

The modalities and conditions for the financing of transnational research from the U.E. funds in the programming horizon 2014-2020

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Abstract. *Our study has as objective the modalities and conditions of translation research funding, which type of research is a model of scientific investigation that allows bidirectional integration of fundamental and applied research with the explicit objective of improving the health status of a specific category of patients or of the whole population, a model also described by the phrase "from the bed to the bench and from the bench to the bed", ie "from the patient's bed in the research lab and the research lab back to the patient's bed." The research is carried out in the context of the provisions of art. 57 of Regulation no. No 1303/2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Fund regional development, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Regulation (EC) No. Council Regulation 1083/2006. The research methodology starts from formulating assumptions about the existence of a legal framework for financing such translational research and consists in identifying the factors that affect the analyzed process, formulating a quantitative modeling of the input-output relations in order to obtain a functional relationship, and finally, experimental design for EU-funded project sets in the health field, projects for which the existence of economic activities have an insufficiently regulated status.*

Key-words: regulation, surveillance, health, medical – economic.

JEL Classification: G28, I1.

1. Introduction

The purpose of this article is to investigate the impact of the application of Regulation no. (EC) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (Text with EEA relevance), which acts as a general block exemption regulation, the 20% the use of infrastructure in the project for economic activities that consume the same production factors (eg materials, equipment, labor and fixed capital) as non-economic activities (research).

The segment for which the study was conducted is at the domain level, ie the health field, covering both public and private research infrastructure. The research sought to identify the key aspects of admission to funding and the sustainability of EU-funded research projects in the health sector within the two programming horizons, 2007-2013 and 2014-2020, respectively. In order to carry out the research, a critical documentation was carried out on the basis of several financing projects elaborated with the author's participation, as well as various analyzes, studies and practical guides elaborated by the Romanian Managing Authorities for admission to financing of

projects within the EU programs, taking into account as basic guidance the European regulations and their national norms.

2. The state of knowledge

The sector-specific regulations on which funding research projects are, respectively, admitted to funding, are as follows:

✓ **For the 2007-2013 period:**

- COUNCIL REGULATION (EC) 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General Block Exemption Regulation) (Text with EEA relevance);
- COUNCIL REGULATION (EC) 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No. 1260/1999;
- Sectoral Operational Program "Increasing Economic Competitiveness" (SOP IEC), approved by European Commission Decision no. 3472 / 12.07.2007, published at www.ancs.ro;
- The Implementation Framework Document (DCI) published at www.mct.ro;
- Government Ordinance no. 57/2002 on scientific research and technological development approved by Law 324/2003 with subsequent amendments and completions;
- Government Decision no. 759 of 11 July 2007 (MO) on rules of eligibility of expenditures incurred in operations financed through operational programs, as subsequently amended and supplemented;
- Order No. 2508 / 31.12.2007 of the Minister of Economy and Finance for the approval of the Expenditure Lists eligible for the projects financed under the Operations 2.2.1 "Development of the Existing CD infrastructure and creation of new infrastructures (laboratories, research centers)" and 2.3.1 "Support for the innovative start-ups and spin-offs "of Priority Axis 2 of the SOP IEC, with the subsequent modifications and completions;
- Emergency Ordinance no. 64/2009 on the financial management of the Structural Instruments and their use for the Convergence objective, together with its Methodological Implementing Rules;
- APPLICANT GUIDE for Operation O.2.2.1. Development of existing CD infrastructure and creation of new infrastructures (laboratories, research centers), published at: <http://www.poscce.research.gov.ro/ro/node/node/nid/1694>.

✓ **For the period 2014 – 2020:**

- Regulation no. 651/2014 of the Commission declaring certain categories of aid compatible with the internal market pursuant to Articles 107 and 108 of the Treaty;
- Regulation 1303/2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, The European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Regulation (EC) Council Regulation 1083/2006;
- Operational Competitiveness Program -approved by European Commission Decision 10233/2014, published at : <http://www.poscce.research.gov.ro>;
- National Strategy for Research, Development and Innovation 2014-2020, approved by GD 929 of October 21, 2014;

- Order of M.E.C.Ş. no. 3821 / 11.05.2015 regarding the approval of the Calls for Proposals for Sections A-G of the Applicant's Guide for the Priority Axis of the POC 2014-2020, published at:<http://www.poscce.research.gov.ro>.

