

Instructions to Reviewers and Evaluation Groups

Field: Natural Sciences

In the evaluation the reviewer should consider the following directives adopted by the Scientific Area Council for Natural Sciences:

I. ASSUMPTIONS AND OBJECTIVES OF PROPOSED RESEARCH

When grading the items 9.1, 9.3 plus 9.4 and 3.4, a special attention should be paid to the following indicators:

9.1. Assumption:

- Scientific basis of the proposed researches and their recentness and ambition in asking the relevant scientific questions.
- Originality, quality and innovation of the proposed project with reference to similar researches in the Republic of Croatia and developed countries of the world.

9.3. Purpose and objectives of proposed research:

- The contribution of the expected results to the development and advancement in the scientific field within the country and at the international level,
- Influence of the project on the progress of other scientific disciplines.
- Compatibility with the short-term and long-term priority areas of research.

9.4. Implementation of research and integration into strategic goals:

- Contribution of the expected results to potential implementation in researches aimed at development and in economy.
- Possibility of using results in other scientific disciplines (indirect implementation, especially in the case of fundamental researches).

II. PLAN AND METHODOLOGY OF RESEARCH

In the evaluation of items 9.2 and 9.5 the following indicators are to be graded:

9.2. Procedures, protocol and research plan:

- Are the project tasks realistic and clearly set?
- Can the suggested plan be implemented considering the number of researchers involved in the project?
- Can the suggested plan of work be performed within the set time frame?
- Do the suggested methods provide the high-quality implementation of the project at the level that enables international competitiveness?

9.5. Expected results:

- If the expected results are realistic in terms of the suggested plan of work and the number of researchers involved in the project?

III. SENIOR RESEARCHER'S COMPETENCE

The senior researcher's competence is crucial for the successful implementation of the project. Therefore, in the course of evaluation of his competence in the items 10.1, 10.2 and 10.3 a special attention should be paid to:

10.1. Current status in the field:

- concise overview of the previous realisations in the research field;

- importance of senior researcher's contributions to these realisations.

10.2. Continuation of previous research:

- quality of results achieved by the senior researcher in the previous project (success is measured by the number of scientific papers published in journals indexed in CC or papers published in the journals in other databases in the scientific fields, in which these databases are relevant, quality of journals where the papers were published (according to impact factor), citation rate of the papers, etc.);
- senior researcher's success as the main researcher in the previous national and international projects and the resulting equipment and results that might help in the implementation of this project.

10.3. Response and impact (citations, applications, patents) of previous researches (including the proposer's CV):

- number of scientific papers published in the journals cited in the database *Current Contents* or some other database if applicable,
- quality of journals (measured by impact factor) where these papers were published,
- authorship of the scientific monographs, plenary lectures held at the international scientific assemblies, management of the international scientific projects,
- membership in the international scientific bodies, functions (editor-in-chief and co-editor) in the editorship of the international scientific and professional magazines,
- local and international awards for scientific work,
- main researcher's competence in the scientific field, in which the project is proposed.

IV. COMPETENCE OF RESEARCH TEAM

Competence of the research team (items 5.1, 5.2 and 10.5) and involvement of junior researchers (scientific novices) in the research (item 10.4) are evaluated on the following basis:

5.1., 5.2., 10.5. Size of team and collaborator's competence:

- number of the published CC scientific papers (or papers published in journals cited in other databases relevant for a certain scientific field) of the whole team in the previous five years, whereby special attention must be paid to the papers about the subject to be researched,
- quality of journals where the papers were published (measured by the response factor),
- number and quality of the paper citations (in the primary publications, databases, scientific monographs, schoolbooks etc.).

10.4. Involvement of junior researchers in research and measures to be introduced for autonomy of junior assistants in the project:

- results of the junior researchers' involvement in the researches in the previous project (number of MA and Ph.D. degrees, stays of the junior assistants abroad and post-doctorate specialisations, promotion of the junior assistants to scientific and teaching professions)
- plan of involvement of the junior researchers in the project as well as quality and scientific recentness of the concrete topics of research that will be the basis of their doctorate degrees,
- suggested mentors' competence.

V. FEASIBILITY OF PROJECT WITH USE OF EXISTING EQUIPMENT AND SPACE

When evaluating item 8.0 Equipment, the following should be graded:

- If the research team and the institutions where the project is carried out have the appropriate scientific and research equipment?
- If the space conditions are satisfactory for the implementation of the project?

VI. BUDGET EVALUATION

When evaluating items 6.0. Project costs and 7.0 Elaboration of costs, you should consider:

- If the project budget and distribution of funds per item are realistic?
- If the ratio of the suggested project value and expected results is favourable?