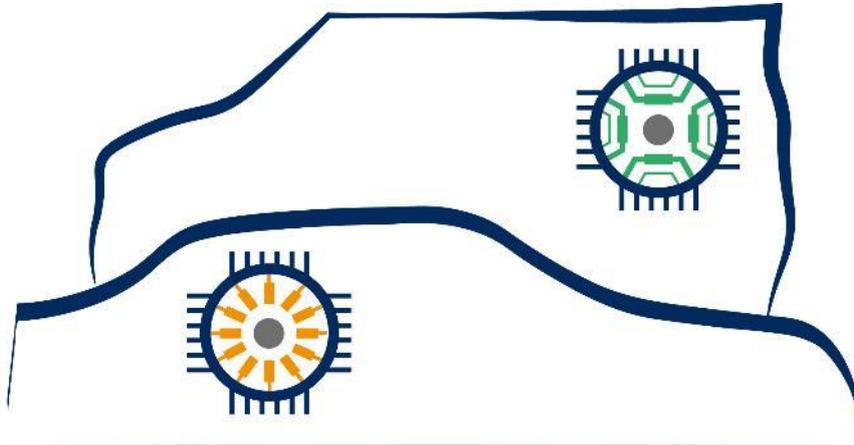




Rare Earth Free e-Drives Featuring Low Cost Manufacturing



ReFreeDrive

Collaborative Project

Grant Agreement Number 770143

Start date of the project: 1st October 2017, Duration: 36 months

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Abbreviations

ANFAC = Asociación Española de Fabricantes de Automóviles y Camiones

CCFA = Comité des Constructeurs Français d'Automobiles

DEM = Direct Email Marketing

EC = European Commission

ECI = European Copper Institute

EU = European Union

F2F = Face to Face

FEBIAC = Fédération belgo-luxembourgeoise de l'Automobile et du Cycle

KOM = Kick-off meeting of the ReFreeDrive project (Oct 2017 in Brussels)

OEM = Original Equipment Manufacturer (*here: Car Maker*)

ORDP = Open Research Data Pilot

PPM = Project Progress Meeting

PPT = Microsoft PowerPoint Format

SMMT = Society of Motor Manufacturers and Traders

Tbd=to be defined

UAQ = University of l' Aquila, Italy

VDA = Verband der Automobilindustrie

1 Executive Summary

The present report provides an overview on the planned and already realized activities, tools and elements to be used in the dissemination of ReFreeDrive project results to the envisioned audience.

The main goals of these activities are to:

- Create awareness about the potential of the proposed solutions
- Make results available for other potential beneficiaries or users
- fostering competitiveness and growth and increasing benefits to the European Union (EU) economy and citizens
- Create additional value for partners of the project
- Network with other H2020 projects
- Increase competitiveness of concerned industry in EU and sell project results
- Inform EU policy maker

We make use of skills and experiences among the consortium partners to achieve these goals, allocate sufficient resources to fulfil the task and also designate responsible communication manager from the European Copper Institute (ECI) and dissemination leader from the University of l' Aquila (UAQ).

Most of the channels and tools have been defined, although not all finally decided:

- Possible conferences, our own stakeholder events and other meetings
- Scientific Papers
- Tools like our own ReFreeDrive website, dissemination kit material, leaflet and poster
- Social media channel access

This report contains the definition of the target audience, the methods recognized for the dissemination, a plan of the activity for the first project period and a report about the dissemination of the preliminary project results. The objectives of this report are to highlight the plan for the project dissemination activities and report those activities undertaken during the first

year. This deliverable fulfils its objectives and there has been no deviation from the Grant Agreement foreseen content or its timing.

The activities from the first year of the project have been mainly focused on:

- Development of the dissemination kit (including leaflet and posters);
- Development of the website (including the updates of the news);
- Organization and participation at the ECI European Motor Workshop;
- Organization and participation to the ReFreeDrive Workshop @ Coiltech
- Publication of six scientific papers;
- Setup of a LinkedIn page shared with the GV04 projects DRIVEMODE and ModuLED.

The results of the campaign are satisfactory and are tracked through the website visits. More than 500 new users and 2000 visits have been collected within July 2018. Tracking data related to papers and LinkedIn page will be released in the next report.

The recognized barriers and risks and selected mitigating actions do not seem to affect the dissemination strategy.

2 Dissemination Goals

UAQ will work as dissemination leader, ensuring that all the partners within the Consortium disseminate the knowledge gathered in the project to various sources within the scientific and industrial community. Dissemination activities will target academic and industrial researchers working in the fields of traction motors, industrial motors, power electronics and integrated powertrain solutions. The main dissemination goal in the ReFreeDrive project is to communicate the results achieved in the project to identified stakeholder groups through defined channels.

The dissemination of the results should overall:

- Create awareness about the potential of the proposed solutions
- Make results available for other potential beneficiaries or users
- Foster competitiveness and growth and increasing benefits to the European Union economy and citizens
- Create additional value for the partners of the project
- Network with other H2020 projects
- Increase competitiveness of concerned industry in EU and sell project results
- Inform EU policy maker

To fulfill the goals recognized dissemination tasks are planned in details, in particular:

- Management of the dissemination activities: Chapter 3;
- Targeting of the audience: Chapter 4;
- Definition of the suitable Methods: Chapter 5;
- Definition of the tracking and evaluating methods of the results: Chapter 6.

These items are the base for the whole dissemination activities ongoing over the three years of the project's lifetime.

The detailed plan of the activities and the monitoring of the results will be developed yearly (Chapter 7) and reported in the D9.4, D9.5 and D9.6 respectively for each year of the project.

2.1 *Topics of the dissemination*

The project responds to the needs of developing new electric traction technologies for electric vehicles, proposing innovative solutions to enhance the actual state of art in terms of performance, manufacturability supply chain and cost reduction.

In particular the project focuses on rare earth free traction solutions. The adoption of rare earth elements has been recognized for strongly affecting the costs of current electric motor solutions and concerns arise for the related supply chain due to the geographical distribution of these materials.

The efforts of the consortium will be focused on the development of technologies oriented to mass production to overcome the adoption of these risky materials

The topics of the dissemination activities will center on the expected results from the different work-packages of the project:

- Design principles
- New methodologies
- Innovative workflows
- Specific innovation aspects
- Key technologies description
- Material selection studies
- Performances achieved
- Demonstration of effectiveness of the achievements
- Exploitation possibilities
- Evaluation of the state of art electric traction technologies for EV
- Key performance indicators
- Analysis of the suitable alternative technologies to achieve the target of the project
- Development on the design flow
- Materials selection study
- Components selection study
- Design principles
- Architecture result comparisons
- Performance evaluation
- Test results and performances validation
- Demonstration results

The ReFreeDrive project is classified as a Research and Innovation Action, hence it is important that the dissemination strategy aims to share the project results, including developed principles, methodologies, achievements and results. Nevertheless to fulfill the scope of the project the dissemination activities shall disclose the main findings without affecting their exploitation potential of the results by the partners.

3 Management of the dissemination and communication

3.1 Resources for the dissemination

The activities of the communication and dissemination tasks are bundled and organized in a dedicated work package WP9 with a total time budget of about 24 person-months (= 4,3% of the total time spent of the project), allocated to all consortium partners to make sure everyone can contribute and participate in selective activities.

The Dissemination Plan here present outlines the ongoing framework and will be adjusted over the course of the entire project as appropriate to guarantee a continuous and effective communication strategy.

Travel budget will be used also for dissemination actions that include participation to scientific conferences, exhibitions, stakeholders meetings and Face to face (F2F) meetings.

3.2 Strategy for knowledge management and IP protection

IPR monitoring will be an explicit part in WP8, under task leader Mavel. Monitoring of foreground and IPR issues, the project's IPR strategy, consolidating the interests of all partners, will be updated each year of the project and monitored by Mavel. All partners will identify all knowledge to be protected and Cidaut, who has a department specialized in IPR issues, will assist all partners which protection should be chosen. IPR help desk will be contacted in cases of conflicts as well as to provide advice.

3.3 Project Public Deliverables

The following Table 1 lists all ReFreeDrive project deliverables. The public reports will be entirely part of the dissemination tasks and actions, whereas for confidential deliverables we plan to issue at least a short but comprehensive executive summary to be used for publications.



Table 1: List of deliverables

WP No	Del Rel. No	Del No	Title	Description	Lead Beneficiary	Nature	Dissemination Level	Est. Del. Date (annex I)
WP1	D1.1	D1	First Progress Report	First Progress Report	CID	Report	Public	30-set-18
WP1	D1.2	D2	Second Progress Report	Second Progress Report	CID	Report	Public	30-set-19
WP1	D1.3	D3	Third Progress Report	Third Progress Report	CID	Report	Public	30-set-20
WP2	D2.1	D4	KPI Key Performance Indicators Document	KPI Key Performance Indicators Document	PRI	Report	Confidential	31-dic-17
WP2	D2.2	D5	ReFreeDrive testing vehicles: Driving Cycle	ReFreeDrive testing vehicles: Driving Cycle	PRI	Report	Public	31-dic-17
WP2	D2.3	D6	Functional subsystems Full Technical Specifications	Functional subsystems Full Technical Specificat...	PRI	Report	Confidential	28-feb-18
WP3	D3.1	D7	Preliminary IM Design Analysis and Material Selection	Preliminary IM Design Analysis and Material Sel...	MDL	Report	Confidential	30-apr-18
WP3	D3.2	D8	CR-IM Electromagnetic Design Report for Inner and Outer Rotor	CR-IM Electromagnetic Design Report for Inner a...	MDL	Report	Confidential	31-ott-18
WP3	D3.3	D9	CR-IM Thermal Design Report for Inner and Outer Rotor	CR-IM Thermal Design Report for Inner and Outer...	MDL	Report	Confidential	31-mar-19
WP3	D3.4	D10	CR-IM Full Design (including CAD) for Inner and Outer Rotor Designs	CR-IM Full Design (including CAD) for Inner and...	MDL	Report	Confidential	30-giu-19
WP4	D4.1	D11	SynRel Preliminary analysis	SynRel Preliminary analysis	IFPEN	Report	Public	30-set-18
WP4	D4.2	D12	SynRel Electro Magnetic Design Track 1 / Track 2	SynRel Electro Magnetic Design Track 1 / Track 2	UAQ	Report	Confidential	31-mar-19
WP4	D4.3	D13	PM SynRel Electro Magnetic Design Track 1 / Track 2	PM SynRel Electro Magnetic Design Track 1 / Tra...	IFPEN	Report	Confidential	31-mar-19
WP4	D4.4	D14	SynRel Full Design Track 1 / Track 2	SynRel Full Design Track 1 / Track 2	UAQ	Report	Confidential	30-giu-19
WP4	D4.5	D15	PM SynRel Full Design Track 1 / Track 2	PM SynRel Full Design Track 1 / Track 2	IFPEN	Report	Confidential	30-giu-19
WP5	D5.1	D16	Application software for IM and SynRel motor control	Application software for IM and SynRel motor co...	UAQ	Report	Confidential	30-giu-19

