







# THE NATIONAL PLAN FOR RESEARCH, DEVELOPMENT AND INNOVATION 2007-2013, PNII

# IDEAS Programme "Exploratory Research Projects" Subprogramme

Information package<sup>1</sup>

\_

<sup>&</sup>lt;sup>1</sup> Unauthorised translation, only the Romanian version of the package has legal validity

# **CONTENT**

EXPLORATORY RESEARCH PROJECTS	Error! Bookmark not defined.
ANNEX 1 - Minimal eligibility standards for the pr	roject leader and the experts14
ANNEX 2 - Application Form	17
ANNEX 3 - Evaluation sheet	Error! Bookmark not defined.
ANNEX 4 - Scientific fields	21
ANNEX 5 - Definitions	36
ANNEX 6 - Process, results and impact indicators s	pecific to Ideas Programme-PCE 39
ANNEX 7 - Legislation	40

EXPLORATORY RESEARCH PROJECTS

Call number: PN-II-ID-PCE-2012-4

1. Goal

Supporting and promotion of fundamental, interdisciplinary and/or exploratory scientific research in

Romania. The Programme addresses to researchers with scientific achievements proved through the

quality and international recognition of their scientific publications, including to those who work

abroad (Romanian citizens or foreigners) and who want to run research projects of a high scientific

level in Romanian institutions.

2. Objectives

right affirming the prestige of Romanian scientific research, quantified by scientific results of an

international level;

identifying, supporting and developing of research teams in order to allow them to reach, to

maintain and to consolidate the critical mass necessary to their competitivity on an

international level:

> attracting the quality national and international human resources for the development of

scientific research in Romania:

implementing of the the "the funds go with the performance" principle in research.

3. Estimated results

By funding this type of project we take into account the following aspects:

the obtaining of some excellent scientific results reflected in an increase of the number of

publications with a high international impact, as well as in an increase of the number of

patented inventions, applied in the economy;

> the increasing of the research capacity, including through the increase in the number of full-

time researchers, encouraging their training in a medium of high scientific quality;

> the attracting and and the involvement of the researchers working abroad in projects with an

impact on the international visibility of Romanian scientific research;

the increasing of the capacity to successfully apply for European and international research

funds tools.

3

# 4. Eligibility criteria

- a) The Project leader has a doctorate. If the doctoral diploma is not officially recognized in Romania, its recognition must be obtained before the signing of the funding contract;
- b) The Project leader satisfies the minimal eligibility standards presented in Annex 1. The information necessary to checking of the standards' fulfiling must be filled out in the online proposal submission web platform, www.uefiscdi-direct.ro;
- c) The Project develops in a Romanian R&D unit or institution, including in a higher education institution, referred to below as the host institution. The host institution cannot be an enterprise, in the sense of the state aid legislation;
- d) The host institution is not in the state of payment default, according to law; it does not have its accounts blocked following a court order; it has not made inaccurate declarations concerning the information required by the UEFISCDI in order to select the contractors; it has not broken the terms of another funding contract signed previously with a contracting authority;
- e) The project leader is full time employed in the host institution, on an indeterminate position, or on a fixed period, which covers at least the duration of the project, or has the agreement of the host institution for his or her employment at least for the duration of the contract. In the case of funding award decision, the employment contract with a full norm must be signed by the project leader and the host institution no later than the moment of the signing of the funding contract, being in operation at the time of project start;
- f) A given person can submit, as a project leader within the first competition of the year 2012, a single proposal of the PD type project- Postdoctoral research projects, or one of TE type research projects for stimulating the establishment of young independent research groups or one of PCE type Exploratory research projects. In the case in which more proposals of projects are submitted (it doesn't matter the type) by the same project leader, all of these proposals will be declared ineligible;
- g) A person who is a leader of a PD, TE or PCE type project, which is on-going or if he/she profits by a postdoctorate scholarship financed through cohesion funds (POSDRU), an on-going one, can't be in the same time a leader of a new PCE type project. A person who runs a PD, TE or PCE type project being- at the date of closing of the submitting period for the financing applications- in the last 12 months of project progress or he/she benefits of a POSDRU postdoctorate scholarship, being in the last 12 months of scholarship progress- can run for getting a financing for a new project of PCE type, which will start after the ending of the project or scholarship, being in progress.
- h) It is forbidden the submission of projects which refer to already financed activities or to those which are going to be financed from other sources, national and foreign ones, or those which are the result of a plagiarism or selfplagiarism. The applicants who developed similar research topics will mention them and they will clearly specify the degree of novelty of the actual one. Also, is forbidden to make and use counterfeit experimental information and data, in order to influence the results of the application evaluation, of activity reports or of the publications resulted from the project progress. In the case of noticing some violations of the norms concerning the good practice in the scientific research, CNCS informs The National Council for Ethics of Scientific Research, Technological Development and Innovation (CNECSDTI). CNE analyses and finds the violations noticed and can decide sanctions, according to the legislation into force. Based on the CNECSDTI finding, CNCS can decide non-contracting/ un-signing of the financing contract, with the giving back of the used sums and the forbidding of the right to participate to the next competitions, organized in PNII programmes developed under the aegis of it.

### 5. Duration

The duration of the project is of minimum 12 months and maximum 36 months.

# 6. Budget

The ceiling for the funding awarded for a project with duration of 36 months is 1,500,000 lei, with the exception of projects whose project leader comes from abroad, in which case the award ceiling is 1,700,000 lei. The maximum amount awarded for projects which is shorter than 36 months is calculated proportionally to the duration, with reference to the 36 months duration.

A project leader is considered to come from abroad, and may benefit from the above mentioned exception, if he/she satisfies the following conditions simultaneously:

- a. he/she was an employee or a scholar of an entity from abroad, with a fixed term or permanent contract, over a cumulated period of at least 2 of the last 5 years and
- b. the last employment, scholarship contract from abroad ended not more than 12 months before the deadline for proposal submission for the present call.

The fulfilment of these conditions must be justified by demonstrative documents.

# Eligible expenses

- responses with the personnel (including the legal contributions related to the salaries and the incomes associated to them); for each person, expenses with the personnel, including the afferent contributions discounted in a project, cannot exceed 16,600 lei/month;
- logistics expenses necessary for the project, including equipments, laboratory consumables, material expenses, dissemination, informing-documenting expenses, access to the research infrastructure of third parties, etc.;
- ➤ mobility expenses corresponding to national or international travel of the team members, for documentation or research periods, participations to scientific events of prestige from the project field; can also be financed mobility expenses of some national or international collaborators or of some participants to scientific events organized within the project;
- indirect expenses (overhead) indirect expenses are calculated as a percentage of direct expenses: personnel, logistics and mobility expenses. As a rule, indirect expenses will not exceed 15% of the direct expenses. In well established situations, the host institution can request a larger percentage (but not larger than 50%), in a mutual agreement with the project leader. The justification of this request is done in the project proposal, section C5.

### **Notes:**

- 1. The funding contract will specify the allocation of the sums over the budget categories. During the duration of the project funds can be redirected between the following budget categories: personnel, logistics and mobility expenses, in the limit of 15% of the total budget, without any prerequisite approval, in agreement with the provisions of the funding contract.
- 2. If a volume is published as a result of the project, at the final report, the project leader must be able to present the distribution proofs both by a national network of book distribution given by the editor and by the host institution of the project. Also, the project leader must present the distribution proof by internationally prestigious libreries.
- 3. The budget allocated to projects being contracted as a result of the present call of the PCE subprogramme, for the entire duration of the projects, is of maximum 400.000.000 lei.

# 7. The structure of the project team:

At the moment of proposal submission, the team structure must be presented, exactly specifying the number of positions which is equivalent with a person month and their type.

The structure of a project team is the following:

- a project leader, holding a Ph.D., having an internationally relevant scientific activity;
- a number of senior researchers, postdoctoral researchers, Ph.D. students, master students, other students, technical staff;

#### **Notes**

- 1. The structure of the team is decided by project leader.
- 2. Depending on the project specific, the team can be exclusively consisted of project leader.
- 3. Naming the team members in the project proposal is possible, but it is not necessary (there isn't an evaluation criterion), the team members can be hired or recruited subsequent to the admission to the finance of the project.
- 4. The unnamed positions from the financing request will be publicly announced, including on the <a href="https://www.euraxess.ro">www.euraxess.ro</a> and <a href="https://www.euraxess.ro">www.euraxess.ro</a> and <a href="https://www.euraxess.ro">www.euraxess.ro</a> and <a href="https://www.euraxess.ro">www.euraxess.ro</a> and <a href="https://www.euraxess.ro">www.euraxess.ro</a> jobs sites.
- 5. The change of the named persons from the financing request is possible by following <u>The European Charter for Researchers and The Code of Conduct for Recruiment of Researchers.</u>

# 8. The presentation of the project proposals

Project submission is done in one step, using the online project submission platform - <a href="www.uefiscdi-direct.ro">www.uefiscdi-direct.ro</a>. The proposal is compulsory done from an account created by the project leader (the identification data for creating an account on the platform must be those of the project leader). The editing of the proposal is done only in English, with the exception of humanities projects (see Annex 4), where is allowed a proposal in English, French or German and with the exception of projects from fields with a Romanian specific (according to Annex 4) where proposals in Romanian, English, French or German are allowed. In cases where the proposal is not written in English, the choice of language must be justified by the specific of the research.

# 9. Project evaluation

### 9.1. Checking eligibility

The project proposals are verified by the UEFISCDI personnel, in order to assure that all the eligibility criteria are fulfilled, both for the host institution and for the project leader.

The list of eligible project proposals will be published on the UEFISCDI website – www.uefiscdi.gov.ro.

The appeals reffered to the achievement of the eligibility criteria can be transmitted by email to <u>contestatiiPCE@uefiscdi.ro</u>, by fax to +40-(0)21-311.5992, or directly to the UEFISCDI headquarters, within 5 workdays from the date of publication of the results.

# 9.2. The expert evaluation

The eligible projects are evaluated by experts of international recognition. For each project, at least 50% of the expert evaluators are selected from outside the country, from other member states of the

European Union, or from member states of the Organisation for Economic Cooperation and Development, with the exception of the projects with a national Romanian character (see Annex 4). The selected evaluator experts must satisfy the minimal eligibility standards presented in *Annex 1* (section 1.2). Each evaluator, including the panels' members, will declare in writing his/her the judiciality, confidentiality and the competency in the field to which belongs the proposal of project which is going to be evaluated and he/she will promise that in any moment, during the evaluation process he/she will announce in writing UEFISCDI if he/she will notice that one of these conditions aren't fulfilled or that he/she is in a conflict of interests.

