



ORIENT- NM

**Organisation of the European
Research Community on Nuclear
Materials**

A Coordination and Support Action in
Preparation of a Co-Funded European
Partnership on Nuclear Materials



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Work Package 3 – EJP structure and functioning: legal issues, resource needs and implementation

Deliverable D3.4:

Resource analysis - draft

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List of abbreviations

AC	Associated Country, a non-EU country that can participate under equivalent conditions as legal entities from the EU Member States, unless specific limitations or conditions are laid down in the work programme and/or call/topic text
CA	Consortium Agreement
CEP	Co-funded or Co-programmed European Partnership
EC	European Commission
EJP	European Joint Programme
EU	European Union
GA	General Assembly
ExB	Executive Board
EU	European Union
FTE	Full Time Employment
SAB	Scientific Advisory Board
IG	Innovation Group
RL	Research Line
RLL	Research Line Leader
MS	Member State
REA	Research Executive Agency
SRA	Strategic Research Agenda
VP	Vision Paper
WP	Work-package

Introduction

This task will explore different scenarios in terms of realistically available resources and funding to cover the costs of executing the SRA. It therefore relies heavily on the results of the other work packages and, in turn, provides crucial information to WP1 and WP4. It is divided in four phases, as follows.

Initializing phase (M1-M12): monitoring of WP2 (Vision paper and SRA) progress and evolution of T3.1, which determines the structure that the resources need to reflect.

Phase Ia (M13-M19) and Phase Ib (M19-M24): Brainstorming among task members (and other potential contributors) focused on specific elements of business plan and scenario analysis. It will include mapping potential activities and their expected outcomes, funding sources (open calls, topical calls, national programs, industrial projects, solution calls (CPPS), Public-Private Partnerships etc.) and their impacts on requirements for the governance of the CEP, and finally optimisation of budgeting. This phase is finalised by a meeting of the task team (M18-M19), devoted to the selection of the most suitable ideas and procedures for further development, followed by an in-depth analysis.

Orient NM CEP structure

Co-funded European Partnerships (and programme co-funded actions in general) are defined in the Horizon Europe rules for participation and dissemination as “actions to provide multi-annual co-funding to a programme of activities established or implemented by legal entities managing or funding R&I programmes, other than Union funding bodies; such a programme of activities may support networking and coordination, research, innovation, pilot actions, and innovation and market deployment actions, training and mobility actions, awareness-raising and communication, dissemination and exploitation, and provide any relevant financial support, such as grants, awards and procurement, as well as Horizon Europe blended finance, or a combination thereof. The programme co-fund action may be implemented by those legal entities directly, or by third parties on their behalf.”

The structure of Orient NM CEP has been defined in WP3 and described in D3.3. It is under further revision in D3.8. The formal structure includes:

- a. General Assembly – GA;
- b. Coordinator - PC;
- c. Executive Board – ExB;
- d. Management Support Team - MST;
- e. Innovation Group – IG
- f. Scientific Advisory Board – SAB ;

- g. Research Line – RL;
- h. Projects;

The (preliminary and still to be fully defined) structure of the CEP is graphically presented on Fig. 1.