WP5	D5.2	D17	High Power Range Electric Drive Design	High Power Range Electric Drive Design	IFPEN	Report	Confidential	30-giu-19
WP5	D5.3	D18	Medium Power Range Electric Drive Design	Medium Power Range Electric Drive Design	UAQ	Report	Confidential	30-giu-19
WP5	D5.4	D19	Technical High Power Powertrain Integration Description Document	Technical High Power Powertrain Integration Des...	PRI	Report	Public	30-set-19
WP5	D5.5	D20	Technical Medium Power Powertrain Integration Description Document	Technical Medium Power Powertrain Integration D...	PRI	Report	Public	30-set-19
WP6	D6.1	D21	Induction Machine with Die Casted Copper Rotor for 75kW of operation	Induction Machine with Die Casted Copper Rotor ...	TCM	Other	Confidential	29-feb-20
WP6	D6.2	D22	Induction Machine with Fabricated Copper Rotor for 75kW of operation	Induction Machine with Fabricated Copper Rotor ...	TCM	Other	Confidential	29-feb-20
WP6	D6.3	D23	Pure Synchronous Reluctance Motor for 75kW of operation	Pure Synchronous Reluctance Motor for 75kW of o...	MAV	Other	Confidential	29-feb-20
WP6	D6.4	D24	PM Synchronous Reluctance Motor for 75kW of operation	PM Synchronous Reluctance Motor for 75kW of ope...	MAV	Other	Confidential	29-feb-20
WP6	D6.5	D25	Induction Machine with Die Casted Copper Rotor for 200kW of operation	Induction Machine with Die Casted Copper Rotor ...	TCM	Other	Confidential	29-feb-20
WP6	D6.6	D26	Induction Machine with Fabricated Copper Rotor for 200kW of operation	Induction Machine with Fabricated Copper Rotor ...	TCM	Other	Confidential	29-feb-20
WP6	D6.7	D27	Pure Synchronous Reluctance Motor for 200kW of operation	Pure Synchronous Reluctance Motor for 200kW of ...	MAV	Other	Confidential	30-set-19
WP6	D6.8	D28	PM Synchronous Reluctance Motor for 200kW of operation	PM Synchronous Reluctance Motor for 200kW of op...	MAV	Other	Confidential	30-set-19
WP6	D6.9	D29	Power Electronics for the 75kW power setting	Power Electronics for the 75kW power setting	R13	Other	Confidential	30-set-19
WP6	D6.10	D30	Power Electronics for the 200kW power setting	Power Electronics for the 200kW power setting	IFPEN	Other	Confidential	30-set-19
WP7	D7.1	D31	Motor testing results	Motor testing results	IFPEN	Report	Public	31-dic-19
WP7	D7.2	D32	Integrated e-Drive test bench testing	Integrated e-Drive test bench testing results	CID	Report	Public	31-mar-



			results						20
WP7	D7.3	D33	In vehicle Technology Validation	In vehicle Technology Validation	PRI	Report	Public		30-giu-20
WP8	D8.1	D34	Techno economic Evaluation	Techno economic Evaluation	ECI	Report	Confidential		30-set-20
WP8	D8.2	D35	LCA technologies analyses	LCA technologies analyses	CID	Report	Public		30-set-20
WP8	D8.3	D36	Plan for the Exploitation of Results, first draft	Plan for the Exploitation of Results, first draft	MAV	Report	Confidential		31-mar-19
WP8	D8.4	D37	Plan for the Exploitation of Results, final draft	Plan for the Exploitation of Results, final draft	MAV	Report	Confidential		30-set-20
WP9	D9.1	D38	Project Website	Project Website	CID	Other	Public		31-dic-17
WP9	D9.2	D39	Open Data Management Plan	Open Data Management Plan	CID	ORDP:	Public		31-mar-18
WP9	D9.3	D40	Communication Plan	Communication Plan	ECI	Report	Public		31-mar-18
WP9	D9.4	D41	Plan for the Dissemination of Results, First Release	Plan for the Dissemination of Results, First Re...	UAQ	Report	Public		30-set-18
WP9	D9.5	D42	Plan for the Dissemination of Results, Mid Release	Plan for the Dissemination of Results, Mid Release	UAQ	Report	Public		30-set-19
WP9	D9.6	D43	Plan for the Dissemination of Results, Final Release	Plan for the Dissemination of Results, Final Re...	UAQ	Report	Public		30-set-20

3.4 Barriers to dissemination and risks

Following barriers to dissemination have been identified. The Table 2 reports them along with the possible mitigating solutions.

Until now, no barriers neither risks have been materialized and we are on track with our dissemination activities and their anticipated outcomes according to the status of the project.

Table 2: Dissemination barriers

Barriers	Severity	Countermeasures
Protection of methods and results by the owners.	Medium	Each partner is responsible for the exploitation of its own results and will take care of the comprehensiveness of the results to be disseminated.
Lack of target audience	Low	Selected target audience is wide and comprehensive, feedbacks from the communication and dissemination campaign will be used to improve the target audience
Difficulties in reaching the main stakeholders in the field	High	Main stakeholders could be difficult to be reached and to be convinced, the inclusion of different kind of events in the field i.e. conferences, exhibitions and stakeholder meeting will help in reaching the main stakeholders. Liason with the other GV04 projects will help in strengthen the messages
Target audience not convinced of the exploitation potential of the results	Medium	Particular attention will be paid in highlighting the potentiality of the results, Tests and demonstrations Steps will be extensively documented to support the dissemination activities

The Table 3 reports the recognized risks in the dissemination campaign and selected mitigation actions.

Table 3: Dissemination risks

Risks	Severity	Mitigations
Delay in dissemination due to delay in Results.	Medium	The dissemination campaign started at the beginning of the project as soon as meaningful preliminary results are available. Preliminary study and adopted methodologies will be used in the early stage of the dissemination.
Results not convincing	Medium	Comparison of different solution will be provided and validated. Links to a comprehensive reference list about the state of art and literature will be provided
Lack of comprehensive Results	Low	Each partner is responsible for the exploitation of its own results and will take care of the comprehensiveness of the results to be disseminated. A list of expected results and data to be collected will be discussed among all

the partners		
Lack of Resources for Dissemination	Medium	To optimize the resources available will be taken advantage of the skills and the tools of each partners and the initiatives undertaken by them
Disclose confidential Information	Low	Each partner is proprietary of the results carried out during the activity in the project and responsible of their dissemination

3.5 Interaction with other GV04 projects

In order to increase awareness and use synergies in communication and dissemination activities, the RefreeDrive project will explore different avenues of joint-activities (i.e. joint LinkedIn page, possible joint event or workshop, common attendance of larger events/ conferences) with the other two GV04 projects from the call: ModuLED and DriveMode.

4 Targeted Audience

Target audience have been identified by considering the type of the results the project is going to outline as shown in the Figure 1. Since the project aims to develop new technologies and related prototypes and demonstrators the target audience is mainly focused but not limited on the left region of the Figure 1., meaning Research communities and industry innovators.

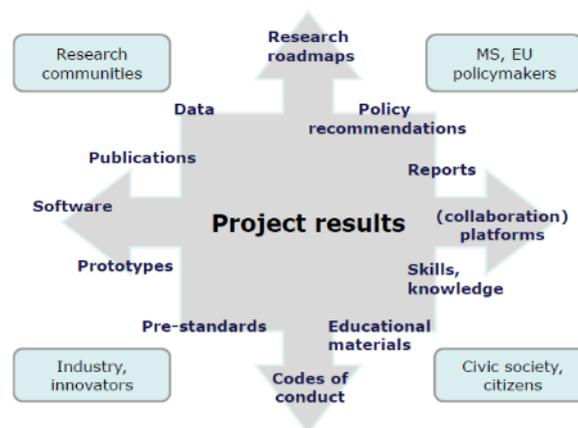


Figure 1: Dissemination of project results: Dissemination Means and Target Audience:

To better identify members and entry points at different stakeholder groups we make use of the experience, resources and networks of all consortium partners. The recognized stakeholder groups comprise, but are not limited to:

- Scientific and academic community
- Automotive OEMs
- Smaller E-vehicle manufacturers

- Other identified potential customers
- Automotive supply chain
- Other motor sectors (railway, marine)
- European manufacturing platforms and associations, including all those related to e-mobility (ECI is a member of the Platform for E-mobility)
- EU and national policy makers
- Engagement with EU policies
- Civic society and citizens in general
- Others tbd

The partners' efforts will focus:

- dissemination actions toward research communities in the field of electrical machines and electrical drive;
- dissemination actions toward industry innovators: mainly potential supplier or potential customer interested to engage with the results of the project.;
- EU policymakers
- Society in General

The project partnership includes one Original Equipment Manufacturer (OEM, here referring to car-maker), two third part manufacturers, one vehicle integrator and several suppliers. All these partners are part of the recognized audience of the dissemination actions and are eligible to exploit the results of the project.

5 Channels for the Dissemination

The dissemination strategy will use different channels and media, using the skills and experiences across all consortium partners, to ensure a large visibility and create awareness among the target audience.

5.1 Dissemination kit

Logo

Several options for a project logo have been circulated and discussed at the Kick off Meeting (KOM). All consortium partners have approved the final version shown in Figure 2.