- **9.2.1.** The individual evaluation step. The quality of each proposal declared eligible is evaluated, independently, online, by at least 3 expert evaluators who form the evaluation committee. These assign individual grades for each criterion, according to the evaluation sheet. The grades assigned to each criterion are compulsory justified by cumulative comments, which point out the strong and weak points. For an evaluation as homogenous as possible of the level of the applicants' publications, each evaluator will get the access to the B2 and B3 sections of all the requests from each of his/her expertise field (as 2 pdf. files, separately loaded by the project leader). After finalizing all the individual evaluations for a project, each evaluator in the committee will have access to the grades and comments of the other evaluators. If they consider it necessary, the evaluators can adjust their initial grades.
- **9.2.2.** The answer of the applicant. Ater the editing of the consensus reports, the UEFISCDI personnel will send to the applicants, by e-mail, all the comments summarised in the consensus report (including the minority ones) with the invitation of stating in writing, a point of view towards the comments expressed by the evaluators. The answers, limited to 4.000 characters (including the spaces), will be filled in, using a form available in the submitting platform, in an interval of 5 working days from the moment of the initial request of answering. The answer will be written in the same language used for the writing of the project and it will strictly consist in an counter-argument connected to the critical notes of the evaluators, as they show up in the consensus report. The answer of the applicant isn't compulsory and doesn't affect the evaluation in panel of the project.
- **9.2.3. Reaching the consensus.** After receiving the answers from the applicants the stage of editing the consensus report starts. This stage will be coordinated by a reporter. The reporters are selected from abroad, from other members states of The European Union or from the member states of the Organisation for Economic Cooperation and Development, with a possible exception of those from the fields with a Romanian character. The reporters and the members of the panels must fulfill the minimum standards of eligibility scheduled in Annex 1. The selected reporters weren't involved in the individual evaluation stage, either. Each reporter will edit the consensus report for more proposals of project.

In a first stage all the evaluator experts will have the access to the applicant answer (if there is any) and when there is necessary they can adjust scores and the initial comments. Then, the reporter reads the comments from the individual reports and also the applicant answer and he/she checks for each criterion: (i) the substantiality of comments, meaning the degree of concreteness and adjusting to the evaluated criterion, (ii) the concordance between the comments and the given score and also (iii) the way the applicant answer is reflected. There where the reporter notices problems, he/she asks the

respective evaluator, by on-line platform, keeping the anonymity, to operate the imposed modifications.

After checking stage finishes, the reporter initiates the editing of the consensus report, with the direct involvement of all the evaluators. The report will be edited as such: for each criterion, there where the evaluators are on consensus, the individual comments are gathered in an unique comment, which will eliminate the eventual redundancies, but it will contain absolutely all the real remarks from the individual reports. It is considered that there is a consensus on a subcriterion when, as a consequence of the individual evaluations, followed by the interactions between the evaluators and of the eventual adjustments of scores, the difference between the score given by each evaluator isn't higher than 1p (on a scale from 0-5, according to Annex 3) and where the individual comments aren't contradictory. In this case the given score on that criterion is the arithmedical average of the individual scores. There where the consensus can't be reached on a criterion, according to what was described above, the comments and the score (or the scores) which represent the minority option (or the options) are separately registered. In the same time the majority consensus comments and scores (if there are any) are treated in the same manner as in the case of the total consensus, too. The eventual comments and minority scores are constitutive part of the consensus report.

In order to ensure the following of the evaluation procedures and of the evaluation fairness, the process of the individual evaluation and that of reaching the consensus will be monitored by a team of project officers, appointed by CNCS (by avoiding the conflict of interests). The project officers won't be involved at all in the proper evaluation, but they will follow just for the evaluation of each project to be adequate, from the procedural and qualitative perspective.

As a consequence of the consensus, the projects for which was reached the consensus on all the subcriterion and which got less than 75 points totally or which got less than 30 points to at least one of the two main criteria of evaluation (Principal Investigator, respective Proposal) are declared non-financeable. The same rule applies also for projects to which the consensus wasn't realised on all subcriterion, specifying that in the case of the nonconsensus criteria is taken into account the maximum score.

**9.2.4.** The evaluation in panel. The projects – which after the consensus stage weren't declared non-financeable will be evaluated in the experts panels and they will settle the final hierarchy of the projects. The subfields where the projects are applied will be grouped in 11 fields, according to Annex 4. For each field indicated in Annex 4 is settled a panel formed by the reporters of the projects from that field, especially those who were allocated to the projects which are going to be analysed in the panel. Each panel will be made up from at least 9 members.

Each member of the panel, before the panel meeting, will have access to the proposals of project, to the comments of the expert evaluators, to the reports of consensus and to the answers of the project managers for all the projects allocated to the panel. Excepting the reporter initially allocated to a project, for each project will also be assigned another member of the panel who will have the task of reading carefully all the information afferent to a specific project.

In a first stage the panel will analyse the projects without consensus in the individual evaluation stage and it will settle by consensus the score, at the level of each non-consensus criterion. Then, for establishing the final hierarchy of the research projects, these are discussed on the basis of the evaluation criteria (presented in Annex 3), the panel having the oportunity to arbitrate the

cumulative comments from the consensus reports and to adjust the final points of the projects, in order to ensure the homogeneity of the evaluation in each field. Having this as a goal the panel will use all the available information, including the applicant answer and the information from sections B2 and B3 of all the applications from the field proper to the panel.

The decisions of the panel can be taken only with the approving vote of at least 2/3 of the panel members. When there isn't this majority for the modification of the score of a certain project, the final score of the project is calculated by making the average of the scores given by all the expert evaluators. The decisions which modify this score will be motivated by a report of the panel, adopted by a decision of the panel and which is transmitted to the director of the project at the final of the evaluation.

At the panel meeting the project officers assigned by CNCS, avoiding the conflicts of interest.

- **9.3. Publishing the evaluation results.** The lists of the project proposals, one for each of the 11 fields, (according to Annex 4) will be published on the UEFISCDI website <a href="www.uefiscdi.gov.ro">www.uefiscdi.gov.ro</a>. The lists will contain the score obtained by every proposal, being in a decreasing order, according to the value of the score.
- **9.4.** Communication. The leaders of the proposals are informed about the presence of the final report of evaluation in the submitting platform (<a href="www.uefiscdi-direct.ro">www.uefiscdi-direct.ro</a>), by sending of a notification, by email, at the address specified in the proposal.
- **9.5. Appeals.** The leaders of the proposals may submit appeals during 3 workdays following the date of publication of the evaluation results. Appeals can attack only faults of procedure that the candidate considers as non conforming to the information pack. Appeals cannot attack the scores and the comments given by the evaluators. They may be sent by email to <u>contestatiiPCE@uefiscdi.ro</u>, by fax to +40-(0)21-311.5992, or directly to UEFISCDI headquarters.
- **9.6. The competition results.** For each of the 11 fields (according to Annex 4), the project proposals are accepted for financing in the decreasing order of the scores obtained, taking into account the allocated budget.
- **9.7 Budget negotiation and signing the contracts**. The leaders of the winning projects will negociate the quantum and the structure of the requested budget with CNCS/UEFISCDI. The leaders of the winning projects must justify the budget in front of the CNCS specialty commission. The commissions will use as a discussion base the notes came from the evaluators, concerning extent of correlation between the given objectives and the requested budget.

The contract is signed after the negotiation is concluded.

### **Notes:**

- 1. Evaluations are anonymous, ensuring the confidentiality and impartiality of the expert evaluators.
- 2. The list of the evaluators used in the evaluation of projects in the IDEAS programme Exploratory Research Projects will be published on the UEFISCDI website, at the end of the call.

# 10. Main obligations of the parties

# **Project leader:**

- 1. He/she is responsible for the execution of the project;
- 2. He/she compiles and sends to the contracting authority reports of scientific progress during the course of the project, and a final report, at the time and in the format specified by CNCS/UEFISCDI in the funding contract. The deadlines of the intermediate reports are proposed by the project leader, in accordance with the workplan presented in the project proposal;
- 3. He/she communicates about the ongoing activities and publishes open positions in the project (including on the websites www.ancs.ro/jobs and www.euraxess.ro);
- 4. For the duration of the contract, the project leader is registered on the <u>www.cercetatori-romani.ro</u> portal and has the obligation of maintaining an up to date CV and of participating in the evaluation process of other competitions, at the request of the contracting authority;
- 5. He/she gives up to date information concerning the progress of the project (at least a summary of the project and the list of publications resulted from the project) on a webpage, in English; for projects with a national Romanian character, the site can be written in Romanian as well, with a short summary in: English, German or French.

#### The host institution:

- 1. It provides the access of the project leader to the existing research infrastructure and it provides the administration services which are required for the implementation of the project;
- 2. It compiles and sends to the contracting authority the financial reports of the project, at the end of each financial report phase. The form of the financial reports is fixed in the contract;
- 3. The institution which the project leader belongs to, via the signature of its legal representative and by the signature of the project leader, certifies, on its own responsibility, the legality and

correctness of the information which is presented in the application forms, it accepts the implementing of the project in the institution, it ensures the administrative support for the project, it ensures the resources mentioned in the project proposal, it commits to support the development of the project in good conditions and to hire the members of the project team, under the law's conditions, according to the proposal, if the project is selected for funding.

# **UEFISCDI:**

It makes available the funds and it carries out the monitoring of the project, in respect of all legal provisions.

# 11. Project mobility

In general, the project leader will implement the project in the host institution through which he or she submitted the project proposal. However, for project longer than 24 months, UEFISCDI can allow the project leader to transfer the project to a different host institution from the country, at most once for a given project, and only during the first 12 months of the duration of the project. The reason for offering this freedom to the project leader is to optimize the chances of success of the project.

The project leader has the obligation to address a written request to the UEFISCDI for the transfer of the project to a different host institution, along with a detailed justification and a written agreement of the new host institution and of the original host institution. In the case when the original host institution refuses the transfer, it must send UEFISCDI the written reasons for the refusal. CNCS will analyze the request for transfer initiated by the project leader and, depending on the situation, the address of refusal from the initial host institution and it will make a decision in order to increase the chances of a successfully implementation of the project.

If the request is accepted, the UEFISCDI will terminate the contract with the original host institution and will sign a new contract with the new host institution, through which to ensure the implementation of the grant to the new host institution and the transfer of all allocated funds (excepting those which were spent/ already employed at the initial host institution) and of the acquired equipments. The original host institution has the obligation to transfer, within 30 days of the contract termination, the funds and also the equipments and goods acquired through the project to the new institution, in order to allow the resumption of the research activities of the project as quickly as possible. The transport expenses for the equipment and goods acquired through the project from the original host institution to the new one will be supported by the new host institution.

