

# **DMP DOGS@WORK POSTDOC FWO PROJECT**

**Project Name** DOGS@WORK (FWO DMP) - DMP DOGS@WORK POSTDOC FWO PROJECT

**Project Identifier** 12B0522N

**Grant Title** 12B0522N

**Principal Investigator / Researcher** Main researcher: Joni Delanoeije; PI: Marijke Verbruggen

**Project Data Contact** +3216329727 ; joni.delanoeije@kuleuven.be

**Description** Our main objective is to gain a comprehensive understanding of why, when and for whom dogs at the (home) office affect employee wellbeing and performance, in order to determine how organizations can successfully tailor their telework policies also to employees with dog care demands and enable office-dog policies to reach their full potential, taking into account co-workers of dog bringing employees. As dogs at work are likely to impact firm functions, employee wellbeing, interpersonal processes and organizational performance, such knowledge is essential to properly develop guidelines and protocols. Scholars have urged for such protocols, yet, to our knowledge, we are the first who aim to develop clear protocols for optimizing telework and office-dog policies, hereby identifying the circumstances under which such policies truly benefit employees and organizations. To tackle the gaps mentioned above, we focus on two objectives. First, we aim for testing the effects of dogs at the home workplace on teleworking employees (OBJECTIVE 1). Specifically, we aim to study whether having a dog at home while teleworking can counter drawbacks of telework by increasing physical exercise and work detachment, hereby decreasing stress and increasing job performance. We aim to do this by studying employees' wellbeing and performance indicators on a within-subject level to assess mechanisms (Objective 1.1) and on a between-subject level to assess moderators also in larger sample sizes (Objective 1.2). Knowledge on these effects can help organizations to effectively target telework policies to dog owning employees, addressing potential risks and allowing the benefits of dogs at the home workplace to reach their full potential. Second, we aim for testing the effects of dogs at the office on dog bringing employees and their co-workers (OBJECTIVE 2). With this knowledge, we aim to optimize protocols for firms that wish to implement office-dog policies, addressing not just benefits but also important risks. This knowledge could help organizations developing adequate dog-related policies. To address our objectives, we conduct three studies. STUDY 1: For Objective 1.1, i.e. to examine the daily effects of dogs at teleworking days, we have conducted a daily diary, longitudinal study in the spring of 2021 and the autumn of 2021. Data: online repeated survey data from 417 respondents (3353 data points) in spring and in 164 respondents (1376 data points), of whom 90 participated in spring. Of the respondents participating in spring, 35 respondents wore a Garmin smartwatch which we also include in our data. From 12 of those respondents, we also collected smartcollar data from their dog. These studies were approved by the ethical committee and the GDPR committee: spring data collection under G-2020-2445-R4(MAR) and autumn data collection under G-2020-2445-R5(AMD). Research questions and research purpose are clarified in detail and were approved before the onset of data collection. STUDY 2: For Objective 1.2, i.e. to examine the moderators of effects of dogs at the home office, we will conduct a cross-lagged longitudinal study with 700 employees: 400 dog owning teleworkers, 100 dog owning non-teleworkers and 200 non-dog owning teleworkers. Participants will be asked to fill out surveys on three occasions each six months apart. STUDY 3: For Objective 2, i.e. to examine the daily effects of dogs at the office, we will conduct a daily diary study with 120 employees: 40 employees who bring their dog to work, 40 co-workers who do not bring their dog to work and 40 co-workers who do not own a dog (i.e. three groups) during 10 consecutive working days. Similar to Study 1, participants will fill out a background survey at the start of the study and daily surveys during 10 consecutive working days once at the end of the workday and once at the end of the evening. Also similar to Study 1, participants will be asked to wear a Garmin smartwatch or an Apple smartwatch and let their dog wear a PetPace smartcollar or a SensDog collar.

