EUROPEAN JOINT PROGRAMME FOR THE INTEGRATION OF RADIATION PROTECTION RESEARCH CONCERT

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EJP-CONCERT

European Joint Programme for the Integration of Radiation Protection Research

H2020 – 662287

D4.5: Final ranking list and Joint selection list of the projects to be funded from the joint international peer review of full proposals for the CONCERT open RTD Call 2

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Reviewer(s): CONCERT coordination team

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EJP-CONCERT

European Joint Programme for the Integration of Radiation Protection Research

H2020 – 662287

Report on the second CONCERT call 2017

Based on:

Report on the response to the second CONCERT call
Report on the evaluation procedure
Report on LESSONS LEARNED - Evaluation of the call by the PRP
Report of the Independent Observer

EJP CONCERT Joint Call Secretariat

This report responds to the deliverable D4.5 of WP4:

D4.5: Final ranking list and Joint selection list of the projects to be funded from the joint international peer review of full proposals for the CONCERT open RTD Call 2

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1 Objective of this document

This document aims to summarise the input on the second open transnational call of the European Joint Program CONCERT 2017 to fund multidisciplinary innovative research projects in radiation protection.

This report includes:

1. An analysis of the second call's input, describing the participation of the radiation protection research community in the second CONCERT call;
2. A report on the evaluation procedure (including the Peer Review Panel meeting) and the summary of the final funding decision;
3. An analysis of the six projects funded, based on the list of indicators developed in WP4;
4. A lessons learned report, including a general evaluation of the projects submitted to the second CONCERT call and of the calls procedures, by the members of the international Peer Review Panel (PRP);
5. The report of the Independent Observer.

This report aims to present the results of the second CONCERT call and to analyse whether the call has been efficient and relevant.

2 Background information

The aims of the second open transnational call of CONCERT have been:

- To support transnational research projects that combine innovative approaches in the field of radiation protection in line with the research priorities of CONCERT;
- To actively integrate E&T activities and collaboration with universities in multidisciplinary research projects;
- To make optimal use of research infrastructures.

Project proposals had to address multidisciplinary and transnational research. The second call addressed 2 main topics (each one with three sub-topics). The project proposals must fall within one of the topics and may answer one or more sub-topics within one of the topics when appropriate:

Topic 1 - Understanding human health effects from ionising radiation and improving dosimetry

I. Improvement of health risk assessment associated with low dose/dose rate radiation.

II. Improvement of occupational dosimetry.

III. Patient-tailored diagnosis and treatment: full exploitation and improvement of technology and techniques with clinical and dose structured reporting.

Topic 2 - Radioecology, emergency and social sciences and humanities

I. Biomarkers of exposure and effects in living organisms, as operational outcomes of a mechanistic understanding of intra- and inter-species variation of radiosensitivity under chronic low dose exposure situations.

II. Countermeasure strategies preparedness for emergency and recovery situations.

III. Models, tools and rationales for stakeholder engagement and informed decision-making in radiation protection research, policy and practice for situations involving exposures to ionising radiations.

Due to its characteristic representing an open call, the following organisations have been eligible to be funded:

- Beneficiaries of CONCERT (see list of Beneficiaries in Annex A);
- Linked Third Parties of CONCERT (see list of Linked Third Parties in Annex A);
- Third Parties:
    - Higher education establishments and other academic research institutions, in particular:
        - Research oriented radiation protection institutions;
    - Clinical/public health sector organisations, in particular those employing research teams working in hospitals/public health and/or other health care settings. Participation of Medical Doctors in the research teams is encouraged;
    - Enterprises (all sizes of private companies). Participation of small and medium-size enterprises (SMEs) is encouraged.

Third Parties could participate in transnational projects if they have been able:

- to secure their own funding (without asking for any financial support);
- or to receive a financial support from a CONCERT Beneficiary organisation or one of their Linked Third Parties (See Annex A).

Such partners have been considered as full project partners.

The total budget available for this second CONCERT transnational Call for proposals was 6.98 M€. CONCERT decided to allocate the funds available for the second call as follows: 80% to topic 1 and 20% to topic 2, respectively. Therewith, CONCERT intended to fund up to three projects in topic 1 and up to two projects in topic 2, respectively. CONCERT considered that proposals with total eligible cost up to 1.86 M€ for topic 1 and up to 0.69 M€ for topic 2 would allow the specific challenges of the open CONCERT RTD calls to be addressed appropriately. Nonetheless, this recommendation did not preclude submission and selection of proposals requesting other amounts.

In contrast to the first call, consortia submitting proposals to the second CONCERT call should integrate as partner at least one external entity (non-CONCERT beneficiary or LTP) to the current CONCERT consortium.

3 Call preparation and general time schedule of the call

The second CONCERT call was launched on March 1st, 2017. The submission website was open for 2 months and was closed on May 2nd. In total 25 proposals have been submitted. One proposal, not following the formal criteria of the call, was found not to be eligible.

After allocation of proposals to the group of 13 international experts and further remote evaluation of all proposals, the PRP met for 2 days in Paris on July 6-7, 2017 to thoroughly discuss all 24 eligible proposals and to rank them in the presence of Christine Bunthof in her role as Independent Observer, André Jouve the EJP CONCERT EC Project Officer, invited as an observer, and in the presence of the Call Steering Committee members (CONCERT's WP4). Two ranking lists – one for topic 1 and one for topic 2 – have been established by the PRP.

The Financial meeting of the Management board of CONCERT was prepared during a Work Package 1 (Coordination team of CONCERT) and Work Package 4 (Coordination of the CONCERT Calls) meeting on July 10th.

With the total budget of 6.98 M€ available and according to the ranking lists, the first 4 proposals of topic 1 and the first 2 proposals of topic 2, are funded as decided during the Management Board meeting of CONCERT on the 27th of July 2017.

Discussions about cash-funding for Third Parties within the three winning consortia took place in close collaboration with the proposals coordinators, the CONCERT coordination team and work package 4 (coordination of the call). For two projects, modifications within the projects have been presented in new work plans provided by the respective project's coordinators. These new work plans have been validated by the PRP.

The CONCERT Grant Contracts (CGC) for all funded projects have been signed in December 2017.

4 Response to the second CONCERT call

In total, 25 proposals were submitted by 166 partners from 89 different institutions in 24 countries. Thereof, 21 proposal responded to Topic 1, in the area of *Understanding human health effects from ionising radiation and improving dosimetry*, and 4 proposals to Topic 2, in the area of *Radioecology, emergency and social sciences and humanities*.
24 proposals were found to be eligible. One proposal (topic 1), not following the formal criteria of the call, was found not to be eligible.

The size of the consortia varied from 4 partners up to 13 partners (Fig. 1), with an average of 7 partners per proposals. Besides 19 EU/EURATOM countries, four third countries participated; Japan, Serbia, Norway and USA; and one EURATOM associated country; Switzerland.

Analysis of all submitted proposals:

N° of proposals	25
N° of countries	24
N° of partners	166
N° of institutions	89
Average number of partners/proposal	7

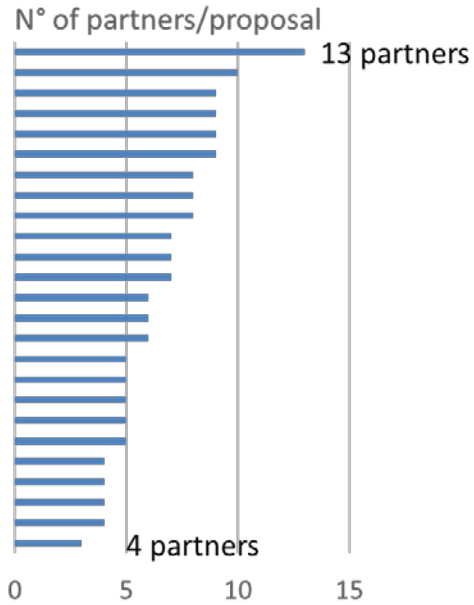


Figure 1: Analysis of the 25 submitted proposals and number of partners per project

The selection of the different sub-topics in the different research areas (topic 1 and 2) is presented in figure 2. The project proposals must fall within one of the topics and may answer one or more sub-topics within one of the topics when appropriate.

A more detailed analysis of the sub-topics selected and of the combination of different sub-topics within the 25 submitted proposals is shown in figure 3.

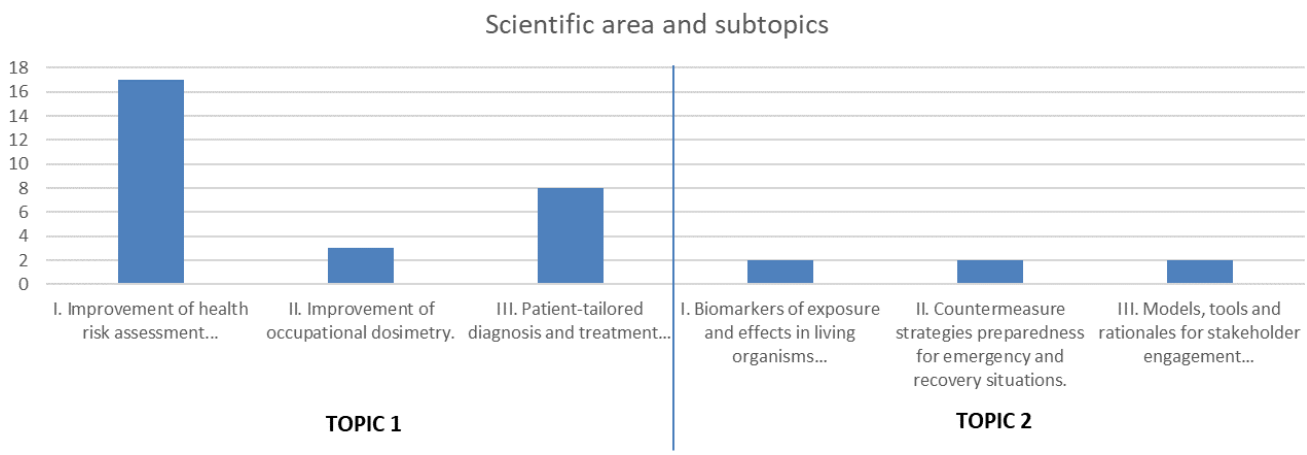


Figure 2: Distribution of the 25 submitted proposals on the different research areas and sub-topics

