High Performance Power Electronics Integrations

Plan for Dissemination, Communication, and Exploitation

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1. Executive Summary

The deliverable contains and describes the approach for the dissemination, communication and exploitation activities - including standardisation - of HiPE. Every main pillar will be described within an own chapter listing the basic information, boundary conditions, the approach including timing and required processes like approvals from project partners for publications or open access approach.

Keywords: dissemination and communication plan, exploitation plan, standardisation

2. Introduction and Objectives

The overall aim of “WP7 Dissemination, Communication and Exploitation” is to ensure the visibility and awareness of the project beyond the scope of the consortium. This will be achieved by ensuring proper dissemination of the project objectives and its results, communication to and from the project relevant results in the areas of research, simulation, technology or business and cost assessment as well as by exploitation and sustainability of the project results during and after the project.

To ensure the achievement of this aim, the necessary dissemination, communication, and exploitation activities are planned, realised and monitored to maximise the impact of ***HiPE***.

2.1 Introduction

The electrification of road transport is high on the political agenda of all major world economies. In the European Commission’s Fit for 55 Strategy, overall vehicle emissions are proposed to be reduced by 55% by 2030, whereas those from vans need to be reduced by 50% at that point, with emissions from new cars to be zero by 2035 [1].

To reach these ambitious targets, a massive move towards powertrain electrification is required. At the same time, customers do not want to pay more for less performance (e.g., range) in comparison to ICE vehicles. Consequently, a smooth transition from user perspective (driving experience and performances to keep market acceptance) as well as from technology perspective (reduce technical risks by enabling growth in technology maturity and decrease of production costs) is required.

There is a growing need for accelerated uptake of electric drivetrain technology. Above all, affordability and driving range of BEVs need to be improved. ***HiPE*** will achieve this through the development of smart PE with enhanced efficiency at reduced cost. The integrated ***HiPE*** smart PE will reduce size and weight of the whole powertrain. Furthermore, modular architecture approaches will allow for the brand-independent transfer of results to a wide range of vehicle categories beyond those in the project. The ***HiPE*** activities are aimed towards the significant improvement of thermal management, functional safety, reliability, and availability of integrated smart PE. Altogether, research of ***HiPE*** will thus achieve improved automotive quality levels. These are exactly the challenges that the HiPE project addresses by providing brand-independent technologies and solutions fulfilling the needs of e-mobility of the future.

Regulations such as CO_2 targets for vehicle fleets or even individual vehicle registration, additional fuel CO_2 taxes or carbon markets for road fuels [2], diesel bans, progressive reduction of ICE powertrain or area access restrictions may be a major driver for the promotion of e-mobility in general. Thus, the HiPE achievements will provide a clear competitive advantage over competing solutions due to improved affordability, increased range, reliability and usability which will ultimately lead to a significantly larger market share for the ***HiPE*** solutions.

2.2 Objectives

Based on the impact requirements of the call topic HORIZON-CL5-2021-D5-01-02, the following objectives/relevance were defined during the proposal phase as base for the dissemination, communication, and exploitation activities within ***HiPE***:

Table 2-1: Impact – Objective/relevance – Matrix

Expected Impact from the Call	Objectives/Relevance of HiPE
Accelerated uptake of zero tailpipe emission, affordable, user-centric solutions for road-based mobility	• E-mobility will be pushed by the development of smaller and more efficient e-powertrain. • Reduced costs (TCO) will facilitate accelerated uptake.

Increased user acceptance, improved air quality, a more circular economy and reduction of environmental impacts	• Reduction of costs will improve affordability, thus increasing user acceptance. Likewise, reduction of losses will improve range, thus contributing to increasing user acceptance. • Higher uptake of e-mobility will contribute to less emissions from road traffic, concerning not only CO_2 emissions but also NOx and fine-particles, thus improving air quality particularly in urban areas.
Effective design, assessment and deployment of innovative concepts in road vehicles and mobility services	• One of ***HiPE***'s unique innovative concepts is the improvement and integration of a SotA double-sided cooled SiC inverter. • ***HiPE*** is improving designs of eAxles through integration of converters and inverters. This allows a more compact design, reducing size and weight. • The substantially improvement integration of, addressed in ***HiPE*** is essential for improved range and performance of BEVs • Integration of transmission for optimised speed and load conditions, thus improving overall vehicle efficiency. • Integration of ancillary and chassis control with smart PE based on GaN for improved vehicle efficiency and performance • The development and implementation of CBA tools and TCO cost assessment tools for a brand-independent evaluation of ***HiPE***-technologies

3. Plans for Dissemination, Communication, and Exploitation

The following sub-chapters provide a detailed outline of the plans for dissemination, communication, and exploitation.

3.1 Basic information and boundary conditions

The following basic information, definitions and boundary conditions are relevant for all the plans:

- According to the call topic: HORIZON-CL5-2021-D5-01-02, cooperation with other projects of the same call and/or the HORIZON-CL5-2021-D5-01-01, HORIZON-CL5-2021-D5-01-03, and HORIZON-CL5-2021-D5-01-04
- Horizon Results Booster: The usage or cooperation with this supporting action is highly appreciated.
- Cooperation with E-VOLVE Cluster for dissemination, and if possible, communication is planned
- The usage of established and approved methodologies and approaches from former and ongoing EU RTD project will be an intrinsic procedure to optimise the efforts and resources and maximise the result of Dissemination, Exploitation and Communication (DEC) project activities.
- Dissemination and communication can be done by one or several project partner as well as the overall project itself (called disseminator or communicator)
- DEC is monitored in quarterly status meetings, which collects activities done, activities planned and existing risks or challenges including possible countermeasures.
- Dissemination and communication are per definition public activities.
- Dissemination and communication will be realised according to the defined release and approval process agreed by all project partners (see D1.1 Project Management Handbook chapter 5.2.2.).
- Consortium partners will further interact with international partnerships and counterparts and create positive public awareness through the website and through campaigns directed at social media.
- Draft plan for dissemination, communication, and exploitation from the proposal phase (see Dissemination and Exploitation Draft Plan)
- Exploitation is per definition sensible and requires the explicit clearance from of the involved project partners.