The macroeconomic context has a decisive influence on the implementation of investment projects co-financed by the EU, including in the health sector. If the regulations jeopardize the economic part of the project, it is up to the donor to determine the necessary changes and, ultimately, the most unfavorable, to stop the project. (Rodney J.T., Stephen J.S, 2004). If the financial analysis is accurate, it helps to select the best project or leads to the decision to continue or renounce the project. (Anthony E.B, David H.G., Aidan R.V., David L.W., 2001). We mention that our study, by its conclusions and by the methodological aspects introduced, is pioneering in the sense that there is no instruction or other provision, including implementation guidelines that clarify and support institutional, financial and practical arguments, the feasibility of generating economic revenues from health-funded research projects, without recalculating the intensity of support coming from the European Union. The impact of the results is all the more so since the Audit Authority has already cost such issues, issues and beneficiaries already in monitoring.

3. Research methodology

The starting point of this study is the results of research on the concept of translational research - a new concept in the field of medical research, representing "a model of scientific investigation that allows bidirectional integration of fundamental and applied research with the explicit objective of improving the health status of a specific category of sick or the entire population." The model is frequent described by the phrase "from bed to bench and from bench to bed", which means "from the patient's bed in the research lab and the research lab back to the patient's bed". The same study concludes that "the evaluation of the results of translational research stems from the determination of the clinical efficacy of the solutions found in the laboratory and then tested in the patients", and that "this dimension should be part of the publications describing translational research".

Starting from the results of the conceptual research, the present study aims to carry forward the conceptual study in the applicative area in the context of the existing financing system of medical researches, respectively from national or European sources, in order to identify the methodological framework financing applicable to the implementation of such a concept, in compliance with applicable State aid and EU funding rules of non - economic research activities.

4. Prerequisites and stages of the research

As prerequisites for the research, the following assumptions were made:

- **Hypothesis no. 1:** is there a legal framework for funding transnational research in the context of the 2014-2020 funding horizon?
- **Hypothesis no. 2:** during the implementation of the project and in the durability period can research equipment be used for economic purposes by collecting fees directly borne by patients?
- **Hypothesis no. 3:** the 20% limitation of the use of infrastructure in the project to carry out economic activities that consume the same production factors (eg materials, equipment, labor and fixed capital) as well as non-economic research activities is applicable?
- **Hypothesis no. 4:** in the situation of positive responses to assumptions no. 1-3, there is the possibility of identifying the factors affecting the analyzed process, ie

the formulation of a quantitative modeling of the input-output relations in order to obtain a functional relationship for U.E. in the health field?

For the elaboration of the answers the research first left the analysis and comparison of the provisions of art. 55 of the U.E. no. 1083/2006, with those of point 49 of the U.E. no. 651/2014, which states the following:

➤ **Article 55 of the U.E. no. 1083/2006 provides in point 1)** that 'revenue-generating project' means any operation involving an investment in infrastructure the use of which is subject to royalties directly borne by users or any operation involving the sale or rental of land or real estate or any other provision of services surcharge". At the same time, point 2 states that "eligible expenditure linked to a revenue-generating project shall not exceed the real cost of investment by deducting the net value of net income from the investment over a reference period." The consequence is that "if the investment cost is not fully eligible for co-financing, net income is allocated on a pro-rata basis to the eligible investment and non-eligible costs".

In the following, we will illustrate this concept, applicable to projects funded in the 2007-2013 horizon and currently under monitoring, a method known as "funding-gap" - a concept valid for the beneficiaries - public entities. The investment data, amounting to 700,000 lei (of which 680,000 eligible and 20,000 lei ineligible), as well as the expenses, respectively the operating income, broken down by years (investment period - 2 years and operation - 10 years) are presented in Appendix 1 - Calculation of Grant-Free Grants for Income-Generating Projects through the Financing-gap Method. The resulting output data (by applying the provisions of Article 55 of the EU Regulation 1083/2006) together with the related calculation formulas are presented in the two tables below.

