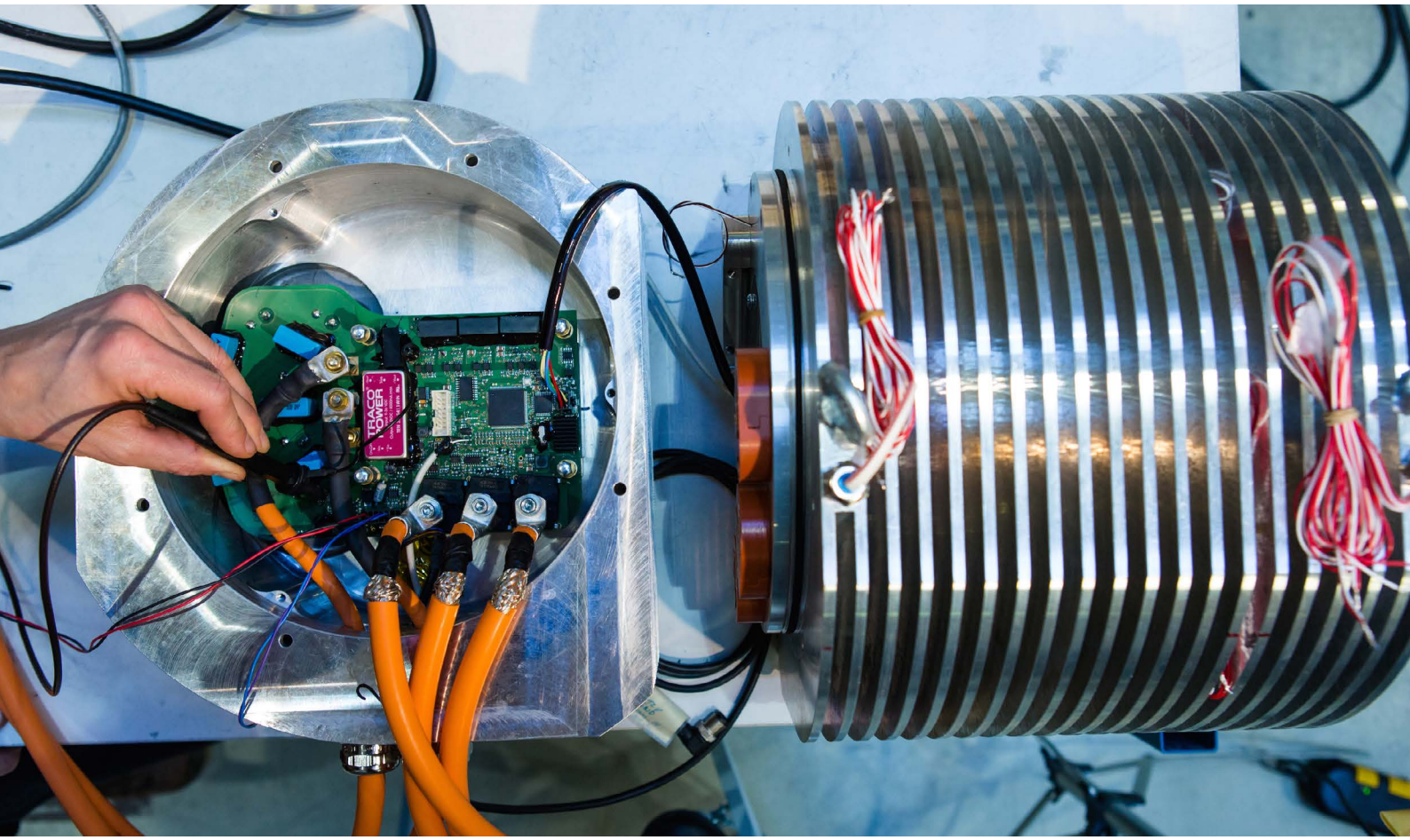
Guide for Proposers
Zero Emission Mobility

2019 Programme

A funding initiative of the Climate and Energy Fund in support of the implementation of the e-mobility initiative of #mission2030 – the Climate and Energy Strategy of the Austrian Federal Government



Vienna, April 2019

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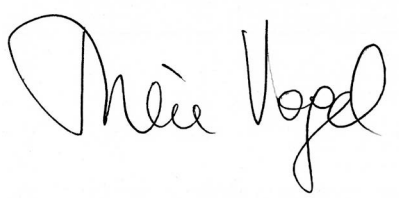
Preface

In 2018 the Austrian Federal Government's Climate and Energy Strategy, #mission2030, resulted in a restructuring of the Zero Emission Mobility funding programme.
The aim of the programme is to contribute to the #mission2030 objectives, including reduction of transport emissions to 15.7 million tonnes CO_2eq by 2030 and fossil-free mobility by 2050. The Climate and Energy Fund programme constitutes the research core required to implement the Austrian Federal Government's e-mobility initiative, and plays a key role in transforming the automotive sector in Austria.

Zero emission technologies are extremely important to the Austrian economy. Electric mobility alone has the potential to create EUR 3.1 billion in added value and around 34,000 jobs by 2030. For that reason, the programme focuses on involving small and medium-sized enterprises, actively encouraging the integration of start-ups and the establishment of new businesses. The 2nd Call focuses on the target of 100 % electrification (batteries, fuel cells, high-performance capacitors) for vehicles, the development and testing of intelligent charging infrastructure as well as zero emission logistics and zero emission mobility solutions. The priority lies in systemic solutions with clear prospects of relatively rapid implementation, and for that reason all projects must include both a research and a demonstration phase.

