EM-TECH

D 7.1 – Project's corporate identity including communication plan

EM-TECH - Innovative e-motor technologies covering e-axles and e-corners vehicle architectures for high-efficient and sustainable e-mobility

HORIZON-CL5-2022-D5-01-09

GA No. 101096083

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Dissemination level	**PU**

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History

Date	Version Number	Comment
02.03.2023	0.1	Initial setup, version for review
23.03.2023	0.2	Final version for submission
03.04.2023	1.0	Update of the front page
05.04.2023	1.1	Consolidation of abstract; shifting subsection on deviations to the conclusion

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Abbreviations

Abbreviation	Long Version
KPI	Key Performance Indicator
F2F	Face to face (meeting)
E-VOLVE	Electric Vehicle Optimized for Life, Value and Efficiency

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1 Publishable Executive Summary

The Horizon Europe EM-TECH project brings together 10 participants from industry and academia to develop novel solutions to push the boundaries of electric machine technology for automotive traction. The deliverable "Project's corporate identity including communication plan" provides an overview on the corporate identity created for this project, the plan for communication and the communication channels established to reach the goals set in the communication plan:

Section 2 Project's corporate identity

Section 3 Communication strategy and plan

Section 4 Communication material

Section 5 Communication channels

Section 6 Communication multiplicators – clusters and associations

2 Project's corporate identity

This chapter outlines the project's corporate identity and the templates generated accordingly.

2.1 Project logo

Already during the proposal phase, a logo was created to represent the project and the consortium. The logo is shown in Figure 1.

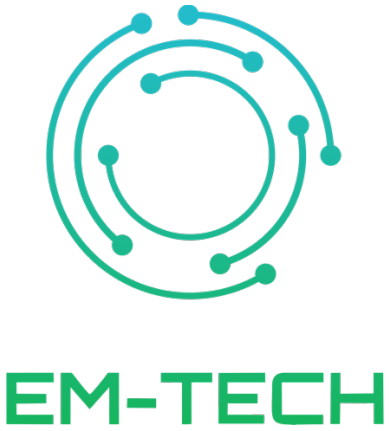

Figure 1: EM-TECH project logo

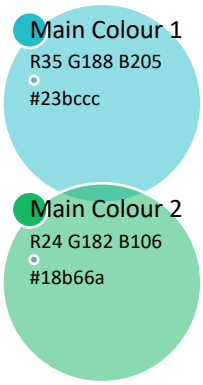

Figure 2: Main colour code

It represents a stylized electric motor and works with two main colours from the colour field green and blue – in general connected to clean energy as well as electromobility by the public.

This logo is used among the different templates generated for the project to ensure a uniform appearance towards the public.

2.2 Templates

Along with the project logo and the corresponding stile guide, templates have been developed to provide the project partners a tool to easily follow the project corporate identity and (1) consistently use inside the project cooperation as well as (2) present the project towards the stakeholders involved. The following figures show the corresponding templates generated.


EM-TECH

D X.X – Deliverable Title

EM-TECH - Innovative e-motor technologies covering e-axles and e-corners vehicle architectures for high-efficient and sustainable e-mobility

HORIZON-CL5-2022-D5-01-09

GA No. 101096083

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Figure 3: EM-TECH Deliverable template

Figure 4: EM-TECH presentation template (title)

Figure 5: EM-TECH presentation template (content)

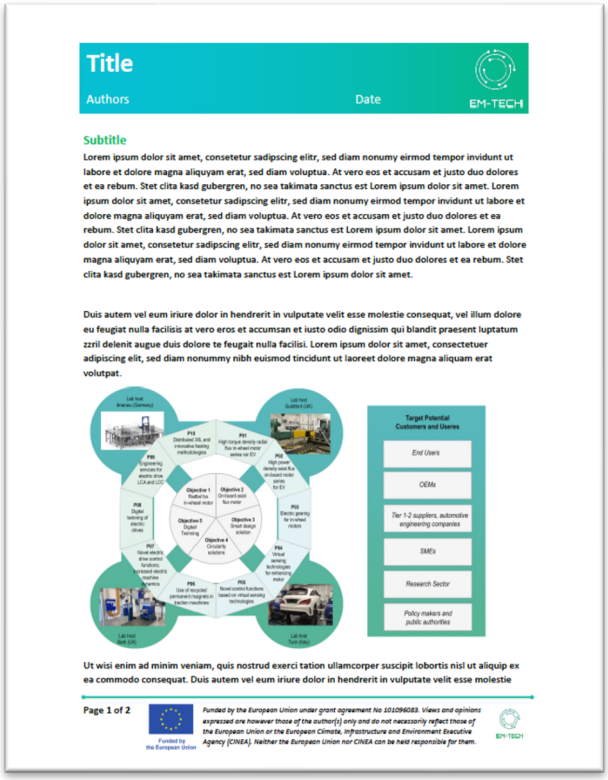
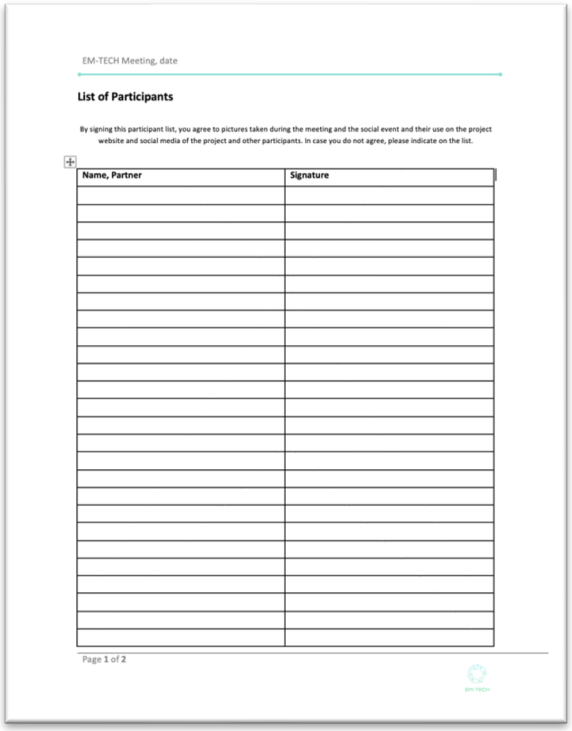