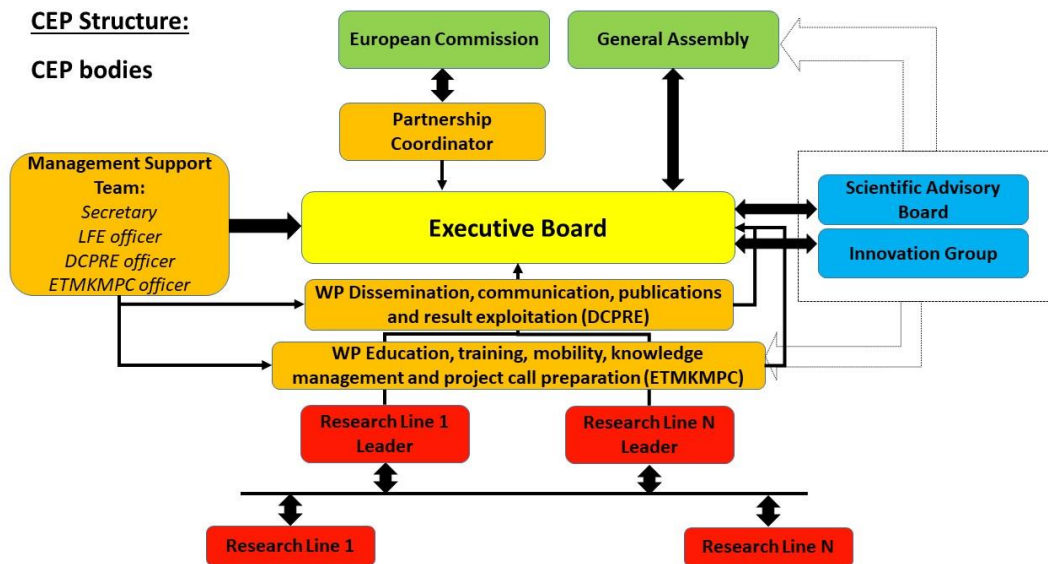


Fig. 1 Planned structure of the CEP.

Mapping of potential activities

The tasks and activities of each element of the organizational structure are defined by general European Commission rules and CEP Consortium agreements. These tasks can be summarized as follows (the roles are supposed to be similar to those defined in the DESCA model):

GENERAL ASSEMBLY (GA): The highest decision-making body of the CEP. It is chaired by an appointed person elected by GA members and consists of one duly authorized representative of each partner. The GA should meet at least once per year. The main role and duties of the GA are:

- Monitoring of project progress, achievements, costs.
- Solution of problems and conflicts that have a potential impact on project strategies, resources and achievement of planned objectives, including definition of the necessary contingency plans.
- Approval of changes in project management bodies.
- Proposals for changes to the research projects and the related budget.
- Proposals for possible amendments to the Consortium Agreement (CA).

COORDINATOR: The Coordinator will be selected among the CEP Partners upon proposal preparation and will be responsible for:

- Acting as an interface between the EC and the CEP consortium to ensure that all project activities follow the grant agreement;
- Chairing the ExB;
- Budget administration and allocation between the partners and tasks;
- Supporting timely and efficient communication between partners;
- Submitting to the REA the contractual documents and reports, based on reports from the Research Lines;
- Acting as chief spokesperson for the project and participating in major dissemination events.

EXECUTIVE BOARD (ExB): At the moment of D3.4 submission the ExB is a body composed of the Coordinator, a Deputy Coordinator, and the Research Line Leaders (RLL – see below). Additional members may be considered. The ExB should meet at least twice per year. The main responsibilities of the ExB are:

- Project management: overall project plan, coordinating implementation of work within the Research Lines.
- Legal management: managing the CA among all partners. Administrative management: preparation of management meetings. Collection, monitoring, integration and consolidation of administrative data from RL, preparation of reports.
- Financial management: keep records of the distribution of funds; monitor the partners' efforts and expenses within RL.
- Project reviews: preparation and organisation of partner meetings, including review meetings with the EC.
- Quality management: supporting the consolidation and maintenance of the quality plan.

MANAGEMENT SUPPORT TEAM: It is composed of: Secretary; Legal, Ethics and Financial Officer; E&T&KM & Project Call¹ Officer; Dissemination, Result Exploitation & Communication Officer (4 people). The MST is a body supporting and assisting the Coordinator and the ExB in everyday's administrative tasks, involved for financial and legal management; dissemination and communication activities, including publication follow up; ethics issues; project call organization; and E&T&KM actions. Each of these activities will likely be included as activities of transversal Workpackages of a "management and coordination" project that runs the 5 years of duration of the partnership. The complete description of the functions and the composition of this team still need to be defined in detail.

¹ The Call organization might be assigned to the Legal, Ethics and Financial Officer, or might be outsourced to a separate company, this still has to be seen.

SCIENTIFIC ADVISORY BOARD: The SAB provides scientific guidance to the CEP, supporting and supervising research excellence, directions and activities, participating in the project selection and ensuring the realization of the strategic objectives of the CEP. SAB should meet twice per year and prepare a yearly assessment of the CEP.

INNOVATION GROUP (IG): IG should meet at least twice per year and is responsible for:

- Promoting innovation by providing expert advice to the CEP
- Ensuring consideration of the industry point of view on the Research Lines
- Participating in selection of the projects
- Acting as interface between research and industrial partners of the research actions carried out in the frames of the CEP
- Prepare yearly proposal of exploitation of results

RESEARCH LINE: Cluster of Projects implemented in the frameworks of the CEP. One Research Line consists of one or more Projects that are related to that specific Research Line.