The topics cover both vehicles, addressing all classes of vehicles as well as new vehicle concepts, and infrastructure, with a particular emphasis on an integrated energy approach. A further focus is zero emission freight logistics, as well as electrified, public access mobility solutions for both urban and rural transport. Furthermore, the Call includes two R&D services covering the topics of recycling, raw materials and value creation, as well as technological options and economic framework conditions for CO_2-neutral freight transport by 2050.

We cordially invite you to submit your innovative project proposal and would be delighted if it serves the further development of electric mobility, bringing it closer to the market and thus strengthening Austria as a technology hub.



Theresia Vogel
Managing Director Climate and Energy Fund

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1.0 Key Items at a Glance

Zero emission technologies offer the opportunity to substantially reduce greenhouse gas emissions from transport, and to create a sustainable, interoperable mobility system. The e-mobility initiative thus represents one of the flagship projects of the integrated #mission2030 Climate and Energy Strategy. The Climate and Energy Fund supports technology and implementation-oriented electric mobility projects designed to integrate components, systems and services into a comprehensive mobility system.

The present call is embedded in a long-term strategy of the funding programme (see Chapter 2).

An amount of EUR 7 million in funding is available for the 2nd Zero Emission Mobility Call.

These funds are intended to support flagship projects and cooperative R&D projects. The projects should promote 100 % electrification of vehicles and enable the development and testing of intelligent e-mobility and hydrogen infrastructure and their integration into publicly accessible mobility systems and logistics solutions.

The call additionally includes two R&D services designed to analyse the topics of recycling, raw materials & value creation as well as technological options and economic framework conditions for CO_2-neutral freight transport by 2050.

The project proposals must be submitted via eCall (https://ecall.ffg.at) by the submission deadline of **8 October 2019, 12:00.**

Zero Emission Mobility is a funding initiative of the Climate and Energy Fund in support of the implementation of the e-mobility initiative of #mission2030 – the Climate and Energy Strategy of the Austrian Federal Government.

PLEASE NOTE:
If the application does not meet the formal requirements for project submissions in accordance with the conditions and criteria of the relevant funding instrument and the call, and if the deficiencies are not rectifiable, the application will be excluded from the further procedure and will be formally rejected without exception in accordance with the principle of equal treatment of applications. The FFG's new eCall system provides support in this respect, but the ultimate responsibility for compliance with the formal requirements still rests with the applicants. A detailed check list specifying the conditions and criteria of the relevant funding instrument and the call can be found at the beginning of the relevant application forms (Project Description).

Funding may only be granted if it has an incentive effect. The new RTI Guidelines (Thematic RTI Guideline), therefore, require all project partners to declare via eCall whether the funding leads to a change in their behaviour.

Overview			
Instrument / Initiative	**Flagship Project** Large-scale research and demonstration project	**Cooperative R&D Projec** Cooperative research and development project	**R&D Service** Specified R&D content
Research category	Industrial Research and/or Experimental Development Both research categories can be included in one project; **Industrial Research must not exceed 15 % of overall project costs**. If both research categories are included, the individual Work Packages (WP) must be assigned to the corresponding research categories. If this assignment is not provided, funding will only be granted for Experimental Development.	Experimental Development only	–
Min. funding amount requested for R&D part of the project	EUR 2 million	None	None
Max. funding amount for R&D part of the project	None	EUR 1 million	EUR 120,000 plus VAT
Funding rate	Max. 85 %, depending on research category and type of organisation. For details, see Technical Guidelines.	Max. 60 %, depending on type of organisation. For details, see Technical Guidelines.	No funding rate. 100 % financing
Available call budget	EUR 7 million		
Project duration	2 to 4 years	1 to 3 years	max. 12 months
Cooperation required	Yes, see Technical Guidelines		No
Obligatory preliminary meeting	**A preliminary meeting until 13 September 2019 is obligatory for flagship projects and voluntary for cooperative R&D projects (see Chapter 4.2.).**		
Submission deadline	**8 October 2019, 12:00**		
Language	English		
Contact	Ing. Vukasin Klepic, MSc Telephone +43 5 7755-5069 Email: vukasin.klepic@ffg.at zero-emission-mobility@ffg.at		
Information on the Web	www.ffg.at/zero-emission-mobility/2.Ausschreibung		

2.0 The Funding Programme

2.1 Long-term orientation 2018–2022

The predecessor programme, Austrian Electric Mobility Flagship Projects, has already provided funding for numerous innovative projects resulting in the successful development of future-oriented solutions (see https://www.klimafonds.gv.at/unsere-themen/mobilitaetswende/leuchttuerme-der-elektromobilitaet).

In line with the #mission2030 Climate and Energy Strategy of the Austrian Federal Government, the programme focus was adjusted in 2018 with the aim of enabling **long-term projectability** for funding recipients. The Zero Emission Mobility programme forms the research core for implementing the e-mobility initiative of the Austrian Federal Government.

