



Magnetic Energy Conversion for Waste Heat

Deliverable 7.1

Management & Supervision Guidelines

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DISCLAIMER:

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Document History

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1	28.02.2024	Final version

Release Approval

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1 Introduction

This management and supervision guideline provides researchers and administrators with information needed to fulfil administrative and supervision tasks during the HEAT4ENERGY project.

The management and supervision guideline does not replace any of these established agreements, nor does it replace any of the EC guidelines for project implementation and documentation. In case any inconsistencies exist between these documents, the following order of precedence should be applied:

1. European Commission Grant Agreement including Description of the action (DoA) also referred to as Annex I;
2. Consortium Agreement (CA);
3. Management Guidelines.

This Handbook will be updated regularly. All changes will be clearly indicated in each version. Please always refer to the most recent version available.

The following documents and guidelines have been used in the preparation of this manual:

- HEAT4ENERGY grant agreement
- HEAT4ENERGY consortium agreement
- MSCA Guidelines on Supervision
- Information slides from the MSCA-DN 2022 coordinator's day
- [Annotated Model Grant Agreement \(AGA\)](#)
- [horizon-msca-financial-guide_en.pdf \(europa.eu\)](#)
- [Open science - European Commission \(europa.eu\)](#)

2 General information

2.1 HEAT4ENERGY project

HEAT4ENERGY is an EU-funded project within the Horizon Europe Marie Skłodowska-Curie Actions - Doctoral Networks under grant agreement number 101119852. The project duration is 4 years, running from 1 January 2024 to 31 December 2027.

2.2 HEAT4ENERGY consortium

The HEAT4ENERGY consortium consists of the beneficiaries and associated partners listed below:

Consortium Member	Legal Entity Short Name	Country	Scientist-in-Charge
1. Technische Universiteit Delft	TU Delft	Netherlands	Prof. Ekkes Brück
2. Karlsruher Institut für Technology	KIT	Germany	Prof. Manfred Kohl
3. Consiglio Nazionale delle Ricerche	CNR	Italy	Dr. Franca Albertini
4. Helmholtz-Zentrum Dresden-Rossendorf EV	HZDR	Germany	Dr. Sebastian Fähler
5. Bundesanstalt für Materialforschung und -prüfung	BAM	Germany	Dr. Anja Waske
6. Univerza V Ljubljani	UL	Slovenia	Prof. Andrej Kitanovski
7. Stichting Radboud Universiteit	RU	Netherlands	Dr. Gilles de Wijs
8. Centre National de la Recherche Scientifique CNRS	NEEL	France	Dr. Nora Dempsey
9. Universität für Weiterbildung Krems	DUK	Austria	Dr. Thomas Schrefl
1. Magneto B.V.	Magneto	Netherlands	Dr. Michael Mashek
2. memetis GmbH	memetis	Germany	Dr. Christof Megnin
3. Università Degli Studi di Parma	UNIPR	Italy	Prof. Dr Massimo Solzi
4. Technische Universität Dresden	TU Dresden	Germany	Prof. Dr Jürgen Fassbender / Prof. Dr Kerstin Eckert
5. Université Grenoble Alpes	UGA	France	Prof. Dr Olivier Isnard
6. Technische Universität Wien	TU Wien	Austria	PD Dr. Thomas Schrefl
7. Magnoric	Magnoric	France	Rémi Dubois

3 Legal documents

3.1 Grant Agreement

The Grant agreement forms the legal basis for the implementation of the project. It consists of:

- Terms and conditions
- Annex 1 Description of Action - Part A and B
- Annex 2 Estimated budget for the Action
- Annex 2a Additional information on unit costs and contributions
- Annex 3 Accession forms signed by beneficiaries
- Annex 4 Model for the financial statements
- Annex 5 Specific rules

The grant agreement must be retained in the partner's file and should be provided to the auditor in case of an audit.

→ *File location on SurfDrive: \HEAT4ENERGY\Agreements*

3.2 Consortium Agreement

The Consortium Agreement covers the provisions of the grant agreement in more detail, including - but not limited to - financial issues, payments, management, decision-making, intellectual property rights and liability and is signed by beneficiaries and associated partners.

The consortium agreement must be retained in the partner's file and should be provided to the auditor in case of an audit.

→ *File location on SurfDrive: \HEAT4ENERGY\Agreements*

3.3 Amendments

During the project, circumstances may arise that require an amendment to the Grant Agreement. The GA must be amended if there are changes to:

- its **terms & conditions** (e.g. data or options specific to that agreement)
- its **annexes**.

An amendment is necessary when:

- Changes involving beneficiaries or third parties;
- Changes involving the coordinator;
- Changes affecting the project's (Annex I Description of Action);
- Changes involving the financial aspects of the grant.

When a decision for amendment has been adopted by the Supervisory Board, the coordinator shall submit a request for amendment to the Commission.

Once approved by the Commission, the coordinator will provide the partners with the revised grant agreement, replacing the previous versions. The revised GA must be retained on partners' files and must be made available in case an audit applies.

If an amendment also affects the CA, the coordinator shall also propose and prepare an amendment to the consortium agreement.

4 Description of the Action

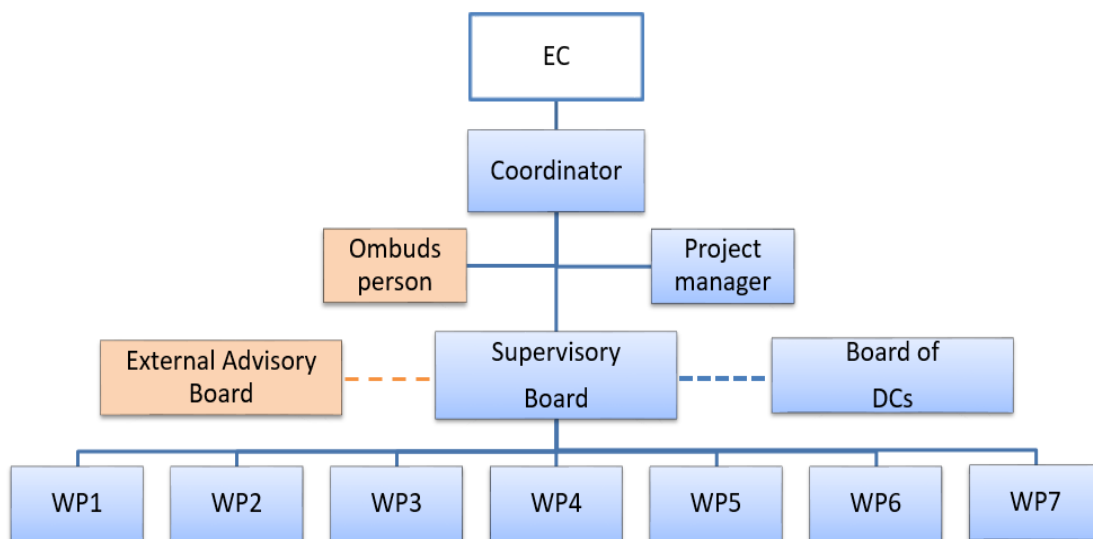
The description of the action (work package descriptions, deliverables and milestones list) is described in Annex I Part A of the Grant Agreement.

