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EJP-CONCERT

European Joint Programme for the Integration of Radiation Protection Research

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D 1.3 – Summary report of the activities carried out during the ongoing reporting period and the Annual work plan for the next year of CONCERT

Lead Author(s): CONCERT co-ordinator, WP leaders and WP9 project coordinators

With contributions from: all consortium members

Reviewer(s): CONCERT coordination team

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CONTENT

SUMMARY REPORT FOR THE ONGOING REPORTING PERIOD (M25-M33).....	5
PUBLISHABLE SUMMARY	6
WP1 - PROJECT COORDINATION & MANAGEMENT	8
Work Carried Out.....	8
Milestones and Deliverables.....	10
WP2 – INTEGRATION AND SRA DEVELOPMENT IN RADIATION PROTECTION RESEARCH	10
Work Carried Out.....	10
Milestones and Deliverables.....	11
WP3 - PRIORITY RESEARCH AND JOINT PROGRAMMING NEEDS IN THE PERSPECTIVE OF EUROPEAN INTEGRATION	12
Work Carried Out.....	12
Milestones and Deliverables.....	13
WP4 - ORGANIZATION AND MANAGEMENT OF CONCERT OPEN RTD CALLS	13
Work Carried Out.....	13
Milestones and Deliverables.....	14
WP5 - STAKEHOLDER INVOLVEMENT AND COMMUNICATION IN RADIATION PROTECTION RESEARCH.....	15
Work Carried Out to Date	15
Milestones and Deliverables.....	15
WP6 - ACCESS TO INFRASTRUCTURES.....	16
Work Carried Out.....	16
Milestones and Deliverables.....	17
WP7 - EDUCATION AND TRAINING	18
Work Carried Out.....	18
Milestones and Deliverables.....	19
WP8 – ETHICS	19
WP9 - RESEARCH PROJECTS SELECTED THROUGH CONCERT OPEN CALLS.....	20
Work Carried Out.....	20
Task 9.1 CONFIDENCE	20
Milestones and Deliverables.....	21
Task 9.2: LDLENSRAD.....	22
Milestones and Deliverables.....	23
Task 9.3 TERRITORIES.....	23
Milestones and Deliverables.....	24
Task 9.4 ENGAGE.....	24
Milestones and Deliverables.....	25
Task 9.5 LEU-TRACK	25
Milestones and Deliverables.....	26
Task 9.6 PODIUM	26
Milestones and Deliverables.....	26
Task 9.7 SEPARATE	26
Milestones and Deliverables.....	27
Task 9.8 SHAMISEN-SINGS	27
Milestones and Deliverables.....	29
Task 9.9 VERIDIC	29

ANNUAL WORK PLAN FOR THE FOURTH YEAR (M37-48)	30
1 COHERENCE WITH ANNEX 1	33
AWP OBJECTIVES FOR MONTH 37 TO 48	33
EXPECTED IMPACTS	33
CORRESPONDENCE WITH THE DESCRIPTION OF WORK - ANNEX 1	35
1.1.1 WP1	35
1.1.2 WP2	35
1.1.3 WP3	35
1.1.4 WP4	36
1.1.5 WP5	36
1.1.6 WP6	36
1.1.7 WP7	36
1.1.8 WP9	36
ANNUAL WORK PLAN ACTIVITIES	37
ANNUAL WORK PLAN	37
1.1.9 <i>Structure of the Annual Work Plan</i>	37
1.1.10 <i>Timing of the different programmed activities and their components</i>	38
1.1.11 <i>Detailed work description:</i>	39
PARTICIPATION IN ANNUAL WORK PLAN ACTIVITIES	61
1.1.12 <i>List of programmed activities (table 2.3.b)</i>	85
1.1.13 <i>Annual Deliverables List (table 2.3.c)</i>	88
RESOURCES TO BE COMMITTED	92
1.1.14 <i>Summary effort table (Table 2.3.d)</i>	92
1.1.15 <i>Other major cost items (travel, equipment, infrastructure, goods and services) (Table 2.3e)</i>	100
PLANNED ACTIVITIES FOR THE FOURTH YEAR	104

SUMMARY REPORT FOR THE ONGOING REPORTING PERIOD (M25-M33)

Publishable summary

This document is the “D1.3-Third periodic report and draft annual work plan to the EC in accordance with the provisions of the consortium contract” and describes in part one the work carried out by CONCERT from June 2017 until February 2018 and in part two the work planned for the 4th CONCERT year, i.e. from June 2018 until May 2019. CONCERT achieved its objectives for the third year as laid down in the AWP for the third year.

During the third year of the project, most of the efforts have been devoted to the finalisation of the second open RTD call of the CONCERT EJP.

Work package 1 of CONCERT provides the financial, consortium and project management. The work carried out is result-oriented, aims at an efficient management of the project and quality control of results and deliverables as well as timely communication with the European Commission. The second call was implemented and projects selected for funding.

During the third year, the main activities in CONCERT **Work package 2** were the preparation of annual SRA statements and the first versions of platform roadmaps. The five RP research platforms (MELODI, ALLIANCE, NERIS, EURADOS and EURAMED) are now well established and organised, having working groups for SRA development, infrastructures and E&T activities. The SRA working groups / RTD Committees nominated by the platforms developed SRA Statements on current research needs and identified a short list of research priorities. MELODI, ALLIANCE, NERIS, EURADOS and EURAMED independently published the SRA Statements after they were approved by the platforms. A draft SRA for social sciences and humanities was published. The platforms also made analyses on research conducted during FP6, FP7 and H2020 in their respective fields and identified areas of research that have not fully been covered in the past. This gap analysis will be openly communicated to the European research community before the NFRP-2018 call.

CONCERT **Work package 3** focused in the previous years on the formulation of joint priorities for the 2 CONCERT research calls, a joint gap analysis of the EURATOM NFRP-2018-08 call, and the development of the first steps towards a joint roadmap for radiation protection research. In the 4th year, the activities of WP3 will continue to elaborate the joint roadmap for radiation protection research, based on consultations of Programme Owners, Programme Managers and Linked Third Parties, including the collection of information on national resources to fund research tackling the research challenges of the joint roadmap over the long-term. In addition, other stakeholders will be consulted to establish a broad basis of support for the joint roadmap. The joint roadmap should provide the necessary information to enable the development of a long-term call plan, to enable research of high impact. Efforts will be done to align the joint and individual roadmaps.

Work package 4 launched the second call for proposal of the EJP CONCERT on March 1st, 2017 with a submission deadline on May 2nd, and organized the evaluation process of the submitted eligible proposals. 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 (out of the list of experts provided by WP1) and further remote evaluation of all proposals, the Peer Review Panel (PRP) met for two days in Paris on July 6-7 2017, to thoroughly discuss the 24 eligible proposals submitted to the second CONCERT call and to rank them in the presence of the Independent Observer, and the EJP CONCERT EC Project Officer, invited as an observer and in the presence of the Call Steering Committee (CSC). Two ranking lists – one for Topic 1 and one for Topic 2 – have been established by the PRP.

With the total budget of 6.98 M€ available for the second CONCERT call 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 27th of July 2017.

The Evaluation Summary Reports (ESR) of eligible proposals submitted in the second CONCERT call have been sent to the respective coordinators. A report on the second CONCERT call 2017 (Deliverable 4.5) has been prepared by WP4, including lessons learned.

Furthermore, WP4 was implicated in the conclusion of the CONCERT Grant Contracts of projects selected for funding of the first and second call.

In the fourth year of the EJP CONCERT, WP4 will follow-up all nine projects funded in the two CONCERT calls (three projects in call 1 and six projects in call 2).

CONCERT **Work package 5** concerns stakeholder engagement activities. In this reporting period there have been three significant achievements: (i) holding the first Stakeholder Group meeting (Paris, 27-28 September 2017), (ii) opening of the CONCERT public stakeholder survey for responses that are now under analysis, and (iii) Development, approval and uploading of information on radiation exposure and risk to the CONCERT website (see <http://www.concert-h2020.eu/en/Stakeholders>) intended to inform public stakeholders.

In the fourth year, **Work package 6** partners will keep the same objectives according to increase the visibility and use of key research infrastructures: (i) to prepare infrastructure evaluation criteria and to compile a list of infrastructures (ii) to prepare regular information about infrastructures, (iii) to develop harmonized practices and protocols to strengthen and expand databases from past radiobiological experiments and from stored biological material, (iv) to develop strategies for facilitating access to infrastructures.

Work package 7 of CONCERT is dedicated to education and training (E&T) for the development and maintenance of the expertise and competence of the community of research scientists working in the area of radiation protection research. The specific activities organised by the work package, and funded as integration activities, included: a) Setting up a programme of student travel grants to allow students to attend relevant training courses at other institutions, or attend conferences to present their work; b) Launching a call for short courses in topics important for radiation protection research, aimed particularly at students entering the field or young researchers and c) Encouraging the career development of new scientists entering the field through interaction with the European Radiation Research Association for Young Scientists (EURAYS).

As well as these initiatives, WP7 is holding an annual Forum in association with the European Radiation Protection Week (ERPW), to strengthen the integration of E&T institutions within radiation protection. WP7 contributed to WP2 and WP3 to promote the integration of E&T into research projects funding under the two CONCERT calls.

Following the summary progress report of work per Work package carried out since 1st June 2017 and expected by the end of third project year.

WP1 - Project coordination & management

Work carried out

The purpose of WP1 is to ensure the effective administrative and financial management of the project as well as reaching a good synergy between all partners. The overall objective of the managerial organisation is to provide necessary structures for participatory and efficient decision-making and coordination of activities, fluent day-to-day management, reporting to EC and supporting project activities respectively.

The tasks of **Work package 1** have been implemented successfully. The project is on track and all the activities that were envisaged for the third year have been accomplished so far.

Task 1.1 – Overall legal, contractual, administrative management and financial management (BfS)

Planning and Co-ordination is led by the Executive Board (ExB) which is composed of WP leaders and is chaired by the coordinator. The ExB is responsible for aligning work across all WPs and through a continuous assessment of inputs and emerging results, make strategic implementation proposals to the Management Board (MB) that is composed of all beneficiaries, the four research platforms and the medical platform EURAMED as observer. EURAMED now is a registered association and registered in the Participant Portal Beneficiary Register to receive their 9-digit Participant Identification Code (PIC number). As this is finished, CONCERT started currently an amendment to include the medical research platform.

The following responsibilities have been allocated:

- Project coordinator: is responsible for the overall coordination of the project and for chairing ExB and MB as well as coordinating any issues with the EC.
- Project coordination team: is responsible for the daily management of the project including administrative and financial issues.
- WP and Task Leaders: are responsible for leading the work package/task according to the objective and description of work

The project management team answered numerous requests and prepared necessary amendments to the GA of CONCERT.