The clear focus of the programme will be on **zero emission mobility** in road transport with a special emphasis on market-oriented research consortium projects with integrated demonstration and a clear implementation perspective. The calls will be mission-oriented and technology neutral and focus on the three pillars, **vehicle – infrastructure – user**. These three thematic pillars will be addressed in the next few years. The concrete call topics can be defined annually to account for current technology trends and the changing environment, which in turn interacts with the zero emission technology system.

The research programme takes a **systemic perspective** – projects should not primarily focus on individual aspects but address the **system integration** of the technologies developed or entire value chains. They should also demonstrate Austrian technology expertise and innovative system design strengths in the field of electric mobility by drawing on the knowledge of complementary partners.

The perspective of the R&D services included in the calls may extend beyond road transport to include other means of transport as well as new technologies and economic aspects.

2.2 Strategic goals of the programme

In Austria, zero-emission technologies are embedded in an **intermodal mobility system** made up of trains, electric utility vehicles, buses and cars as well as electric scooters and (e-)bikes on the basis of smart grids and the necessary fuelling and charging infrastructures. The Zero Emission Mobility programme aims to support the development of solutions for the creation of an affordable, environmentally-friendly and efficient mobility system. Relevant project results include both innovative technology developments and integrated mobility solutions providing value creation perspectives for Austria.

The aim is to contribute to the goals specified in #mission2030 such as reducing emissions from transport to 15.7 million tonnes CO_2eq by 2030 and achieving fossil-free mobility by 2050. The programme also provides a contribution to the Strategic Action Plan for Batteries of the European Commission and to Mission Innovation.

In order to achieve sustainable development, framework conditions must be established for a mobility transition which creates a decarbonised, service-oriented mobility system. In line with ensuring the Climate and Energy Fund's policy of achieving greatest possible relevance in terms of climate protection, the programme follows the decarbonisation pathway by setting a **technology neutral** focus on locally emission-free vehicles (BEV, FCHEV[1]). The drive energy must be produced in a climate-neutral manner in accordance with the zero-emission principle.

Zero emission technologies are also of high economic relevance for Austria. Electric mobility alone is expected to create added value of EUR 3.1 billion and around 34,000 jobs until 2030[2]. Exploiting this potential requires a fast and targeted transformation of the (automotive supply) industry. The most effective way to do this is to coordinate with international suppliers and clients. Another focus of the programme is therefore on the **international relevance** and **exploitation potential** of the technologies developed. With Austria's economic structure in mind, the programme places strong emphasis on the involvement of **small and medium-sized enterprises and actively promotes the integration of start-ups and the establishment of new businesses**.

[1] BEV = Battery electric vehicle, FCHEV = Fuel cell hybrid electric vehicle

[2] www.klimafonds.gv.at/wp-content/uploads/sites/6/E-MAPPStudie.pdf

2.3 Interaction with other funding programmes

Distinction from thematically relevant programmes
Funding for research and development projects involving components and parts of conventional vehicles is granted under the General Programmes of the Austrian Research Promotion Agency (FFG).

The "Mobility of the Future" programme (research theme "Vehicle Technologies") supports the development of components for alternative drive systems, lightweight components and vehicles as well as automotive electronics and connected/automated vehicles, but the focus is not on e-mobility infrastructure or demonstration projects.

Relationship to the calls "Smart Cities Initiative", the "Energy Research Programme 2019 of the Climate and Energy Fund" and the "E-Mobility Initiative 2019-20"

- The Smart Cities Initiative of the Climate and Energy Fund aims to translate research results into practice and to initiate projects in urban regions and cities integrating existing and largely mature technologies and systems into innovative, interactive overall systems.
- The Energy Research Programme of the Climate and Energy Fund supports research and development of energy technologies and their integration into the energy system. The 2019 Call focuses on the topic of digitalisation.
- The E-Mobility Initiative 2019-2020 sponsored by the Federal Ministry for Transport, Innovation and Technology (BMVIT) and the Federal Ministry of Sustainability and Tourism (BMNT) in cooperation with the automotive and two-wheeler industry and the sports retail sector seeks to accelerate the market introduction of electric mobility in Austria through several funding programmes. Infrastructure and vehicles which are not part of research and development should primarily receive funding under the E-Mobility Initiative 2019-20. Applications are to be submitted directly to Kommunalkredit Public Consulting (KPC). An exception are demonstration facilities (within the meaning of Environmental Assistance in Austria – UFI). These demonstration facilities can be submitted to the present call provided that they are directly related to research and development activities (for more information, see Chapter 4.3).

Potential applicants are encouraged to examine the programmes and initiatives listed above and to organise a meeting with the relevant project managers in good time.

3.0 The Call

3.1 Call objectives for research projects

The 2nd Zero Emission Mobility Call focuses on 100 % electrification (batteries, fuel cells, high-performance capacitors) of vehicles and the development and testing of intelligent charging infrastructure. A focus is on the integration of electrified, public access mobility services in urban and rural transport as well as solutions for zero-emission logistics. Relevant project results include both innovative systemic technology developments and integrated mobility solutions providing value creation perspectives for Austria. Special emphasis is placed on the scalability of solutions and the integration of existing components into novel zero-emission developments.

The call focuses on 3 thematic areas to achieve this goal:
a) Zero-Emission Vehicles
b) Zero-Emission Infrastructure
c) Zero-Emission Logistics & Mobility Solutions.