Resources needed

The organisational structure for the European Co-funded Partnership is being defined in T3.1 and will follow the EC Project (DESCA) model, with some modifications. Main duties of the Consortium Agreement is to regulate the following:

- a. Ensure governance and management of the CEP to achieve the objectives of the Partnership,
- b. Guarantee the consistency and synergies of CEP activities with the EU research and innovation landscape; and
- c. Guarantee that all CEP procedures such as identification of its objectives, priorities, vision, preparation of the Strategic Research Agenda SRA and work programmes as well as the CEP management system are correctly carried out, in line with EC rules and national legal regulations.

Main organizational tasks of the ExB, with the support of the MST, are:

- a. Analysis and supervision of the Research Lines compliance with the EU scientific policy
- b. Supervision of the implementation of Projects within Research Lines
- c. Organization of meetings, reporting, exchange of information between CEP partners,

- d. Organization and follow up of dissemination and popularization activities, including publications
- e. Organization and follow up of education, training, mobility and knowledge management actions

To perform these tasks, necessary resources have to be disposed in the CEP, essentially in the form of sufficient funds to cover the costs of employment of persons performing functions in the CEP management system and to cover the costs of meetings, organization of everyday contacts, preparation of reports, financial documents etc.

Evaluation of the costs needed to cover CEP activities

In this document, the detailed (though draft) breakdown of costs concerns the expenses related to the overall organization and management of the CEP. Project costs are presented only as aggregate values and will be the subject of specific internal calls and subsequent grant proposals prepared accordingly to the EC rules.

The expenses may be divided into five main categories:

- a. Personnel costs
 - Salaries
- b. Direct costs
 - Travel
 - Consumables
 - External services
- c. Indirect costs (Overheads)

Personnel Costs

The first element of the evaluation of the resources needed is the estimation of the number of persons involved in various bodies of the CEP together with the first assumption of their engagement (part of the FTE) in CEP activities. These data are presented in Table 1.

Table 1. Personnel workload in the CEP.

No	CEP Body	Function	Number of persons	Part of FTE	Workload FTE
1	General Assembly	Member	15 ²	0.1	1.5
2	Executive Board	Member	5 ³	0.1	0.5
3	CEP Coordinator	Coordinator	1	1.0	1.0
4	Deputy Coordinator	Deputy Coordinator	1	0.3	0.3
5	Research Line Leaders	Research Line Leader	5	0.1	0.5
6	Management Support Team	<ul style="list-style-type: none"> • Secretary • Legal, Ethics and Financial Officer • E&T&KM & Project Call Officer • Dissemination, Result Exploitation & Communication Officer 	4	1.0	4.0
7	Scientific Advisory Board	Member	10	0.1	10.0 ¹
8	Innovation Group	Member	9	0.1	0.9 ¹
TOTAL					7.8 (18.7 incl. SAB & IG)

¹SAB and IG will not be in principle compensated financially for their work, although live expenses will be reimbursed.

CEP management bodies require thus covering the costs of employment roughly corresponding to 7.8 FTE. Assuming an average salary of 6,000 EUR/month, this corresponds to 46,800 EUR monthly, 561,600 EUR yearly and 2,808,000 EUR during 5 year of CEP project execution.

Travel

Second element of cost estimation is the analysis of expenses related to travel. It is assumed, that GA meetings should take place at least once per year: obligatory meetings will be live, the others will be organized as virtual meetings at no costs. The cost of participation per person has been estimated as follows: plane ticket

² It is assumed here that 15 MS will take part in the Partnership

³ Coordinator and Deputy Coordinator are accounted separately

400 EUR, one night in hotel 150 EUR and two daily allowances at 60 EUR each. Consequently, the cost of participation in one meeting per person equals to 610 EUR.

Cost of participation in Executive Board were estimated assuming that the meetings will be organized on a two months basis, two meetings per year will be organized as live meetings and four as virtual meetings. The cost per meeting and person was calculated as above.

Next position in the travel costs is the dedicated budget reserved for Coordinator and Deputy Coordinator allowing them to travel on various matters related to the implementation of the Partnership and the dissemination of the results and advances. These costs were estimated as five travels per year each, costs of each travel calculated as above.