Stage I: Reduced Total Updated Cost of Investment (CI) with Total Current Income Net Income (ROI) generated from the exploitation of the investment during the analysis period:

Table 1 - The need for financing the entire investment

Total investment cost [C]	700,000.00
The total updated cost of the investment [DCI]	653,061.22
Operating Expenses [C]	875,000.00
Operating Income [V]	975,000.00
Residual value [VR]	50,000.00
Net revenue [VN = V-C + VR]	150,000.00
Net updated revenue [DVN]	97,880.28
The financing requirement for the entire investment (to the total cost of the investment) (funding-gap) [NF = DCI-DVN]	555,180.94

Stage II: Proportional allocation of funding needs:

Table 2 - Pro-rate allocation

Eligible cost of investment (project) [EC]	600,000.00
Eligible updated cost of investment (project) [DCE]	557,823.13
The proportion [P] of the upgraded eligible cost (DCE) in the total updated cost (CIS)	85.42%
The financing requirement for the eligible cost of the investment [NFE = $NF * P$] is the eligible value of the project	474,217.05

Stage III: Determining the up-to-date amount of non-reimbursable funding to be granted from Structural Funds:

Table 3 - Grant updated

Non-reimbursable co-financing rate	98.00%
Refunded Refunded Grant (Upgrade Grant) = [NFE * 98%]	464,732.71

Conclusion for this part: as a result of estimating the realization, during the 10 years of operation, of net incomes, respectively of the identification of the situation of income-generating project within the meaning of art. 55 of the U.E. no. 1083/2006, the beneficiary is entitled to receive only the amount of 464,732.71 lei (according Table no. 1083/2006), compared to a grant of 588,000 lei obtained by weighting the amount of 600,000 lei (eligible value) with a percentage of 98% (financing intensity). 3 above), ie by 123,267.29 lei less, due to the net income recorded in the project.

➤ **Art.61 of the U.E. no. 1303/2013 - Operations generating net revenue after their completion** states in paragraph 1 that 'net revenue' means cash inflows paid directly by users for goods or services in the operation, such as charges directly incurred by users for the use of infrastructure, sale or rent of land or buildings or payments for services, minus the possible costs of running and replacing the short life equipment incurred during the corresponding period. At the same time, it is mentioned that the cost of operating costs generated by the operation in question is treated as net income unless offset by an equal reduction in operating grants. Where the investment cost is not fully eligible for co-financing, the net revenue referred to above is allocated proportionally to the eligible and non-eligible costs of the investment.

➤ **Regulation (UE) no. 651/2014** states in paragraph 49 that research infrastructures can carry out both economic and non-economic activities, but where an infrastructure is used for both economic and non-economic activities, funding through resources of the costs of non-economic infrastructure activities does not constitute State aid. The basic precondition is that economic use is entirely ancillary, ie an activity directly related to and necessary to the operation of the infrastructure or is intrinsically linked to its main non-economic use and its scope is limited. It is finally concluded that this should be considered to be the case if economic activities consume the same production factors (eg materials, equipment, labor and fixed capital) as non-economic activities and the capacity allocated each year such economic activity will not exceed 20% of the total annual capacity of the research infrastructure.

Conclusions for this part. Evolution of the regulations and the status of the current state of the field:

- important concept differences have emerged in the definition of net revenue by R 1303/2016 as compared to R 1083/2006;
- the concept of net revenue (in comparison to Regulation 1083/2003) is redefined, giving it the correct meaning in the accounting sense, ie the difference between the monetary inflows directly paid by users for the goods or services of the operation, such as the taxes directly by users for the use of infrastructure, the sale or lease of land or buildings or payments for services, and the possible costs of operating and replacing the short-lived equipment incurred during the relevant period; In other words, in the cost category, in addition to the normal operating costs (O & M), only the replacement costs for the short-lived equipment need to be renewed, not the basic infrastructure (buildings and equipment with a lifetime other than the one shorten);
 - the potential net proceeds of the operation are determined in advance by:
 - the use of a flat rate of net income for the sector or subsector applicable to the operation, the quotas being up to date by the Commission - in which case the implementation of the net income is not reconsidered, or
 - in the case of financing contracts concluded during the period 2007-2013, taking into account the reference period for the sector or subsector applicable to the operation, the profitability normally expected from the investment category the application of the 'polluter pays' principle and, where appropriate, fairness considerations relating to the relative prosperity of the Member State or region concerned, using the annexed methodology - Annex no. 1 (applied in the 2007-2013 horizon); subsequently, in implementation, the actual net revenue actually achieved by the same procedure as in the prior phase is reconsidered, with the return of the net revenue exceeding the financing needs by the beneficiary of the infrastructure;
 - in the case of grant contracts concluded between 2014 and 2020, the methodology is basically the same, with the significant difference in the net revenue content as noted above;
 - if it is not possible to apply either of the two above variants, the net revenue generated within three years from the completion of an operation or until the deadline for submitting the closure documents specified in the Fund-specific rules, whichever is the more closely, shall be deducted from the expenditure declared to the Commission;
 - the above rules do not apply, among other things, to minimise aid and state aid to SMEs.
 - the novelty, which is the subject of this study, is the possibility of using 20% of the infrastructure in the project for the purpose of carrying out economic activities that consume the same factors of production (eg materials, equipment, labor and fixed capital) as well as non-economic activities (research).

As there are no other regulations regarding the determination of the degree of use of the infrastructure in the project for the purpose of carrying out economic activities, we propose here to validate, from a financial and accounting point of view, this methodological aspect becoming essential in view of the fact that within this limit , income from economic activities on a public research infrastructure is no longer subject to recalculation of the amount of non-reimbursable funding, as detailed in section I above on the application of the provisions of Article 55 of the EU Regulation no. 1083/2006.

❖ **Case 1 – public beneficiaries who have research projects with an economic component**

We will first analyze a proposal for advanced methodology by JASPERS - European Commission State Aid Adviser on selecting the economic advantage for an enterprise and qualifying the owner / operator of the research infrastructure as an enterprise. Here's a brief introduction to this consultant:

a) assuming that the capacity allocated for economic activities must be $\leq 20\%$ of the total annual capacity, the question arises as to how this can be determined, indicating several ways, for example, no. hours worked / day, taking into account interruptions, input indicators, but not the income to be appropriate for measuring capacity; activities must be functionally separated, while respecting the principles of transparency in Directive 2006/111 / EC. Evaluation must be made *ex ante* → important to have a realistic and reasonable forecast for the use of RDI infrastructure;

b) in the event that some project inputs are used both for economic activities and for non-economic activities (equipment, staff, etc.) and the 20% share of economic activities exceeds, there are two options during the operation:

- applying the claw-back mechanism (recovering the amount of State aid related to the economic activities that exceed the operating costs plus the pro-rata from the depreciation of the infrastructure);

- treating the financing for economic activities as State aid, with notification to the European Commission (GBER). It may be the preferred option if, in particular, the recovery of net income can affect the achievement of project indicators.

In the following, we will exemplify the implementation of such a methodology, starting from the same investment input figures from the example above (for the 2007-2013 horizon), ie the Total Investment Cost [CI] in Table no. 1 - The financing requirement for the entire investment, totaling 700,000 lei, to which this time we also mention the individual investment values, according to the table below (column 3 of table 4 and No. 5). Methodologically, there are two calculation steps:

- calculating the individual weight of each piece of equipment in the total investment value, thus:

$$(Pve) = (Pi) / (Ti) \quad (1)$$

where: (Pve) - weight value of the equipment; (Pi) - individual price;(Ti) - total investment;

- calculating the aggregate coefficient of each research equipment by multiplying the value of each piece of equipment to the degree of economic use as follows:

$$(Ca) = (Pve) \times (Gue) \% \quad (2)$$

where: (Ca) - Coefficient of aggregation; (Pve) - Weight of the equipment; (Gue) - Degree of economic use;