Task 1.2 – Consortium, Executive and Management Board

Project meetings. During the third year, the following meetings were organised:

- Management Board meeting = 2nd FUNDING DECISION MEETING, on 27th July 2017, Munich MUNICON conference center at the MUC airport, Germany
- Management Board meeting organised as satellite meeting to the 2nd ERPW 2017 on 09 Oct 2017, Disney Business Center Paris, FR
- Management Board meeting on involvement of CONCERT in the EURATOM Call NFRP-2018-9 and the development of the Joint Roadmap for Radiation Protection Research on 21st February 2018, Munich, Germany
- back to back to MB meetings, ExB meetings were organised the day before or back to back
- the ESAB (Executive Scientific Advisory Board) attended the ExB and MB meetings on 09 Oct 2017, Disney Business Center Paris, FR
- Each Work Package organised its own meetings as necessary.
- Together with the RP research platforms CONCERT organised an open information day related to the EURATOM Call NFRP-2018-8 on February 20th, 2018, Munich, Germany

Meeting agendas and information on the venue were shared. Meeting minutes were prepared by the project coordination team and made available on the project workspace together with the lists of participants. During the meetings, partners reviewed the latest results and achievements of the different Work packages, discussed the outcomes of the project, highlighted topics of particular interest such as the finalisation of the second call (conclusion of CONCERT Grant Contracts with the six selected projects) and the progress of the first three funded projects.

Task 1.3 – Updating the rolling annual work plan (AWP)

Work on the AWP for the fourth year of CONCERT (M37-48) was co-ordinated by BfS and the 4th AWP submitted as part two of this document.

Task 1.4 – External Scientific Advisory Board (ESAB) for the evaluation of CONCERT

The members of the ESAB attended the MB and ExB on 09 Oct 2017 in Paris to get information about the CONCERT process as well as an overview of activities by the three project funded through the first CONCERT Call and ongoing process related to the second call.

Task 1.5 – Negotiation of projects to be funded through open RTD calls

In total 25 proposals were submitted by 166 partners from 89 different institutions in 24 countries. Thereof, 21 proposals responded to Topic 1 and 4 proposals to Topic 2. Among the 24 eligible project proposals, 15 proposals have been recommended to be considered for funding by the PRP, including 13 proposals of Topic 1 and 2 proposals of Topic 2. With the total budget available and by taking into consideration the preannounced budget allocated to the two topics by the CONCERT Management Board, in total 6 projects can be funded, the four highest ranked projects in Topic 1 and the two ranked projects in Topic 2. For a detailed report on the second CONCERT call 2017 refer to D4.5.

Task 1.6: Funding decision process for integration activities listed in the approved annual work programme

Funding decisions on integration activities were made in the field on education and training (courses and grants) based on recommendations of WP7 and financial feasibility checks by WP1 by the CONCERT MB.

Task 1.7: Attracting new members to the CONCERT EJP Consortium

The aim of this task is to extend CONCERT's scope and its co-fund capability. Adding beneficiaries will be to the mutual benefit of the current consortium and the joining institutions and foster the integration of radiation protection research in Europe.

The following beneficiary was successfully added to the consortium in December 2017:

- EPA; Environmental Protection Agency, Ireland

With EPA joining CONCERT, the action extended to a country not represented with beneficiaries in the consortium. Having EPA participating strengthens the integration of the respective country's research community into CONCERT's activities.

Next to that and to have all expertise within CONCERT an amendment was opened to add the newly formed research platform in medicine EURAMED as fifth platform. Thereby CONCERT unites the necessary scientific expertise from the fields of e.g. radiobiology, biophysics, radioecology, dosimetry and medicine among other things at the European level and integrates them into joint research. It is based on the current strategic research programmes of the European research platforms MELODI (radiation effects and risks in the low dose range), ALLIANCE (radioecology), NERIS (nuclear and radiological emergency preparedness), EURADOS (dosimetry) and EURAMED (radiation protection in medicine).

Task 1.8: Public CONCERT web page and a secure internal web-based workspace

The secure internal web-based workspace integrated with the project's public website to provide a medium for communication among project participants is maintained and looked after by SCK-CEN. The workspace allows the exchange of various types of information: datasets, results, coordination decisions, timetables, presentations, meeting agendas and minutes, and reporting among partners. It allows each partner, the work packages leaders, and the coordinator to regularly monitor progress in data collation, analysis, and accomplished deliverables.

The public website is designed to act as an information hub about the objectives, activities and results of CONCERT and serves as a prime public dissemination tool making available the project published materials. The website is being updated on a regular basis to keep the audience informed and ensure continued interest of already attracted visitors. In collaboration with WP5, information of interest to the public on radiation protection was collected (<http://www.concert-h2020.eu/en/Stakeholders>) and will be further elaborated during the course of CONCERT.

Task 1.9: Establishment of an expert database for the reviewing processes of CONCERT

The expert database has been set up as planned in year one. Experts from all over the world were proposed by the radiation protection research platforms and were contacted by the coordinator to inquire their willingness to serve as expert in the CONCERT call evaluation. The expert database was provided to WP4 to be used during the two CONCERT call evaluation processes.

Milestones and Deliverables

D1.3 Third summary progress report and draft annual work plan to the EC in accordance with the provisions of the consortium contract

WP2 – Integration and SRA development in radiation protection research

Work carried out

The main WP2 objectives for the third project year are:

- To provide input to Joint Programming (WP3) from all fields covered by WP2.
- To successfully complete the work for the preparation of the SRA on radiation protection in medicine and continue work on SRA for social sciences and humanities
- To find the best possible ways to implement the BSS in Member States.
- To develop roadmaps for research based on the SRAs

WP2 input (SRA Statements) for Joint Programming (WP3) was provided as planned. The four RP research platforms (MELODI, ALLIANCE, NERIS and EURADOS) are now well established and organised, having working groups for SRA development, infrastructures and E&T activities. A new research platform on radiation protection in medicine was established. Since October 1st, 2017, EURAMED is a non-profit organisation registered in Austria. The SRA working groups / RTD Committees nominated by the platforms developed SRA Statements on current research needs and identified a short list of research priorities. A structured approach using same criteria was applied for the description of each research priority, in order to help selection and to identify synergies. The SRA statements were approved by the platforms and passed to CONCERT MB and for joint programming (WP3).

To ensure a good flow of information, several WP2-WP3 phone meetings were organised. Participants to these meetings were the WP2 and WP3 leaders, chairs of platforms, chairs of SRA working groups, and leaders of tasks 2.5 (medical), 2.6 (social sciences and humanities) and 2.7 (BSS).

The work on medical SRA (Task 2.5) proceeded very well and provided input for the joint Programming (WP3). A Statement of Priorities from the medical SRA were identified by EURAMED. .

The work on long-term roadmaps of MELODI, ALLIANCE, NERIS and EURADOS has been carried out in parallel of the scenario-based joint roadmaps. Workshops on roadmaps for specific topics will be co-organised by the platforms and CONCERT. MELODI workshop on individual radiation sensitivity in Malta on 12-14 March. ALLIANCE-NERIS workshop on how to get more realistic environmental impact assessment and improved management: from land to sea (title under consolidation) takes place in Munich on 6-7 March. ALLIANCE-MELODI workshop on epigenetics vs genetics in living organisms is organised in Brussels at the beginning of April (Title, location and dates under consolidation). First versions of platform roadmaps were provided (D2.5).

EURADOS is working on an update of their SRA that was first published in 2014, as a EURADOS report. A small task group has been established which is coordinating the input from the EURADOS Working Groups. At the Annual Meeting that was held on February 5-8 2018 in Lisbon, Portugal, all Working Groups discussed their contribution towards an updated SRA, and a new SRA structure was also discussed. These efforts were in parallel to a gap analysis of open scientific questions that is being performed by EURADOS, based on the current version of the SRA and results of recently funded EC projects.

The work for creating a Strategic Research Agenda on Social Sciences and Humanities (SSH) in radiation protection was continued and the first draft of SRA was prepared. This work is divided into three subgroups: ethics and justification, risk communication and safety culture.

Task 2.7 deals with communication of knowledge from research and innovation conducted within CONCERT and outside laying the scientific basis for the revised European Basic Safety Standards. Contacts with HERCA and Article 31 Group have been continued and a stakeholder workshop was organised in connection of European Radiation Protection Research Week in Paris. CONCERT members have participated HERCA workshops and workshop series organised by RISKAUDIT, discussing the challenges related to BSS transposition and implementation. A general observation is that national authorities are currently heavily occupied by the legal aspects of BSS rather than research. The RTD Committee of Article 31 Group provided a list of research needs. Deliverable 2.11 was submitted at month 30

There will be no more RTD calls organised by CONCERT during H2020. However, the Draft Euratom Work Programme 2018 plans for a call on radiation protection research (NFRP-8) that aims at pursuing the integrative approach of radiation protection research involving Member States' organisations having a regulatory mandate for research in radiation protection and the wider scientific community. This action must take into account prioritisation of research in this field reflected in the SRAs of MELODI, EURADOS, NERIS, ALLIANCE and EURAMED, avoiding duplication with previously funded research. To serve the European research community, the platforms carried out analyses on research conducted during FP6, FP7 and H2020 in their respective fields and identified areas of research that have not fully been covered in the past. This gap analysis will be openly communicated to the European research community before the NFRP-2018 call.

Milestones and Deliverables

One project milestone related to WP2 was due during year 3.

MS11 Annual SRA platform statements 2017 was due by month 30. This milestone was reached in time (see also deliverables 2.9 and 2.10).

Six project deliverables for WP2 are due by end of year 3.

- D2.9** Annual SRA Statements from MELODI, ALLIANCE, NERIS and EURADOS (3) (due by M25) serving as input to joint programming was submitted to Coordinator and to EC at month 25.
- D2.8** Draft SRA for Social Sciences and Humanities (due by M24) was postponed and submitted to Coordinator at month 26.
- D2.10** Joint research needs and priorities addressing radiation protection research relevant for medical use of radiation and communication/risk perception in radiation protection field (3) (due by M30) was submitted to Coordinator and to EC at month 30.
- D2.11** Identifying research needs and RTD priorities supporting the implementation of BSS (2) was initially expected by the end of year 2 but subsequently postponed to month 30, to allow time for stakeholder consultation during European Radiation Protection Research Week in October 2017. The deliverable was submitted to Coordinator at month 30.
- D2.5** Long-term RTD roadmaps from MELODI, ALLIANCE, NERIS and EURADOS was initially expected by month 24 but postponed to month 30. The deliverable was submitted to Coordinator at month 31.

WP3 - Priority research and Joint programming needs in the perspective of European Integration

Work carried out

Next to the priority setting for the 2 CONCERT calls organised in the previous years, CONCERT WP3 is responsible for setting up a joint roadmap in radiation protection research. As a basis for the joint roadmap for radiation protection research, it was decided to define a set of exposure scenarios to identify potential radiation protection needs when faced with man-made and natural sources of ionising radiation. Based on these potential exposure scenarios a first set of joint research challenges for radiation protection is proposed and submitted as Deliverable D3.4.

The elaboration of this deliverable was prepared in multiple steps, including teleconferences of the WP2-WP3 working group on 13/6/2017, 13/7/2017, 27/10/2017, 14/11/2017, 24/11/2017, a web consultation of the CONCERT MB on the draft deliverable, and a physical meeting back-to-back to the ERPW2017 in Paris (11/10/2017). The first steps to the joint roadmap were also presented as a poster and a lecture at the ERPW2017.