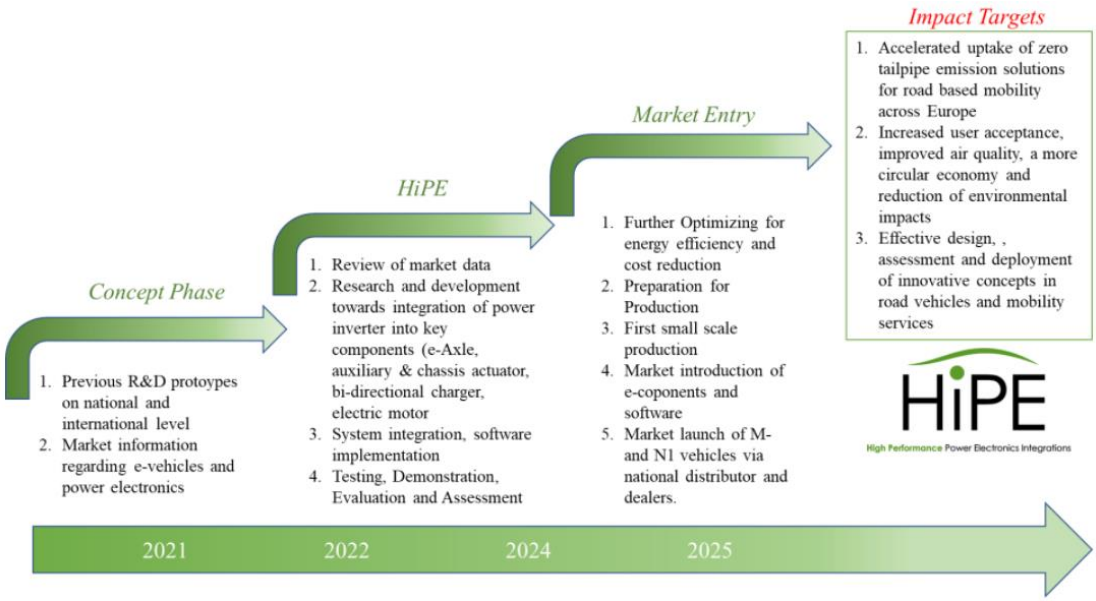

Figure 3-1: Dissemination and Exploitation Draft Plan

3.2 Plan for Dissemination

The following sub-chapter is structured based on the following main pillars:

- Dissemination approach & methodology
- Dissemination objectives
- Dissemination materials
- Dissemination events
- Dissemination target audience
- Dissemination matrix

3.2.1 Dissemination methodology & approach

This chapter is structured according to the basic methodology and approach describing the planned timing and realisation measures for the dissemination activities within ***HiPE***:

- Dissemination methodology
- Dissemination approach

3.2.1.1 Dissemination methodology

Within ***HiPE***, the Lasswell communication model will be used to organise, and implement the dissemination activities of the project. Lasswell's model analyses communication in terms of five basic questions: "Who", "Says What", "In What Channel", "To Whom", and "With What Effect" (see following Figure 3-2 and Table 3-1) [3][4][5][6][7]:

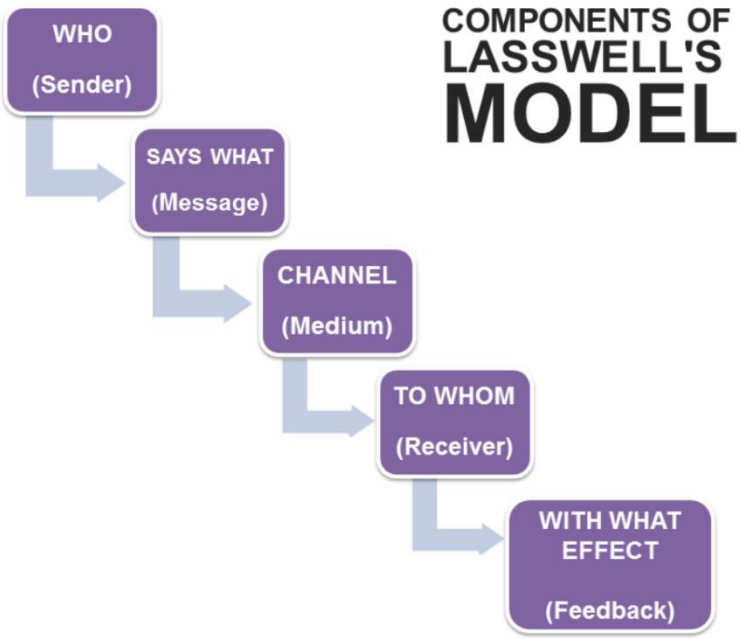

Figure 3-2: Components of Lasswell model [8]

Table 3-1: Match of Lasswell communication model – HiPE dissemination

Question	Element	HiPE
Who?	Communicator	Disseminator on different levels within the project
Says what?	Message	Dissemination objects
In which channel?	Medium	Dissemination materials & Dissemination events
To whom?	Audience	Dissemination target audience
With what effect?	Effect	Dissemination of project results

3.2.1.2 Dissemination approach

The HiPE dissemination approach can be summarised in the following way:

- Creating all relevant dissemination materials such as roll-up, flyer, Website, Social Media Accounts and Dissemination plan (D7.1)
- Quarterly collection of dissemination activities from partners → basis for public communication (Homepage, LinkedIn)
- Adjustment of dissemination activities, strategy and focus according to the collected results
- Continuous updating of the Website and Social Media Accounts
- Yearly collection and selection of project results from the partners for the HiPE newsletters

Table 3-2 shows the basic time plan for the dissemination activities:

Table 3-2: HiPE dissemination basic time plan including/based on defined project deliverables

Start Date	End Date	Content
November 2022	December 2022	Project Homepage and social media accounts developed
November 2022	January 2023	**M3/D7.1:** Project marketing basics and webpage (inclusive all dissemination material)
April 2023	April 2023	**M6/D7.9:** Plan for Dissemination, Communication and Exploitation
August 2023	October 2023	**M12/D7.6:** Newsletter 1
April 2024	April 2024	**M18/D7.2:** Intermediate Dissemination & Communication report
August 2024	October 2024	**M24/D7.7:** Newsletter 2
October 2025	October 2025	**M36/D7.3:** Final Communication & Dissemination Report
August 2025	October 2025	**M36/D7.8:** Newsletter 3

3.2.2 Disseminator

In the following, the project's disseminators are defined (see Table 3-3):

Table 3-3: HiPE dissemination

Disseminator Type	Project Partner
Research	• ViF • TUIL • Fraunhofer • UTIA AV CR • UoS • IESTA

Industrial Results	• OEM:
	  ○ FORD OTOSAN
	  ○ ŠKODA AUTO a.s
	• Tier I & Technology provider
	  ○ AVL
	  ○ I&M
	  ○ MARELLI
	  ○ Nexperia
	  ○ TENNECO

Standardisation	• OEM:
	  ○ FORD OTOSAN
	  ○ ŠKODA AUTO a.s
	• Tier I & Technology provider
	  ○ AVL
	  ○ I&M
	  ○ MARELLI
	  ○ Nexperia
	  ○ TENNECO

Project Objectives	• ViF • IESTA

3.2.3 Dissemination objects

The following project results can be defined as dissemination objectives:

- Advanced simulation models for PE architecture
- Advanced Vehicle simulation including simulation models of HiPE PE architecture
- Innovative digital twins for PE integrated in the vehicle development
- 400V SiC Inverter including e-axle EM integration experience
- Advanced chassis actuators with 400V GaN PE including concepts, prototype, integration experiences and evaluation results
- 800V WBG-Bi-On-Board Charger with DC-DC-Converter including concepts, prototype, integration experiences and evaluation results
- Value analysis and cost assessment of HiPE technologies
- Demonstration activities for HiPE technologies in emulated and real operational environments
- Innovative & Novel Semiconductor Cooling Concepts
- Thermal Powertrain System Layout and Co-Simulation
- Predictive Thermal and Powertrain Management Simulation

3.2.4 Dissemination materials

The dissemination materials are fully described in D7.1 Project marketing basics and webpage.