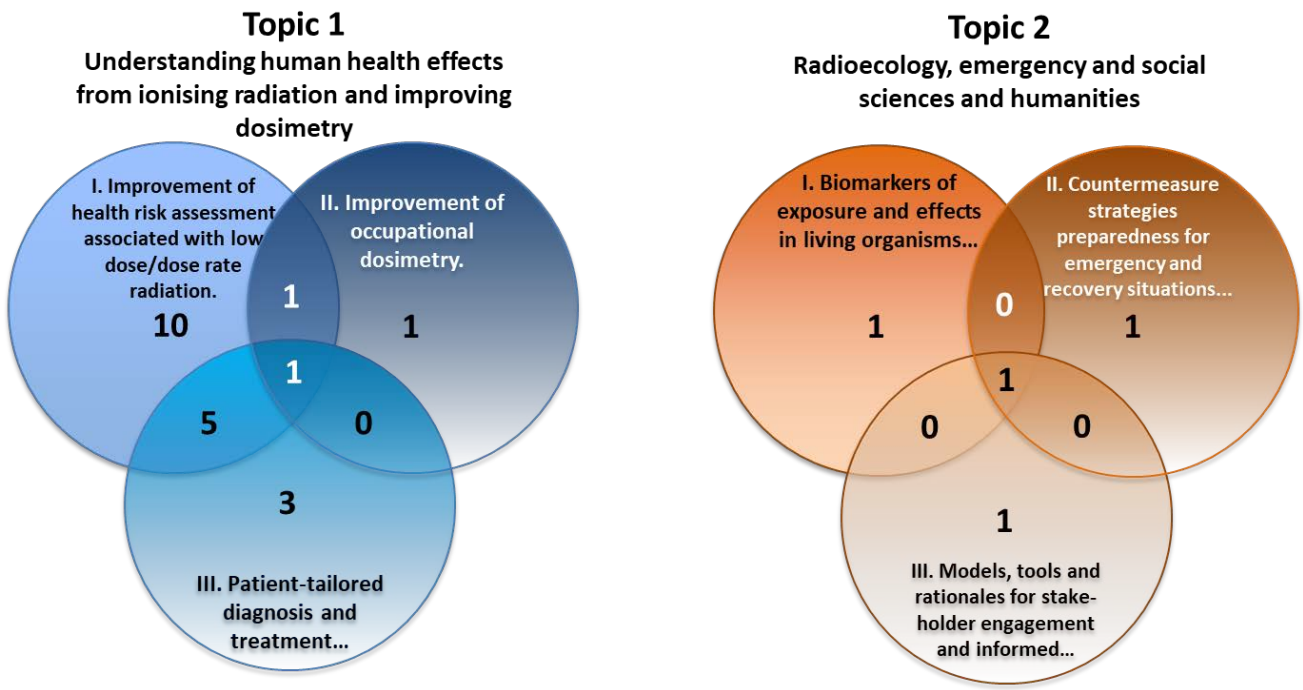


Figure 3: Sub-topics selected and combination of the different sub-topics within the 25 submitted proposals

5 Evaluation procedure and PRP meeting

The evaluation procedure comprised a remote evaluation and a physical PRP meeting in Paris on July 6-7, 2017. The PRP consisted of 13 international experts (table 1). To avoid conflict of interest, mainly non-European experts have been invited. A list of experts, prepared by the EJP CONCERT consortium, has been provided to WP4 by the CONCERT coordination team.

Table 1 : List of international experts contributing in the evaluation process of the second CONCERT call

Name	Institution	Country
Edouard Azzam	New Jersey Medical School	USA
Mary Helen Barcellos-Hoff **(Co-chair)**	University of California, San Francisco (UCSF)	USA
Janet Baulch	University of California	USA
Mike Boyd	U.S. Environmental Protection Agency (EPA)	USA
Sudhir Chandna	Institute of Nuclear Medicine & Allied Sciences (INMAS)	India
Nolan Hertel	George W. Woodruff School of Mechanical Engineering	USA
Kathryn Higley	Oregon State University	USA
Thomas Kron	Peter McCullum cancer centre	Australia
Amy Kronenberg	Lawrence Berkeley National Laboratory	USA
Sheldon Landsberger (**Chair**)	Texas Atomic Energy Research Foundation	USA
Wayne Newhauser	Louisiana State University	USA
Marianne Sowa	NASA - Space Biosciences	USA
Duncan Campbell Thomas	University of South California	USA

The following persons have been present during the PRP meeting as observers:

Name	Institution	Country	Role
Christine Bunthof	Wageningen University and Research	The Netherlands	**Independent Observer**
André Jouve	European Commission	Belgium	**Project Officer**
Véronique Briquet-Laugier	Agence nationale de la recherche (ANR)	France	**WP4**
Monika Frenzel	Agence nationale de la recherche (ANR)	France	**WP4/JCS**
Rita Cavaleiro	Fundação para a Ciência e a Tecnologia (FCT)	Portugal	**WP4**
Alberto Abánades Velasco	Ministerio de Economiá y Competitividad (MINECO)	Spain	**WP4**
Lars Gedda	Stralsakerhetsmyndigheten (SSM)	Sweden	**WP4**

The PRP carried out the evaluation according to specific evaluation criteria (see below), using a common evaluation form. The evaluation of submitted proposals has been aligned on the scoring system and criteria given in the European Commission's Work Programme.

A scoring system from 0 to 5 was used to evaluate the proposal's performance with respect to the different evaluation criteria. Scoring system: 0: fails or missing/incomplete information; 1: poor; 2: fair; 3: good; 4: very good; 5: excellent.

Evaluation criteria:

Criterion 1: Excellence of the proposal:

a.) Clarity and pertinence of the objectives; b.) Credibility of the proposed approach and methodology; c.) Soundness of the concept; d.) Innovative potential; e.) Competence and experience of participating research partners in the field(s) of the proposal (previous work in the field, specific technical expertise)

Criterion 2: Impact of the proposal:

a.) Potential of the expected results to add to the scientific evidence base to improve radiation protection and, consequently, its regulation; b.) Added-value of transnational collaboration: gathering a critical mass, sharing of resources, harmonization of data, sharing of specific know-how and/or innovative technologies, etc.; c.) Added-value for competence building in the European radiation protection research community and the European radiation protection regulatory system; d.) Effectiveness of the proposed measures to exploit and disseminate the project results (including management of intellectual property rights - IPR), to communicate the project, and to manage research data where relevant

Criterion 3: Quality and efficiency of the implementation

a.) Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks, resources and time-frame; b.) Scientific competence and complementarity of the participants within the consortium; c.) Involvement of young scientists (MSc, PhD, Post-Doc…), when applicable; d.) Appropriateness of the management structures and procedures, including risk and innovation management; e.) Concept for sustainability of infrastructures initiated by the project, when applicable; f.) Budget and cost-effectiveness of the project (rational distribution of resources in relation to project's activities, partners' responsibilities and time frame)

The PRP evaluated remotely the submitted proposals (about 7 proposals per PRP member). Each proposal of topic 1 was evaluated by four and each proposal of topic 2 was evaluated by three members (one rapporteur and two to three readers).

The proposals' grades given by PRP members before the evaluation meeting in Paris:

- Topic 1: five proposals were graded below threshold (threshold 10).
- Topic 2: two proposals were graded below threshold (threshold 10).

All 24 eligible proposals have been discussed during the PRP meeting.

During the evaluation meeting, the PRP members met physically in Paris to discuss thoroughly the submitted proposals and to establish the two ranking lists (topic 1 and topic 2) of projects recommended to be considered for funding. Each proposal was reviewed within the meeting by at least three members (one rapporteur and minimum two readers). During this meeting, the rapporteur introduced the proposal to the PR panel, and summarized the remote evaluations. The readers' task was to challenge the reporter, as well as the other PRP members who were asking questions during the meeting. Other PRP members also brought their complementary expertise/view on the proposal. The CONCERT consortium agreed to use the threshold of 10, by summing up the scores of the three criteria, for the final ranking. When below threshold, proposals were not ranked. In total, 15 proposals have been selected and ranked by the PRP, including 13 proposals of topic 1 and 2 proposals of topic 2 (Fig. 4). Two ranking lists – one for topic 1 and one for topic 2 – have been established by the PRP:

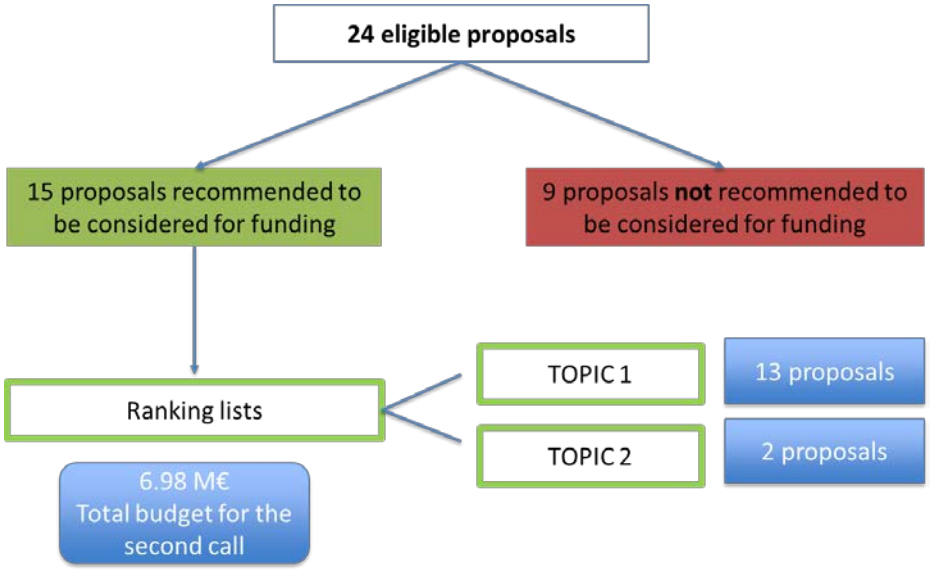


Figure 4: Scheme and result of the evaluation process

With the total budget of 6.98 M€ available for the second CONCERT call, and taking into consideration the budget allocated to the different topics (see also point "2. Background information"), the four highest ranked projects in topic 1 (table 2) and the two ranked projects in topic 2 (table 3) could be funded:

Table 2: List of funded projects - selected and recommended to be funded by the PRP - in topic 1

Proposal ID	Acronym	Topic	Ranking
CONCERT2017-016	LEU-TRACK	1	1
CONCERT2017-007	PODIUM	1	2
CONCERT2017-033	VERIDIC	1	3
CONCERT2017-010	SEPARATE	1	4

Table 3: List of funded projects - selected and recommended to be funded by the PRP - in topic 2

Proposal ID	Acronym	Topic	Ranking
CONCERT2017-039	SHAMISEN-SINGS	2	1
CONCERT2017-041	ENGAGE	2	2

An Evaluation Summary Report (ESR) for each proposal was written by the PRP at the end of the evaluation procedure. The reports have been sent on August 28th 2017 to the respective project coordinators.
For the second CONCERT call a template for the ESR has been established by the WP4 (see Annex B). Besides information about the scores given for the individual criterions and the mean score attributed to the proposal, the report includes:

1. A comment about the relevance of the respective proposal to the call.
2. Separated comments on the three evaluation criteria.
3. A section for an overall comment regarding strengths and weaknesses of the respective submitted proposal.

6 Funding decision

Based on the repartition of budget between topic 1 and 2 in the first call (76% of the budget was dedicated to Topic 2, and 24% for Topic 1), CONCERT decided to allocate the funds of 6.98 M€ in total available for the second call as follows: 80% to topic 1 and 20% to topic 2, respectively. As mentioned, CONCERT intended to fund up to three projects in topic 1 and up to two projects in topic 2, and recommended total eligible costs per proposal up to 1.86 M€ for topic 1 and up to 0.69 M€ for topic 2 within the call text.

