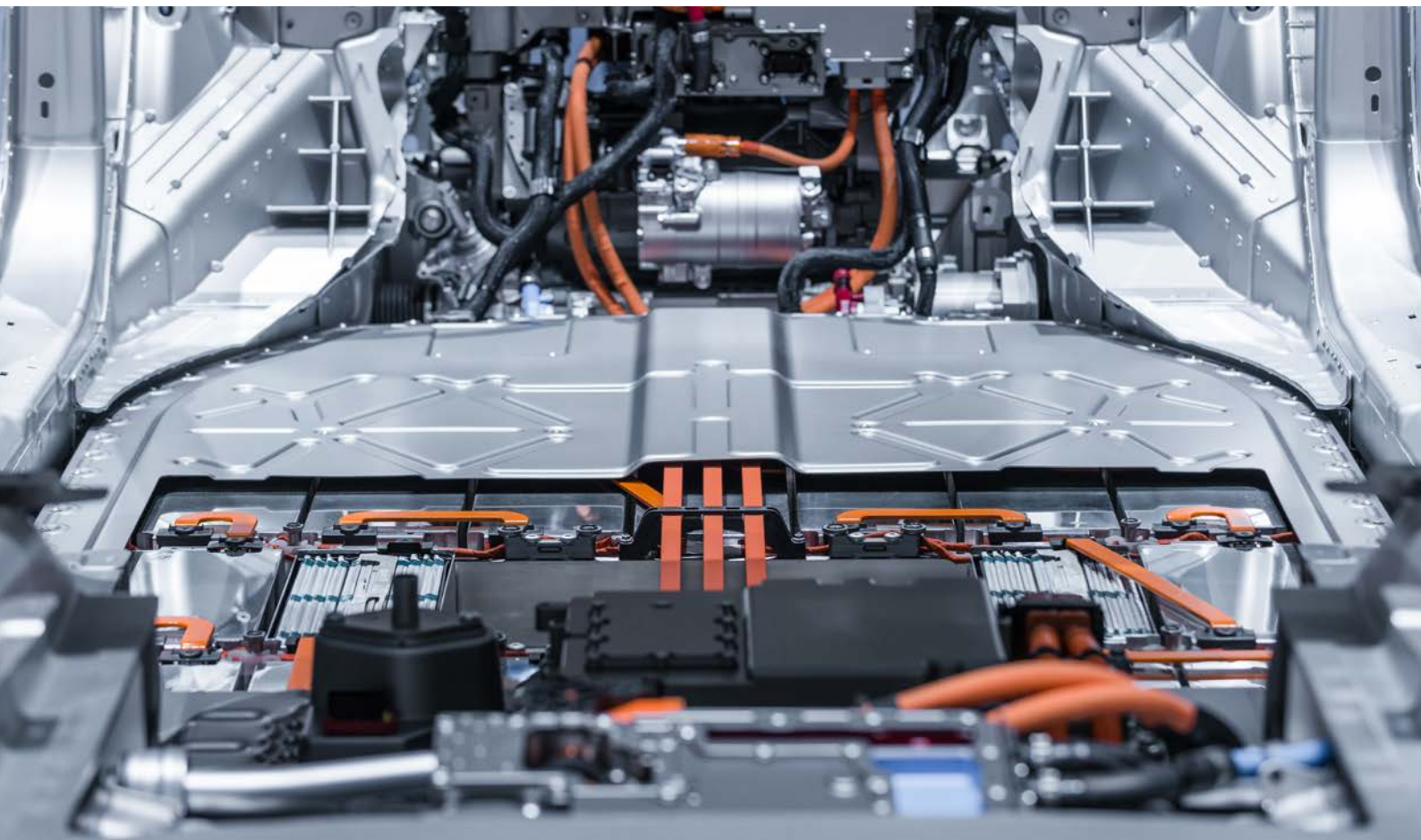


Guide for Proposers

Zero Emission Mobility

2023 Programme

A Programme of the Climate and Energy Fund as part of the Electric Mobility Initiative of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) in support of implementing the Mobility Master Plan 2030 for Austria



Vienna, May 2023

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Preface

Austria has set itself the goal of achieving climate neutrality by 2040. Decarbonisation of the mobility sector remains a major challenge to reaching this goal. The transformation away from combustion engines towards electric mobility is particularly relevant as the automotive supply industry is important for Austria as a business location and for domestic value creation.