This deliverable, submitted end of November 2017 will serve as a basis to initiate discussions with the wider research community and other stakeholders. Stakeholder involvement along the course of the development of the joint roadmap is important, since the joint roadmap is meant to be a guide to plan research and develop radiation protection tools for the benefit of the society.

Therefore a first meeting of the CONCERT Stakeholder Group organized by WP5 has already been held 27-28 September 2017 in Paris. During this meeting, the WP3 leader introduced the aims of the roadmap, and initiated a discussion on how to involve stakeholders in the development of the Joint roadmap.

It has been proposed that the WP5 stakeholder group will provide inputs for the different scenarios, and will be involved in the setup of a stakeholder involvement plan. Members of the WP5 stakeholder group will

support the implementation of the plan by providing contacts, each in their own field of interest or duty, to enlarge the stakeholder consultation to a wider stakeholder community.

A stakeholder involvement plan will be elaborated in 2018. The plan will be implemented and result in a first draft joint roadmap for radiation protection research in 2019.

This stakeholder consultation will help to validate the scientific challenges to be overcome, and to prioritise research accordingly. Once priorities are set, costs can be estimated for a long-term research plan for the next 20 years. Some stakeholders, including decision-makers at national level such as the CONCERT Management Board, and decision-makers at European level and other potential sponsors for radiation protection research will be invited to assist to explicitly discuss priority setting, budgets and budget allocation mechanisms, next to the other steps in the roadmap development.

It is planned to have a first draft joint roadmap for radiation protection research November 2019. The proposed Joint (WP3) and Individual (WP2) roadmaps may serve as a guide to organize a long-term plan for open research calls covering the different areas of radiation protection research, subject to appropriate funding at the national and European scale and regular updating.

Milestones and Deliverables

The **deliverable D3.4** was submitted in Month 30. Despite the title of the deliverable, this document is not a first draft joint roadmap, but it represents the first steps and current ideas to build a joint roadmap for radiation protection research. This first draft was presented at the joint European Radiation Research Week and ICRP international Symposium in Paris, October 2017.

D3.3 If extra funding is available: Third Annual Joint Priority List submitted (M34)

WP4 - Organization and management of CONCERT open RTD Calls

Work carried out

During the third year of the EJP CONCERT, WP4 launched the second CONCERT call on March 1st 2017 (initially planned for February 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.

International experts from the list of experts provided by WP1 have been contacted and asked for their participation in the evaluation procedure of proposals submitted for the second CONCERT call. In the choice of PRP members, a wide array of relevant expertise, gender and geographical balance as well as non-conflict of interest have been respected. After allocation of the 24 eligible proposals to the group of 13 international experts and further remote evaluation, the PRP met for 2 days in Paris on July 6-7 2017 to thoroughly discuss all 24 eligible proposals and to establish the two ranking lists (one for topic 1 and one for topic 2) of proposals recommended to be considered for funding.

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. As Independent Observer, Dr

Christine Bunthof was selected from a list of experts of the European Commission by WP4 and 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 to the deliverable 4.5 *“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”*. Besides the Independent Observer, the following persons have been present during the PRP meeting as observers: the EJP CONCERT EC Project Officer, invited as an observer and the Call Steering Committee members (WP4).

The Financial meeting of the Management board of CONCERT was prepared during a WP1 (Coordination team of CONCERT) and WP4 (Coordination of the CONCERT Calls) meeting on July 10th 2017. 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 July 2017.

Negotiations and preparations of the CONCERT Grant Contracts (CGC) took place in close collaboration with the proposal coordinators, the CONCERT coordination team (WP1) and WP4. Modifications of the initial submitted proposal (in form of new work plans prepared by the respective project coordinators) of ranked and fundable projects have been validated by the PRP. The CGC of both calls are finalised.

The Evaluation Summary Reports (ESR), written by the PRP members at the end of the evaluation procedure, have been sent on August 28th 2017 to the coordinators of eligible proposals together with the information about the final funding decision for the respective proposals. A report on the second CONCERT call including a “Lessons learned” was prepared and submitted as deliverable 4.5 in December 2017.

The outcomes of the first CONCERT call have been presented in collaboration of WP1 and WP4, together with the three funded projects, in a special issue of AIR2 in February 2017. A similar presentation of results is planned for the second CONCERT call beginning of 2018.

MINECO as new beneficiary of the EJP CONCERT was successfully integrated as new partner into Work Package 4 in this reporting period.

Milestones and Deliverables

D4.4 Call documents: Governance of the Call and Evaluation document, Call Text, Guidelines for applicants, Proposal templates, for the CONCERT open RTD Call 2. - Approved by the commission.

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 - sent to WP1 and available online

D4.9* Researches funded under the two CONCERT calls (M34)
*Newly introduced deliverable as per request by the EC

MS21 Launch of the 2nd CONCERT open research call – The call was launched on March 1st 2017 (initially planned in February 2017)

MS22 Midterm evaluation of granted proposals from the 1st call finished (M30) - The midterm reports of projects funded in the first CONCERT call will be requested by the JCS from the respective coordinators in June 2018 (M37). The milestone is delayed due to the delayed launch of the first CONCERT call.

WP5 - Stakeholder involvement and communication in radiation protection research

Work carried out to date

CONCERT Work package 5 concerns stakeholder engagement activities; from the outset four main activities were envisaged: (i) Prepare for a CONCERT stakeholder management strategy, (ii) establish a stakeholder panel, (iii) plan, launch and analyse a public facing survey, (iv) develop core information on radiation exposure and risk for the CONCERT web page. To coordinate the activities of WP5 partners over the year, two teleconferences have been held (21 July 2017, 23 October 2017) and a dedicated meeting was held during the 2017 Radiation Protection Week, 10-12 October 2017. The CONCERT stakeholder group has been assembled and a first meeting was held 27 – 28 September 2017 in Paris. This meeting gathered more than 15 European stakeholders proposed by the different research platforms and coming from eight different countries. In addition to these stakeholders, representatives from the CONCERT EJP and the European research platforms attended the meeting, as well as the three leaders of the projects funded by the first CONCERT call (CONFIDENCE, TERRITORIES and LDLensRad). The meeting focused on both, the preliminary CONCERT Joint Roadmap and the projects CONFIDENCE, TERRITORIES and LDLensRad, providing an outline of each to the group. On this occasion, Stakeholder Group members interacted with the different speakers as well as with the representatives of CONCERT and the European Research Platforms, and so share their views, comments and expectations on the research projects and the way that these projects can better involve stakeholders in their process. To conclude the two-day meeting, a general discussion about the ways to better involve stakeholders in the Radiation Protection Research process has been proposed. There was also an opportunity to discuss composition of the Stakeholder group, which is anticipated to widen and the role and remit of the group. The main outcomes of this meeting have been summarised in dedicated minutes that were sent to all participants. These activities have been carried out in the context of Task 5.2, with IRSN and CEPN leading.

Task 5.3 concerns development of stakeholder survey activities and the use of social media. In the current period, the survey text was agreed and the survey launched. The survey, which was translated to be available in 15 languages, seeks opinion of respondents on their perception of radiation risks and the accessibility and quality of information on risk issues. The survey, implemented on Google Forms was opened on 31 May 2017 and remained open until 31 December. Some 1966 responses were received; variation in response rates amongst the 15 languages is evident and likely reflects differences in the modes and amounts of promotion and promulgation of the survey in different countries. The responses to date are now in the process of being analysed.

Information on radiation exposure and risk has been developed and posted on the CONCERT website (<http://www.concert-h2020.eu/en/Stakeholders>). In addition to a Stakeholder landing page that integrates the information, sections covering ‘What is ionising radiation?’, Natural sources, artificial sources, health effects and radiation risks in context are available. The material draws on and integrates relevant resources available from trusted and credible sources elsewhere on the Internet.

Milestones and Deliverables

MS5.4 – Public survey assessed and published (M30) – Analysis underway following close on 31 Dec 2017.
Delayed to M42

D5.3 – First public/specialist website material –Completed M32

WP6 - Access to infrastructures

Work carried out

The WP6 partners have continuously worked to reach the 4 main objectives to increase the visibility of infrastructures: (i) to analyze the present status of our list of infrastructures to analyze and understand the situation: lacks and potential solutions (ii) to prepare regular information about infrastructures, (iii) to propose harmonize practices and protocols through infrastructures (including databases and sample banks), (iv) to develop a strategy with its roadmap for facilitating access to infrastructures.

The activities of WP6 members have been concentrated on the organization and actions needed, in order to consolidate the first steps of actions of the two first years. For that, numerous WP6 members have participated to meetings, the first was in a particular time position (at the end year 2-year 3) at Budapest on the 22nd May 2017, the real first was organized in October 2017 (Radiation Protection Week, Paris), the second is under preparation and planned at CIEMAT, Madrid on the next 19th April (2018)

Task 6.1 Promote the visibility of research Infrastructures

Lead: NMBU; Partners: all WP6 members

WP6 partners have created a free web access infrastructure database AIR²D². It includes suitable infrastructures validated *a priori* by their frequent use in previous researches over the domains of activities of CONCERT. This database is built in order to that infrastructures owners could add technical information and new owner candidates could themselves registered in. In October 2017, we have analyzed the situation and observed that AIR²D² comprised 54 infrastructures, not all of which are intended to be featured in the AIR² bulletin; however, some of the 63 infrastructures described in AIR² Bulletin were not in AIR²D². In fact, only 27 were common to both. We have observed also that information added by owners about criteria some of them are not filled or unclear completed. Our initial set of criteria needs to be modified. We have developed actions in order to raise owner awareness to participate and complete AIR²D². It comprises communications during various seminars and one to one contact with targeted infrastructures owners. We started a reminder campaign asking everyone who had published in AIR² to record their infrastructure in AIR²D² in order to complete/validate the data. To date, our database AIR²D² comprises now 74 infrastructures.

The monthly Bulletin: AIR² "Access to Infrastructures for Radiation protection Research" is now at the 24th issue and has celebrated its second year anniversary. Two special issues have been also published during this period one dedicated to the MEDIRAD projects; second one to the results of second CONCERT call and the six selected projects. Projects are described with their used infrastructures and the management of their data and samples in connection with the directives concerning the open access.

The CONCERT Survey on data management has been evaluated and presented in the 2nd European Radiation Protection Week and in the 17th International Symposium on Microdosimetry. A manuscript has been submitted in order to appear in Radiation Protection Dosimetry as the proceedings of the latter conference. All these activities aimed to increase the visibility of the open data movement in general and STORE in particular.

Task 6.2 Harmonize Practices and Protocols

Lead: RIVM; Partners: all WP6 members

STORE has continued to explore interactions with other data and bioresource databases. Whilst overall successful, one issue that has emerged from these discussions is that in many cases, the technological

platforms of many of these databases are elderly and in many cases, there is no possibility to connect with them directly. There are direct access problems for databases with restricted consenting, but in these cases detailed information of the data and resources are included in STORE together with the key contact to arrange private access. Records have been created for the:

Presentations and/or training about STORE were given in Essen at the ERR, September 2017, at ERPW Paris, October 2017 and in London, January 2018. STORE was also presented at the NATO Advanced study workshop, BRITE (Biomarkers of Radiation in the Environment), held in Yerevan, Armenia, 27-30 November 2017, and a document has been submitted on STORE and data-sharing for the forthcoming proceedings. A further paper is in preparation for the IJRB but has been delayed due to issues with the organization of IT and management within the BfS. It is projected that this will be submitted early spring 2018.

