

MACEDONIA SKILLS DEVELOPMENT AND INNOVATION SUPPORT PROJECT (SDISP)

TERMS OF REFERENCE

DATA COLLECTION FOR BASELINE AND FOLLOW-UP SURVEY FOR THE NEEDS OF THE EVALUATION OF THE INSTRUMENTS FOR INNOVATION SUPPORT OF THE FUND FOR INNOVATION AND TECHNOLOGY DEVELOPMENT

I. Background

The Skills Development and Innovation Support Project (SDISP) development objective is to improve transparency of resource allocation and promote accountability in higher education, enhance the relevance of secondary technical vocational education, and support innovation capacity in Macedonia.

The Project would support the Government of Macedonia's (GOM) initiatives geared to:

- increase graduates' competitiveness on a regional and international level;
- increase labor market relevance of graduates' skills;
- make innovation a source of productivity improvement, competitiveness, increased exportability of goods, and sustained economic growth; and
- increase universities and private enterprises engagement in, and their benefit from, R&D efforts and technology adoption opportunities.

The Project would support interventions which foster education and skills relevant to the job market, and enhance the innovation capacity and activity of firms in Macedonia. It will also address key missing elements of the Macedonian innovation system and ailing aspects of the research sector that are likely to be vital for improving the competitiveness of the enterprise sector and Macedonia's longer term economic growth prospects. It will also help improve absorption of EU funds earmarked for innovation activities.

The Project's direct beneficiaries include students, teaching and management staff from technical vocational education and training institutions who would receive a new curriculum and practical training facilities, as well as training on management, planning, and process improvement capacity; students and staff of universities, research institutions and enterprises will benefit from: (i) the implementation of quality assurance mechanisms and financing reform in higher education (HE);(ii) grants promoting R&D and innovation;and (iii) technology commercialization, global know-how absorption, and industry- university collaboration fostered by the National Technology Transfer Office (NTTO).

II. Specific information/background regarding the assignment

Component 3 of the SDISP is focused on supporting the efforts of Macedonia to build the institutional capacity to stimulate innovative activities, and piloting financial instruments to support innovation and technology development in the enterprise sector via the Fund for Innovation and Technology Development (FITD). The FITD aims to promote and stimulate innovation activity, improve access to finance for innovations, develop infrastructure for innovations and technology development and foster development of partnerships between the academia, research community and the private sector in the Republic of Macedonia. The FITD will stimulate innovations and their inclusion in the mainstream private sector (commercialization) in order to build a competitive, knowledge-based economy.

The instruments of the Fund for support of the innovation activity are:

- Co-financing grants for newly established enterprises: start-up, spin-off ;
- Co-financing grants and conditional loans for commercialization of innovations;
- Co-financing grants for technology transfer
- Co-financing grants for establishment, operation and investments of Business-technology Accelerators

In February 2015, FITD launched the first call for proposals to provide co-financing grants for start-ups and spin-offs and organized 10 events attended by 500 companies to increase awareness about public resources available for innovation.

In addition, FITD organized several trainings for potential companies and its beneficiaries for risk analysis, market potential, financial projection and IP rights, as well as opportunities in Horizon 2020.

So far the FITD has published 3 calls. Under the two instruments (Co-financing grants for newly established enterprises start ups and spin offs and Co-financing grants and conditional loans for commercialization of innovations) 32 projects are ongoing from the last two call published in 2015. Under the first instrument (from the first call) one project is already completed. In June 2016 FITD launched the third call for proposal for the first instrument Co-financing grants for newly established enterprises start up and spin off. The results in regards to founded projects from this call shall be published in November 2016.

The monitoring by the FITD is carried out every three months after submitted quarterly progress report by the beneficiaries. Monitoring teams are also carrying out field visits.

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In order to understand whether FITD grants foster innovation in firms and have subsequent consequences for their productivity, sales, and project, the FITD is promoting an evaluation of the impact of these grants on firms. The current plan is to examine two cohorts of applicants to FITD grants, an earlier cohort applying for the first call, and a second cohort applying to the latest call. The data for this survey will come from a large random sample of the universe of applicants to each of these two calls. In addition, a smaller random sample of firms not applying for FITD grants will be included in the study, in order to understand how different applicants are from non-applicants, and the main determinants of applications to this grant programme.

It is anticipated that in each firm two individuals are interviewed: the CEO and one employee in the firm. The questions will be related with the company activities, innovation, linkages with other firms and other markets, and knowledge and attitudes towards innovation. A subsequent phone interview is to be conducted with the CEO about management practices in the firm.

For the earlier cohort of firms survey will be used to examine outcomes of firms post-intervention, and baseline data will be collected from administrative records of FTID. For the latter cohort of firms, this survey will provide baseline data for the impact evaluation, and a second survey is due to be collected 12 to 18 months later.

III. Objective of the assignment

The objective of these Terms of Reference is to select an organization/company (Consultant) that will be responsible for data collection and delivering quality data according to the expectations and protocols for a baseline and a follow-up survey for the needs of the evaluation of the innovation grants of the Fund for Innovation and Technology Development, within a timeframe defined by the Ministry of Education and Science.