Scientific Advisory Board is expected to meet in live, once per year. Travel costs will also be covered by the CEP project.

Most of the meetings of the Innovation Group are assumed to be carried out virtually, one live meeting per year is planned.

Table 2. Estimated travel costs for the CEP

N o	CEP Body	Meeting	Number of events	Cost of participation (1 person)	Number of persons	Total cost (5 years)
1	General Assembly	Live meeting	5	610	15	45,750.00
		Virtual meeting	5	0.0	15	0.00
2	Executive Board	Live meeting	5	610	7	21,350.00
		Virtual meeting	15	0.0	7	0.00
3	CEP Coordinator & Deputy Coordinator	Business trips	10	610	1	6,100.00
4	Scientific Advisory Board	Live meeting	5	610	10	30,500.00
		Virtual meeting	5	0	10	0.00
5	Innovation Group	Live meeting	5	610	9	27,450.00
		Virtual meeting	10	0.0	9	0.0
					TOTAL	131,150.00

Travel costs needed to ensure the management of the CEP project can thus be estimated as 131,150 EUR per five years of the project duration.⁴

Consumables

Efficient operation of the CEP Office would require some consumables related to the work of the MST; printing and videoconferencing equipment, office supplies, etc. These costs were estimated at a flat rate of 5,000 EUR per year, i.e. 25,000 EUR per CEP.

Projects evaluation

It is assumed that participants of the CEP are also responsible for conducting the calls, as well as evaluation and selection process of projects implemented within its framework. This process includes: (i) selection of projects for implementation, (ii) evaluation during the project implementation and (iii) evaluation of its implementation after completion.

Assuming that 5 Research Lines are implemented under the CEP, each of them composed of four Projects and three times more proposals will be submitted for each competition, it should be assumed that it will be necessary to make 60 initial, 20 intermediate and 20 final evaluations. The minimum number of reviewers for one evaluation is 2, which makes a total of 200 ratings. Assuming the reviewer's fee of EUR 200 for the review, the costs of the evaluation process can be estimated at EUR 40,000, assuming that all meetings of the evaluation committee will be held in a virtual manner, and the costs of possible participation of other members of the commission (Innovation Group, Scientific Advisory Board, Executive Board) will be covered from other items, e.g. travel expenses above. Note that the cost of the evaluations as estimated here can be adapted by reducing the review fee and thus liberating funds for other expenses related to call organization.

External services

External services were divided into two main categories: services related to the organization of live meetings (costs like catering, renting of rooms, renting of the equipment needed, printing of materials for a meeting, etc.). These costs were estimated on a flat rate basis of 2,000 EUR per meeting. Taking into account that 20 live meetings are planned it gives 40,000 EUR per project duration.

To this amount should be added the costs of developing and maintaining the website for CEP projects (including also projects implemented under the CEP). We estimate the cost of preparing a website at EUR 8,000, and maintenance costs at EUR 2,000 per year. We estimate the total cost of the website at EUR 18,000.

⁴ Note that travel expenses will have to be foreseen also in connection with projects. However, these are here included in the project budget and are not made explicit.

In addition, external services may have to be required by the MST, ranging from print layout of documents to legal or financial consultancy, as well as audits. This is estimated as 10,000 per year.

External services are thus estimated as EUR 108,000.

Training and mobility

The CEP will facilitate competence building related to nuclear materials. To this end, the CEP will set up a 'School of Nuclear Materials' (name not final) to manage and execute all education and training (E&T) and mobility actions that will be organized within a future CEP-NM, with the aim to preserve and extend the required knowledge, skills and attitudes to progress nuclear materials research and applications. In order to organize these activities, budget needs to be foreseen for organizing training courses and for founding and maintaining a mobility programme.⁵ These activities will be executed by MST (current assumption), probably involving also support from other Partnership participants, within a dedicated transversal WP within the CEP, with support of the Coordinator and members of the ExB, SAB and IG, who will form the Evaluation Board for the mobility programme.

In addition, budget needs to be reserved for online tools (e.g. webinar platform, dedicated webpage, mobility application portal, ...). These tools are necessary to perform the key education and training activities.

Next, costs need to be foreseen for the integration of students and junior researchers. In order to allow them to network efficiently, the CEP will organize network events and discussion sessions.

Estimated costs for training and mobility are shown in Table 3.