Figure 6: Leaflet template (word)

Figure 7: Leaflet template (Indesign)

EM-TECH



EM-TECH Meeting, date

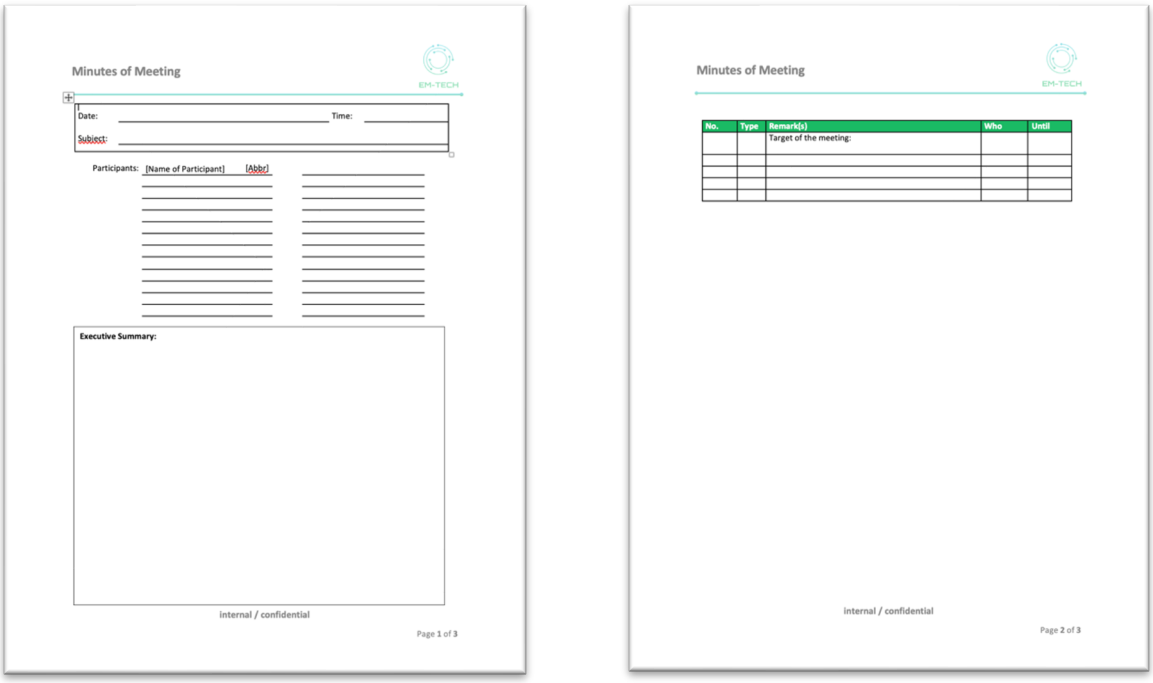
List of Participants

By signing this participant list, you agree to pictures taken during the meeting and the social event and their use on the project website and social media of the project and other participants. In case you do not agree, please indicate on the list.

Name, Partner	Signature

Page 1 of 2

Figure 8: List of participants (F2F)



Minutes of Meeting

EM-TECH

Date: Time:

Subject:

Participants: [Name of Participant] [Abbr]

Executive Summary:

internal / confidential

Page 1 of 3

Minutes of Meeting

EM-TECH

No.	Type	Remark(s)	Who	Until
		Target of the meeting:		

internal / confidential

Page 2 of 3

Figure 9: Template Minutes of Meeting

3 Communication strategy and plan

EM-TECH STRATEGY						
COMMUNICATION & OUTREACH						
Targets	Who	EU Citizens	EU Policy Makers	Public / Social Services	Young women	Scholars
	Why	Awareness of EU-funding as innovation enabler	Influencing decisions towards investments on 2ZERO topics	Promotion of clean and circular mobility technologies	Encouraging to engineering and research career	Triggering interest on science and technology
Channels		Web Channels	Public Media	Events and Actions on Consortium Level	Events and Actions on Community Level	

Table 1: EM-TECH Communication strategy

Table 1 provides an overview on the communication strategy developed for the EM-TECH project.

3.1 Web channels

The project will organize three streams for the Internet-based communication: (i) project website; (ii) LinkedIn site; (iii) corporative web portals of the participants. These streams will publish and distribute project-relevant multimedia content as interviews with project team members, videos, and pictures about the most highlighted EM-TECH activities. The project website, any updates released over these is described in chapter 5.1 of this document. The activities performed on LinkedIn are described in chapter 5.3 of this document.

It is planned to min. bi-weekly release news on the EM-TECH project website and on LinkedIn and to publish min. 2 interviews / blog articles of the consortium participants on the project topics in connection to public and society aspects.

3.2 Public media

This channel includes regular publication of project news, incl. video materials, in regional, national and international newspapers or other relevant media. It is planned also to engage PR departments of the consortium organisations for these actions. A press release will be provided to support this activity.

It is planned to achieve min. 5 publications in national newspapers / magazines per year, one publication in an EU magazine for the public per year and min. one regional and one national / Europe-wide TV report broadcast.