The total budget of the six highest ranked projects LEU-TRACK, PODIUM, VERIDIC, SEPARATE, SHAMISEN-SINGS and ENGAGE, that have been selected and recommended for funding by the PRP, add up to approximatively 6.7 M€ in total (Fig. 5 left pie). From these costs, CONCERT is committed for approx. 6.6 M€. The remaining 2% are provided by partners/countries bringing to the project their own resources.

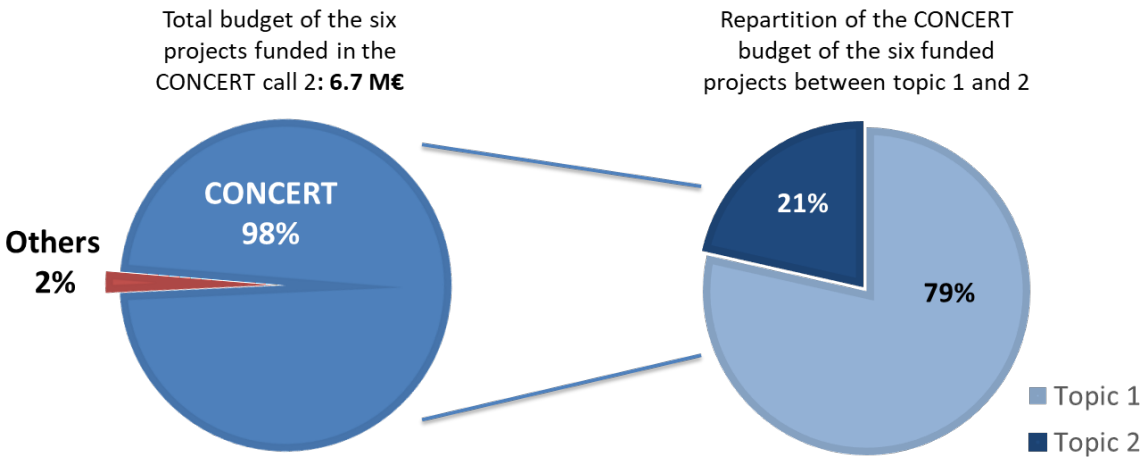


Figure 5: Allocation of the budget within the second CONCERT call 2017

Within this budget, 5.2 M€ are used to fund the four highest ranked projects in topic 1 "*Understanding human health effects from ionising radiation and improving dosimetry*" and 1.4 M€ to fund the two ranked projects in topic 2 "*Radioecology, emergency and social sciences and humanities*". Hence, 79% of the budget used for funding of transnational research projects in the second CONCERT call is going to Topic 1, and 21% to Topic 2 (Fig. 5 right pie).

In contrast to the first call, where all the budget available was spent to fund the three highest ranked projects, in the second CONCERT call, 6% of the budget dedicated to the call (approximately 400.000€) was not used for funding. This remaining budget was not sufficient to fund the next proposal (position 5) in the ranking list of topic 1.

7 Analysis of the projects funded in the second CONCERT call

This part includes a first analysis of the six funded projects of the second CONCERT call, LEU-TRACK, PODIUM, VERIDIC, SEPARATE, SHAMISEN-SINGS and ENGAGE, taking into account the initial submitted proposals. The report does not refer to the results of further amendments (change of the status of partners inside the CONCERT consortium) or other changes within the projects after submission of proposals. This chapter represents the first stage for monitoring of funded projects of the second CONCERT call to evaluate their impact and contributions towards the development of radiation protection research in the European Research Area and the implementation of CONCERT objectives. The report is based in the selected output indicators (D4.8).

LEU-TRACK, PODIUM, VERIDIC and SEPARATE are projects falling within topic 1 of the second call, while SHAMISEN-SINGS and ENGAGE are topic 2 projects. They are responding together to all of the six sub-topics of both scientific areas as presented in figure 6 and table 4:

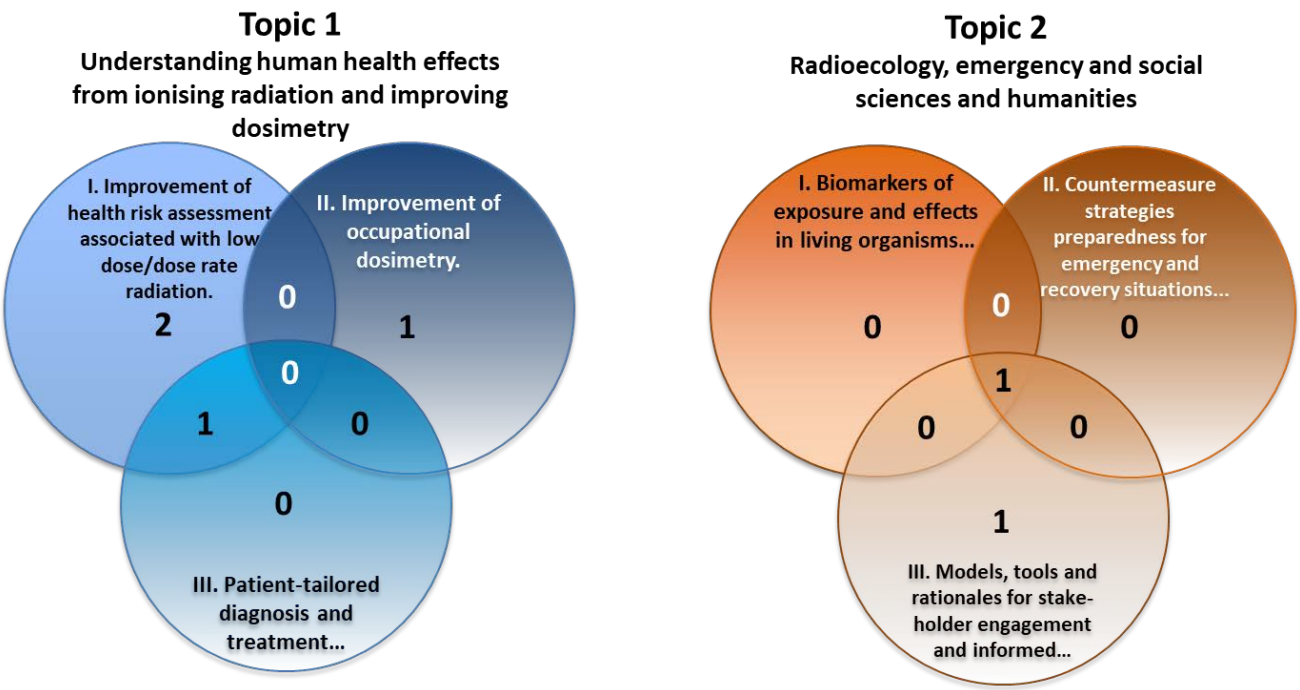


Figure 6: Sub-topics selected and combination of the different sub-topics within the six funded projects

Table 4: Sub-topics selected and combination of the different sub-topics within the 6 funded projects

	TOPIC 1			TOPIC 2		
	I. Improvement of health risk assessment...	II. Improvement of occupational dosimetry.	III. Patient-tailored diagnosis and treatment...	I. Biomarkers of exposure and effects in living organisms...	II. Countermeasure strategies preparedness for emergency and recovery situations.	III. Models, tools and rationales for stakeholder engagement...
SEPARATE	X					
LEU-TRACK	X					
PODIUM		X				
VERIDIC	X		X			
ENGAGE						X
SHAMISEN-SINGS				X	X	X

Based on the initial applications, the 46 partners of the six projects are coming from 14 EU/EURATOM countries, three third countries; Japan, Norway and Serbia and one EURATOM associated country; Switzerland (Fig. 7A). The total budget of the six funded projects adds up to approximatively 6.7 M€ in total (Fig. 7B). While 6.6 M€ of these costs are committed to CONCERT, some partners are bringing to the projects their own resources (Norway, Serbia and Japan as well as partners from Switzerland and France). The number of projects per country is presented in figure 7C.

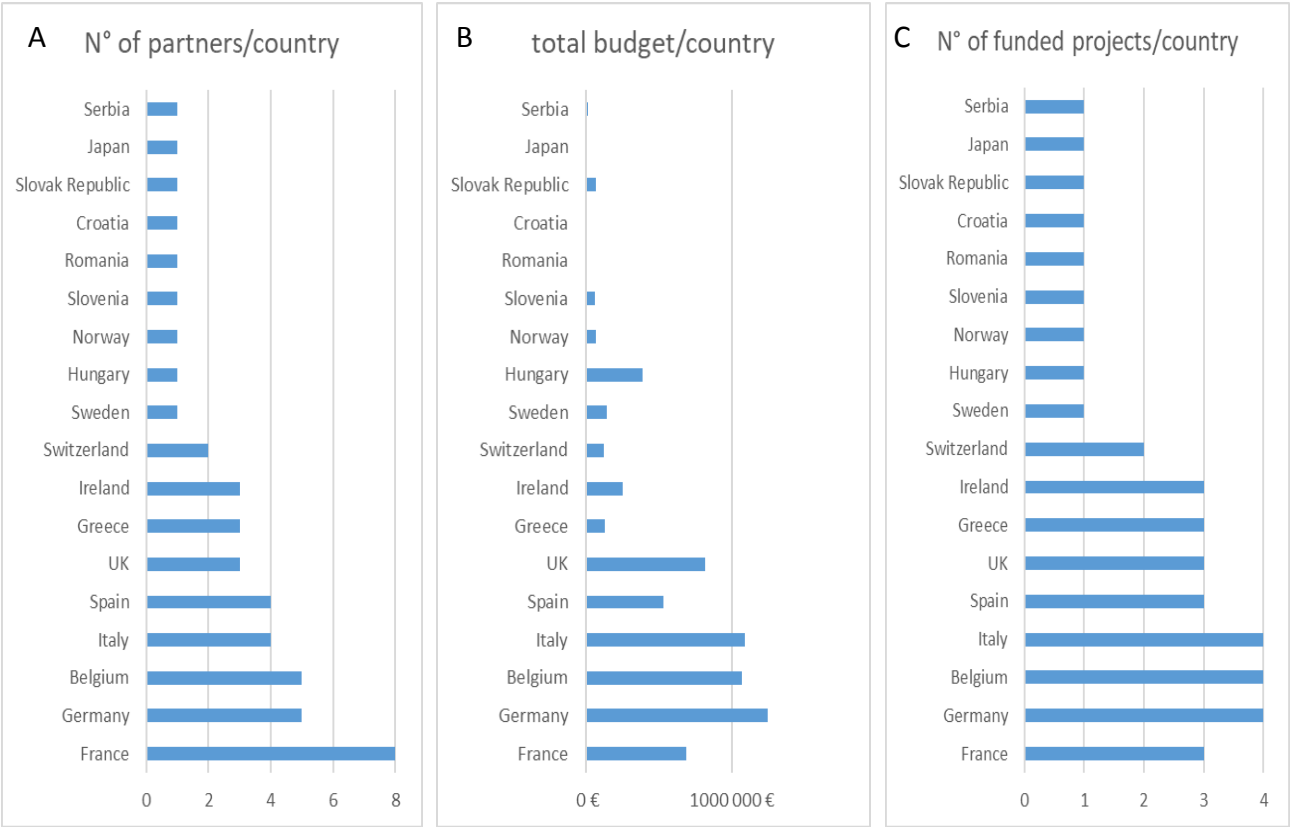


Figure 7: Visualisation of number of partners within and the total budget of the six funded projects as well as the number of projects per country

The size of the consortia of the six funded projects varies from 4 to 13 partners with at least one TP (besides CONCERT Beneficiaries and Linked Third Parties) as required by the call text (fig. 8).