#### 12. Call timeline

ACTIVITY	TIME
Call launched	01 March 2012
Proposal submission	09 April 2012
Eligibility results published	04 May 2012
Appeals to the eligibility results	07-11 May 2012
Final eligibility results published	18 May 2012
Evaluation of eligible proposals	21 May – 06 September 2012
Preliminary results published	07 September 2012
Appeals to the evaluation results	10 -12 September 2012
Final results published	17 September 2012
Final list of selected projects published	19 September 2012
The negociation of the contract and the sign of the	20-28 September 2012
contract	
Projects start	01.10.2012*

<sup>\*</sup>Depending on the specific situations, some projects may start after this date.

# *Useful information:*

Funding proposals are to be submitted via the online submission platform - www.uefiscdi-direct.ro, no paper submission being necessary. The funding proposals are loaded on the platform, in the respective section, in a .pdf text format (the scanning is excluded). These will be accompanied by a declaration on its own responsibility of the project leader, by which it is confirmed the correctness of the data included in the electronic version of the funding proposal.

Also, the proposal must be accompanied by a declaration on its own responsibility of the host institution in Romanian (signed by the legal representative and stamped) by which is certified the accepting of the project implementation in the institution, the ensurance of the administrative support, the providing of all necessary infrastructure for the project, the agreement of supporting the development of the project in good conditions and the employment of the members of the project team, under the inforce law, according to the proposal, if the project is selected for funding. This declaration is signed and scanned in pdf format, and is loaded into the online platform in the section provided for this purpose. Web platform will be available beginning with 20<sup>th</sup> of March 2012.

# ANNEX 1 - Minimal eligibility standards for the project leader and the evaluators

# 1.1 Minimal eligibility standards for the project leader

# For natural sciences, exact sciences and engineering sciences

Publishing between  $2002 - 2012^2$  as a main author (according to *Annex 5*) of some articles in journals which have a relative influence score<sup>3</sup> each, not less than 0,5 and which have a cumulated relative influence score not less than 2. These articles must be published in journals indexed in the Web of Science database, labeled with the document type *article* or *review*. The articles with double label *"article; proceedings paper*" aren't taken into account.

Alternately, for informatics field (subfield PE6) a project leader is considered eligible based on the citations obtained by his/her publications—as a main author- in 2002-2012, in ISI Web of Science indexed journals, provided that the journals **which cite** have each a relative influence score not less than 0.5 and the relative influence score of the journals which cite, cumulated for all the citations taken into account to be not less than 6. The self-citations are not taken into account.

# For the social sciences (see Annex 4)

To have accumulated at least 100 points from published works in 2002 – 2012 period, from the following categories:

- 1. **Books published** as author or co-author: 60 points per book;
- 2. Chapters published as author or co-author in collective volumes: 30 points per chapter;
- 3. **Articles published as a main author** (see Annex 5) in journals with a relative influence score<sup>2</sup> each not less than 0,25. These articles must be published in journals indexed in the Web of Science, labeled with the document type as *article, review* or *proceedings paper*. For each such article, points are obtained as follows: 50 points × relative influence score.

# **Notes:**

- 1. For categories 1 and 2: will be considered only works available in at least 12 libraries of higher education institutions from the other member states of the European Union, or from the member states of the Organisation of Economic Cooperation and Development, indexed in the worldwide catalogue Karlsruher Virtueller Katalog (KVK).
- 2. The 100 points can be achieved also from contributions from just one category.

# For the humanities (see Annex 4)

To have accumulated for the period 2002-2012 minimum 100 points from volumes of author (1 and 2), collective volumes (3 and 4), studies in scientific journals or in collective volumes (5 and 6), quantified according to the following table:

<sup>&</sup>lt;sup>2</sup>Articles from 2012 will be taken into account if these are Web of Science indexed until the moment of eligibility checking.

<sup>&</sup>lt;sup>3</sup>The relative influence score of journals is defined in Annex 5 and it is found on UEFISCDI site, at www.uefiscdi.gov.ro

Published studies volumes  (4)  Journ  (5)  Studies/Specialty articles  Collegencyl	shing house from al shing house from blic of Moldavia		KVK CNCS – A and B Categories KVK	15	30
Published studies volumes  (4)  Journ  (5)  Studies/Specialty articles  Collegencyl	shing house from blic of Moldavia	Romania and Web of	CNCS – A and B Categories		30
Studies/Specialty articles  Collegencyl			KVK	Ī	20
Studies/Specialty articles  Collegency				10	20
encyl	nals indexed in:	Humanities Citation Index Social Sciences Citation Index Science Citation Index  European Reference Index for The Humanities (ERIH) CNCS	relative influence score >= 0.25  relative influence score >= 0.5  ERIH - INT1 Category  CNCS - A Category	3	20
to	opaedias and ons showed up a publishing e from:	Abroad Romania and Republic of Moldavia	KVK CNCS - A Category	15 3	
(6)  Colle lexice house		European Reference Index for The Humanities (ERIH) CNCS	CNCS - B Category  CNCS - B Category  CNCS - B Category  KVK	3 3 10	10

# Notes

- 1. In the case of the articles from encyclopeadia and lexicons will be taken into account just the texts which exceed 2 pages of A4, being compulsory the attachment of a photo copy in order to prove the apparition.
- 2. The score for each category of publication is equally shared to the number of authors/editors.

3. The calculation of the score is taken into account only after the achievement of the identity condition between the application field and the ranking field of the publishing house or of the journal by CNCS (Annex 4).

# 1.2 Minimal eligibility standards for the evaluators

Each evaluator will have to fulfil the **double of the minimum score** asked for the project leaders, according to those described in the actual annex, in section 1.1.

# ANNEX 2 - Application Form - Identifier competition: PN-II-ID-PCE-2012-4

# A. General informationProject title (maximum 150 characters, spaces included):

Summary (maximum 1500 characters, spaces included):

Proj		1	
Proi	IPCT	าคจก	er.
1 1 V.	CCL	icau	

•							
	00	+	n	0	m	<b>^</b> :	
L	as	L	11	а	ш	┖.	

Previous last names (if it's the case):

First name:

Birthday (DD/MM/YYYY):

Doctorate obtained in the year:

Phone number:

Email address:

# Host institution of the project:

Name of institution:

Address of institution:

# Domain of the proposal (see annex 4).

Domain:

Subdomain:

Main research area:

Secondary research area:

Secondary research area (optional):

# **Keywords:**

1:

2:

3:

4 (optional):

5 (optional):

### **Notes:**

1. This document uses Times New Roman font, 12 point, 1.5 line spacing and 2 cm margins. Any modification of these parameters (excepting the tables, figures and their captions), as well as exceeding the maximum number of pages set for each section will lead to the automatic disqualification of the application. The imposed number of pages (Section 3 – Application Form) doesn't contain the references; these will be written on additional pages. If the project leader will come to Romania from abroad and wishes to benefit from a higher budget ceiling, he or she must include copies of the documents which prove the fulfilling of the imposed conditions.

# B. Project leader

# **B1. Important scientific achievements of the project leader** (maximum 3 pages)

Please present the most important contributions of the project leader in his/her research field (for instance, discoveries or results which significantly led to a better knowledge in the field). In the presentation please underline the following aspects: (1) the relation of these contributions to the topic of the proposed project; (2) the reflection of these contributions in his/her publications (particularly those published as the main author), by references to the significant publications list B3.1 and/or other publications included in Researcher ID profile (<a href="www.researcherid.com">www.researcherid.com</a>) of the project leader; (3) the way in which these scientific contributions illustrate the independent research activity of the project leader and his/her international visibility (by references to the B3.2 section);

# **B2.** Curriculum vitae (maximum 2 pages)

This must contain at least the following categories of information:

- a) information about the degrees and diplomas;
- b) information about the professional experience and jobs. This will include, in particular, the professional positions where the project leader coordinated a team, a group or a research laboratory, if any.
- c) scientometrics indicators: Hirsch index and the total number of citations (without self-citations), according to Web of Science (for the research areas where these indicators are relevant);
- d) optional, the address of the profile on <a href="www.researcherid.com">www.researcherid.com</a> site (recomended for projects submitted in reasearch areas other than humanities).

# B3. Defining elements of the remarkable scientific achievements of the project leader (max. 4 pages)

B3.1 The list of the most important scientific publications from 2002-2012 period.

For natural sciences, exact sciences, engeneering sciences and social sciences: Please indicate the most relevant papers of the project leader (maximum 10) including:

• Articles: Please point out the most relevant articles published by the project leader. Please indicate the articles accepted for publication, with the mention of the date of acceptance. The evaluation will focus on the articles where the project leader is a main author, but in the situation when there are papers published as a co-author, which are considered relevant for his/her scientific production by the project leader himself/herself, these can be indicated. The format is as follows:

Identification data:	Authors. <i>Article's title</i> , Journal/Conference Title, Volume, Pages (publishing year)
Is he/she a main author?	YES/NO (see Annex 5)
Is it in the project's field?	YES/NO
Number of citations:	see ISI Web of Science (without self-citations – see Annex 5)
DOI (Digital Object Identifier)	optional

• **Monographs**: Please indicate just the scientific monographs published by internationally prestigious publishing houses. Textbooks aren't taken into account even if they are published at international publishing houses. The format is as follows:

Identification data:	Authors. Book's title, Publishing House (publishing year)
Is it in the project's field?	YES/NO
No. of libraries according to	See <a href="http://www.ubka.uni-karlsruhe.de/kvk.html">http://www.ubka.uni-karlsruhe.de/kvk.html</a>
Karlsruher Virtueller Katalog	
(KVK) world catalogue.	
	The names of the most important university libraries
University libraries	(maximum 10) which acquired the monographs (see
	http://www.ubka.uni-karlsruhe.de/kvk.html or see the
	catalogue of the university library)

• **Patents**: Please indicate the patents/utility models with a technologic transfer obtained in other countries of the European Union or in member countries of OECD. The format is as follows:

Identification data:	Authors. The title of the patent/utility model (awarding year)
The issuer office of patent	
Is it in the project's field?	YES/NO

For the humanities: Please indicate the most important works (maximum 10): books, chapters, articles, critical editions, dictionaries or encyclopaedias. The format is as follows:

Identification data	For edited books/critical editions/collective volumes:
	Last name, First name author / authors, Full title. Place,
	Publishing House, Year, No. of pages.
	The number of entries in libraries from other member states of
	UE or from the member states of OECD
	(http://www.ubka.uni-karlsruhe.de/kvk.html)
	For articles published in journals:
	Last name, First name author / authors, Full article's title, in:
	"Journal name", no. volume, year of publication, no. leaflet, p.
	xx - xxx.
	For articles/chapters published in collective volumes:
	Last name, First name author / authors, Full article's title, in:
	Title of collective volume, publishers' Last name, First name.
	Place, Publishing House, Year, p. xx – xxx.
Is it in the project's field?	YES/NO

At most 3 significant works for the activity of the project leader can be uploaded on the web platform in electronic format.