3.3 Events and actions on consortium level

This channel includes participation of EM-TECH staff in Open Days at universities, presentation of the consortium achievements at Open Lab Days and Research Networking Days at non-academic companies participating in the consortium. Such events are a strong measure to promote the project outcomes to local communities and citizens in general.

It is planned to have EM-TECH presentations / booths at Open Days attracting at least 3000 totally on the consortium level for the whole project duration.

3.4 Event and actions at community level

As differentiated from the previous channel, this measure has not only corporative but also regional / national dimension. This covers the EM-TECH promotion at local schools, project booths at regional and European Researchers' Nights, public round tables and other relevant events to showcase benefits of the EM-TECH technologies and to motivate society and policy for support of education and research as key elements of a sustainable society and economy. To increase regional relevance, the consortium will appoint the partners for specific regional actions.

EM-TECH targets 2 promotion actions at community level for each participating organization with a targeted audience of at least 1000 persons totally on the consortium level for the whole project duration).

An example of such an activity is the Research Night in Ilmenau, coming up in July 2023.

4 Communication material

Based on the project's corporate identity established and described in chapter 2 of this document, the consortium developed and released general communication material to communicate the existence of the project and its main facts. These communication items are available on the project internal SharePoint, hosted by the project coordinator AVL, as well as on the public website, to be described in a later chapter of this document.

4.1 Project leaflet

Figure 10: EM-TECH project leaflet

4.2 Project presentation

EM-TECH

EM-TECH Project

Innovative **e-mo**tor **tech**nologies covering e-axles and e-corners vehicle architectures for high-efficient and sustainable e-mobility

Funded by the European Union

EM-TECH – Fact sheet

- EM-TECH: Innovative **e-mo**tor **tech**nologies covering e-axles and e-corners vehicle architectures for high-efficient and sustainable e-mobility
  - Funding scheme: HORIZON-CL5-2022-D5-01-09
  - Status: Project start by January 1st, 2023
  - Duration: 3 years
  - Consortium: 10 partners
  - Advisory Board: 3 partners
  - Total budget: approx. 4.920 k€
  - Coordinator: AVL List GmbH

Consortium

Advisory Board

CHANGAN AUTO

PUNCH Torino

Overall Approach

Target Potential Customers and Users

End Users

OEMs

Tier 1-2 suppliers, automotive engineering companies

SMEs

Research Sector

Policy makers and public authorities

Obj1: Radial flux in-wheel motor (IWM)

OBJECTIVE 1 (O1): Radial flux in-wheel motor (IWM) and drive technologies for high torque density, efficiency, dynamic response, and implementation flexibility of e-corners

- O1.1. Development of a new series of electric corner modules, each of them including a direct drive IWM using radial flux permanent magnet (PM) synchronous technology, and the respective integrated Silicon Carbide (SiC) based inverter (knowledge transfer from the Horizon Europe HighScape project)
- O1.2. Electric gearing (e-Gear) solutions that suitably modify the stator winding arrangements according to the machine setpoint
- O1.3. Overall achievement of continuous torque density >150 Nm/litre and specific torque levels in excess of 50 Nm/kg
- O1.4. Demonstration of the potential of the novel functionalities, e.g., stopping distance reduction, and enhanced drivability performance

Obj2: On-board axial flux motor (AFM)

OBJECTIVE 2 (O2): On-board axial flux motor (AFM) and drive technologies for high power density and efficiency, and reduced implementation cost

- O2.1. Enhancement of the energy efficiency performance and circularity characteristics of a new series of on-board single stator double rotor type ironless AFMs
- O2.2. Design-for-manufacturing of the EM-TECH ironless AFM solutions, to reduce their production cost by 50%
- O2.3. Evaluation of powder Soft Magnetic Composite (SMC) materials for active parts
- O2.4. Mechanical and electrical integration of the EM-TECH AFM technology with SiC-based power electronics developed in previous projects (knowledge transfer from the European projects EVC1000 and HIPE)

Obj3: advanced cooling and control strategies

OBJECTIVE 3 (O3): Innovative and smart design solutions for increasing the performance and reducing the life cycle impact of the EM-TECH radial and axial flux machines

- O3.1. ~10% temperature reduction in hotspots, including PMs, through more direct and efficient active cooling solutions
- O3.2. Novel virtual motor sensing solutions for real-time monitoring of the temperature distribution within the PMs
- O3.3. Implementation of innovative machine control algorithms, for (i) more effective use of the active materials in limit conditions; (ii) timely derating, and reduced conservativeness of the safety factors (machine used at its full potential); and (iii) enabling the use of lower-grade, lower-performance and recycled/recyclable PMs with low content of Dysprosium.
- O3.4. Implementation of motor geometry optimisation solutions for energy loss reduction along driving cycles

*PM: permanent magnet

Obj4: Circularity solutions for IWM and AFM

OBJECTIVE 4 (O4): Circularity solutions for in-wheel and on-board motor technologies

- O4.1. Incorporation of Life Cycle Assessment (LCA) methodologies in the motor design optimisation and digital twinning toolchain
- O4.2. Implementation of Life Cycle Cost (LCC) assessment methodologies
- O4.3. Improvements and updates on the LCA/LCC methodologies
- O4.4. >60% reduction of the use of rare earth resources in the EM-TECH machines with respect to the current state-of-the-art designs, and adoption of recycled PMs as a viable circularity solution

Figure 11: General project presentation (long)

This general project presentation is linked on the EM-TECH project website as PDF as well as short project movie. A shorter version without the details on the objectives is available for partner use on the SharePoint.