New initiatives include the initiation of a twitter account from STORE @STOREDB, and the acquisition of data from the PROBA database as promised.

The current database status is:

- Registered Users: 33 in the new system, 49 in the old system,
- Studies: 96 (SCK•CEN studies include several independent grouped into 4 STORE studies),
- Datasets: 147,
- Files: 3,000 (incl Links)
- Volume: just under 1.5TB of data as of today
- Conservatively expect 0.5PB within 5 years

Negotiations are not finalized with SUBI for release of decorporation data,

Due to institutional rearrangements, linkage to the JShare database is still await, although a meeting with the Jshare management in Paris during ERPW reaffirmed their active intention to collaborate as a priority.

Sustainability has become a key issue for the project. Whilst the BfS guaranteed maintenance in the initial STORE contract with the Commission, CONCERT has not regarded infrastructure as a priority in its two calls and a letter was sent to the Commission on 4 April 2017 from the partners and advisory board requesting guidance on long-term sustainability.

A first discussion has been opened between partners about the opportunity to develop a common set of rules through document (charter) for the network of infrastructures.

Task 6. 3 Strategy for facilitating access to infrastructures

Lead: CEA; Partners: all WP6 members

Activities for establishing the strategy for facilitating access to infrastructures have been discussed particularly at the WP6 meeting in October 2017 where possible calls have been reviewed, analyzed and discussed in order to establish a common proposal with voluntary members for a pilot network of few infrastructures.

Milestones and Deliverables

There were no deliverables and Milestones due between M25 and M33

WP7 - Education and training

Work carried out

Task 7.1 – Attracting and retaining students and junior scientists into the Radiation Protection research fields

Subtask 7.1.1 – Student travel grants

In order to further the policy of developing and maintaining expertise in the radiation protection research community, CONCERT is offering 10,000 € per year for travel awards to junior scientists. Support can be given for participation in a conference, a course or for an exchange visit to a laboratory, where this can be shown to be of value for increasing the applicant's involvement and knowledge/skills in current European research in radiation protection. There are four application deadlines per year: 31 March, 30 June, 31 September and 31 December. After each deadline a maximal sum of 2.500€ is paid out to the top applicants. The maximal level of support per applicant is 625€.

During this reporting period, there have been three application periods. The results were as follows:

- | | | | | | |
|-------------|----------|------------------|----------|-----------------|----------|
| • June 2017 | 5 grants | • September 2017 | 3 grants | • December 2017 | 4 grants |
|-------------|----------|------------------|----------|-----------------|----------|

They were distributed among member States as follows:

- | | | | |
|-------------|-------------|------------|------------|
| • Belgium 2 | • Finland 2 | • Poland 3 | • Sweden 1 |
| • Croatia 1 | • Germany 1 | • Spain 1 | • UK 1 |

Subtask 7.1.2 – Academic mobility in EU universities

This subtask will start in the next months, with dialogue with EU universities, leading to delayed production of Deliverable D7.6 later in 2018.

Task 7.2: Education and training as an essential part of dissemination and knowledge management within CONCERT

The purpose of this task is to promote E&T as an integral part of CONCERT-funded RTD projects, by requiring proposals to include evidence that due consideration has been given to the incorporation of graduate student involvement and the offering of new or specialist technologies as topics for E&T courses. The wording that was used for the two CONCERT calls was as follows:

“Education and training is an essential part of all activities within CONCERT. Proposals shall include a plan for integration of education and training into the research programme, with a description of the proposed activities. This must also give details of collaboration or involvement with academic departments, and of intended PhD thesis work, MSc project work, teaching seminars, ad hoc courses on the topics of the proposal, etc., where possible. The plan will be assessed as an essential part of the impact statement and will be considered within the evaluation procedure.”

Task 7.3: Targeted E&T initiatives

Up to the time of reporting there have been 3 open calls for institutions to host short courses. Eight courses were funded in the first call and fourteen in the second and third calls. They are listed on the CONCERT page http://www.concert-h2020.eu/en/Concert_info/Education_Training. All of the applications to hold courses have been accepted for funding in each of the 3 calls.

Task 7.4: Coordination and collaboration on E&T policy and strategy

Subtask 7.4.1: Coordination and collaboration

The aims and activities of CONCERT WP7 were presented to the 4-yearly meeting of ETRAP (Education and Training in Radiation Protection), June 2017 in Valencia. The presentation was well received by an audience covering a wide range of interests and institutions within radiation protection.

In addition, there was a continuous slide presentation and poster on CONCERT E&T activities at the combined European Radiation Protection Week and ICRP meeting in October 2017.

Subtask 7.4.2: Vocational training for experts foreseen in the new Euratom BSS directive

This subtask has not started yet.

Task 7.5: European integration of junior scientist career development

The support and interaction activity 7.5.1 is intended to interact with the EURAYS group. However, the leadership of EURAYS has been dissolved due to major players discontinuing their activities in EURAYS. Further attempts are being made to provide support to EURAYS. Unfortunately, the initiative taken by Dr Ainsbury (PHE) with the support of Task 7.5 (subtask 7.5.1) to reinvigorate the EURAYS concept through a COST proposal was not successful. It is intended to resubmit the proposal at the next opportunity.

The CONCERT outreach activities in WP7.5 for this reporting period consisted of two sessions of lectures held at the RAD17 meeting in Budva, Montenegro. In conjunction with the E&T committee, it was decided to hold these CONCERT activities at this meeting as over 200 scientists, predominantly young / junior scientists from new member and accession countries, attend it.

In the first session, attended by over 50 participants the Task 7.5 partners and invited speakers presented the results of recently completed and on-going EURATOM projects (SOPRANO, Dark-Risk, DoReMi, OPERRA, PROCARDIO, RISK-IR).

The second session, attended by 45 more senior scientists, consisted of a detailed overview of the HLEG, MELODI programme, the TRA and the SRA. This was followed by presentations on the role of a coordinator, partner, the call process and joining consortia as partners. Finally, the CONCERT E&T faculty members provided one-to-one mentoring to attendees to encourage and motivate their participation in the upcoming EURATOM research programme.

The RAD17 organisers conducted an evaluation of the sessions by obtaining verbal feedback. The tenor of this was that the participants felt empowered and motivated to join activities, but still needed more individual coaching. Consequently, we plan to revise Task 7.5 activities to address this need.

Milestones and Deliverables

There were no deliverables due between M25 and M33

MS38 3rd Annual call for E&T initiatives (M27) (Delivered M22)

MS43 3rd Annual meeting of interest groups (M30) (Delivered M28 at Paris Disneyland ERPW)

WP8 – Ethics

This work package sets out the 'ethics requirements' that the project must comply with.

WP9 - Research projects selected through CONCERT open calls

Work carried out

The objective of WP9 is to bring together RTD activities selected through two open calls for research projects organised along the CONCERT project. This work package includes the nine different research tasks that have been selected through the two transnational call for proposals on “Radiation Protection Research in Europe” through the EJP CONCERT:

- Task 9.1 CONFIDENCE
- Task 9.2 LDLensRad
- Task 9.3 TERRITORIES
- Task 9.4 ENGAGE
- Task 9.5 LEU-TRACK
- Task 9.6 PODIUM
- Task 9.7 SEPARATE
- Task 9.8 SHAMISEN-SINGS
- Task 9.9 VERIDIC

BfS as leader of this WP will have the responsibility to follow up the progress of the different research projects.

Task 9.1 CONFIDENCE

First of January 2017, the CONFIDENCE (COping with uNcertainties For Improved modelling and DEcision making in Nuclear emergenCiEs) project started as Task 9.1 of CONCERT. The project focuses on identifying and reducing uncertainties in the release and post-release phases of an emergency. The latter includes the transition between the short-term post-release and recovery phases (e.g. the first year(s)).

In task 9.1.1.1, a report on datasets of meteorological ensemble data was completed (D9.18). A further report analysing and ranking sources of uncertainties for atmospheric dispersion is on schedule to be delivered in February 2018 (D9.1). This second report addresses uncertainties related to the source term, meteorological uncertainties and the use of meteorological measurements to reduce uncertainties as well as uncertainties related to atmospheric dispersion models. Task 9.1.1.2 deals with case studies and a common file format to exchange data such as the source term. A report presenting an initial set of outputs of CONFIDENCE WP1 from ensemble dispersion simulations has been completed earlier last year. Face-to-face meetings took place last June in Fontenay-aux-Roses as well as a meeting aiming to discuss the use of ensemble data for meteorological uncertainties.

In task 9.1.2, work has progressed on how to assess uncertainties in stationary and mobile environmental monitoring systems and on how to reduce this uncertainty by an optimized monitoring strategy. Individualized dose calculation software based on environmental data has been developed. The work plan for internal dosimetry has been set and first steps in developing destruction free protocols for personal items such as external dosimeters undertaken. The endpoints of the health risk tool to aid both decision making and medical screening/surveillance have been defined and format of dose data as input to the tool clarified.

In task 9.1.3, the foodchain and dose model FDMT has been transferred to the modelling platform ECOLEGO to enable probabilistic simulations; a full list of the parameters in the food-chain transfer component have been compiled and work has been initiated to collate underlying statistics (including distributions) for these.

A critical review of Cs soil-plant models has been conducted and sensitivity analyses for Sr soil modelling is nearly complete. Field studies on grass and barley, with three different I-131 sprays were conducted during the summer growing season (2017) at two different sites: one coastal (high stable-I) one inland (low stable-I) have been conducted.

Under task 9.1.4, a dedicated web page was established (<http://projects.ciemat.es/web/confidence-wp4/home>) to facilitate work. The process to define and establish a generic contaminated scenario and the questions and issues to be used as basis for panel discussions has been concluded and it will become available to the panels in the next months. A second meeting during the Radiation Protection Week 2017 (Paris, France), and a final workshop in November (Madrid, Spain) were organised for this purpose. The deliverable D9.19 includes detailed information on this. The first round of the Delphi study has been initiated launching a questionnaire to the CONFIDENCE partners, NERIS Community, and national stakeholders. The national panels are already targeted and the stakeholders are defined. The call and first steps to organise the national panels were initiated.

In task 9.1.5, a research protocol was finalized for tasks 9.1.5.1 and 9.1.5.2.iii. The methodology of this task was assembled in dedicated document which is available from the CONFIDENCE web page. Case studies and observation of emergency exercises are in progress. Survey data in Belgium, Spain and Norway have been collected. The development of the methodology for task 9.1.5.3 is in progress. Face-to-face meetings and dissemination of results took place at RICOMET 2017 (Vienna) and Radiation Protection Week 2017 (Paris).