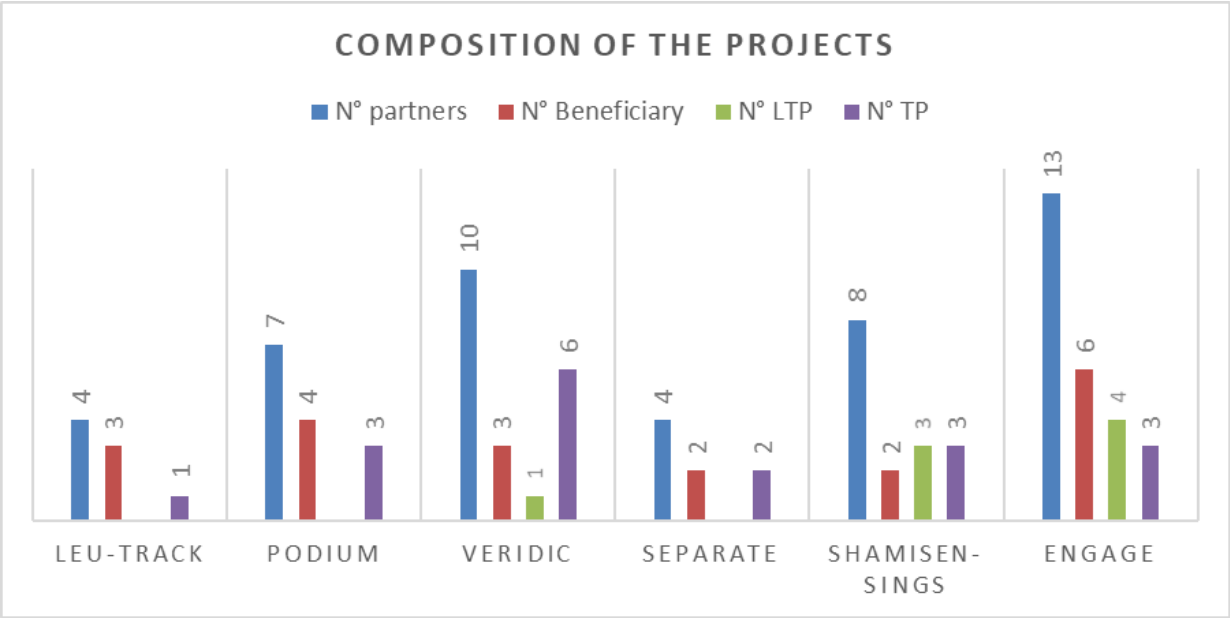


Figure 8: Number of partners within the six funded projects and status of partners within CONCERT at the time of proposal submission

The gender distribution including the principal investigator of each partner within the six funded projects is presented in figure 9. The gender of the coordinator is highlighted for every project (black frame). All six coordinators are coming from institutions having either the status of a Beneficiary or LTP within CONCERT and from the following countries: Belgium (3x), Hungary, Italy and Spain.

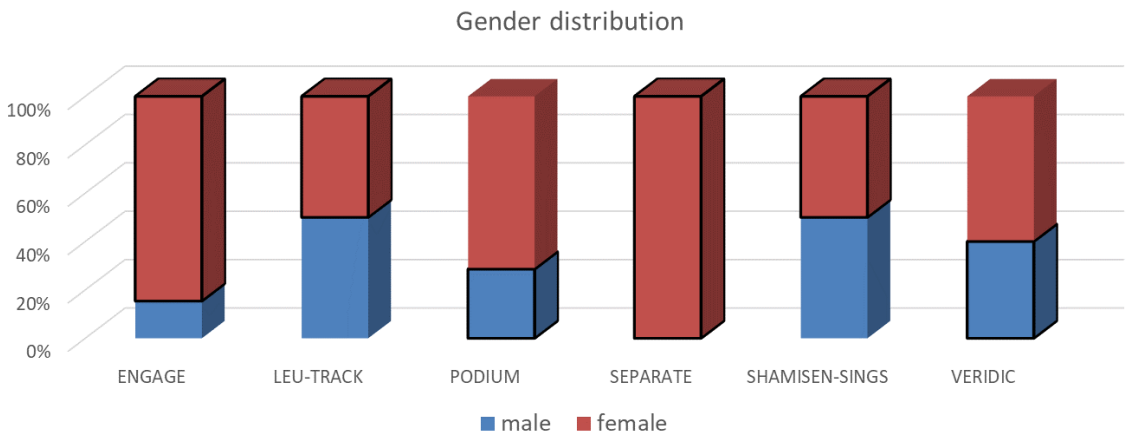


Figure 9: Gender distribution within the six funded projects. The gender of the respective coordinator is highlighted (black frame).

The majority of partners within the funded projects are coming from research oriented radiation protection institutions as indicated in figure 10. Furthermore, there are partners coming from organisations of the clinical/public health research sector, academic organisations as well as two enterprises.

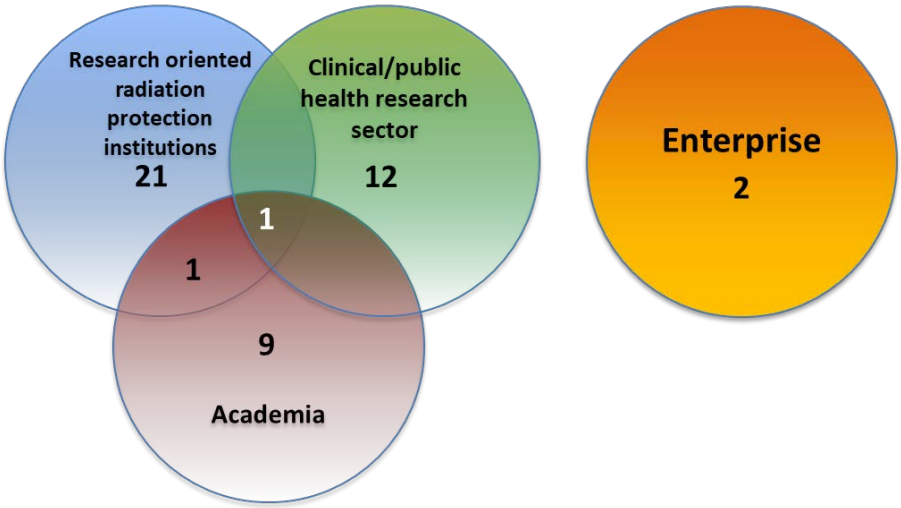
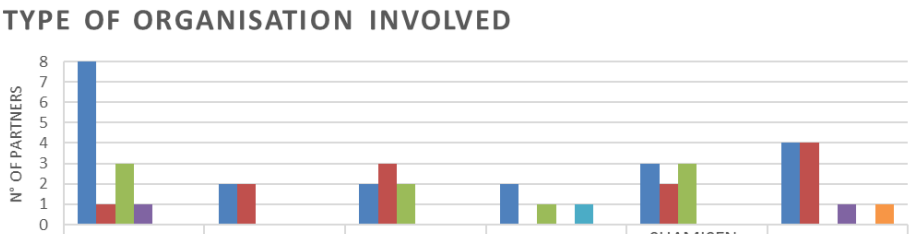


Figure 10: Analysis of the type of organisations participating in the funded projects.

The following graph (figures 11) illustrates the different type of organisations participation in the six funded projects:



	ENGAGE	LEU-TRACK	PODIUM	SEPARATE	SHAMISEN-SINGS	VERIDIC
Research oriented radiation protection institutions	8	2	2	2	3	4
Clinical/public health research sector	1	2	3		2	4
Academia	3		2	1	3	
Enterprise	1					1
Academia/Research oriented radiation protection institutions				1		
Research oriented radiation protection institutions / Clinical/public health research sector						1

Figure 5: Analysis of the type of organisation involved in the six funded projects.

8 Report on LESSONS LEARNED – Report of the Independent Observer

As decided by the Executive Board of CONCERT (extraordinary ExB meeting on February 8th 2017), an Independent Observer was invited and integrated in the second CONCERT call. The Independent Observer worked according to H2020 guidelines for Independent Observers. These rules have been adapted to the characteristics of the EJP CONCERT by WP4 in collaboration with the coordination team of CONCERT.

The Observers Report is attached as Annex C.

9 Report on LESSONS LEARNED - Evaluation of the call by the PRP

To complete the "Lessons learned" Report, a questionnaire was filled out by the members of the PRP after the meeting in July 6-7 2017.

In the first part, the experts have been asked to evaluate the 24 eligible proposals submitted to the call in terms of:

a) Quality of proposals and the individual teams;

b) Fitting of proposals to the aim of the call;

c) Value of the proposals in terms of transnational collaboration.

The second part concentrates on the analysis of the evaluation procedure itself and the management of the call. Experts have been asked to evaluate:

a) The criteria for the calls evaluation have been clearly defined and formulated adequately;

b) The proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

c) The organization of the PRP meeting (including also the remote evaluation);

d) Was the number of proposals per expert adequate;

e) Choice of experts for the evaluation of proposals;

f) Assignment of proposals to individual experts during evaluation.

The questionnaire was sent out to all 13 experts that participated in the evaluation process. The answers have been handled anonymously. Currently (December 2017), eight experts sent their feedback.

Feedback of PRP members received:

Expert 1

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

The proposals were submitted by experts in their specific fields. The transnational collaborations will undoubtedly lead to a synergistic outcome and the most efficient use of resources. Invariably the teams consisted of clinicians, radiobiologists, physicists, epidemiologists and modellers. These are dream teams that the CONCERT mechanism is bringing together.