5 Communication channels

5.1 Project website

The project website is available under www.emtechproject.eu and hosted and updated by project partner AIG. The website has been designed to be a central point of communication for different streams of communication:

1. Communicating about the project
2. Releasing news on the project and related activities
3. Presenting project partners

Also, for the design of the website, the project corporate identity was maintained. In the following, the main elements of the project website and their purpose are described.

5.1.1 HOME page

Readers of websites decide within a couple of seconds whether they stay on a page or leave. On average, the time-on-page is 40 seconds, 52 seconds is already considered as a good result. The EM-TECH main page is therefore designed to provide a reader a general overview on the main aspects of the project, providing directions to find more detailed information in the sub-sites "the project", "contact" and "news".

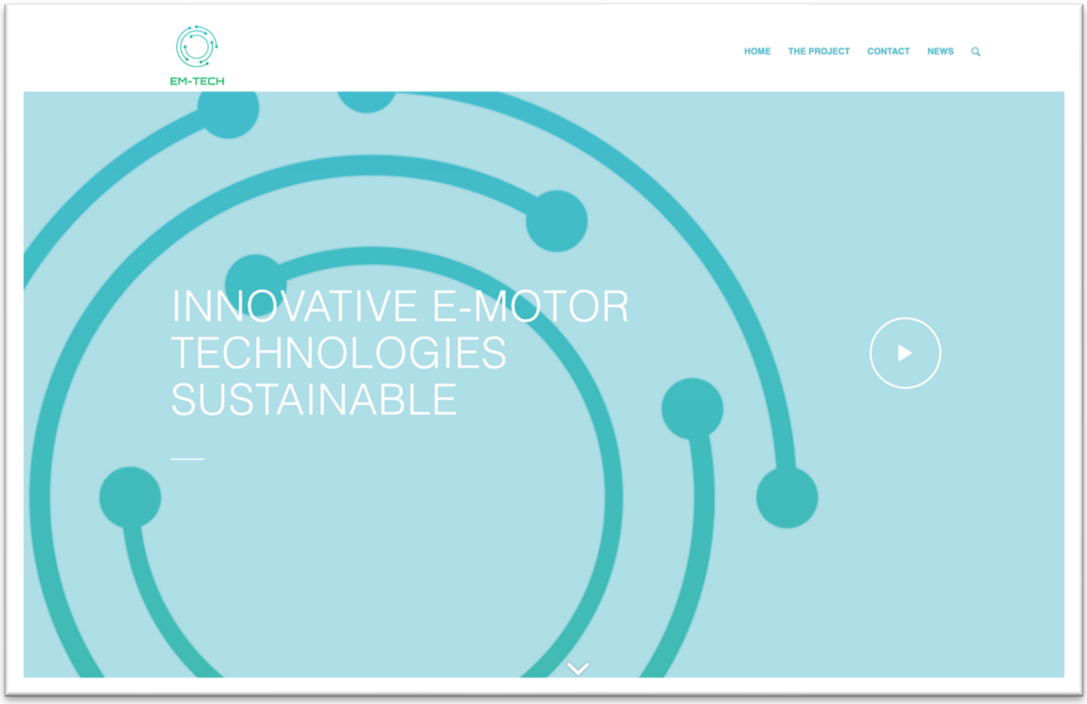


Figure 12: Website main page header

The website design provides a rotating header, already pinpointing on the main objectives of the project. It is here where the reader can already find the project vide, an animated version of the general project presentation as presented in chapter 0.

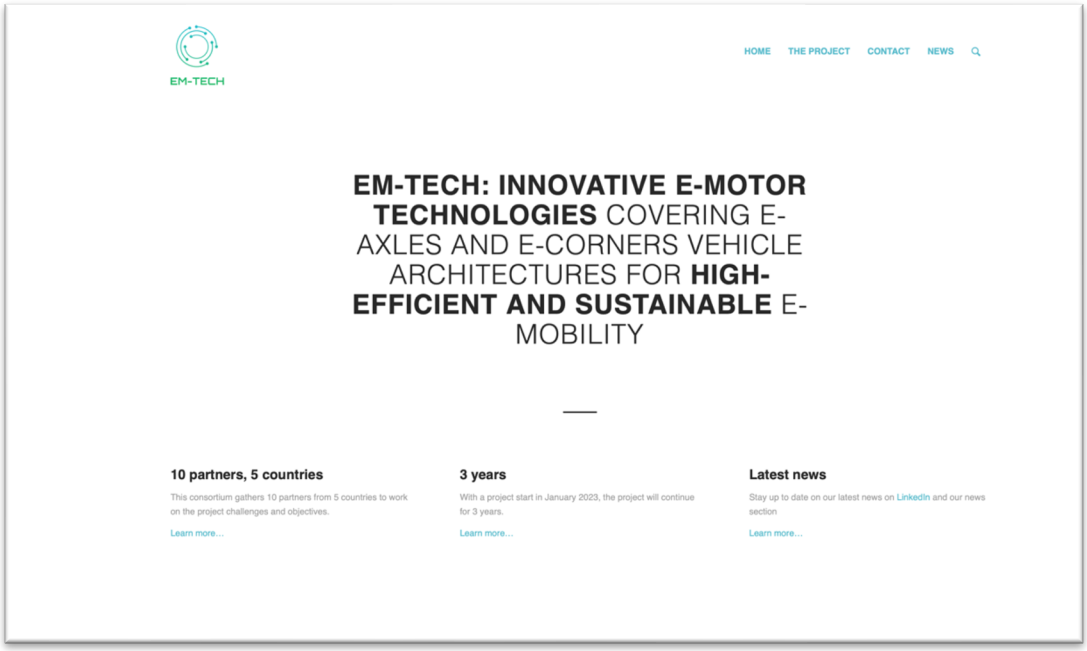


Figure 13: Main facts

This section provides the main facts of the projects leading to the details provided on the sub-pages of the website. The main project objectives are presented in the following section.