3.2.5 Dissemination events

The following tables (Table 3-4 and Table 3-5) give an overview of the various identified dissemination events, which could be relevant for HiPE and its project partners. The dissemination events are split into the following categories:

- Dissemination Events organised by HiPE
- Dissemination Events HiPE can participate

3.2.5.1 Dissemination Events organised by HiPE

These events (shown in Table 3-4) will be organised by HiPE and its partners to present the project results to the public and relevant stakeholders.

Table 3-4: Dissemination Events organised by HiPE

Event	Description	Parties Involved
DEO1: Mid-term event HiPE	This event is organised by HiPE partners to show first results of the project to the public. The event can be organised in a physical, hybrid or online way.	All partners, all identified dissemination target audience
DEO2: Final event HiPE	This event is organised by HiPE partners to show the final results of the project to the public. The event can be organised in a physical, hybrid or online way.	All partners, all identified dissemination target audience

3.2.5.2 Dissemination Events HiPE can participate

The listed events in the Table 3-5 are big international events which HiPE partners can participate in for dissemination purposes. For these events, the HiPE dissemination materials should be used. Furthermore, these events give the possibility for HiPE partners to represent HiPE by providing papers and preparing presentations.

Table 3-5: Dissemination Events HiPE can participate

Event	Topic/Focus	Date	Place	Website
DEP1: Innovationsforum Mobility	Strategies and business models for the mobility of the future	29. - 30. June 2023	Kreuzlingen, Switzerland	Innovationsforum Mobility | Home (innovationsforum-mobility.ch)
DEP2: ZeroEmission Mediterranean 2023	Renewable Energies, E-Storage, E-Mobility, Energy Efficiency and Communities	10. - 12. October 2023	Rome, Italy	Envertech, get the most from the sun from our microinverters - ZeroEmission Mediterranean
DEP3: WCX SAE World Congress	Various topics covering Mobility	18. - 20. April 2023	Detroit, USA	WCX 2023 - April 18-20, 2023 - Detroit (sae.org)
DEP4: Energy Tech Summit	Latest developments in energy and mobility convergence theme	26. - 27. April 2023	Warsaw, Poland	Energy Tech Summit 2023 | Energy Tech &

				E-Mobility Conference
DEP5: International Business Convention for Automotive & Vehicle Innovation	Explore the key challenges and opportunities of the future of mobility and new vehicle technologies	19. - 20. March 2024	Torino, Italy	italy.vehiclemeetings - Vehicle & Transportation Technology Innovation Meetings | March 30-31, 2022
DEP6: AutoTech: Detroit 2023	Showcasing the newest tech and the latest vehicles	7. - 8. June 2023	Detroit, USA	AutoTech: Detroit 2023 | Formerly TU-Automotive Detroit (informa.com)
DEP7: The International Mobility Summit	Various topics covering Mobility	10. - 11. October 2023	Copenhagen, Denmark	The International Mobility Summit - Electronomous
DEP8: Automotive Europe 2023	The transition to Electric Vehicles The Software Defined vehicle Vehicle Safety Autonomous Vehicles The Evolution of the OEM Business Model	16. - 17. May 2023	Munich, Germany	Automotive Europe 2023 (reutersevents.com)
DEP9: Automotive Masterminds	(De)Globalisation and Cold War 2.0 Software, chips and data Autonomous driving Sustainability, electrification and hydrogen	25 - 26 April 2023	Berlin, Germany	Automotive Masterminds 2023 - The New Automotive Conference (automasterminds.de)
DEP10: Future Mobility Asia	Showcase future road mobility concepts, solutions, technologies and innovations	17 - 19 May 2023	Bangkok, Thailand	Future Mobility Asia 2023 | 17-19 May 2023 - Exhibit at Future Mobility Asia (future-mobility.asia)
DEP11: Agile Automotive Engineering Summit	Focuses on agility in the automotive industry; how to apply agile methods, principles and develop agile organisational structures to speed up product developments as well as launches, so the industry can reduce development times, costs and thus stay competitive and meet customers' needs as well as requirements.	26 - 28 November 2023	Berlin, Germany	Home | Agile Automotive Engineering Summit (agile-for-software-defined-vehicles.com)

DEP12: eMOVE 360°	Various topics covering Mobility	17 - 19 October 2023	Munich, Germany	eMove360° EUROPE 2023 | Intern. Fachmesse für Mobilität 4.0
DEP13: Electric & hybrid vehicle technology Expo Europe	Latest developments in the advanced battery and automotive industries.	23 - 25 May 2023	Stuttgart, Germany	Electric & Hybrid Vehicle Technology Expo Europe | 23-25 May, 2023 (evtechexpo.eu)
DEP14: Electric & hybrid vehicle technology Expo North America	Latest developments in the advanced battery and automotive industries.	12 - 14 September 2023	Novi, USA	Electric & Hybrid Vehicle Technology Expo North America | September 12 – 14, 2023 (evtechexpo.com)

3.2.6 Dissemination target audience

The following target audiences were identified:

- Scientific communities, especially in the domain of e-vehicle PE and inverters.
- R&D project ecosystem: R&D projects related to the HiPE project, e.g., by similar targets, technology, or interests.
- Technology users: Companies developing BEV PE and inverters as well as Tier-I and OEM using the developed components, systems and tools within their own products.
- Technology providers: Companies and institutions developing tools and methods for BEV PE and inverters.
- European Commission: Main stakeholder of the project, responsible for set-up of R&D projects in line with the project call.
- Private and commercial customers of e-vehicles benefitting from higher efficiency and range and lower costs. Lower costs will increase affordability of e-mobility.
- General Public: Public community, interested in important project impact on public sector, especially lower CO_2 and other emissions from road transport.

3.2.7 Dissemination matrix

Table 3-6 shows all relevant dissemination information allocated to the identified target audience.