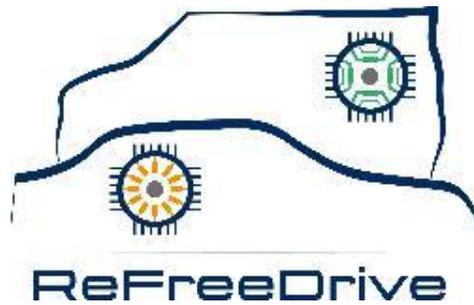


Figure 2. ReFreeDrive project logo

General overview on ReFreeDrive

A general project overview has been developed by Cidaut, both as PDF paper as well as powerpoint presentation, after the KOM based on general information available and pictures provided by consortium partners. The content will be updated after each GA meetings of the project on proposal of the Dissemination Leader.

Poster

The UAQ team developed a poster presenting the key objectives of the ReFreeDrive project which can be used for conferences, stakeholder meetings and other events. The content will be updated after each General Assembly meetings of the project on proposal of the Communication and Dissemination Members. First version can be found in the Appendix of this document.

Leaflet

Based on a similar design and content as the poster, UAQ furthermore created a short leaflet (4 sides). This print template layout is shared with all ReFreeDrive consortium partners who are then responsible for printing the adequate number of hard copies used for their attendance on events, to share here the costs and avoid shipping. The content will be updated after each GA meetings of the project on proposal of the Communication and Dissemination Members. First version can be found in the Appendix of this document.

5.2 Website

The “ReFreeDrive” website is operative under: www.refreedrive.eu since the end of December 2017, managed by Cidaut, and will be constantly updated with project results, events, etc (See D9.3).

In particular, a specific “Download” section of the website has been created to host scientific publications reporting the results of the project, public deliverables and executive summaries of non-public deliverables.

The home page of the website includes a registration form to subscribe to the project dedicated newsletter and a section with the latest news related to the project (see Appendix).

5.3 *Conferences and other events*

This preliminary list of scientific conferences and events (Table I - D9.3) was collected in with input from all consortium partners and will be used for continuous update and planning of attendance over the course of the ReFreeDrive project. Many are regular events, hence even if deadline for presenting or submission of papers in 2018 has already expired; we may consider them in the upcoming years.

5.4 *Stakeholder platform events*

Communication and Dissemination Members will organize in the course of the ReFreeDrive project **three dedicated stakeholder events** to support exploitation and dissemination in new e-Drive technologies. The event will be organized targeting different end users along the mobility value chain, even including lower power range applications (e.g. 15kW) and other types of vehicles that could benefit in the future from these technologies (e.g. two and three wheelers and industrial vehicles).

- Ideally combined with conferences and other existing events
- First ReFreeDrive workshop at Coiltech, Pordenone/IT, 26-27 Sep 2018,

5.5 *Other meetings*

In addition to official events, we will also explore the opportunities to network with stakeholder groups through informal meetings, etc:

- ECI European Motor Workshop, March 13th, 2018 Rome, Italy
(see: <http://www.pole-medee.com/2017/12/european-motor-workshop-2018/>)
- Face-to-face meetings with industry groups, associations (e.g. national car manufacturer or importers like Verband der Automobilindustrie (VDA) in Germany, Fédération belge-luxembourgeoise de l'Automobile et du Cycle (FEBIAC) in Belgium, RAI in Netherlands, Comité des Constructeurs Français d'Automobiles (CCFA) in France, Asociación Española de Fabricantes de Automóviles y Camiones (ANFAC) in Spain or Society of Motor Manufacturers and Traders (SMMT) in the UK), policy makers, etc

5.6 *Scientific papers and other publications*

Out of a preliminary list of conferences (put together in Table 2 - D9.3), a shortlist will be selected for submitting project results in scientific papers. Plus, in a list of scientific journals (put together in Table 3 - D9.3), we will select additional avenues for project results publications.

5.7 Newsletters and Press Releases

On 27th November 2017, Cidaut released a first announcement on the start of the ReFreeDrive project in their newsletter (see: <http://www.cidaut.es/newsletter/refreedrive-developing-new-electric-motor-technologies>). Cidaut envisions to publish approximately twice a year more general news related to the ReFreeDrive project in their newsletter sent to about 1.000 subscribers.

Some partners can include the project developments in their own press release in agreement with the internal communication office (JLR, others).

The ReFreeDrive website includes the possibility to register for newsletter, Newsletter will be released in agreement with the plan in chapter 7.5.

5.8 Webinars

Through ECI's platform Leonardo Energy, ECI can manage the complete webinar cycle: invitation, registrations, reminders, real-time web-session, recording and hosting of materials (presentation and recording file). The webinar platform is open for all consortium partners to present relevant and public content of the ReFreeDrive project results. (see <http://www.leonardo-energy.org/resources/792>, <http://www.leonardo-energy.org/post/1262>)

5.9 Social Media

In order to promote the visibility of the ReFreeDrive project and its milestones and results the use of social networks is considered as a useful support.

The consortium decided to use LinkedIn as relevant social networks to approach key stakeholder groups.

The ReFreeDrive partners along with the partners of the projects ModuLED and DRIVEMODE agreed to proceed for a common LinkedIn company page clustering all the active GV04 projects.

The project coordinators and communication and dissemination leaders of all three GV04 projects together developed a common logo for the cluster of projects and respective website, seen in Figure 3.

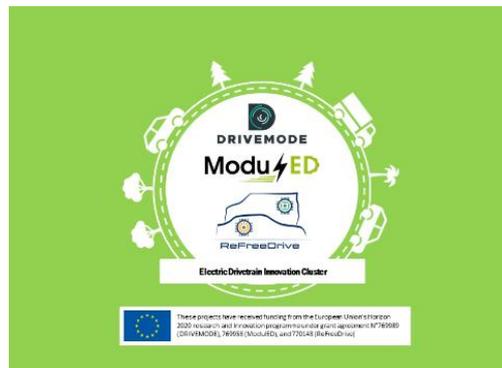


Figure 3: screenshot of the Electric Drivetrain Innovation Cluster website

ReFreeDrive acquired the domain for this cluster website, see:

www.electricdrivetraininnovationcluster.eu

and created a common Email account under: info@electricdrivetraininnovation.eu, linked to all project coordinators and communication and dissemination leaders of the three GV04 projects as recipients.

Effective in August 2018, ReFreeDrive created a common LinkedIn company page to be used as platform for communication and dissemination activities of the cluster project.

See: <https://www.linkedin.com/company/electric-drivetrain-innovation-cluster/>

Every project takes the lead for 3 months, the other two may also publish at their interest, though the leader will try to fulfill a minimum number of updates (1 to 3/month). The leader will be in charge of the monthly reporting. ReFreeDrive's communication leader ECI started the first period of leadership, will be followed by DRIVEMODE and then ModuED.

The anticipated content should cover:

- News related to our research but not owned by the projects
- Events partners attend to
- Publication of relevant content at the websites (public delis, papers, ppts...)
- Comments on posts made by INEA or the other LinkedIn EU sites (add list)
- Pictures (of prototypes or tests or simulations...)
- Videos
- Others to be defined in coordination calls with all three projects in the cluster

In addition, consortium partners of all three projects will use their existing LinkedIn profiles to promote and share the project activities.

The more intensive use of social media channels is starting in September 2018 when the preliminary results are consolidated enough to be disclosed.

The tracking of LinkedIn indicators (see analytics in the appendix) will allow to monitor the success of the posts as well as identify our audiences, to reconsider strategies accordingly.

5.10 Lectures and seminars

University of L'Aquila will include the findings and results achieved in the project in the lectures of the courses:

- Design of Electrical Machines;
- Electrical Automation;
- Power Industrial Electronics;
- Electrical Drives;
- Electrical Systems for Mobility.

The purpose is to create awareness on the students of the Master Degree in Engineering (future engineers in the field) about the results of the projects and methodologies adopted to achieve them.

The findings and results of the project will be also included in further seminars in the fields organized for students, researchers and stakeholders in the fields.

6 Methods for tracking and evaluating of the dissemination

In order to track the effectiveness and reach-out of our different communication activities, we will establish some tracking and monitoring over the course of the project.

6.1 Website visits tracking

We will use the embedded **Google Analytics** tool on our ReFreeDrive website to track and report the website traffic (number of visitors, their geography, the length of stay, etc). Report will be done each quarter.

6.2 Citations of Papers

The UAQ team will be in charge to monitor the reach-out of our scientific papers. There are several options at present under consideration to track citations and to compute bibliometrics indicators to rank scientific papers and authors:

- **Google Scholar** is automatic and free of charge and searches any type of document online
- **Scopus** and **Web of Science** are more restricted to papers and journals and are paid services where UAQ has an active subscription

The output of these services are bibliometric data, i.e. number of citations of a specific paper in other papers, thesis, articles, etc and the h-index of the author. We will hence use these citations of the ReFreeDrive papers to get an indication on their impact.

6.3 **LinkedIn ReFreeDrive posts statistics.**

The monitoring of the statistics of the post published in LinkedIn is considered a good feedback to evaluate the dissemination actions

7 **Plan of the activities and results**

The general plan for dissemination over the three years of the project can be outlined as follows:

First period (up to March 2019): the main dissemination activities are focused on the scientific dissemination of the preliminary results and on create awareness on stakeholders about the objective of the project and expected results.

Second period (up to December 2019): the prototyping stage is ongoing and dissemination of the results can continue with the technical and scientific contents, first results about final designs and preliminary prototypes can be discussed with potential industrial customers. Shared actions among other GV04 projects can be planned.

Third Period (up to the end of the project): the prototypes are ready and the dissemination campaign can be focused on stakeholders meetings.

The following chapters report the activities planned and the results obtained. The dissemination actions accomplished in the first year of the project are effective and results are relevant.

Each sub-chapter reports the impact of each dissemination method actuated. The chapters are organized in three parts:

- Actions accomplished
- Results
- Modification of the plan and future actions

7.1 **Website Updates**

The website is online and structure is complete, the news section is updated with about three news per month starting from April 2018. News to be posted are suggested by the partners and approved by CID in the monthly Project Progress Meetings (see appendix).

Published scientific papers will be uploaded in the download sections and related news will be released.