The Climate and Energy Fund launched the Zero Emission Mobility funding programme to address all these challenges and further promote emission-free mobility in Austria. This is the programme's sixth call and focuses on the topics of zero emission vehicles and infrastructure, integrated system solutions for vehicles and infrastructure, as well as accompanying research projects in support of the EBIN and ENIN investment promotion programmes.

The funding programme is encouraging close cooperation between research organisations and business. For example, projects which are close to market are put through a demonstration phase of at least six months to bridge the gap between research and practice more efficiently. Here, Zero Emission Mobility makes an important contribution to overcoming the challenges in the mobility sector and promotes Austria as a technology location by involving SMEs and start-ups, as well as developing know-how.

We invite you to submit your innovative project and help shape the future of mobility in Austria.



Bernd Vogl
Managing Director of the Climate and Energy Fund

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 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 8 million in funding is available for the 6th 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 electric mobility and hydrogen infrastructure and seamless integration into publicly accessible mobility systems. The use of hydrogen in combustion engines is not eligible for funding under this programme.

The call additionally includes one R&D service to explore questions concerning the electrification of coaches. The R&D service must be aimed at achieving climate neutrality by 2040.

The full project proposals must be submitted to the Austrian Research Promotion Agency (FFG) via [eCall](#) by the submission deadline of **4 October 2023, 12:00 p.m. (noon)**.

Zero Emission Mobility is a funding initiative of the Climate and Energy Fund in support of implementing the Mobility Master Plan 2030 for Austria and achieving climate neutrality by 2040.

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 eCall system provides support in this respect, but the ultimate responsibility for compliance with the formal requirements still rests with the applicants. A checklist specifying the conditions and criteria of the relevant funding instrument and the call can be found in Annex 1.

Funding may only be granted if it has an incentive effect. The FFG Missions Guideline thus requires all consortium members to declare via eCall whether the funding leads to a change in their behaviour.

Projects that fall exclusively into the research category "Industrial Research" are not eligible for funding under the Funding Guidelines for Environmental Assistance in Austria (UFI).

Call overview – topics and instruments

Topics and financing instrument	Flagship Project Large-scale research and demonstration project	Cooperative R&D Project Cooperative research and development project	R&D Service Specified R&D content
Topic 1: Zero Emission Vehicles	Applicable	Applicable	Not applicable
Topic 2: Zero Emission Infrastructure	Applicable	Applicable	Not applicable
Topic 3: Integrated System Solutions for Vehicles and Infrastructure	Applicable	Applicable only in the research category "Experimental Development"	Not applicable
Topic 4: Accompanying Research Projects for EBIN and ENIN	Applicable	Applicable	Not applicable
R&D Service	Not applicable	Not applicable	Applicable

Instruments

Information	Flagship Project Large-scale research and demonstration project	Cooperative R&D Project 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 30% 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	Industrial Research or Experimental Development	Not relevant
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 80,000 plus VAT
Funding rate	Max. 85%, depending on research category and type of organisation. For details, see Guidelines for the relevant funding instrument.	Max. 85%, depending on research category and type of organisation. For details, see Guidelines for the relevant funding instrument	No funding rate.
Project duration	100 % financing	1 to 3 years	12 months
Cooperation required	Yes	Yes	No

Budget, deadlines, contacts and further information

Further information	Details
Available call budget	EUR 8 million
Obligatory preliminary meeting	A preliminary meeting until 6 September 2023 is obligatory for flagship projects and voluntary for cooperative R&D projects (see Chapter 4.2).
Submission deadline	4 October 2023, 12:00, p.m. (noon)
Language	English
Contact	<p>Dr. Andreas Fertin Telephone: +43 5 7755-5031 Email: andreas.fertin@ffg.at</p> <p>Dr. Johannes Fritzer Telephone: +43 5 7755-5032 Email: johannes.fritzer@ffg.at</p>
Online information	FFG Zero Emission Mobility website

2.0 The Funding Programme

2.1 Long-term orientation

Previous calls and the predecessor programme, Austrian Electric Mobility Flagship Projects, have already provided funding for numerous innovative projects resulting in the successful development of future-oriented solutions (see [Zero Emission Mobility brochure](#)).