Following the application of some guide fees for the use of equipment - col. 6 of the table no. 4 and no. 5 (identical tariffs for economic and research activities) to the number of hours of operation per total year of each equipment (Ng / year), weighted by the degree of economic use (Gue), the value of economic incomes and research (non-economic) to each equipment:

$$(Ve_i) = (Nh/an_i) \times (Gue_i) \times (Tu_i) \quad (3)$$

where: (Ve_i) - The amount of economic revenue on the equipment "i", (Nh/an_i) - Number of hours of operation per total year of each equipment "i", (Tu_i) - Use tariff for "i";

Obs.: Similarly, income from non-economic research activities (column 7 of Tables 4 and 5) is obtained.

The key finding is that the value of the economic revenues may be 24.21% - year 1 and 26.11% - year 2 of the total revenues, with respect to the maximal regulated use $\leq 20\%$ of the total annual capacity, whereas in year 1 this coefficient is 19.5% (col.5, table 4), and in year 2 20.0% (col.5, table 5), therefore the maximum value is in both cases higher than the maximum capacity utilization technical situation of the

equipment, a situation which benefits the beneficiaries without infringing the applicable regulations of Regulation (EU) No. 1303/2013 and Regulation (EU) No. 651/2014.

❖ **Case 2 – private beneficiaries**

▪ Project description: Private beneficiary, Competitiveness Operational Program 2014-2020, action A.1.1.1 Large C.D. infrastructure, health.

The project will acquire C.D. which will form a telemedicine network that will be uploaded with patient data.

Table 4 - Degree of use of research capacity for economic research - year 1

Equipment	Hours total / year	Economic Usage%	Purchase price, lei	Weight of equipment	Coefficient of aggregation	Use fee, lei / h	Total revenues, out of which		
							From research	Economic	Total
0	1 (365 - non working days) * 8	2	3	4 (price / total)	5 (col.2 x col. 4)	6	7 (col.9- col.8)	8 (col.9 x col. 2)	9 (col. 1 x col. 6)
A	2088	25%	160000	0.229	0.057	2000	3132000	1044000	4176000
B	1044	25%	200000	0.286	0.071	2500	1957500	652500	2610000
C	1044	5%	150000	0.214	0.011	1000	991800	52200	1044000
D	1044	15%	120000	0.171	0.026	2250	1996650	352350	2349000
E	2088	30%	70000	0.100	0.030	3000	4384800	1879200	6264000
Total			700000	1	0.195		12462750	3980250	16443000
Economic usage vs.%									24.21

Table 5 - Degree of use of research capacity for economic purposes - year 2

Equipment	Hours total / year	Degree of economic use	Acquisition price (less than 20% amortization)	Weight of equipment	Coefficient of aggregation	Use fee, lei / h	Total revenues, out of which		
							From research	economic	Total
0	1 (365 - non working days) * 8	2	3	4 (price / total)	5 (col.2 x col.4)	6	7 (col.9- col.8)	8 (col.9 x col. 2)	9 (col. 1 x col. 6)

A	2088	25%	128000	0.229	0.057	2000	3132000	1044000	4176000
B	1044	25%	160000	0.286	0.071	2500	1957500	652500	2610000
C	1044	5%	120000	0.214	0.011	1000	991800	52200	1044000
D	1044	15%	96000	0.171	0.026	2250	1996650	352350	2349000
E	2088	35%	56000	0.100	0.035	3000	4071600	2192400	6264000
Total			560000	1	0.200		12149550	4293450	16443000
Economic usage related to value %									26.11

▪ Documentary basis of the analysis: Applicant's Guide, Application for Financing, Business Plan - Financial Analysis Section, Regulation no. 651/2014 on the 20% limitation of the use of project infrastructure for economic activities.

