HEFT

D7.1 Initial plan for use and dissemination of foreground

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HORIZON CL5-2020-D5-01. HEFT 101096306– Novel concept of a Low Cost, High Power Density and Highly Efficient Recyclable motor for next generation mass produced electric vehicles

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Project partners:

1. MGEP (Mondragon Goi Eskola Politeknikoa Jose Maria Arizmendiarrieta S Coop).
2. GKN (GKN Driveline Zumaia SA).
3. GKN AIC (GKN Automotive Innovation Center - GKN Hybrid Power Ltd.).
4. MAGNETI (Magneti Ljubljana d.d.).
5. VYNCOLIT (Vyncolit N.V.).
6. IKERLAN (IKERLAN S. Coop.).
7. UNIBO (Alma Mater Studiorum - Università di Bologna).
8. KUL (Katholieke Universiteit Leuven).
9. UoN (University of Nottingham).

TABLE OF CONTENTS

GLOSSARY

Abbreviation/ acronym	Description
CA	Consortium Agreement
DoA	Description of the Action – Annex I to the Grant Agreement
CD	Communication and Dissemination
EC	European Commission
GA	Grant Agreement
IP(R)	Intellectual Property (Rights)
WPL	Work Package Leaders
WP	Work Package
CPD	Continuing Professional Development
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
SAE	SAE (Society of Automotive Engineers) International
MGEP	Mondragon Goi Eskola Politeknikoa Jose Maria Arizmendiarrieta S Coop
GKN	GKN Driveline Zumaia Sa
GKN AIC	GKN Hybrid Power ltd
MAG	Magneti Ljubljana Podjetje Za Proizvodnjo Magnetnih Materialov Dd
VYN	Vyncolit
IKE	Ikerlan Coop
KUL	Katholieke Universiteit Leuven
UNIBO	University of Bologna

1 EXECUTIVE SUMMARY

To maximize the impact of the project, HEFT partners will invest into dissemination, and communicating results according to the Objective #7 of the project:

> *To **disseminate the project results to relevant stakeholders towards further exploitation**. WP7 proposes dissemination activities to incentive the introduction of these innovative results in the automotive industry, but also to promote the creation of new European circular value chain for CRM from EoL permanent magnets.*

This document includes a first draft of detailed CD plan reporting all activities planned over the duration of the project and adapted to the different target audiences and objectives. The plan will be updated during the project and be complemented by an exploitation plan in the later stages of the project.

Section 2: the dissemination objectives of the project and the approach to be used to target each of the audiences are defined.

Section 3: a first overview of the planned events and their periodicity, together with plans for the communication material, is presented.

Section 4: the role of all partners in dissemination and communication activities is presented with respect to their field of competence, as well as the corresponding resources they have allocated.

Section 5: the updated list of stakeholders is reported.

Section 6: preliminary planning of dissemination activities.

The KPIs listed in the proposal are reported here:

1. Participation in, **at least**, 14 events, fairs and/or workshops (1 per entity).
2. At least, **25 scientific conferences** (1/2 per research entity per year)
3. At least **7 journal publications** (1/2 per research entity per year.)
4. Connections & synergies established with, at least, **5 associations/networks** &
5. Connections & synergies established with, at least, **5 EU projects**
6. GKN to hold **3 specific technical sessions** with at least **8 major OEM´s** (1 per year)
7. 3 interactions with policy makers; **1 reference documents** (guidelines)
8. **3 masters/PhDs generated** (1/university partner).
9. **7 seminars/lectures** (2/year).
10. **3 CPD credits** (1/year)

2 RULES APPLICABLE TO DISSEMINATION AND COMMUNICATION ACTIONS

The following rules are derived from the Grant Agreement (GA) and Consortium Agreement (CA) of the HEFT project.

2.1 Rule for external communications

All external communications (including electronic ones) **must include the EU emblem and the following text**:

- For communication activities: "*The project leading to this application has received funding from the EU HORIZON-IA (Innovation Action) under grant agreement No. 101096306*".
- For infrastructure, equipment and major results: *This [infrastructure][equipment][insert type of result] is part of a project that has received funding from the EU HORIZON-IA (Innovation Action) under grant agreement No. 101096306".*

2.2 Open access rule

Each beneficiary must **ensure open access** (free of charge online access for any user) **to all peer-reviewed scientific publications** relating to its results:

- Either immediately: 'gold' open access
- Or within 6 months: 'green' open access.
- Repository of universities (Preprint if postprint is not possible.)