As far as the quality of the proposals is concerned, there were outstanding proposals that relayed the message quite efficiently and clearly in the confines of the format that CONCERT has proposed. Others had difficulty describing how the specific aims will be achieved and failed to present a cohesive theme.
It might be beneficial to advise the applicants to present hypothesis-driven proposals. Several proposals lacked this aspect.

b. Fitting to the aim of the call

The proposals did fit the call adequately.
Whereas many proposals stated that they are addressing low dose biological effects, the material that they planned to use did not specifically derive from low dose-exposed specimens (often, the biological material was from sick individuals that were exposed to high doses of radiation). Hence, extrapolation of the findings to issues related to radiation protection at low doses should be treated with caution. The finds nevertheless would be highly pertinent to issues related to radioprotection (e.g. attenuation of normal tissue toxicity) from exposure to high doses of radiation received during radio-therapeutic treatments.

c. Value of the proposals in terms of transnational collaboration

Outstanding: Bringing teams from different nations is exemplary and will strengthen research in the radiation sciences across Europe. Most submitted proposals had mechanisms to ensure timely achievement of the work, and in no way did the transnational collaborations diminish the effectiveness of delivering a high value product. In contrast, the transnational collaborations enhances output and pertinent analyses of results.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

The criteria were excellent. They adequately covered the aspects for which the CONCERT Call was announced.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

This was adequate and quite clear. In many ways, it is superior to forms of other funding agencies.

c. Organization of the PRP meeting (including also the remote evaluation)

Outstanding: The JCS has consistently delivered clear and timely instructions.
Sending short synopses of the proposals to the reviewers is to be commended. This ensured that pertinent expertise is assigned to specific proposals.

The JCS conducted a flawless process, together pre-, during and post meeting in Paris. Reminders of deadlines for submission of reviews, and whether additional clarifications were required were sent in a timely manner.

d. Number of proposals per expert

Considering the number of proposals submitted and the cost of conducting the review process, the number of proposals assigned to each reviewer was adequate. Having primary and secondary reviewers certainly alleviates potential concern that due to workload at home institute, reviewers may not be able to perform a thorough review when assigned 7 grants.

e. Choice of experts (for the PRP in general and the topics of the call)

Undoubtedly, the Organizers ensured the participation of Reviewers with pertinent expertise. The invited reviewers had expertise in each and every aspect of the submitted proposals.

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

Highly adequate and well-thought out. Further, assigning 3 different reviewers to each proposal paid out nicely. It was clear during the review process that aspects missed by one reviewer were complemented by the insight of other reviewers, which ensured fairness. Perhaps, having additional time to rank the different proposals would be advantageous. However, this would extend the second day of the review process until evening time (i.e. 7 pm!).

Expert 2

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

Most of the proposal teams were of high quality, though there seemed a natural break in the "order" to make it relatively straightforward to score lesser proposals quite differently than those that could be considered for funding.

b. Fitting to the aim of the call

Some of the proposals did an outstanding job of responding to the aims of the call. One or two (out of 24 total) took proposals that were probably meant for other purposes and made small adjustments in order to meet the specified requirements of this CONCERT call. It was easy to identify those proposals as being "less responsive" although perhaps technically meeting the criteria for evaluation.

c. Value of the proposals in terms of transnational collaboration

Most proposals benefited greatly from the transnational collaborations. This enabled groups to form with different scientific expertise that was seen as complimentary. In some cases, teams

formed on the basis of the availability of specialized equipment to conduct aspects of the experimental plan, while in other cases teams were formulated to enable testing of dosimetric approaches across a large and diverse treatment population.
In a few cases, the collaborations added depth with regard to training opportunities, since some of the participating institutions do not offer graduate training per se. The teams in which such groups were partnering with educational institutions could then offer multi-institutional training opportunities, which is another strength to the transnational approach.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

The criteria for evaluating the individual proposals were clearly presented and easy to apply.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

The proposal application form was quite helpful.

c. Organization of the PRP meeting (including also the remote evaluation)

The organization of the PRP meeting was outstanding. The JCS provided all of the information needed for the review team to complete the review at the PRP meeting. However, it might have been useful for us to have access to at least the abstracts and team member information for all proposals (including those we were not assigned to review) at an earlier stage, i.e. for comparison purposes when preparing our remote evaluations.

d. Number of proposals per expert

Initially, the agreement was to review 4 proposals. In the end, the Reviewer was assigned to 7 proposals. This was somewhat challenging in view of other commitments made at the time when the reviewer expected 4 proposals. However, the review organizers were understanding that more time was needed to finalize the reviews. These are large, complex proposals and each required considerable time to review all facets of the application.

e. Choice of experts (for the PRP in general and the topics of the call)

The review team was very well balanced and contributed expertise to all facets of the topics in the call. It was quite helpful to have overlapping expertise in key areas, including molecular and cell biology, radiation ecology, and medical physics.

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

Apart from the larger than expected workload, the allocation of proposals to experts was excellent.

Expert 3

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

The Reviewer has evaluated a total of seven proposals, out of which at least four were either very good or excellent. The overall preparation of proposals was generally very nice, and fitted well into the format with fair level of clarity in each section.

The teams that represented the proposals were generally quite carefully chosen by the leading labs or coordinators.

One common feature in these proposals, however, was an extensive amount of work proposed. The Reviewer presume this would either be feasible for the concerned labs/partners, or could be due to the apparent pressures of competing for grants in the present time.

b. Fitting to the aim of the call

In general, the proposals were very well fitting to the aim of 2017 CONCERT call.

c. Value of the proposals in terms of transnational collaboration

This is one feature that impressed the Reviewer in the majority of the proposals. The transnational collaboration was planned quite elaborately by the investigators. In general, the experts have been chosen with good experience and laboratory setup that was relevant for the nature of work proposed for their respective components.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

The criteria for call were very well defined and well placed.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

The application form has been made meticulously. Such examples were easily noticeable as a result of this detailed format.

c. Organization of the PRP meeting (including also the remote evaluation)

Remote evaluation worked very well indeed. Appreciate. The Reviewers receiving helpful information and prompts from the CONCERT Call Secretariat.

d. Number of proposals per expert

The Reviewer states that 5-6 is an appropriate number of proposals that can be pragmatically allocated to each expert.

e. Choice of experts (for the PRP in general and the topics of the call)

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

The allocation of proposals was quite appropriate and carefully done by the CONCERT call organizers.

Expert 4

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

The Reviewer was impressed with the overall quality of the proposals. Most of them were well defined projects and many actually addressed the practical challenges of the research plans.

b. Fitting to the aim of the call

The proposals for the most part addressed the aim of the call. There were only 1 or 2 that did not.

c. Value of the proposals in terms of transnational collaboration

The Reviewer felt that this was one of the strength of the call and most of the proposals; specifically that they included researchers and facilities throughout the EU. The Reviewer believes that this goal of collaboration between countries was achieved.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

The Reviewer was fine with the criteria for the evaluation.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

The appropriate information was available. Naturally some proposals did a better job of providing the details of such requested information.

c. Organization of the PRP meeting (including also the remote evaluation)

The meeting was well organized and the proposals were available for review remotely in a reasonable time in advance of the meeting and the submission of the initial reviews.

d. Number of proposals per expert

The Reviewer had 6 proposals, but that was precipitated by the need to transfer some to reviewers that were unavailable. The number was reasonable.

e. Choice of experts (for the PRP in general and the topics of the call)

The Reviewer was impressed with the breadth of knowledge of the experts that have been gathered. This was one of the best group of reviewers that the Reviewer has seen assembled for a proposal review in my long history as a university faculty member.

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

The Reviewer believes a reasonable job was done in this regard.

Expert 5

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

The quality of the proposals followed the usual range. Some excellent, some ok and a few poor ones.

b. Fitting to the aim of the call

Yes, all the proposals fit the call.

c. Value of the proposals in terms of transnational collaboration

23/24 proposals had value in terms of transnational collaboration.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

Yes. All the criteria were very well explained.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

All aspects the proposal application were very well done, especially in the limited number of pages.

c. Organization of the PRP meeting (including also the remote evaluation)

Superb organization, but it would be useful to have all the proposals available to all the reviewers a few days before the meeting.

d. Number of proposals per expert

The number of proposals per expert was seven. It was higher than the CONCERT meeting in fall 2016 but was manageable. The Reviewer suggests not to go above seven in the future.

e. Choice of experts (for the PRP in general and the topics of the call)

The choice of experts was excellent. An excellent mix of radiation biologists, dosimeters, ecologists and health physicists.

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

The allocation of proposals to experts was very good and with a good mix of expertise. There was only one conflict of interest among all the reviewers and 24 proposals and that was handled well.
In the future, if a reviewer cannot make the meeting knowing this is advance, then the reviewer should be eliminated from the process. If a reviewer suddenly cannot make it to the meeting then perhaps new reviewers should be assigned at the meeting if time permits.

Expert 6

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

The proposals were of course somewhat variable but in general of high quality. To help in discrimination, the Reviewer tried to spread out his scores, but even the low scores were generally fairly good in absolute terms.

b. Fitting to the aim of the call

All proposals the Reviewer read were responsive to one or more criteria in the call.

c. Value of the proposals in terms of transnational collaboration

All proposals the Reviewer red involved quite extensive transnational research teams.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

The criteria have been found a bit nebulous and the Reviewer had a hard time finding something other than vague generalities to say about some of them. The Reviewer would have preferred to focus more on the scientific review.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

The Reviewer had no trouble finding the relevant parts for his reviews.

c. Organization of the PRP meeting (including also the remote evaluation)

The Reviewer would have liked to have seen the other reviews after completing his own. For the Reviewer, the opportunity to learn from the other reviewers is one of the main benefits from participating in peer review.

d. Number of proposals per expert

The Reviewer was assigned 8 proposals, which is a few more than he/she was expecting when he/she first agreed. It took quite a lot of time to complete the preliminary reviews.

e. Choice of experts (for the PRP in general and the topics of the call)

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

Expert 7

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

Overall, the quality of the proposals and research teams was impressive. The Reviewer reviewed seven applications. From what he/she could tell from the discussion session in Paris, the remaining applications were also mostly of very high quality.

b. Fitting to the aim of the call

Overall, the fit seemed quite good.

c. Value of the proposals in terms of transnational collaboration

Most of applications that the Reviewer reviewed seemed outstanding in this regard. In general, the Reviewer is a strong supporter of this aspect of research projects, and believes it is of increasing importance because with the wave of looming retirements, many existing transnational networks of collaborations will cease to exist and new ones need to be seeded.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

These were clearly defined. However, as most of the reviewers were from the USA, it would have been helpful to provide a few annotated illustrative examples of reviewer evaluations of selected criteria.

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

Very nicely organized and easy to read.

c. Organization of the PRP meeting (including also the remote evaluation)

Outstanding. The JCS support prior to the meeting was also outstanding. The contact person of the JCS was wonderful to work with.

d. Number of proposals per expert

The Reviewer reviewed seven proposals, two as reporter. This was fine. However, he/she hesitates to pile more work on reviewers, but he/she would recommend that reviewers be asked to at least read the proposals of all grants in their area of expertise. The reason for this is that PRP members were often asked at the PRP meeting to discuss and comment also on applications that they have not read. While paper copies were made available at the meeting, it was too late at that point to carefully read and reflect on them.

e. Choice of experts (for the PRP in general and the topics of the call)

The Reviewer was impressed by every expert in the panel. It was an honour to work with that group.

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

Seemed fine. To my knowledge, conflict of interests were very limited in number and appropriately declared and managed.