The Zero Emission Mobility programme forms the research core for implementing the electric mobility initiative and makes an important contribution to the national integrated energy and climate plan.

The clear focus of the programme is thus on **zero emission mobility** in road transport with a special emphasis on near-market research consortium projects with integrated demonstration and a clear implementation perspective. The calls are mission-oriented and technology neutral and focus on two pillars, **vehicle and infrastructure. User aspects may be addressed as an additional pillar, but only when priority is given to the vehicle and/or infrastructure level.** These thematic pillars will be addressed in the next few years. The concrete call topics will 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 expertise 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 offering perspectives of short-term implementation and value creation for Austria.

The aim is to contribute to the goals specified in the Government Programme 2020-2024 such as achieving climate neutrality by 2040 and associated decarbonisation of road transport.

In order to achieve sustainable development, framework conditions must be established for a mobility transition which creates a decarbonised, service-oriented transport 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, FCEV¹).

The drive energy must be produced in a climate-neutral manner in accordance with the zero emission principle. Operational demonstration must be based exclusively on electricity and/or hydrogen from renewable resources. The use of hydrogen in combustion engines is not eligible for funding.

¹ BEV = Battery electric vehicle, FCEV = Fuel cell electric vehicle

Zero emission technologies are also of high economic relevance for Austria. Electric mobility alone has the potential to increase value added by around 19% and the number of jobs by around 21% until 2030². Realising 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.**

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 calls in the Technology mission area of the BMK's Mobility 2026 RTI agenda address the development of components for alternative drive systems, lightweight components and vehicles as well as automotive electronics and connected/automated vehicles. The focus of these calls, however, is not on electric mobility infrastructure or demonstration projects.

Links to other calls:

- The Federal Ministry for Climate Action (BMK) and the Climate and Energy Fund have established the Climate Neutral City mission, which enables Austrian cities to implement their climate and energy goals more quickly. Comprehensive research and accompanying measures help to sketch out, develop and then demonstrate the path to climate neutrality.

- The Electric Mobility Initiative launched by the BMK in cooperation with the automobile and two-wheeler importers seeks to accelerate the market introduction of electric mobility in Austria. Infrastructure and vehicles which are not part of research and development should primarily receive funding under the Electric Mobility Initiative. Applications are to be submitted directly to Kommunalkredit Public Consulting (KPC). An exception are demonstration facilities (according to Environmental Assistance in Austria – UFI, as amended). 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 4.4).
- The EBIN (zero-emission buses and infrastructure) and ENIN (zero-emission commercial vehicles and infrastructure) programmes focus on converting bus and commercial vehicle fleets to zero-emission.
- The Sustainable Mobility in Practice programme supports projects which make a relevant contribution to overcoming the obstacles and barriers to the broad implementation of sustainable forms of mobility as effectively, efficiently and quickly as possible. The focus is on market-oriented and easily replicable projects.
- The BMK's Logistics Funding Programme 2019–2023 focuses on the (pilot) implementation of innovative logistics concepts for all modes of transport. The funding programme is designed to increase the competitiveness of the Austrian freight transport and logistics sector, to enhance Austria's attractiveness as a business location and to safeguard social and ecological sustainability. Funding is provided for implementation studies, demonstrators and pilot projects which are carried out in close cooperation of (logistics) companies, public authorities and other stakeholders (more information on logistics funding can be found on the [SCHIG website](#)).

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.

² [Study on value creation and employment potentials of electric mobility](#)

3.0 The Call

3.1 Call objectives for research projects

The 6th Zero Emission Mobility call focuses on the goal of 100% vehicle electrification (batteries, fuel cells, high-performance capacitors, no ICE³) as well as the development and testing of intelligent charging infrastructure. The focus lies on projects with a systemic perspective, i.e., not on individual aspects, but rather the system integration of existing technologies.