**Institution** KU Leuven

## **1. General Information**

### **Name applicant**

Fellow: Joni Delanoeije (KU Leuven)

Main supervisor: Marijke Verbruggen (KU Leuven)

### **FWO Project Number & Title**

12B0522N: 'My work feels like home': Effects of dogs in the 2020 (home) workplace on employee wellbeing and performance

### **Affiliation**

## Animation

- KU Leuven
- Universiteit Gent

Co-supervisors: Geert van Hootegeem (KU Leuven) & Christel Moons (UGent)

## 2. Data description

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

- Generate new data
- Reuse existing 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).**

The project consists of three studies described in three work packages. For each study/work package, we will:

(1) make use of existing data, more specifically of published research, existing research models and theories (e.g., attachment theory, social support theory, self-regulation theory)

(2) collect (or have collected), analyze and document survey data and smart wearable data. The **survey** datasets will be saved as a datafile, both in CSV (Excell), SPSS and R. In addition, we will save the syntax (.spsfile), the R-code (.R) and document the metadata (as word-files; see further for more information about the metadata). The **smart wearable** datasets will be saved as a datafile in CSV (Excell) and R. In addition, we will save the R-code (.R) and document the metadata as wordfiles. Furthermore, raw smart wearable data from the Garmin smartwatches are additionally saved as .fit files as well as are stored within the pseudonimised accounts created on Garmin Connect to easily access and visualize the data. These pseudonimised accounts are created and managed by the main researcher (i.e., the project applicant).

Study	How created?	Data type & format	Volume
	<p>* Longitudinal survey data in spring and autumn of 2021 (two datasets). Online repeated survey data from 417 respondents (3353 data points) in spring and in 164 respondents (1376 data points), of whom 90 participated in spring.</p> <p>* Smart wearable data from 35 participants in spring of 2021. Of the respondents participating in spring, 35</p>		

WP1	<p>respondents wore a Garmin smartwatch which we also include in our data. From 12 of those respondents, we also collected smartcollar data from their dog.</p> <p>* These studies were approved by the ethical committee and the GDPR committee: spring data collection under G-2020-2445-R4(MAR) and autumn data collection under G-2020-2445-R5(AMD). Research questions and research purpose are clarified and detail and were approved before the onset of data collection.</p> <p>* Data are being analyzed using Excell, SPSS and R; we will save the syntax and document the analyses and the results in word-documents.</p> <p>* Metadata about the study (e.g., dataset, analyses, results) will be saved in word-documents</p> <p>* Smart wearable data are available in .fit files and are also stored on pseudonymized accounts on Garmin Connect, created and</p>	<p>* Survey data (i.e., individual responses on survey questions): CSV, SPSS and R</p> <p>* Syntax: .sps-file (SPSS) and .R-files (R)</p> <p>* Meta-data: wordfiles, accounts</p> <p>* Smart wearable data: .fit files, online accounts (Garmin Connect)</p>	365 MB
-----	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------

	managed by the main researcher		
WP2	<p>* Longitudinal survey data with 700 employees (400 dog owning teleworkers, 100 dog owning non-teleworkers and 200 non-dog owning teleworkers). Participants will be asked to fill out surveys on three occasions each six months apart</p> <p>* Data will be analyzed; we will save the syntax and document the analyses and the results in a word-document</p> <p>* Metadata about the study (e.g., dataset, analyses, results) will be saved in word-documents</p>	<p>* Survey data (i.e., individual responses on survey questions): CSV, R and SPSS</p> <p>* Syntax: .sps-file (SPSS) and .R file (R)</p> <p>* Meta-data: wordfiles</p>	120 MB

WP3	<p>* Longitudinal survey data in 2023. Online repeated survey data from 120 respondents (1200 data points) and 80 dogs (800 data points)</p> <p>* Smart wearable data from 60 participants and 60 dogs</p> <p>* Data will be analyzed using Excell, SPSS and R; we will save the syntax and document the analyses and the results in word-documents.</p> <p>* Metadata about the study (e.g., dataset, analyses, results) will be saved in word-documents</p> <p>* Smart wearable data are available in .fit files and are also stored on pseudonymized accounts on Garmin Connect, created and managed by the main researcher</p>	<p>* Survey data (i.e., individual responses on survey questions): CSV, SPSS and R</p> <p>* Syntax: .sps-file (SPSS) and .R-files (R)</p> <p>* Meta-data: wordfiles, accounts</p> <p>* Smart wearable data: .fit files, online accounts (Garmin Connect)</p>	150 MB
-----	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------

### 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.**

- Yes

Privacy Registry Reference: The studies considering WP1 were approved by the ethical committee and the GDPR committee: spring data collection under G-2020-2445-R4(MAR) and autumn data collection under G-2020-2445-R5(AMD). Research questions and research purpose are clarified and detail and were approved before the onset of data collection.