Expert 8

1. Evaluation of the proposals submitted to the second CONCERT call

a. Quality of proposals/teams

There was a mix of quality. Some projects were of outstanding quality with a real opportunity to change the way we think of radiation protection. Others were rather unexciting. Overall, probably a wider range of quality than I was used from other grant panels

b. Fitting to the aim of the call

OK

c. Value of the proposals in terms of transnational collaboration

Only a few proposals convinced that the transnational nature was more than just bringing the best people together. In a few projects the distinct opportunity of being in a community of nations shone through – The Reviewers think this would not be possible anywhere else in the world.

2. Analysis of the evaluation/management of the call

a. Criteria for the calls evaluation (adequate/clearly defined)

OK

b. Evaluation of the proposal application form (information requested by the form; e.g. about partners, work plan, project description, budget, etc.)

Ok – maybe more emphasis could have been placed on anchoring the project within the scientific literature.

c. Organization of the PRP meeting (including also the remote evaluation)

Excellent – the organisers had prepared the meeting very well.

d. Number of proposals per expert

Fine – it would have been helpful if the PRP had had the opportunity to see all proposals prior to the meeting. As a reviewer one would like to get involved as much as possible and catching up with a proposal that one did not have access to prior to the meeting can be difficult. The Reviewer accept that this may be more work but in the end this is what reviewers are there for.

e. Choice of experts (for the PRP in general and the topics of the call)

Great team.

f. Allocation of proposals to experts (e.g. field of expertise, conflict of interest, etc.)

Worked well.

Annex A. CONCERT BENEFICIARIES AND THEIR LINKED THIRD PARTIES (status at the launch of the call on March 1st 2017)

Consult also the CONCERT website (http://www.concert-h2020.eu/en) for the current list of CONCERT Beneficiaries and their Linked Third Parties.

CONCERT Beneficiaries:

- BUNDESAMT FUER STRAHLENSCHUTZ, BfS, Germany, the Coordinator
- SATEILYTURVAKESKUS, STUK, Finland
- STUDIECENTRUM VOOR KERNENERGIE/CENTRE D'ETUDE DE L'ENERGIE NUCLEAIRE, SCK CEN, Belgium
- AGENCE NATIONALE DE LA RECHERCHE, ANR, France
- DEPARTMENT OF HEALTH, DH-PHE, United Kingdom
- COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES, CEA, France
- UNIVERSITA DEGLI STUDI DI PAVIA, UNIPV, Italy
- ASSOCIATION MELODI, France
- ALLIANCE EUROPENNE EN RADIOECOLOGIE, ALLIANCE, France
- NERIS PLATFORM ASSOCIATION, NERIS, France
- EUROPEAN RADIATION DOSIMETRY GROUP E.V., EURADOS, Germany
- INSTITUT DE RADIOPROTECTION ET DE SURETE NUCLEAIRE, IRSN, France
- STRALSAKERHETSMYNDIGHETEN, SSM, Sweden
- CENTRO DE INVESTIGACIONES ENERGETICAS, MEDIOAMBIENTALES Y TECNOLOGICAS, CIEMAT, Spain
- ORSZAGOS KÖZEGÉSZSÉGÜGYI KÖZPONT, OKK-OSSKI, Hungary
- MAGYAR TUDOMANYOS AKADEMIA ENERGIATUDOMANYI KUTATOKOZPONT, MTA EK, Hungary
- NATIONAL CENTRE OF RADIOBIOLOGY AND RADIATION PROTECTION, NCRRP, Bulgaria
- HELMHOLTZ ZENTRUM MUENCHEN DEUTSCHES FORSCHUNGSZENTRUM FUER GESUNDHEIT UND UMWELT GMBH, HMGU, Germany
- MEDIZINISCHE UNIVERSITAET WIEN, MUW, Austria
- AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE, ENEA, Italy
- ISTITUTO SUPERIORE DI SANITA, ISS, Italy
- NORWEGIAN RADIATION PROTECTION AUTHORITY, NRPA, Norway
- RIJKSINSTITUUT VOOR VOLKSGEZONDHEIDEN MILIEU*NATIONAL INSTITUTEFOR PUBLIC HEALTH AND THE ENVIRONMENTEN, RIVM, Netherlands
- FUNDACAO PARA A CIENCIA E A TECNOLOGIA, FCT, Portugal
- INSTITUT ZAMEDICINSKA ISTRAZIVANJA I MEDICINU RADA, IMROH, Croatia

- STATNI USTAV RADIACNI OCHRANY, SURO, Czech Republic
- INSTITUTUL DE FIZICA ATOMICA, IFA, Romania
- GREEK ATOMIC ENERGY COMMISSION, EEAE, Greece
- VUJE AS, VUJE, Slovakia
- TARTU ULIKOOL, UT, Estonia

- RADIATION PROTECTION CENTRE, RPC, Lithuania
- LATVIJAS UNIVERSITATE, UL, Latvia
- ITA-SUOMEN YLIOPISTO, UEF, Finland
- GŁÓWNY INSTYTUT GÓRNICTWA, GIG, Poland
- MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD, MINECO, Spain
- AGÊNCIA PORTUGUESA DO AMBIENTE IP, APA, Portugal
- INSTITUT JOZEF STEFAN, JSI, Slovenia
- EIDGENOESSISCHES DEPARTEMENT DES INNERN, FOPH, Switzerland

CONCERT Linked Third Parties:

- STOCKHOLMS UNIVERSITET (SU), affiliated or linked to MELODI
- MUTADIS CONSULTANTS SARL (MUTADIS), affiliated or linked to NERIS
- DANMARKS TEKNISKE UNIVERSITET (DTU), affiliated or linked to NERIS
- UNIVERSITA DEGLI STUDI DI MILANO (UMIL), affiliated or linked to NERIS
- RUDER BOSKOVIC INSTITUTE (RBI), affiliated or linked to EURADOS
- INSTITUTO SUPERIOR TECNICO (IST), affiliated or linked to EURADOS
- SEIBERSDORF LABOR GMBH (SL), affiliated or linked to EURADOS
- PHYSIKALISCH-TECHNISCHE BUNDESANSTALT (PTB), affiliated or linked to EURADOS
- THE HENRYK NIEWODNICZANSKI INSTITUTE OF NUCLEAR PHYSICS, POLISH ACADEMY OF SCIENCES (IFJ PAN), affiliated or linked to EURADOS
- EUROPEAN NUCLEAR SAFETY TRAINING AND TUTORING INSTITUTE (ENSTII), affiliated or linked to IRSN
- CENTRE D'ETUDE SUR L'EVALUATION DE LA PROTECTION DANS LE DOMAINE NUCLEAIRE (CEPN), affiliated or linked to IRSN
- FUNDACIO CENTRE DE RECERCA EN EPIDEMIOLOGIA AMBIENTAL - CREAL (CREAL), affiliated or linked to CIEMAT
- KARLSRUHER INSTITUT FUER TECHNOLOGIE (KIT), affiliated or linked to HMGU
- HELMHOLTZ-ZENTRUM DRESDEN-ROSSENDORF EV (HZDR), affiliated or linked to HMGU
- FORSCHUNGSZENTRUM JULICH GmbH (Juelich), affiliated or linked to HMGU
- GSI HELMHOLTZZENTRUM FUER SCHWERIONENFORSCHUNG GmbH (GSI), affiliated or linked to HMGU
- NORGES MILJO-OG BIOVITENSKAPLIGE UNIVERSITET (NMBU-IMT), affiliated or linked to NRPA

- UJV REZ, a.s. (NRI), affiliated or linked to SURO
- CESKE VYSOKE UCENI TECHNICKE V PRAZE (CTU), affiliated or linked to SURO
- INSTITUTUL NATIONAL DE CERCETARE -DEZVOLTARE PENTRU FIZICA SI INGINERIE NUCLEARA "HORIA HULUBEI" (IFIN-HH), affiliated or linked to IFA-MG

Annex B. Template of the Evaluation Summary Reports for projects submitted in the second CONCERT call in 2017

EJP-CONCERT
European Joint Programme for the Integration of Radiation Protection Research
H2020 – 662287

Evaluation Summary report
Open transnational CONCERT call 2017

Project: **(ID)**
Acronym: **(short)**
Project title: **(long)**

Scoring:

			Scores per Criterion			
Project ID	Acronym	TOPIC	1	2	3	Final score

Each criterion received a score between 0 and 5:

0: fails or missing /incomplete information. The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information.

1: Poor. The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses.

2: Fair. While the proposal broadly addresses the criterion, there are significant weaknesses.

3: Good. The proposal addresses the criterion well, although improvements would be necessary.

4: Very good. The proposal addresses the criterion very well, although certain improvements are still possible.

5: Excellent. The proposal successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

For final ranking, the threshold of 10 was used, by summing up the scores of the three criteria. When below threshold, proposals were not ranked.

Relevance to the call

☐ Yes ☐ No

If **NO**, please give further comments.

1) Excellence of the proposal

a) Clarity and pertinence of the objectives; b) Credibility of the proposed approach and methodology; c) Soundness of the concept; d) Innovative potential; e) Competence and experience of participating research partners in the field(s) of the proposal (previous work in the field, specific technical expertise)

2) Impact of the proposal

a) Potential of the expected results to add to the scientific evidence base to improve radiation protection and, consequently, its regulation; b) Added-value of transnational collaboration: gathering a critical mass, sharing of resources, harmonization of data, sharing of specific know-how and/or innovative technologies, etc.; c) Added-value for competence building in the European radiation protection research community and the European radiation protection regulatory system; d) Effectiveness of the proposed measures to exploit and disseminate the project results (including management of intellectual property rights - IPR), to communicate the project, and to manage research data where relevant

3) Quality and efficiency of the implementation

a) Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks, resources and time-frame; b) Scientific competence and complementarity of the participants within the consortium; c) Involvement of young scientists (MSc, PhD, Post-Doc…), when applicable; d) Appropriateness of the management structures and procedures, including risk and innovation management; e) Concept for sustainability of infrastructures initiated by the project, when applicable; f) Budget and cost-effectiveness of the project (rational distribution of resources in relation to project's activities, partners' responsibilities and time frame)

Overall Comment with strengths and weaknesses

Annex C. EJP CONCERT 2nd call – Observers Report

European Joint Programme – CONCERT
Transnational Call for Proposals (2017) for "Radiation Protection Research in Europe"

Observers Report

Table of Content

1 Introduction

1.1 Overview of the Call

What is Radiation Protection Research

Radiation protection is a broad field of research. It includes building knowledge on how to minimize side-effects of radiation treatment of cancers, radio-diagnostics, and occupational radiation hazard. Radiation risks are high for workers at a nuclear power plant and those working in a radionuclide laboratory, but also at a number of other occupations, workers may be exposed to (low-dose) radiation, often with prolonged exposure, such as miners and aviation personnel. Radioecology and preparedness for radiation disasters form other lines within radiation protection research. Radioecology studies how radioactive substances interact with nature; how different mechanisms affect the substances' migration and uptake in food chains and ecosystems. Investigations in radioecology might include aspects of field sampling, designed field and laboratory experiments and the development of predictive simulation models. Radioecological studies form the basis for estimating doses and assessing the consequences of radioactive pollution for human health and the environment. Preparedness for nuclear disasters involves technical and biological research, but also socio-economics and humanities.