7.1.1 Results

The visits of the website are relevant, even if the project is in the start-up stage. The monitoring started at M06 and reported several visits matching with specific communication and dissemination actions. Main successful actions are (in order of importance):

- MDL paper on the Website;
- Direct Email Marketing (DEM) released by Coiltech about the ReFreeDrive Workshop and related promotion on LinkedIn by the Coiltech organizers (see appendix 8.3.2)
- Leonardo Energy Newsletter (ECI)
- Cidaut Newsletter
- Events

The Table 4 reports the results related to the website visits by google analytics associated with the main dissemination actions carried out.

Table 4: ReFreeDrive Website analytics April18 –July18.

Reference Month	Users	New Users	Sessions	Page views	Main comm/diss events carried out
April 2018	82	70	93	264	
May 2018	125	117	176	527	Coiltech promotion of the World Magnetic Conferene including ReFreeDrive
June 2018	102	95	153	481	ECI Newsletter, participation to WMM, CWIEME, ITEC, Others
July 2018	241	225	282	774	MDL paper uploaded in the down load section and related promotion

Actions related to the months August and September will be reported in the next report.

7.1.2 Next steps and actions

Considering the results, the following actions are planned for the future:

- Three news per month on the website are maintained
- All the papers will be available on the website for download
- LinkedIn page will be used to enhance the website visibility

7.2 Conferences and other events

Among the list of the recognized events presented in Table 1 – D9.3, the participation plan outlined for 2018 is reported in Table 5. The same table reports also who attended the events and comments



Table 5: Conferences and other events planned for first year.

name	website	location	date(s)	focus	Partner(s) Involved	comments
Advanced E-Motors	e-motor-conference.i gpc.de	Berlin, DE	13-15 Feb 2018	E-motor design , new materials for cost efficient e-drive systems, enhance heat transfer, testing methods	UAQ	Commercial conference organized by IQPC, Prof Villani presented the project, good interest from the audience.
Safety & Electric Mobility Expo,	www.semexpo.it	Rome, IT	13-15 Apr 2018	A meeting point for the public, market players, media, institutions, associations with the world of electrical mobility (the same days of the of the Rome formula E grand Prix)	UAQ	CANCELED and replaced with a stakeholders meeting. G. Fabri presented the project, leaflet to CEO volkswagen Italia.
PEMD	https://events.theiet.org/pemd/	Liverpool, UK	17-19 April 2018	Power electronics, drives and machines	MDL	MDL has paper and expo booth
WMM	http://tu-freiberg.de/fakult5/imf/institut/veranstaltungen/wmm-2018	Dresden, DE	12-14 Jun 2018	International Conference on Magnetism and Metallurgy	UAQ, CSM	Project introduced to the audience, Electrical Steel manufacturers interested
Speedam	http://www.speedam.org/	Amalfi Coast (IT)	20-22 June 2018	International Symposium on Power Electronics, Electrical Drives, Automation and Motion	UAQ, IFPEN	Paper presented.
ITEC	https://itec-conf.com/	Long Beach, USA	13-15 June 2018	Components, systems, power electronics for transportation	MDL	MDL had tutorial and expo booth, project introduced to the audience.
CWIEME	www.coilwin	Berlin, DE	19-21 Jun	Winding systems & supplies, motor	MDL, UAQ,	MDL will have tutorial and

	dingexpo.com		2018	components & accessories	IFPEN, CSM	expo booth, project introduced to the audience. UAQ introduced the project to many suppliers of Magnets and other materials
ICEM	www.icem.cc/2018/	Alexandroupoli, GR	3-6 Sep 2018	International conference on Electrical Machines	UAQ, MDL	UAQ and MDL presented a Paper.
Coiltech WMC	www.quickfairs.net	Pordenone, IT	24 -25 Sep 2018	Includes topics on E-Mobility Drivetrain and Systems	UAQ, ALL	Workshop on RARE EARTH FREE E-DRIVES FOR ELECTRIC VEHICLES has been organized. All partners contributed.
ECCE	http://www.iecee-ecce.org/2018/	Portland, USA	23-27 Sept 2018	Industry and academics event on energy conversion systems	MDL	MDL submitted papers



7.2.1 Results

Ten national and international events have been attended in the first year of the project. In these events, the project has been introduced to the stakeholders and interest about the project developments has been registered.

7.2.2 Next steps and actions

The participation to conferences and events will be confirmed in the Second year of the project as an effective way to disseminate the project results by mean of papers and presentations.

About the second year of the project the plan is reported in Table 6, as many events are still to be defined (tbd) updates will be released during the Project's Progress meetings (PPMs):



Table 6: Conferces and events planned for the second year.

name	website	location	date(s)	focus	Partner(s) Involved (TBC)
Motor Summit International	www.motorsummit.ch	Zurich, CH	14-15 Nov 2018	highly efficient motor systems, international standards and min national requirements	UAQ, ECI
Advanced E-Motors	e-motor-conference.iqpc.de	Berlin, DE	February 2019	E-motor design , new materials for cost efficient e-drive systems, enhance heat transfer, testing methods	UAQ
EEVC	www.eevc.eu	TBS	TBD	Different topics, the	CID, ECI
Transport Research Arena	www.traconference.eu	Vienna, AT	TBD	European Research and Technology Conference on Transport and Mobility	CID, ECI
EV Tech Expo Europe	www.evtechexpo.eu	Stuttgart, DE	7-9 May 2019	Electric & Hybrid Vehicle Technology	ECI
IEMDC	www.ieee-pels.org/conferences	San Diego, USA	11-15 May 2019	IEEE International Electric Machines & Drives Conference	UAQ
CWIEME	www.coilwindingexpo.com	Berlin, DE	21 - 23 May 2019	Winding systems & supplies, motor components & accessories	MDL, UAQ, IFPEN, CSM
ITEC	https://itec-conf.com/	Detroit, Michigan, USA	19-21 June 2019	Components, systems, power electronics for transportation	MDL, UAQ
EEMODS	TBD	Japan	September 2019	Energy Efficiency in Motor Driven Systems	UAQ, ECI
Coiltech WMC	www.quickfairs.net	Pordenone, IT	24 -25 Sep 2018	Includes topics on E-Mobility Drivetrain and Systems	UAQ, ALL
ECCE	http://www.ieee-ecce.org/2018/	Portland, USA	Sept 2019	Industry and academics event	MDL



				on energy conversion systems	
Aachener Kolloquium	www.aachener-kolloquium.de	Aachen, DE	8-10 Oct 2019	Automobile and Engine Technology in Europe, Test track to drive prototypes	ECI, CID
Motor Summit International	www.motorsummit.ch	Zurich, CH	Nov 2019	highly efficient motor systems, international standards and min national requirements	UAQ, ECI
SPS IPC Drives	www.mesago.de/de/SPS/	Nürnberg, DE	tbd	exhibition for electric automation technology	ECI
EGVIA - ERTRAC #H2020RTR	egvi.eu/calendar	Brussels	tbd	results of selected H2020 funded projects on road transport related areas (Green Vehicles, Road, Mobility for Growth: Urban Mobility, Logistics, Intelligent Transport Systems	CID, ECI
EVS30	http://www.messe-stuttgart.de/en/evs30/	Stuttgart ?	tbd	Electric Vehicle symposium, Battery, Charging, E-Powertrain, Market demand	CID, ECI
Mondial	www.mondial-paris.com	Paris, FR	tbd		CID, JLR
IAA	www.iaa.de	Frankfurt, DE	Sep 2019		CID, JLR

7.3 Scientific papers

Among the preliminary list of conferences suitable for publication (Table 2 – D9.3), during the first year of the project, we submitted respective papers to the following three events shown in Table 7.

Table 7: Planned Conferences for publication.

event	website	location	Submission deadline	focus
WMM 2018	http://tu-freiberg.de/fakult5/imf/institut/veranstaltungen/wmm-2018	Dresden, DE	12-14 Jun 2018	International Conference on Magnetism and Metallurgy
Speedam 2018	http://www.speedam.org/	Amalfi, IT	4 Dec 2017	International Symposium on Power Electronics, Electrical Drives
ICEM 2018	www.icem.cc/2018/	Alexandroupoli, GR	4 Feb 2018	International Conference on Electrical Machines

7.3.1 Results

The work of the partners has been finalized with the publication of the following papers:

Three scientific papers have been published in the first year of project. The papers report preliminary analyses and results carried out in the early stage of the project. The papers are:

- M. Villani, “High Performance Electrical Motors for Automotive Applications – Status and Future of Motors with Low Cost Permanent Magnets” International conference on Magnetism and Metallurgy, June 2018.
- M. Tursini, M. Villani, G. Fabri, A. Credo, F. Parasiliti, A. Abdenour, “Synchronous Reluctance Motor: Design Optimization and Validation” *International Symposium on Power Electronics Electrical Drives, Automation and Motion (Speedam)*, June 2018.
- M. Villani, M. Tursini, M. Popescu, G. Fabri, A. Credo, L. Di Leonardo “Experimental Comparison between Induction and Synchronous Reluctance Motor-Drives” *International Conference on Electrical Machines*, September 2018.

The partner contributing in these works is UAQ. More work is ongoing to present works in the following period.

No bibliometric data are available at this time.

7.3.2 Next steps and actions

Mentioned papers are going to be uploaded in the website to leverage the dissemination. The partners will keep working in the publication on papers in technical conferences and will work in publication to journal.

The plan is to submit within the project at least four papers during the project duration in the journals selected in Table 3 – D9.3. Usually revision steps are severe so publication is not sure. The activities on papers for journal will start in October 2018.

7.4 Other meetings

7.4.1 ECI European Motor Workshop 2018

The meeting was held in Rome, 13 March 2018, organized by European Copper Institute and grouped more than 30 stakeholders in the field of electric motors to discuss about the future of electric motors in Europe. The participation list is reported in appendix 8.4

7.4.2 ReFreeDrive Workshop @ Coiltech World Magnetic Conference

A dedicated workshop of the world magnetic conference has been organized inside the International technical conference “World Magnetic Conference”. The Conference is hosted by the International trade show on coil-winding industry “Coiltech”, 26-27 September 2018, Pordenone, Italy. The exhibition is a reference for professionals in the fields of electrical machines designer and manufacturers. More than 3000 visitors are expected in the 2018 edition. Figure 42 shows the trend of visitors in the past editions and the Figure 42: Amount and type of Coiltech visitors.type of visitors.