The individual PhD projects are described in Annex I Part B of the Grant Agreement.

→ *Please ensure that you always rely on the latest version. In case of amendment of the Grant Agreement, there may be changes in the Description of Action compared to previous versions.*

5 Project governance

The following diagram illustrates the organisation of the HEAT4ENERGY project.



The organisational structure of the consortium shall comprise the following Consortium Bodies:

5.1 Project coordinator

The HEAT4ENERGY project is coordinated by Delft University of Technology. The coordinator is responsible for the overall coordination and management of the project activities and maintain regular contact with all work package leaders, project partners and the Commission.

Scientific coordinator: Prof. Dr. Ekkes Brück, E: e.h.bruck@tudelft.nl T: +31 15 27 83158
 Project manager: Karin van der Graaf, E: k.vandergraaf@tudelft.nl T: +31 15 27 81773

5.2 Supervisory Board

The Supervisory Board (SB) is the main decision-making body of the consortium. The SB monitors the overall Project and research progress, and is responsible for overseeing the quality of the network-wide training of the DCs and for ensuring that scientific/technological training is balanced with transferable skills training appropriate to the needs of each recruited researcher. The SB will also oversee the quality and quantity of supervision of the DC's.

All partners are represented in the SB. Specific operational procedures for the SB are described in article 6.3.1 of the Consortium Agreement.

The Supervisory Board consists of the following members:

Partner	Representative
TU Delft	Niels van Dijk
KIT	Manfred Kohl
CNR	Franca Albertini
HZDR	Sebastian Fahler
BAM	Anja Waske
UL	Andrej Kitanovski
RU	Gilles de Wijs
CNRS	Nora Dempsey
DUK	Thomas Schrefl
Memetis	Christof Megnin
Magneto	Michael Maschek
Magnoric	Remi Dubois
UniPR	Massimo Solzi
TU Dresden	Jürgen Fassbender
TU Wien	Christoph Eisenmenger-Sittner
UGA	Thibaut Devillers

5.3 Work Package Leaders

The work package leaders are responsible for execution of the Work Package in line with Annex I 'Description of Action' of the Grant Agreement. They also make sure that the targets are reached and take care of timely delivery of results.

Any circumstances which may require changes in the work package must be immediately reported to the project coordinator.

WP	WP Leader	Representative
1	Industrial Impact	Dr. Sebastian Fähler
2	Demonstrator	Prof. Andrej Kitanovski

3	Materials modelling	Dr. Gilles de Wijs
4	Materials fabrication and characterization	Dr. Anja Waske
5	Education & training	Dr. Franca Albertini
6	Dissemination & Communication	Prof. Ekkes Brück
7	Scientific coordination & Project Management	Ms. Karin van der Graaf

5.4 Work Package Team

The Work Package Team is responsible for execution of the work packages as described in the Description of the action (part A) of the Grant Agreement.

5.5 Board of Doctoral Candidates

The Board of Doctoral Candidates consists of all the Doctoral Candidates. The chair of the Board of Doctoral Candidates will attend the Supervisory Board meetings to represent the interests of the Doctoral Candidates and give feedback on behalf of the DCs, but has no vote in the Supervisory Board.

5.6 External Advisory Board

The External Advisory Board (EAB) will objectively look at research and training and will advise the Supervisory Board with respect to progress within the Project, ethical issues, and exploitation of results. EAB members have to sign a Non-Disclosure Agreement.

EAB member	Organisation
Dr Thom Palstra	University Twente
Dr Martino LoBue	ENS-Cachan
Stephan Dietz	Holcim Technology Ltd
tbd	tbd

→ A contact list of HEAT4ENERGY participants and roles is available on `\surfdrive\Shared\HEAT4ENERGY\Contacts`.

6 Communication

6.1 E-mail and contact list

To ensure clarity in correspondence, please include 'HEAT4ENERGY + clear description of the subject' in the e-mail.

→ A contact list of partners is available on `\surfdrive\Shared\HEAT4ENERGY\Contacts`.

6.2 Meetings

- Project meetings (organized by the coordinator)
- Progress meetings with WP leaders (organized by the coordinator)
- Supervisory Board (organized by the coordinator)
- WP team meetings (organized if needed by WP Leaders)

→ For meeting schedule see: HEAT4ENERGY\Meetings

6.3 Management documents

Documents (agreements, minutes, deliverables, reports, etc.) are shared via SurfDrive.

All documents are only accessible to HEAT4ENERGY consortium members and may therefore not be shared outside the consortium, with the exception of open access publications and data.

The login data is strictly personal and may under no circumstances be given to others.

→ Access to SurfDrive can be provided by the Project Manager.

6.4 EU portal

Communication between the Coordinator and the Commission and submission of reports, deliverables, milestones, etc. takes place via the [EU Participant portal](#).

Access is required to upload documents and submit financial statements. Some roles are already included, based on the information in your proposal. Other roles, to be assigned by the LEAR or Participant Contacts of the beneficiary:

- Project Legal signature (LSIGN)
- Financial signature (FSIGN)
- Team member

→ More information on roles and access rights in the EU portal is available via <https://webgate.ec.europa.eu/funding-tenders-opportunities/display/OM/Roles+and+access+rights>

6.5 Use of Logos and Acknowledgements/Disclaimer

All publications and other dissemination must use the EU and HEAT4ENERGY logos. A set of logos of the HEAT4ENERGY project and the EU are available via the on the HEAT4ENERGY SurfDrive.

Acknowledgements to the European Commission to be included in all the publications and patent applications:

“This project has received funding from the European Union under grant agreement No 101119852”

Any communication activity related to the HEAT4ENERGY project must indicate that it reflects only the author's view and that the Commission is not responsible for any use that may be made of the information it contains. Communication activities and publications therefore must include a disclaimer:

“Views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or [name of the granting authority]. Neither the European Union nor the granting authority can be held responsible for them.”

→ File location for logos on SurfDrive: \HEAT4ENERGY\Logos

6.6 Project website and LinkedIn

For communicating the project and its results a website <https://heat4energy.eu/> and a LinkedIn <https://www.linkedin.com/company/heat4energy> has been created to inform stakeholders and the general public about the project.

7 Open Science

7.1 Open Access publication

To ensure open access publications in accordance with Article 17 of the Grant Agreement each beneficiary must **as soon as possible and at the latest at the time of publication deposit**:

- **a machine-readable electronic copy of the published version or final peer-reviewed manuscript** accepted for publication in a trusted repository for scientific publications. For journal articles, choose a Creative Commons Attribution (CC BY) or equivalent open license. For publishing long-texts, Creative Commons Attribution Non-Commercial/Non-Derivatives licenses are also allowed.
- the **research data** needed to validate the results presented in the deposited scientific publications. Metadata should be in line with the FAIR (Findable, Accessible, Interoperable, Reusable data) principles. Metadata should be machine-actionable (machine readable and automatic so that computer processing can extract information from the metadata attributes ensuring a cross-linking between different research outputs) and follow a standardized format in line with community standards. It should provide rich information, such as the publication/data, author(s), publication title, date of publication and publication venue. It should also include Horizon Europe or Euratom funding, Grant Project Name Acronym and number and licensing terms. Additionally, metadata must be open access under the Creative Commons Public Domain Dedication (CC0) or equivalent, ensuring its reusability.