Maximum 3 significant works for the activity of the project leader can be loaded in electronic format onto the online proposal submission platform.

B3.2. The autonomy and visibility of the scientific activity. Please indicate a number of **maximum 5** factual arguments of the high degree of autonomy of the research activity developed by the project leader. The arguments can belong to one ore more of the following categories, but not necessarily from all categories: (1) fundraising by research projects<sup>4</sup> (academic grants or contracts with the industry) where the project leader was the main investigator (PI) or project coordinator; for each project will be given the following concise information: title, funding agency, total amount in euros and the ongoing period (if the information is available) (2) the management of the research activity by establishing and/or running some research teams or work groups which had as a result outstanding scientific achievements (referring to B1 and/or B3.1 and/or other B3.2 sections); (3) the most important international prizes<sup>5</sup> (4) the status of invited speaker to prestige universities<sup>6</sup> (5) the status of a member of commission of doctorate candidate at prestige universities<sup>3</sup> (6) the status of member in the editorial board of the ISI Web of Science journals having the article influence score at least 0.5<sup>7</sup>.

**Note:** B2 and B3 sections of the application will be public. These will be loaded on the application platform, both as 2 separate pdf. files and as an integral part of the proposal.

\_

<sup>&</sup>lt;sup>4</sup> Funding agency is from OECD country

<sup>&</sup>lt;sup>5</sup> The prize was awarded by a legal entity from OECD country

<sup>&</sup>lt;sup>6</sup> Only 500 top universities, according to ARWU 2011 Ranking, www.arwu.org

<sup>&</sup>lt;sup>7</sup> The status of reviewer for journals is not taking into account for evaluation.

# **C. Project description** (maximum 10 pages)

In this section the project leader will detail the scientific context, the goals and objectives, the approach to these objectives, and the required material and human resources.

- C1. *Problems*. The scientific motivation will clearly delimit the approached problem within the framework of the state of the art. Will be revealed the following three aspects: (1) the importance of the problem from the scientific, technologic, socio-economic or cultural point of view; (2) the difficulty elements of the problem; (3) the limits of the current approaches in the context of the state of the art in the field.
- C2. *Objectives*. The approach of the project at the level of principle will be presented, underlining the following two aspects: (1) the concrete objectives of the project; (2) the elements of originality and innovation that the implementation of the objectives bring to the field, related to the state of the art in the field and to the previous projects developed by the project leader.
- C3. *Impact*. Will be discussed the aspects related to the expected impact of the project in a broader frame of the scientific field, focusing on the following aspects: (1) the potential of significantly influence the scientific field by new concepts or approaches and, if it's the case, by opening new themes or research directions; (2) the discussion of the potential impact of the project in the scientific, social, economic or cultural environment and/or of the applicable directions which will be explored in the project (when this is relevant, in the context of the proposed research direction).
- C4. *Methodology*. The research methodology will be detailed, mentioning, as much as possible, some milestones. In the elaboration of this section the following aspects will be revealed: (1) choosing the investigation methods and tools, by relating to the newest approaches in the field and also the way these will be integrated; (2) a work plan, well scheduled, which will describe the way of organizing and planning the project, related to the proposed objectives; (3) describing the potential risks and the approaches for mitigation these risks.
- C5. Resources and budget. The existing, relevant infrastructure will be described, as well as the equipment which is to be acquired within the project. Please take into account particularly the following aspects: (1) the estimation of time allocated to the project, by each member of the project team, in person months/member, according to the work plan presented in C4; (2) explain why the project team and the research infrastructure available is appropriate for the project objectives in the allocated time; (3) the justification of the need of acquiring of new great value equipment (over 12.500 Euro, VAT included), by the relation to the project's objectives; (4) the specifying and justifying of the budget distribution on types of expenses and years.

# **Notes:**

- It will be considered that the project starts on the 1<sup>st</sup> of October, 2012.
- The types of expenses that the budget is distributed on are: personnel expenses, inventory, mobility expenses and indirect expenses (overhead).
- The overhead is calculated as a percentage of 15% of the direct expenses. For percentages larger than 15% a detailed justification is compulsory and this is settled in a mutual agreement between the project leader and the host institution and it is specified in the proposal.

# Budget Breakdown (lei)

Budget chapter (expenses)	2012 (lei)	2013 (lei)	2014 (lei)	2015 (lei)	Total (lei)
Salaries					
Inventory					
Mobility					
Overhead					
Total					

# **Budget Breakdown (euro)**

Budget chapter (expenses)	Total (euro)
Salaries	
Inventory	
Mobility	
Overhead	
Total	

### **ANNEX 3 - Evaluation Sheet**

# 1. Principal Investigator (50%)

- 1.1 (40%) Please assess the excellence of the PI's research results, as demonstrated by the list of publications and patents (see sections B1, B3.1 and B2). Please comment on the originality of the PI's results, on their impact on the state of the art, and on their relevance for the present project.
- **1.2** (10%) Please assess the **PI's capacity to autonomously manage scientific activities** as a researcher and/or research group leader, as well as the **visibility and prestige in her/his international peer group** (see sections *B1*, *B3.2* and *B2*). **Please comment** on the PI's leadership abilities, the ability to attract international funding, and his/her level of international recognition (awards, invited talks and doctoral committees in prestigious universities). **Please take into account** only those facts that you consider relevant for the current proposal.

### 2. Proposal (50%)

- **2.1** (30%) Please assess the **overall solution** described in the proposal in the context of the current state-of-the-art and its potential future impact (see section *C1*, *C2*, *C3*). **Please comment** on the following aspects: (1) significance and the difficulty of the problem being addressed; (2) the originality of the proposed solution and the appropriateness of the objectives; (3) the potential to advance knowledge in the field and to influence the direction of thought and activity.
- **2.2** (20%) Please assess the **method and work plan** as defined by the proposal as a concrete approach to reach the envisioned solution (see section *C4*). **Please comment** on how well selected are the methods, design and investigation tools and on the effectiveness off the work-plan within the proposed timescale and resources. Have potential problem areas been appropriately discussed, and have alternative approaches been mentioned?
- **2.3** Please assess the adequacy of the **proposed budget** and suggest possible corrections (see sections *C5* and *C4*). Please comment on the match between the work-plan and the budget, as well as on the appropriateness of the mobility (conferences, work-visits) and infrastructure acquisitions included in the budget. (There will be no score associated with this item, but the expert opinion will be useful to the funding agency in negociating the precise financial award.)

### **Recommendations for evaluators:**

1. Choose a score **only after** you wrote the comments; make sure that the comments are **concrete**, **complete** (i.e. address all questions) and **consistent** with the semantics of each score, namely:

0	ABSENT	The proposal fails to address the criterion under examination
0	U ADSENI	or cannot be judged due to missing or incomplete information
1	POOR	The criterion is addressed in an <i>inadequate manner</i> ,
1	TOOK	or there are serious inherent weaknesses
2	FAIR	While the proposal broadly addresses the criterion,
4	2 FAIR	there are significant weaknesses
3	GOOD	The proposal addresses the criterion well,
3	3 GOOD	Although improvements would be necessary
4	VERY GOOD	The proposal addresses the criterion very well,
-	VERT GOOD	Although certain improvements are still possible
5	EXCELLENT	The proposal successfully addresses all relevant aspects of the criterion. Any
3	EACELLENI	shortcomings are minor

- 2. When scoring use the full scale! Half marks may be given.
- 3. If scores 3 or 4 are used (improvements are necessary/possible) make sure the required improvements are described! If score 1 or 2 are used make sure the inherent/significant weaknesses are described in concrete terms!

**Note**: The final score will be calculated as a sum of the grades for each of the seven subcriteria weighed by the corresponding precentage and multiplying by 20 (final score between 0 and 100);

# **ANNEX 4 – Scientific fields**

<b>Domain Code:</b>	SH
Subdomain Code:	SH1, SH2, SH3, SH4, SH5, SH6
Research Area Code:	SH1_1SH1_12, SH2_1SH2_14

# DOMAIN SOCIAL SCIENCES AND HUMANITIES

SH1	Individuals, institutions and markets: economics, finance and management
SH1_1	Macroeconomics, growth, business cycles
SH1_2	Microeconomics, institutional economics
SH1_3	Econometrics, statistical methods
SH1_4	Financial markets, banking and corporate finance
SH1_5	Competitiveness, innovation, research and development
SH1_6	Consumer choice, behavioral economics, marketing
SH1_7	Organization studies, strategy
SH1_8	Human resource management, employment and earnings
SH1_9	Public administration, public economics
SH1_10	Income distribution, poverty
SH1_11	International trade, economic geography
SH1_12	Economic history, development
SH2	Institutions, values, beliefs and behavior: sociology, social anthropology, political science, law, communication, social studies of science and technology
SH2_1	Social structure, inequalities, social mobility
SH2_2	Ageing, work, social policies
SH2_3	Kinship, cultural dimensions of classification and cognition, individual and social identity, gender
SH2_4	Myth, ritual, symbolic representations, religious studies
SH2_5	Ethnography
SH2_6	Globalization, migration, interethnic relations
SH2_7	Transformation of societies, democratization, social movements
SH2_8	Political systems, legitimacy of governance
SH2_9	Legal systems, constitutions, foundations of law
SH2_10	Private, public and social law
SH2_11	Global and transnational governance, international law, human rights
SH2_12	Communication networks, media, information society
SH2_13	Social studies of science and technology, S&T policies, science and society
SH2_14	History of science and technology
SH3	Environment and society: environmental studies, demography, social geography, urban and regional studies
SH3_1	Environment and sustainability
SH3_2	Environmental regulation and mediation
SH3_3	Social and industrial ecology
SH3_4	Geographical information systems, cartography
SH3_5	Human and social geography
SH3_6	Spatial and regional planning
SH3_7	Population dynamics
SH3_8	Urbanization and urban planning, cities

