Federal Department of Economic Affairs, Education and Research EAER

State Secretariat for Education, Research and Innovation SERI

Guidelines on the Submission of Funding Applications for Individual Research Projects on Vocational and Professional Education and Training (VPET)

1. Introduction

1.1. Basis for VPET research

Within the context of federal government research, the Swiss Federal Administration supports or initiates scientific research whose findings may be used to perform its tasks. Research provides, for example, the scientific basis for policy development and design in the various policy areas. It can also be used to enforce legal requirements, respond to and implement parliamentary procedural requests, or for legislative work. Federal government research finds its legal basis in the Research and Innovation Promotion Act (RIPA) as well as in special legal provisions.¹

In the policy area 'vocational and professional education and training (VPET)', research is managed and coordinated by the State Secretariat for Education, Research and Innovation (SERI).² The aims of funding are set out in Article 4 of the Vocational and Professional Education and Training Act (VPETA) and Article 2 of the Vocational and Professional Education and Training Ordinance (VPETO) and are described in the document entitled, 'Vocational and professional education and training (VPET) policy area: Research strategy paper 2017-2020'³:

- Development of sustainable structures that pursue research on VPET at internationally recognised standards of scientific excellence.
- (Further) development of the Swiss VPET system through the use of VPET research findings.
- Use of knowledge gained from VPET research for evidence-based management of Swiss VPET policy.

¹ Federal government research: <u>www.ressortforschung.admin.ch/rsf/de/home.html</u>

² SERI research on VPET: https://www.sbfi.admin.ch/sbfi/en/home/education/berufsbildungssteuerung-und--poli-tik/vet-pet-research.html

³ Vocational and professional education and training (VPET) policy area: Research strategy paper 2017-2020': https://www.sbfi.admin.ch/sbfi/en/home/education/berufsbildungssteuerung-und--politik/vet-pet-research.html

1.2. Research funding mechanisms

SERI uses two approaches to achieve these objectives. On the one hand, it provides funding to competence centres – referred to a 'Leading Houses' – linked to university professorships. These Leading Houses conduct research in a clearly defined area deemed relevant to VPET. Leading Houses also work with other university professors or higher education institutions. Leading House research funding is long-term and is intended to bring about sustainable research structures that conduct research on VPET in Switzerland. Leading Houses are tendered as required.

Moreover, research on current issues relating to VPET is subsidised by way of grants for less extensive 'individual research projects'. Individual research projects serve as a complement to the work done by Leading Houses. Thus, they deal with VPET research topics that are not already addressed by the Leading Houses. Individual research projects may be tendered by SERI or applied for by interested researchers on a bottom-up basis.

1.3. Quality control

The demands placed on the research projects funded under this programme are high. When assessing and maintaining quality, SERI is advised by the Scientific Advisory Committee for VPET Research. This body is comprised of renowned experts from various fields and scientific disciplines. New research proposals and - if a project is funded - regular reports are submitted to the Scientific Advisory Committee for review. In addition, research proposals and, if necessary, ongoing projects are submitted for international review.

1.4. Purpose of guidelines

This document is intended for researchers who are interested in applying to SERI for funding for an individual research project in the area of VPET. It is intended to serve as a guide for the submission of applications. It explains the expected content of funding applications and provides information on the review process that incoming funding applications must go through.

2. Requirements and guidelines

In order to qualify for SERI funding, an individual VPET research project must meet a number of formal and scientific criteria. Applicants are requested to carefully check these conditions before submitting their funding application.

2.1. Verifiable need

The project applied for must be of particular interest for SERI, for its VPET policy or for the practices within the Swiss VPET system. This means...

- ...the project deals with upper-secondary level basic vocational education and training and tertiary level professional education and training as defined in the Vocational and Professional Education and Training Act.
- ...the line of inquiry serves SERI's needs (joint educational policy objectives of the Confederation and the cantons, 'VPET 2030' guidelines, examination report and action plan to address the challenge that digitalisation poses on education, etc.)
- ...the expected results will enable improved steering of the Swiss VPET system and/or VPET practices.
- ...the subject is current and could give rise to (political, social or scientific) breakthroughs in the area of VPET.