Aim of CONCERT

The European Joint Programme for the Integration of Radiation Protection Research (CONCERT) aims to contribute to the sustainable integration of European and national research programmes in the field of radiation protection. The European Commission's EURATOM research and training programme supports CONCERT through the European Joint Programme (EJP) instrument (2015-2020). The CONCERT consortium consists of 38 beneficiaries (34 National Programme Managers and 4 Research Platforms) from 24 countries (22 EU/EURATOM members states, Norway as third country and Switzerland as EURATOM associated country), and 30 Linked Third Parties. The co-funding scheme for CONCERT entails 70% EURATOM funding and 30% national funding. The latter can be in-kind and/or in-cash. The EURATOM share is maximally 19.8 Mill. Euro, thus the total CONCERT EJP funding is ~27.5 Mill. Euro in 5 years. Two joint calls are organised and other activities such as research and training are conducted. CONCERT develops its strategic plans based on the work of the European research platforms MELODI, EURADOS, NERIS, ALLIANCE and EURAMED in the fields of radiation effects in humans, dosimetry, nuclear emergency preparedness, radioecology and radiation protection in medicine respectively. EJP CONCERT serves as an umbrella structure for joint programming and the integration of the research agendas from the European research platforms and national research programmes. Beyond joint programming CONCERT brings together research organisations authorities and responsible ministries to develop joint activities and programmes in order to coordinate and co-fund high quality research in radiation protection across national borders in Europe.

2nd Call Time Schedule

The whole call process is done between March and November 2017. The call was pre-announced on 18th February 2017 and was launched on March 1st with a deadline for submission on May 2nd. Reviewers were selected and invited by the Joint Call Secretariat in March. The eligibility check of proposals submitted to the call was done between May 3rd and 12th, after which the proposals were sent to the reviewers who had six weeks to complete the evaluations. The Peer Review Panel meeting was on 6th and 7th of July 2017. The final funding decision is scheduled for September, and expected latest start of the funded projects is November. This is a very fast call process and a very low time-to-grant.

2nd Call Topics and Call budget

Projects must be multidisciplinary and transnational. They must fall within one of the two main topics, and may answer to one or more sub-topics within the topic. The general aims of the call are: (i) to support transnational research projects that combine innovative approaches in the field of radiation protection in line with the research priorities of CONCERT: (ii) to actively integrate education and training activities and collaboration with universities in multidisciplinary research projects; and (iii) to make optimal use of research infrastructures. The main topics and sub-topics under them are:

Topic 1. Understanding human health effects from ionising radiation and improving dosimetry.
1.1 Improvement of health risk assessment associated with low dose/dose rate radiation.
1.2 Improvement of occupational dosimetry.
1.3 Patient-tailored diagnosis and treatment: full exploitation and improvement of technology and techniques with clinical and dose structured reporting.

Topic 2. Radioecology, emergency and social sciences and humanities.
2.1 Biomarkers of exposure and effects in living organisms, as operational outcomes of a mechanistic understanding on intra- and inter-species variation of radiosensitivity under chronic low dose exposure situations.
2.2 Countermeasure strategies preparedness for emergency and recovery situations
2.3 Models, tools and rationales for stakeholder engagement and informed decision-making in radiation protection research, policy and practice for situations involving exposures to ionising radiations.

The total budget available for the second CONCERT call is 6.98 Mill Euro. CONCERT decided to allocate approximately 5.6 Mill Euro for topic 1 and 1.4 Mill Euro for topic 2. CONCERT intended to fund up to three projects in topic 1 and up to two in topic 2.

Call Steering Committee and Joint Call Secretariat

The CONCERT 2017 Call Steering Committee is composed of four organisations: Agence Nationale de la Recherche, France (ANR); Stralsakerhetsmyndigheten, Sweden (SSM); Fundação para a Ciência

e a Tecnologia, Portugal (FCT); Ministerio de Economiá y Competitividad, Spain (MINECO). The call for proposals is coordinated by the Joint Call Secretariat, hosted by ANR. Call Steering Committee members are not allowed to apply to the transnational call. On the basis of the set of documents provided by WP3 of CONCERT, the JCS prepared the a draft Call Text and accompanying documents that were reviewed by the Call Steering Committee.
The Call Steering Committee organised the establishment of the Joint Peer Review Panel based on a list of experts provided by the CONCERT Management Board. Based on the recommendations of the Peer Review Panel, the Call Steering Committee provides two ranking lists, one per topic, to the CONCERT Coordination and Management Board.

Results of the Call
25 proposals were submitted, 21 to topic 1 and 4 to topic 2. One proposal was found not to be eligible. The number of countries participating in proposals was 24. The number of partners was in total 166. In terms of consortium size, there were fifteen smaller eligible proposals (4-7 partners), eight medium sized consortia (8-10), and one proposal had 13 partners. The average number of partners was much lower than in the first call and there were none very large consortia. For topic 1 the panel consensus result was that 13 out of 20 proposals scored 10.0 or higher and these were recommended for funding. For topic 2, this was 2 out of 4.

1.2 Terms of Reference for the Independent Observer

As independent Observer, I acted according to the guidelines provided by the Call Secretariat. These guidelines are similar to those used for observing ERA-NET Cofund transnational call evaluation processes. Like all other involved in the evaluation process the observer is bound to work according the confidentiality principles. As I did not have any conflict of interest with any of the applications, I could be present in the meeting room throughout the meeting to observe all discussions.

Purpose of the independent observer
The main purpose of the independent observer for the second CONCERT call 2017 is to report on the evaluation process to ensure that the rules setup for the call are being adhered as described in the CONCERT Grant Agreement. In particular, this covers the way that the expert evaluators apply the evaluation criteria and the process of arriving at fair and transparent consensus and on single ranked lists or proposals for each of the topics. In carrying out this function, the independent observer must not express any opinions on the proposals or the expert’s opinion but may (in their report) offer observations and suggestions on how the procedures could be improved.

Process

Whilst the main task of the Observer is to attend the central evaluation and prepare an independent report it is important that the Observer considers, and make judgement on, the *whole* evaluation procedure. The process includes the following:

Appointment of the independent Observer. It would be normal for the Observer to be appointed several months prior to the central evaluation. This is the responsibility of the consortium that is organising the joint call, including the appropriate reimbursement.

Review of the publications associated with the Call. The conclusion on compliance with EU co-funding rules and observations on the efficiency/quality of the evaluation process are the main requirement of the independent Observer. An initial judgement on these can be made by reviewing the information and documents that are provided to guide the applicants. A useful tactic for the Observer is to consider these from the perspective of a prospective applicant.

Review of the selection process for evaluators and briefing material. The competence and balance of expert evaluators is absolutely critical to the quality and fairness of the evaluation and selection of proposals. It is important, therefore, that the Observer fully understands the process and is provided with the necessary evidence to verify it. Of course, this can also be assessed further by asking evaluators for feedback during the central evaluation.

Attending the central evaluation as an Observer. The central evaluation is the main opportunity for the Observer to formulate his or her conclusions on compliance with the EU co-funding rules and scope for process improvement. Normally, the central evaluation consists of three main activities: a plenary briefing for the evaluators, consensus discussions on each application and finally a discussion to reach a single ranking list. The briefing for the evaluators is an opportunity for the Observer to form an opinion on how well they understand their role and the rules that govern the evaluation. This can be further checked and any emerging opinions tested through individual discussions. The role of the chairs in ensuring consistency of the scoring against the evaluation criteria is absolutely critical to the eventual single ranked list of proposals. The Observer needs to be satisfied that the outcome is both fair and transparent.

Preparation of the independent Observer's report. The final stage of the Observer's task is to prepare the report. It is good practice to prepare a draft and allow the Call Secretariat or another appropriate consortium representative to check for any factual errors and add some call statistics before finalising.

1.3 Approach to the task

Appointment of the independent Observer

- The CONCERT Call Secretariat contacted me in April and asked me to be the independent observer for their second call, and to attend the Peer Review Panel meeting of the proposals on 6-7 July in Paris. They provided the necessary documents to get a good insight in the whole evaluation process. Travel arrangements were made for me.

Review of publications associated with the Call

- Call text and Guidelines for Applicants were available on the CONCERT website. The Call Secretariat sent a document for governance of the call and evaluation procedure, the report on the first CONCERT call 2016, and a power point presentation about CONCERT and its calls. The Secretariat also provided the Grant Agreement so I could ensure that the rules as described therein were adhered to.

Review of the selection process for evaluators and briefing materials

- I have asked the Secretariat some questions to get more insight into parts of the process that I could not observe directly, such as the selection of the evaluators.
- The Call Secretariat explained how they had composed the evaluation panel, with putting together expertise from different fields within radiation protection research, and explained that the CSC had chosen to work with a panel of all non-European experts to strongly reduce occurrence of conflict of interests.
- I have asked for the texts used in emails to the panel members. These had been sent timely and were very clear and informative.
- A log-in to the electronic system for entering the evaluations was provided to me to assess how easy it was for the reviewers to work in this systems. After having one mock application assigned to me, as if I was evaluator, I could download that pdf and could see the online evaluation form that the reviewers were to use.

Participation in the central evaluation as an Observer

- The CONCERT EJP second call evaluation process involved a two-day peer review panel meeting. The whole meeting was a plenary, there were no parallel sessions. A place on the table was assigned to the Observer that allowed a good observation of the meeting. The evaluators were highly competent, well prepared by having done their individual evaluation reports in a thorough manner, and committed to two days of intensive working. The Secretariat supported the process very well. The panel members who were chair and co-chair led the discussions in a highly professional and pleasant manner. Most of the second

day was used for making the consensus reports and circulating those until full agreement was reached on content and phrasing. I was impressed by the overall quality of the process.

Preparation of the independent Observer's report

- This report follows the template from the guidelines for ERA-NET Cofund calls and a draft report has been sent to the CONCERT Call Secretariat before finalizing the report.

2. Observations on the Evaluation Process

2.1 Selection and briefing of evaluators

- For the evaluation, thirteen reviewers have been involved. The panel was completely non-European, with eleven reviewers from USA, one from India, and one from Australia. Four of them had also served in the panel of the first CONCERT call. The others were new to CONCERT.
- The reviewers were esteemed experts from universities, medical schools, research centres, state or national authorities, or national research agencies. Among them, they covered very well the disciplines and fields of the CONCERT call.
- A 9-page 'Document for Governance of the Call and Evaluation Procedure' was sent to the evaluators to give background about EJP CONCERT and guidance for the peer review process. The information in the Guidance/document is clearly written and informative. It provides the necessary information about the EJP with regard to funding recipients, submission of proposals, scientific peer review panel, anonymity, confidentiality, and conflict of interest rules, the evaluation procedure and the evaluation criteria and scoring system.
- All evaluators declared through signing a declaration of confidentiality that they would not disclose any detail of the evaluation process and its outcomes or of any proposal submitted for evaluation, unless and to the extent foreseen in the CONCERT GA and CONCERT CA, and that they understood they had to maintain the confidentiality of any documents or electronic files sent and to return, erase or destroy all confidential documents or files upon completing the evaluation, unless otherwise instructed by the CONCERT Joint Call Secretariat.
- The Joint Call Secretariat themselves, as well as the members of the Call Steering Committee present at the Peer Review Panel meeting, and the independent Observer also declared confidentiality by signing such declaration.