SH3_9	Mobility and transportation
SH4	The Human Mind and its complexity: cognition, psychology, linguistics, philosophy and education
SH4_1	Evolution of mind and cognitive functions, animal communication
SH4_2	Human life-span development
SH4_3	Neuropsychology and cognitive psychology
SH4_4	Clinical and experimental psychology
SH4_5	Formal, cognitive, functional and computational linguistics
SH4_6	Typological, historical and comparative linguistics
SH4_7	Acquisition and knowledge of language: psycholinguistics, neurolinguistics
SH4_8	Use of language: pragmatics, sociolinguistics, discourse analysis
SH4_9	Second language teaching and learning, language pathologies, lexicography, terminology
SH4_10	Philosophy, history of philosophy
SH4_11	Epistemology, logic, philosophy of science
SH4_12	Ethics and morality, bioethics
SH4_13	Education: principles, techniques, typologies
SH5	Cultures and cultural production: literature, visual and performing arts, music, cultural and comparative studies
SH5_1	Classics
SH5_2	History of literature
SH5_3	Literary theory and comparative literature, literary styles
SH5_4	Textual philology and palaeography
SH5_5	Visual arts
SH5_6	Performing arts
SH5_7	Museums and exhibitions
SH5_8	Numismatics, epigraphy
SH5_9	Music and musicology, history of music
SH5_10	History of art and architecture
SH5_11	Cultural studies, cultural diversity
SH5_12	Cultural memory, intangible cultural heritage
SH6	The study of the human past: archaeology, history and memory
SH6_1	Archaeology, archaeometry, landscape archaeology
SH6_2	Prehistory and protohistory
SH6_3	Ancient history, ancient cultures
SH6_4	Medieval history
SH6_5	Modern and contemporary history
SH6_6	Colonial history, entangled histories, global history
SH6_7	Military history
SH6_8	Historiography, theory and methods of history
SH6_9	History of ideas, intellectual history
SH6_10	Social, economic, cultural and political history
SH6_11	Collective memories, identities, lieux de mémoire, oral history
SH6_12	Cultural heritage

Domain Code:	PE
<b>Subdomain Code:</b>	PE1, PE2, PE3 PE10
Research Area Code:	PE1_1PE_18, PE2_1PE2_17

# DOMAIN MATHEMATICS, PHYSICAL SCIENCES, INFORMATION AND COMMUNICATION, ENGINEERING, UNIVERSE AND EARTH SCIENCES

PE1	<b>Mathematical foundations:</b> all areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics
PE1_1	Logic and foundations
PE1_2	Algebra
PE1_3	Number theory
PE1_4	Algebraic and complex geometry
PE1_5	Geometry
PE1_6	Topology
PE1_7	Lie groups, Lie algebras
PE1_8	Analysis
PE1_9	Operator algebras and functional analysis
PE1_10	ODE and dynamical systems
PE1_11	Partial differential equations
PE1_12	Mathematical physics
PE1_13	Probability and statistics
PE1_14	Combinatorics
PE1_15	Mathematical aspects of computer science
PE1_16	Numerical analysis and scientific computing
PE1_17	Control theory and optimization
PE1_18	Application of mathematics in sciences
PE1_18 PE2	Application of mathematics in sciences  Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics
	77
PE2	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics
PE2 PE2_1	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics  Fundamental interactions and fields
PE2 PE2_1 PE2_2	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics  Fundamental interactions and fields  Particle physics
PE2 PE2_1 PE2_2 PE2_3	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics  Fundamental interactions and fields  Particle physics  Nuclear physics
PE2 PE2_1 PE2_2 PE2_3 PE2_4	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism Atomic, molecular physics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7 PE2_8	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism Atomic, molecular physics Optics and quantum optics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7 PE2_8 PE2_9	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics  Fundamental interactions and fields  Particle physics  Nuclear physics  Nuclear astrophysics  Gas and plasma physics  Electromagnetism  Atomic, molecular physics  Optics and quantum optics  Lasers and laser physics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7 PE2_8 PE2_9 PE2_10	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism Atomic, molecular physics Optics and quantum optics Lasers and laser physics Acoustics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7 PE2_8 PE2_9 PE2_10 PE2_11	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism Atomic, molecular physics Optics and quantum optics Lasers and laser physics Acoustics Relativity
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7 PE2_8 PE2_9 PE2_10 PE2_11 PE2_12	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism Atomic, molecular physics Optics and quantum optics Lasers and laser physics Acoustics Relativity Classical physics
PE2 PE2_1 PE2_2 PE2_3 PE2_4 PE2_5 PE2_6 PE2_7 PE2_8 PE2_9 PE2_10 PE2_11 PE2_12 PE2_13	Fundamental constituents of matter: particle, nuclear, plasma, atomic, molecular, gas, and optical physics Fundamental interactions and fields Particle physics Nuclear physics Nuclear astrophysics Gas and plasma physics Electromagnetism Atomic, molecular physics Optics and quantum optics Lasers and laser physics Acoustics Relativity Classical physics Thermodynamics

PE3 Condensed matter physics: structure, electronic properties, fluids, nanosciences PE3_1 Structure of solids and liquids PE3_2 Mechanical and acoustical properties of condensed matter PE3_3 Thermal properties of condensed matter PE3_4 Transport properties of condensed matter PE3_5 Electronic properties of materials and transport PE3_6 Lattice dynamics PE3_7 Semiconductors PE3_8 Superconductivity PE3_9 Superfluids PE3_10 Spintronics PE3_11 Magnetism PE3_11 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_12 Nanophysics: nanoelectronics PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Surface science PE4_6 Analytical chemistry PE4_5 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_13 Physical chemistry of biological systems	PE2_17	Statistical physics (gases)
PE3_2 Mechanical and acoustical properties of condensed matter PE3_3 Thermal properties of condensed matter PE3_4 Transport properties of condensed matter PE3_5 Electronic properties of materials and transport PE3_6 Lattice dynamics PE3_7 Semiconductors PE3_7 Semiconductors PE3_8 Superconductivity PE3_9 Superfluids PE3_10 Spintronics PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_2 Nanochemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_1 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_11 Method development in chemistry	PE3	Condensed matter physics: structure, electronic properties, fluids, nanosciences
PE3_3 Thermal properties of condensed matter PE3_5 Electronic properties of condensed matter PE3_6 Lattice dynamics PE3_7 Semiconductors PE3_8 Superconductivity PE3_9 Superfluids PE3_10 Spintonics PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Molecular architecture and Structure PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Chemical physics PE4_1 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_11 Method development in chemistry	PE3_1	Structure of solids and liquids
PE3_4 Transport properties of condensed matter  PE3_5 Electronic properties of materials and transport  PE3_6 Lattice dynamics  PE3_7 Semiconductors  PE3_8 Superconductivity  PE3_9 Superfluids  PE3_10 Spintronics  PE3_11 Magnetism  PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism  PE3_12 Nanophysics: nanoelectronics  PE3_14 Molecular electronics  PE3_15 Soft condensed matter (liquid crystals)  PE3_16 Fluid dynamics (physics)  PE3_17 Statistical physics (condensed matter)  PE3_18 Phase transitions, phase equilibria  PE3_19 Biophysics  PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics  PE4_1 Physical chemistry  PE4_2 Nanochemistry  PE4_3 Spectroscopic and spectrometric techniques  PE4_4 Molecular architecture and Structure  PE4_5 Surface science  PE4_6 Analytical chemistry  PE4_7 Chemical physics  PE4_19 Electrochemistry, electrodialysis, microfluidics  PE4_11 Method development in chemistry	PE3_2	Mechanical and acoustical properties of condensed matter
PE3_5 Electronic properties of materials and transport  PE3_6 Lattice dynamics  PE3_7 Semiconductors  PE3_8 Superconductivity  PE3_9 Superfluids  PE3_11 Spintronics  PE3_11 Magnetism  PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism  PE3_13 Mesoscopic physics  PE3_14 Molecular electronics  PE3_15 Soft condensed matter (liquid crystals)  PE3_16 Fluid dynamics (physics)  PE3_17 Statistical physics (condensed matter)  PE3_18 Phase transitions, phase equilibria  PE3_19 Biophysics  PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics  PE4_1 Physical chemistry  PE4_2 Nanochemistry  PE4_3 Spectroscopic and spectrometric techniques  PE4_4 Molecular architecture and Structure  PE4_5 Surface science  PE4_6 Analytical chemistry  PE4_7 Chemical physics  PE4_19 Electrochemistry, electrodialysis, microfluidics  PE4_11 Method development in chemistry	PE3_3	Thermal properties of condensed matter
PE3_6 Lattice dynamics PE3_7 Semiconductors PE3_8 Superconductivity PE3_9 Superfluids PE3_10 Spintronics PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_2 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_17 Chemical physics PE4_19 Electrochemistry, electrodialysis, microfluidics PE4_11 Method development in chemistry	PE3_4	Transport properties of condensed matter
PE3_7 Semiconductors PE3_8 Superconductivity PE3_9 Superfluids PE3_10 Spintronics PE3_11 Magnetism PE3_11 Manophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_12 Nanophysics: PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_2 Nanochemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_17 Chemical physics PE4_19 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry	PE3_5	Electronic properties of materials and transport
PE3_8 Superconductivity PE3_9 Superfluids PE3_10 Spintronics PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry	PE3_6	Lattice dynamics
PE3_9 Superfluids PE3_10 Spintronics PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry	PE3_7	Semiconductors
PE3_10 Spintronics PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_11 Method development in chemistry	PE3_8	Superconductivity
PE3_11 Magnetism PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry	PE3_9	Superfluids
PE3_12 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry	PE3_10	Spintronics
PE3_13 Mesoscopic physics PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_11 Method development in chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry	PE3_11	Magnetism
PE3_14 Molecular electronics PE3_15 Soft condensed matter (liquid crystals) PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_12	Nanophysics: nanoelectronics, nanophotonics, nanomagnetism
PE3_15 Soft condensed matter (liquid crystals)  PE3_16 Fluid dynamics (physics)  PE3_17 Statistical physics (condensed matter)  PE3_18 Phase transitions, phase equilibria  PE3_19 Biophysics  PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics  PE4_1 Physical chemistry  PE4_2 Nanochemistry  PE4_3 Spectroscopic and spectrometric techniques  PE4_4 Molecular architecture and Structure  PE4_5 Surface science  PE4_6 Analytical chemistry  PE4_7 Chemical physics  PE4_8 Chemical instrumentation  PE4_9 Electrochemistry, electrodialysis, microfluidics  PE4_10 Combinatorial chemistry  PE4_11 Method development in chemistry  PE4_11 Method development in chemistry  PE4_12 Catalysis	PE3_13	Mesoscopic physics
PE3_16 Fluid dynamics (physics) PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_14	Molecular electronics
PE3_17 Statistical physics (condensed matter) PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_15	Soft condensed matter (liquid crystals)
PE3_18 Phase transitions, phase equilibria PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_16	Fluid dynamics (physics)
PE3_19 Biophysics PE4 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_17	Statistical physics (condensed matter)
PE4_1 Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_18	Phase transitions, phase equilibria
PE4_1 Physical chemistry PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE3_19	Biophysics
PE4_2 Nanochemistry PE4_3 Spectroscopic and spectrometric techniques PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4	Physical and Analytical Chemical sciences: analytical chemistry, chemical theory, physical chemistry/chemical physics
PE4_3 Spectroscopic and spectrometric techniques  PE4_4 Molecular architecture and Structure  PE4_5 Surface science  PE4_6 Analytical chemistry  PE4_7 Chemical physics  PE4_8 Chemical instrumentation  PE4_9 Electrochemistry, electrodialysis, microfluidics  PE4_10 Combinatorial chemistry  PE4_11 Method development in chemistry  PE4_12 Catalysis	PE4_1	Physical chemistry
PE4_4 Molecular architecture and Structure PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4_2	Nanochemistry
PE4_5 Surface science PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4_3	Spectroscopic and spectrometric techniques
PE4_6 Analytical chemistry PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4_4	Molecular architecture and Structure
PE4_7 Chemical physics PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4_5	Surface science
PE4_8 Chemical instrumentation PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4_6	
PE4_9 Electrochemistry, electrodialysis, microfluidics PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis	PE4_7	
PE4_10 Combinatorial chemistry PE4_11 Method development in chemistry PE4_12 Catalysis		
PE4_11 Method development in chemistry PE4_12 Catalysis		
PE4_12 Catalysis		·
		1
PE4_13 Physical chemistry of biological systems		•
PE4_14 Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions		
PE4_15 Theoretical and computational chemistry		
PE4_16 Radiation chemistry		·
PE4_17 Nuclear chemistry		·
PE4_18 Photochemistry  Materials and Synthesis: materials synthesis, structure-properties relations, functional and advanced materials, molecular	PE4_18	•
PE5 Waterias and Synthesis: materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry	PE5	
PE5_1 Structural properties of materials	PE5_1	
PE5_2 Solid state materials	PE5_2	Solid state materials
PE5_3 Surface modification	PE5_3	Surface modification
PE5_4 Thin films	PE5_4	Thin films
PE5_5 Corrosion	PE5_5	Corrosion
PE5_6 Porous materials	PE5_6	Porous materials
PE5_7 Ionic liquids	PE5_7	Ionic liquids