2.2. High-quality scientific work

The scientific quality of the proposed research must be to an internationally recognised standard. In other words...

- ...the state of research at both national and international levels has been thoroughly researched.
- ...the hypotheses and research questions are adequately anchored in theory and based on scientific literature.
- ...the research design enables the hypotheses to be tested.
- ...the methodology is sound.
- ...the research contributes to scientific progress.

2.3. Ensuring extensive usage of research findings

The research project must offer the potential for extensive usage of research findings. That means...

- ...the funding application should include a presentation and discussion of potential uses of expected research findings.
- ...in particular, research findings should be published in international scientific journals with highest possible impact factors. The funding application should include a publication plan showing the steps that researchers intend to take to use research findings (Section 3.4).
- ...potential users should be made aware of research findings. Practitioners and relevant stake-holders within the Swiss VPET governance structure (i.e. Confederation, cantons and professional organisations) should be involved early and consistently. Contacts should be established with potential users of research findings and listed in the funding application. The Swiss Coordination Office for Research in Education (SKBF) and the Swiss Association for Applied Education Research (SGAB) should also be involved.
- ...the costs associated with use of research findings should be budgeted in the funding application.

2.4. Avoidance of redundancy and overlap

The project topic should not be one already covered by an existing Leading House or another individual research project. In the event of overlap with a Leading House, applicants are requested to contact the Leading House.

2.5. Academic credentials of applicants

The main applicant is usually a professor at a university, a university of applied sciences or university of teacher education. Exceptions are possible in justified individual cases. The applicants must have the necessary expertise to successfully carry out the project according to international scientific standards.

2.6. Budget

Generally speaking, individual research projects have a budget allocation up to CHF 120,000 per year. Each application is based on a detailed breakdown of costs.

The maximum amount of funding will be specified in the contract. Payment will be made in instalments. The extent of partial payments will depend on established milestones. The first instalment will be paid after the contract has been signed and a request for payment has been submitted. Subsequent payments will be made after receipt and examination of the interim report. However, no more than 80 percent of the federal funding contribution may be paid out in instalments. The final payment of 20 percent will be made only after examination and approval of the final report, the report on the use of research findings and the detailed final invoice.

SERI may decide to reduce funding if the actual costs are lower than budgeted, if contractual conditions are not met or if the Swiss Parliament adopts budget cuts.

2.7. Duration

The duration of individual research projects is usually between two and four years. Follow-up research projects are possible, but must be applied for again.

2.8. Open science

Public accessibility to research data is regarded as an essential contribution to the impact, transparency and reproducibility of scientific research. Data that are produced during research activities must therefore be made publicly accessible after project completion, unless there are legal, ethical or other clauses to the contrary. The funding application must be accompanied by a corresponding data management plan (Section 3.5).

Submission of funding applications for individual research projects

Funding applications for individual research projects must be submitted to SERI in both electronic (bbfo@sbfi.admin.ch) and hardcopy form:

State Secretariat for Education, Research and Innovation SERI VPET Research Einsteinstrasse 2 CH-3003 Bern

As a rule, funding applications may be submitted at any time during the year. There are exceptions, such as calls for project proposals with a fixed submission deadline. However, the assessment of scientific quality only takes place about four times a year. Applications must be submitted no later than 12 weeks before the respective meeting of the Scientific Advisory Committee for VPET Research (Section 4.3.).

Funding applications must be submitted using the official form. A detailed research plan, applicant CVs and lists of publications, a publication plan and a data management plan must be included with the funding application.

3.1. Application form for individual research projects

The 'Application Form for Individual Research Projects' is available for download from SERI's VPET webpage⁴ and must be filled out electronically. Information on the title of the research project, the applicant, the content of the research project and a budget must be provided. Further explanations can be found directly in the application form.

