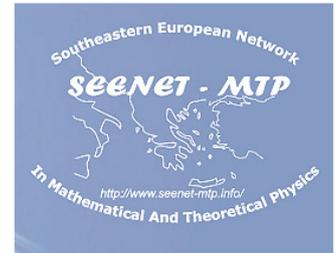




United Nations
Educational, Scientific and
Cultural Organization

Venice Office
Regional Bureau for Science
and Culture in Europe



SOUTHEASTERN EUROPEAN MATHEMATICS & PHYSICS E-SURVEY

I. RATIONALE

In order to support Member States of the South Eastern Europe (SEE) in defining their policies for science, the UNESCO Office in Venice, in collaboration with the Southeastern European Network in Mathematical and Theoretical Physics (SEE MTP) has initiated a mapping of research centres/institutes established in the Region. The database, shall provide the knowledge of basic indicators in an attempt to gain broader insights in the scientific fields related to mathematics and physics. In particular, the research quality and infrastructures as well as the inherent potentialities to advance scientific network process and scientific cooperation in the Region.

A survey structured under 8 headings has been defined as it follows:

1. **General Data;**
2. **Financial Profile;**
3. **Research Staff Profile;**
4. **Research Infrastructures;**
5. **Performance Profile;**
6. **Research and Educational Programmes;**
7. **Regional and International Cooperation;**
8. **Dissemination of Scientific Information.**

Further codification and cross-tabulation analysis of the data collected will lead to statistically relevant macro-findings, possibly useful to policy makers, scientific communities and other stakeholders engaged in science and research policies at national, regional and international levels.

II. PROCESS OF COMPILING THE SURVEY

The database can be compiled online by identified entities upon invitation.

Research institutions which conduct research activities both in Mathematics and in Physics should fill two different questionnaires on line, accordingly, as from points 1.6.1 and 1.6.2.

The UNESCO South-eastern European Network in Mathematical and Theoretical Physics (SEENET - MTP) is responsible for providing relevant data related to its specific fields of competence. In case of non-availability of information, cooperation of surveyed centres and/or national authorities (concerned Ministries, National Commissions for UNESCO, etc.) will be requested.

Due to the nature of the on line survey, constituted of multiple chapters ranging from financial features to scientific applications, **questioned institutions are strongly recommended to organise an efficient internal procedure of data collection prior to their survey submission.** Although extended, time availability to fill the on line survey is limited. Data loss is inevitable when exceeding the time limit of about 10 hours: a data saving option is not currently activated.

III. SURVEY DESCRIPTION

1. First Heading: General Data

This survey is limited to autonomous Centres with individual juridical personality recognised by the governmental authorities. Therefore, single research groups or chairs are not considered. They are categorized by name, contacts, statute, date of establishment and affiliation (whenever the centre is considered as an associate or as a member or branch of a wider research entity), competences in the fields of science, core research areas.

The Survey's identified fields of specialisation in mathematics and physics mirror FOS (Field of Science and Technology) classification updated in 2006 by the working party of national experts on S&T indicators (OECD).

2. Second Heading : Financial Profile

Individual centres/institutes are investigated according to their average annual budget, its percentage devoted to research activities only, sources of funding (national/international public-national private), typology of funding (extra budgetary and regular source of funding) and related percent for research activities over a time-line of five years.

3. Third Heading: Research Staff Profile

Research staff profile is three folded with regard to young (PhD candidates), experienced (post PhD), senior researchers (full professors or equivalent) status and is investigated according to the following variables: temporary/permanent positions (permanent positions are only those with employment contract without term) contracted under regular and extra budgetary sources of funding (extra budgetary funds may also come from the same donor of the regular budget), nationality, age and gender as a cross-cutting variable.

4. Fourth Heading: Research Infrastructures

According to the FP7, Research Infrastructures (RIs) are facilities, resources, and related services used by the scientific community for conducting leading-edge research, knowledge transmission, knowledge exchange and preservation. Research infrastructures have been split into hardware and software categories in order to make the questionnaire easier to complete. Research centres/institutions are questioned in relation to their top 5 scientific facilities, equipment/instrumentation. In the latter, focus is put on resources and services for scientific exchange and preservation and ICT infrastructures for access to scientific information and literature. Moreover, research

centres/institutes are questioned on the most needed RIs currently unavailable to them. This is in order to figure out schemes of regional cooperation to overpass possible detected shortcomings of individual research centres/institutes in RIs.

5. Fifth Heading: Performance Profile

This heading refers to certain outputs of research centres which are linked to their performance capacity: patents registered, peer reviewed publications (including peer-reviewed proceedings if indexed in top research database, such as ISI, NASA, ADS etc) implementation of EU Scientific Cooperation Programmes/Projects, prizes/awards, UNESCO Chairs, additional info. Here, questioned entities should report on the number of each aforementioned item in addition to possible titles specification.

6. Sixth Heading : Research and Educational programmes

Under this heading, research centres are asked to report on provided educational or training programmes which are strongly connected with their research activities. The following scheme interlinks fields of science with main educational programmes (post PhD, PhD, Master courses, specialisation trainings, etc.) in the last 5 years. Questioned entities should report mainly on the number of educational programmes ran, along with a further specification on their titles.

7. Seventh Heading : Regional and International Cooperation

Research Centres are asked to identify the most appropriate category(ies) of scientific cooperation typology according to a given list which includes the following items: joint, research programs, joint study programs, jointly edited publications, jointly organised activities, fellowship, exchange programmes, visiting professors (incoming-outgoing for researching or teaching purposes), other with specification. Furthermore, research centres are asked to report on the number of formalised partnership agreements with research institutions/centre located at national, regional and international level, along with the name of the institution(s), its(their) national location and related cooperation programmes developed. If cooperation activities established are void of an official partnership agreement, please report it on the displayed option "additional information".

8. Eighth Heading : Production and Dissemination of Scientific Information

This heading relates to major science dissemination and production activities such as on line and hard copies scientific publications, as well as scientific events, devised in order to play the role of disseminating scientific knowledge, to focus on science policy and communication related issues, leading towards scientific networking at regional and international levels.

IV. DATA VALIDATION

Data recorded under this questionnaire will be supported by the Scientific Centres/Institutions: a draft report elaborated upon the information gathered during the researching phase will be submitted via email in order to validate outcomes and conclusion. The validation will also suppose the correlation of the information offered by the questionnaire with information obtained via existing databases or other official (national or international) similar surveys.