PE5_8	New materials: oxides, alloys, composite, organic-inorganic hybrid, superconductors
PE5_9	Materials for sensors
PE5_10	Nanomaterials : nanoparticles, nanotubes
PE5_11	Biomaterials synthesis
PE5_12	Intelligent materials – self assembled materials
PE5_13	Environment chemistry
PE5_14	Coordination chemistry
PE5_15	Colloid chemistry
PE5_16	Biological chemistry
PE5_17	Chemistry of condensed matter
PE5_18	Homogeneous and heterogeneous catalysis
PE5_19	Characterization methods of materials
PE5_20	Macromolecular chemistry
PE5_21	Polymer chemistry
PE5_22	Supramolecular chemistry
PE5_23	Organic chemistry
PE5_24	Molecular chemistry
PE6	Computer science and informatics: informatics and information systems, computer science, scientific computing, intelligent systems
PE6_1	Computer architecture
PE6_2	Database management
PE6_3	Formal methods
PE6_4	Graphics and image processing
PE6_5	Human computer interaction and interface
PE6_6	Informatics and information systems
PE6_7	Theoretical computer science including quantum information
PE6_8	Intelligent systems
PE6_9	Scientific computing
PE6_10	Modelling tools
PE6_11	Multimedia
PE6_12	Parallel and Distributed Computing
PE6_13	Speech recognition
PE6_14	Systems and software
PE7	Systems and communication engineering: electronic, communication, optical and systems engineering
PE7_1	Control engineering
PE7_2	Electrical and electronic engineering: semiconductors, components, systems
PE7_3	Simulation engineering and modelling
PE7_4	Systems engineering, sensorics, actorics, automation
PE7_5	Micro- and nanoelectronics, optoelectronics
PE7_6	Communication technology, high-frequency technology
PE7_7	Signal processing
PE7_8	Networks
PE7_9	Man-machine-interfaces
PE7_10	Robotics
PE8	<b>Products and process engineering:</b> product design, process design and control, construction methods, civil engineering, energy systems, material engineering
PE8_1	Aerospace engineering
PE8_2	Chemical engineering, technical chemistry
PE8_3	Civil engineering, maritime/hydraulic engineering, geotechnics, waste treatment
PE8_4	Computational engineering
_	

DEG 5	
PE8_5	Fluid mechanics, hydraulic-, turbo-, and piston engines
PE8_6	Energy systems (production, distribution, application)
PE8_7	Micro(system) engineering
PE8_8	Mechanical and manufacturing engineering (shaping, mounting, joining, separation)
PE8_9	Materials engineering (biomaterials, metals, ceramics, polymers, composites,)
PE8_10	Production technology, process engineering
PE8_11	Product design, ergonomics, man-machine interfaces
PE8_12	Lightweight construction, textile technology
PE8_13	Industrial bioengineering
PE8_14	Industrial biofuel production
PE9	Universe sciences: astro-physics/chemistry/biology; solar system; stellar, galactic and extragalactic astronomy, planetary systems, cosmology; space science, instrumentation
PE9_1	Solar and interplanetary physics
PE9_2	Planetary systems sciences
PE9_3	Interstellar medium
PE9_4	Formation of stars and planets
PE9_5	Astrobiology
PE9_6	Stars and stellar systems
PE9_7	The Galaxy
PE9_8	Formation and evolution of galaxies
PE9_9	Clusters of galaxies and large scale structures
PE9_10	High energy and particles astronomy – X-rays, cosmic rays, gamma rays, neutrinos
PE9_11	Relativistic astrophysics
PE9_12	Dark matter, dark energy
PE9_13	Gravitational astronomy
PE9_14	Cosmology
PE9_15	Space Sciences
PE9_16	Very large data bases: archiving, handling and analysis
PE9_17	Instrumentation - telescopes, detectors and techniques
PE9_18	Solar planetology
PE10	<b>Earth system science:</b> physical geography, geology, geophysics, meteorology, oceanography, climatology, ecology, global environmental change, biogeochemical cycles, natural resources management
PE10_1	Atmospheric chemistry, atmospheric composition, air pollution
PE10_2	Meteorology, atmospheric physics and dynamics
PE10_3	Climatology and climate change
PE10_4	Terrestrial ecology, land cover change,
PE10_5	Geology, tectonics, volcanology,
PE10_6	Paleoclimatology, paleoecology
PE10_7	Physics of earth's interior, seismology, volcanology
PE10_8	Oceanography (physical, chemical, biological)
PE10_9	Biogeochemistry, biogeochemical cycles, environmental chemistry
PE10_10	Mineralogy, petrology, igneous petrology, metamorphic petrology
PE10_11	Geochemistry, crystal chemistry, isotope geochemistry, thermodynamics,
PE10_12	Sedimentology, soil science, palaeontology, earth evolution
PE10_13	Physical geography
PE10_14	Earth observations from space/remote sensing
PE10_15	Geomagnetism, paleomagnetism
PE10_16	Ozone, upper atmosphere, ionosphere
PE10_17	Hydrology, water and soil pollution
	7 · · · · · · · · · · · · · · · · · · ·

Domain Code:	LS
<b>Subdomain Code:</b>	LS1,LS2LS9
Research Area Code:	LS1_1LS1_8,LS2_1LS2_14

# DOMAIN LIFE SCIENCES

LS1	Molecular and Structural Biology and Biochemistry: molecular biology, biochemistry, biophysics, structural biology, biochemistry of signal transduction
LS1_1	Molecular biology and interactions
LS1_2	General biochemistry and metabolism
LS1_3	DNA biosynthesis, modification, repair and degradation
LS1_4	RNA synthesis, processing, modification and degradation
LS1_5	Protein synthesis, modification and turnover
LS1_6	Biophysics
LS1_7	Structural biology (crystallography, NMR, EM)
LS1_8	Biochemistry of signal transduction
LS2	Genetics, Genomics, Bioinformatics and Systems Biology: genetics, population genetics, molecular genetics, genomics, transcriptomics, proteomics, metabolomics, bioinformatics, computational biology, biostatistics, biologicalmodelling and simulation, systems biology, genetic epidemiology
LS2_1	Genomics, comparative genomics, functional genomics
LS2_2	Transcriptomics
LS2_3	Proteomics
LS2_4	Metabolomics
LS2_5	Glycomics
LS2_6	Molecular genetics, reverse genetics and RNAi
LS2_7	Quantitative genetics
LS2_8	Epigenetics and gene regulation
LS2_9	Genetic epidemiology
LS2_10	Bioinformatics
LS2_11	Computational biology
LS2_12	Biostatistics
LS2_13	Systems biology
LS2_14	Biological systems analysis, modelling and simulation
LS3	<b>Cellular and Developmental Biology:</b> cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation in plants and animals
LS3_1	Morphology and functional imaging of cells
LS3_2	Cell biology and molecular transport mechanisms
LS3_3	Cell cycle and division
LS3_4	Apoptosis
LS3_5	Cell differentiation, physiology and dynamics
LS3_6	Organelle biology
LS3_7	Cell signalling and cellular interactions
LS3_8	Signal transduction
LS3_9	Development, developmental genetics, pattern formation and embryology in animals
LS3_10	Development, developmental genetics, pattern formation and embryology in plants
LS3_11	Cell genetics

LS3_12	Stem cell biology
LS4	Physiology, Pathophysiology and Endocrinology: organ physiology, pathophysiology, endocrinology, metabolism, ageing,
LS4_1	regeneration, tumorigenesis,cardiovascular disease, metabolic syndrome  Organ physiology
LS4_2	Comparative physiology
LS4_3	Endocrinology
LS4_4	Ageing
LS4_5	Metabolism, biological basis of metabolism related disorders
LS4_6	Cancer and its biological basis
LS4_7	Cardiovascular diseases
LS4_8	Non-communicable diseases (except for neural/psychiatric, immunity-related, metabolism-related disorders, cancer and
	cardiovascular diseases)  Neurosciences and neural disorders: neurobiology, neuroanatomy, neurophysiology, neurochemistry, neuropharmacology,
LS5	neuroimaging, systems neuroscience, neurological disorders, psychiatry
LS5_1	Neuroanatomy and neurosurgery
LS5_2	Neurophysiology
LS5_3	Neurochemistry and neuropharmacology
LS5_4	Sensory systems (e.g. visual system, auditory system)
LS5_5	Mechanisms of pain
LS5_6	Developmental neurobiology
LS5_7	Cognition (e.g. learning, memory, emotions, speech)
LS5_8	Behavioral neuroscience (e.g. sleep, consciousness, handedness)
LS5_9	Systems neuroscience
LS5_10	Neuroimaging and computational neuroscience
LS5_11	Neurological disorders (e.g. Alzheimer's disease, Huntington's disease, Parkinson's disease)
LS5_12	Psychiatric disorders (e.g. schizophrenia, autism, Tourette's syndrome, obsessive compulsive disorder, depression, bipolar disorder, attention deficit hyperactivity disorder)
LS6	<b>Immunity and infection:</b> immunobiology, aetiology of immune disorders, microbiology, virology, parasitology, global and other infectious diseases, population dynamics of infectious diseases, veterinary medicine
LS6_1	Innate immunity
LS6_2	Adaptive immunity
LS6_3	Phagocytosis and cellular immunity
LS6_4	Immunosignalling
LS6_5	Immunological memory and tolerance
LS6_6	Immunogenetics
LS6_7	Microbiology
LS6_8	Virology
LS6_9	Bacteriology
LS6_10	Parasitology
LS6_11	Prevention and treatment of infection by pathogens (e.g. vaccination, antibiotics, fungicide)
LS6_12	Biological basis of immunity related disorders
LS6_13	Veterinary medicine
LS7	<b>Diagnostic tools, therapies and public health:</b> aetiology, diagnosis and treatment of disease, public health, epidemiology, pharmacology, clinical medicine, regenerative medicine, medical ethics
LS7_1	Medical engineering and technology
LS7_2	Diagnostic tools (e.g. genetic, imaging)
LS7_3	Pharmacology, pharmacogenomics, drug discovery and design, drug therapy
LS7_4	Analgesia
LS7_5	Toxicology
LS7_6	Gene therapy, stem cell therapy, regenerative medicine
LS7_7	Surgery
LS7_8	Radiation therapy

