

# Guide for proposers Zero Emission Mobility

1<sup>st</sup> Call

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



# Table of Contents

	<b>Preface</b>	<b>2</b>
<b>1.0</b>	<b>Key Items at a Glance</b>	<b>3</b>
<b>2.0</b>	<b>The Funding Programme</b>	<b>5</b>
2.1	Long-term orientation 2018–2022	5
2.2	Strategic goals of the programme	5
2.3	Interaction with other funding programmes	6
<b>3.0</b>	<b>The Call</b>	<b>7</b>
3.1	Call objectives for research projects	7
3.2	Call topics for research projects	7
	3.2.1 CALL TOPIC 1: Zero-Emission Vehicles	7
	3.2.2 CALL TOPIC 2: Zero-Emission Infrastructure	8
	3.2.3 CALL TOPIC 3: Zero-Emission Logistics & Public Transport	8
3.3	General requirements for research projects	9
3.4	R&D Services	9
	3.4.1 Value creation potentials and training needs in Austria's automotive industry	9
	3.4.2 Quantity structures for a CO <sub>2</sub> -neutral transport sector in 2050	11
<b>4.0</b>	<b>Administrative information</b>	<b>12</b>
4.1	Call documents	12
4.2	Obligatory preliminary meeting for all projects	12
4.3	Environmental funding managed by Kommunalkredit Public Consulting (KPC)	13
<b>5.0</b>	<b>Legal Aspects</b>	<b>15</b>
5.1	Data protection and confidentiality	15
5.2	Legal basis	15
5.3	Publication of funding decision	16
5.4	Open access – notes on publication	16
<b>6.0</b>	<b>Contact</b>	<b>17</b>
	<b>Imprint</b>	<b>18</b>

# Preface

Austria has set itself ambitious targets in #mission2030, the Climate and Energy Strategy of the Federal Government. This also applies to the transport sector which aims to save 7.2 million t CO<sub>2eq</sub> by 2030. Electric mobility can help significantly towards reaching this target, although this will require intensive research and development activities over the coming years.

For that reason, the Climate and Energy Fund has developed the Zero Emission Mobility programme, a successor programme to the successful Austrian Electric Mobility Flagship Projects. The programme invites proposals for addressing current electric mobility topics in the three specified pillars – vehicles, infrastructure and users – and tenders for targeted R&D services. The programme design is deliberately technology-neutral and mission-oriented, including battery-based solutions, hydrogen technology, and high performance capacitors. Priority is given to finding systematic solutions with clear prospects for relatively quick implementation. Consequently, all projects must include both research and demonstration phases.

The programme focuses on achieving zero emissions, rather than simply improving the degree of electrification. The declared aim is total decarbonisation, both of vehicles and the energy sources used, including the related infrastructure.

The topics of this year's call cover both vehicles (all classes of vehicles and new vehicle concepts) as well as infrastructure (with a particular focus on an integrated energy approach). It also addresses two special challenges for electric mobility, namely zero-emission logistics and linking to the public transport system, including autonomous vehicles. Accompanying the projects are calls for tenders for two R&D services which address the subject of value creation potentials and training needs in Austria's automotive industry, and quantity structures for a CO<sub>2</sub>-neutral transport sector in 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.



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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 7 million euros in funding is available for the 1<sup>st</sup> 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.

The call additionally includes two R&D services designed to identify the value creation potentials and training needs in Austria's automotive industry and to analyse the quantity structures for a CO<sub>2</sub>-neutral transport sector in 2050.

The full set of project proposals must be submitted via eCall (<https://ecall.ffg.at>) by the submission deadline of **21 January 2019, 12:00**.

Zero Emission Mobility is a funding initiative of the Climate and Energy Fund of the Austrian Federal Government within the framework of the action package for the promotion of electric mobility launched by the Ministry for Transport, Innovation and Technology (BMVIT) and the Ministry of Sustainability and Tourism (BMNT) in cooperation with the car and bike import sector.