Task 9.1.6 discussed the various uncertainty topics to be treated and/or excluded in the project, shaping the understanding of uncertainties by project partners. Further, work focused on the development of the multi-criteria decision aiding software that includes uncertainty information from the model results and uncertainties in the preferences of the decision makers. A first prototype was provided to all project partners by December 2017. A second task was related to the conceptual development of the agent based system to simulate the decision process of decision makers. The concept is ready and a first test version is under development. Work on indicators for robust decision making has started and is on schedule.

The work on detailed specifications of the training courses has been started in task 9.1.7. Several possible dates for the courses have been agreed and refinement is in progress. The training course/workshop under the task 9.1.7.1 will take place in Trnava, Slovak Republic; training course/workshop under task 9.1.7.2 will take place in Madrid, Spain. For the lectures under task 9.1.7.3, universities from Belgium, Norway, Slovakia, Italy and in addition from Spain, Germany and Slovenia have been addressed. First announcements of the courses/workshops are under preparation and will be delivered at the CONFIDENCE workshop in Dublin, April 2018.

Task 9.1.8 deals with the operation of the CONFIDENCE project. All necessary means were established and regular web meetings of the Management Board assure the smooth operation of the project. A Scientific Advisory Board was established and will provide advice in the frame of the CONFIDENCE workshop scheduled for April 21 – 23 in Dublin, Ireland. On April 23, possible interaction with TERRITORIES will be discussed.

Milestones and Deliverables

- D9.2** Published dataset of meteorological ensemble data to be used as dispersion and source terms by other WPs (Fukushima and synthetic) (M25) (Delivered M25)
- D9.3** Published sets of probability maps of threshold exceedance for scenarios provided to WP4, WP5 & WP6-->01 (M25) (Delivered M25)
- D9.1** Guideline ranking uncertainties for atmospheric dispersion (M31) (Delivered M33)
- D9.19** Structured communication technique results (M31) (Delivered M31)

Task 9.2: LDLensRad

LDLensRad: Towards a full mechanistic understanding of low dose radiation induced cataracts, is a multidisciplinary research project focused on a number of key research questions regarding the mechanisms of low dose radiation cataract induction.

Following inception of the project in January 2017, the first year of the project has focused on establishing the long and short-term mouse models to investigate cataract initiation and development, with an implementation meeting to discuss this and other practical considerations taking place in London in late January 2017. The formal project 'Kick-off' meeting was held in Oxford in May. This meeting was attended by representatives from all the formal and supporting partner institutes and topics covered included a review of the plans and progress to date regarding set up of the long and short term mouse models at PHE, HMGU and ENEA (WP1), including investigation of the aging effect; the in vitro work planned to support the mouse findings (WP2); WP3 looking at wider pathological and behavioural aspects of radiation on the mice to investigate the lens as a global indicator of radiosensitivity; detailed discussion of the data collection, curation and statistical aspects under WP4 (with additional input from UNIPV colleagues), and discussion of a number of other management and practical details including stakeholder engagement, open sharing of data and dissemination of results and the location and timings of meetings going forward. The Advisory Board members were also given the opportunity to comment on plans to date, and have already provided valuable input with regard to several practical aspects.

Further to the above, the PI attended the WP5 Stakeholder Engagement Event in September 2017, an additional project progress meeting was held as a satellite to ERPW2017 (Paris, October 2017), and a workshop on the STORE open data sharing platform for the project Data Curation Team was held in January 2018 – it is anticipated that all project data will be made available through STORE. A UK based engagement event for medical professional and public stakeholders is planned to take place in May 2018 and the next project Annual meeting will take place in Munich on the 5-7th June 2018.

In terms of data generation and analysis, a major milestone of the LDLensRad project is the programme of irradiation of a number of mouse models. Optimisation of experimental protocols for the in vivo exposures is now complete, with irradiation of mice and short (mechanistic) and longer-term (cataract) data collection under way at ENEA and PHE – with presentation of initial results expected at the forthcoming AM 2018. At HMGU, 6 mice from each of the 9 planned irradiation groups have been irradiated and the first organ withdrawals were carried out at 4 months post irradiation. All long-term groups (0.5, 1 and 2 Gy and controls) were irradiated and started the monthly Scheimpflug examinations. Up to now, no vision impairing cataracts were found in the *Ercc2* mouse model - not 11 months after 0.5 Gy nor 3 months after 2 Gy irradiation. OBU and DU are now in the final stages of inclusion as formal LTP of the project, and the planned in vitro experiments are well underway with promising indications for lipidomic experimental avenues in particular at DU, and work will shortly begin at OBU. The emerging data will be presented at a number of forthcoming international scientific meetings, including EPRBiodose 2018 in Munich in June, and it is anticipated that the first scientific peer-review project publications will be submitted within the next reporting period.

Overall, the LDLensRad project is progressing very well to date. It is anticipated that the proposed work plan will be completed as per the original schedule of milestones and deliverables, with no problems or delays.

Milestones and Deliverables

For LDLensRad, the first milestone was completion of the Kick-off meeting, which took place in May 2017, and the associated deliverable **D9.51** - Detailed work plan for irradiations (Gantt chart) – was agreed by the partners and submitted in March 2017.

As reported in the annual project report deliverables **D9.52** - Progress summary and actions - year 1 (Report), and **D9.55** - Year 1 advisory panel report (Report), which were submitted in December 2017, milestones 2 and 3: Mouse acquisition/breeding and genotyping, and organisation of a progress meeting, have been completed according to the original work plan, as outlined above.

D9.51	Detailed work plan for irradiations (Gantt chart)	(M22)
D9.52	Progress summary and actions - year 1 (Report)	(M31),
D9.55	Year 1 advisory panel report (Report),	(M31)

Task 9.3 TERRITORIES

Subtask 9.3.5 (TERRITORIES WP5) Project coordination and management

The TERRITORIES project, led by IRSN, started on 01/01/2017 (M20). Main events organised by Subtask 9.3.5 were: (a) the Kick-off Meeting, in Paris on 27/01/2017 (M20), (b) a Management Board meeting, in Bruges on 27/04/2017 (M23), (c) participation in the first meeting of the CONCERT Stakeholder Group (Task 5.2) on 27-28/09/2017 (M28), (d) the Annual Meeting held on 7-8/02/2018 (M33) in Munich, in presence of the so-called “TERRITORIES steering committee” (TSC) with objectives closer to those of an “external scientific advisory board”. Management also led to signature of the Consortium Agreement of TERRITORIES, in force since 28/08/2017 (M27), and planning of the use of flexible funds to organize the workshops of Subtask 9.3.4 (D9.7 delivered M28).

Subtask 9.3.1 (TERRITORIES WP1)

Subtask 9.3.1 (Quantifying variability and reducing uncertainties when characterizing exposure of humans and wildlife by making the best use of data from monitoring and of existing models), led by CIEMAT, targets mechanistic fit-for-purpose knowledge for diagnosis and prognosis of the environmental behaviour of the radionuclides in different selected ecosystems.

Progress till M33 included: (a) Preparation of an *in situ* laboratory using an European Observatory on Radioecology and acquisition of new data, (b) first version of the TLD (TERRITORIES Library Database), (c) recruitment and first works of a post-doctoral researcher about geostatistics, (d) compilation of the main characteristics of the models to be used in the WP, and (e) activities to quantify the uncertainty budget and the predictive power of models.

Subtask 9.3.2 (TERRITORIES WP2)

Subtask 9.3.2 (Reducing uncertainties when characterizing exposure scenarios, accounting for human and wildlife behaviour, and integrating social and ethical considerations in the management of uncertainties), led by PHE, aims to validate the added value of a realistic description of the exposure scenarios versus a generic scenario approach, and to integrate social and ethical considerations about uncertainties.

Progress till M33 included: (a) signature of the contract with the Belarusian subcontractor on the Belarus case-study (variability in foodstuff, environmental contamination, and habits over decades after the Chernobyl accident), in December 2017 (M31), after multiple interactions, (b) publication of a STIR (Socio-technical Integration Research) Protocol, following a training workshop with Prof. Dr. Erik Fisher (Arizona State University) that was hosted by SCK.CEN on 20/11/2017 (M30).

Subtask 9.3.3 (TERRITORIES WP3)

Subtask 9.3.3 (Stakeholder engagement for a better management of uncertainty in risk assessment and decision-making processes including remediation strategies), led by CEPN, develops methods for a holistic management of uncertainties associated with remediation (dose reduction, socio-economic cost, generated waste amount etc.) and for an integrated decision-making process.

A 150-page synthesis report (D9.65), submitted in December 2017 (M31), has enabled a preliminary understanding of how uncertainty management comes into play in decision making processes for existing exposure situations (post-accident and contamination event by NORMs) and provides a framework for the future development of approaches and tools to be used in the future activities of WP3 (e.g. interactive experts/stakeholders panels and reflection groups)."

Subtask 9.3.4 (TERRITORIES WP4)

Subtask 9.3.4 (Strategic and integrated communication, education and training), led by University of Tartu aims to share with a wide audience (stakeholders and decision-makers, young scientists, students) the methodological approach and novel guidance documents developed.

TERRITORIES website, <http://territories.eu>, and blog, <https://territoriesweb.wordpress.com>, were the first two deliverables of TERRITORIES (D9.77 and D9.78), both in M23. Then, two workshops were organized on 14-16/11/2017 (M31), in Oslo. Conclusions of these discussions about **Key factors contributing to uncertainties in radiological risk assessment** and about **Communication of uncertainties of radiological risk assessments to stakeholders** were compiled in two reports (D9.73 and D9.75).

Milestones and Deliverables

Ten project milestones related to task 9.3 were due till M33.

- (1) "Radiological state database of sites", i.e. 1st version of the TLD (Territories Library Database) shared within subtask 9.3.1 in December 2017 (M31), as initially planned
- (2) "Guidance to reduce sampling uncertainty", i.e. 1st version of a deliverable, re-planned from M31 to M37
- (3) "Application of existing models to sites", re-planned from M31 to M37
- (4) "Belarus/quantify variability in behaviour", re-planned from M31 to M40
- (5) "Lab ethnography protocol", i.e. a report about STIR, finalised in December 2017 (M31), as initially planned
- (6) "Elaboration of case-studies/NORM" re-planned from M31 to M35
- (7) "Elaboration of case-studies/post-accident", re-planned from M32 to M36
- (8) "Alternative remediation pathways" re-planned from M33 to M37
- (9) "Training plan", established in D9.79, in August 2017 (M27), as initially planned
- (10) "E&T platform", established in D9.79, in August 2017 (M27), earlier than initially planned

Four project deliverables related to task 9.3 were due till M33.

All of them have been delivered.

D9.79 Flexible funds report. M27, as initially planned.

D9.65 Decision processes/pathways. M31, as re-planned (initially planned M26).

D9.75 After each training_1st year. M31, as initially planned.

D9.73 Knowledge gaps to improve E&T. M33, as re-planned (initially planned M25).

Task 9.4 ENGAGE

The ENGAGE project held its kick-off meeting on November 27-28, 2017. The project web page has been prepared and invitations have been sent for the Stakeholder Advisory Board (five positive replies to date). A

detailed work plan and methodology have been elaborated for ST9.4.1 (rationales for stakeholder engagement), and ST9.4.2 (stakeholder engagement in practice). A list of case studies has been assembled for ST9.4.3 (radiation protection culture). The next steps include search, collection and analysis of stakeholder engagement literature and the elaboration of case studies. Several dissemination activities have been initiated: leaflet for ENGAGE stakeholders, website, and contributions for the NERIS international workshop.