Table 3-6: Target Audience – Material - Dissemination Matrix

Target Audience	Dissemination Objects	Dissemination Material	Dissemination Events	HiPE Dissemination Level
Scientific communities	• Advanced simulation models for PE architecture • Advanced Vehicle simulation including simulation models of HiPE PE architecture • Innovative digital twins for PE integrated in the vehicle development • 400V SiC Inverter including e-axle EM integration experience • Advanced chassis actuators with 400V GaN PE including concepts, prototype, integration experiences and evaluation results • 800V WBG-Bi-On-Board Charger with DC-DC-Converter including concepts, prototype, integration experiences and evaluation results • Value analysis and cost assessment of HiPE technologies • Demonstration activities for HiPE technologies in emulated and real operational environments • Innovative & Novel Semiconductor Cooling Concepts	• HiPE Folder • HiPE Roll-up • HiPE Demonstration Video(s) • HiPE Presentations • HiPE Papers • HiPE Research Results	• DEO1 – DEO2 • DEP1 – DEP14	• Consortium Dissemination

	• Thermal Powertrain System Layout and Co-Simulation • Predictive Thermal and Powertrain Management Simulation			
R&D project ecosystem	• Advanced simulation models for PE architecture • Advanced Vehicle simulation including simulation models of HiPE PE architecture • Innovative digital twins for PE integrated in the vehicle development • 400V SiC Inverter including e-axle EM integration experience • Advanced chassis actuators with 400V GaN PE including concepts, prototype, integration experiences and evaluation results • 800V WBG-Bi-On-Board Charger with DC-DC-Converter including concepts, prototype, integration experiences and evaluation results • Value analysis and cost assessment of HiPE technologies • Demonstration activities for HiPE technologies in emulated and real operational environments • Innovative & Novel Semiconductor Cooling Concepts • Thermal Powertrain System Layout and Co-Simulation	• HiPE Homepage • HiPE LinkedIn Platform • HiPE Folder • HiPE Roll-up • HiPE Demonstration Video(s) • HiPE Presentations • HiPE Papers • HiPE Research Results	• DEO1 – DEO2 • DEP1 – DEP14	• Multi Partner Dissemination

	• Predictive Thermal and Powertrain Management Simulation			
Technology users	• Advanced simulation models for PE architecture • Advanced Vehicle simulation including simulation models of HiPE PE architecture • Innovative digital twins for PE integrated in the vehicle development • 400V SiC Inverter including e-axle EM integration experience • Advanced chassis actuators with 400V GaN PE including concepts, prototype, integration experiences and evaluation results • 800V WBG-Bi-On-Board Charger with DC-DC-Converter including concepts, prototype, integration experiences and evaluation results • Value analysis and cost assessment of HiPE technologies • Innovative & Novel Semiconductor Cooling Concepts • Thermal Powertrain System Layout and Co-Simulation • Predictive Thermal and Powertrain Management Simulation	• HiPE Homepage • HiPE LinkedIn Platform • HiPE Folder • HiPE Roll-up • HiPE Demonstration Video(s) • HiPE Presentations • HiPE Papers • HiPE Research Results	• DEO1 – DEO2 • DEP1 – DEP14	• Multi Partner Dissemination
Technology providers	• Advanced simulation models for PE architecture	• HiPE Homepage • HiPE LinkedIn Platform • HiPE Folder • HiPE Roll-up	• DEO1 – DEO2 • DEP1 – DEP14	• Multi Partner Dissemination

	• Advanced Vehicle simulation including simulation models of HiPE PE architecture • Innovative digital twins for PE integrated in the vehicle development • 400V SiC Inverter including e-axle EM integration experience • Advanced chassis actuators with 400V GaN PE including concepts, prototype, integration experiences and evaluation results • 800V WBG-Bi-On-Board Charger with DC-DC-Converter including concepts, prototype, integration experiences and evaluation results	• HiPE Demonstration Video(s) • HiPE Presentations • HiPE Papers • HiPE Research Results		
European Commission	• Advanced simulation models for PE architecture • Advanced Vehicle simulation including simulation models of HiPE PE architecture • Innovative digital twins for PE integrated in the vehicle development • 400V SiC Inverter including e-axle EM integration experience • Advanced chassis actuators with 400V GaN PE including concepts, prototype, integration experiences and evaluation results • 800V WBG-Bi-On-Board Charger with DC-DC-Converter including concepts, prototype, integration experiences and evaluation results	• HiPE Logo • HiPE Homepage • HiPE LinkedIn Platform • HiPE Folder • HiPE Roll-up • HiPE Demonstration Video(s) • HiPE Presentations • HiPE Papers • HiPE Research Results	• DEO1 – DEO2 • DEP1 – DEP14	• Consortium Dissemination

	• Value analysis and cost assessment of HiPE technologies • Demonstration activities for HiPE technologies in emulated and real operational environments • Innovative & Novel Semiconductor Cooling Concepts • Thermal Powertrain System Layout and Co-Simulation • Predictive Thermal and Powertrain Management Simulation			
Private and Commercial Customers	• Value analysis and cost assessment of HiPE technologies • Demonstration activities for HiPE technologies in emulated and real operational environments	• HiPE Logo • HiPE Homepage • HiPE LinkedIn Platform • HiPE Folder • HiPE Roll-up • HiPE Demonstration Video(s) • HiPE Presentations	• DEO1 – DEO2 • DEP1 – DEP14	• Multi Partner Dissemination
General Public	• Value analysis and cost assessment of HiPE technologies • Demonstration activities for HiPE technologies in emulated and real operational environments	• HiPE Homepage • HiPE LinkedIn Platform • HiPE Folder • HiPE Roll-up • HiPE Demonstration Video(s) • HiPE Presentations • HiPE Papers • HiPE Research Results	• DEO1 – DEO2 • DEP1 – DEP14	• Consortium Dissemination

3.3 Plan for Communication

Dissemination and communication are using the same approaches, materials, and target audiences, but the differences lay in the objectives and the materials, which is not only focussed on the project results findings (focus of the dissemination), but on all relevant methodologies, research and development results regarding electric driving technologies, components, subsystem, powertrains and battery-electric vehicles (BEV). The chapter is structured based on the following main pillars:

- Communication approach & methodology
- Communicator
- Communication objectives
- Communication materials
- Communication events
- Communication target audience
- Communication matrix

3.3.1 Communication approach & methodology

The chapter is structured according to the basic methodology and approach describing the planned timing and realisation measures for the dissemination activities within ***HiPE***:

- Communication methodology
- Communication approach

The main difference between dissemination and communication is that in communication the (bi-directional) objects to be exchanged are not only limited to the project results but are additionally beyond of them covering all relevant topics related to electric vehicles, systems, powertrains, components, thermal management, materials, software and algorithms or simulations or economic / market information and conditions.