**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	Cooperative R&D Project	R&D Service
	Large-scale research and demonstration project	Cooperative research and development project	Specified R&D content
<b>Research category</b>	<p>Industrial Research and/or Experimental Development</p> <p>Both research categories can be included in one project; <b>Industrial Research must not exceed 15 % of overall project costs.</b> 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.</p>	Experimental Development only	–
<b>Min. funding amount requested for R&amp;D part of the project</b>	EUR 2 million	None	None
<b>Max. funding amount for R&amp;D part of the project</b>	None	EUR 1 million	EUR 60,000 or EUR 120,000 plus VAT
<b>Funding rate</b>	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
<b>Available call budget</b>	EUR 7 million		
<b>Project duration</b>	2 to 4 years	1 to 3 years	max. 12 months
<b>Cooperation required</b>	Yes, see Technical Guidelines		No
<b>Obligatory preliminary meeting</b>	A preliminary meeting to be held until 21 December 2018, is obligatory for ALL projects, except for R&D Services (see Chapter 4.2.).		
<b>Submission deadline</b>	<b>21 January 2019, 12:00</b>		
<b>Language</b>	English		
<b>Contact</b>	<p>Ing. Vukasin Klepic, MSc</p> <p>Telephone +43 5 7755-5069</p> <p>Email <a href="mailto:vukasin.klepic@ffg.at">vukasin.klepic@ffg.at</a>  <a href="mailto:zero-emission-mobility@ffg.at">zero-emission-mobility@ffg.at</a></p>		
<b>Information on the Web</b>	<a href="http://www.ffg.at/zero-emission-mobility">www.ffg.at/zero-emission-mobility</a>		

# 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 [www.klimafonds.gv.at/publication/leuchttuerme-der-elektromobilitaet](http://www.klimafonds.gv.at/publication/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 focus on market-oriented research consortium projects with integrated demonstration and a clear implementation perspective. The calls will be mission-oriented and technology neutral. The **three pillars, vehicle – infrastructure – user**, from the predecessor programme, Austrian Electric Mobility Flagship Projects, will be maintained. These three 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 core of the research programme remains the **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 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.

The aim is to contribute to the goals specified in #mission2030 such as reducing emissions from transport by 7.2 million tonnes CO<sub>2eq</sub> 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 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 vehicles with exclusively emission-free driving modes (BEV, FCHEV<sup>1</sup>). The energy used 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. They are expected to create added value of EUR 3.1 billion and around 34,000 jobs until 2030<sup>2</sup>. 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 a view to Austria's economic structure, the programme places strong emphasis on the involvement of **small and medium-sized enterprises and actively promotes the integration of start-ups**.

<sup>1</sup> BEV = Battery electric vehicle, FCHEV = Fuel cell hybrid electric vehicle

<sup>2</sup> [www.klimafonds.gv.at/wp-content/uploads/sites/6/E-MAPPStudie.pdf](http://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/autonomous vehicles, but the focus is not on e-mobility infrastructure or demonstration projects.

### **Relationship to the calls “Smart Cities Initiative”, the “Energy Research Programme 2018 of the Climate and Energy Fund” and the “Action Package for Promoting Electric Mobility”**

- 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 2018 of the Climate and Energy Fund” supports research and development of energy technologies and their integration into the energy system. The programme also provides funding for the further development of energy-efficient vehicle technologies.

- The “Action Package for Promoting Electric Mobility” sponsored by the Federal Ministry for Transport, Innovation and Technology (BMVIT) and the Federal Ministry of Sustainability and Tourism (BMNT) 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 Action Package. 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 1<sup>st</sup> call of the Zero Emission Mobility programme focuses on 100 % electrification (batteries, fuel cells, high-performance capacitors) of vehicles and the development and testing of intelligent e-mobility infrastructure. A focus is on the integration of electrified, automated and publicly accessible mobility in urban and rural transport services.

The call focuses on 3 thematic areas to achieve this goal:

- a) Zero-Emission Vehicles
- b) Zero-Emission Infrastructure
- c) Zero-Emission Logistics & Public Transport

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 to include international partners and/or networking with major existing initiatives and projects, where feasible (see also Chapter 2.3).

## 3.2 Call topics for research projects

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.

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, multiple 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 for publicly accessible transport
- special applications, for example in the construction industry
- 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 in order to achieve 100 % electrification through the use of 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 future 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 (higher) charging capacity, the focus is primarily on cost-efficient installation, intelligent integration and operation within the energy system.

Consequently, this thematic area calls for project proposals which support the development and pilot implementation of infrastructure components as well as the integration of these components into infrastructure and overall transport concepts.

Particular attention is paid to an integrated energy approach, i.e. the networking of transport components with energy supply and energy transmission. This integration is essential in order to develop the most economically efficient solutions: these may include intelligent charging management, integration into smart building services systems (for larger building complexes) and providing charging capacity on demand while simultaneously offering maximum flexibility in order to reduce peak loads in the power networks.

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.<sup>3</sup>

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 & Public Transport**

#### **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 zero-emission 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.