2.3 Follow-up of dissemination actions and notification procedure

During the project, partners will generate new knowledge and results (foreground). Before disseminating outside the consortium, the foreground produced during the HEFT project, e.g., through a publication or a presentation at a conference, a partner needs to ensure that no other partners objects to the publication of this foreground.

Before disseminating foreground, the partners should respect the following rules.

- A prior notice shall be given to the other partners involved in the concerned work being disseminated. Such notice will depend on the type of dissemination.
  - 4 working weeks for a journal paper
  - 2 working weeks for a conference paper or short communication (letter)
  - 1 week for an abstract
  - 4 working weeks for other types of dissemination activities
- Following notification, any of those partners may object if they consider that their legitimate interests in relation to their foreground or background could suffer disproportionately great harm. In such cases, the dissemination activity may not take place unless appropriate steps are taken to safeguard these legitimate interests.

For notification of dissemination activities, the following procedure should be applied, using a dedicated workflow on the project

1. The partner wishing to disseminate foreground should first inform the coordinator (MGEP) about the planned dissemination, providing a draft version. Coordinator could inform to other parties during the progress monitoring.
2. When the document is ready (publication or presentation), the partner should submit it on the project internal platform and inform to the partners. Coordinator (MGEP) with

the support of WP7 leader will check the communication, dissemination, and visibility rules of the HEFT project.

Prior notice of any planned publication shall be given to the other Parties at least:

a. 4 working weeks for a journal paper
b. 2 working weeks for a conference paper or short communication (letter)
c. 1 week for an abstract

An objection is justified if:

i. the protection of the objecting Party's Results or Background would be adversely affected, or
ii. the objecting Party's Legitimate Interests in relation to its Results or Background would be significantly harmed, or
iii. the proposed publication includes Confidential Information of the objecting Party.

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

3 TARGET AUDIENCES

Below is a list of the target groups identified in the GA for the project dissemination and communication activities.

<table>
<tr><th>Target Group</th><th>Contents</th><th>Means</th></tr>
<tr><td>Research & academia
• EU assoc. & partnerships
• Uni., RTDs, PhDs & students.</td><td>Project research outputs on new materials (slot mould material, insulation system for 1000+ V), enabling processing techniques (Slot moulding procedure) and sustainable optimization tools (digital twin platform, databases, reports/docs).</td><td>Participation in conferences.
Publication in journals.</td></tr>
<tr><td>Technology developers
• Fibre, Magnets, insulation industry
• Recycling sector
• Circular economy related platforms (EIT Raw Materials, Circ4life, EIT Climate).</td><td>Industry & workers interested in adopting project results. Interest on new methods, tools & technology for recycling magnets and design high capabilities components for eMotors.</td><td>End-user workshops.
Participation in specific industry conferences and trade fairs.</td></tr>
<tr><td>Automotive industry:
• Automotive OEM´s,
• Tier-1 powertrain suppliers
• OEM associations (EGVIA, AVERE, EARPA, CLEPA)</td><td rowspan="2">Information on:
i. expected product performance, including advantages in terms of technical KPI´s and specifications of eMotors.
ii. materials efficiency in real-use conditions (e.g., high voltage, fast charge).
iii. potential for further developments & product standardization.
iv. proven environmental impact-
v. cost-efficiency analysis of manufacturing new solutions.</td><td>End-user workshops.
Demonstrators.
Participation in specific industry conferences and trade fairs.</td></tr>
<tr><td>Other industry sectors
• Materials and Manufacturing associations (EUMAT, ADDIMAT, EPRA)
• Aerospace industry
• Other road vehicles</td><td>Participation in specific industry conferences and trade fairs.</td></tr>
<tr><td>Technology communities
• Projects: D5-01-09 / others (2ZERO, EIT RM)
• Industry associations & platforms</td><td>As potential influencers, all kind of information previously indicated could be shared depending on the nature and interests of the project, association, or platform.</td><td>Close collaboration with advisors, specific meetings.</td></tr>
</table>

Target Group	Contents	Means
Regulation community, policy makers. • Standardization working groups. • Environmental Authorities	Partnering activities to establish dialogue on i. demonstrated efficiency. ii. approaches to reduce Env. Impact, iii. synergies for create industry around magnet recyclability and reuse (circular value chains) iv. contributions to standardization. v. broad public acceptance and faster market uptake.	Close collaboration with advisors, specific meetings on standardisation, contribution to technical committees
Civil society:	General information about project targets, findings, and potential impact on daily life.	Participation in public science days Articles in public website and online journals Articles in generalist press Press releases. Social media (LinkedIn)

4 DISSEMINATION AND COMMUNICATION ACTIONS PLANNED

Dissemination and communication belong to four main categories, detailed in the following subsections:

- Events organization
- Production of training material
- Participation in events
- Publications
- Communication actions and material

4.1 Organization of events

HEFT has planned to organize the following meetings and workshops.