3.3.1.1 Communication methodology

Table 3-7: Match of Lasswell – HiPE Communication

Question	Element	HiPE
Who?	Communicator	Communicator on different levels within the project
Says what?	Message	Communication objectives
In which channel?	Medium	Communication materials & communication events
To whom?	Audience	Communication target audience
With what effect?	Effect	Communication of project results and external information into the project

3.3.1.2 Communication approach

The HiPE communication approach can be summarised in the following way:

- Using all relevant dissemination materials such as roll-up, flyer, Website and Social Media Accounts.
- Quarterly collection of communication activities from partners and their possible needs.
- Adjustment of communication activities, strategy and focus according to the collected results and possible needed information.
- Continuous updating of the Website and Social Media Accounts.
- Yearly collection and selection of project results from the partners for the newsletters.

Table 3-8 shows the basic time plan for the activities:

Table 3-8: HiPE communication basic time plan including/based on defined project deliverables

Start Date	End Date	Content
November 2022	January 2023	**M3/D7.1** Project marketing basics and webpage (inclusive all dissemination material)
April 2023	April 2023	**M6/D7.9:** Plan for Dissemination, Communication and Exploitation
August 2023	October 2023	**M12/D7.6** Newsletter 1
April 2024	April 2024	**M18/D7.2** Intermediate Dissemination & Communication report
August 2024	October 2024	**M24/D7.7** Newsletter 2
October 2025	October 2025	**M36/D7.3** Final Communication & Dissemination Report
August 2025	October 2025	**M36/D7.8** Newsletter 3

3.3.2 Communicator

The following communicators are defined as described in Table 3-9:

Table 3-9: HiPE communicator

Communication Type	Project Partner	External
Research	• ViF • TUIL • Fraunhofer • UTIA AV CR • UoS • IESTA	• Universities • Technical universities • External non-profit research entities

Industrial Results	• OEM:
	  ○ FORD OTOSAN
	  ○ ŠKODA AUTO a.s
	• Tier I & Technology provider
	  ○ AVL
	  ○ I&M
	  ○ MARELLI
	  ○ Nexperia
	  ○ TENNECO
		• OEM
		• Tier I & Technology providers within Europe

Standardisation	• OEM:
	  ○ FORD OTOSAN
	  ○ ŠKODA AUTO a.s
	• Tier I & Technology provider
	  ○ AVL
	  ○ I&M
	  ○ MARELLI
	  ○ Nexperia
	  ○ TENNECO
		• none

Project objectives	• ViF • IESTA	• All defined target groups

3.3.3 Communication objects

The relevant objects for communication from ***HiPE*** to the environment are the dissemination objects as described in chapter 3.2.3 and the following additional objects:

- Dissemination activities, like common events or conferences
- Information exchange for exploitation plans, relevant boundary conditions and business environments

The relevant objects for communication from the environment to the project ***HiPE*** are:

- Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks.
- Information exchange about new simulation models including component, system and vehicle level simulations for BEV, inverters, converter, on-board chargers, controller and software.
- Economic information for the cost assessment regarding component-, sub-system prizes and operation costs, as well as their effects on systems (like powertrain) and vehicle-level (energy consumption, maintenance aspects…).

3.3.4 Communication materials

For the communication from project to the external world, the communication materials are the same as the dissemination ones and described in D7.1 Project marketing basics and webpage.

For the communication from the external world to the project, the following materials are considered:

- Papers
- Conference and marketing presentation
- Research results of the scientific community
- Conferences roll-ups and flyers
- (Draft) Standards
- Public results of other national, European, and international research projects as well as bachelor, master, and PhD thesis

3.3.5 Communication events

The list of communication events includes the list of dissemination events as described in chapter 3.2.5 and additionally the following events covering the additional information exchange, split in two categories:

- HiPE internal communication events
- HiPE external communication events

3.3.5.1 HiPE internal communication events

Internal communication events (see Table 3-10) are the ones taking place inside the project and solely the project partners (with exceptions, e.g., Project Officer) are participating for information exchange.

Table 3-10: Internal communication events

Event	Description	Parties Involved
ICE1: HiPE Monthly Online (Status) Meeting	This is an event which is done on a monthly basis to discuss the progress of the project and occurring challenges with the whole consortium as well as to discuss administrative matters (planning of events, changes in the project consortium, etc.).	All partners
ICE2: Regular WP Meetings	This event is done for all HiPE WPs to show the WPs progress and to discuss occurring challenges and next steps that needs to be taken. These meetings can be quarterly, monthly, bi-weekly or weekly, depending on the WP and the organisation of it.	WP relevant partners
ICE3: Bi-lateral meetings done when needed	These meetings are only arranged when needed by the partners. The participating partners can be of any WP and can even be the whole consortium when needed.	Invited partners
ICE4: 2 Project Review Meetings	Planned are two review meetings (M18 and M36). There the projects progress is presented to the PO/the reviewers and valuable feedback is collected. The public or other stakeholders have no access to these meetings.	All partners + PO + reviewers

3.3.5.2 HiPE external communication events

External communication events (see Table 3-11) are including the project partners as well as the identified communication target audience.

Table 3-11: External communication events

Event	Topic/Focus	Date	Place	Website
ECE1: London EV SHOW	Connects the entire global EV value chain, from start-ups to investors to governments and OEMs, and showcase the latest solutions	28 - 30 November 2023	London, Great Britain	London EV Show | 28 - 30 November 2023
ECE2: A3PS Eco Mobility 2023	Open	Open	Vienna, Austria	Welcome to A3PS | A3PS

3.3.6 Communication target audience

The following target audiences were identified:

- Scientific communities, especially in the domain of e-vehicle PE and inverters.
- R&D project ecosystem: R&D projects related to the HiPE project, e.g., by similar targets, technology, or interests.
- Technology users: Companies developing BEV PE and inverters as well as Tier-I and OEM using the developed components, systems and tools within their own products.
- Technology providers: Companies and institutions developing tools and methods for BEV PE and inverters.
- European Commission: Main stakeholder of the project, responsible for set-up of R&D projects in line with project call.
- Private and commercial customers of e-vehicles benefitting from higher efficiency and range and lower costs. Lower costs will increase affordability of e-mobility.
- General Public: Public community, interested in important project impact on public sector, especially lower CO_2 and other emissions from road transport.

3.3.7 Communication matrix

Table 3-12 shows all relevant communication information allocated to the identified target audience. It should be mentioned, that the “HiPE internal communication events” (see chapter 3.3.5.1) are HiPE internal events and therefore have – beside the project partners – no target audience.