In order to achieve high practical relevance and fast implementation of research results on the market, partners from industry should be encouraged to participate in the consortia. A further objective of the call is to involve small and medium-sized enterprises (SMEs) or start-ups in the projects as well as including international partners and/or networking with major existing initiatives and projects, where feasible (see also Chapter 2.3).

Project proposals must present
- a thorough analysis of the international state of the art,
- a clear, quantified starting basis for the planned developments, based on the international state of knowledge and technology (indicators on current technologies, costs, emission levels, technology readiness levels etc.) and
- clear, quantified project goals (planned technology indicators, costs, emission levels, technology readiness levels etc.) including a market introduction strategy.

3.2 Call topics for research projects

Project proposals must address **at least one** of the following topics and may include a **combination of several topics**. The applications must fulfil the requirements described below:

3.2.1 CALL TOPIC 1: Zero-Emission Vehicles

While zero-emission technologies are penetrating the passenger car market at increasing speed, many other vehicle classes and areas of application still offer potential for development. In principle, this includes all vehicles specified in Sec. 3 of the Motor Vehicles Act (§3 KFG), such as vehicles used in:

- the logistics sector
- road-based passenger transport including new needs-based mobility services
- special applications, for example in the construction and mining industries
- agriculture and the tourism sector
- the municipal sector
- airports and railway stations
- the industrial sector
- single-track vehicles

The development of new vehicle concepts, for example offering particularly attractive pricing or for a specific use, is also eligible for funding.

This thematic area, therefore, calls for the submission of projects which (further) develop vehicles without cable connection that are fully electrically powered by batteries, fuel cells or high-performance capacitors. Projects must consider the vehicle as a whole and, where necessary, take account of special charging infrastructure (in combination with thematic area 3.2.2 – Zero-Emission Infrastructure). A key aspect is to demonstrate vehicle operation in order to prepare a successful market launch and to prove operational capability within the overall system of vehicles and infrastructure.

(Further) development should focus in particular on the potential to reduce costs and increase the efficiency of the system as a whole. Project proposals may also address production aspects in preparation for serial production of batteries and other components in order to enable the efficient and cost-effective scaling up of production.

3.2.2 CALL TOPIC 2: Zero-Emission Infrastructure

The availability of suitable fuelling and charging infrastructure is a key prerequisite for the spread of zero-emission technologies. In addition to the availability of appropriate charging capacity, the focus is primarily on cost-efficient installation, intelligent integration into the energy system (e.g. in existing buildings) and operation of the infrastructure.

Consequently, this thematic area calls for project proposals which develop infrastructure systems and deploy them in pilot projects.

Particular attention is paid to an integrated energy approach, i.e. the networking of transport components with other sectors such as energy supply. In addition to the development and testing of technical solutions the call encourages the integration of organisational issues and new business models.

Planning and implementation must, therefore, take into account the availability of the required energy (including hydrogen and stationary storage) as well as considering potential scalability at a later stage. The economic sustainability of the development, and the option to transfer to regular operations, must be demonstrated at the end of the project period.[3]

The involvement of grid operators is welcomed, e.g. in order to be able to simulate and test charging management systems under real-world conditions.

3.2.3 CALL TOPIC 3: Zero-Emission Logistics & Mobility Solutions

Sub-Topic 1: Zero-Emission Logistics

The logistics sector accounts for a significant proportion of emissions in road transport. In addition, with increasingly strict international regulations on greenhouse gas, pollutant and noise emissions, zero-emission technologies are particularly suited to applications in the logistics sector. Potential project ideas may be designed for both urban and rural areas.

Funding is available for the development and demonstration of zero-emission freight logistics scenarios, including the use of locally emission-free vehicles and integration of appropriate charging infrastructure solutions. Operational demonstration is crucial in this context. The economic sustainability of the development, as well as the option to transfer to regular operations, must be demonstrated at the end of the project period.

Sub-Topic 2: Mobility Solutions

Incorporating zero emission technologies into an integrated mobility system, which subsequently enables a range of purposeful and targeted services to be developed, is a significant challenge. A core element in this process lies in extending the range of ecomobility offerings through the addition of various clean, public access mobility solutions. Needs-oriented mobility offerings are in particular demand in rural areas. Meeting this demand requires the development and integration of precisely planned and coordinated infrastructures, vehicles suited to a variety of uses, modular service components, and differentiated business models. For example, over the medium term the integration of connected and automated vehicles in the form of scalable, needs-oriented and shared **fleet solutions** which function as integrative components in future "Mobility as a Service" approaches ("MaaS made in Austria") will become relevant, especially in areas adjacent to urban centres and in rural areas.

[3] Publicly accessible charging infrastructure must meet the requirements of the Federal Act establishing uniform standards for the deployment of alternative fuels infrastructure.

Such fleet solutions rely on actively promoting open interfaces (APIs) and linking zero emission services. Furthermore, impact assessments of new mobility options and analysis of user acceptance is required, enabling the new mobility options to be scaled up and embedded into a future mode mix, especially in peripheral areas.

Such a system can be connected across a transport network or to one or more mobility hubs (bus stops, railway stations, airports etc.). The development, integration and testing of suitable fuelling and charging infrastructure solutions as well as operational demonstration are also crucial.