7.1.1 What to deposit

The final peer-reviewed* OA manuscript

- Publisher's version
- Post-print incl. review comments

**Pre-print is not peer-reviewed*

7.1.2 Open Access Routes

There are two main routes towards open access to publications:

▶ **Self-archiving/'green' open access**

The published article or final peer-reviewed manuscript is uploaded in an online repository – access is often delayed (embargo period). If this route is chosen, beneficiaries must ensure open access to the publication **within a maximum of six months**.

▶ **OA publishing/golden route**

Article is **immediately placed in open access mode** through the publisher.

The article must always be deposited in a repository, even if the gold route has been chosen.

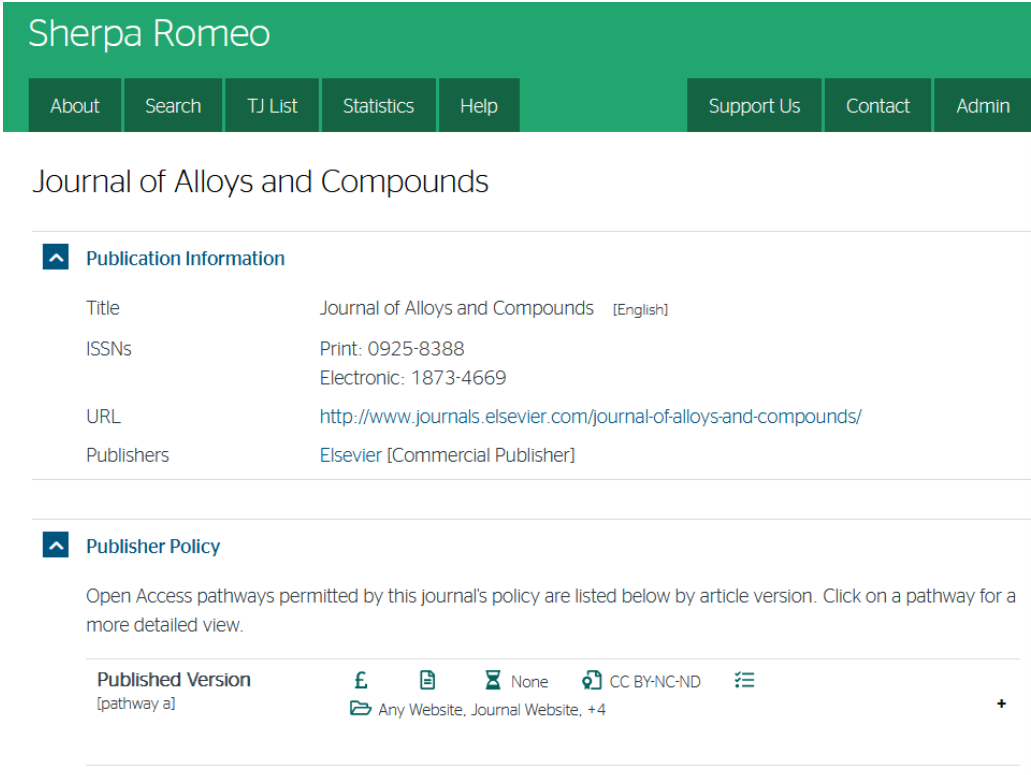


7.1.3 Article Processing Costs

Article Processing Costs (APC) to fully open access publications are eligible for EU funding. Some organisations have deals with publishers (discount / free of charge). Check in your organisation!

7.1.4 Publishers requirements

It is recommended to check the [SHERPA/RoMEO website](https://www.sherpa.ac.uk/romeo/) for publisher copyright policies & self-archiving.



Sherpa Romeo

Navigation: About | Search | TJ List | Statistics | Help | Support Us | Contact | Admin

Journal of Alloys and Compounds

Publication Information

Title	Journal of Alloys and Compounds (English)
ISSNs	Print: 0925-8388 Electronic: 1873-4669
URL	http://www.journals.elsevier.com/journal-of-alloys-and-compounds/
Publishers	Elsevier [Commercial Publisher]

Publisher Policy

Open Access pathways permitted by this journal's policy are listed below by article version. Click on a pathway for a more detailed view.

Published Version [pathway a]	Pathways
None	Any Website, Journal Website, +4
CC BY-NC-ND	

7.2 Open access to research data

Regarding the digital research data generated in the action ('data'), the beneficiaries must:

- deposit in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user — the following:
 - i. the data, including associated metadata, needed to validate the results presented in scientific publications, as soon as possible;
 - ii. not applicable;
 - iii. other data, including associated metadata, as specified and within the deadlines laid down in the 'data management plan' (see Annex 1).
- provide information — via the repository — about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (and — where possible — provide the tools and instruments themselves).

By any dissemination activity, one should bear in mind that an invention is no longer patentable once it has been disclosed. Therefore, any dissemination (including publications or on web-pages) should be delayed until a decision about a possible protection has been made.

Data may be kept closed if:

providing open access is against the **beneficiary's legitimate interests**, including regarding **commercial exploitation**;

it is contrary to **any other constraints**, such as **data protection rules, privacy, confidentiality, trade secrets, Union competitive interests, security rules, intellectual property rights** or would be **against other obligations** under the Grant Agreement.

A Data Management Plan (DMP) providing information on what data will be generated, what parts of the data will be open, and how curation, preservation and sustainability will be ensured, will be delivered by Month 6.

7.3 Upload your Open Access Publication and Research Data

To ensure open access publications and research data in accordance with Article 17 of the Grant Agreement, the following open data repositories are recommended:

- A reference thermomagnetic device will be made available at <https://www.openhardware.io/> (HZDR, UL)
- New source code will become open source through the [GitHub repository](#) (RU, DUK). To ensure long term preservation and following the FAIR principles, a permanent version will be archived using Zenodo.
- DFT data will be added to [NOMAD](#) (RU)
- Structural data will be added to the [Crystallographic Open Database](#) (TU Delft, NEEL, CNR)
- Magnetic data will be added to [FAIRMat](#) (E6, under development) (TU Delft, NEEL, CNR)
- Tomographic X-Ray Data will be added to [Tomobank](#) (BAM)

- As thermomagnetic materials are also smart materials, we will connect to [SmaDi of MaterialDigital](#) and use this when a repository is available (HZDR, BAM, TU Delft, NEEL, CNR)
- For combinatorial data (NEEL, RU) and Finite Element Simulations (KIT, UL, HZDR) no appropriate repository exists yet, but will be used when available.
- For all other data which does not go to dedicated repositories, Zenodo will be used. For all other data which does not go to dedicated repositories, a Zenodo HEAT4ENERGY Community has been created: <https://zenodo.org/communities/heat4energy/>.