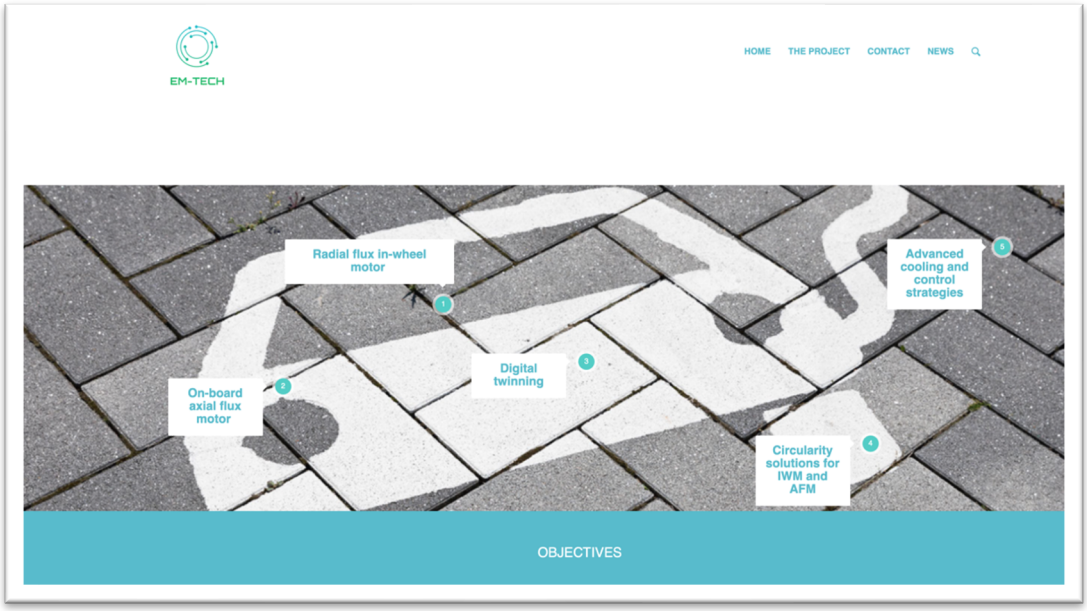


Figure 14: Objectives presented

Figure 15 and Figure 16 show the section "voices about EM-TECH". It is our intention to have the persons involved in the project / as advisory board members representing interesting opinions to raise their voices about the EM-TECH project. At the current time of the writing of this deliverable, two statements are available:

1. DI Martin Weinzerl, AVL List GmbH, project coordinator
2. Dr. Ing. Sebastian Gramstat, AUDI AG, advisory board member

Figure 15: Section "voices about" example 1

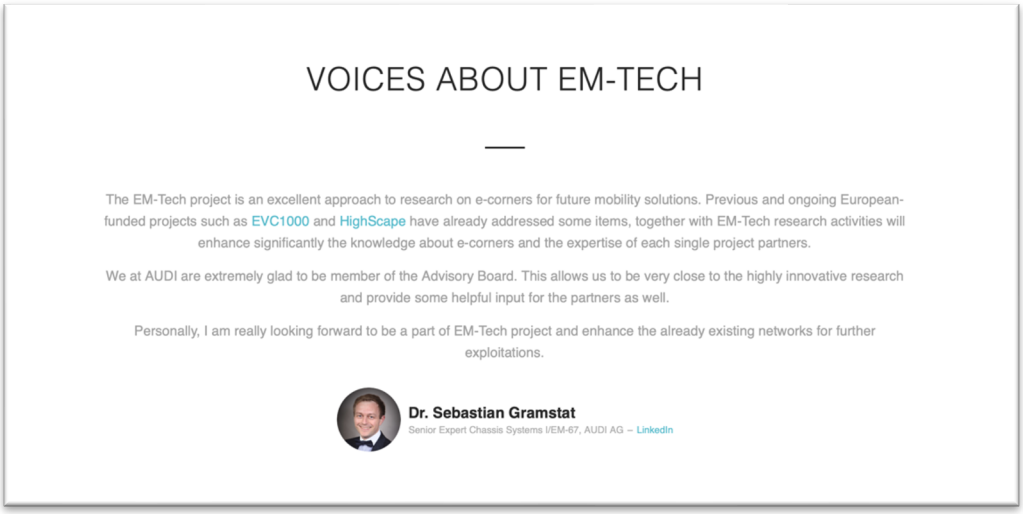


Figure 16: Section "voices about" example 2

Figure 17: project consortium

Also on the main page, the project consortium is presented, further detailed in the section "the project".

5.1.2 The project

In this section, the EM-TECH project, the objectives, the impact and the overall approach are presented. As well, the project partners are represented in this section again, this time featuring their dedicated role in the project consortium.