Table 3-12: Target Audience – Material - Communication Matrix

Target Audience	Communication Objects	Communication Material	Communication Events	HiPE Communication Level
Scientific communities	• Dissemination objects as shown in Table 3-6 • Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks • Information exchange about new simulation models including component, system and vehicle level simulations for BEV, inverters, converter, on-board chargers, controller and software • Economic information for the cost assessment regarding component-, sub-system prizes and operation costs, as well as their effects on systems (like powertrain) and vehicle-level (energy consumption, maintenance aspects…)	• Dissemination material as shown in Table 3-6 • Papers • Conference and marketing presentation • Research results of the scientific community • Conferences roll-ups and flyers • (Draft) Standards • Public results of other national, European, and international research projects as well as bachelor, master, and PhD thesis	• Dissemination events as shown in Table 3-6 • ECE1 – ECE2	• Consortium Communication
R&D project ecosystem	• Dissemination objects as shown in Table 3-6	• Dissemination material as shown in Table 3-6	• Dissemination events as shown in Table 3-6	• Multi Partner Communication

	• Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks • Information exchange about new simulation models including component, system and vehicle level simulations for BEV, inverters, converter, on-board chargers, controller and software	• Papers • Conference and marketing presentation • Research results of the scientific community • (Draft) Standards • Public results of other national, European, and international research projects as well as bachelor, master, and PhD thesis	• ECE1 – ECE2	
Technology users	• Dissemination objects as shown in Table 3-6 • Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks • Information exchange about new simulation models including component, system and vehicle level simulations for BEV, inverters, converter, on-board chargers, controller and software • Economic information for the cost assessment regarding component-, sub-system prizes and operation costs, as well as their effects on systems (like powertrain) and vehicle-	• Dissemination material as shown in Table 3-6 • Papers • Conference and marketing presentation • Conferences roll-ups and flyers	• Dissemination events as shown in Table 3-6 • ECE1 – ECE2	• Multi Partner Communication

	level (energy consumption, maintenance aspects…)			
Technology providers	• Dissemination objects as shown in Table 3-6 • Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks • Information exchange about new simulation models including component, system and vehicle level simulations for BEV, inverters, converter, on-board chargers, controller and software	• Dissemination material as shown in Table 3-6 • Papers • Conference and marketing presentation • Conferences roll-ups and flyers	• Dissemination events as shown in Table 3-6 • ECE1 – ECE2	• Multi Partner Communication
European Commission	• Dissemination objects as shown in Table 3-6 • Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks • Information exchange about new simulation models including component, system and vehicle level simulations for BEV, inverters, converter, on-board chargers, controller and software	• Dissemination material as shown in Table 3-6 • (draft) Standards • Public results of other national, European, and international research projects as well as bachelor, master, and PhD thesis	• Dissemination events as shown in Table 3-6 • ECE1 – ECE2	• Consortium Communication

	• Economic information for the cost assessment regarding component-, sub-system prizes and operation costs, as well as their effects on systems (like powertrain) and vehicle-level (energy consumption, maintenance aspects…)			
Private and Commercial Customers	• Dissemination objects as shown in Table 3-6 • Economic information for the cost assessment regarding component-, sub-system prizes and operation costs, as well as their effects on systems (like powertrain) and vehicle-level (energy consumption, maintenance aspects…)	• Dissemination material as shown in Table 3-6	• Dissemination events as shown in Table 3-6 • ECE1	• Multi Partner Communication
General Public	• Dissemination objects as shown in Table 3-6 • Technology information for specification, development, evaluation and standardisation about updates and upgrades of the existing power electronics, inverters, on-board charger and DC/DC converter, digital twin frameworks • Economic information for the cost assessment regarding component-, sub-system prizes and operation costs, as well as their effects on systems (like powertrain) and vehicle-level (energy consumption, maintenance aspects…)	• Dissemination material as shown in Table 3-6 • Conference and marketing presentation	• Dissemination events as shown in Table 3-6 • ECE1	• Consortium Communication

3.4 Plan for Exploitation including Standardisation

The chapter is structured based on the following main pillars:

- Exploitation approach & methodology
- Exploitation objectives
- Exploitation materials
- Exploitation events
- Exploitation target audience
- Exploitation level

3.4.1 Exploitation methodology & approach

The chapter is structured according to the basic methodology and approach describing the planned timing and realisation measures for the dissemination activities within ***HiPE***:

- Exploitation methodology
- Exploitation approach

3.4.1.1 Exploitation methodology

The exploitation methodology is based on the approved methodology of the Horizon Results Booster. The following points provide an overview of the Horizon Results Booster methodology [9]:

- Define and review the key exploitable results of the project (see Table 3-14).
- Revise, complement and clarify (existing) exploitation plans and/or outline exploitation paths of results.
- Identify all relevant stakeholders in the exploitation value chain.
- Perform a risk analysis related to the exploitation of results.

3.4.1.2 Exploitation approach

The HiPE communication approach can be summarised as follow:

- Step 1: Using/adapting the Horizon Results Booster Exploitation Strategy for ***HiPE***.
- Step 2: Intermediate Exploitation and Standardisation Report
    - Step 2a: Planning and executing the Horizon Results Booster Exploitation survey including general questions about interests, expectations, innovations, business cases of the HiPE partners in the project as well as considering more detailed questions about the product or service the HiPE partners are going to develop in the course of the HiPE project, which market is targeted and to what time it is planned to market the developed products or services after the HiPE project is done.
    - Step 2b: Analysing and assessing the Exploitation results of the surveys.
    - Step 2c: Planning and executing Exploitation/Standardisation workshop based on the survey results.
- Step 3: Final Exploitation and Standardisation Report
    - Step 3a: Planning and executing Standardisation Results and next steps workshop.
    - Step 3b: Planning and executing the Horizon Results Booster Exploitation survey (for what is asked please refer to Step 2a).
    - Step 3c: Analysing and assessing the Exploitation results of the surveys.
    - Step 3d: Planning and executing Exploitation workshop based on of the survey results.
- All activities will be discussed and monitored within the quarterly status meetings.