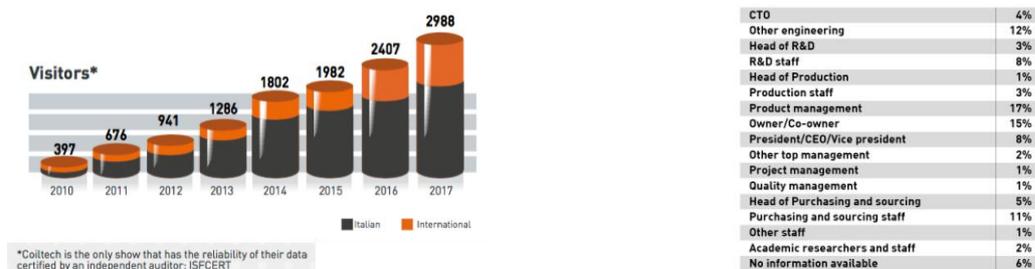


Figure 4: Amount and type of Coiltech visitors.

UAQ cooperates in the organization of the “World Magnetic Conference”, International Conference in the field of the coilwinding industry voluntary based and free of charge.

The ReFreeDrive Workshop will take place on Wednesday 26th of September morning and the agenda in Table 8 has been outlined (www.visitcoiltech.com).

Table 8: Programme of the ReFreeDrive Workshop@Coiltech

10:30 - Room C9		
RARE EARTH FREE E-DRIVES FOR ELECTRIC VEHICLES: <i>Workshop on the development of rare earth-free traction technologies with a focus on industrial feasibility for mass production</i>		
Chairman:	B. Araujo	Fundación Cidaut
10:30	Fundación Cidaut	<i>B. Araujo</i>
	<i>ReFreeDrive Project Presentation</i>	
10:45	European Copper Institute	<i>F. Nuño</i>
	<i>Copper use in E-Mobility</i>	
11:10	University of L'Aquila	<i>M. Villani</i>
	<i>Synchronous Reluctance Motor for Traction Applications</i>	
11:35	IFP Energies Nouvelles	<i>B. Gaussens</i>
	<i>Rare Earth Free PM Assisted Synchronous Reluctance Motor for Electric Vehicles</i>	
12:00	Motor Design	<i>N. Riviere</i>
	<i>Adoption of the Induction Motor With Copper Rotor for E-Mobility</i>	
12:25	Centro Sviluppo Materiali	<i>S. Cicalè, S. Notargiacomo</i>
	<i>Evaluating Electrical Steels for Electric Vehicles</i>	

7.4.3 Results

The ECI European Motor Workshop 2018 collected more than 30 stakeholders in the field of electric motor designer, manufacturers and policymakers. The ReFreeDrive Project and the importance in R&D actions in RE Free electrical drives were central topics in the meeting and attracted the attention of the attendees outside the project.

7.4.4 Next steps and actions

The success of the ECI Workshop and the feedbacks from the promotion of the ReFreeDrive Workshop encourage repeating the initiatives also in the 2019. Other GV04 Projects will be encouraged to contribute to the events. Additional events will be evaluated, in particular the ones suitable for mutual GV04 Communication and Dissemination activities

7.5 Newsletter

The following main newsletters have been planned:

- ReFreeDrive Newsletter is going to be released about each quarter starting from October 2018.

- Cidaut newsletter will include ReFreeDrive Projects Development twice a year
- ECI “Leonardo Energy” newsletter will be used for specific events related to ReFreeDrive
- Communications about the participation of ReFreeDrive in specific events will be included in the DEM of the event.

7.5.1 Results

The newsletter released by the partners (Cidaut, ECI) and by the Coiltech Events’ organizers (QuickFairs) showed notable success. Data about ECI newsletter is reported in Appendix 8.3 along with the newsletter examples. Data about Quickfairs promotion of the ReFreeDrive Workshop and the World Magnetic Conference will be collected after the exhibition and included in the next Dissemination Plan update D9.5.

7.5.2 Next steps and actions

Considering the results, the activities planned in the 2018 about newsletter are confirmed for the next year. We’ll continue to cooperates with events’ organizers to promote the presence of ReFreeDrive dissemination activities in the event (and hence project results).

7.6 Social Media

The social media strategy is mainly based on a joint LinkedIn company page activated in August 2018 by ReFreeDrive, the “Electric Drivetrain-Innovation-Cluster” page,

The administration of the page is allocated to project coordinators or communication leaders rotating every three months, with ReFreeDrive partner ECI starting as leader.

In order to guarantee flow of content and posts at least once to three times per month as agreed upon, all project coordinators and communication and dissemination leaders of the three projects of the cluster are setting-up a list of possible topics to be posted and prioritize the sequence and timing of posting.

7.6.1 Results

After the first month running, our common LinkedIn cluster page achieved 261 visits, 51 followers and 12 shares of posts.

The single post with the most impressions (over 1,200) was related to announce ReFreeDrive participation at Coiltech 2018/ World Magnetic Conference.

For the detailed LinkedIn analytics see appendix.

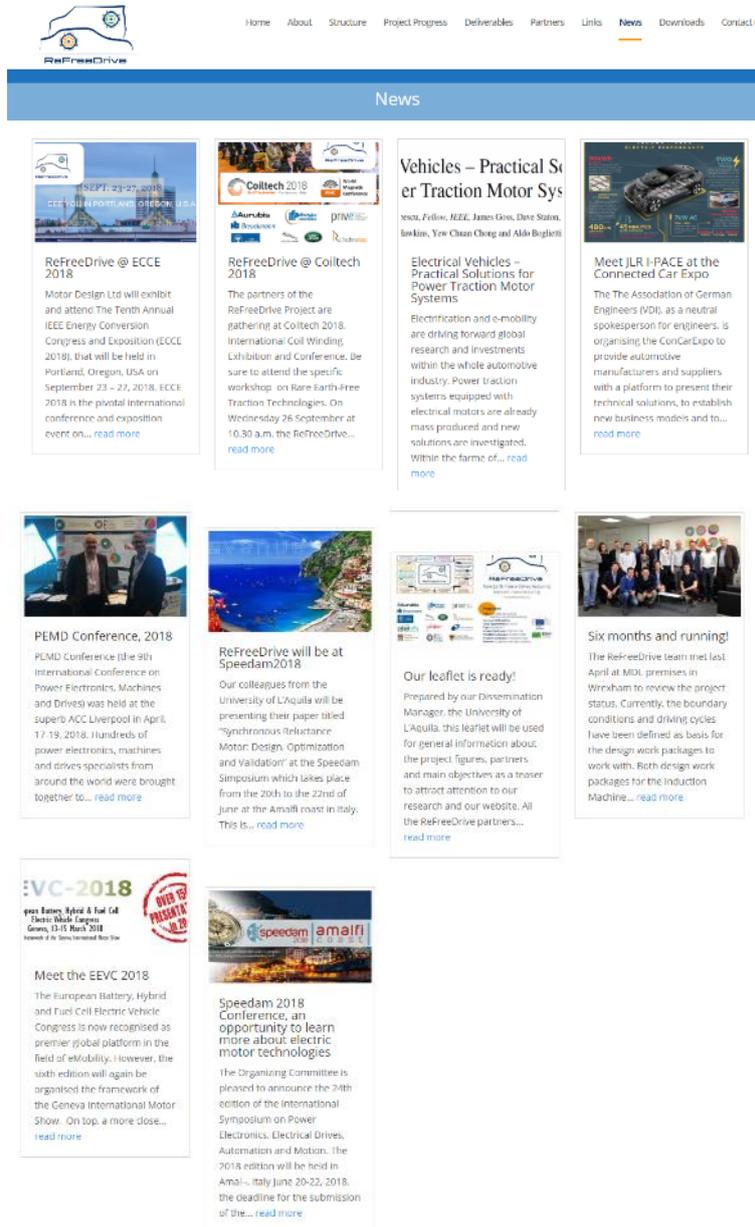
7.7 ***Barriers and Risks***

Relating the first year of the project the barriers and risks recognized in chapter 3.4 do not affected the dissemination. No correction plan needed. No new risks or barriers recognized

8 Appendix

8.1 Website

8.1.1 News Section



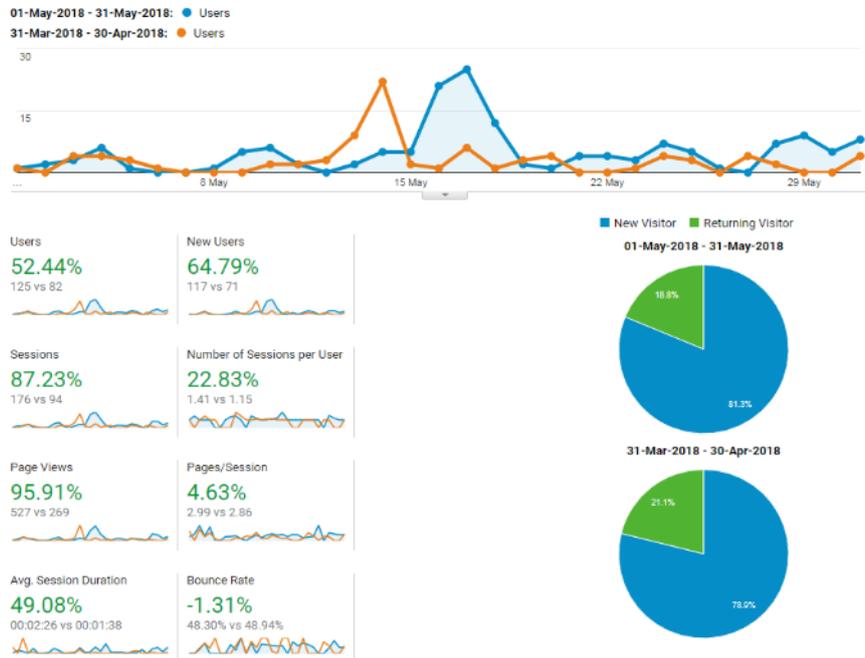
The screenshot shows the 'News' section of the ReFreeDrive website. It features a navigation menu at the top with links for Home, About, Structure, Project Progress, Deliverables, Partners, Links, News (highlighted), Downloads, and Contact us. Below the menu is a grid of news articles, each with a thumbnail image, a title, and a brief description with a 'read more' link.