5.1.3 Contact

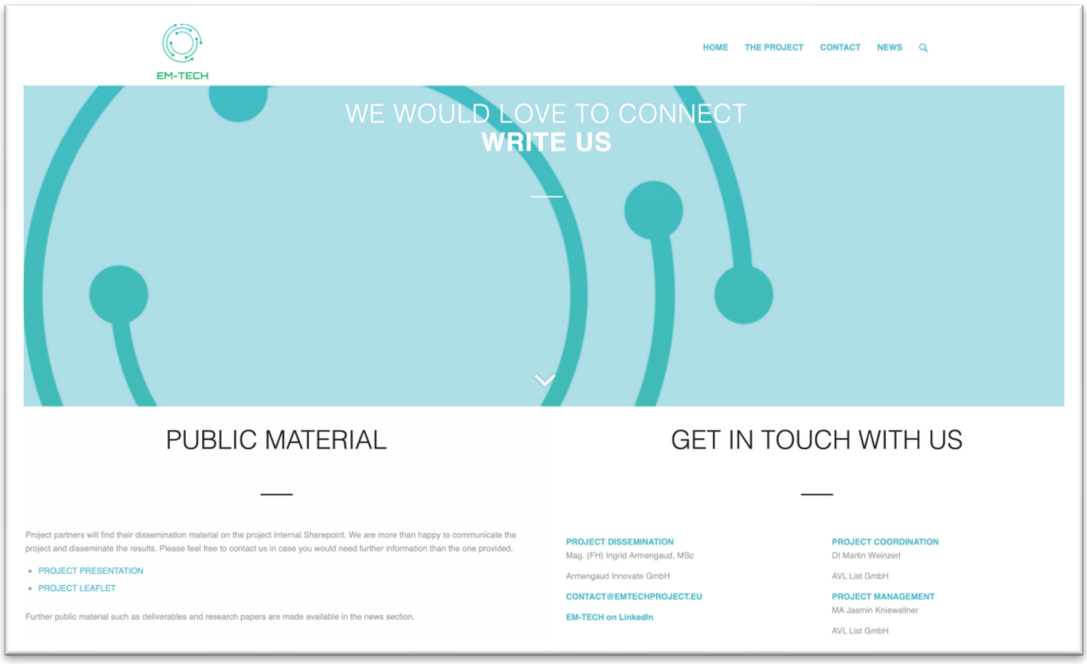


Figure 18: Contact

As the name says, this is the section where contact information as well as public material can be found. Once the project is progressing, the section on public material will get more prominence having a dedicated section.

5.1.4 News

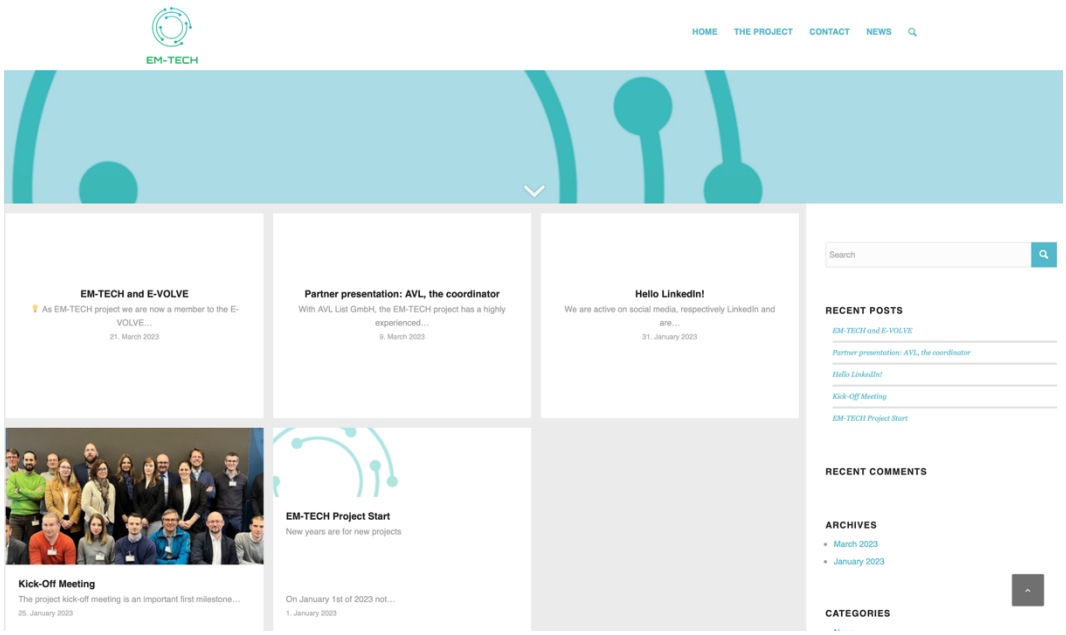


Figure 19: News section

The news section is the home of the most recent updates, providing information on meetings, presenting project partners, E-VOLVE cluster activities etc., etc.

5.2 Social Media

The importance of social media in today's communication strategies is off doubt. When designing communication strategies, it is important to keep in mind, that these networks are composed of humans, interacting with each other or in our case, with a project. Accordingly, a communication strategy designed for a project is ideally backed up by consortium members actively contributing to it, thus supporting the social interaction on the media selected.

5.3 LinkedIn

The project consortium has decided to focus on one social media network, LinkedIn. The reason is that via this network, different stakeholders can be addressed:

- the European commission representatives incl. funding authorities
- scientific communities
- young researchers
- general audience

A dedicated LinkedIn site has been established and posts are done on a regular basis: [EM-TECH site on LinkedIn].