In the following, the basic time plan for the activities is shown in Table 3-13:

Table 3-13: HiPE exploitation basic time plan including/based on defined project deliverables

Start Date	End Date	Content
April 2023	April 2023	**M6/D7.9:** Plan for Dissemination, Communication and Exploitation
November 2023	December 2023	Horizon Results Booster survey for partners
February 2024	February 2024	Exploitation/Standardisation Workshop 1
April 2024	April 2024	**M18/D7.4** Intermediate Exploitation Report
July 2025	July 2025	Standardisation Results and Next Steps Workshop 2
July 2025	August 2025	Horizon Results Booster survey for partners
September 2025	September 2025	Exploitation Workshop 2
October 2025	October 2025	**M36/D7.5** Final Exploitation Report

3.4.2 Exploitation objectives

The following HiPE innovations in Table 3-14 (also called Key Exploitable Results or KERs for exploitation) are exploited by the different partners:

Table 3-14: HiPE innovations - Key Exploitable Results

HiPE Innovation (Key Exploitable Result)	Exploiting Partners
New scalable, modular and integrated **SiC-based electric drive family** (50-250 kW, 400V-1200V)	Marelli, Škoda, Ford Otosan
New **EMI filter** concepts	Marelli
New **passive discharge circuits**	Marelli
Stray inductance reduction methods	Marelli
New **integrated WBG-based OBC and HV/LV DC/DC converter concepts**	Ford Otosan
Advanced **power module cooling systems**	Marelli, Virtual Vehicle, Ford Otosan
Integrated double-side pin-fin cooling concept	Virtual Vehicle, Ford Otosan, Marelli

Immersion/impingement/two-phase cooling concepts	Virtual Vehicle, Ford Otosan, Marelli
Digital sensor integration in the power module for **enhanced ThMgt**	Virtual Vehicle, Nexperia
Model predictive and AI-based thermal control systems	Virtual Vehicle, Ford Otosan
Digital twins and self-adapting CDTs of WBG-based electric drives for automotive powertrains	Fraunhofer, AVL, Marelli, University of Surrey
"Closed-loop" RUL control for SiC-based inverter systems	Fraunhofer, University of Surrey
Integrated fault-tolerant **GaN-based drives for and chassis actuat**.	Ideas & Motion, Tenneco, University of Surrey

3.4.3 Exploitation materials

The exploitation materials are fully described in D7.1 Project marketing basics and webpage and are basically the same as the dissemination materials in chapter 3.2.4.

3.4.4 Exploitation events

The list of exploitation events includes the list of external communication events as described in chapter 3.3.5.2 and additionally the following events covering the additional information exchange, split in two categories:

- HiPE internal exploitation events
- HiPE external exploitation events

3.4.4.1 HiPE internal exploitation events

The internal exploitation events shown in Table 3-15 are solely planned for the project partners to discuss their exploitation plans and standardisation activities.

Table 3-15: HiPE internal exploitation events

Event	Description	Parties Involved
IEE1: Exploitation Workshop 1	The exploitation workshop is organised to collect the first exploitation plans of the partners according to the Horizon Results Booster Exploitation methodology.	All partners
IEE2: Exploitation Workshop 2	The exploitation workshop is organised to collect the final exploitation plans of the partners according to the Horizon Results Booster Exploitation methodology.	All partners
IEE3: Standardisation Workshop 1	This workshop aims to find first approaches and ideas how to standardise HiPE innovations and technologies for the international market.	All partners
IEE4: Standardisation Workshop 2	This workshop aims to find final approaches and ideas how to standardise HiPE innovations and technologies for the international market.	All partners

3.4.4.2 HiPE external exploitation events

External exploitation events (see Table 3-16) are including the project partners as well as the identified exploitation target audience. Main focus is here on events, which are mainly automobile fairs in Europe, that can be used for exploitation purposes.

Table 3-16: HiPE external exploitation events

Event	Topic/Focus	Date	Place	Website
EEE1: Frankfurter Automobilausstellung	News from the automotive industry, Electromobility	07. May 2023	Frankfurt, Germany	Frankfurter Automobil-Ausstellung – Der große automobile Erlebnistag in Frankfurt (frankfurter-automobil-ausstellung.de)
EEE2: Autosalon Chemnitz	News of German and international companies from the automotive, commercial vehicles, motorcycles, consumer goods, caravans, cars, car spare parts industries	16. – 17. March 2024	Chemnitz, Germany	Autosalon Chemnitz 2024 (neventum.de)
EEE3: Poznan Motor Show	The biggest automotive trade fair in Central Europe. The visitors will see an extensive exhibition of cars, motorcycles, campers, caravans and trucks	30. March – 02. April 2023	Poznan, Poland	Poznań Motor Show | 30.03-02.04.2023
EEE4: Salon de L'Auto Sportica Gravelines		2024	Gravelines, France	Gravelines Auto Show in Sportica (salondelauto-gravelines.com)
EEE5: iMobility	Intelligent Mobility, including e-mobility and new propulsion systems	13. – 16. April 2023	Stuttgart, Germany	i-Mobility | Messe Stuttgart (messe-stuttgart.de)
EEE6: Autosalon Bratislava 2023	Shows a cross-section of the possibilities of personal and commercial transport, electromobility and related services	20. – 23. April 2023	Bratislava, Slovakia	Autosalon 2022 | www.incheba.sk
EEE7: Riga International Motor Show	Vehicle show which will include wide range of exhibits like cars, car accessories, tyres, wheels, latest design sports car, machines, exhaust systems, new bumpers, slide, composite vehicles,	28. – 30. April 2023	Riga, Latvia	The International Motor Show Auto 2023 | LiveRiga

	sports books and journals, latest technologies, equipment, gadgets			
EEE8: Automobil Messe Erfurt	Ideal platform to find out about future topics and developments in mobility, electro mobility and concepts for the smart city of the future	26. – 28. January 2024	Erfurt, Germany	Automobilmesse Erfurt - 27.01. – 29.01.2023 (automesse-erfurt.de)

3.4.5 Exploitation target audience

The following target audiences were identified:

- Scientific communities, especially in the domain of e-vehicle PE and inverters.
- R&D project ecosystem: R&D projects related to the HiPE project, e.g., by similar targets, technology, or interests.
- Technology users: Companies developing BEV PE and inverters as well as Tier-I and OEM using the developed components, systems and tools within their own products.
- Technology providers: Companies and institutions developing tools and methods for BEV PE and inverters.
- European Commission: Main stakeholder of the project, responsible for set-up of R&D projects in line with project call.
- Private and commercial customers of e-vehicles benefitting from higher efficiency and range and lower costs. Lower costs will increase affordability of e-mobility.
- General Public: Public community, interested in important project impact on public sector, especially lower CO_2 and other emissions from road transport.
- Standardisation organisations: Organisations which are creating international technical standards for BEV PE and inverters.

3.4.6 Exploitation level

The exploitation level is mostly partner specific depending on the HiPE innovation that is exploited (refer to Table 3-14 for details).

3.4.7 Exploitation matrix

The exploitation matrix includes the results from the previous dissemination and exploitation matrices as well as the exploitation data described in chapter 3.4.