3.2. Detailed research plan

The application form must be accompanied by a detailed research plan. This should contain a maximum of 10 full pages of text in front size 11 or 12 pts. It should be understandable without the need to read enclosures or other appendices. Nevertheless, the following points should be covered with enough detail to enable examination based on the criteria set forth in Section 2:

⁴ Application Form for Individual Research Projects: https://www.sbfi.admin.ch/sbfi/en/home/education/berufsbild-ungssteuerung-und--politik/vet-pet-research/application-submission.html

1. Abstract

The abstract is comprised of no more than one full page of text providing a summary of the main contents of the project.

2. Line of inquiry and hypotheses

What research questions is the project intended to answer? What are the hypotheses? The line of inquiry must be justified and the hypotheses theoretically substantiated.

3. Benefits that project will bring to VPET system or SERI

How can the research project help to improve strategic management of the Swiss VPET system? How can VPET research benefit from this project? What concrete benefits does the SERI derive from supporting this project?

4. Theoretical basis and state of research

What are the theoretical underpinnings of this research project? Which specialised literature is used? The theoretical basis must be in place and the state of research at both national and international levels must be thoroughly researched.

5. Research design

Which research design was chosen? Why? What makes the research design suitable for this particular research project?

6. Methodology and measurement tools

Which methodology and measurement tools will be used? Why? What makes them suitable for answering the research questions?

7. Research objectives and expected results

What research objectives are being pursued? What are the likely outcomes of the project?

8. Linkages with other research activities

Are there any plans to link the proposed project with other research work? What plans exactly? What added value will this bring? Have contacts already been established? Have any commitments been made yet? If so, please include the letters.

9. Experience that applicants have had with research topic

Is the know-how required to implement the research project available? Do the applicants bring concrete experience relating to the proposed research project? Have they already conducted any relevant research work of their own on this research topic?

10. Other scientific resources to be used to carry out research project

What other scientific resources (e.g. research institution, experience, knowledge, people, etc.) are available to applicants? How can these resources be useful for the proposed research project?

11. Research schedule and milestones

Project progress must be planned in advance. Generally speaking, compliance with the relevant research schedule must be verifiable by means of annual milestones (deadlines for submitting reports, etc.). These milestones will coincide with payment of individual instalments. Applicants are invited to propose a schedule for the payment of federal funding in instalments (Section 2.6).

12. Measures to be taken to make tangible use of and disseminate research findings

What measures are being taken to make tangible use of research findings? What partners are the applicants in contact with? How will the partners become involved? What has already been agreed? Corresponding measures should not only be described, but also scheduled and budgeted for. For the use of research findings, a publication plan must be included with the funding application (Section 3.4).

13. Continuation of research after period of funding has ended

What project prospects exist after the funding period has ended? How could the research project be continued? Are there any intentions to tap into this potential?

3.3. CVs with list of applicant publications

The application must be accompanied by the CVs of the applicants and a list of publications containing only the ten most important publications on the topic and a maximum of five sources of third-party funding (no presentation lists). These documents serve, among other things, to assess whether the applicants have the necessary expertise.

3.4. Publication plan

Efforts should be made to achieve national and international visibility of the research project both in the interests of using research findings and promoting PhD students. In order to ensure the dissemination of research, it is necessary to plan at an early stage when research findings should appear and in which (international) journals. Applicants are requested to include a publication plan with their funding application. This should be ambitious but realistic.

Publication in the SERI-supported journal 'Empirical Research in Vocational Education and Training (ERVET)'5 is encouraged.

3.5. Data management plan

In the interests of open science, data produced during research must be made publicly accessible after completion of the research project. Using a data management plan, the funding application should specify how data will be prepared and forwarded to FORS⁶ or a similar database and how much this will cost.

4. Review and approval of funding applications

Once a funding application has been received by SERI, it undergoes a multi-stage approval procedure. Formal and legal requirements as well as scientific criteria are checked by different bodies.