The economic sustainability of the development, and the option to transfer to regular operations, must be demonstrated at the end of the project period.

The involvement of public transport providers, mobility services or fleet solutions is welcomed.

3.3 General requirements for research projects

The proposal must specify the measurable and quantifiable targets to be met by the end of the project.

In addition, **ecodesign principles** must be applied when further developing vehicle and/or infrastructure components. The environmental impacts must be taken into account across the entire product life cycle (from design and use through to recycling, reuse, disposal etc.) and minimised as far as possible. This approach must be applied to the main components of the cooperative R&D projects and flagship projects submitted.

The cooperative R&D and flagship projects submitted are required to complement the research and development work with a **demonstration component**. The project developments (prototypes, systems, etc.) must be tested under real-life operating conditions during a demonstration phase running over a period of at least **6 months**. A monitoring system must be established to determine whether the prototype(s) or mobility solutions meet(s) the target values and to identify areas offering potential for further improvement. Possibilities for transition to regular operation should also be presented.

The fuelling and charging infrastructure installed should, as far as possible, be made accessible to other transport infrastructure users during the demonstration phase.

In order to involve SMEs as potential technology providers, SMEs should be included in the project consortium. Therefore, project proposals should demonstrate the inclusion of innovative SMEs or start-ups, over and above the formal requirements of the funding instruments (indicators: number of SMEs, SME share in project costs, knowledge transfer to SMEs).

3.4 R&D Services

3.4.1 Recycling, raw materials & value creation

Targets

Lithium battery technologies are key enabling technologies for the energy transition and an essential aspect of electrifying the transport system. They represent an excellent opportunity for Austrian companies to secure a stake in the value chain. At the same time, the enormous growth predicted in battery production should focus on saving resources wherever possible.

The growth in battery electric mobility increasingly raises questions about the use of resources, recycling and value creation potential for Austria in this context. For example, recycling is essential as a means of relieving concerns about critical raw material availability. In addition, recycling processes and associated questions are of great importance for the EU Circular Economy Package.[4]

Austria should exploit the value creation potential inherent in recycling and support the economic processes needed to establish competitive battery cell production. Consequently, following the study carried out within the scope of the 1st Zero Emission Mobility Call on the value creation potentials in Austria's automotive industry, this Call invites proposals for a study focusing on raw materials, recycling and its national value creation potential for lithium-ion batteries.

[4] https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/towards-circular-economy_de

This study should identify the challenges and potentials for Austria while considering the #mission2030 objectives. The inclusion of existing (international) study results should allow for a comparative evaluation. The entire value chain should be taken into account, from the reintroduction of resources, e.g. electrode materials in the production process, to the battery cell production process itself, the integration of the cells and the sustainable and environmentally-friendly reuse of raw materials, so that an Austrian and European circular economy can be established.

Expected output

- How great is the value creation potential in Austria for the flexible and competitive recycling of small, medium and large volumes of lithium-ion batteries? [billions in value creation & additional jobs]
- What still needs to be done in Austria in order to establish suitable battery recycling centres which are fit for the future?
- In which sector does second life use make ecological and economic sense in Austria by delaying the associated costs of recycling?
- How can battery recycling capacity and efficiency be increased in Austria, given that there is currently no recycling loop for the disposal of the valuable lithium-ion batteries used in pedelecs and electric cars, and the lack of an established, automated and cost-effective method at EU level?
- What kind of collection systems and which synergies with existing collection systems encourage the highest possible rate of battery recycling?
- For which lithium-ion battery materials do established recycling loops already exist? For which materials do such loops need to be created, and what are the framework conditions needed to make them marketable?
- How can the period from start-up (e.g. first-mover risk, risk of sunk costs) to establishment of a fully developed collection system be supported?
- How widely can 'design for second life' and 'design for recycling' already be implemented at present?
- What are the current and future European framework conditions (e.g. EU Battery Directive)?
- Which specifications could positively impact future recycling processes (e.g. standardised labelling of batteries, including materials used)?
- What are the specific strengths and potentials inherent in Austrian SMEs?
- What forms of cooperation between old and new stakeholders are conceivable and necessary (e.g. other OEMs, digital technology firms, start-ups, politics, municipalities, waste management industry, mining)?
- How, and in which areas, could Austrian businesses position themselves in a future European recycling landscape? Where are the strengths compared to Europe as a whole, and in which areas should transnational cooperation be considered?

Project duration

Max. 12 months

Project costs

Max. EUR 120,000 plus VAT

3.4.2 Technological options and economic framework conditions for CO_2-neutral freight transport by 2050

Targets

In accordance with the Paris Climate Agreement, and in line with #mission2030, the objective is to achieve a CO_2-neutral transport sector by 2050. For road transport, for example, this means that a transition to zero-emission vehicles powered by renewables and ultra-low emission vehicles should be achieved over the medium and long term.

Despite all the targets intended to reduce traffic and transfer it from road to rail, in recent years it has not been possible to reduce traffic volumes and decouple them from economic growth. Traffic is still increasing at a disproportionate rate and, as a transit country, Austria is particularly affected. In this light, the question arises of how, and at what cost, CO_2-neutral freight transport can be achieved by 2050, and what drive technologies, on what scale, can contribute to this goal.