Table 3: Estimated costs for training and mobility actions. More details to be provided.

No	Position	Total cost (5 years)
1	Personnel costs	300,000.00
2	Organization of training courses	120,000.00
3	Mobility Programme	130,000.00
4	Networking events	100,000.00
5	Tools	25,000.00
6	Indirect costs	120,000.00
	TOTAL	795,000.00

⁵ At the same time, to optimize the use of resources, any opportunity offered by actions external to the Partnership, i.e., managed by ENEN, will be exploited.

Projects

Projects implemented in the framework of the CEP will follow the general rules of the European Commission. Their costs will be described in project proposal and will be analyzed, implemented and checked by CEP and relevant EC services. In the first approximation 5 Research Lines composed each of four Projects leads to a final value of 20 Projects, each worth 2 MEUR, hence the total value is 40 MEUR. The purpose of the CEP is that all expenses and activities that are different from R&D should be centralized at the level of CEP structure, thus virtually all the money allocated to projects should be spent exclusively for R&D activities (except travelling expenses).

Total costs of CEP Project

The complete cost evaluation of the CEP during 5 years execution, excluding project costs, is presented in Table 4.

Table 4.

No	Position	Total cost (5 years)
1	Personnel costs	2,808,000.00
2	Travel	131,150.00
3	Consumables	25,000.00
4	External services	108,000.00
5	Project Evaluations	40,000.00
6	Education and Training	795,000.00
8	Overheads	976,787.50
	TOTAL	4,883,937.50

The cost of projects with the above assumptions is MEUR 40, which adding overheads gives a total of MEUR 50. Thus the preliminary analysis presented here allows us to estimate the cost of the Co-funded European Partnership project as: **54,883,937.50** EUR. Any additional funding will revert in more money for R&D projects.

In the current estimation the costs of the CEP management (latu sensu, i.e., including all activities that are different from, strictly, R&D, including E&T&KM, dissemination, communication, result exploitation, etc.) equal 9% of the total CEP costs. Any additional funding will decrease this fraction.

Preliminary analysis of funding mechanisms

In Deliverable D3.2 “Legal Aspects” the basis for a financing of the CEP Action has been defined. In principle the CEP funding should resemble that of a conventional EU project, except that the EC provides only part of the costs, the remaining part being matching funds from MS. Main income categories are:

- Complementary “national” funding
- In-kind contributions
- Financial support to affiliated entities

Although the actual EC funding rate will be a result of negotiations, at the current stage a general consensus is that 45% of the costs will be covered by matching funds and 55% will come from European Commission. By applying this breakdown to the planned project costs, the EC contribution can be estimated at 30,186,165.60 EUR and the contribution from the national institutions at 24,697,771.90 EUR. That means that for each 2 MEUR project the sum of national contributions will be close to 1.15 MEUR, which corresponds roughly to 230 kEUR per project participant (assuming 5 participants per project). A similar level of involvement of national funds in existing CEPs occurs now and obtaining such funds from national sources of financing can be considered possible. Therefore, it seems that also in the case of CEP-type projects, the Member States can allocate adequate funds for the implementation of these projects.

One problem may be the rigid catalogue of eligible costs in the research projects. This topic is currently being discussed within the Orient NM consortium. One of the possible solutions may be the establishment of an additional fund based on a contribution paid by project partners from national funds.

Summary and conclusions

The analysis presented in this document is a first approximation to the financing of the CEP Action dedicated to the studies of materials for nuclear applications. This analysis will be refined and adjusted to the conditions as details are defined within ORIENT-NM and by the European Commission, and negotiated with the Member States.

It is worth emphasizing that the preliminary cost analysis indicates the possibility of obtaining significant cost rationalization by shifting many costs to the central CEP budget described above. This applies to such positions as management, dissemination and communication, education, training and knowledge management. Current estimates indicate that the sum of these costs will constitute approx. 9% of the entire CEP budget, which is a lower value than in the case of the sum of individual projects, as similar activities usually account for as much as 25% of the project costs. At the same time, we expect effects of scale as the education and training activities will be more effective for a larger group of interested people,

divulgate through a single webpage more efficient etc. In addition, any further funding will in fact reduce the share of costs not used for R&D. All these factors should lead to a better use of funds within the Co-funded European Partnership compared to the sum of the individual EJP projects.