The call focuses on systemic technological solutions for vehicles and infrastructure. User aspects may be addressed, but only when priority is given to the vehicle and/or infrastructure level. Material aspects of the planned call are sector integration (power grid) and the intelligent integration of solutions into a connected transport system.

Relevant project results include both innovative systemic technology developments and integrated mobility solutions providing value creation perspectives for Austria. Accompanying research projects for the EBIN and ENIN programmes are also of interest. Special emphasis is placed on the scalability of solutions and the integration of existing components into novel zero emission developments.

The call focuses on four thematic areas to obtain these results:

1. Zero Emission Vehicles
2. Zero Emission Infrastructure
3. Integrated System Solutions for Vehicles and Infrastructure
4. Accompanying Research Projects for EBIN and ENIN

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 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. It is recommended that cooperative R&D projects should focus on only one topic.** 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,
- the agriculture and the tourism sector,
- the municipal sector,
- airports and railway stations,
- the industrial sector,

and selected vehicles not covered by §3 KFG, including special-purpose vehicles and vehicles for special applications in the construction, mining or tourism industries or similar.

³ ICE = internal combustion engine

The development of new vehicle concepts and e-bikes, 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 locally emission-free vehicles 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 fuelling or charging infrastructure (in combination with Call Topic 2 – Zero Emission Infrastructure). Flagship projects and cooperative R&D projects of the research category “Experimental Development” must include a demonstration phase in order to prepare a successful market launch and to demonstrate 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.

Operational demonstration must be based exclusively on electricity and/or hydrogen from renewable resources. The use of hydrogen in combustion engines is not eligible for funding.

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 and operation of the infrastructure.

Consequently, this thematic area calls for project proposals which either develop novel infrastructure systems or enhance existing solutions to integrate them in comprehensive infrastructure systems. The focus should be on the development of hardware solutions which may also include associated software aspects and can be tested and demonstrated for feasibility and scalability (for flagship projects and cooperative R&D projects of the research category “Experimental Development”).

Particular attention is paid to **sector integration**, i.e. intelligently combining mobility-related aspects with other sectors such as energy production, storage and distribution. This integration is essential for developing the most economically efficient solutions for the future. 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 take into account the availability of the required energy (including hydrogen, stationary storage, second-life and vehicle-to-grid applications) as well as considering potential scalability at a later stage. Integration into an overall system including operational demonstration (e.g. with photovoltaics, storage system, charging solutions and/or hydrogen and vehicle-to-grid applications) is welcomed. The economic sustainability of the development, and potential transition to regular operations must be demonstrated at the end of the project period.⁴

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

⁴ Publicly accessible charging infrastructure must meet the requirements of the Federal Act establishing uniform standards for the deployment of alternative fuels infrastructure.

3.2.3 CALL TOPIC 3: Integrated System Solutions for Vehicles and Infrastructure

System solution approaches ranging from energy production and infrastructure to the consumption of energy in the vehicle are essential for creating intelligent and coordinated mobility models.

The goal is to combine promising technical innovations to create credible systems and prepare them for market launch. The focus should be on application and user-oriented technological system solutions, both in and from Austria, i.e., projects relevant to transport and mobility which stand out due to their technical and organisational system perspective, degree of innovation, extent to which they incorporate innovations, or their competitive edge.

Seen in this context, the projects should not focus primarily on individual features, but instead consider the integration of developed technologies or entire value chains into systems. In addition, projects should draw on the know-how offered by complementary partners to visibly demonstrate Austrian technological expertise and innovative system design in the field of electric mobility.

Therefore, this thematic area calls for project proposals that combine novel vehicle technologies and/or infrastructure systems (see Topics 1 and 2) with application and user-oriented technological system solutions, or enhance existing solutions. The focus should be on developing complete system solutions which are already close to market. For that reason, funding will only be given to flagship projects and cooperative R&D projects in the "Experimental Development" research category.

During demonstrations, the projects may only use electricity and/or hydrogen from renewable sources. The use of hydrogen in combustion engines is not eligible for funding.