News

- ReFreeDrive @ ECCE 2018**
Motor Design Ltd will exhibit and attend The Tenth Annual IEEE Energy Conversion Congress and Exposition (ECCE 2018), that will be held in Portland, Oregon, USA on September 23 – 27, 2018. ECCE 2018 is the pivotal international conference and exposition event on... [read more](#)
- ReFreeDrive @ Coltech 2018**
The partners of the ReFreeDrive Project are gathering at Coltech 2018, International Coil Winding Exhibition and Conference. Be sure to attend the specific workshop on Rare Earth-Free Traction Technologies. On Wednesday 26 September at 10.30 a.m. the ReFreeDrive... [read more](#)
- Vehicles – Practical Solutions for Power Traction Motor Systems**
VICTI, Fellow, IEEE, James Goswami, Dinesh Srinivasan, Binjamin, Yew Chuan Cheng and Aldo Boglietti
Electrical vehicles and e-mobility are driving forward global research and investments within the whole automotive industry. Power traction systems equipped with electrical motors are already mass produced and new solutions are investigated. Within the frame of... [read more](#)
- Meet JLR I-PACE at the Connected Car Expo**
The Association of German Engineers (VDI), as a neutral spokesperson for engineers, is organising the ConCarExpo to provide automotive manufacturers and suppliers with a platform to present their technical solutions, to establish new business models and to... [read more](#)
- PEMD Conference, 2018**
PEMD Conference (the 9th International Conference on Power Electronics, Machines and Drives) was held at the superb ACC Liverpool in April, 17-19, 2018. Hundreds of power electronics, machines and drives specialists from around the world were brought together to... [read more](#)
- ReFreeDrive will be at Speedam2018**
Our colleagues from the University of L'Aquila will be presenting their paper titled "Synchronous Reluctance Motor: Design, Optimization and Validation" at the Speedam Symposium which takes place from the 20th to the 23rd of June at the Amalfi coast in Italy. This is... [read more](#)
- Our leaflet is ready!**
Prepared by our Dissemination Manager, the University of L'Aquila, this leaflet will be used for general information about the project figures, partners and main objectives as a teaser to attract attention to our research and our website. All the ReFreeDrive partners... [read more](#)
- Six months and running!**
The ReFreeDrive team met last April at MDI premises in Wrexham to review the project status. Currently, the boundary conditions and driving cycles have been defined as basis for the design work packages to work with. Both design work packages for the Induction Machine... [read more](#)
- Meet the EEVC 2018**
The European Battery, Hybrid and Fuel Cell Electric Vehicle Congress is now recognised as premier global platform in the field of eMobility. However, the sixth edition will again be organised the framework of the Geneva International Motor Show. On top, a more close... [read more](#)
- Speedam 2018 Conference, an opportunity to learn more about electric motor technologies**
The Organizing Committee is pleased to announce the 24th edition of the International Symposium on Power Electronics, Electrical Drives, Automation and Motion. The 2018 edition will be held in Amalfi, Italy June 20-23, 2018. the deadline for the submission of the... [read more](#)

8.1.2 Statistics of the website

An example of the monthly statistics available from the website is reported.



8.2 Leaflet and poster: first Release



Project Data

Title: Rare earth free e-Drives featuring low cost manufacturing
Acronym: ReFreeDrive
Grant Agreement No: 770143
Topic: GV-04-2017
Project Total Costs: 5,999,131.25€
Total EU Contribution: 5,999,131.25€
Project Coordinator: Fundación Cidaut
Partners: 13 partners from 6 EU Countries



Project Highlights

The project investigates the design of Induction Motors (IM) and Synchronous Reluctance Motors (SyncRel) (pure and assisted by Rare Earth Free Permanent Magnet) at different levels including electromagnetic design, materials investigation, power electronics, control algorithm and cooling. Two meaningful power ranges for electric vehicles (75kW and 200kW) will be designed and prototyped.

IM

- Flat Wires;
- Fabricated Copper Rotor;
- Die-Cast Copper Rotor.

SyncRel

- Round Wires;
- Pure Reluctance Rotor;
- Rare Earth Free Permanent; Magnet Assisted Rotor.

Common Actions

- Accurate Materials Selection;
- Custom Cooling system;
- Optimization Algorithms;
- Custom Control Algorithms;
- Scalability and Low Cost;
- Integrated electronics.



Project Objective

To develop rare earth-free traction technologies beyond their current state-of-art, with a strong focus on industrial feasibility for mass production, targeting lower costs with higher specific torque and power density.

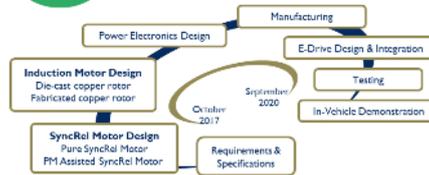


Project Motivations

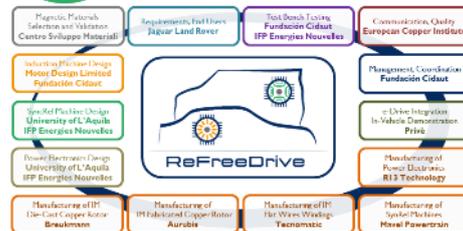
The increasing demand of full electric vehicles arises specific challenges in terms of design for manufacturing, low weight, material costs and material supply chain.

To this extent the project aims to investigate motor-drive architectures featuring modular electric powertrain components and reduced use of critical raw materials.

Project Timeline



Partners Contributions



8.3 Newsletters

8.3.1 Join us at Coiltech

We Accelerate the Energy Transition




26-27 September - Pordenone - Italy

Join us for 2 sessions under Horizon 2020: ReFreeDrive and INTAS

Coiltech International Coil Winding Expo and Conference

Dear Tomas,

The European Copper Institute has promoted and currently participates in two Horizon 2020 projects. One is [ReFreeDrive](#), which develops rare earth-free motors for electric vehicles; and the other is [INTAS](#), which supports European Market Surveillance Authorities to deliver compliance with Ecodesign requirements for large industrial products, in particular transformers and fans.

[Coiltech International Coil Winding Expo and Conference](#) (Pordenone, Italy – September 2018) will host two sessions on these projects:

- [ReFreeDrive project](#) (session T3, 26 September 2018)
- [How to achieve effective market surveillance and compliance with Ecodesign Directive for Power Transformers](#) (session T4 devoted to transformers, 27 September 2018)

Attending the Coiltech 2018 exhibition and the World Magnetic Conference is free of charge:

[REGISTER](#)

We hope that you can join us there.

Kind regards,
Fernando Nuño

[Coiltech exhibition](#) focuses on materials, machinery and equipment for the production and the maintenance of electric motors, generators, and alternators as well as power distribution, industrial transformers, and coils in general.

The [World Magnetic Conference](#), organized by the annual trade show Coiltech in cooperation with the University of L'Aquila, represents a unique opportunity to learn the latest innovations in the field of electrical machines and windings.

[ReFreeDrive](#) project develops a new generation of electric drivetrains for electric vehicles, ensuring the industrial feasibility for mass production and focusing on the low cost of the manufacturing technologies. Two solutions are developed: brushless induction machine (analysing both fabricated and copper die-cast rotor options), and synchronous reluctance machine.

[INTAS](#) provides technical and cooperative support, as well as capacity building activities, to Market Surveillance Authorities in charge of enforcing Ecodesign regulations. INTAS also supports industry to comply with its obligations under the Ecodesign Directive.






This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 770143. The information reflects only the project's view and the Commission is not responsible for any use that may be made of the information it contains.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 695943. The information reflects only the project's view and the Commission is not responsible for any use that may be made of the information it contains.







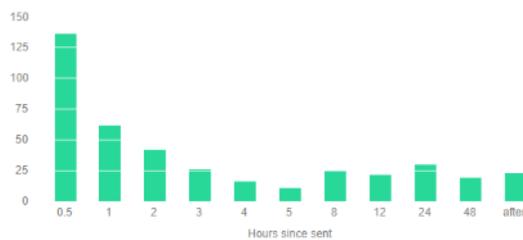
European Copper Institute - Avenue de Tervueren 168 b10 - BE-1150 Brussels - Belgium

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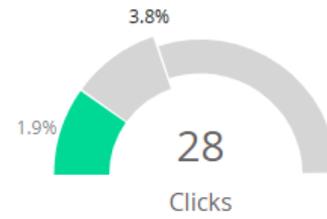
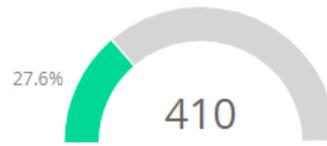
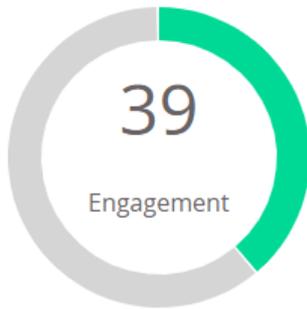
Email Send



Opens ▾



Summary



8.3.2 ReFreeDrive @ World Magnetic Conference



Coiltech 2018

26-27 September - Pordenone - Italy

Dear [nome] [cognome],
at its ninth edition, Coiltech is a reference point in the Coil & Winding field, **where opinion leaders of the industry meet**. In 2010, there were 47 companies in 24 booths in 1 hall and only 2 presentations. **At this edition**, 8 years later, Coiltech has become an **important platform of exchange between industry and universities**:

- **382 exhibiting companies** in 301 booths in 5 halls,
- **the biggest conference of its kind** - 57 presentations, 8 sessions, 3 conference rooms, ([click here for the programme](#)),
- **8 universities**

What kind of presentations will you find at the World Magnetic Conference?



ReFreeDrive




EGVI
European Green Vehicle Initiative

e-mobility will be only one of **8 high profile sessions** at Coiltech. One highlight will be a series of 6 presentations of the ReFreeDrive partners.

ReFreeDrive is a group of 13 companies and universities, including **Jaguar and L'Aquila University**, that develops the next generation of electric drivetrains.

In total, there are 57 scheduled presentations. All the sessions will be held in **English**. Access to Conference Rooms is **free of charge** and **no additional registration** is required for Coiltech visitors and exhibitors.