Preliminary findings on the financing scheme: following the analysis of the funding scheme for the Action: 1.1.1 Large R & D infrastructures, according to the Single Guideline, public funding from project grants will not exceed 70% of the eligible expenditure. Also, the amount of non-reimbursable financial assistance will result after application of the funding allocations specified in the State aid rules for the eligible activities and eligible costs. In addition, any initial investment commenced by the same beneficiary (group level) within three years from the start date of the works for another investment benefiting from aid in the same county shall be considered as part of a unique investment project.

Preliminary conclusions on the funding scheme:

- the applicable non-repayable grant scheme is the State aid scheme for SMEs;
- this aid is compatible with other State aid schemes;
- the beneficiary must comply with the requirement for any initiative initiated by the same beneficiary (group level) within three years from the start date of the work on another investment benefiting from aid in the same county.

Preliminary findings on financial aspects of the project:

From the analysis of the Financing Application (Chapter 6: SUSTAINABILITY OF THE PROJECT), the net cash flow generated by the investment is positive over the entire implementation period and during the forecast period (15 years after the project implementation is finalized). From the business plan analysis of cost sources, it is mentioned that operational and maintenance costs will be covered by research activities for different beneficiaries, research contracts obtained through national and international programs, consultancy contracts, achievement of special milestones for research purposes for different partners. The revenue estimation has taken into account the following types of revenue-generating activities that can be achieved within the Center:

- making special commands for research for different economic partners;

- publishing high impact publications to increase visibility and involvement in international projects where the Romanian partner has a significant contribution;
- collaborative research activities by attracting creative potential from other R & D units that do not have C.D. modern;
- integration of the center into the European and international priority programs;
- involvement in national and international research projects;
- for the categories of income mentioned, their estimate was based on the estimate:

- ✓ clinical trials and tests for different institutions and other beneficiaries;
- ✓ estimated national and international grants;
- ✓ research contracts with the economic environment;
- ✓ use of research equipment for paid services with equipment identification (eg ultrasound, endoscope, etc.) and estimation of tariffs/patients/types of investigations /day;

From the analysis of the monetary flow generated by the project over the sustainability period, taking into account the above revenues, it was found that the net monetary flow is positive over the entire analysis period.

5. Final conclusions

Considering the type of project (research) and the type of beneficiary (commercial company), it is noted that the State aid rules regarding the recalculation of the non-reimbursable financing intensity according to the net revenues realized, as well as their nature reportedly on the use of research equipment for pay services). These regulations are generally applicable to public entities which, as a general rule, do not have economic activities, so that when they engage in such economic activities, the increase in funding is recalculated if there are net revenues generated by the direct users' project infrastructure. In this case, state aid rules for SMEs are applicable, regulations that provide for a maximum amount of non-reimbursable financing, without subsequent recalculation of the intensity. This is confirmed by art. 61, para. 8 letter b) of the EU Regulation no. 1303/2013. In this case, the provisions on total capacity utilization are also not applicable in the sense that the allocation for economic activities must be $\leq 20\%$ of the total annual capacity. It should be noted that it is technical and not the technical capacity, in the sense that 20% of the technical capacity (calculated eg in hours) can be used, the result of use may mean, for example, and 50% of total revenue.

Therefore, the net revenues, which are partly formed by the fees borne by the beneficiaries (for ultrasound investigations, etc.) representing the cost of those services, plus the profit margin (at the market level), will not be subject to subsequent recalculation related to the degree of non-reimbursable financing within the meaning of art. 61 of Regulation 1303/2013.

Based on the above conclusions, we can give the following answers to the formulated assumptions:

Answer hypothesis no. 1: although it is explicit only for commercial companies (not for public institutions), there is a legal framework to finance translational research in the context of the 2014-2020 funding horizon, and this framework must be assumed and normalized by the competent authorities in managing EU funds;

Answer hypothesis no. 2: both in the case of beneficiaries of commercial companies and public institutions, research equipment can be used to collect fees

directly borne by patients and, in addition, the use of research equipment can generate economic income over the project implementation period and in the durability period;

Answer to hypothesis no. 3: in the case of the company's beneficiaries, the 20% limitation of the use of infrastructure in the project for the purpose of carrying out economic activities consuming the same production factors as non-economic research activities is not applicable, but it is applicable to public institutions on a basis allows and stimulates the recording of economic incomes during the sustainability period;

Answer to hypothesis no. 4: there is the possibility of identifying the factors that affect the analyzed process, namely the formulation of a quantitative modeling of the input-output relations in order to obtain a functional relationship for the U.E. in the field of health, as described in this study, synthesized in Tables no. 4-5.

