



Bundesministerium für Verkehr, Innovation und Technologie

Endowed Professorships within the

RTI Initiative
Production of the Future

Guidelines for Applicants

Start of call:

30 January 2014

Submission deadline:

15 May 2014, 12:00

Disclaimer

Every effort has been made to ensure the accuracy of this translation. Nevertheless, the FFG cannot assume responsibility for any errors that may inadvertently have occurred. In the event of any discrepancy, the German version is to be taken as valid.





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0 Key Facts at a Glance

This call invites applications for endowed professorships as part of the RTI Initiative **Production of the Future**. A total amount of 5 million euros is made available. The call is financed by two funding providers: the Federal Ministry of Transport, Innovation and Technology (BMVIT) and the Austrian Marshall Plan Foundation.

Table 1: Overview					
	Instruments				
	Endowed professorship funded by the BMVIT	Endowed professorship financed by the Austrian Marshall Plan Foundation			
Short description	The endowed professorship supports the appointment of excellent researchers to Austrian universities. Appointments are carried out in accordance with Sec. 98 of the Austrian Universities Act (UG 2002) and are limited to topics of strategic relevance for strengthening Austria's innovative capacity.	the appointment of researchers from the United States to Austrian universities. Appointments are carried out in accordance			
Topics	Thematic Fields				
Topic 1	Advanced Manufacturing	Production Research			
Topic 2	Steel as a High Performance Material				
Key data	Key Data				
Funding/ Financing (EUR)	Maximum of EUR 2 million per professorship	Maximum of EUR 1 million per professorship			
Contributions by applicants	At least 15% by the university(ies) (in cash or in kind) At least 15% by co-financing partners (in cash The remaining balance of 10% may be provided either by the university(ies) in cash or in kind and/or by the co-financing partners in cash.	At least 15% by the applicant university (in cash or in kind). A higher contribution and the participation of additional external financing partners (e.g. other foundations, companies, private sponsors) are desired.			
Funding/ Financing rate	max. 60% funding	max. 85% financing			
Duration	60 months	60 months			
Cooperation required	University with at least two co-financing partners, one of which must be a company	no			
Total budget (EUR)	EUR 4 million	EUR 1 million			
Submission deadline	15 May 2014, 12:00				
Language	English				
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Information on the Web	www.ffg.at/stiftungsprofessur				

The full set of application documents must be submitted via eCall (https://ecall.ffg.at) by the submission deadline.



1 Goals of the Call

The establishment of endowed professorships is designed to strengthen important areas of knowledge for Austria's innovation system and contribute to promoting cooperation between science and industry.

Endowed professors build bridges by connecting industry and academia. Endowed professorships give universities room to make their mark, to open up new research areas and to respond to current trends. They meet industry's demand for highly trained experts and cooperation partners at the universities and they enhance the overall attractiveness of Austria as a research location.

Companies benefit in the long term from the sustained development of human potential in areas that are of strategic relevance to them. An endowed professorship has a positive impact on a company's image and helps harness commitment from qualified young researchers.

The Federal Ministry of Transport, Innovation and Technology (BMVIT) as funding body supports endowed professorships in relevant research areas that are characterised by substantial academic expertise but still show some gaps. Endowed Professorships thus respond to pressing industry needs by ...

- ... **developing a critical mass:** Endowed professorships will strengthen research structures, which in turn help to provide more and better research capacities and human resources for innovative companies in Austria.
- ... closing the gap / specialisation: Endowed professorships will be established in selected research areas which are of particular significance for Austria's innovation system. These areas are currently underrepresented in the research landscape and companies have significant levels of demand for high quality research in these fields.
- ... **sustainability:** Endowed professorships will enhance the anchoring function of research institutions for research-focused companies in Austria. They will be established for the long term to provide sustainable stimulus to the research landscape in Austria.



Based on the guidelines outlined above, we can specify the goals as follows:

Goal 1: Development of research expertise and capacity in the research field

- Set up of research groups with an international presence
- Improvement of the research infrastructure relevant for the research field

The endowed professorship is designed to make a significant contribution to strengthening the research potential of the research field. Over the course of the funding period and beyond the development should be reflected not only in a higher level of research output (publications, patents) but also in a greater visibility of and demand for scientific expertise, e.g. in the form of external funding, prizes and guest lectures.

Goal 2: Strengthening human capital

- More highly qualified young researchers in the research area
- Expanding and developing teaching in the research area

The endowed professorships are designed to raise the number of graduates in the relevant research area in the medium and long term. By including partners from industry in the financing of the endowed professorships, the curricula will be developed to align with the qualification needs of industry. Based on their expertise, graduates will become highly sought after by Austrian companies.