Short description of the kind of personal data that will be used: survey data, smart wearable data

(from people and from dogs), e-mailaddresses to be able to collect data longitudinally

**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

The studies considering WP1 were approved by the ethical committee and the GDPR committee: spring data collection under G-2020-2445-R4(MAR) and autumn data collection under G-2020-2445-R5(AMD). Research questions and research purpose are clarified and detail and were approved before the onset of data collection.

For the studies considering WP2 and WP3, we will submit these studies to the following ethical committees:

- Social and Societal Committee (SMEC), KU Leuven
- GDPR (General Data Protection Regulation), KU Leuven

We will also contact KU Leuven's responsible person of the Animal Experimentation Committee to get a formal decision that our research does not involve animal experiments. As we only engage owned animals, our studies do not fall under the Belgian law for animal experimentation. As the KU Leuven together with other universities is discussing these types of studies, we will be in touch with potential evolutions on this matter and will contact the animal experimentation board accordingly if necessary.

**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?**

- No

Not applicable

**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

Not applicable

#### **4. Documentation and metadata**

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

For every work package, we will generate metadata files (in word) which contain the following information:

1. General description of the research (e.g., researchers involved, title of the project, keywords based on Thesaurus EBSCOhost, etc.)
2. Description of the study design, sampling decisions, etc.
3. A codebook about the survey and the main dataset (e.g., variable names and labels, origin of the scales that are used, link between the variables and the survey questions, etc.).
4. The informed consent form
5. Information about the analyses (e.g., syntax), research methods and research results.
6. If we keep different versions of the dataset, we will document the differences between these versions. Different versions will get a name that suggests the link between the different versions (e.g., date in the filename, subsequent numbering: 1.1, 1.2).
7. The research questions/papers for which the data are used

All metadata will be stored at the research unit's storage facility (i.e., X-drive; which is secured and can only be accessed by the researchers of the research group; and KU Leuven OneDrive; which is only accessible by the main researcher and people who are granted access by this researcher).

In addition, some metadata (i.e., (1) the general description of the research, (2) description of

the study design and (7) the research questions/papers for which the data are used) will be made available publically (e.g., via Open Science Framework). Other metadata can be shared upon request.

**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

Metadata of the research (e.g., general description, codebook, questionnaires, research methods, etc.) will be created manually.

## **5. Data storage and backup during the FWO project**

### **Where will the data be stored?**

The main researcher (Joni Delanoëije) will be responsible for all data storage. Data will be stored on the internal storing system of KU Leuven (i.e., KU Leuven OneDrive). The personal data will only be accessible in separate documents so they cannot be linked with each other. Only the main researcher will keep a document to link both documents on the secured data storage system of KU Leuven in her personal OneDrive, which is set with a password.

Concerning the files with file with the emailaddresses; these files will be deleted when all data arecollected and the data of the different waves are linked (and some prizes are raffled).

Concerning the original datasets and all metadata; these will be kept on our research unit central storage facility of the FEB, KULeuven (i.e., X-drive, which can only be accessed by researchers of the research group and which is secured) and on the KU Leuven OneDrive of the main researcher. Copies can be made and kept on this research unit central storage facility.

Concerning the metadata; some of these will also be made publically available, for instance via open science framework (see other questions).

### **How is backup of the data provided?**

The files with the emailaddresses will be stored on the pmain researcher's personal central storage facility of the FEB KULEuven (i.e., KU Leuven OneDrive) which is secured, can only be accessed by the main researcher and has automatic daily back-up procedures. These files will be deleted once all data for that work package is collected and data of the different waves are linked (and some prizes are raffled).

The (pseudonymized) datasets and all meta-data will additionally be stored on our research unit central storage facility of the FEB KULEuven (i.e., X-drive) which is secured and has automatical daily back-up procedures.

Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available, probably via the open science framework; as well as through a website dedicated to the project and/or the affiliated researchers.

**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

Since the size of the datafiles is limited, we foresee no problem.

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

We do not foresee any additional costs for data storage or backup. In case we would need additional back up space (e.g., in case we would generate big data using smart wearables in a different research design), we will cover these costs with various available budgets of the main researcher and the supervisor of the project. Data storage platforms that will be used will only include those offered by the university (i.e., KU Leuven OneDrive and/or X/Y drives).