Milestones and Deliverables

D9.80 Project website (delivered M30) - submitted

D9.81 Establishment of the management and advisory structures of ENGAGE (M33) - submitted

Task 9.5 LEU-TRACK

The main aim of the LEU-TRACK project is to study the role of extracellular vesicles (EV) in radiation-induced leukemogenesis and to perform mechanistic studies to identify the impact of ionizing radiation on EV cargo and biology.

During the first 5 months of the project the following activities were performed:

Within SST9.5.1.1 of the project the Concert Grant Agreement was prepared together with CONCERT management and signed in November 2018. A Consortium Agreement for the LEU-TRACK consortium was prepared and the final version of this agreement is circulated right now among consortium partners. We hope this agreement to be signed by all partners by the end of February. A kick-off meeting was organized in Budapest on November 2-3, 2018, where the main activities to be carried out within the project were discussed, along with strategies regarding sample collection, sharing and data management. Plans for education and training and dissemination activities to be carried out in the frame of LEU-TRACK were fixed. In this way, the first milestone of the project was successfully accomplished.

At HMGU, Dr. Prabal Subedi was employed for the project. At GUF Dr. Anugrah Gawai, a post-doc researcher was employed for the project. They will start working on the 1st of February 2018.

Within SST9.5.1.2 of the project a set-up of a LEU-TRACK website within CONCERT internal website was initiated and it is underway. A summary of the LEU-TRACK project was prepared and submitted to the special issue of EJP-CONCERT-Air².

Within SST9.5.2.1 and SST9.5.2.2 animal treatments for long-term follow up of leukemia incidence, as well as collection of murine samples for EV cargo analysis were started at OKI. EV immunophenotyping of total-body irradiated mice was started at OKI in the frame of SST9.5.2.4.

Within SST9.5.2.5 PHE focused their work on analysing samples obtained by OKI from a previous preliminary experiment performed specifically to optimise protocols for LEU-TRACK project. Male and female mice were total body irradiated with 0.1, 1 and 2Gy at OKI. After a week of exposure, EVs were extracted and shipped to PHE, miRNA profile was measured by using nCounter technology (NanoString Technologies) by running the samples with a mouse miRNA panel targeting 800 different miRNAs. A specific miRNA was upregulated after low and high doses in both females and males. Other miRNAs identified during the analysis showed a clear dose-response profile. The predicted KEGG pathways targeted by the most represented miRNAs after irradiation were identified using DIANA-microT-CDS and included DNA repair (e.g. FoxO, Hedgehog, Hippo), regulation of hematopoietic system (Wnt signaling pathway), signalling pathways regulating pluripotency of stem cells and acute myeloid leukemia. Further data analysis is currently being produced. These data were consistent with the previous publication from OKI where EVs were extracted 24h after irradiation.

Within SST9.5.2.6 at HMGU the optimization of the proteomics workflow using limited amounts of material is ongoing as the protein yield of exosomes will be scarce.

Due to delays in the closure of third party funding contract, GUF tasks started with some delay. Within SST9.5.2.4 and SST9.5.3.2 Dr. Gawai is currently establishing and harmonizing common protocols for EV isolation from blood and bone marrow, characterization of EV by western immunoblotting and analyses of DNA repair markers gamma-H2AX and 53BP1.

Within SST9.5.2.1 and SST9.5.4.1, GUF submitted proposals for approval by the local ethics and government committee to perform blood sampling of patients with leukemic disease treated with whole brain or whole body irradiation and image guided radiation therapy of CBA mice using a small animal radiation research platform (SARRP) established at the Frankfurt site.

Milestones and Deliverables

There were no deliverables due between M25 and M33

Task 9.6 PODIUM

PODIUM project has officially started on January 1st. At that time no activities/results to report

Milestones and Deliverables

D9.101 Report listing all requirements of the software (M32) was submitted

Task 9.7 SEPARATE

SEPARATE: “Systemic Effects of Partial-body Exposure to Low Radiation Doses” is an interdisciplinary project, combining in vivo irradiation, molecular/cellular biology, omics and bioinformatics to investigate how partial body irradiation (PBI) may have significant implications regarding systemic consequences and human health at low and intermediate doses of ionizing radiation.

The project started in October 2017, and the first five months have focused on mouse breeding, dosimetry procedures, and optimization of experimental protocols. At ENEA, custom-built lead shields have been manufactured that allow complete protection of the brain, heart, and liver, while exposing the remaining parts of the mouse body. Irradiations will take place in March 2018. At HMGU, optimization of the proteomics work-flow using limited amounts of material is ongoing, as the protein yield of exosomes will be scarce. At OBU, refinement of MV/exosomes extract and characterization from limited brain and liver tissues are in progress. At DIT, Initial work has begun in optimising the Raman spectral parameters.

Due to organizational reasons, the formal project ‘Kick-off’ meeting initially planned during month 2, will be held on 14th-15th March 2018 (month 6) in Rome. A teleconference Implementation meeting was anyway held on December 13th, 2017, in which administration and management issues were discussed, including signature of the Grant Contract, preparation of the Consortium Agreement, dates for the Kick-off meeting, final composition of the External Scientific Advisory Board. Some scientific issues were also examined, but it was agreed that more detailed discussions would take place at the Kick-off meeting. Communication proceeded efficiently at all times. Refinement of experimental plans before the Kick-off meeting has taken place by frequent e-mail exchange.

Recruitment of post-doctoral researchers with expertise in the fields of the project is in course. At HMGU, Dr. Zohaib Khan, with proteomics experience, was employed and will start working on the 1st of April. At OBU, a post-doctoral / senior researchers post will be advertised according to the university's regulations and this post will be possibly filled in by 1st April 2018. At DIT, Dr. Jane Bryant has been identified as the postdoctoral researcher who will work on the project.

Although in its early stage, the SEPARATE project is progressing well thus far and it is expected that the proposed work plan will be completed according to schedule, with no major problems or delays. Actually, it is foreseen that the distribution to other partners of fixed and frozen organ fragments and extracts for omics, EVs/exosomes signalling role and other analyses will take place ahead of schedule, i.e., next April for time points 1 day and 1 week, and next October for time point 6 months.

Milestones and Deliverables

For SEPARATE, the first milestone was completion of the Kick-off meeting, which was shifted from month 2 to month 6. No other delays in Milestones or Deliverables attainment are foreseen.

Task 9.8 SHAMISEN-SINGS

SHAMISEN-SINGS, built upon the recommendations of the EC-OPERRA funded SHAMISEN project, aims to enhance Citizen Participation in preparedness for and recovery from a radiation accident through novel tools and APPs to support data collection on radiation measurements, health and well-being indicators.

The specific objectives are to:

- 1) Interact with stakeholders to assess their needs, and their interest in contributing to dose and health assessment, and evaluate how new technologies could best fulfil these needs. Consider lessons from current issues in Fukushima related to lifting evacuation orders and medical care for vulnerable population;
- 2) Review existing APPs for citizen-based dose measurements, and establish minimum standards of quality;
- 3) Review existing APPs/systems to monitor health and develop a core protocol for a citizen-based study on health, social, and psychological consequences of a radiation accident;
- 4) Build upon existing tools to develop the concept/guidelines for one or more APPs that could be used for:
 - monitor radiation to empower affected population and to contribute to radiation assessment of an accident's consequence, including visualisation of radiation conditions;
 - log behavioural and health information to be used, with appropriate ethics and informed consent, for citizen science studies.
 - provide a channel for practical information, professional support and dialogue.
- 5) Assess the ethical challenges and implications of both the APPs and citizen science activities through a consensus workshop.

The project started in month 29 of CONCERT. The Kick-off meeting was held during the ICRP-RPW in Marne-la-Vallée on 11 October 2017, a few days after we were notified of the acceptance of the grant. The minutes of the kick-off meeting provides a short description of the discussions and decisions made at the meeting.

Subtask 9.8.1. Stakeholders needs

During the kick-off meeting, the consortium discussed the timing of the different actions in the project. A discussion arose because of the potential partial overlap between various projects funded under CONCERT in 2016 and 2017. Because most of these projects involve stakeholder meetings it was decided to postpone initial stakeholder consultation until an appropriate evaluation of the overlap with other projects could be conducted in ST9.8.1, identifying where SHAMISEN-SINGS consultation and stakeholder meeting could be

organised in conjunction or collaboration with that of another project such as CONFIDENCE. It was felt that until that evaluation was complete it would be too premature to organise stakeholder consultation as a lot of stakeholders are in common and may feel tired of being consulted.

The objectives, status and goals of the stakeholder consultations of the different project is complete. This has involved establishing contact with the other projects, attending other projects meetings and discussing within the consortium with those involved in some of these other projects. It is felt that the objectives of SHAMISEN-SINGS are sufficiently different from those of the other projects to warrant a separate stakeholder consultation, though contact will be maintained with these projects throughout the duration.

A list of the SHAMISEN SINGS main stakeholders of interest has been drawn (general population, local authorities, teachers, medical staff) and questionnaires are being drafted for these different groups are being developed in collaboration with partners from Subtask 9.8.2 and Subtask 9.8.3. A draft protocol is also under preparation and both the draft protocol and questionnaires will be sent early March to the partners involved in the public consultation in different participating countries.

A conference call is foreseen mid-March to finalise these and discuss the best way to approach different groups of stakeholders and to administer the questionnaire (e.g. for the general population in schools, in specific citizen associations, through a stakeholders Forum on the SHAMISEN sings website). The protocol will include the recommended sampling protocol for people in three groups (in areas away from power plants, in communities surrounding powerplants and, in Japan, Belarus and Ukraine, in communities affected by the Fukushima Chernobyl accidents). For the general population, they will include high school students and adults (where allowed by ethics committees) as well as men and women.

The finalised protocol and questionnaire will be submitted to appropriate ethics committees in March, and, in parallel, arrangements for the recruitment of the different groups will be made in March and April and the survey is expected to be complete in May with results analysed and interpreted in June.

Deliverable 9.130, which will present the results of this consultation will therefore be late, with an expected delivery date of month 37 instead of 31. The consortium feels that this delay is well justified most importantly because of the need to avoid overburdening the stakeholders and agreeing and setting up the appropriate approach for the stakeholder consultation in the participating countries.

Note that the consultation at this stage will be conducted in different countries and different languages in parallel because stakeholders needs and requirements may be quite different in different cultures and in this first step it is important to consult the stakeholders in their own language. A follow-up international stakeholder meeting is foreseen later in the project when proposed prototypes and protocols for devices and applications are available for discussion with stakeholders.