More detailed information on Open Access Publications and Research Data will be given in the Data Management Plan (Due date: Month 6; 30.06.2024).

→ *More information on Open Science practices is available via:*

- *Article 17 and Annex 5 page 9 – 11 of the Grant Agreement*
- *Page 281 – 289 of the [Annotated Model Grant Agreement \(AGA\)](#)*

7.4 Objection procedure

The partner wishing to publish, present or disclose information about the project must follow the following procedure must follow the rules for dissemination are covered in article 8.4 of the Consortium Agreement and article 17 of the Grant Agreement.

1. Send an email at least 30 calendar days before publication / disclosure of information to k.vandergraaf@tudelft.nl. In case of conference abstracts, 14 calendar days prior to the date of publication applies. Provide the foreseen title, list of contributing authors, the purpose of the publication, and attach the publication.
2. Project Manager will forward the publication to the Supervisory Board members. SB members will forward the publication to the responsible person(s) in their organisation.
3. Members of the Supervisory Board will review the planned publication.
 - (i) Any objection to the planned **publication** shall be made in writing to k.vandergraaf@tudelft.nl **within twenty one (21) calendar days** after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted.
 - (ii) Any objection to the **abstract** shall be made in writing to k.vandergraaf@tudelft.nl **within seven (7) calendar days** after receipt of the notice. If no objection is made within the aforementioned time limit, the abstract is permitted.

An objection is justified if:

- the objecting party's legitimate academic or commercial interests are compromised by the publication;
- the projection of the objecting party's foreground or background is adversely affected;
- that the proposed publication includes confidential information of the objecting party.

The objection has to include a precise request for necessary modifications.

4. Project manager will inform the author(s) about the outcome of the review.

8 EU funding and Payments

8.1 EU funding

Total EU contribution (consortium budget): € 2.659.370,40.

The total EU contribution is based on:

- unit costs (1 eligible DC month = 1 unit)
- Max funding of 36 DC months.
- DC months that do not fall within the contract (=Grant Agreement) are not eligible

Distribution of the grant among partners, known as the Consortium Budget, is set out in Attachment 3 of the Consortium Agreement.

Adjustments of the budget is to be formally decided by the HEAT4ENERGY Supervisory Board and will be recorded in the minutes of the meeting.

8.2 Prefinancing payment

A pre-financing of € 2.127.496.32, excluding the Mutual Insurance Mechanism (MIM) contribution, will be paid to the coordinator within 45 days following the start date of the project to be distributed to the beneficiaries.

Consortium Budget (Attachment 3 to the Consortium Agreement)			
		2.659.370,40	100%
Pre-financing Ref. Ares(2023)8336001 - 06/12/202	Pre-financing	2.127.496,32	80%
	Mutual Insurance Mechanism (MIM) contribution	132.968,52	5%
	Pre-financing excluding MIM contribution	1.994.527,80	75%
	Payment to partners by coordinator	1.994.527,80	

8.3 Interim and Final Payment

Interim payments are subject to the approval of Periodic Reports (Interim ceiling: 90% of the maximum grant amount). Payment of the balance (positive or negative) is subject to the approval of the Final Report.

Payment	Based on
Prefinancing payment	Prefinancing payment letter
Interim payment	Periodic report 1 Month 1 - 24
Final payment	Periodic report 2 Month 25 - 48

8.4 MSCA-DN Cost Categories

The MSCA Doctoral Networks funding programme provides funding for Doctoral candidates and funding for beneficiaries.

Funding for Doctoral Candidates:

- a living allowance: basic gross amount
- a mobility allowance: paid at the same time as the living allowances, only for private use
- if applicable, family*, long-term leave and special needs allowances
- long-term leave and special needs allowances, if applicable

**‘Family’ means persons linked to the researcher by marriage (or a relationship with equivalent status to a marriage recognised by the legislation of the country where this relationship was formalised) or dependent children who are actually being maintained by the researcher.’*

The living, mobility and family allowances must be fully incurred by beneficiaries for the benefit of the researchers; this means that to be eligible, they must be fully used for the researchers for whom they are claimed. In other words, if the salary is less than the sum of the DC allowances the remainder must be paid to the DC.

Detailed information on the DC allowances can be found in the HE MSCA Financial Guide page 25-28.

Institutional unit contributions:

- Research, training and networking: covers costs related to the training and research expenses of researchers/staff members as well as costs related to the transfer of knowledge and networking activities (e.g. costs for participation in conferences, trips related to work on the action, training or language courses, seminars, lab material, books, library records, publication costs, visa-related fees, even if incurred before the recruitment date) as well as additional costs arising from each secondment of six months or less, which requires mobility from the place of residence (e.g. travel and accommodation costs)
- Management and indirect costs: covers additional costs incurred by the beneficiary in connection with the action, such as personnel costs for project management and coordination, or indirect costs.

Detailed information on the institutional unit contributions can be found in the HE MSCA Financial Guide page 36-37.

→ *File location for HE MSCA Financial Guide: V1.0 – 01.12.2023: HEAT4ENERGY\Guidelines*

9 Reporting

9.1 Reporting on DC appointments and secondments in the EU Portal

Each beneficiary must complete in the Mobility tab under 'Continuous reporting' the mobility declaration **within 20 days** on the appointment of the DC.

It is important that the Mobility Declaration is kept up to date, because the Mobility Declaration is the basis for the beneficiary's individual financial statement (calculation of unit costs).

Once the mobility declaration has been 'submitted', only the recruitment period and secondments can be edited/added. All other changes require the intervention of the PO (via the coordinator), who must reopen the MD in 'draft' to allow updating.

→ *Useful links:*

- *Link to EU portal: [Funding & tenders \(europa.eu\)](https://europa.eu)*
- *Guideline how to complete the mobility tab: [Completing the Mobility tab for MSCA Doctoral Networks \(MSCA-DN\) - IT How To - Funding Tenders Opportunities \(europa.eu\)](#)*

9.2 Deliverables and Milestones

In order to comply with Article 19 of the Grant Agreement, deliverables and milestones must be submitted/achieved in accordance with Annex I.

Deliverables and milestones are listed in Annex I Description of Actions (Annex I). In addition, there is also a deliverables and milestones list available in the EU Portal and on the HEAT4ENERGY SurfDrive. The deliverables and milestones list will be updated continuously by the Project Manager.

9.2.1 Document preparation and version control

A template is available for creating deliverables.

Versions of the documents, exchanged between partners before final submission to the European Commission, are versioned according to the following format:

HEAT4ENERGY_Dx.x_title_v0.X

Where:

- "Dx.x" is linked to the corresponding delivery number in the Description of Action (Annex I Part A).
- "title" is the name of the deliverable.
- "v" refers to the version of the document, the letter "v" is retained in the name of the deliverable.
- '0.X' is a number for the major revision (created by the deliverable's lead partner).

