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# Employee Workplace Participation and Industry 4.0 Technological Adoption

*A Data Management Plan created using DMPonline.be*

**Creators:** Lynford Dor, n.n. n.n.

**Affiliation:** KU Leuven (KUL)

**Template:** KU Leuven BOF-IOF

**Data Manager:** Lynford Dor, n.n. n.n.

**ID:** 198118

**Start date:** 01-01-2023

**End date:** 31-12-2027

## **Project abstract:**

In this research we examine whether and how Industry 4.0 (I4.0) technologies in the chemical and motor manufacturing sectors have an impact on the quality of working life of employees in three countries (Netherlands, Belgium and USA). Understand whether Workplace Participation Forums (WPF) influence this relation between I.40 technology adoption and quality of working life across workplaces is thereby a specific domain of attention. We will hold open-ended interviews with industry experts to examine this relation. Experts will be approached from trade unions, employers/employer organisations and policy experts. Thereafter a combination of open and semi-structured interviews with employees, supervisors, senior managers and trade union representatives for each workplace will be conducted

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## Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.

Dataset name / ID	Description	New or reuse	Digital or Physical data	Data Type	File format	Data volume	Physical volume
		Indicate: <b>N</b> (ew data) or <b>E</b> (xisting data)	Indicate: <b>D</b> (igital) or <b>P</b> (hysical)	Indicate: <b>A</b> udiovisual <b>I</b> mage <b>S</b> ound <b>N</b> umerical <b>T</b> extual <b>M</b> odel <b>S</b> oftware Other (specify)		Indicate: <1GB <100GB <1TB >5TB NA	
Qualitative interviews	Interviews with employees, managers, trade unions and employer organisations (covering four companies in three countries)	N	D	T A	.mp4, .pdf, .docx, .xlsx	<100GB	
Survey	Survey of employees, trade union representatives and managers (targeting the same companies)	N	D	T	pdf, .docx, .xlsx	<100GB	

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

NA

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, refer to specific datasets or data types when appropriate and provide the relevant ethical approval number.

- No

Will you process personal data? If so, please refer to specific datasets or data types when appropriate and provide the KU Leuven or UZ Leuven privacy register number (G or S number).

- Yes (Provide PRET G-number or EC S-number below)

G-2023-6240-R2

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, ...)? If so, please comment per dataset or data type where appropriate.

- No

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material or Data transfer agreements, Research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- No

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- No

## Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in

the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, codebook.tsv etc. where this information is recorded).

Through a clear folder structure located on the One Drive and the shared network drive (J-Drive), existing data and developed material will be organised in order to simplify retrieving and consulting the overall documentation.  
Produced material will adopt meaningful filenames starting with the date (year/month/day, e.g. 230331\_\_), description of its content and, when applicable, ending with the initials of the creator.  
Coding books of both the qualitative and quantitative data will be structurally stored in the OneDrive.

**Will a metadata standard be used to make it easier to find and reuse the data?**

**If so, please specify which metadata standard will be used.**

**If not, please specify which metadata will be created to make the data easier to find and reuse.**

- Yes

As we intend to store the data on the KU Leuven RDR, we will have to use DataCite as metadata standard. The (PhD) researchers working on this project will further look into the implications of using DataCite.

## Data Storage & Back-up during the Research Project

**Where will the data be stored?**

- Shared network drive (J-drive)
- OneDrive (KU Leuven)

The collected data (both quantitative and qualitative) will be accessible to the PhD researcher, Lynford Dor, the two post-docs, Yennef Vereycken (and one still to be hired), and the responsible supervisors of the C2 project, prof. Valeria Pulignano, Lander Vermeerbergen, prof. Lode Lauwaert, and the supervisor and co-supervisors of the individual PhD's, being prof. Valeria Pulignano and prof. Tod Rutherford.

**How will the data be backed up?**

- Standard back-up provided by KU Leuven ICTS for my storage solution

**Is there currently sufficient storage & backup capacity during the project?**

**If no or insufficient storage or backup capacities are available, explain how this will be taken care of.**

- Yes

**How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?**

Onedrive documents will be shared only among the supervisors and (PhD) researchers of the research project. In case documents are shared outside of the research project (e.g. within the research group) this will be done with restricted access (shared via e-mail) and editing rights (view-only).  
The shared network drive will only be accessible to the researchers and supervisors working on the project.

**What are the expected costs for data storage and backup during the research project? How will these costs be covered?**

There are no expected costs for data storage and backup.

## Data Preservation after the end of the Research Project

**Which data will be retained for 10 years (or longer, in agreement with other retention policies that are applicable) after the end of the project?**

**In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).**

- All data will be preserved for 10 years according to KU Leuven RDM policy

**Where will these data be archived (stored and curated for the long-term)?**

- KU Leuven RDR

The long-term storage is guaranteed up to 10 years after the end of a project. Data is stored on servers of the KU Leuven. The members of the research group will have access to the data with the permission of the supervisor.

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

There are no expected costs for data storage and backup.

## Data Sharing and Reuse

**Will the data (or part of the data) be made available for reuse after/during the project?  
Please explain per dataset or data type which data will be made available.**

- Yes, as open data

**If access is restricted, please specify who will be able to access the data and under what conditions.**

NA

**Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?**

**Please explain per dataset or data type where appropriate.**

- No

**Where will the data be made available?**

**If already known, please provide a repository per dataset or data type.**

- KU Leuven RDR (Research Data Repository)

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

- Upon publication of research results

Paper publications, seminars, exhibition, round tables and workshops

**Which data usage licenses are you going to provide?**

**If none, please explain why.**

- CC-BY 4.0 (data)

We will further look into the specific data usage licences, and CC-BY 4.0 in specific, when we evolve in the research project.

**Do you intend to add a persistent identifier (PID) to your dataset(s), e.g. a DOI or accession number? If already available, please provide it here.**

- Yes, a PID will be added upon deposit in a data repository

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

There are no expected costs for data sharing.

## Responsibilities

**Who will manage data documentation and metadata during the research project?**

The data documentation and metadata will be managed by the PhD researcher and Postdoc appointed to the C2 research project, being Lynford Dor and Yennef Vereycken.

**Who will manage data storage and backup during the research project?**

The storage and backup of the data will be managed by the PhD researcher and Postdoc appointed to the C2 research project, being Lynford Dor and Yennef Vereycken.

**Who will manage data preservation and sharing?**

The responsible person will be prof. Valeria Pulignano, the supervisor of this C2 BOF project.

**Who will update and implement this DMP?**

The data management plan will be updated and implemented by the PhD researcher and Postdoc appointed to the C2 research project, being Lynford Dor and Yennef Vereycken.