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

The files with the emailaddresses will be stored on the pmain researcher's personal central storage facility of the FEB KULeuven (i.e., KU Leuven OneDrive) which is secured, can only be accessed by the main researcher and has automatic daily back-up procedures. These files will be deleted once all data for that work package is collected and data of the different waves are linked (and some prizes are raffled).

The (pseudonymized) datasets and all meta-data will additionally be stored on our research unit central storage facility of the FEB KULeuven (i.e., X-drive) which is secured and has automatical daily back-up procedures.

Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available, probably via the open science framework; as well as through a website dedicated to the project and/or the affiliated researchers.

## **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, ...).**

The files with the emailaddresses will be deleted once all data for that work package is collected and data of the different waves are linked (and some prizes are raffled). This was or will be communicated like this to the respondents in the informed consent form.

The (pseudonymized) datasets and all metadata will be stored on our research unit central storage facility of the FEB, KULeuven (i.e., X-drive) which is secured and can only be accessed by the researchers of the research group. Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available, probably via the open science framework.

All these data will be retained for the expected 5 year period after the end of the project.

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

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

The files with the emailaddresses will be deleted once all data for that work package is collected and data of the different waves are linked (and some prizes are raffled). This was or will be communicated like this to the respondents in the informed consent form.

The (pseudonymized) datasets and all metadata will be stored on our research unit central storage facility of the FEB, KULeuven (i.e., X-drive) which is secured and can only be accessed by the researchers of the research group. Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available, probably via the open science framework.

All these data will be retained for the expected 5 year period after the end of the project.

## **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

Not applicable

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

If there is an interesting research opportunity with external researchers - and if this is in line with our informed consent form - we might consider sharing the datasets with external researchers. In that case, we will make specific arrangements with these external researchers, among others about ethical use of the data and guaranteeing secure storage (e.g., via a license, like <https://creativecommons.org/share-yourwork/>).



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

- Upon request by mail

Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available, probably via the open science framework.

In the case that external researchers are interested in research questions which can be answered with one of our datasets, they can contact the researchers of the project and other metadata can be shared. If there is an interesting research opportunity with external researchers - and if this is in line with our informed consent form - we might consider sharing the datasets with external researchers. In that case, we will make specific arrangements with these external researchers, among others about ethical use of the data and guaranteeing secure storage (e.g., via a license, like <https://creativecommons.org/share-your-work/>).

## **When will the data be made available?**

- Immediately after the end of the project
- Upon publication of the research results

Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available immediately after the end of the project. Additions might be made after publication of the research results.

In the case that external researchers are interested in research questions which can be answered with one of our datasets, they can contact the researchers of the project and other metadata can be shared. If there is an interesting research opportunity with external researchers - and if this is in line with our informed consent form - we might consider sharing the datasets with external researchers. In that case, we will make specific arrangements with these external researchers, among others about ethical use of the data and guaranteeing secure storage (e.g., via a license, like <https://creativecommons.org/share-your-work/>).

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

The datasets can be accessed and reused by researchers of our research unit, if there is an interesting research idea that can be addressed with the data and if it is in line with the informed consent form.

Some metadata (i.e., (1) general description of the research (2) description of the research design and method) and (7) research questions/papers for which the data is used) will be made publically available, probably via the open science framework, after the end of the project. Other metadata can be shared upon request. All metadata that is made publically available or that is shared later on will be made "read-only" to avoid unauthorized people to modify the data.

If there is an interesting research opportunity with external researchers - and if this is in line with our informed consent form - we might consider sharing the datasets with external researchers. In that case, we will make specific arrangements with these external researchers, among others about ethical use of the data and guaranteeing secure storage (e.g., via a license, like <https://creativecommons.org/share-yourwork/>).

## **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 main researcher (applicant): Joni Delanoetje

End responsibility: supervisor (PI): Marijke Verbruggen

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

The main researcher (applicant): Joni Delanoetje

End responsibility: supervisor (PI): Marijke Verbruggen

### **Who will be responsible for ensuring data preservation and reuse ?**

The main researcher (applicant): Joni Delanoetje

End responsibility: supervisor (PI): Marijke Verbruggen

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

The PI (Marijke Verbruggen) bears the end responsibility of updating & implementing this DMP.