The 1st Zero Emission Mobility Call commissioned a study which was designed to highlight the extent to which drive technologies of differing levels of efficiency can be applied in the relevant vehicle categories and modes of transport. It estimates future quantity structures as well as price structures for all types of renewables-based fuels. A complementary study is intended to shed light on the technological options available to develop decarbonised freight transport in an economically optimal way. It should outline a development path for the different target scenarios, with perspectives for 2030/2040/2050. Investigations of the potential costs are particularly relevant, e.g. for the infrastructure investments associated with the different vehicle technologies.

The reference point for expected developments in terms of a business-as-usual scenario are the expected quantity structures (including different freight and distance categories, requirements) of the transport requirements for freight transport, based on the traffic forecast for Austria currently being compiled. During the project there must be ongoing consultation with the consortium commissioned to compile the traffic forecast. The Austrian climate and energy targets for 2030 (reduction of greenhouse gas emissions in the transport sector to 15.7 million t CO_2eq) and 2050 (fossil-free mobility) must be taken into account.

Expected output

- Which requirements/use cases are suited for which drive technologies in freight transport, and what are the potential development paths for these drive technologies to 2030/2040/2050? Which drive technologies can contribute to achieving the goal of decarbonised transport by 2050 also for freight transport, and to what extent? What are the current development prospects for vehicle technologies? What coordination is required at European level (Austria as a transit country)?
- Which modes of transport, vehicles, handling technologies, and operating concepts can meet these transport needs using only renewable energy sources? What are the contributions and impacts of other technological and economic developments such as digitalisation, automation and transition to renewable energy sources? Are there new/innovative concepts which could also help to decarbonise freight transport?
- What economic effects are to be expected if new technological concepts are pursued? The analysis must include approaches such as overhead lines on motorways, vehicles using a range of energy sources (electricity, hydrogen, biofuels including bio-CNG and bio-LNG), platooning and speed adjustments for automated transport at night, adjusting maximum permissible weights for certain forms of transport, new handling technologies and organisational concepts for intermodal transport involving a greater use of railways, innovative concepts for city logistics, and, if necessary, new solutions for combining freight with passenger transport, new solutions arising from digitalisation.
- The evaluation should consider ecological and economic aspects, as well as feasibility, availability of renewable energy sources (see study from 1st Call), necessary consultation with stakeholders, and net effects on the business location.
- Taking into account the study from the 1st Call as well as the results generated by this study, target scenarios for CO_2-neutral freight transport up to 2030/2030/2040 should be developed, and potential development paths for reaching this target scenario should be demonstrated and evaluated according to economic and ecological criteria.

The study should consider the assessments offered by the relevant industries (e.g. vehicle manufacturers, forwarding agents, infrastructure providers, ...), research institutions and other relevant stakeholders. Proposers are expected to engage in exchanges with the relevant stakeholder groups and expert organisations during the process of undertaking the study and also take into account European developments, given Austria's special geographical situation as a transit country. Findings from scientific studies conducted in Austria and Europe must be included to facilitate a comparative assessment.

Project duration

Max. 12 months

Project costs

Max. EUR 120,000 plus VAT

4.0 Administrative Information

4.1 Call documents

Projects must be submitted electronically **via eCall** at https://ecall.ffg.at. The **Project Description** (funding application) and any additional annexes must be attached to the electronic application using the **eCall upload function**.

Applicants are requested to use the templates provided.

Special attention should be paid to quantifying the project objectives. Please do not exceed the maximum number of pages per chapter specified in the application forms.

The funding conditions, application procedure and funding criteria are described in the relevant **Technical Guidelines**. The relevant documents are summarised in the following.

Overview of call documents download at: www.ffg.at/zero-emission-mobility/2.AS_downloadcenter	
Flagship Projects	Technical Guidelines for Flagship Projects (PDF) Project Description for Flagship Projects (WORD) Declaration of SME status (if required)** (PDF)
Cooperative R&D Projects	Technical Guidelines for Cooperative R&D Projects (PDF) Project Description for Cooperative R&D Projects (WORD) Declaration of SME status (if required)** (PDF)
R&D Services	Technical Guidelines for R&D Services (PDF) Tender (PDF) Affidavit (eCall) Declaration of Commitment (eCall) Model Contract (PDF)
General Cost Regulations	Cost Guidelines 2.1 (Guidelines for the Accounting of Project Costs) (PDF)

** If there is no information available in the Austrian Business Compass, a Declaration of SME Status must be provided upon submission of the proposal. In the template provided by the FFG, applicants must (as far as possible) categorise their business for the last three years according to the SME definition.

4.2 Obligatory preliminary meeting for all flagship projects

In order to clarify stipulations and requirements, the submission of a flagship project requires an obligatory preliminary meeting with the Climate and Energy Fund, the Federal Ministry for Transport, Innovation and Technology (BMVIT) and the Austrian Research Promotion Agency (FFG) **by 13 September 2019 at the latest**. Applicants are requested to contact the FFG in due time to arrange a date for the meeting. The preliminary meeting is necessary to provide optimal support to the applicants in preparing their project proposals.

Preliminary meetings are therefore also recommended for cooperative projects. **Applications for flagship projects submitted without having conducted a preliminary meeting will be rejected for formal reasons**. If the proposal also includes an application for funding according to Chapter 4.3, the meeting will also be attended by Kommunalkredit Public Consulting (KPC), or a separate meeting must be arranged with KPC (see Chapter 4.3).