This project has received funding from the *European Union's Horizon 2020* research and innovation programme under the Grant Agreement No.770143.

We suggest organizing your visit now:
[register as a visitor to get your free entry ticket](#),
 choose a hotel near the venue and book your shuttle service.

Get your Ticket

Your arrival and stay at Coiltech



Pordenone is easier to reach than other European cities: 3 airports, 100 direct flights; high-speed trains, comfortable motorway.

How to get to Coiltech **easily and quickly** [click here](#).



Shuttle services from/to the show, from/to Venice and Treviso airports, from/to the train station and from/to partner hotels.

Take the opportunity, book your **shuttle service** [click here](#).



Hotels **250 meters away from the entrance of the venue** and in picturesque villages a few km from Pordenone. Prices starting from **€59 per night**.

Choose your room at **discounted rates**, [click here](#).

We do our best to make all relevant information available on our website. However, we are always glad to give personal support on the phone. Our team speaks seven languages. Call us at +39 02 87234050.
We look forward to welcoming you to Coiltech!
You are receiving this email following a personal contact that you had with us, asking us to keep you informed about Coiltech. If you want to unsubscribe from our invitation list, [click here](#). To consult our Privacy Statement, [click here](#).

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8.4 Other Events – ECI workshop

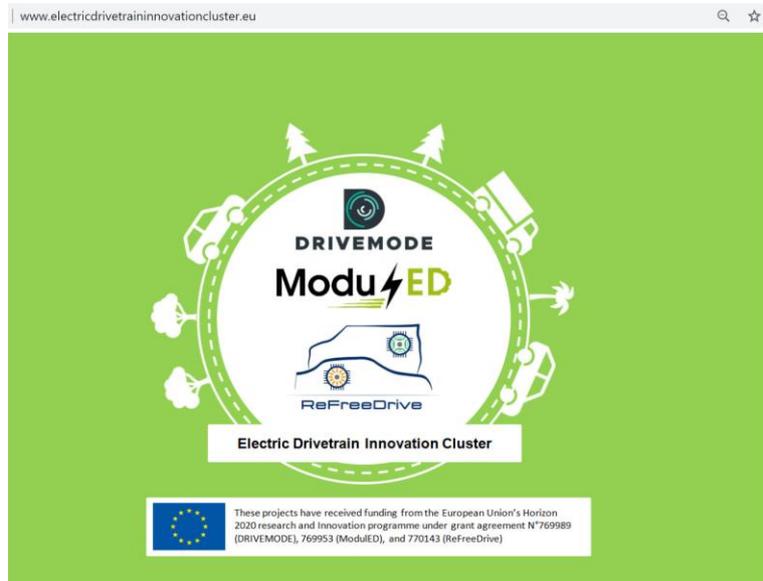
Participation lists

Sigrid Jacobs	ArcelorMittal
Paolo Datore Giansante	Tecnomatic SpA
Sebastian Kuester	QUiCKFairs
Stefano Fortunati	Rina Consulting_Centro Sviluppo Materiali
Marco Villani	University of L'Aquila
Marco Apuzzo	HSD
Lorenzo Ercolani	simel spa
Antonio Scozzafava	Motovario S.p.A.
Luca Castellini	UmbraGroup
Fernando Nuño	European Copper Institute
Anibal de Almeida	ISR-University of Coimbra
Jean Le Besnerais	EOMYS ENGINEERING
Mircea Popescu	Motor Design Ltd., UK
Maarten van Werkhoven	TPA energy advisors
Louise VIGNAU	Pôle MEDEE
Mauro Castello	Elica
Leonardo Vitaletti	elica spa - bu motors
Giuseppe Fabri	University of L'Aquila
Jean-Philippe Lecointe	LSEE (Environment and Electrical Systems Research Laboratory)
Nicolas Rivière	Motor Design Limited (MDL)
Andrea Forlani	Biesse SpA
Davide Rossi	Tecnomatic
Rob Serree	Sitech Services
Jos Habets	Sitech Services
Mallard Vincent	Favi SA
Andrea Teso	Lafert SpA
Enzo Chiricozzi	Università dell'Aquila
Stefano Cicalé	CSM-RINA Consulting
Marco Cappelletto	Lafert Servo Motors S.p.A.

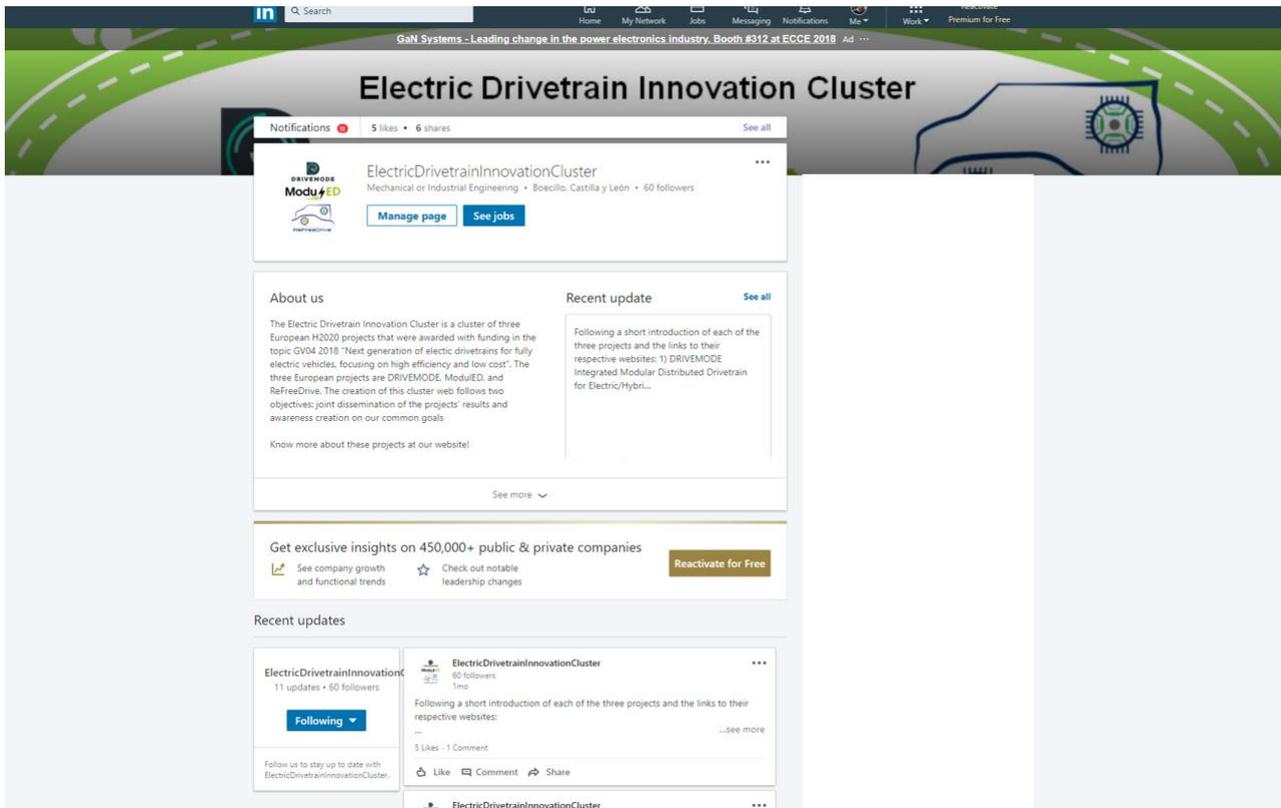
Bruno De Wachter	European Copper Institute
Peter Szilagyi	Breuckmann GmbH & Co. KG
Paolo Galli	HSD S.p.A.
Francesco Parasiliti	University of L'Aquila
François Dovern	FAVI S.A.
Luciano Albini	RC-CSM

8.5 Social Media

8.5.1 Common domain clustering all the active GV04 projects



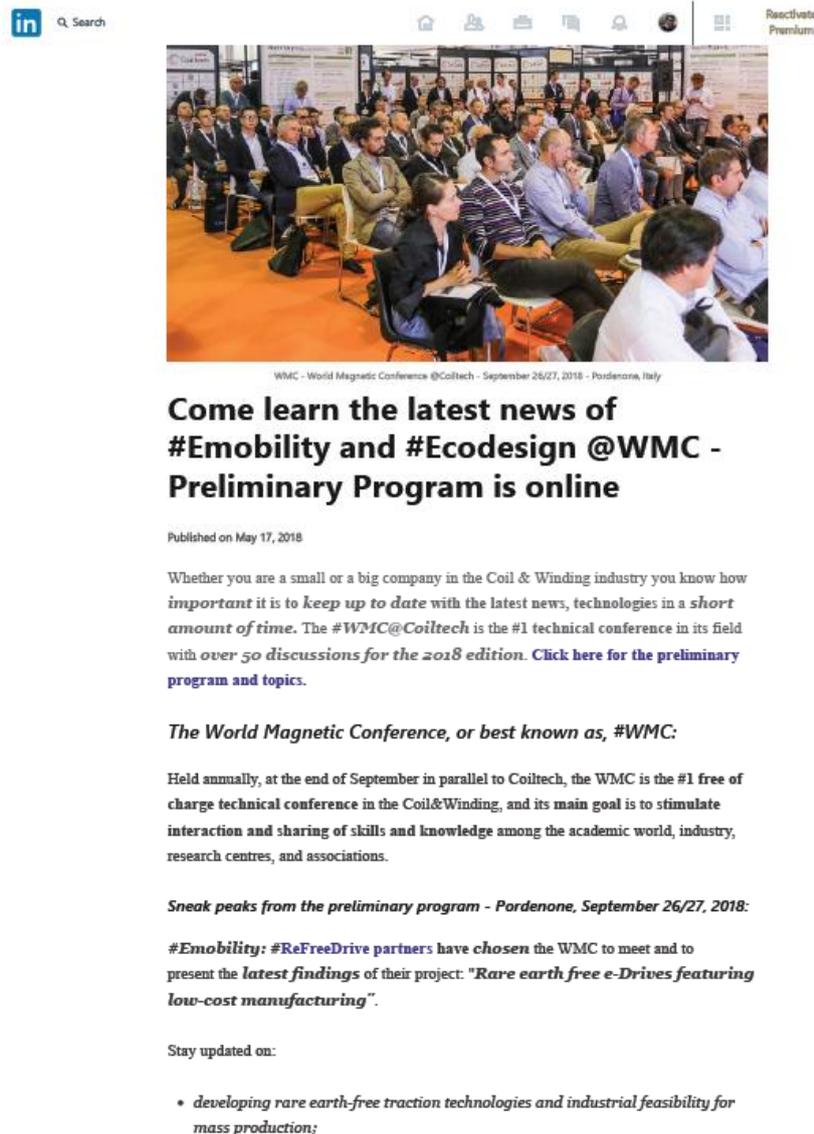
8.5.2 Common LinkedIn page clustering all GV04 active projects