LS7_9	Health services, health care research
LS7_10	Public health and epidemiology
LS7_11	Environment and health risks including radiation
LS7_12	Occupational medicine
LS7_13	Medical ethics
LS8	<b>Evolutionary, population and environmental biology:</b> evolution, ecology, animal behaviour, population biology, biodiversity, biogeography, marine biology, eco-toxicology, prokaryotic biology
LS8_1	Ecology (theoretical, community, population, microbial, evolutionary ecology)
LS8_2	Population biology, population dynamics, population genetics, plant-animal interactions
LS8_3	Systems Evolution, biological adaptation, phylogenetics, systematics
LS8_4	Biodiversity, comparative biology
LS8_5	Conservation biology, ecology, genetics
LS8_6	Biogeography
LS8_7	Animal behaviour (behavioural ecology, animal communication)
LS8_8	Environmental and marine biology
LS8_9	Environmental toxicology
LS8_10	Prokaryotic biology
LS8_11	Symbiosis
LS9	Applied life sciences and biotechnology: agricultural, animal, fishery, forestry and food sciences; biotechnology, chemical biology, genetic engineering, synthetic biology, industrial biosciences; environmental biotechnology and remediation
LS9_1	Genetic engineering, transgenic organisms, recombinant proteins, biosensors
LS9_2	Synthetic biology and new bio-engineering concepts
LS9_3	Agriculture related to animal husbandry, dairying, livestock raising
LS9_4	Aquaculture, fisheries
LS9_5	Agriculture related to crop production, soil biology and cultivation, applied plant biology
LS9_6	Food sciences
LS9_7	Forestry, biomass production (e.g. for biofuels)
LS9_8	Environmental biotechnology, bioremediation, biodegradation
LS9_9	Biotechnology, bioreactors, applied microbiology
LS9_10	Biomimetics
LS9_11	Biohazards, biological containment, biosafety, biosecurity

Research fields with a Romanian character are Romanian literature and language and the Romanian law, which are framed in the following research areas:

SH2\_10 Private, public and social law SH5\_2 History of literature

SH5\_3 Literary theory and comparative literature, literary styles SH5\_4 Textual philology and palaeography

# The list of the domains where the projects are hierarchised

Subdomain name	Subdomain code
Mathematics and Computer Science	PE1_1;PE1_2; PE1_3; PE1_4; PE1_5; PE1_6; PE1_7; PE1_8; PE1_9; PE1_10; PE1_11; PE1_12; PE1_13; PE1_14; PE1_15; PE1_16; PE1_17; PE1_18.  PE6_1; PE6_2; PE6_3; PE6_4; PE6_5; PE6_6; PE6_7; PE6_8; PE6_9; PE6_10; PE6_11; PE6_12; PE6_13; PE6_14.
Chemistry	PE4_1; PE4_2; PE4_3; PE4_4; PE4_5; PE4_6; PE4_7; PE4_8; PE4_9; PE4_10; PE4_11; PE4_12; PE4_13; PE4_14; PE4_15; PE4_16; PE4_17; PE4_18. PE5_13; PE5_14; PE5_15; PE5_16; PE5_17; PE5_18; PE5_19; PE5_20; PE5_21; PE5_22; PE5_23; PE5_24.
Physics	PE2_1; PE2_2; PE2_3; PE2_4; PE2_5; PE2_6; PE2_7; PE2_8; PE2_9; PE2_10; PE2_11; PE2_12; PE2_13; PE2_14; PE2_15; PE2_16; PE2_17.  PE3_1; PE3_2; PE3_3; PE3_4; PE3_5; PE3_6; PE3_7; PE3_8; PE3_9; PE3_10; PE3_11; PE3_12; PE3_13; PE3_14; PE3_15; PE3_16; PE3_17; PE3_18; PE3_19.  PE9_1; PE9_2; PE9_3; PE9_4; PE9_5; PE9_6; PE9_7; PE9_8; PE9_9; PE9_10; PE9_11; PE9_12; PE9_13; PE9_14; PE9_15; PE9_16; PE9_17; PE9_18.
Engineering Sciences	PE7_1; PE7_2; PE7_3; PE7_4; PE7_5; PE7_6; PE7_7; PE7_8; PE7_9; PE7_10. PE8_1; PE8_2; PE8_3; PE8_4; PE8_5; PE8_6; PE8_7; PE8_8; PE8_9; PE8_10; PE8_11; PE8_12; PE8_13; PE8_14;
Materials Sciences	PE5_1; PE5_2; PE5_3; PE5_4; PE5_5; PE5_6; PE5_7; PE5_8; PE5_9; PE5_10; PE5_11; PE5_12.
Earth Sciences	PE10_1; PE10_2; PE10_3; PE10_4; PE10_5; PE10_6; PE10_7; PE10_8; PE10_9; PE10_10; PE10_11; PE10_12; PE10_13; PE10_14; PE10_15; PE10_16; PE10_17
Biology and Ecology	LS1_1; LS1_2; LS1_3; LS1_4; LS1_5; LS1_6; LS1_7; LS1_8. LS2_1; LS2_2; LS2_3; LS2_4; LS2_5; LS2_6; LS2_7; LS2_8; LS2_9; LS2_10; LS2_11; LS2_12; LS2_13; LS2_14. LS3_1; LS3_2; LS3_3; LS3_4; LS3_5; LS3_6; LS3_7; LS3_8; LS3_9; LS3_10; LS3_11; LS3_12. LS4_1; LS4_2; LS4_3; LS4_4; LS4_5; LS4_6; LS4_7; LS4_8. LS5_1; LS5_2; LS5_3; LS5_4; LS5_5; LS5_6; LS5_7; LS5_8; LS5_9; LS5_10; LS5_11; LS5_12. LS8_1; LS8_2; LS8_3; LS8_4; LS8_5; LS8_6; LS8_7; LS8_8; LS8_9; LS8_10; LS8_11.
Medicine	LS6_1; LS6_2; LS6_3; LS6_4; LS6_5; LS6_6; LS6_7; LS6_8; LS6_9; LS6_10; LS6_11; LS6_12; LS6_13. LS7_1; LS7_2; LS7_3; LS7_4; LS7_5; LS7_6; LS7_7; LS7_8; LS7_9; LS7_10; LS7_11; LS7_12; LS7_13.
Applied Life Sciences and Biotechnologies	LS9_1; LS9_2; LS9_3; LS9_4; LS9_5; LS9_6; LS9_7; LS9_8; LS9_9; LS9_10; LS9_11.
Social and Economic Sciences	SH1_1; SH1_2; SH1_3; SH1_4; SH1_5; SH1_6; SH1_7; SH1_8; SH1_9; SH1_10; SH1_11. SH2_1; SH2_2; SH2_3; SH2_6; SH2_7; SH2_8; SH2_9; SH2_10; SH2_11; SH2_12; SH2_13; SH3_1; SH3_2; SH3_3; SH3_4; SH3_5; SH3_6; SH3_7; SH3_8; SH3_9; SH4_1; SH4_2; SH4_3; SH4_4; SH4_5; SH4_7; SH4_8; SH4_9; SH4_13.
Humanities	SH1_12; SH2_4; SH2_5; SH2_14; SH4_6; SH4_10; SH4_11; SH4_12; SH5_1; SH5_2; SH5_3; SH5_4; SH5_5; SH5_6; SH5_7; SH5_8; SH5_9; SH5_10; SH5_11; SH5_12; SH6_1; SH6_2; SH6_3; SH6_4; SH6_5; SH6_6; SH6_7; SH6_8; SH6_9; SH6_10; SH6_11; SH6_12.

Table of sequence between the application domain and the rating domain of the journal/publishing house by CNCS

1. History of economy; History of science and	SH1 12, SH2 14, SH6 7, SH6 10
technology. Social, economic and political history.	
Military history.	
2. Archaeology and archaeometry. Prehistory and	SH5 1, SH5 8, SH6 1, SH6 2, SH6 3
protohistory. Ancient history and ancient cultures.	
Classics. Palaeography. Numismatics and	
epigraphy.	
3. Medieval history. Modern and contemporary	SH6 4, SH6 5, SH6 7
history. Colonial history and global history	
4. Historiography, theory and methods of history.	SH6 8, SH6 9, SH 6 11
History of ideas, intellectual history. Collective	
memories, identities, lieux de mémoire, oral	
history. Genealogical table. Heraldry and	
Sealography.	
5. History of art and architecture. Cultural studies.	SH2 3, SH5 10, SH5 11, SH5 12, SH 6 12
Cultural memory and heritage. Cultural heritage.	
6. Myth, rituals, symbolic representations and	SH2 4
religious studies. Ethnography.	
7.Romanian language and literature.	SH5 4
8. Foreign languages.	SH4 9, SH5 2, SH5 3, SH5 4
9. Philosophy and history of philosophy.	SH4 10, SH4 11, SH4 12,
Epistemology, logic and philosophy of science.	
Ethics and bioethics.	
10. Visual arts. Performing arts. Museums and	SH5 5, SH5 6, SH5 7, SH5 9,
exhibitions. Music and musicology, history of	
music.	