3.2.4 CALL TOPIC 4: Accompanying Research Projects for EBIN and ENIN

Electrifying public transport services and freight transport will make an important contribution to achieving climate neutrality by 2040. Therefore, the two following funding programmes will continue in 2023:

- [EBIN – Zero emission buses and infrastructure](#)
- [ENIN – Zero emission commercial vehicles and infrastructure](#)

These programmes are designed to initiate and accelerate the market ramp-up of zero emission buses and commercial vehicles. Due to the novelty of such vehicles, research questions have yet to be answered in many areas, paired with a lack of practical experience in planning and daily operation. Consequently, in addition to the investment funding noted above, Topic 4 is open to research projects dealing with aspects such as the following:

- optimal design and use of (shared) infrastructure
- optimal incorporation of new vehicles into existing logistics concepts/workflows/operations
- necessary adaptations and enhancements to vehicle components
- scaling strategies for converting entire vehicle fleets to zero emission

Projects must contain an innovative technical component but may also develop and test social and/or organisational innovations (e.g., business and operator models).

Delimitation of the funding programmes and costs:

The research activities are eligible for funding under the Zero Emission Mobility (ZEM) programme and must be described in detail in the application. The investment costs for vehicles and infrastructure must be submitted to the EBIN or ENIN programme. This must be explicitly noted in the content description of the ZEM project. ZEM projects and EBIN/ENIN may be combined, however, the applications will be assessed independently.

Where vehicles and infrastructure are essential to conducting the research project, a funding commitment from the EBIN or ENIN programme must be presented prior to the start of the project. Any additional KPC funding will be applied for and assessed together with the ZEM project.

Costs or partial costs which have already been funded will not be recognised. If you have applied to the FFG or other funding bodies for this project or parts of this project, the relevant information must be provided in eCall.

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.

If the project focuses on the further development of battery concepts, the aims of the European Commission's current Battery Regulation proposal (Proposal for a regulation concerning batteries and waste batteries, repealing Directive 2006/66/EC and amending Regulation (EU) No 2019/1020) should be taken into account, in particular:

- declaration of the carbon footprint of the battery
- at least partial use of recycled materials (e.g. lithium and cobalt)

- compliance with the OECD Due Diligence Guidance for raw material extraction and risk assessment of potential negative environmental effects (Art. 39)
- the concept should include measures that enable a high recycling rate or second life use.

The cooperative R&D projects of the research category "Experimental Development" and flagship projects submitted under Topics 1 to 3 are required to complement the research and development work with a **demonstration component**. The project developments (prototypes, systems, etc.) must be tested under real-world operating conditions during a demonstration phase running over a period of at least **six months**. Operational demonstration must be based exclusively on electricity and/or hydrogen from renewable resources. A monitoring system must be established to determine whether the prototypes achieve the target values and to identify areas offering potential for further improvement. The potential transition to regular operations 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.

SMEs should be included in the project consortium in order to involve them as potential technology providers. Therefore, project proposals should demonstrate the inclusion of innovative SMEs or start-ups, to an extent 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 Service

Feasibility study on the electrification of coaches

Starting situation

The goal of decarbonisation by 2032 is challenging due to the limited distances coaches can currently cover, the necessary charging infrastructure, and their acquisition and operating costs. In order to electrify coach transport as quickly and sustainably as possible, it is important to establish the necessary foundations in close cooperation with coach fleet operators.

The aim of this study is to draw up comprehensive guidelines for developing strategies and concrete measures to electrify coach fleets. The study must determine the main characteristics and key figures of Austria's coach fleet and recommend actions to be taken by the public sector. An independent set of guidelines to support coach fleet operators in electrifying their fleets should also be produced. Close cooperation with OLE (Austria's National Competence Center for Electromobility) and ASFINAG (operational managers of Austria's motorways, which are essential for coach transport) is recommended.

Expected impact

The study should involve relevant stakeholders and address the following questions:

Conduct a market and profitability analysis

- How can the term "coaches" be precisely defined within the M3 category, and what are the distinctions between coaches and publicly operated city and regional buses? How should the differences between scheduled coaches and hire coaches (e.g., for school and company trips) be viewed? What are the main application scenarios, business areas and use cases for coaches?