Subtask 9.8.2 - Citizen participation in radiation measurements

In parallel to the work conducted in a ST9.8.1, partners and ST 9.8.2 have been busy collecting information on existing devices and applications dose measurements. ST 9.8.2 partners took advantage of the EURADOS meeting to hold a meeting in Lisbon on 5 February 2018. During this meeting the following issues were considered and performed: 1.) The stakeholder questionnaire was discussed with collection of suggestions on its improvement; 2.) The existing devices and APPS on dose measurements were discussed, starting from the experience of the project partners. A preliminary list of devices to test was drafted. 3.) A meeting was held among representatives of the projects SHAMISEN-SINGS, CONFIDENCE and PREPAREDNESS (EURAMET) that have in common the analysis and tests of the performances of internet connected mobile devices and APPs for radiation measurements. During the meeting it was discussed how to share information and to coordinate the measurements, so as to prevent avoidable replications among the three projects.

All relevant information is up-loaded in the SHAMISEN SINGS Intranet provided sharing point area. Work in ST 9.8.2 is well underway, though one area of difficulty appears to be related to the monitoring of internal contamination.

Subtask 9.8.3 – Citizen Participation in health and well-being monitoring

Partners in this subtask have also been conducting work in parallel to ST9.8.1 and ST9.8.2, sending to FMU information about existing applications and questionnaires related to health and well-being as well as other tools, such as websites, that provide information about health. A brainstorming about this work was conducted at FMU in the 18th of January (and 1st of March) 2018. A list of useful tools on health measurements was done based on lessons learned from Fukushima accident; and mobile application tools based on reviewing articles of key word regarding m-Health/e-Health. Worldwide well-being index tool (WHO-5) was considered as an appropriate for use. It was discussed also what kind of effective questionnaires are more appropriate to use are and how to select them.

Subtask 9.8.4 Concept and specifications of App(s) and/or tools

No work was foreseen during the reporting period.

Subtask 9.8.5 Coordination and Dissemination

Work in ST9.8.5 during their reporting period consisted in the organisation of the kick-off meeting, coordination of work between work packages and the setup as SHAMISEN sings website (the latter is deliverable D9.131; it is available in the form of a draft and the final version will be submitted shortly).

In terms of dissemination,

- a poster will be presented at the ISEE Young Investigators Congress (Freisen, Germany, 20th of March 2018);
- two posters and one oral communication will be presented at the NERIS workshop (Dublin, Ireland, 25-27th of April 2018)
- and Liudmila Liutsko will give an invited oral presentation at ISEEH (Budweis, Czech republic, September 2018)
- abstracts for RICOMET and RPW are in preparation.
- Information about SHAMISEN SINGS was provided at a stakeholders workshop organisation meeting in Madrid within CONFIDENCE

In terms of meetings, the next consortium meeting is planned to be held in conjunction with the next ERPW in Croatia in October 2018. Partners will take advantage of other meetings in the meantime, such as the NERIS workshop and RICOMET meeting to organise small working group discussions.

Milestones and Deliverables

D9.130 Stakeholder consultation report with needs, requirements for future tools As noted above, deliverable is late. This will cause no further delay within the project. New due date (M37)

Task 9.9 VERIDIC

VERIDIC project has officially started on February 1st and the kick-off meeting took place on February 4th. At that time no activities/results to report

ANNUAL WORK PLAN FOR THE FOURTH YEAR (M37-48)

Annex 7

to the EJP Grant Agreement

(Annual Work Plan for month 37 to 48)

1st June 2018 – 31st May 2019

CONCERT

European Joint Programme

For the Integration of Radiation Protection Research



CONTENT

ANNUAL WORK PLAN FOR THE FOURTH YEAR (M37-48)	30
1 COHERENCE WITH ANNEX 1	33
AWP OBJECTIVES FOR MONTH 37 TO 48	33
EXPECTED IMPACTS	33
CORRESPONDENCE WITH THE DESCRIPTION OF WORK - ANNEX 1	35
1.1.1 WP1	35
1.1.2 WP2	35
1.1.3 WP3	35
1.1.4 WP4	36
1.1.5 WP5	36
1.1.6 WP6	36
1.1.7 WP7	36
1.1.8 WP9	36
ANNUAL WORK PLAN ACTIVITIES	37
ANNUAL WORK PLAN	37
1.1.9 <i>Structure of the Annual Work Plan</i>	37
1.1.10 <i>Timing of the different programmed activities and their components</i>	38
1.1.11 <i>Detailed work description:</i>	39
PARTICIPATION IN ANNUAL WORK PLAN ACTIVITIES	61
1.1.12 <i>List of programmed activities (table 2.3.b)</i>	85
1.1.13 <i>Annual Deliverables List (table 2.3.c)</i>	88
RESOURCES TO BE COMMITTED	92
1.1.14 <i>Summary effort table (Table 2.3.d)</i>	92
1.1.15 <i>Other major cost items (travel, equipment, infrastructure, goods and services) (Table 2.3e)</i>	100
PLANNED ACTIVITIES FOR THE FOURTH YEAR	104

1 Coherence with Annex 1

AWP objectives for month 37 to 48

The consortium aims to continue its work done in the first 36 month of the project on developing a sustainable structure for promotion and administration of joint programming and open research calls in the field of radiation protection research for Europe. The CONCERT EJP supported the establishment of strategic research agendas in the different sectors of radiation protection research by the respective research platforms. In year four CONCERT will continue to build and to improve the radiation protection research structure in Europe on the foundations laid out by (I) these strategic research agendas developed and regularly updated by the respective research platforms MELODI, ALLIANCE, NERIS and EURADOS and EURAMED, (II) the vision and the activities performed as in the previous years to further integrate national and European research programmes for radiation protection by co-funding, and (III) the further participation of national programme owner and programme manager institutions in a European research consortium. A platform in the field of social sciences and humanities (SSH) is in the state to be founded. CONCERT is actively supporting this development and integrating SSH in its research strategies as already done in the second open RTD call.

Activities of the consortium will go on to focus on one side on the aspects of support to develop an integrated landscape for radiation protection research in Europe and on the other side to directly fund coordinated research projects in an open, fair and transparent manner dedicated to state of the art science and tailored to the radiation protection needs of the society, authorities and stakeholders. Integration of education and training in the research agenda as well as optimal access to research infrastructures in Europe and even beyond are essential for the consortium.

The set of activities described in the Fourth Annual Work Plan serve the overall consortium aims by supporting the on-going work of the five research platforms in establishing and updating SRA, in recommending research priorities and developing research roadmaps.

In addition, CONCERT builds on established procedures in OPERRA and the experience gained in the past two years and will extend them to joint programming with research priority setting for the entire field of radiation protection research. A first preparatory document for a Joint Roadmap represents the first steps and current ideas to build a joint roadmap for radiation protection research (D3.4). Since the joint roadmap is meant to be a guide to plan research and develop radiation protection tools for the benefit of the society the preparatory document will serve as a basis to initiate discussions with the wider research community and other stakeholders.

Furthermore, CONCERT has set up procedures for open scientific transnational calls, proposal reviewing and project evaluation and improved these procedures for the second call based on experience gained from the first open call. Projects funded in the two CONCERT calls will be followed-up in the third year of CONCERT.

Expected impacts

The set of activities described in the Annual Work Plan Month 37 to 48 will continue with all the activities in the rolling work-flow programme as set up in the past three years focusing on the updating of Strategic Research Agendas (SRA), priority setting for research in each of the radiation protection areas, the further development of a joint research road map, as well as on the follow-up of projects funded on the two open RTD calls. CONCERT is open for new Programme Owners and Managers from EU Member States to take part and to integrate their research priorities and needs in the EJP.

It is the vision of CONCERT to bring together the major radiation protection research platforms in Europe, to maximise integration and coordination of research efforts in all EU Member States in joint research programmes, to identify and to prioritise radiation protection research and E&T needs using state of the art methodologies, techniques and approaches and provide strategic direction and leadership.

WP1

The coordinator will continue to call for ExB, MB and ESAB meetings in the fourth year as necessary for the management of the project, in particular for follow up of research projects funded through the two CONCERT open calls, education and training activities, on strategies for future research, dissemination activities and on new members joining the CONCERT consortium. Furthermore, the coordinator will continue the interaction with the EC concerning reporting and Grant Agreement updates. Experience from the previous three years will be used to optimise and improve the CONCERT internal information and work flow between work package leaders on one side and the CONCERT beneficiaries on the other.

WP2

The research platforms play an important role in WP2. They will be stimulated to continue and update their ongoing work on the SRA and the roadmaps. CONCERT builds its open call preparation as well as its integration activities on the continuous work of the platforms in the fields of SRA, Infrastructure and E&T, as well as on the collaboration between the platforms and the extension to the medical field. WP 2 will set up support activities for the platforms for sustainable input into joint programming. Subject to extra funding, input to Joint Programming is provided by identifying joint research needs and priorities. The platforms continue developing their long-term roadmaps and evaluate the impact of draft joint roadmap scenarios on SRA. Meetings will be organised with stakeholders in the medical scientific community and stakeholders in social sciences and humanities will be consulted.

WP3

The main task of WP3 for the 4th year will be to elaborate the joint roadmap for radiation protection research. Programme Owners and Managers as well as Linked Third Parties will be asked to specify their interest in different scenarios and joint research challenges as defined in Deliverable 3.4, which was a document on the first steps towards a joint roadmap, submitted end November 2017 and approved January 2018. An estimation on potential national resources to accomplish the roadmap on the long term will also be made by the Programme Owners and Managers of CONCERT. Relevant stakeholders such as ICRP, regulators, industry, associations and NGO's will be consulted based on the stakeholder consulting process developed in WP5. Sessions on the joint roadmap development will be held in various workshops to consult the different types of stakeholders (e.g. NUGENIA, RICOMET, RPW2018, NERIS,...). Efforts will be done to align the individual and joint roadmaps. A first joint roadmap for radiation protection research is planned for end 2019, to enable to set priorities and plan the research over a long term (~20 years) along with a decent resource plan, e.g. to fund a long-term call planning.

WP4

In the fourth year of the EJP CONCERT, WP4 will start the follow-up and monitoring of all nine projects funded in the two CONCERT calls (three projects in call 1 and six projects in call 2). For this purpose, WP4 will develop templates for the Mid-term and extended Final reporting of funded projects.

The JCS will carry out this phase directly with the granted project coordinators for information delivery, reporting request and reporting analysis. Non-confidential results of the CONCERT funded projects' follow-up and assessment will be presented to the CONCERT MB at the end of the first reporting period. The main outcomes (non-confidential) from the analysis of reports will, after evaluation by the ESAB and approval by the CONCERT MB, be disseminated through the CONCERT web page and through other appropriate channels (Newsletters, etc.). The updated information on the projects including details on participants and project results will be transmitted to the European Commission.

WP5

In the course of the fourth project year, CONCERT will continue its stakeholder engagement activities. Key activities will be a second meeting of the stakeholder group, analysis of the stakeholder survey and further refinement of the CONCERT website public-facing content. It is hoped that the activities will further raise

awareness of radiation protection research issues and widen the inputs into developing research priorities over the project life.

WP6

The ongoing work on identifying infrastructures for radiation protection research in Europe and beyond, as started in DoReMi and OPERRA, was extended by CONCERT to new ones, using criteria for all (already identified and new) during the first two years. This work with many other actions as direct solicitations will increase the content of the potential network and its visibility. Increased visibility of infrastructures is provided in the monthly bulletin AIR2 and the database AIR2D2 and through community information (workshops, seminars and other scientific communication activities). This work will be continued and to provide further opportunities for scientists to make better use of existing infrastructures for their research.