Table 3-17: Target audience - material - Exploitation matrix

Target Audience	Exploitation Objects	Exploitation Material	Exploitation Events	HiPE Exploitation Level
Scientific communities	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12 • New scalable, modular and integrated SiC-based electric drive family (50-250 kW, 400V-1200V) • New EMI filter concepts • New passive discharge circuits • Stray inductance reduction methods • New integrated WBG-based OBC and HV/LV DC/DC converter concepts • Advanced power module cooling systems • Integrated double-side pin-fin cooling concept • Immersion/impingement/two-phase cooling concepts • Digital sensor integration in the power module for enhanced ThMgt • Model predictive and AI-based thermal control systems • Digital twins and self-adapting CDTs of WBG-based electric drives for automotive powertrains	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation

	• "Closed-loop" RUL control for SiC-based inverter systems • Integrated fault-tolerant GaN-based drives for and chassis actuat.			
R&D project ecosystem	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12 • New scalable, modular and integrated SiC-based electric drive family (50-250 kW, 400V-1200V) • New EMI filter concepts • New passive discharge circuits • Stray inductance reduction methods • New integrated WBG-based OBC and HV/LV DC/DC converter concepts • Advanced power module cooling systems • Integrated double-side pin-fin cooling concept • Immersion/impingement/two-phase cooling concepts • Digital sensor integration in the power module for enhanced ThMgt • Model predictive and AI-based thermal control systems • Digital twins and self-adapting CDTs of WBG-based electric drives for automotive powertrains • "Closed-loop" RUL control for SiC-based inverter systems • Integrated fault-tolerant GaN-based drives for and chassis actuat.	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation

Technology users	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12 • New scalable, modular and integrated SiC-based electric drive family (50-250 kW, 400V-1200V) • New EMI filter concepts • New passive discharge circuits • New integrated WBG-based OBC and HV/LV DC/DC converter concepts • Advanced power module cooling systems • Digital sensor integration in the power module for enhanced ThMgt • Model predictive and AI-based thermal control systems • "Closed-loop" RUL control for SiC-based inverter systems • Integrated fault-tolerant GaN-based drives for and chassis actuat.	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation
Technology providers	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12 • New EMI filter concepts • New integrated WBG-based OBC and HV/LV DC/DC converter concepts • Integrated double-side pin-fin cooling concept • Immersion/impingement/two-phase cooling concepts	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	

	• Digital twins and self-adapting CDTs of WBG-based electric drives for automotive powertrains			
European Commission	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12 • New scalable, modular and integrated SiC-based electric drive family (50-250 kW, 400V-1200V) • New EMI filter concepts • New passive discharge circuits • Stray inductance reduction methods • New integrated WBG-based OBC and HV/LV DC/DC converter concepts • Advanced power module cooling systems • Integrated double-side pin-fin cooling concept • Immersion/impingement/two-phase cooling concepts • Digital sensor integration in the power module for enhanced ThMgt • Model predictive and AI-based thermal control systems • Digital twins and self-adapting CDTs of WBG-based electric drives for automotive powertrains • “Closed-loop” RUL control for SiC-based inverter systems • Integrated fault-tolerant GaN-based drives for and chassis actuat.	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation

Private and Commercial Customers	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation
General Public	• Dissemination objects as shown in Table 3-6 • Communication objects as shown in Table 3-12	• Dissemination Material as shown in Table 3-6	• Dissemination Events as shown in Table 3-6 • Communication Events as shown in Table 3-12 • EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation
Standardisation Organisations	• New scalable, modular and integrated SiC-based electric drive family (50-250 kW, 400V-1200V) • New EMI filter concepts • New passive discharge circuits • Stray inductance reduction methods • New integrated WBG-based OBC and HV/LV DC/DC converter concepts • Advanced power module cooling systems • Integrated double-side pin-fin cooling concept • Immersion/impingement/two-phase cooling concepts • Digital sensor integration in the power module for enhanced ThMgt • Model predictive and AI-based thermal control systems	• HiPE demonstration video(s) • HiPE Presentations • HiPE Papers • HiPE research results	• EEE1 – EEE8	• Partner Exploitation, • Multiparter Exploitation

	• Digital twins and self-adapting CDTs of WBG-based electric drives for automotive powertrains • “Closed-loop” RUL control for SiC-based inverter systems • Integrated fault-tolerant GaN-based drives for and chassis actuat.			

4. List of Deliverables related to WP7 “Dissemination, Communication and Exploitation”

The following table (Table 4-1) provides a summarised overview about the done and planned deliverables in WP7 in a chronological order based on the submission date. The green coloured deliverables in the list are the ones already submitted and approved.

Table 4-1: Overview WP7 deliverables

Deliverable	Submission Date	Submitted	Approved
D7.1 – Project marketing basics and webpage	31-January-2023 (M3)	☑	☑
D7.9 – Plan for dissemination, communication and exploitation	30-April-2023 (M6)	☑	
D7.6 – Newsletter M12	31-October-2023 (M12)		
D7.2 – Intermediate Dissemination & Communication Report	30-April-2024 (M18)		
D7.4 – Intermediate Exploitation Report	30-April-2024 (M18)		
D7.7 – Newsletter M24	31-October-2024 (M24)		
D7.3 – Final Dissemination & Communication Report	31-October-2025 (M36)		
D7.5 – Final Exploitation Report	31-October-2025 (M36)		
D7.8 – Newsletter M36	31-October-2025 (M36)		

5. Conclusion

The described plans for dissemination, communication and exploitation lay a solid base for the corresponding activities to promote the project and its results in the field of WBG power electronics using SiC and GaN technologies supporting 400V and 800V components for an increased energy and cost efficiency in BEV.

These described plans will be reviewed every project year and adjusted, if necessary. Also the feedback of the project officer and reviewer will be considered to increase the range and impact of ***HiPE***.

6. Abbreviations

Term	Definition
AI	Artificial Intelligence
BEV	Battery-Electric Vehicle(s)
CBA	Cost Benefit Analysis
CDTs	Compact digital twins
CO_2	Carbon Dioxide
DEC	Dissemination, Exploitation and Communication
EC	European Commission
EM	Electric Machine
EMI	Electromagnetic interference
EU	European Union
GaN	Gallium Nitride
HiPE	High Performance Power Electronics Integrations
ICE	Internal Combustion Engine
KER	Key Exploitable Results
OBC	On-board chargers
OEM	Original Equipment Manufacturer
PE	Power Electronics
PhD	Doctor of Philosophy (Philosophiae doctor)
PO	Project Officer
PU	Public
R	Document, Report
R&D	Research & Development
RTD	Research, Technology and Demonstration
RUL	Remaining useful life
SiC	Siliciumcarbid
TCO	Total Cost of Ownership
ThMgt	Thermal Management
WBG	Wide Bandgap
WP	Work Package

7. References

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