set out in this proposal primarily aims to obtain mathematical decision-support models and does not have a dedicated data collection aspect: the proposed work mainly consists of modelling and algorithm design. In this context, in line with what is common in the field of operations research, artificial datasets of problem instances can be generated. This typically takes the form of a series of text-based files in CSV-format. Apart from this, for empirical validation, we might extract information from publicly accessible patent databases on KU Leuven computers.</b></p>
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### 3. Ethical and legal issues

<p>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.</p> <p><i>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.</i></p>	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>If yes:</p> <ul style="list-style-type: none"> <li>- Privacy Registry Reference:</li> <li>- Short description of the kind of personal data that will be used:</li> </ul>
<p>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).</p>	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>If yes:</p> <ul style="list-style-type: none"> <li>- Reference to ethical committee approval:</li> </ul>
<p>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?</p>	<p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p> <p>If yes, please comment:</p>

Do existing 3 <sup>rd</sup> 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please comment:
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#### 4. Documentation and metadata

What documentation will be provided to enable understanding and reuse of the data collected/generated in this project?	<b>The datasets will be accompanied by a text-based readme file that explains all the fields</b>
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.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please specify: the abovementioned readme file is quite standard in instance sets for combinatorial optimization and operations research, and will be sufficient for this purpose.

#### 5. Data storage & backup during the FWO project

Where will the data be stored?	All generated datasets will be made publicly available via a dedicated website that will be publicly accessible. This website will be hosted on KU Leuven computers, and will remain in use at least 10 years after the completion of the research project (10 years is the minimum duration imposed by the KU Leuven research data management policy). Relevant information extracted from patent databases, if any, will be included in our working papers as appendix. These working papers will also be made available online, both at the personal website of the supervisor as well as via the arXiv.org repository.
How will the data be backed up?	KU Leuven has automated safeguards in place to protect all data that is kept on group disks. Apart from this, an extra copy of the data will also be stored on the KU Leuven OneDrive account of Roel Leus.

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.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, please specify:
What are the expected costs for data storage and backup during the project? How will these costs be covered?  <i>Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of <b>the allocated project budget</b> to be used to cover the cost incurred.</i>	<b>None, these are standard services that KU Leuven and its Faculty of Economics and Business provide to all its staff.</b>
Data security: how will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?	<b>The data are only accessible to Roel Leus, Ben Hermans, and other staff that received specific delegations. KU Leuven's ICTS is responsible for data security, and is sufficiently experienced to guarantee adequate handling.</b>

#### 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, ...).	<b>All</b>
Where will these data be archived (= stored for the long term)?	<b>The same locations as mentioned supra</b>

<p>What are the expected costs for data preservation during these 5 years? How will the costs be covered?</p> <p><i>Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of <b>the allocated project budget</b> to be used to cover the cost incurred.</i></p>	<p><b>None</b></p>
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## 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 3 <sup>rd</sup> party, legal restrictions)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, please specify:
Which data will be made available after the end of the project?	<b>All, same as above</b>
Where/how will the data be made available for reuse?	<input checked="" type="checkbox"/> In an Open Access repository <input checked="" type="checkbox"/> In a restricted access repository <input checked="" type="checkbox"/> Upon request by mail <input type="checkbox"/> Other (specify):
When will the data be made available?	<b>Upon publication of the accompanying research paper</b>
Who will be able to access the data and under what conditions?	<b>The data will be publicly available</b>

<p>What are the expected costs for data sharing? How will these costs be covered?</p> <p><i>Although FWO has no earmarked budget at its disposal to support correct research data management, FWO allows for part of <b>the allocated project budget</b> to be used to cover the cost incurred.</i></p>	<p><b>None</b></p>
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8. Responsibilities	
Who will be responsible for the data documentation & metadata?	Roel Leus
Who will be responsible for data storage & back up during the project?	Roel Leus
Who will be responsible for ensuring data preservation and sharing?	Roel Leus
<p>Who bears the end responsibility for updating &amp; implementing this DMP?</p> <p><i>Default response: The PI bears the overall responsibility for updating &amp; implementing this DMP</i></p>	Roel Leus