4.1. Review by SERI to verify compliance with formal and legal criteria and assess necessity and relevance of research proposal

SERI first checks each application to make sure that formal criteria have been met. The basic requirements are those set forth in the Subsidies Act⁷. SERI also considers the importance and relevance of the topic for the Swiss VPET system. Great importance will be given to the criteria listed in Section 2.

⁵ Empirical Research in Vocational Education and Training (ERVET): www.ervet.ch

⁶ FORS: http://forscenter.ch/en/

⁷ Federal Act of 5 October 1990 on Financial Assistance and Subsidies (Subsidies Act, SubA) SR 616.1

4.2. International expert opinions

One or two international expert opinions are usually obtained for the purpose of assessing scientific quality. These opinions are made available to applicants once the examination process is complete. In order to protect personal privacy the expert opinions are made anonymous. Some text passages may have to be blackened out (e.g. in comparative expert opinions in calls for project proposals).

4.3. Review by Scientific Advisory Committee for VPET Research

The Scientific Advisory Committee for VPET Research assesses all project proposals and makes a recommendation to SERI. When doing so, it takes into account the opinions expressed by the international experts. It meets about four times a year. Meeting dates are always published on the SERI website.⁸

4.4. Decision and subsequent steps

After each meeting of the Scientific Advisory Committee for VPET Research, SERI makes the final funding decision based on the recommendations made by the Scientific Advisory Committee. Applicants are then informed in writing. The following decisions are possible:

Research project approved

If the funding application is approved by SERI without reservation, SERI will draw up a corresponding contract. This contract will be sent to the applicants promptly for countersigning. Work on the project can commence on the agreed date.

SERI and the Scientific Advisory Committee for VPET Research will decide whether the project is progressing in accordance with the planned milestones. To this end, interim progress reports must be submitted to SERI at contractually agreed intervals (usually once a year). SERI and the Scientific Advisory Committee for VPET Research must be informed of any changes to the project.

The final report, the final invoice and the report on use of research findings must be submitted no later than three months after completion of the project.

Research project approved but certain conditions must be met

If the funding application is accepted subject to conditions, then this means that SERI approves the research project in principle, but that certain manageable improvements are necessary. These improvements are explained in the letter announcing the decision reached by SERI and the Scientific Advisory Committee.

Researchers are expected to satisfy these conditions over the course of the project. There is no need to revise the funding application. SERI will draw up a corresponding contract and proceed as if the project had been accepted.

Meetings of the Scientific Advisory Committee for VPET Research: https://www.sbfi.admin.ch/sbfi/en/home/education/berufsbildungssteuerung-und--politik/vet-pet-research.html

Funding application returned for revision

If a funding application requires major changes, the researchers are requested to revise the application. These changes are explained in the letter announcing the decision reached by SERI and the Scientific Advisory Committee.

It is expected that the researchers will send the revised proposal to SERI no later than five weeks (unless otherwise agreed) before the next meeting of the Scientific Advisory Committee. Text passages adapted in the funding application must be highlighted in colour. In addition, a letter must be enclosed explaining the applicant's stance regarding individual comments.

On the basis of the revised draft, the Scientific Advisory Committee will make a new recommendation to SERI. As a rule, SERI will then either accept the funding application (subject to conditions) or will reject it definitively.

SERI will not support the research project in the form presented in the funding application.

Research project rejected

5. Contact

The Education Management and Research Unit will gladly handle any other questions that you may have:

State Secretariat for Education Research and Innovation SERI Isabelle Schenker +41 58 465 51 86 isabelle.schenker@sbfi.admin.ch Einsteinstrasse 2 CH 3003 Bern State Secretariat for Education Research and Innovation SERI Camil Würgler +41 58 465 96 46 camil.wuergler@sbfi.admin.ch Einsteinstrasse 2 CH 3003 Bern

Last update: November 2018