Final versions of the document submitted to the European Commission are labelled as version "V1.0", as follows:

HEAT4ENERGY_D7.1_Management_and_Supervision_Guidelines_v1.0

9.2.2 Submission process

For the preparation and submission of deliverables, please follow the steps below:

1. Prepare deliverable using the template available on the HEAT4ENERGY SurfDrive	Lead partner
2. Send deliverable to Work Package Leader	Lead partner
3. Review and approve deliverable by adding the approval date on Cover page – Checklist for review of deliverables is included below.	WP leader
4. Send deliverable to the Coordinator via k.vandergraaf@tudelft.nl	WP Leaders
5. Review and approve deliverable by adding the approval date on Cover page	Coordinator
6. Submit to the Commission, save on HEAT4ENERGY SurfDrive and notify consortium	Coordinator

Checklist for review of HEAT4ENERGY Deliverables

1. Is there a conflict of interest between the deliverable and your work?
2. Is the HEAT4ENERGY Deliverable template used?
3. Is the Deliverable number, Date of issue and Factual information on the front page correct
4. Is the Title relevant for the work done and the results obtained?
5. Is the Author list with Affiliations correctly spelled and complete?
6. Does the Abstract properly reflect the contents, results and conclusions of the report?
7. Does the Summary properly reflect the contents of the work?
8. Do the Conclusions revisit the main ideas in the Deliverable?
9. Is there a Contents list? If not, is it needed?
10. Is there an Index? If not, is it needed?
11. Is there an Acronym list? If not, is it needed?
12. Is the Literature review accurate, up-to-date and balanced?
13. Does it give adequate credit to earlier work done by others?
14. Is the level of Analysis, Synthesis and Evaluation sufficient?
15. Is the Structure of the deliverable clear?
16. Are the Figures and Tables clear and visible?
17. Is the Caption below each Figure and above each Table present?
18. Is the text in the Caption of each Figure and Table self-explanatory?
19. Are the Figures, Tables and Equations correctly numbered?
20. Is the deliverable carefully prepared and error free?
21. Do you suspect plagiarism, fraud or other ethical concern?
22. Is there a need to ask the External Advisory Board's advice?

9.2.3 Procedure in case of delay

If delays in the tasks lead to late delivery, the lead beneficiary should contact as early as possible the WP Leader and Project Coordinator, explaining:

- The reasons for the delay;

- The risk mitigation measures taken;
- The consequences for the concerned WP and (deliverables in) other WPs.

In consultation with the Project Management Board, the WP Leader and Project Coordinator will decide how to act with the Commission.

9.3 Periodic reporting (month 24 and 48)

The EC requires the following ‘reporting periods’ (RP):

Reporting schedule	Type	Due at month	Due date	Deliver before
Progress report Month 13		13		
Periodic report 1 Month 1 – 24	Interim payment	24	31-12-2025	29-1-2026
Periodic report 2 Month 25 - 48	Final payment	48	31-12-2027	29-1-2028

9.3.1 Technical reports

Technical reports consists of:

- Part A: automatically generated on the data encoded in the Continuous and Periodic Reporting
- Part B: a narrative description of progress of the work

9.3.2 Financial statements

It is important that the Mobility Declaration is kept up to date, because the Mobility Declaration is the basis for the beneficiary's individual financial statement (calculation of unit costs).

10 Recruitment and appointment of Doctoral Candidates

10.1 Recruitment and appointment

HEAT4ENERGY’s recruitment goal is to hire the best available Doctoral Candidates, based on their CV and track record, motivation letter and proven ability. The relevant infrastructure for recruiting PhD candidates at each academic partner institution, who all have a Gender Equality Plan as part of the EU's gender equality strategy, will be used to ensure recruitment is fair and efficient. Through its novel research and training programme, HEAT4ENERGY will provide DCs with relevant open data knowledge, skills and research experiences that cut across disciplines, domains and sectors.

For guidance on the recruitment of DCs, please refer to the HEAT4ENERGY recruitment and selection procedure, in which the procedures and criteria that will be used to identify/recruit DCs are described. Annexes to relevant documents and templates are also provided.

Ensure that DCs are recruited under an employment contract which is fully compliant with Annex 5 Specific conditions MSCA and Art 6. Specific eligibility conditions for each budget category² of the GA.

→ File location on SurfDrive: HEAT4ENERGY\Recruitment

10.2 Reporting on DC appointments

Each beneficiary must complete in the Mobility tab under 'Continuous reporting' the mobility declaration **within 20 days** on the appointment of the DC.

For detailed description see section 7.1.

11 Quality of supervision

11.1 Supervision

Each DC will be enrolled in a University PhD programme and will be directly supervised by the scientist-in-charge at the host institution.

The scientist-in-charge will provide daily guidance, allocate sufficient time for supervision, following **Marie Skłodowska-Curie Actions Guidelines on Supervision** (Attachment 1) and take a leading role as an advisor for the PhD thesis. Each DC will also have a co-supervisor, typically of another beneficiary where she/he will do a secondment. This is to ensure the coherence of the training programme.

DC	Direct supervisor	co-supervisor from other beneficiary	2nd co-supervisor
1	Prof. Dr. Ekkes Brück (TU Delft)	Dr. Anja Waske (BAM)	Dr. Ir. N.H. van Dijk (TU Delft)
2	Dr. Ir. N.H. van Dijk (TU Delft)	Dr. Nora Dempsey (NEEL)	Prof. Dr. Ekkes Brück (TU Delft)
3	Prof. Dr. Manfred Kohl (KIT)	Dr. Nora Dempsey (NEEL)	Dr. Franca Albertini (CNR)
4	Dr. Franca Albertini (CNR)	Prof. Dr. Manfred Kohl (KIT)	Prof. Dr. Massimo. Solzi (UNIPR)
5	PD Dr. Sebastian Fähler (HZDR)	Prof. Dr. Andrej Kitanovski (UL)	Prof. Dr. Jürgen Fassebender (TU Dresden)
6	Dr. Anja Waske (BAM)	Prof. Dr. Ekkes Brück (TU Delft)	Prof. Kerstin Eckert (TU Dresden)
7	Prof. Dr. Andrej Kitanovski (UL)	PD Dr. Sebastian Fähler (HZDR)	Dr. Anja Waske (BAM)
8	Dr. Ir. G.A. de Wijs (RU)	Dr. Franca Albertini (CNR)	Prof. Dr. Gerrit Groenenboom (RU)

9	Dr. Nora Dempsey (NEEL)	PD Dr. Thomas Schrefl (DUK)	Assoc. Prof. Dr. T. Devillers (UGA)
10	PD Dr. Tomas Schrefl (DUK)	Dr. Nora Dempsey (NEEL)	Prof. Dr. Hubert Brückl (DUK)

11.2 Personal career development plan

In the first months, each DC, together with their local supervisor (scientist-in-charge), will write a **personal career development plan** (Attachment 2). The DCs will be encouraged to reflect on the skills they would like to acquire based on the Vitae Researcher Development Framework and their future career goals leading to a specific implementation plan and selection of modules for their training. This will be updated every year and overseen by the Training Committee of the Supervisory Board.