- Who are the relevant stakeholders in the coach sector? What is the composition of Austria's coach fleet (number of vehicles, companies, business areas)? How can international operators who cross the border and drive on Austria's road network (e.g., starting or ending journeys in Austria or driving through) be involved in the stakeholder process?
- What are the results of a TCO calculation for an electric coach including the corresponding charging infrastructure (compared to comparable vehicles with combustion engines) for the main application scenarios, business areas and use cases?
- How large and flexible is the current and foreseeable market availability of electric coaches? What are the current expected delivery times, i.e., until a fleet can be put into operation?
- What are the challenges faced by operators, especially SMEs, of operating a mixed fleet of ICE and electric coaches (e.g., workforce training, route and vehicle selection, operational infrastructure)?

Expansion and implementation of appropriate charging infrastructure

- Which charging or hydrogen refuelling use cases are best suited for efficient and safe charging or refuelling of electric coach fleets (public charging infrastructure including CCS and MCS/depot charging/shared use of corporate and public charging infrastructure for trucks)?
- What are coach company requirements for a reservation/booking system for charging stations?
- Are there any specific charging and hydrogen refuelling infrastructure requirements for electric coaches compared to those for trucks (e.g., positioning of the charging plug on the vehicle)?
- Are the AFIR (alternative fuel infrastructure regulation) objectives for expanding publicly accessible charging and hydrogen refuelling infrastructure for heavy-duty commercial vehicles sufficient for the required market ramp-up?
- What is the potential of electric coach fleets in electric road systems (e.g., estimating the total mileage of all coach fleets on the high-capacity road network)?

Analysis of best practice examples (international)

- What are the international best practice examples (electric coaches and corresponding charging and hydrogen refuelling infrastructure) and what are the main lessons learned for the conversion to electric coach fleets in Austria?
- What are the problems and areas of activity associated with electrifying coaches and how were these dealt with in the best practice examples (e.g., grid support/ overload, range and charging or refuelling time)?
- What are the technical features and requirements (such as battery size, space requirements, assistance systems) for introducing or converting the fleet?

Context of the mobility transition – route analysis

- What are the purposes of coach journeys (e.g., school classes and group trips, holiday trips)? What are the motives for choosing a coach as a means of transport (e.g., cost advantages compared to train/car, comfort, distance, lack of alternatives)?
- From the current perspective, how will the coach industry in Austria develop in view of the relevant national and European objectives and regulations?
- Which routes within Austria can be served by an electric coach fleet in the foreseeable future, and which should be given priority in the ramp-up phase (e.g., parts of international coach networks, expansion plans linked/coordinated with the railways)?

Role of the public sector

- What regional, national, and European funding opportunities are already available to operators of electric coach fleets?
- What criteria should be considered for future funding opportunities (e.g., infrastructure, vehicles, implementation plan)?
- What are the main measures for which the respective bodies are responsible (federal ministries and local authorities and other national stakeholders) that would appear necessary to achieve the goal?

Project duration

Max. 12 months

Project costs

Max. EUR 80.000, - plus VAT (if applicable)

4.0 Administrative Information

4.1 Call documents

Projects may only be submitted electronically via the FFG's [eCall](#) system.

The proposal consists of the following online elements, which must be entered in [eCall](#) under the following menu items:

- **Description of content** presents the content of the project.
- **Work plan** includes the work packages and elements of project management, such as time management plan (GANTT diagram), tasks, milestones, results.
- **Consortium** describes the expertise of the individual consortium members.
- **Cost and financing** describes all cost categories per consortium member. The totals for each work package will be automatically displayed in the online work plan.

When applying for environmental funding from KPC, the following additional attachments must be uploaded (details see Chapter 4.4):

- Project description UFI
- Cost plan UFI

Please use the templates and call documents provided for download on the [FFG Zero Emission Mobility website](#).

The funding conditions, application procedure and funding criteria are described in the **Guidelines of the relevant funding instruments**.

Attachments to the online proposal, if applicable.