IV. Scope of work

The Consultant will be responsible for delivering quality data according to the expectations and protocols, and within a timeframe defined by the Ministry of Education and Science. For the data collection, the major duties will include:

- Recruitment and contracting of experienced enumerators and supervisors, the number of which should be approved by the Ministry of Education and Science. The number of the enumerators and supervisors should be projected bearing in mind the fact that around 250 companies all over the territory of Macedonia should be contacted for both the baseline and the follow-up survey within a 3 month period for each survey. In each firm two individuals should be interviewed, each for about 90 to 120 minutes. The face-to-face interviews should be the initial point of contact to maximize response rates in firms. In addition, there should be a subsequent 45 minutes phone interview with the CEO of the firm, concerning management practices in the firm (using a standard instrument which is usually given through a phone interview).
- The sample of firms to be interviewed will be provided by the Ministry of Education and Science. There will be 3 sets of firms to be sampled: a) a random sample of applicant firms (stratified by award status) to the first cohort of FTID grants; b) a random sample of applicant firms (stratified by award status) to the current cohort of FTID grants; c) and a random sample of firms of have never applied to FTID grants. Firms may need to be contacted multiple times before a successful set of interviews is completed. Firms may not be replaced without agreement of the Ministry of Education and Science.
- Translation of the provided questionnaires into Macedonian and Albanian language
- Training of the selected enumerators and supervisors to the administration of the questionnaires provided by the Ministry of Education and Science, if necessary.

- Reproduction of the questionnaires in a quantity sufficient to cover the needs of the data collection. The minimum number of paper questionnaires is 800 (for the baseline and the follow-up survey).
- Organization and provision of logistical support (transport, per-diem, etc.) to enumerators and supervisors while data are being collected, if applicable.
- Organization and execution of the data collection in cooperation with the Ministry of Education and Science.
- Organization of questionnaire controls in order to ensure the quality of the information being collected during the data collection.
- Data entry of paper questionnaires using SPSS as the data entry template.
- Recruitment and contracting of experienced data entry clerks, the number of which shall be approved by the Ministry of Education and Science.
- Delivery of raw data before data error correction.
- Data correction with SPSS syntax.
- Delivery of corrected data as a SPSS SAV file and a TXT file with tabulators to separate the variables (the first row contains the names of the variables).
- SPSS syntax for the data definition (data list, variable labels, value labels, missing values, level of measurement).
- Delivery of all SPSS syntax for data definition (including variable and value labels, missing values and measurement level), coding of open answers, data quality control (plausibility check) and data correction.
- Delivery of a report relating to the overall organization and execution of the data collection and data entry, as well as on the organization of the output files (codebook).

The further evaluation of the data collected, table reports and multivariate data analysis and preparation of a report summarizing the findings will be conducted by an Independent Consultant hired by Ministry of Education and Science .

V. Reporting obligations

The Consultant shall deliver the following outputs:

- 1. Report covering the preparation of the data collection separately for the baseline and the follow up survey including the sections listed below:**
 - 1.1 Translation of the survey questionnaire
 - 1.2 Pre-test of the questionnaire
 - 1.3 Final layout of the paper questionnaire and printing of the paper questionnaires
 - 1.4 Creation of the SPSS templates: data base and data entry supervisors

- 1.5 Preparation of the Manual/Instructions for the interviewers (if needed) and data entry operators
- 1.6 Recruitment of the interviewers (if needed) and data entry operators
- 1.7 Training of the own staff
- 1.8 Printing of the survey questionnaire and printing the requested forms for protection of the personal data,
- 1.9 Purchasing of the needed supplies for the interviewers

2. Report on the data collection phase separately for the baseline and the follow up survey, including the sections listed below .

- 2.1 Report about the response statistics by the companies.
- 2.2 Report about the representatively of the respondents.
- 2.3 Report about coding of open answers.
- 2.4 Delivery of raw data (from online survey including entered paper questionnaire) before data error correction (TXT file with tabulators to separate the variables; the first row contains the names of the variables).
- 2.5 Delivery of corrected data as a SPSS SAV file and a TXT file with tabulators to separate the variables (the first row contains the names of the variables).
- 2.6 Delivery of all SPSS syntax for data definition (including variable and value labels, missing values and measurement level), coding of open answers, data quality control (plausibility check) and data correction.
- 2.7 Delivery of a report relating to the overall organization and execution of the data collection and data entry, as well as on the organization of the data files.
- 2.8 Documentation of the data file (codebook).

All reports in English and Macedonian must be sent for approval to the SDISP Project Director.

VI. Qualification requirements

The Consultant shall possess the following relevant qualification and present documents confirming the qualifications:

- 1) The Consultant should be a company or NGO with sufficient number of employees and/or members for conducting field research in all of the territory of the Republic of Macedonia during a short implementation period.

- 2) The Consultant should demonstrate capacity in the planning and logistics for organizing survey of similar scale. The Consultant should also demonstrate the availability of a network of personnel for data collection and data entry personnel.
- 3) The Consultant should have at least two years of experience in preparing public surveys with 1000 or more respondents in the Republic of Macedonia,. Work experience on projects financed by the World Bank or other international organizations would be considered as an advantage. Similar projects conducted in the area of education and/or employment will also be considered as advantage.

The Consultant should propose the following key staff as a minimum requirement:

- 1) Team leader with at least five years research experience and knowledge of the research methods and survey methodology.
- 2) At least one team member with excellent knowledge of SPSS, STATA, or other statistic software and experience in coding, entering and processing of the data..

VII. Contract Arrangements

- The contract for this assignment will be until May 2019. Expected start of services is November 2016.
- The Contract will be lump sum. Payments shall be based on deliverables.