Goal 3: Broadening and deepening cooperation between science and industry

- Quantitative and qualitative development of the portfolio of cooperative projects
- Increasing the attractiveness for research-based companies in Austria in the research area
- Setting up international networks in the research area

We address potential endowed professorships that actively encourage cooperation between science and industry as part of projects or networks and that pursue new ideas together with corporate partners at a national and international level. This should also be reflected through the acquisition of external funding which can be used for the development of research capacities.

The goals outlined above define the primary focus of the endowed professorships. The submitted Endowed Professorship concepts are expected to address all three goals.

The **endowed professorship** financed by the **Austrian Marshall Plan Foundation** also supports the orientation and objectives of the call.



The endowed professorships submitted will be examined using a set of assessment criteria based on the quality of the concepts and the financing of the Endowed Professorship by universities and funding providers. The available budget (table 1) allows the funding/financing of several endowed professorships, provided they meet the relevant quality criteria. Applying for the maximum funding/financing amount available is not a precondition for a positive evaluation.

2 Addressed Thematic Fields

The "Endowed Professorship funded by the BMVIT" addresses projects that are described in chapters 2.1 and 2.2.

The "Endowed Professorship financed by the Austrian Marshall Plan Foundation" addresses content described in chapter 2.3.

The projects must primarily relate to one of the call topics or related areas, but may also address several of these topics.

2.1 Topic 1: Endowed Professorship in Advanced Manufacturing

Austria has a number of outstanding qualities for industry and production. In addition to above-average productivity growth, this above all includes the excellent growth and export performance of the manufacturing industry, the high level of research and development, and the successful niche strategies of individual companies, especially in the manufacture of high-quality products in the upper price segment.

At the same time, the global conditions for the manufacturing industry are undergoing rapid and radical change: in addition to a clear focus on energy efficiency and highly efficient use of resources, future production systems will also be more capital- and knowledge-intensive. Managing highly dynamic and complex processes will therefore become a major challenge in manufacturing.

For example, an increasing number of goods are now manufactured in accordance with customer requirements. Production facilities must be able to manufacture small quantities in an economically efficient way to meet the changing needs of the market. This requires the development of versatile and flexible manufacturing systems and the integration of various technologies, interdisciplinary developments and a number of different manufacturing methods into the production process. ICT-based technologies in particular (such as modelling and simulation, embedded systems, cyber-physical systems) will merge with classic industrial processes on a deeper system level in the future (key word: Industry 4.0). The required vertical integration of networked production systems and the creation of horizontal value-added networks are a major challenge for the production systems of the future.

This paradigm shift in manufacturing will demand different qualifications from Austria's industry; the engineers of the future will have to be trained in a more multi-disciplinary and networked fashion, and they need more knowledge in such areas as materials sciences, information and communication technologies, mechatronics, physics, nanotechnology, logistics, environmental technology and other disciplines.



In addition, the responsibilities of traditional production and knowledge workers will continue to merge and production workers will increasingly take over responsibilities in product development and process planning.

The differentiation and the competitive edge of an export-oriented manufacturing industry will in future hinge on successfully mastering the complexity of these future production systems, which is of key importance for Austrian industry.

The Endowed Professorship in Advanced Manufacturing therefore aims at future qualification profiles of the Austrian manufacturing industry and should contribute to the development of high-level research expertise and to the establishment of long-term structures and relevant know-how in this area.

The endowed professorship must comprehensively address the challenges of future production processes in complement to existing professorships and expertise.

2.2 Topic 2: Endowed Professorship in Steel as a High Performance Material

Austria has a strong international competitive position in industrial technologies in general, and in the research and development of materials in particular. High-tech materials (advanced materials) are driving new production methods and products, and play a significant role in the development of new functionalities and in lowering production costs. In the processing industry material costs account for around 50 percent of production costs depending on the sector. Savings due to new properties and efficient utilisation can therefore provide a significant competitive edge.

High performance metals and steel are of particular significance to the Austrian economy. Steels are the most widely used metal materials. Their general strength as a high performance material in Austria is usually defined through the products manufactured and the existing process and production technologies. Austrian companies serve application niches with speciality products and are often market leaders in both Europe and globally. High export rates underline the expertise of companies and research establishments in this field. New technological developments will result in many new challenges for the materials sciences, and steel in particular. In order to use this as an opportunity for innovation, material development must start well in advance of the technological development itself.

The future of the steel industry lies in the design of what are called "special steels" with improved properties and entirely new applications.