Call documents

Flagship Project	Guidelines for Flagship Projects (PDF) Declaration of SME status (if required) (PDF)*
Cooperative R&D Project	Guidelines for Cooperative R&D Projects (PDF) Declaration of SME status (bei Bedarf) (PDF)*
General Cost Regulations	Cost Guidelines 2.2 (Guidelines for the Accounting of Project Costs) (PDF)
R&D Service	Guidelines for R&D Services (German) (PDF) Affidavit (eCall) Declaration of Commitment (eCall) Model Contract (German) (PDF)

* **Please note:** A Declaration of SME Status is required for associations, sole proprietorships and foreign companies. In the template provided, 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 Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) and the Austrian Research Promotion Agency (FFG) **by 6 September 2023 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 4.4, the meeting will also be attended by Kommunalkredit Public Consulting (KPC), or a separate meeting must be arranged with KPC (see Chapter 4.4).

4.3 R&D Service

Please note that the procurement of research and development services (R&D Services instrument) falls under the exemption provision of Sec. 9 (12) of the Public Procurement Act (BvergG 2018) and is thus subject to a tendering process. The Climate and Energy Fund is the contracting entity for the R&D Services instrument. The FFG funding agency acts in the name and for the account of the Climate and Energy Fund.

By submitting a tender, the tenderer accepts the content of the present Guide and all other relevant call documents in their entirety.

If a (sub-)contractor is mentioned in several tenders (multiple participation), the respective tenders will be excluded from the tendering process if it can be assumed that this multiple participation leads to a restriction or distortion of competition.

Supplementary information

Requests for supplementary information about the R&D service tendered shall be sent exclusively by email to the FFG (mobilitaet@ffg.at) no later than 21 days prior to the submission deadline, specifying the sender address (email). The questions will be collected and answered in an anonymised form no later than 11 days prior to the submission deadline. To ensure equal treatment, inquirers are asked to formulate their questions in such a manner that no conclusions can be drawn as to their identity. The questions and answers will be published on the FFG website. Requests for information cannot be sent after this date. The Climate and Energy Fund and the FFG will not comment on the evaluation of the tenders submitted during the tendering process.

4.4 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), as amended. Both funding components are covered by the present programme. Demonstration facilities submitted for additional environmental funding from KPC under the Zero Emission Mobility programme must be of key importance to the relevant research project. The research and development activities must in turn 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 expected environmental effect (reduction in air emissions, noise, hazardous waste or energy consumption, innovative supply of renewable energy) must be assessable and quantifiable 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 (Austrian federal development and financing bank AWS for business development funding; KPC for environmental funding) 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 6 September 2023 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. The following documents must be uploaded as attachments in eCall:

- A detailed project description of the planned demonstration facilities to be funded by KPC. The additional specifications are designed to enable KPC to assess the demonstration parts and the expected environmental effects.
- A cost plan for the demonstration part

The templates can be found in the Download Center of the call.

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).
- 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.
- Profitability 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 exact 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 Guidelines of the relevant funding instruments (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:

- Förderungsvertrag der FFG für F&E-relevante Kosten
- Förderungsvertrag der KPC für Investitionskosten gemäß Umweltförderung im Inland

Further information regarding environmental funding can be found on the [KPC website detailing the funding of other environmental measures](#) and on the [KPC website detailing environmental funding for businesses](#).

Eligible costs

Industrial Research FFG	Experimental Development FFG	Demonstration Facility KPC
<p>“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.</p>	<p>“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.</p>	<p>“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.</p>

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 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 Fund (Art. 6 (1) (f) GDPR), namely 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 of the Austrian Research Promotion Agency for the Promotion of Research, Technology Development and Innovation to Meet Social Challenges](#) (FFG-Missions Guideline)
- [Funding Guidelines for Environmental Assistance in Austria \(UFI\) as amended](#)

The company size shall be established in accordance with the corresponding SME definition specified in EU competition law. More detailed information about the SME definition can be found on the [FFG website](#). All EU provisions shall be applicable as amended.

Research and development services shall be subject to the exemption provision of Sec 9 (12) of the Public Procurement Act (BVerG 2018).