→ *Useful links:*

<https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae.pdf/view>

11.3 Training committee

A training committee consisting of three experienced supervisors from three different institutions (a university, a research institute and a company) and a representative of the DCs to monitor the progress of each DC individually. When problems are signalled they will advise the supervisors and report to the supervisory board.

A training committee consisting of three experienced supervisors from three different research fields (theory, materials, devices) and a representative of the DCs are responsible for monitoring the progress of each DC individually. If problems are identified, they advise the supervisors and report back to the supervisory board.

The training committee consists of the following members:

Training committee member	Organisation	Research field
Nora Dempsey	CNRS Institut Néel	Theory
Thomas Schrefl	Universität für Weiterbildung Krems	Materials
Manfred Kohl	Karlsruhe Institute of Technology	Devices
To be appointed		DC representative

11.4 Ombuds person

Further quality control is provided by the independent **ombudsperson Prof. Dr. Ir. P. Daran-Lapujade**. **She is** Director of Applied Sciences Graduate School (TU Delft) and is a dedicated supervisory and promoted 14 PhD students to date. Since 2021 she is the director of the Graduate School of the Faculty of Applied Sciences, where she actively promotes and monitors the well-being of PhD candidates and the quality of their supervision.

DCs can report problems and conflicts to her. The ombudsperson can make independent inquiries and provide solutions on the authority of the supervisory board.

→ *Contact details:*

Prof. Dr. Ir. P. Daran-Lapujade, Director of Applied Sciences Graduate School

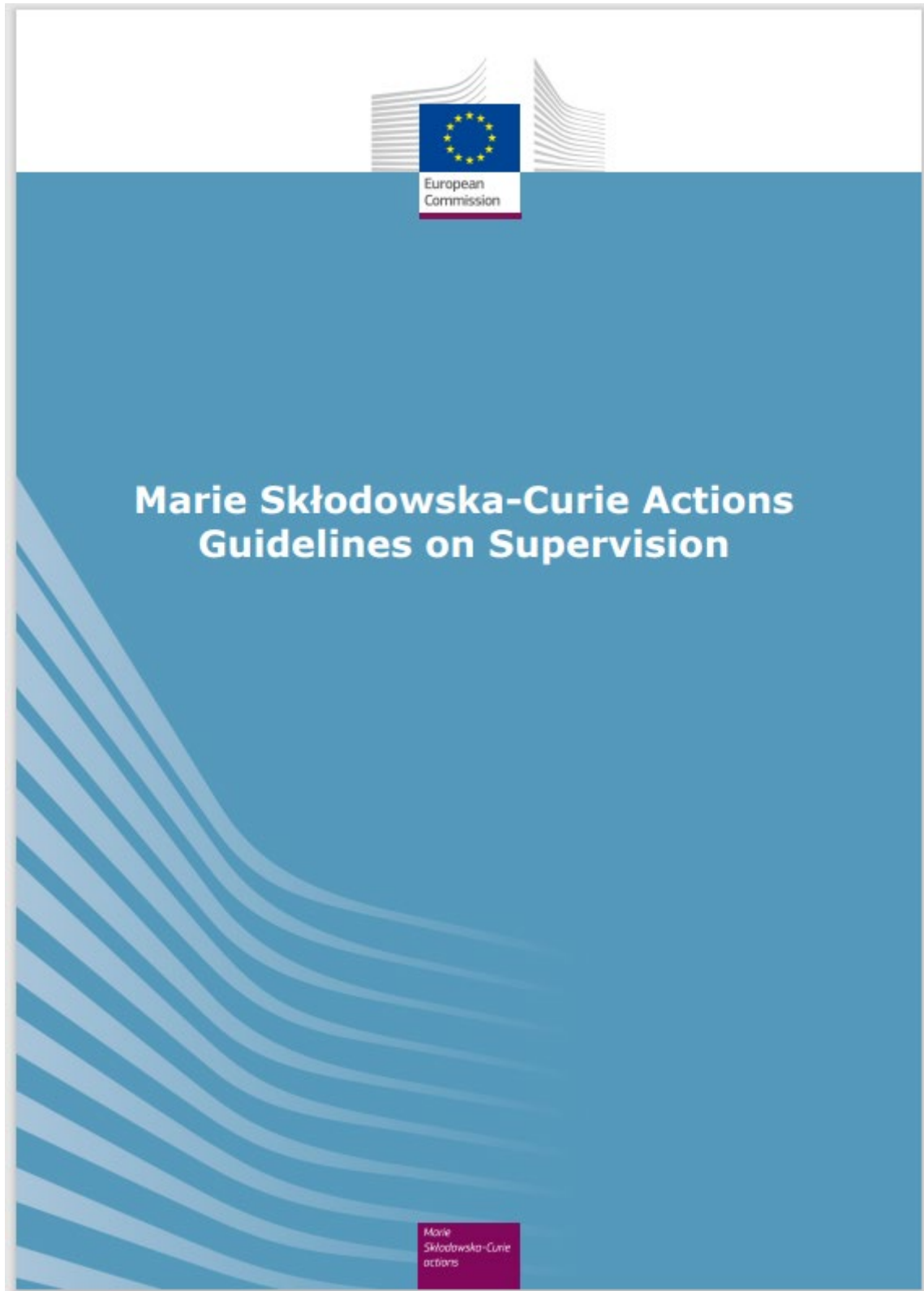
E-mail: P.A.S.Daran-Lapujade@tudelft.nl, Phone: +31 15 2789965

12 Keeping records

In accordance with article 20 of the Grant Agreement beneficiaries must keep records and other supporting documentation to prove the number of units declared for 5 years after final payment.

There is no need to keep specific records on the actual costs incurred.

Attachment 1 - MSCA Guidelines on Supervision



EUROPEAN COMMISSION

Directorate-General for Education, Youth, Sport and Culture
Directorate C – Innovation, Digital Education and International Cooperation
Unit C2 – Marie Skłodowska-Curie Actions

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EUROPEAN COMMISSION

Marie Skłodowska-Curie Actions Guidelines on Supervision

This guidance document is aimed at assisting beneficiaries and researchers supported by the Marie Skłodowska-Curie Actions. It is provided for information purposes only and is not intended to replace the consultation of any applicable legal sources. The European Commission (or any person acting on its behalf) cannot be held responsible for the use made of this guidance document.

2021

Directorate-General for Education, Youth, Sport and Culture
Marie Skłodowska-Curie Actions

EN



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Marie Skłodowska-Curie Actions Guidelines on Supervision¹

The Marie Skłodowska-Curie Actions (MSCA) are the European Union's flagship programme for the mobility and training of researchers, as well as the development of doctoral programmes, with a strong structuring effect on participating institutions.

The MSCA contributes to the achievement of the European Research Area and the European Education Area, building on its core objective of promoting the training and career development of excellent, creative and innovative researchers.

One of the essential elements of successful research is supervision. Good supervision contributes to creating a supportive environment for doctoral and postdoctoral researchers and staff to conduct their work and is of high importance for their career advancement: guiding, supporting, directing, advising and mentoring are key factors to enable a researcher to embark on a promising career path or to re-start a career in research.