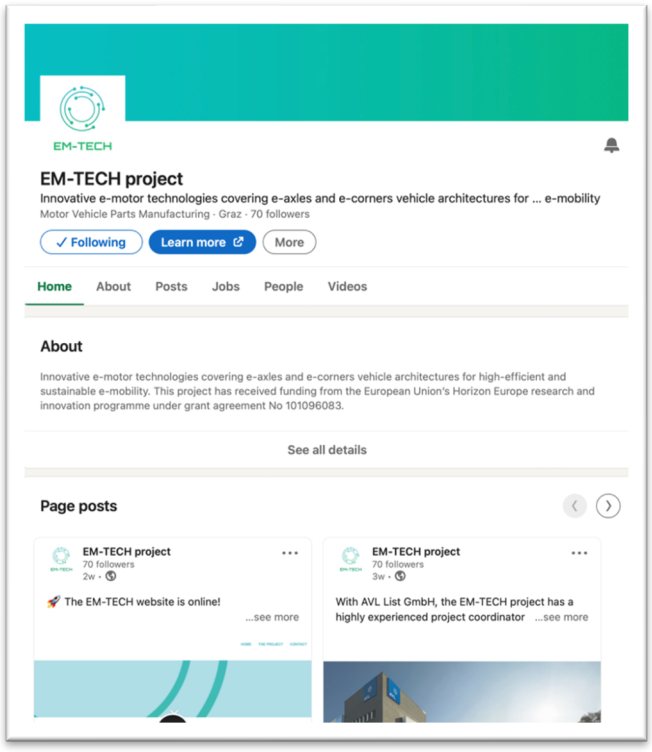


Figure 20: EM-TECH LinkedIn site

The project partners and everybody interested in the project advancements are invited to follow the site and interact with the postings (like, comment, share) to increase the visibility on LinkedIn.

Currently, after approximately 2 months of presence on LinkedIn; the project has 70 followers.

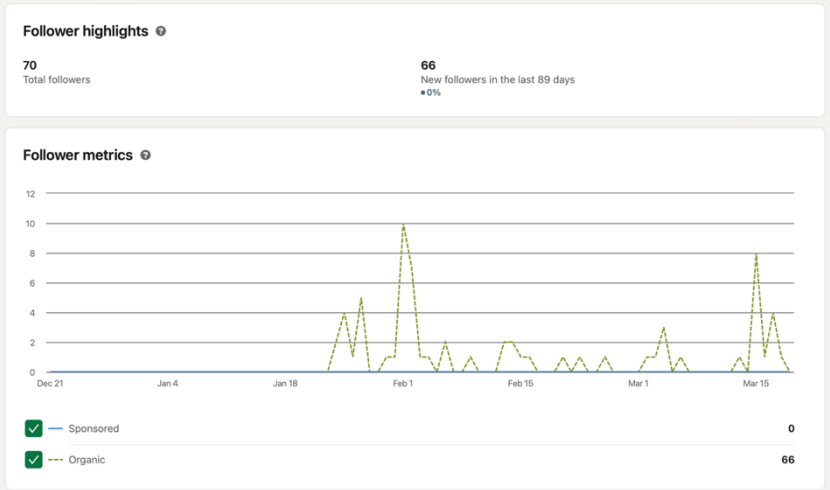


Figure 21: LinkedIn KPI Follower

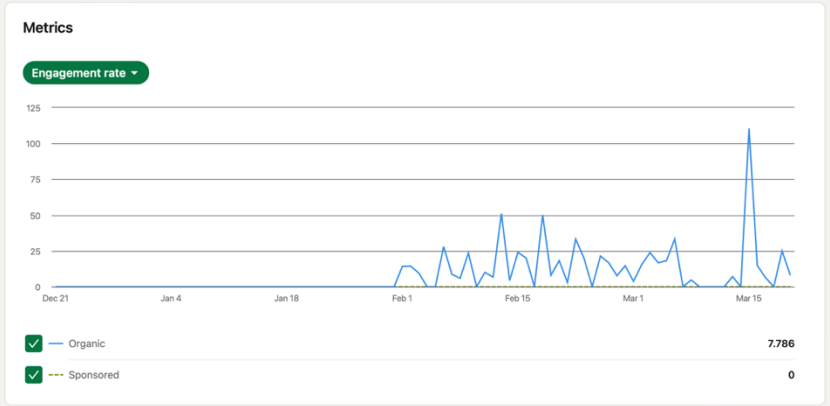


Figure 22: LinkedIn KPI Engagement

The project participants are highly encouraged to post about their activities in the project (keeping in mind confidentiality). When posting about the EM-TECH project, please use the Hashtag #emtechproject and tag the EM-TECH project so the activity can be connected and reposted accordingly. Of course, everybody can feel free to link the project to interesting articles, journals found on social media, the EM-TECH consortium is happy to share these.

5.4 Twitter

At the start of the project, the consortium has decided not to set up a dedicated twitter page for the EM-TECH project but to observe evolutions on this social media network that were initiated by a change of ownership. Instead, it was decided to invite project partners who are active on this network to post using the Hashtag #emtechproject. This decision will be re-evaluated during the upcoming project steering board meeting in M06.

5.5 Content generation

To generate content for the web updates as well as the social media activities, a content generation plan has been set up and is updated on a regular basis.