5.3 Funding/Financing decision

The Board of the Climate and Energy Fund makes the funding decision based on the recommendations of the evaluation panel.

5.4 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).

5.5 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

Programme lead

Climate and Energy Fund
Leopold-Ungar-Platz 2 / 1 / Top 142, 1190 Vienna

Mag. Gernot Wörther

Telephone: +43 1 585 03 90 24

Email: gernot.woerther@klimafonds.gv.at

www.klimafonds.gv.at

Programme management

Austrian Research Promotion Agency (FFG)

Thematic Programmes

Sensengasse 1, 1090 Vienna

Dr. Andreas Fertin

Telephone: +43 57755-5031

Email: andreas.fertin@ffg.at

Dr. Johannes Fritzer

Telephone: +43 57755 5032

Email: johannes.fritzer@ffg.at

www.ffg.at

Further funding opportunities

[EBIN – Zero-emission buses and infrastructure](#)

[ENIN – Zero-emission commercial vehicles and infrastructure](#)

[Mobility 2023 – Cities and Technologies](#)

[Smart Cities Demo](#)

More women in science and technology with [FEMtech Internships for female students](#): Funding is provided for high-quality internships in companies and non-university research institutions with a focus on the mobility transition. You, too, can offer young female researchers an exciting introduction to applied research.

Funding agency for investment costs

Kommunalkredit Public Consulting GmbH

Türkenstraße 9, 1090 Vienna

DI Wolfgang Löffler, MSc

Telephone: +43 1 31 6 31-220

Email: w.loeffler@kommunalkredit.at

www.public-consulting.at

Annex 1:

Check list for submission

The formal check serves to examine the funding and financing applications for accuracy and completeness.

Please note: **If the formal requirements are not met and the deficiencies cannot be corrected, the funding**

or financing application will be excluded from the further procedure and will be formally rejected without exception in accordance with the principle of equal treatment of all applications.

Formal check – check list for funding and financing applications

Criteria	Items checked	Can deficiency be corrected?	Consequence
Project description is complete and the correct language is used.	The online Project Description form must be completed in full. Language: English	no	Rejection for formal reasons
Obligatory annexes have been attached.	If KPC funding is requested: UFI Project Description and Cost Plan have been submitted.	yes	Rectification via eCall after submission
The funding applicant is eligible to submit an application.	See Guidelines of the relevant funding instrument	no	Rejection for formal reasons
For consortia: The project partners are eligible to participate.	See Guidelines of the relevant funding instrument	no	Rejection for formal reasons
Minimum requirements for the consortium	See Guidelines of the relevant funding instrument	no	Rejection for formal reasons
Obligatory preliminary meeting for flagship projects	The obligatory preliminary meeting for flagship projects took place until 6 September 2023 at the latest.	no	Rejection for formal reasons

Annex 2:

Criteria for hydrogen from renewables

The vehicles used for all projects and zero emission technologies must be powered exclusively by renewable energy. For hydrogen projects, it should be noted that the RED II Directive (EU) 2018/2001 stipulates strict criteria for qualifying hydrogen as renewable hydrogen. RED II already defines the basic requirements and conditions under which renewable fuels of non-biogenic origin, such as hydrogen, must be manufactured in order to count towards the RED II targets. Specific details, in particular those stipulating the conditions under which the electricity used for hydrogen electrolysis qualifies as renewable in terms of RED II, are specified by the EU Commission in two delegated acts, which have not yet come into force at the launch of this Call. Accordingly, the criteria for hydrogen are not applied in this Call.

However, we expressly recommend the following:

- Examine the RED II Directive guidelines because only RED-compatible hydrogen will be sustainable over the long term. From today's standpoint, the RED II criteria for producing renewable hydrogen are extremely challenging.
- Plan your project so that it can be converted to RED compatibility over the medium term. However, there is no intention to introduce an obligation to convert as a criterion for funding.
- Furthermore, future legal requirements based on RED regulations may result in hydrogen which fails to qualify as renewable hydrogen according to RED criteria being subsequently classified as fossil hydrogen, so that the distributor of the hydrogen could be obliged to compensate with other forms of renewable energy.

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