The MSCA promote effective supervision. In line with the principles set out in the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (Charter and Code)², MSCA beneficiaries must ensure adequate supervision or mentoring and appropriate career guidance.

The MSCA Guidelines on Supervision constitute a set of recommendations to be adopted on a best-effort basis by participants in the programme – both individuals and institutions – in order to help institutions and supervisors in guiding MSCA researchers.

These guidelines are without prejudice to the Grant Agreement, which constitutes the legal framework for the relations between the European Commission and the beneficiary.

The guidelines are neither prescriptive nor exhaustive and can be complemented by other initiatives; they should be implemented taking into account different possible situations, disciplines and levels of experience of researchers. They should be considered as complementary to the institution's guidelines where such guidelines exist.

Any issues that should arise relating to supervision should be discussed and addressed with the host institution through the established "conflict resolution" procedures within the institution.

1. Scope

These guidelines are addressed to participants in the MSCA, both individuals and institutions, whether from the academic or non-academic sector. They should serve as a reference for host institutions and supervisors to ensure that researchers are adequately supervised throughout the duration of their research project.

The use of the terms "supervisor/supervision" is to be understood in a broad sense and reflects the term used in the MSCA Grant Agreements.

¹ Version: 1, Date of release: 12.04.2021

² Euraxess. *The European Charter & Code for Researchers*: <https://euraxess.ec.europa.eu/jobs/charter>

The use of the term "researcher" in this document refers to MSCA-funded researchers under Doctoral Networks, Postdoctoral Fellowships and MSCA Cofund.

Some of the guidelines listed below may also apply where relevant to MSCA Staff Exchanges secondees.

The degree and form of supervision may vary according to disciplines, researcher's experience, type of programme or personality/skills factors.

2. Guidelines

2.1. Role of the supervisor

2.1.1. General principles and integration of the researcher

- Follow the principles of the **European Charter for Researchers and Code of Conduct for the Recruitment of Researchers** (Charter and Code).
- Raise awareness on existing Code of Ethics or conducts such as the European Code of Conduct for Research Integrity³.
- Facilitate access to research equipment, resources, facilities and/or fieldwork.
- Facilitate access to background and results needed for their research activities.
- Facilitate access to all necessary information for researchers at the beginning of their MSCA-funded fellowship (e.g. contacts for the relevant institutional services/help desks).
- Ensure equal treatment of researchers with special needs, providing them with equal opportunities in the research field.

2.1.2. Research support

- Encourage the researcher to acquire academic, technical and transferable skills.
- Provide support, guidance and constructive feedbacks to the researcher on the nature of research and the standard expected.
- Monitor and assess the progression of the research and regularly provide feedback on it.
- Develop jointly with the researcher, regularly review and promote the implementation of a career development plan throughout the fellowship, as required under the Grant Agreement.
- Provide the conditions to enable the researcher to reach autonomy and gain management experience.
- Encourage the researcher to follow the principles set out in the MSCA Green Charter with a view to reducing the environmental impact of the research.

³ All European Academies. *The European Code of Conduct for Research Integrity*, 2017: <https://allea.org/code-of-conduct/>

2.1.3. Career development

- Provide counselling and support on career development and information on different career paths or ensure the researcher has access to this support.
- Actively support the researcher in defining a current and prospective work plan to match future research and professional ambitions.
- Support the networking opportunities, inside and outside academia, enhancing the researcher's access to global knowledge, experiences and key scientists in the field or other relevant players.

2.1.4. Mentoring and wellbeing of the researcher

- Serve as a role model for the researcher by performing research with integrity and high ethical standards.
- Support the researcher in overcoming possible hurdles and suggest alternative solutions to the problems.
- Direct the researcher towards institutional/social support instruments (such as counselling) when necessary.
- Raise awareness on the need to safeguard the wellbeing of the researcher, explaining the possible problems that may arise during the different stage of the research career and informing the researcher about available support systems, including for mental health.
- Encourage the researcher to dedicate time to personal well-being and to maintain a healthy work-life balance.

2.1.5. Communication and conflict resolution

- Ensure a regular, clear and open communication, providing clarity and consistency as regards mutual expectations (e.g. frequency of meetings).
- Ensure a coherent and complementary approach in joint supervision cases (e.g. Doctoral Networks).
- Agree with the researcher, from the outset, on a common approach in case of disagreements or conflict between them and inform the researcher about existing institutional conflict resolution mechanisms.
- Refer the researcher to the relevant communication channels in case of persistent problems or complaints that cannot be addressed or solved through the internal procedures of conflicts resolution.

2.2. Role of the researcher

2.2.1. General principles

- Follow the principles of the European Charter for Researchers (Charter).

- Perform research with integrity and high ethical standards according to the European Code of Conduct for Research Integrity.

2.2.2. Research

- Manage and sustain progress in accordance with the agreed research plan and follow-up their career development plan.
- Follow the principle set out in the MSCA Green Charter with a view to reducing the environmental impact of the research.

2.2.3. Wellbeing

- Raise as early as possible with the supervisor any concerns, uncertainties and problems whether research related or of personal nature.
- Commit to preserving a healthy work-life balance and personal well-being.

2.2.4. Communication and conflict resolution

- Ensure a clear and open communication with the supervisor, providing clarity and consistency as regards mutual expectations (e.g. frequency of meetings).
- Keep the supervisor informed on the progression of the research, providing relevant information and data related to it.
- Make use of the relevant communication channels in case of persistent problems or complaints that cannot be addressed or solved through the internal procedures of conflicts resolution.

2.3. Role of institution

2.3.1. General principles and integration of the researcher

- Commit to adopting and ensuring the implementation of the principles of the European Charter for Researchers and Code of Conduct for the Recruitment of Researchers (Charter and Code).
- Provide all necessary information to researchers at the beginning of their MSCA-funded fellowship (relevant services, training availability, help desks for administrative questions, local networks, communication rules and local/national social rules and welfare).
- Raise awareness of existing documents or Codes of Ethics and Research Integrity in the institution.
- Inform the researchers about their rights and obligations under the Grant Agreement, including in terms of publications of results and intellectual property rights.
- Provide a safe, equitable and constructive work environment for researchers.
- Ensure access to research equipment, resources, facilities and/or fieldwork.

- Ensure access to background and results needed for the research activities.
- Uphold the highest standards for diversity and inclusiveness, and continuously work towards achieving gender equality.
- Ensure equal treatment of researchers with special needs, providing them with equal opportunities in the research field.

2.3.2. Research support

- Provide training for researchers on transferable skills and recognise these skills.
- Provide the researchers with the opportunity to acquire interdisciplinary knowledge that supplements the value of the research performed.
- Where possible, offer access to institutional training programmes to the researchers.
- In case of secondment, ensure the researchers are familiar with and engaged within the PhD awarding university, while they are located at their premises.
- Enable the researchers to follow the principles set out in the MSCA Green Charter with a view to reducing the environmental impact of the research.