Type of meeting/workshop	Objective/Content	Venue	Target audience	Date	Lead partner(s)	Other involved partners	Budget planned (excluding personnel)
Workshop	Presentation of project intermediate results	Bologna, Italy	Car makers, circular economy operators	M25	UNIBO	All	10 000 €
Co-organization of events and parts of consortium meetings with other EU-funded projects	Contacts were made already with the CDE manager of the VOLTACAR project. If feasible, joint events/workshops will be planned.	To be defined	OEM, TIER 1-3. To be defined.	To be defined.	To be defined.	To be defined.	To be defined.
Demonstrator presentation	Demonstrate the results of the project through a presentation of technical advancements and showing the prototypes	Zumaia, Spain	OEMs	M40-M42	GKN	All	To be defined

4.2 Participation in events

The events identified as relevant for the project dissemination are listed hereafter.

Type of events	Target audience	Description of event	Date/Periodicity	Potential representative(s)	Other involved partners
Sumitomo Conference	Automotive OEM	Ghent	M4	GKN (ES)	Vyncolit (BE), KU Leuven
Presentation of results in automotive events	Automotive OEM	Transportation research Arena (TRA)			
Presentation of results in industry events related to automotive industry	Automotive industry and TIER 1-2 suppliers	Coiltech	Every year	UNIBO	
Presentation of results in industry events related to automotive industry	Automotive industry and TIER 1-2 suppliers	TBD (Aachen Colloquium, CTI, EAWD, DRITEV...)	TBD	GKN	
Presentation of results in industry events related to automotive industry	Automotive industry and Tier 1-2 suppliers	Future Propulsion Conference, Birmingham, UK	30 Feb 2023	GKN AIC	
Presentation of results in industry events related to automotive industry	Automotive industry and Tier 1-2 suppliers	Decarbonisation Sustainability Summit, Frankfurt, Germany	12-13 April 2023	GKN AIC	
Presentation of results in aerospace conferences	Other industry sectors using PM: aerospace	IEEE aerospace conference	Every year, next one in March 2024		
Reporting of results to technical committees and standardization bodies	Standardization body	IEC TC2-MT10	When relevant results are available	UNIBO	
	Standardization body	SAE AE 10 & 11	When relevant results are available	UNIBO	
	Technical committee	IEEE DEIS Technical committee on Transport Electrification	When relevant results are available	UNIBO	

Type of events	Target audience	Description of event	Date/Periodicity	Potential representative(s)	Other involved partners
	Technical committee	Higher Council for Normalization. Work group 1: Normalization and Circular Economy – European Green Deal		KUL	
Presentation of results in scientific conferences (oral or poster presentations / publication of proceedings)	Electrical insulation experts. Academia-oriented conference	IEEE CEIDP - Conference on Electrical Insulation and Dielectric Phenomenon (North America)	Every year, next one in October 2013	UNIBO	
	Electrical insulation experts. Industry-oriented conference	IEEE EIC - Electrical Insulation Conference (USA)	Every year, next one in June 2013	UNIBO	
	Electrical insulation experts. Academia-oriented conference	IEEE ICD - International Conference on Dielectrics (Europe)	Biennial, next one in July 2024	UNIBO	
	Electrical insulation experts. Industry-oriented conference	Insucon - International Electrical Insulation Conference (Europe/UK)	Every three or four years, next one in May 2020 or 2021	UNIBO	
	Scientific conference in conference entirely devoted to electrical machines.	ICEM 2024 -26th International Conference on Electrical Machines	TBD, probably in September 2024	MGEP	
	Scientific conference in conference entirely devoted to electrical machines.	EDPC 2023 – 13th International Electric Drives Production Conference	November 2023	MGEP, GKN	
	Drive Control experts. Industry-oriented conference	EPE'24 ECCE Europe- European Conference on Power Electronics and Applications	September 2024	IKERLAN	
	Drive Control experts. Scientific conference entirely devoted to electrical machines.	CEM 2025 -27th International Conference on Electrical Machines	TBD, probably in September 2025	IKERLAN	
	Circular economy	31st CIRP Conference on Life Cycle Engineering June 19-20, 2024. Turin, Italy	June 2024	KUL	

Type of events	Target audience	Description of event	Date/Periodicity	Potential representative(s)	Other involved partners
	Circular economy	12th Conference on Life Cycle Management	Planned in 2025	KUL	
	Circular economy	International Conference on Industrial Ecology	TBD	KUL	
	Circular economy	International Conference on Resource Sustainability (icRS)	Planned in 2024	KUL	
	Circular economy	3rd Conference of the International Society for the Circular Economy	Planned in 2024	KUL	
Participation in specific public awareness information days	Civil society	Notte dei Ricercatori	Yearly	UNIBO	
Sustainability working group preparing government white paper	Automotive policymakers	Automotive Council UK	2023	GKN AIC	
Raw Materials Week	Circular economy	Conference organized by European Commission related to policies and initiatives in the field of raw material.	2024	KUL	

Other projects funded by the EU that are of interest to HEFT are reported in the table below. The number of these projects is below the expected one in the KPIs. The list will be updated as soon as HEFT-related projects will be funded in future calls.