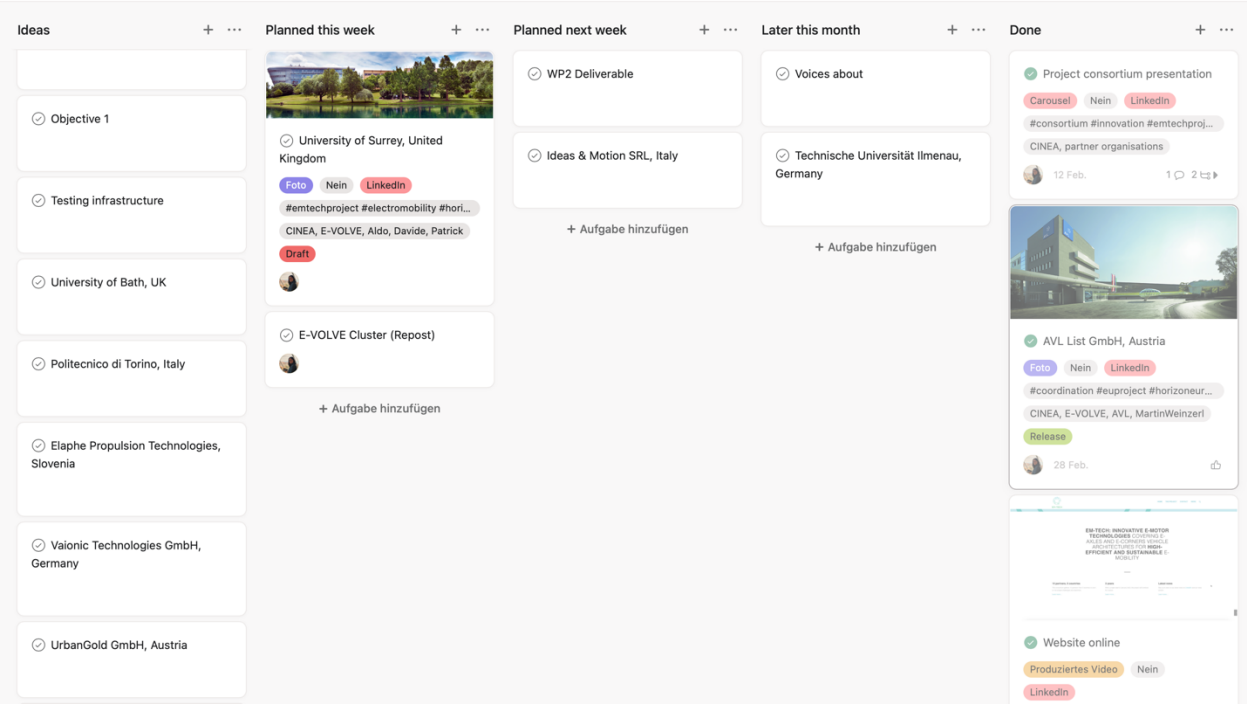


Figure 23: Content generation plan

6 Communication multiplicators – clusters and associations

The project partners are active in a number of clusters and associations and are using their presence there to promote the EM-TECH project and activities. One of these activities is outlined in the following.

6.1 E-VOLVE Cluster

During the project kick-off meeting, the EM-TECH project consortium agreed to the membership to the E-VOLVE cluster and joined the clustering activities in March 2023. The E-VOLVE cluster has been established by 8 H2020 projects (https://www.h2020-evolvecluster.eu) and has led to very interesting synchronization activities. Apart from two projects, the founding cluster member projects have successfully closed their projects, however the joint spirit is ongoing and new members from Horizon Europe are currently joining.

The cluster has the aim to:

- connect parallel R&D activities in complementary areas
- complement a higher potential produced by intersectoral cooperation and to
- execute joint dissemination and exploitation activities.

And is active with a website, regular newsletters, a LinkedIn and a Twitter page. EM-TECH participants are involved in the daily management of the cluster and will pursue a representation of EM-TECH in the cluster activities. Current communication activities include:

- update of the cluster website representing the new cluster members including EM-TECH
- Preparation of a newsletter featuring finished projects / running projects / new cluster members
- A joint conference publication is planned that will be integrated in the communication of the cluster and the involved projects
- Presentation of new cluster members on the E-VOLVE LinkedIn channel (see Figure 24).

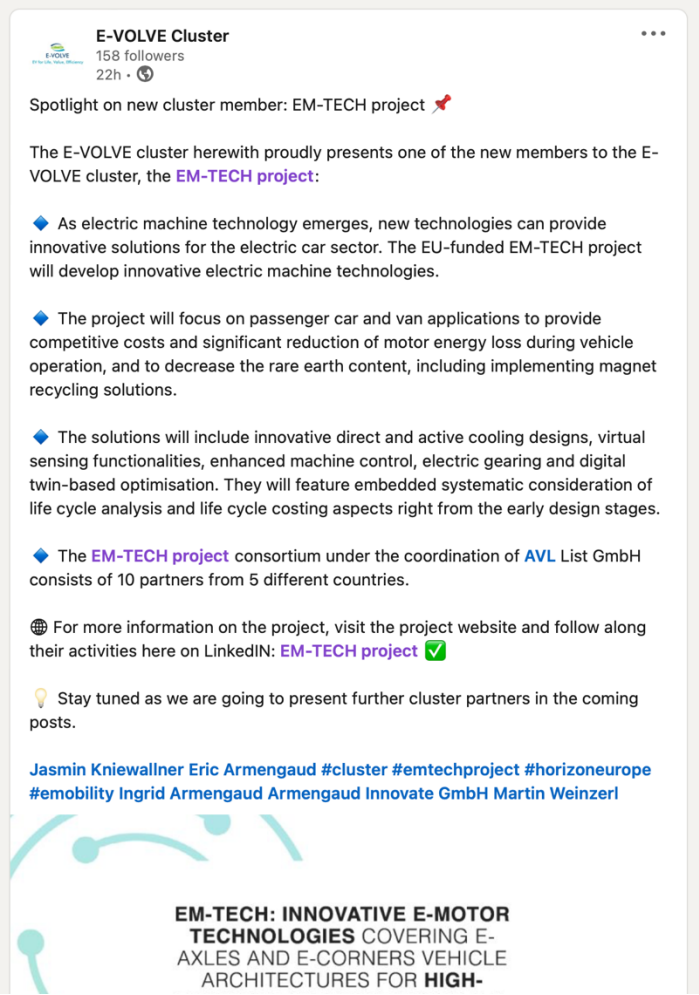


Figure 24: E-VOLVE Post presenting EM-TECH as new cluster member

7 Deviations, Impact and Recovery Actions

There is no deviation for this deliverable.