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Annex no. 1 - Calculation of non-reimbursable financing for income-generating projects through the "funding-gap" method

Please note: enter data only in the columns marked in gray. The rest of the data is either predefined or automatically generated.															
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Year	Investment Cost (CI)	Eligible costs (EC)	Non-eligible costs (CNE)	IAF	Actual Cost of Investment Cost (ICI)	Actual Cost of Eligible Costs (DCE)	Current Cost of Ineligible Costs (DCNE)	Operating Expenses ©	Income from operation (V)	Residual Value (VR)	Net Income (VN)	Current Net Income Value (DVN)	Year of calculation for net revenue update	IAF to update net revenue	Net present value of net earnings (DVNF)
8	400,000	300,000	100,000	0.95	380,952.38	285,714	95,238.10				0	0.00			
2	300,000	300,000	0	0.91	272,108.84	272,108	0.00				0	0.00			
3				0.86	0.00	0.00	0.00	80,000	90,000		10,000	8,638.38	1	0.95	9,523.81
4				0.82	0.00	0.00	0.00	80,000	90,000		10,000	8,227.02	2	0.91	9,070.29
5				0.78	0.00	0.00	0.00	85,000	95,000		10,000	7,835.26	3	0.86	8,638.38
6				0.75	0.00	0.00	0.00	85,000	95,000		10,000	7,462.15	4	0.82	8,227.02
7				0.71	0.00	0.00	0.00	85,000	95,000		10,000	7,106.81	5	0.78	7,835.26
8				0.68	0.00	0.00	0.00	85,000	95,000		10,000	6,768.39	6	0.75	7,462.15
9				0.64	0.00	0.00	0.00	90,000	100,000		10,000	6,446.09	7	0.71	7,106.81
10				0.61	0.00	0.00	0.00	95,000	105,000		10,000	6,139.13	8	0.68	6,768.39
11				0.58	0.00	0.00	0.00	95,000	105,000		10,000	5,846.79	9	0.64	6,446.09
12				0.56	0.00	0.00	0.00	95,000	105,000	50,000	60,000	33,410.25	10	0.61	36,834.80
Total	700,000	600,000	100,000		653,061	557,823	95,238	875,000	975,000	50,000	150,000	97,880.28			107,913.01
Financial update rate:			5%		Actual value of non-reimbursable funding				464,732.71	<i>(indicative value)</i>					

Explanations

- (1) Number of years (reference period)
- (2) The investment cost (CI), staggered over the project implementation period - represents the total value of the project, excluding the related VAT
- (3) The amount of eligible costs (EC) is the eligible value of the project, excluding VAT
- (4) The amount of eligible costs (CNE) is made up of the eligible project value, excluding VAT
- (5) The Financial Update Index (IAF) is based on the 5% financial discount rate. Both the financial update rate and the IAF are predefined parameters
- (6) The value of the investment cost of year n, updated at the time of the analysis (year 0), with the financial update index. $DCI = CI \times IAF$
- (7) The amount of eligible costs in year "n", updated at the time of the analysis (year 0), with the financial update index. $DCE = CE \times IAF$
- (8) The value of ineligible costs in year "n", updated at the time of the analysis (year 0), with the financial update index. $DCNE = CNE \times IAF$
- (9) The operating costs taken into account should include current costs (such as wages, raw materials, electricity), maintenance costs and replacement costs for equipment with a reduced life span.
- (10) Income from exploitation includes only direct receipts from infrastructure / goods / services users subject to the project (charges directly incurred by infrastructure users, land / buildings rental income, service revenues)
- (14), (15) and (16) are indicative calculation values for the final payment under the project.