Project acronym and link to Cordis	Full title	Start and end dates	Coordinator	Contact	Details
VOLTCAR	Design, manufacturing, and validation of ecocycle electric traction motor	From: 1 February 2023 to: 31 January 2026	VTT, Finland		https://cordis.europa.eu/project/id/101096557
REVOLUTION	Supporting the Electric Vehicle REVOLUTION through maximizing EV Range and End-of-Life Vehicle Recovery through optimization of recycled plastics and advanced light materials				https://www.2zeroemission.eu/research-project/revolution/
EIT Raw Materials	There are not open projects. Next call will close May 2023; funded projects will be investigated for synergies.				https://eitrawmaterials.eu/innovation-projects/

4.3 Publications

HEFT partners have identified peer-reviewed scientific journals where articles about project findings and results can be published:

Most of them will target the nuclear research community:

- IEEE Transactions on Dielectrics and Electrical Insulation
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Industrial Electronics
- IEEE Vehicular Technology Magazine
- IEEE Transactions on Industry Applications
- IEEE Access
- Resources, Conservation and Recycling
- Journal of Cleaner Production
- Environmental Science and Technology
- Resources, Conservation and Recycling
- Journal of Cleaner Production
- Industrial Ecology
- Environmental Science and Technology

There is no central budget for publications so costs for open access will be covered by each partner’s budget.

4.4 Communication actions and material

The following general project communication activities will be carried out. All target audiences are concerned by these measures and mainly the general public and civil society. To support these activities, the consortium will prepare the following set of material. These actions are covered only by personnel costs.

Type of action	Expected output	Date/Periodicity	Leading partner(s)	Other involved partners
Define the project visual identity	Production of logo and related templates.	M3	UNIBO	MGEP
Launch and maintain the public website	Make project results available to the broader public. Public deliverable is submitted to the EC it will be available on the website.	M3. Updated as often as needed.	UNIBO	All
Develop a project “standard” PPT	PowerPoint template to be used for project presentations to be delivered at international conferences and within the partner organizations	M3	UNIBO	MGEP
Develop a project flyer/s	Document presenting the project objectives, approach, partners and expected results and their impacts. The flyer will be distributed during conferences and workshops.	M4	UNIBO	All
Prepare presentations for the general media	Production of articles in generalist papers and of videos posted on the Internet.	M6	UNIBO	All
Publish press releases	Spread awareness about the project through online publications.	M6	UNIBO	All

5 UPDATED LIST OF STAKEHOLDERS

Customer Organisations

- ERTRAC; https://www.ertrac.org
- EGVIAFOR2ZERO; https://www.2zeroemission.eu
- EUCAR; https://www.eucar.be/; ldp@eucar.be

Funding Bodies

- Advance Propulsion Centre; APC - Advanced Propulsion Centre. https://www.apcuk.co.uk/
- UK Research and Innnovation. https://www.ukri.org/

Trade Associations

- UK Magnetic Society; UK Magnetics Society. https://www.ukmagsoc.org
- European Association of Automotive Suppliers https://clepa.eu/

Corporate Reporting Bodies

- Science Based Targets. https://sciencebasedtargets.org/
- Task Force on Climate-related Financial Disclosures (TCFD). https://www.fsb-tcfd.org/

6 OVERALL TIMELINE OF DELIVERABLES AND PLANNED ACTIVITIES

The planned activities are shown in chronological order in the table below, in parallel to the due deliverables.