#### **Topic 2: Public Transport**

Connecting and integrating zero-emission technologies into a publicly accessible mobility system is a major challenge. Widening the range of ecomobility offerings with the addition of more clean and publicly accessible transport is an important element in overcoming this challenge. This requires both tailored infrastructure designed to support these offerings and suitable vehicles for the various areas of application. In view of the current technology developments, projects aimed at integrating automated vehicles into publicly accessible on-demand mobility services in urban and rural regions are of special relevance in this context.

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 is welcomed.

<sup>3</sup> Publicly accessible charging infrastructure must meet the requirements of the Federal Act establishing uniform standards for the deployment of alternative fuels infrastructure.

### 3.3 General requirements for research projects

The proposal must specify the 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 prototype(s) developed 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) 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 Value creation potentials and training needs in Austria's automotive industry

##### Targets

The global automotive industry is about to go through a major transformation, with experts expecting more changes to occur in the next five years than there have been in the past fifty. This shift towards zero-emission mobility presents established Austrian enterprises with serious challenges, while simultaneously offering great opportunities for rapidly developing, global growth markets.

This study should identify these challenges, indicate the transformation pathways, and analyse the value creation potentials of Austria's automotive industry. The starting point should be an analysis of large international markets, such as California or China with specific zero-emission targets, as well as the European Single Market with its fleet limits for private cars, light and heavy commercial vehicles, and also #mission2030 targets. The efficient appraisal of existing (international) study results should facilitate a comparative assessment. The study should also examine the potential for diversification strategies, for example in the zero-emission aviation and railways sectors.

The study should place a particular focus on the impacts on (regional) employment structures, analysing the extent to which people can be retrained to fit new job profiles, and the areas on which vocational training should focus in future. In short, a process should be outlined indicating the best way for the automotive industry to achieve this vital conversion, and the practical steps which need to be taken first.

The target horizon for the study should effectively be 2030, and beyond to 2040 and 2050 as far as realistically possible.

## Expected outcomes

- How great is the value creation potential in Austria for the flexible and competitive manufacture of small, medium and large volumes of electric vehicle components, electric vehicles, and electric infrastructures, and further zero and ultra-low emission technologies? [billions in value creation & additional jobs]
- Are there manufacturing technologies presently used in the production of conventional internal combustion engines which in future could also be applied in the manufacture of zero and ultra-low emission components? If so, where is the specific potential in Austria?
- In which fields do Austrian businesses have special know-how and enjoy an advantage over international competitors?
- What are the specific strengths and potentials inherent in Austrian SMEs?
- What opportunities arise from restructuring existing value chains, or from creating new markets in electric mobility, as well as further zero and ultra-low emission technologies for start-ups?
- What transformation processes (transformation by design) can be used to guide established Austrian businesses towards zero-emission mobility?
- Which processes need to be introduced immediately in order to expedite the vital conversion of the Austrian automotive industry?
- Which new job profiles will emerge and will be in particular demand?
- What additional vocational training and qualification requirements are needed in order to meet the changing demands for qualified personnel, taking into account regional (automotive) value creation regions?
  - Focus 1: Retraining/further training of skilled workers in conventional jobs to prepare them for new job profiles;
  - Focus 2: Examination and development of (regional) solutions/compensatory measures for skilled workers in conventional jobs who cannot be retrained;
  - Focus 3: Initial training/qualification for new job profiles in apprenticeships, secondary schools, universities/universities of applied sciences;
- Which first steps can be immediately taken to counteract the current lack of available skilled workers, a situation which the industry claims is becoming more acute?
- Which Austrian (automotive) value creation regions require special attention in this transformation process?
  - Focus 1: Overall Austrian jobs balance in the automotive industry
  - Focus 2: Analysis of any regional distortions (negative job balance) which will arise, and addressing them with retraining measures etc.
- What forms of cooperation between old and new stakeholders are conceivable and necessary (other OEMs, digital technology firms, start-ups, politics, municipalities)?
- Which new zero-emission sectors (e.g. aviation, railways) could contribute to diversifying Austrian businesses more broadly, and how can these markets be opened up?

The study should link up with the existing studies, "E-MAPP"<sup>4</sup> and "Elektromobilität – Chance für die österreichische Wirtschaft"<sup>5</sup>, which analyse the opportunities of electric mobility for the Austrian economy.

The consortium must demonstrate competencies in manufacturing and industry, as well as in the areas of vocational and further training and qualification. Essential selection criteria include the consortium's specialist expertise and the presentation of relevant references. Particular emphasis is placed on the intensive involvement of the key Austrian (automotive) value creation regions in this study.