The screenshot shows the LinkedIn profile page for the 'Electric Drivetrain Innovation Cluster'. The page header includes the LinkedIn logo, search bar, and navigation links. The main header features the cluster name and a background image of a car chassis. Below the header, there is a 'Notifications' section with 5 likes and 6 shares. The main content area includes an 'About us' section with a detailed description of the cluster's purpose and a 'Recent update' section with a post from the cluster. The 'About us' section states: 'The Electric Drivetrain Innovation Cluster is a cluster of three European H2020 projects that were awarded with funding in the topic GV04 2018 "Next generation of electric drivetrains for fully electric vehicles, focusing on high efficiency and low cost". The three European projects are DRIVEMODE, ModuED, and ReFreeDrive. The creation of this cluster web follows two objectives: joint dissemination of the projects' results and awareness creation on our common goals. Know more about these projects at our website!'. The 'Recent update' section shows a post from the cluster: 'Following a short introduction of each of the three projects and the links to their respective websites: 1) DRIVEMODE Integrated Modular Distributed Drivetrain for Electric/Hybr...'. The page also features a 'Get exclusive insights on 450,000+ public & private companies' section and a 'Recent updates' section with a post from the cluster: 'Following a short introduction of each of the three projects and the links to their respective websites: ...see more'. The page has 11 updates and 60 followers.

8.5.3 ReFreeDrive Workshop @Coiltech - World Magnetic Conference

Example of the LinkedIn Visitors campaign carried out by Coiltech staff including ReFreeDrive Workshop



WMC - World Magnetic Conference @Coiltech - September 26/27, 2018 - Pordenone, Italy

Come learn the latest news of #Emobility and #Ecodesign @WMC - Preliminary Program is online

Published on May 17, 2018

Whether you are a small or a big company in the Coil & Winding industry you know how *important* it is to *keep up to date* with the latest news, technologies in a *short amount of time*. The #WMC@Coiltech is the #1 technical conference in its field with *over 50 discussions for the 2018 edition*. [Click here for the preliminary program and topics](#).

The World Magnetic Conference, or best known as, #WMC:

Held annually, at the end of September in parallel to Coiltech, the WMC is the #1 free of charge technical conference in the Coil&Winding, and its main goal is to stimulate interaction and sharing of skills and knowledge among the academic world, industry, research centres, and associations.

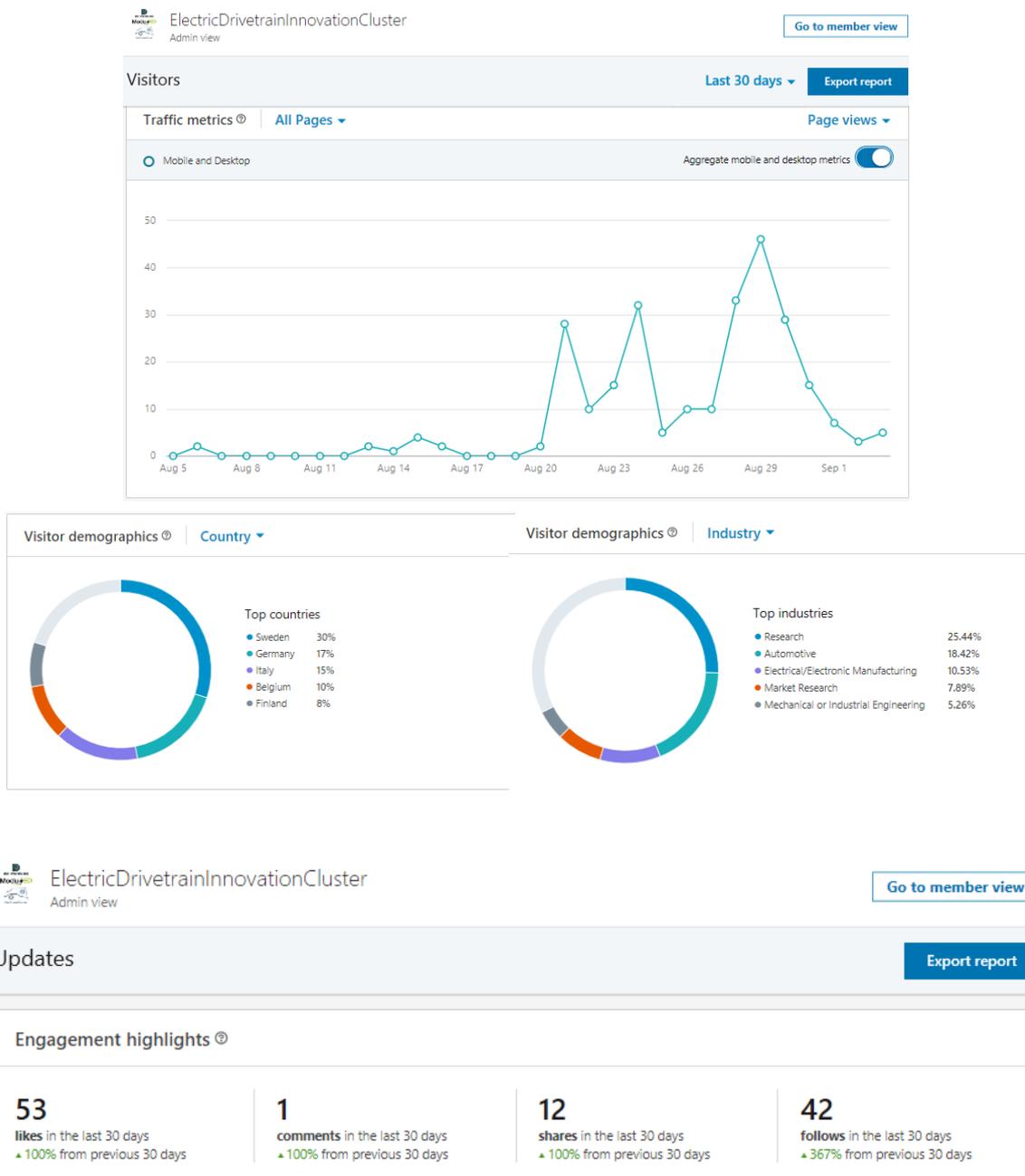
Sneak peaks from the preliminary program - Pordenone, September 26/27, 2018:

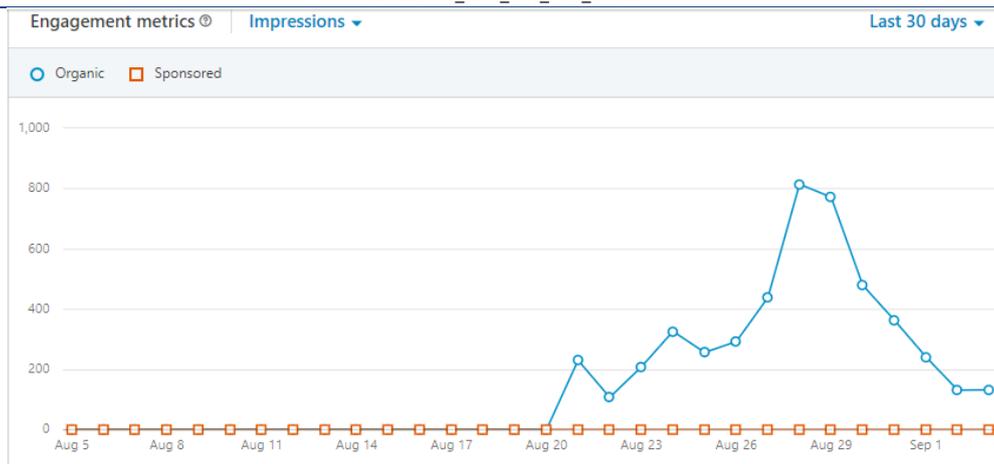
#Emobility: #ReFreeDrive partners have chosen the WMC to meet and to present the *latest findings* of their project: *"Rare earth free e-Drives featuring low-cost manufacturing"*.

Stay updated on:

- *developing rare earth-free traction technologies and industrial feasibility for mass production;*

8.5.4 LinkedIn analytics after one month running of cluster page:





Update name	Date	Impressions	Clicks	Video views	CTR	Social Actions	Engagement
Following a short introduction of each of the three projects... All followers	21.8.2018	541	9	-	1.66%	4	2.4%
ReFreeDrive @ ICEM 2018 Two partners of the ReFreeDrive Project ... All followers	30.8.2018	121	2	-	1.65%	2	3.31%
Join us at Coiltech 2018 / World Magnetic Conference All followers	28.8.2018	1,233	28	-	2.27%	10	3.08%
Position papers from EARPA and from ECTRI on the future European Union programme All followers	28.8.2018	142	2	-	1.41%	1	2.11%
ReFree Drive Project Nine months and running! All followers	28.8.2018	141	11	-	7.8%	2	9.22%
ReFreeDrive Project	28.8.2018	122	5	-	4.1%	3	6.56%

Structure (I)							
All followers							
ReFreeDrive Project Structure (II)	28.8.2018	166	8	-	4.82%	3	6.63%
All followers							
ModulED Electrification of passenger cars and light-duty vehicles...	28.8.2018	415	12	-	2.89%	7	4.58%
All followers							
ReFreeDrive The ReFreeDrive project is focused on contributing to avoid the use of rare earth magnets through...	24.8.2018	335	8	-	2.39%	8	4.78%
All followers							
DRIVEMODE The DRIVEMODE concept stems from the idea of integrating technologies (used in electrical machines...	24.8.2018	365	20	-	5.48%	6	7.12%
All followers							