2.3.3. Career development

- Provide adequate career services for researchers, as well as information on career paths, inside and outside academia.
- Support the networking opportunities, inside and outside academia, enhancing the researchers' access to global knowledge, experiences and key scientists in the field or other relevant players.

2.3.4. Mentoring and well-being of the researchers

- Consider designating a mentor, alongside the supervisor, to provide the researcher with advice, mentoring, guidance (not necessarily scientific), in cases where the supervisor does not already perform that role.
- Provide support and counselling mechanisms and services for researchers and supervisors.
- Implement policies that encourage researchers to dedicate time to personal well-being.
- Create a healthy environment for all researchers to conduct their work and encourage their integration in the research group and community.
- Safeguard a healthy work-life balance (e.g. working hours).
- Raise awareness on the growing problem of mental health issues for researchers, properly monitor them and address potential issues.
- Provide peer-to-peer support services and community building opportunities (e.g. PhD buddy programmes).

- Provide inclusive, high-quality services and take into account all aspects of accessibility and adjustments required for researchers with special needs.

2.3.5. Supervision management and conflict resolution

- Encourage the use of joint supervision and co-supervision in those schemes where this option is not already mandatory (Industrial Doctorates and Joint Doctorates).
- Recognise the work of the supervisor, and take that work into account in his/her assessment.
- Develop and sustain anti-discrimination procedures and training for supervisors and mentors.
- Ensure continuity of the supervision in case of prolonged absence of the supervisor.
- Ensure transparent procedures for conflict resolution.
- Provide the researcher with the relevant communication channels in case of persistent problems or complaints that cannot be addressed or solved through the internal procedures of conflicts resolution.

2.4. Training and professional development for supervisors

The host institution should ensure high quality continuous professional development and resources for supervisors adequate to their responsibilities in working with researchers, such as pedagogical styles, harassment, ethics in research, mentorship, communication, and career advice. Such trainings should:

- Be highly recommended at the start of supervisory practice and then regularly updated on the base of the new developments and methodologies. Such trainings should be seen as investments to develop support measures, and not as an additional/mandatory workload.
- Have a wide focus on project management, communication, interpersonal skills, and awareness of mental health issues.
- Include peer-to-peer support in which supervisors themselves can ask each other for help or in which they can share specific questions they may have.
- Raise awareness of supervisors on research integrity issues, including measures to avoid misconduct and procedures for possible misconduct investigations.
- Provide space for mentoring new supervisors by experienced supervisors.

Specific training should be provided on a case-to-case basis and depending on the field of research.

Attachment 2 Career Development Plan template

(For guidance refer to the last pages of this Attachment)

Career Development Plan (to be drafted in Year 1)

Name of Doctoral Candidate:

Department:

Employing Organisation:

Name of Supervisor:

Date:

BRIEF OVERVIEW OF RESEARCH PROJECT AND MAJOR ACCOMPLISHMENTS EXPECTED (half page should be sufficient):

.....
.....

LONG-TERM CAREER OBJECTIVES (over 5 years):

1. Goals:

.....
.....

2. What further research activity or other training is needed to attain these Goals?

.....
.....

SHORT-TERM OBJECTIVES (1-2 years):

1. Research results

○ Anticipated publications:

.....
.....

○ Anticipated conference, workshop attendance, courses, and/or seminar presentations:

.....
.....

2. Research skills and techniques:

- Training in specific new areas, or technical expertise etc:

.....
.....

3. Research management:

- Fellowship or other funding applications planned (indicate name of award if known; include fellowships with entire funding periods, grants written/applied for/received, professional society presentation awards or travel awards, etc.)

.....
.....

4. Communication skills:

.....
.....

5. Other professional training (course work, teaching activity):

.....
.....

6. Anticipated networking opportunities

.....
.....

7. Other activities (community, etc) with professional relevance:

.....
.....

Doctoral Candidate

Signature:

Name:

Date:

Supervisor

Signature:

Name:

Date:

Career Development Plan (to be drafted in final year)

BRIEF OVERVIEW OF PROGRESS, ACHIEVEMENT AND PERFORMANCE (half page should be sufficient):

.....
.....

LONG-TERM CAREER OBJECTIVES (over 5 years):

If relevant, mention any adjustments to your long-term career objectives as a result of the training received.

.....
.....

SHORT-TERM OBJECTIVES ACHIEVED DURING THE TRAINING PERIOD:

1. Research results

- Publications (incl in press):

.....
.....

- Conference, workshop attendance, courses, and/or seminar presentations:

.....
.....

2. Research skills and techniques acquired:

- Training in specific new areas, or technical expertise etc:

.....
.....

3. Research management:

- Fellowship or other funding applications achieved (indicate name of award if known; include fellowships with entire funding periods, grants written/applied for/received, professional society presentation awards or travel awards, etc.)

.....
.....

4. Communication skills:

.....
.....

5. Other professional training (course work, teaching activity):

.....
.....

6. Anticipated networking opportunities

.....
.....

7. Other activities (community, etc) with professional relevance:

.....
.....

Doctoral Candidate

Signature:

Name:

Date:

Supervisor

Signature:

Name:

Date:

Career Development Plan

Guidance on some of the competencies expected

The following points are a non-exhaustive series of aspects that could be covered by the Career Development Plan, and it is relevant to the short-term objectives that will be set by the Doctoral Candidate and the reviewer at the beginning of the fellowship period. These objectives should be revised at the end of the fellowship and should be used as a pro-active monitoring of progress in the Doctoral Candidate's career.

1. Research results

These should give an overview of the main direct results obtained as a consequence of the research carried out during the training period. It may include publications, conference, workshop attendance, courses, and /or seminar presentations, patents etc. This will vary according to the area of research and the type of results most common to each field. The information at this level should be relatively general since the career development plan does not strictly constitute a report on the scientific results achieved.

2. Research Skills and techniques acquired

Competence in experimental design, quantitative and qualitative methods, relevant research methodologies, data capture, statistics, analytical skills.

Original, independent and critical thinking.

Critical analysis and evaluation of one's findings and those of others

Acquisition of new expertise in areas and techniques related to the Doctoral Candidate's field and adequate understanding their appropriate application

Foresight and technology transfer, grasp of ethics and appreciation of Intellectual Property Rights.

3. Research management

Ability to successfully identify and secure possible sources of funding for personal and team research as appropriate.

Project management skills relating to proposals and tenders work programming, supervision, deadlines and delivery, negotiation with funders, financial planning, and resource management.

Skills appropriate to working with others and in teams and in teambuilding.

4. Communication skills

Personal presentation skills, poster presentations, skills in report writing and preparing academic papers and books.

To be able to defend research outcomes at seminars, conferences, etc. Contribute to promote public understanding of one's own field

5. Other professional training (course work, teaching activity)

Involvement in teaching, supervision or mentoring

6. Anticipated networking opportunities

Develop/maintain co-operative networks and working relationships as appropriate with supervisor/peers/colleagues within the institution and the wider research community

7. Other activities (community, etc) with professional relevance.

Issues related with career management, including transferable skills, management of own career progression, ways to develop employability, awareness of what potential employers are looking for when considering CV applications etc.