Internal dissemination
Dissemination
Exploitation

Date	Month	Deliverables	Activities related to dissemination, communication, training, exploitation, standards and end-user group
Dec 2022	M1	D8.1. Quality management plan	
Jan. 2023	M2		Consortium meeting
Feb. 2023	M3	**D7.1.** Initial plan for the use and dissemination of foreground (UNIBO, M3)	
		D7.2. Project website, which includes links project social media channels (UNIBO, M3)	
		D7.3. Updated list of stakeholders and end-users and plan for the execution of CD&E (UNIBO, M3)	
March 2023	M4	D1.1 Market analysis (GKN, AIC)	
		D1.3 Validation plan (MGEP)	
April 2023	M5	D1.2 Economic and standardization requirements of the defined use cases (GKN, AIC)	
May 2023	M6		Consortium meeting
		D8.2. Data management plan	
Jun 2023	M7		
Jul 2023	M8	D1.4 Analysis of circular economy (KUL)	
Aug 2023	M9		
Sep 2023	M10		B2B interaction with end users (GKN)
Oct 2023	M11		
Nov 2023	M12	**D3.1.** Modular, high-efficient and cost-oriented 800V powertrain architecture (IKERLAN)	

Date	Month	Deliverables	Activities related to dissemination, communication, training, exploitation, standards and end-user group
Dec 2023	M13		Consortium meeting
Jan. 2024	M14		
Feb. 2024	M15		
March 2024	M16	**D2.3**. Analysis and validation of materials for housing and cooling systems (Vyncolit)	
		D2.4. Analysis and validation of machine insulation #A with a target of 1000 V DC bus voltage, and #B with a target of 1200 V DC bus voltage (UNIBO)	
April 2024	M17		
May 2024	M18		Consortium meeting
		D3.2. Improved SiC-based high voltage drive control (IKERLAN)	
		D4.1. Electromagnetic and performance design report of motor for class A+B vehicle (MGEP)	
		D4.2. Electromagnetic and performance design report of motor for class C+D+E vehicle (MGEP, M18)	
Jun 2024	M19		
Jul 2024	M20		
Aug 2024	M21		
Sep 2024	M22		
Oct 2024	M23		
Nov 2024	M24		Consortium meeting
		D2.1. Analysis for optimum combination of magnet solutions (Magneti, M24)	
		D2.2. Procedure to insert and recover the magnets from machine rotor (MGEP, M24)	
Dec 2024	M25		
Jan. 2025	M26		
Feb. 2025	M27		

Date	Month	Deliverables	Activities related to dissemination, communication, training, exploitation, standards and end-user group
March 2025	M28		
April 2025	M29		
May 2025	M30		Consortium meeting
		D3.3. Improved high voltage powertrain virtual validation (GKN)	
		D4.3. Motors final assemblies (GKN/GKN AIC)	
		D6.1. Report on the resource efficiency, recyclability, and criticality of the supply chain (KUL)	
Jun 2025	M31		Workshop
Jul 2025	M32		
Aug 2025	M33		
Sep 2025	M34		
Oct 2025	M35		
Nov 2025	M36	**D5.1.** New motors characterization and performance (GKN, M36)	
		D5.2. Motor dismantling and magnet recycling procedure (MGEP, M36)	
		6.2. Integrated report on the environmental and economic sustainability assessment (KUL)	
Dec 2025	M37		Consortium meeting
Jan 2026	M38		
Feb 2026	M39		
Mar 2025	M40		Demonstrator available for end-user visits
Apr 2026	M41		
May 2026	M42		Consortium meeting
		D5.3. 100% circular motors characterization and performance (MGEP, M42)	
		D5.4. Reliability tests for insulation systems (UNIBO, M42)	

Date	Month	Deliverables	Activities related to dissemination, communication, training, exploitation, standards and end-user group
		D6.3. Report on Circular business model scenarios and policy recommendations (KUL)	
		D7.4. Report of CD&E activities, including visits to demonstrator (UNIBO, M42)	
		D7.5. Exploitation plan (GKN/GKN AIC, M42)	

7 DELIVERY DEVIATIONS FROM THE INITIAL PLANNING

There has been a delay in the delivery of D7.1. Initial plan for use and dissemination of foreground.

Contractual delivery: 2023-02-28

Deliverable Date: 2023-06-02

This delay is due to:

Administrative deviations:

First full version of this document was checked on 2023-04-27. Final approval of this document has been delayed due to the final revision. This document was the first public document of HEFT project, so there have been several iterations in order to ensure the quality of the document, as this document will be the reference for the rest of the documents.

Delay effect on overall project planning:

The activities defined in the document are already running, as the document was shared with the partners since April. The last changes before submission are more related to the style and format of the document, but there have not been significant changes in the content.

For these all reasons, it is considered that the delay in deliverable submission has not any effect on the remainder of the project.

8 CONCLUSIONS

This document presents the different dissemination and communication activities that there will be carried out during the HEFT project. Moreover, target audiences and other EU funded projects, which are related to HEFT, have been identified. Finally, an initial list of stakeholders is provided. Their contribution will be important to move the developments of the new emotors in the right direction.