### Project duration

max. 12 months

### Project costs

Max. EUR 120,000 plus VAT

<sup>4</sup> See [www.klimafonds.gv.at/wp-content/uploads/sites/6/E-MAPPStudie.pdf](http://www.klimafonds.gv.at/wp-content/uploads/sites/6/E-MAPPStudie.pdf)

<sup>5</sup> See [www.e-connected.at/userfiles/elektromobilitaetsstudie\\_kurz.pdf](http://www.e-connected.at/userfiles/elektromobilitaetsstudie_kurz.pdf)

### 3.4.2 Quantity structures for a CO<sub>2</sub>-neutral transport sector in 2050

#### Targets

In accordance with the Paris Climate Agreement, and in line with #mission2030, the objective is to achieve a CO<sub>2</sub>-neutral transport sector by 2050. Over the medium and long term, zero-emission vehicles powered by renewables, and ultra-low emission vehicles should make up the majority of road traffic.

Here the question arises of how the mix will shift in favour of alternative drive systems and fuels based on renewables (electric mobility, hydrogen mobility, bio-CNG/bio-LNG, biofuels and synthetic fuels). One particular aspect to consider is the quantity structures of renewable fuels, as the different drive systems each vary in their efficiency. Moreover, in addition to identifying the ideal mix of fuels and drive systems in terms of energy use, the economic implications must also be demonstrated.

The study should indicate the extent to which the drive technologies, with their varying levels of efficiency, can be applied in each vehicle category and transport mode, with particular consideration given to the availability of renewable electricity. Another factor to be taken into account is whether, and how much of, this energy can be produced in Austria, and how much must be imported.

Furthermore, other sectors should also be considered. Systems which to date have been separate (electricity, heating, mobility, industry) will be linked in future. The potential synergies created by an integrated energy approach should also be included in the evaluation and assessment.

In short, an assessment should be made of the (future) quantity and price structures in Austria for all types of renewable fuels.

#### Expected outcomes

- What quantity structures of resources will conceivably be available in future, particularly considering that the majority of renewable fuels will be based on electricity?
- What quantities of renewable fuels can be produced in Austria (also considering electrification in other sectors) in order to cover the potential demand? What quantities need to be imported?
- To what extent can other aspects of integrated energy (storage capacity for renewable fuels, etc.) influence the potential distribution of the various technologies (electric mobility, hydrogen mobility, combustion engine) for each vehicle category and transport mode?
- What price structures for renewable fuels can be expected in future, or will determine their use in the mobility sector and other sectors (e.g. industry)?
- How will the macroeconomic costs develop compared to existing systems?
- What mix of fuels, energy provision and also vehicles is efficient in macroeconomic terms?

The study should consider the assessments offered by the impacted industries, research institutions and other relevant stakeholders. Exchanges with the relevant stakeholder groups and expert organisations during the process of undertaking the study are expected. The efficient appraisal of existing (international) study results to facilitate a comparative assessment is welcomed.

#### Project duration

max. 12 months

#### Project costs

Max. EUR 60,000 plus VAT

# 4.0 Administrative information

## 4.1 Call documents

Projects must be submitted exclusively **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: <a href="http://www.ffg.at/zero-emission-mobility/1.AS_downloadcenter">www.ffg.at/zero-emission-mobility/1.AS_downloadcenter</a>	
<b>Flagship Project</b>	Technical Guidelines for Flagship Projects (PDF) Project Description for Flagship Projects (WORD) Declaration of SME status (if required)** (PDF)
<b>Cooperative R&amp;D Project</b>	Technical Guidelines for Cooperative R&D Projects (PDF) Project Description for Cooperative R&D Projects (WORD) Declaration of SME status (if required)** (PDF)
<b>R&amp;D Services</b>	Technical Guidelines for R&D Services (PDF) Tender (PDF) Affidavit (eCall) Declaration of Commitment (eCall) Model Contract (PDF)
<b>General Cost Regulation</b>	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 projects

In order to clarify stipulations and requirements, the submission of a 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 21 December 2018 at the latest**. Applicants are requested to contact the FFG in due time to arrange a date for the meeting. The preliminary meeting helps us provide optimal support to the applicants in preparing

their project proposals. **Applications for projects submitted without having conducted a preliminary discussion 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 21 December 2018 at the latest**, unless KPC has already participated in the preliminary discussion 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](http://www.umweltfoerderung.at/betriebe/sonstige-umweltschutzmassnahmen-laermschutz-demonstrationsanlagen)  
and  
[www.umweltfoerderung.at/betriebe](http://www.umweltfoerderung.at/betriebe)

The following table shows the types of costs eligible:

Industrial Research FFG	Experimental Development FFG	Demonstration Facilities 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.</p> <p>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.</p> <p>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.</p> <p>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 § 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 § 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 obligations 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 Section 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 of 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 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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