2.2 Remote evaluation

- In total 25 applications had been received, 21 for topic 1 and 4 for topic 2. One application was found not be eligible.
- Each topic 1 application was assigned to four reviewers in the remote evaluation. Each topic 2 application was assigned to three reviewers. Thus in total 92 remote evaluation reports were made.
- The reviewers had been assigned between 6 and 8 applications each. Most of them considered this to be quite a heavy work load.
- The Call Secretariat explained that they had assigned proposals taking into account the expertise of the reviewers and matching that as good as possible with the topics of the proposals, as well as taking into account workload distribution.
- Reviewers were asked to verify that they did not have a conflict of interest with any of the consortia members involved in the proposals assigned to them as evaluator, and to check that they felt comfortable with the proposal and had the required expertise to evaluate them. For this

purpose proposal fact sheets were provided. These fact sheets contained the following information: project title, consortium partners, topic and subtopic(s), keywords and abstract.

- Only after verification, reviewers got access through the electronic evaluation system to the full applications assigned to them.
- The review reports were entered on-line in 'Experts PT-Outline', which is the DLR electronic system for managing (international) review processes.
- The first evaluation question in the form concerned the adequation and the relevance of the proposal. This was a yes/no question with a comments field, but without score.
- The proposals were evaluated according to the following review criteria:

  Criterion 1* **Excellence of the proposal**: a) clarity and pertinence of the objectives; b) credibility of the proposed approach and methodology; c) soundness of the concept; d) innovative potential; e) competence and experience of anticipating research partners in the field(s) of the proposal (previous work in the field, specific technical expertise)

  Criterion 2* **Impact of the proposal**: a) Potential of the expected results to add to the scientific evidence base to improve radiation protection and, consequently, its regulation; b) Added-value of transnational collaboration: gathering a critical mass, sharing of resources, harmonization of data, sharing of specific know-how and/or innovative technologies, etc.; c) Added-value for competence building in the European radiation protection research community and the European radiation protection regulatory system; d) Effectiveness of the proposed measures to exploit and disseminate the project results (including management of intellectual property rights - IPR), to communicate the project, and to manage research data where relevant

  Criterion 3* **Quality and efficiency of the implementation**: a) Coherence and effectiveness of the work plan, including appropriateness of the allocation of tasks, resources and time-frame; b) Scientific competence and complementarity of the participants within the consortium; c) Involvement of young scientists (MSc, PhD, Post-Doc, etc.), when applicable; d) Appropriateness of the management structures and procedures, including risk and innovation management; e) Concept for sustainability of infrastructures initiated by the project, when applicable; f) Budget and cost-effectiveness of the project (rational distribution of resources in relation to project's activities, partners' responsibilities and time frame).

- For each criterion evaluators were asked to enter comments (maximally 5000 characters) and a score.
- A scoring system from 0 to 5 was used to evaluate a proposal's performance with respect to the different evaluation criteria, whereas the meaning of the scores is:

0 - fails or missing /incomplete information. The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information.

1 - Poor. The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses.

2 - Fair. While the proposal broadly addresses the criterion, there are significant weaknesses.

3 - Good. The proposal addresses the criterion well, although improvements would be necessary.

4 - Very good: The proposal addresses the criterion very well, although certain improvements are still possible.

5 - Excellent. The proposal successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

- At the end of the form, reviewers were asked to summarise main strengths and weaknesses of the proposal taking into account the three criteria, and state if they recommended it for funding (yes or no).
- Because of the high confidentiality standards, the reviewers had in the remote step only access to the proposals assigned to them, and only to their own evaluation reports.

2.3 Central evaluation

2.3.1 Organisation & Logistics

- The Panel Meeting was held on 6th and 7th of July at the ANR premises in Paris. The meeting was organised by Monika Frenzel and Véronique Briquet-Laugier of the Joint Call Secretariat.
- All logistics were arranged well. The meeting room and equipment were fine. The seating around the table was very suitable for the discussions. A joint dinner was organised in the evening after the first day.
- The Call Secretariat had compiled a binder for facilitating the meeting process. It contained the agenda, key background information about CONCERT, the call topics and sub-topics description, the names and institutions of the peer review panel members and other attendants, and from each of the applications the following: topic, sub-topic(s), keywords, duration, total budget, abstract, partners (name organisation, country total costs), and the compiled reviews. Each panel member was provided with a copy, and also the other attendants at the meeting (CSC members, EU project officer and Observer) had a copy. These binders served as a very good means to streamline the meeting and facilitate the discussions.
- Copies of the applications were available in the meeting room. This provided the panel members who had not been appointed as evaluator for a specific application, to look through it while or before this application was up for discussion.
- As high confidentiality standards were used, the binders and the copies of the applications were only for use at the meeting, and had to be left behind in the room at the end of the meeting. The Call Secretariat collected them for destruction.

2.3.2 Briefing of the evaluators

- Information about CONCERT, the call and the expectations from the evaluators had been communicated in the remote process already. At the start of the panel meeting, the Joint

Call Secretariat gave a presentation to recall key points on the call and the tasks and procedures for the panel members.

- The panel had a chair and a co-chair from among the reviewers. These persons had been briefed a few days before the panel meeting by the Joint Call Secretariat about the programme for the days and their chair role.

2.3.3 Consensus meeting

- The meeting was attended by the reviewers, plus one person from each of the other three beneficiaries of the Call Steering Committee, the EC project officer of EJP Concert, and the independent Observer.
- For each application, one of the reviewers to which the application was assigned was appointed as reporter. The reporter introduced the proposal and gave as first of the readers his or her assessment. This was followed by the assessments of the other readers and a discussion aimed towards reaching a consensus view.
- The reviewer appointed as reporter for a particular application was the lead author for making the consensus report. These consensus reports were written on the second day and were circulated to the other readers for corrections and additions until full agreement on content and wording was reached.
- There was only one panel member who had for one application a conflict of interest and had to leave the room when this application was discussed. Having only one CoI made the meeting go very smooth compared to other meetings that I attended where evaluators had to leave and called back in all the time.

2.3.4 Ranking of the evaluated proposals

- All applications were discussed individually, working through the set in alphabetical order. In the binder, the individual scores of the reviewers for the individual criteria were listed with the comments. The summed (overall) score from each of the three or four reviewer had been tabulated and arithmetic means calculated. In some cases, a reviewers' initial scoring differed considerably from those of other reviewers. Readers and sometimes also other panel members challenged some scores and comments by having discussions on the merits, design and expected impact of the applications.
- Through the discussions about a proposal, the panel reached a consensus score and shared opinion on the relevance, excellence, impact and quality and efficiency of the implementation.
- After discussion on all proposals and listing them in the order of the preliminary consensus score, those that were *ex aequo* or very near each other were revisited, with the benefit of having discussed the whole set. Most pairwise comparisons resulted in a differentiation, with one being considered overall to deserve a higher score than the other.

3. Overall Impressions

3.1 Compliance with the rules for EU co-funding

The procedures ensured that proposals were checked for eligibility before going to the reviewers. Proposals were evaluated by at least three independent experts, on the basis of the following award criteria: excellence, impact, and quality and efficiency of the implementation. The proposals have been ranked according to the evaluation results, in full compliance with the rules for EU co-funding.

3.2 Conformity of the evaluation process witnessed with the published evaluation procedures

The published sources from which applicants can take note of the evaluation criteria and procedures are the Call Text and the Guidelines for Applicants. I have observed that all aspects of the evaluation process were conducted as described. The timeline has been followed. The reviewers selected brought complementary expertise, so all fields /disciplines required to perform a good evaluation of the set of applications at hand was around the table.

3.3 Transparency, fairness and confidentiality of the selection process

It is my impression that the evaluation process was fair and transparent and conducted to strong confidentiality principles. The capability of the individuals and of the panel as a whole to evaluate proposals impressed me. It was clear that many had (extensive) experience in reviewing research proposals. They took their job seriously and had made good, and some very thorough, individual evaluations before the meeting and had formed underpinned opinions on merits, relevance, feasibility and study design. Through the discussions and the comparisons, and by taking into account arguments outspoken by the appointed readers, they reached consensus in a fair and decisive way.

3.4 Efficiency and speed of the call/evaluation process

The timeline of the whole process is relatively short. This was possible by pre-announcing the call. The Call Secretariat did a very good job in organising call and evaluation. By contacting experts and composing the panel before May, the review of proposals could start immediately after a fast eligibility step. The reviewers had a fair amount of time to do the remote evaluation. Still, because of the higher-then-expected number of applications, and a two-day meeting for which reviewers had a trans-Atlantic flight, the review process was intensive. It is my impression that the focus and time dedication needed for the evaluation within a relative short time window worked effective for the quality of the process.

3.5 Quality of the overall call/evaluation process

The call was organised very professional. The documents for applicants and panel members were clear. The electronic evaluation system supported the process well. The panel members had a good understanding of their task and good expertise to perform the review process. The panel members

had done their remote tasks thoroughly, which facilitated the quality of the process at the panel meeting.

4. Summary of Recommendations

4.1 Issues to improve

- As a minor issue, I suggest to reconsider the strictness with regard to the limited distribution of applications and evaluation reports within the panel. Only at the meeting, the evaluators got to know the other panel members, and could read the other evaluation reports for the applications they had received to review. They felt that it would have been beneficial for their discussions if they would have been able to read the other evaluation reports before the meeting, e.g. on their way to Paris. Although I observed that the consensus discussions worked also well as it went, I agree with the panel members that it works better with having read it before the meeting. I would recommend to provide the review reports of the other reviewers prior to the meeting.
- Furthermore, some panel members remarked that it was difficult to contribute to discussions on applications that had not been assigned to them as reader. Still, by asking questions, there were contributions to the process. Some panel members suggested that all applications could have been made accessible to all, except for CoI cases of course. As the evaluators are bound to confidentiality this could be done, but the added value is probably not so large. This is a minor issue, as over-all the whole process was very efficient and effective.

4.2 General Remarks

- The evaluators were highly competent, well prepared by having done their individual evaluation reports in a thorough manner, and committed to two days of intensive working.
- The evaluation process had high standards for confidentiality and was organised very professionally.
- The education and training aspects in part of the applications were well acknowledged by the reviewers. Although E&T was stated as an aim of the CONCERT call, it was not an evaluation criterion. Panel members remarked it should have been.
- With 24 applications and a budget of less than 7 Mill Euro, success rate is relatively low and transaction costs (time of evaluators and secretariat, and T&S costs) relatively heavy.

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