### **ANNEX 5 - Definitions**

The main author or authors of a publication can be any of the following:

- a) the first author, when the order of the authors reflects the importance of their contribution;
- **b) the corresponding author** (called *reprint author* or existing in *reprint address* in Web of Science), when he or she is identified;
- c) other authors whose contribution is explicitly indicated as being equal to the contribution of the first author or the corresponding author. In this case, just for the calculation of the cumulated relative influence score, the relative influence score of the journal where the publication was edited is divided to the number of authors (the first one or the corresponding one) who have an equal contribution.
- d) the last author in bio-medical science situation, his/her contribution being considered equal with that of the corresponding author, and for the calculation of the cumulated relative influence score is used the calculation method from c) point. These publication must show up in journals indexed by Journal Citation Reports in the following categories: Allergy; Anatomy & Morphology; Andrology; Anesthesiology: Behavioral Sciences: Biochemical Research Methods: Biochemistry & Molecular Biology; Biology; Biophysics; Cardiac & cardiovascular Systems; Cell Biology; Clinical Neurology; Critical Care Medicine; Dentistry, Oral Surgery & Medicine; Dermatology; Developmental Biology; Emergency Medicine; Endocrinology & Metabolism; Entomology; Evolutionary Biology; Gastroenterology & Hepatology; Genetics & Heredity; Geriatrics & Gerontology; Hematology; Immunology; Infectious Diseases; Integrative & Complementary Medicine; Marine & Freshwater Biology; Medical Ethics; Medical Informatics; Medical Laboratory Technology; Medicine, General & Internal; Medicine, Legal; Medicine, Research & Experimental; Microbiology; Neuroimaging; Neurosciences; Nutrition Obstetrics & Gynecology; Oncology; Ophthalmology; Orthopedics; Otorhinolaryngology; Parasitology; Pathology; Pediatrics; Peripheral Vascular Disease; Pharmacology & Pharmacy; Physiology; Plant Sciences; Primary Health Care; Psychiatry; Radiology, Nuclear Medicine & Medical Imaging; Rehabilitation; Reproductive Biology; Respiratory System; Rheumatology; Surgery; Toxicology; Transplantation; Tropical Medicine; *Urology & Nephrology; Veterinary Sciences; Virology; Zoology.*
- e) all the authors of a publication, in the case where, due to the accepted practice in the field, the order of the authors of a publication does not reflect their contribution to it (for instance in cases in which the authors of a publication are ordered alphabetically or they are indicated as a collaboration, without explicitly specifying the names of the authors); here are taken into account just the publications from the following fields: mathematics, mathematical physics, nuclear physics, high energy physics, computer science and economics. This publications must show up in Journal Citation Reports indexed journals in the following categories: Mathematics; Physics, mathematical, Physics, nuclear; Physics, particles and fields; Physics, Multidisciplinary; Computer Science(toate subdomeniile); Economics; Multidisciplinary sciences. In these cases, just for the calculation of the cumulated relative influence score, the relative influence score of the journal where the publication was edited is compulsory divided
  - if  $2 \le n \le 5$ , to n/2,
  - if  $6 \le n \le 80$ , to (n+3)/3,
  - if  $n \ge 81$ , to 28.

Where n is the number of authors of the publication.

### **Notes:**

1. The project leader is forced to indicate, on the online proposal platform of the research projects, the publications which belong to the exceptional cases, provided at points c), d) and e).

- 2. When the project leader doesn't indicate the publications which belong to the exceptional cases, provided at points c), d) and e), these will be evaluated according to the indications from a) and b) points.
- 3. For the publications which belong to the exceptional case c) the project leader is forced to load on the online proposal platform of the projects the PDF of the respective publications.

An **ISI indexed journal** is a journal which is indexed in the Science Citation Index Expanded, Social Sciences Citation Index or the Arts & Humanities Citation Index, databases maintained by Thomson Reuters.

An **ISI ranked journal**, is a journal for which Thomson Reuters calculates and publishes an impact factor in Journal Citation Reports.

Critical edition of sources with a special dificulty of publishing represents the publishing of a volume, which contains relevant documentary sources for at least one discipline from the humanities, which have origins with no temporal restriction if they become from manuscripts, but which are previous to year 1800 in the case of some printed texts, and the editing involved at least two of the following activities: 1. the (re)establishing of the text by critical comparison of more variants; 2. the (re)translation of the text from the original and its bilingual publishing, by using rare paleographic/epigraphic/linguistics knowledge (by which it can be understood the appeal to the proper languages of the ancient or medieval civilisations or of the early modernism); 3. The elaboration of an situational introductory study or of some ample explanatory notes.

**KVK** represents Karlsruher Virtueller Katalog catalogue (it includes also WorldCat). This is available at the following adress: <a href="http://www.ubka.uni-karlsruhe.de/kvk.html">http://www.ubka.uni-karlsruhe.de/kvk.html</a>

**CNCS** (A and B category) represents journals, publishing-houses, collections from Romania and Republic of Moldavia which are recognized by CNCS, according to the ranking available to the following address: <a href="http://www.cncs-uefiscdi.ro/evaluarea-publicatiilor-stiintifice/rezultate-evaluare-revisteedituricolectii">http://www.cncs-uefiscdi.ro/evaluarea-publicatiilor-stiintifice/rezultate-evaluare-revisteedituricolectii</a>

The influence score is a quantity which reflects, for a given scientific journal, the average influence of an article in that journal in a 5 year interval after publication, by taking into account the number of times the articles of the journal are cited, weighed with the influence of the citing journals. The article influence score (AIS) is calculated by Thomson Reuters in Journal Citation Reports. Journals for which the AIS is not calculated are considered to have an AIS equal to zero.

Median influence score in a given subject area is equal to the median of the influence scores of the journals in that subject area, which have non-zero influence scores, according to the journal grouping used by Thomson Reuters.

The reference influence score of a subject area is the median influence score of that subject area, with the exception of the area "Multidisciplinary sciences", for which the reference influence score is the mean of the median influence scores for all the other subject areas covered by Journal Citation Reports. The reference influence score of a given scientific journal indexed in Science Citation Index Expanded or Social Sciences Citation Index is the smallest of the reference influence scores of the subject areas to which the journal is assigned, according to the grouping used by Thomson Reuters.

The relative influence score of a scientific journal is equal to the ratio of the influence score of the articles of that journal and the reference influence score of the journal. The relative influence score of an article is the relative influence score of the journal that published the article.

The cumulated relative influence score of a set of scientific articles is the sum of the relative influence scores of each article in that set.

The impact factor of a scientific journal is a quantity that reflects the average number of citations received by articles in that journal, published in a given year, in the course of two years after publication. The impact factor is calculated by Thomson Reuters in Journal Citation Reports. The journals for which Thomson Reuters does not compute an impact factor are considered to have an impact factor equal to zero.

The aggregate impact factor of a subject area is a quantity which reflects the average number of citations received by the articles of the journals in a subject area, published in a given year, in a time interval of 2 years after publication. The aggregate impact factor is calculated by Thomson Reuters in Journal Citation Reports.

The reference impact factor of a subject area is the aggregate impact factor of that subject area, with the exception of the subject area "Multidisciplinary sciences", for which the reference impact factor is the mean of the aggregate impact factors of all the other subject areas of Journal Citation Reports.

The reference impact factor of a scientific journal indexed in Science Citation Index Expanded or Social Sciences Citation Index is the smallest of the reference impact factors of the subject areas to which the journal is assigned, according to the grouping used by Thomson Reuters.

The relative impact factor of a scientific journal is equal to the ratio between the impact factor of the journal and the reference impact factor of the journal. The relative impact factor of an article is the relative impact factor of the journal which published it. The relative impact factor and the relative influence score, for each ISI ranked journal, and the reference impact factor for each subject area are calculated by the UEFISCDI, according to the most recent available edition of the Journal Citation Reports, and are published on the UEFISCDI website, www.uefiscdi.ro.

The number of citations of a publication is the one shown by Web of Science.

The number of domain normalized citations of a scientific article published in a journal indexed in Science Citation Index Expanded or Social Sciences Citation Index is obtained by taking the ratio of the number of citations of the article to the reference impact factor of the journal. In the case of other publications from the subject areas covered by the Science Citation Index Expanded or Social Sciences Citation Index, the number of domain normalized citations is obtained by taking the ratio of the number of citations of the publication to the reference impact factor of the subject area in which the article fits best.

Major international languages: English, French, German, Italian, Russian and Spanish

ANNEX 6 - Process, results and impact indicators for the Ideas – PCE programme

	Names of indicators	Units.
Process	Number of attendees of international conferences financed	No.
indicators	Number of PhD students supported	No
	Number of PhD students in co-direction with foreign instituions supported	No.
Results indicators	Number of articles published or accepted for publication in the international research publication mainstream	No.
	Relative cumulated impact factor of articles published or accepted for publication	
	Number of field normalized citations of articles	
	Number of articles in international collaboration published or accepted for publication in the international research publication mainstream	No.
	Number of researchers coming from abroad integrated in the national R&D system	No.
	Number of patent applications supported, of which EPO, USPTO, JPO, other EU and OECD countries	No.
Results indicators	Number of articles published in journals indexed AHCI or ERIH Category A or B	No.
(applies to the humanities only)	Number of books of author and of editions with a special difficulty of publishing	No.
Results	Number of chapters published in collective editions, in major	No.
indicators	foreign languages, at prestigious foreign publishing houses	
(applies only to	Number of books authored in major foreign languages at	No.
the social	prestigious foreign publishing houses	
sciences and humanities)	Number of books edited in major foreign languages at prestigious foreign publishing houses	No.
Impact indicators	Cumulated relative influence score of articles published or accepted for publication	No.

### **ANNEX 7- Legislation**

### **Ethics**

Ethics in research, development and innovation activities, referred to as R&D below, are based on a set of moral principles and on a set of procedures designed to enforce them. The competition and the projects financed as a result submit to the provisions of Law 206/2004 concerning the rules of good practice in R&D activities in Romania. Such activities must also obey the international regulations in the area, such as, in particular, the legislation of the European Union.

# Other relevant legislation

- Government decision no. 134/2011 for the approval of the Norms concerning the categories of expenses for research and development activities and stimulation of innovation, eligible for funding from the state budget
- Government decision no. 1265/2004 for the approval of the Norms concerning the contracts, financing, monitoring and evaluation of R&D programs projects and actions which compose the National Plan for R&D;
- Government decision nr. 217/2007 concerning the approval of the National Strategy for R&D, for the period 2007-2013;
- Government decision nr. 475/2007 concerning the approval of the National Plan for R&D, PN II, 2007-2013, with the subsequent modifications;
- Government Ordinance no. 57/2002 concerning scientific research and technological development, approved with modifications through Law no. 324/2003, with the subsequent modifications:
- Law no. 319/2003, concerning the Statute of R&D personnel;
- Law no. 1/2011 of national education;
- Government decision no. 1860/2006 concerning the rights and obligations of the public authorities and institutions, during the delegation to other areas, as well as during the delegation to other locations within the same area, in the interest of the employer, with subsequent modifications;
- Government decision no. 518/1995 concerning some rights and obligations of Romanian personnel sent abroad in the interest of carrying out missions with a temporary character, with the subsequent modifications.