The endowed professorship aims at the development of new material concepts for steel as a high-performance material with significantly better properties and for a wider area of application. New alloy concepts are to be combined with new processes or new process parameters. The combination of many different methods and analysis techniques is designed to accelerate the development of new steel grades and to optimise existing ones.

The endowed professorship is designed to form a strong bridge to industry, improve our understanding of steel metallurgy and provide an interface between steel metallurgy, steel production and steel application.



2.3 Topic 3: Endowed Professorship in Production Research by the Austrian Marshall Plan Foundation

The Austrian Marshall Plan Foundation reflects the mutual appreciation between the USA and Austria and is a symbol of gratitude for the great support America provided after the Second World War, which continues in today's ERP Fund. The activities of the Austrian Marshall Plan Foundation are therefore mainly financed by the ERP Fund. The foundation thus plays an important role in maintaining international relations with the USA, in knowledge transfer and in making research results available to the Austrian economy.

The Austrian Marshall Plan Foundation is dedicated to scientific cooperation between Austria and the USA.

The Austrian Marshall Plan Foundation participates in the call for the purpose of bringing American research expertise to Austria by supporting the establishment of an Endowed Professorship in Production Research.

The call addresses endowed professorships that are dedicated to the whole spectrum of production and address the challenges and problems of the manufacturing industry in Austria.

The endowed professorship of the Austrian Marshall Plan Foundation has no thematic restrictions within the wider context of production. It aligns with production-relevant goals that are important driving forces in the manufacturing industry and tie in with research and technological development.

Research into new production technologies and systems creates the conditions for the future of production in Austria and the technological edge for more customer individuality, resource efficiency and reliability. Here, too, research forms the basis for ensuring Austria's competitive position in the world market.

Endowed professorships of the Austrian Marshall Plan Foundation can thus be established in the field of efficient use of resources and raw materials. They may address such topics as reducing material and energy use, substitution and recycling, integrating environmental aspects in product design and development as well as efficient and sustainable logistics.

Endowed professorships of the Austrian Marshall Plan Foundation could also become established in making production more flexible with a special focus on contributing to a high level of product variability and dynamics.

In addition, endowed professorships of the Austrian Marshall Plan Foundation can contribute to the manufacture of high-quality products based on high-tech materials through efficient and sustainable manufacturing.

Further production-relevant topics and objectives may also be addressed in the context of the Austrian Marshall Plan Foundation.

3 Call Documents

Applications may only be submitted electronically **via eCall** at the Internet address https://ecall.ffg.at. The **Project Description** (thematic application) and the **Cost Plan** (cost tables) must be attached to the electronic application using the eCall upload function:



Please use the templates specified for the chosen funding/financing instrument (see overview table).

The funding/financing conditions, submission procedure and funding criteria are described in the relevant **Guidelines for Applications**. The following table gives an overview of the documents relevant for the two funding instruments.

Overview of call documents available for download at www.ffg.at/stiftungsprofessur					
aramaste io	Endowed Professorships within the RTI Initiative "Production of the Future"- Guidelines for Applicants (present document)				
Endowed Professorship	Guidelines for Endowed Professorships				
funded by the BMVIT	Project Description for Endowed Professorships				
	🖔 Cost Plan detailed				
	🖔 Cost Plan cumulative				
	Endowed Professorships within the RTI Initiative "Production of the Future"- Guidelines for Applicants (present document)				
Endowed Professorship financed by the Austrian	Guidelines for Endowed Professorships of the Austrian Marshall Plan Foundation				
Marshall Plan Foundation	Project Description – Austrian Marshall Plan Foundation				
	🔀 Cost Plan detailed				
	🖔 Cost Plan cumulative				
General cost regulations	Cost Guidelines_1.3 (Guidelines for the Accounting of Project Costs)				
For co-financing organisations	Sample template of Letter of Commitment				

Other formal requirements / relevant documents

The following documents must be attached to the electronic application as PDF files using the eCall upload function:

1. Letters of commitment

The applicant university, the partner universities (if any) and the co-financing partners (companies etc.) are obliged to submit letters of commitment. These must contain a binding financing commitment including the amount and period of financing and must be attached to the application. A template is made available in the download section.

2. Draft position announcement for the endowed professorship

The university must attach a draft text of the position announcement for the endowed professorship using the eCall upload function. If the application is approved the draft text will serve as a basis for inviting applications for the professorship.

3. Extract from the university's development plan

The university must also attach an extract from its development plan, where the position of the endowed professorship in "Production" is described, proving that it is integrated in the university's strategy. The extract must be submitted at the latest by the time of the hearing via eCall upload.