4.3 Environmental funding managed by Kommunalkredit Public Consulting (KPC)

Projects that receive funding from the Climate and Energy Fund and include at least one Work Package qualifying as experimental development can also be managed by FFG in cooperation with Kommunalkredit Public Consulting (KPC). In this case, research activities receive funding from the FFG, while investments in demonstration facilities are supported by KPC based on the Funding Guidelines for Environmental Assistance in Austria (UFI). Both funding components are covered by the present programme. Demonstration facilities submitted for additional environmental funding under the Zero Emission Mobility programme must be of key importance to the relevant research project. The research and development activities must constitute the prerequisite for the investment for which environmental funding is sought.

Demonstration facilities as specified in the Funding Guidelines for Environmental Assistance in Austria go beyond standard technologies. They serve to test and introduce new or substantially improved technologies and must be based on the research activities. The environmental effect expected (reduction in air emissions, noise or hazardous waste, reduction in energy consumption, innovative supply of renewable energy) must be able to be assessed and quantified as a prerequisite for funding. Funding can only be granted for the share of the investment which is directly necessary for, and contributes to, achieving the environmental effect. Costs that are not or only indirectly related to the environmental effect are not eligible for funding.

Funding is based on the environmentally relevant additional investment costs (eligible costs less any reference costs if the demonstration facility can be compared with a standard facility) according to the Funding Guidelines for Environmental Assistance in Austria. Later submission to other funding programmes and other funding agencies (business development funding – Austrian federal development and financing bank AWS; environmental funding – KPC) is possible subject to the relevant funding conditions if the project submitted to the present programme does not involve application for or granting of funding for demonstration facilities.

Obligatory preliminary meeting with KPC

If a project proposal also involves funding of a demonstration facility in accordance with the Funding Guidelines for Environmental Assistance in Austria, a mandatory advisory meeting with experts from FFG and KPC must be held **by 13 September 2019 at the latest**, unless KPC has already participated in the preliminary meeting mentioned in Chapter 4.2. Applicants are requested to contact the FFG to arrange a date for the meeting. The advisory meeting helps KPC experts to assess whether the planned investment is eligible for funding as a demonstration facility in the respective call. Environmental funding will not be granted if such an advisory meeting has not been held.

Application

Application shall be in the form of ONE project application which must be submitted to the FFG as follows:

- The planned demonstration parts to be funded by KPC need to be listed in detail in the annex to the Project Description of the R&D part (PDF file). The additional specifications are designed to enable KPC to assess the demonstration parts and the expected environmental effects.
- A Cost Plan (Excel file) for the demonstration part must be uploaded via eCall in addition to the Project Description (PDF file) and other annexes.

The following supplementary information is required:

- Cost of facility broken down into trades/items, assembly costs, planning costs.
- Quotations must be provided for third-party services (must be available by the date of the final accounts at the latest).
- Clearly comprehensible description and quantitative prediction of the environmental effect; the environmental effect is shown by comparing the demonstration facility to the status quo or a reference plant producing the same output using conventional technologies (example: comparison of energy consumption [MWh/a] by energy source before and after the implementation of the demonstration facility).
- Presentation of the feasibility and market potential of the demonstration plant.
- Feasibility analysis with operating costs and profits of the demonstration facility in comparison to the status quo or a reference plant.

If no information on the environmental effect and the costs of the demonstration facility is available on submission of the proposal, the applicant must provide reasonably substantiated estimates.

Procedure after project submission

Please consult the relevant Technical Guidelines (see Chapter 4.1) for more information about the project selection procedure following submission of the application. Projects involving applications for both R&D funding and environmental funding will additionally be sent to Kommunalkredit Public Consulting GmbH (KPC) for further processing. Experts from KPC will check compliance with the funding requirements and prepare a funding proposal for the investment cost portion.

If necessary, the relevant funding agency may contact applicants directly to request additional information.

If the project receives additional funding from KPC, two funding contracts will be drawn up:

- FFG funding contract for R&D-related costs
- KPC funding contract for investment costs in accordance with the Guidelines for Environmental Assistance in Austria

For further information regarding environmental funding see:
www.umweltfoerderung.at/betriebe/sonstige-umweltschutzmassnahmen-laermschutz-demonstrationsanlagen
and
www.umweltfoerderung.at/betriebe

The following table shows the types of eligible costs:

Industrial Research FFG	Experimental Development FFG	Demonstration Facilities KPC
"Industrial Research" denotes planned research or critical investigation to acquire new knowledge and abilities. The aim is to develop new products, procedures or services or to effect significant improvements to existing products, procedures or services. This includes the creation of parts of complex systems necessary for industrial research and in particular for the validation of technological fundamentals.	"Experimental Development" denotes the acquisition, combination, formation and use of existing scientific, technical, economic and other relevant knowledge and abilities in the development of plans or concepts for new, modified or improved products, procedures or services. It also includes, for example, other activities for the definition, planning and documentation of new products, procedures and services as well as the preparation of drafts, sketches, plans and other documentation, provided these are not intended for commercial purposes.	"Demonstration Facilities" as specified in the Funding Guidelines for Environmental Assistance in Austria (UFI) are of a highly innovative character. They go beyond standard technologies and serve to demonstrate and introduce new or substantially improved technologies. Demonstration facilities can only be funded by KPC under the Zero Emission Mobility programme if they are directly based on the research activities carried out as part of the project submitted. The expected environmental effect can be assessed and quantified. Investments immediately required for achieving the environmental effect are eligible for funding.