An additional English translation of the extract is required.



4 Call Schedule

The following milestones are relevant for the call, the evaluation and the appointment.

Date	Milestones for the endowed professorships of the RTI Initiative "Production of the Future" / Austrian Marshall Plan Foundation call, evaluation, appointment				
30 Jan 2014	Start of the call				
15 May 2014	Submission deadline for funding/financing applications				
02 July 2014	Completion of peer review of applications by independent external experts				
21 Aug 2014	Completion of initial assessment of applications by the jury				
Week 37 (mid- September) 2014	Meeting of the jury including hearings and formulation of recommendati for funding/financing				
End of September 2014	Funding/Financing decision: BMVIT/Austrian Marshall Plan Foundation decide on funding/financing based on the results of the jury meeting; FFG/Austrian Marshall Plan Foundation notify the applicants of the funding decision.				
	Endowed Professorship funded by BMVIT	Endowed Professorship financed by Austrian Marshall Plan Foundation			
From October 2014	Conclusion of funding contract between FFG and the university(ies)	Conclusion of financing contract between Austrian Marshall Plan Foundation and university			
From October/ November 2014	Start of appointment procedure in accordance with Sec. 98 UG 2002	Start of appointment procedure in accordance with Sec. 99 UG 2002			
Mid-2015 (planned)	University notifies FFG/BMVIT of the person appointed and submits the work plan for implementing the approved concept	University notifies Austrian Marshall Plan Foundation of the person appointed			
4 weeks after submission of work plan	FFG/BMVIT approve the work plan for implementing the approved concept, involving the jury if required	Austrian Marshall Plan Foundation approves the appointment and accepts the work plan for implementing the approved concept			
31 Dec 2015	Latest date for completion of the appointment procedure.				

Table 3: Schedule of call, evaluation, appointment



5 Additional Provisions for Austrian Marshall Plan Foundation Professorship

The endowed professorship financed by the Austrian Marshall Plan Foundation differs from the BMVIT call in the following points:

- The Austrian Marshall Plan Foundation acts as the contracting partner of the university.
- Research contract instead of funding contract.
- The endowed professor is appointed in coordination with the Austrian Marshall Plan Foundation.

Other aspects relate to publication and intellectual property rights

- The Austrian Marshall Plan Foundation is entitled to publish any research results obtained on the Austrian Marshall Plan Foundation website.
- The designation "Austrian Marshall Plan Foundation Professor" must be used at all public appearances and in all publications.
- The endowed professor is expected to give presentations at Foundation events thematically related to the research field.



6 Legal Basis

6.1 National legal basis for the BMVIT professorship

The Special Guidelines applicable to this call are based on the General Framework Guidelines for Granting Support from Federal Funds (ARR 2004).

The funding instrument "Endowed Professorship" is not based on the RTD Guidelines as the funded projects are not RTD projects in the usual sense. To achieve the funding goals specified in Sec. 1 of the applicable Special Guidelines, the appointed professor must be given a wider scope in research organisation and budget distribution than is usually the case in RTD projects.

This call is governed by the Special Guidelines (SRL) for Endowed Professorships dated 18 October 2013 (File no. GZ 609.986/0002-III/I2/13) of the Federal Ministry of Transport, Innovation and Technology (ARR apply subsidiarily).

The following provisions are also applicable:

The Federal Equal Treatment Act (GLBG), Federal Law Gazette BGBl. I No. 66/2004, as amended from time to time.

The Federal Act on Equal Opportunities of Persons with Disabilities (BGStG), Federal Law Gazette BGBl. I No. 82/2005, as amended from time to time, as well as the non-discrimination rules specified in Sec. 7b of the Employment of Disabled Persons Act (BEinstG.), Federal Law Gazette BGBl. No 22/1970, as amended from time to time.

The applicable Special Guidelines do not entail any legal right whatsoever to receive funding.

EU conformity

The funding provided on the basis of the Special Guidelines for Endowed Professorships represents public funding of non-economic activities of research organisations in accordance with Secs. 2.2.(d) and 3.1.1. of the Community Framework for State Aid for Research, Development and Innovation (Official Journal C 323/1 dated 30 December 2006) and therefore does not fall under state aid.

A precondition for this is that the co-financing companies derive no direct economic benefit from the endowed professorship.



6.2 Legal basis for the Austrian Marshall Plan Foundation

The financing by the Austrian Marshall Plan Foundation is based on:

- the Federal Foundations and Funds Act (BStFG), Federal Law Gazette BGBl. 1975/11 as amended;
- the Foundation's Articles of Association as amended.