If the funded measure qualifies as an energy-saving measure in terms of end consumption according to the Federal Energy Efficiency Act (EEffG), it will be credited to the Climate and Energy Fund as a strategic measure according to Sec. 5 (1) 17 of the EEffG in proportion to the funding granted. Obligated third parties may claim the eligible measures (in whole or in part) only for the part of the project costs exceeding the funding granted by the Climate and Energy Fund. This applies in particular if the measures are transferred by the funding recipient to the third party for the purpose of allowing them for individual obligations according to Sec. 10 EEffG.

5.0 Legal Aspects

5.1 Data protection and confidentiality

The FFG is under a legal obligation to maintain secrecy concerning company and project information pursuant to Sec. 9 (4) of the Austrian Research Promotion Agency Act (FFG-G, Federal Law Gazette BGBl. I No. 73/2004). External experts who are involved in the assessment of projects as well as Kommunalkredit Public Consulting GmbH (KPC) are also subject to confidentiality obligations with respect to company and project information.

Personal data will be processed pursuant to Art. 6 et seq. of the General Data Protection Regulation (EU) 2016/679:

- for compliance with legal obligations to which the FFG, KPC and the Climate and Energy Fund are subject (Art. 6 (1) (c) GDPR),
- if no legal obligation exists, for the purposes of the legitimate interests pursued by the FFG, KPC and the Climate and Energy Fund (Art. 6 (1) (f) GDPR), i.e. conclusion and processing of the funding contract and for control purposes.

This use may mean that the data must be transferred or disclosed in particular to bodies and authorised representatives of the Court of Audit, the Federal Ministry of Finance and the EU. There is also the possibility to obtain information from the transparency portal according to Sec. 32 (5) of the Transparency Database Act (TDBG 2012).

All project applications submitted will only be forwarded to the persons responsible for the management of this RTI Initiative as well as to the programme owner. All persons involved are bound by strict confidentiality rules.

5.2 Legal basis

The following guidelines provide the legal basis for this Call:

- Guideline for the Promotion of Industrial/Technical Research, Technology Development and Innovation (RTI Guideline 2015), Thematic RTI Guideline pursuant to Sec. 11 (1) to (5) of the Research and Technology Promotion Act (FTFG) of the Federal Minister for Transport, Innovation and Technology (file no. BMVIT-609.986/0011-III/I2/2014) and the Federal Minister for Science, Research and Economics (file no. BMWFW-97.005/0003-C1/9/2014);
- Funding Guidelines for Environmental Assistance in Austria as amended.

The company size shall be established in accordance with the corresponding SME definition specified in EU competition law (from 1 January 2005: definition of small and medium-sized enterprises in accordance with Commission Recommendation 2003/361/EC dated 6 May 2003, [OJ L 124, 20.05.2003, pp. 36–41]). All EU provisions shall be applicable as amended.

5.3 Publication of funding decision

In the event of a positive funding decision, the Climate and Energy Fund reserves the right to publish the name of the funding applicants, the funding decision, the rate and amount of funding granted as well as the title and a brief description of the project in order to pursue the Climate and Energy Fund's legitimate interests to ensure funding transparency (Art. 6 (1) (f) GDPR).

5.4 Open access – notes on publication

The projects funded under this Call and their results will be made available to the public in line with the general objectives and tasks of the Climate and Energy Fund as defined in Sec. 1 and Sec. 3 of the Climate and Energy Fund Act (KLI.EN-FondsG) and the special characteristics of the funding programme, which is specifically aimed at publishing project and contact data for the dissemination of project results, as well as the Recommendation of the European Commission (2012/417/EU) on Open Access. The open access provisions do not apply to confidential information (e.g. related to patent applications). The funding recipient is obliged to ensure that the reports submitted to the Climate and Energy Fund for publication do not contain any sensitive data (Art. 9 GDPR) or personal data about criminal convictions and offences (Art. 10 GDPR).
The funding recipient is also obliged to obtain all other approvals and consents from third parties (including but not limited to image rights) that are required for lawful publication by the Climate and Energy Fund and to indemnify and hold harmless the Climate and Energy Fund in this respect.

Since the dissemination of the project results is an essential purpose of this funding programme, the Climate and Energy Fund will publish these project results and project information in order to pursue its legitimate interest to ensure funding transparency and to fulfil the objectives of the Climate and Energy Fund (Sec. 1 and Sec. 3 of the Climate and Energy Fund Act, KLI.EN-FondsG) (Art. 6 (1) (f) GDPR).

Visibility and easy availability of innovative results are essential to increase the impact of the programme. Where possible, all project results achieved under this RTI Initiative will thus be published and made available by the Climate and Energy Fund in accordance with the principle of open access. To be able to present the project results in a clear and comprehensible manner, instructions for public relations on projects funded under the call are made available in a "Guide for Project Reporting and Public Relations", which also forms an integral part of the agreement.

6.0 Contact

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