WP7

E&T is seen as an integral part of excellence and sustainability of science in radiation protection. Experience from courses and other training activities carried out in the first three years of CONCERT will be used to call for new courses and other training activities in the fourth year.

WP9

CONCERT successfully finished its two open calls for proposals to support multidisciplinary and transnational research projects. Projects selected through the calls, three projects in call 1 and six projects in call 2, were kicked off. Assessing the progress achieved within these projects, along with the progress made with regard to other CONCERT activities, will enable to determine what are the gaps and missing tasks/activities, in order to realise the full potential and objectives of the future respective research in the radiation protection area. There is no doubt that very interesting results will be produced by all projects in the remaining two years of this EJP.

[Correspondence with the Description of Work - Annex 1](#)

The added work package “WP9” brings together RTD activities selected through the two open calls for research projects organised along the CONCERT project. As a result of the two open transnational call for proposals on “Radiation Protection Research in Europe” through the EJP CONCERT, launched in 2016 and 2017, nine projects are forming now the tasks of the WP9.

1.1.1 WP1

The primary activity of WP1 during month 37 to 48 of the CONCERT EJP is to accompany the progress of the nine funded projects resulting from the two open CONCERT calls, to promote the individual SRA update of the five research platforms and to assist the successful development of the joint roadmap respectively.

1.1.2 WP2

One of the main inputs from the research platforms MELODI, ALLIANCE, NERIS, EURADOS and the newly established EURAMED in the CONCERT EJP are their respective sectorial SRA, research priorities and road maps. These are developed and updated regularly. In month 37 to 48 of the CONCERT EJP the research platforms will update their SRA-statements and continue their work on long-term roadmaps. Research perspectives of social sciences and humanities on radiation protection research as a whole are also addressed by CONCERT. Work on long-term roadmaps will be reported as part of MS12 (Annual SRA platform Statements 2018, M42).

1.1.3 WP3

The fourth year is crucial to continue elaboration of a joint roadmap in radiation protection research. Stakeholder consultation on the draft roadmap will be continued, with the help of CONCERT WP5 stakeholder

group established in T5.2. Research priorities will become clear and a financial plan will be proposed. Validation of a first version of the roadmap is foreseen in M36.

1.1.4 WP4

In the fourth year of the EJP CONCERT, WP4 will start the follow-up and monitoring of all nine projects funded in the two CONCERT calls (three projects in call 1 and six projects in call 2). The JCS will carry out this phase directly with the granted project coordinators for information delivery, reporting request and reporting analysis. Non-confidential results of the CONCERT funded projects' follow-up and assessment will be presented to the CONCERT MB at the end of the first reporting period (beginning of 2019, including both calls). Additionally, the main outcomes (non-confidential) will be disseminated to the wider public.

1.1.5 WP5

In the fourth year of CONCERT WP5 will concentrate on continuing to bring the Stakeholder Engagement Strategy to life. In particular, efforts will focus on embedding the Stakeholder group and developing routes for the stakeholder group's voice to impact upon CONCERT. During the first meeting of the Stakeholder Group, some first steps had been proposed and validated by all, as for example (i) the possibility to disseminate to the Stakeholder Group members a newsletter gathering the main events related to radiation protection, which might interest them, as well as, (ii) establishing a list of European Stakeholders who might be interested to be part of discussion on radiation protection research. Also, participants agreed to meet again in 2018 at the occasion of a new WP5 Stakeholder Group meeting. This 2nd meeting will be the occasion to present the new research projects selected under the CONCERT second call. Detailed location and date of this meeting will be specified in the coming months. In parallel, specialist information about CONCERT and its research programme will be developed and regularly updated to be presented on the CONCERT web site. Additionally, the stakeholder survey will be analysed and consideration given to a further round of the survey with a more robust sampling strategy.

1.1.6 WP6

Access to state of the art infrastructures for radiation protection research (sometimes rare) is an important condition for scientific excellence. WP6 will promote the visibility of such infrastructures making them known to the community, by developing and updating quality criteria for infrastructures and by helping to get access to them. During the third project year, the portal "Access to Infrastructures for Radiation protection Research Documented Database" (AIR²D²) will be continued as well as the regular publication of information about infrastructures in the bulletin AIR². Strategies and actions to develop harmonized practices and protocols to strengthen and expand the database STORE with past radiological experiments and stored biological material (issued from OPERRA projects) will be implemented. This type of work will be also developed with identified pilot infrastructures (exposure platforms) to increase the cohesion among infrastructures.

1.1.7 WP7

E&T is one of the corner stones for sustainable research in the field of radiation protection and for translational activities towards integration of scientific knowledge in professional daily routine. In parallel WP7 will continue to organise open calls for targeted E&T courses in prioritised research areas as identified by joint programming in WP3.

1.1.8 WP9

Activities implemented through call(s) for proposals will be performed. The work progress will be monitored to see if goals are met. The JCS of WP4 will request a brief mid-term scientific progress report of respective projects. In addition, project coordinators will be asked to present the project results during CONCERT meetings, submit deliverables in due time and to provide input to the main CONCERT reports.

Annual Work Plan Activities

[Annual Work Plan](#)

1.1.9 Structure of the Annual Work Plan

In year four CONCERT will focus on maintaining the structures and procedures to manage and administer the EJP as the basis for a successful timetable of the CONCERT project as well as of the funded projects within the framework of CONCERT.

All CONCERT WPs are integrated into this cyclical work flow, which is in principle designed to start with an update of the joint strategic research agenda, the formulation of research priorities by joint programming and finally the funding and monitoring of research projects which fulfil all the requirements of scientific excellence and integration.

Cross-cutting through this cyclical workflow are WP dedicated to integrate activities which on one side have input through interfaces into the cyclical work flow and on the other side have the target for a sustainable support of radiation protection research. This principle work flows, one cyclical, and one more or less continuous are described in the CONCERT proposal. However, the same principles give the AWP a clear structure.

Activities in the AWP are listed as WP activities. Due to the large number of POM as CONCERT participants and many institutions actively involved in CONCERT activities as LTP in addition to the strong involvement of the research platforms with their large active membership a breakdown of the annual activities further down as WPs and Tasks results in low person-month involvement of some CONCERT participants and LTPs. However, the mission of CONCERT and the research platforms to encourage institutions to become active partners in radiation protection research in Europe make it necessary to plan for these active partners at least one meeting per year to interact and exchange information.

1.1.10 Timing of the different programmed activities and their components

"European Concerted Programme on Radiation Protection Research (CONCERT)": Timing of work packages and their components

		Project Year/Quarter of Project Year											
		Year 4											
		Q1			Q2			Q3			Q4		
		37	38	39	40	41	42	43	44	45	46	47	48
WP1:	Project coordination & management												
	meetings (kick-off, periodic meetings)												
Task 1.1:	Overall legal, contractual, administrative management and financial management												
Task 1.2:	Consortium, Executive and Management Board meetings												
Task 1.3:	Updating the rolling annual work plan												
Task 1.4:	External Scientific Advisory Board for the evaluation of CONCERT												
Task 1.5:	Negotiation of projects to be funded through CONCERT open research calls												
Task 1.6:	Funding decision process for integration activities listed in the approved annual work program												
Task 1.7:	Attracting new members to the CONCERT EJP Consortium												
Task 1.8:	Public CONCERT webpage and a secure internal web-based work space												
Task 1.9:	Establishment of an expert database for the reviewing processes of CONCERT (MELODI; MB members)												
WP 2:	Integration and SRA development in radiation protection research												
Task 2.1:	Development of Strategic Research Agenda, roadmap and priorities for research on low dose risk												
Task 2.2:	Development of Strategic Research Agenda, roadmap and priorities for research on radioecology												
Task 2.3:	Development of Strategic Research Agenda, roadmap and priorities for research on emergency preparedness and response												
Task 2.4:	Development of Strategic Research Agenda, roadmap and priorities for research on dosimetry												
Task 2.5:	Development of Strategic Research Agenda, roadmap and priorities for research with the medical scientific community												
WP 3:	Priority research and joint programming needs in the perspective of European Integration												
Task 3.1:	Integration of SRAs and research priorities from research platforms and national programs												
Task 3.2:	Joint priority setting												
Task 3.3:	Joint roadmap development for a long term strategy of radiation protection research in Europe												
WP 4:	Organization and management of CONCERT open RTD Calls												
Task 4.1:	Setting up a joint Call Secretariat												
Task 4.2:	Preparation of the Open Call documents and launch of the call												
Task 4.3:	Implementation of the open call												
Task 4.4:	Monitoring of the calls and the funded projects												
WP 5:	Stakeholder involvement and communication in radiation protection research												
Task 5.1:	Strategy for public and societal stakeholder engagement												
Task 5.2:	Establish a stakeholder group												
Task 5.3:	Interaction with the civil society, including use of social media for stakeholder communication												
Task 5.4:	Development of general and specialist information for the CONCERT website												
WP 6:	Access to infrastructures												
Task 6.1:	Promote the visibility of selected research infrastructures												
Task 6.2:	Harmonize Practices and Protocols												
Task 6.3:	Strategy for Facilitating Access to infrastructure												
WP 7:	Education and training												
Task 7.1:	Attracting and retaining students and junior scientists into the Radiation Protection research fields												
Task 7.2:	Education and training as an essential part of dissemination and knowledge management within CONCERT												
Task 7.3:	Targeted E&T initiatives												
Task 7.4:	Coordination and collaboration on E&T policy and strategy												
Task 7.5:	European integration of junior scientist career development												
WP 8:	Ethics												
WP 9:	Research projects selected through CONCERT open calls												
Task 9.1:	CONFIDENCE												
Task 9.2:	LDLensRad												
Task 9.3:	TERRITORIES												
Task 9.4:	ENGAGE												
Task 9.5:	LEU-TRACK												
Task 9.6:	PODIUM												
Task 9.7:	SEPARATE												
Task 9.8:	SHAMISEN-SINGS												
Task 9.9:	VERIDIC												

1.1.11 Detailed work description:

1.1.11.1 WP1 Project coordination & management

Set of Activities Number	1	Start date					M 37
Set of Activities Title	Project coordination & management						
Participant number	1	4	3	5	24	29	25
Participant short name	BfS	ANR	SCK•CEN	DH-PHE	FCT	VUJE	IMROH
Person-months per participant	51	0.6	0.6	0.2	0.2	0.2	0.2
Participant number	27	30	31	8			
Participant short name	IFA	UT	RSC	MELODI	Σ all other MB members		
Person-months per participant	0.6	0.2	0,2	-	2,68		

Objectives

Task of WP1 is to coordinate the CONCERT EJP.

The main objectives of the fourth project year are:

The purpose of WP “Project coordination and management” is to ensure the most effective administrative and financial management of the consortium with a view to reaching a good synergy between the partners. The overall objective of the managerial organisation is to provide necessary structures for participatory and efficient decision-making and coordination of activities, fluent day-to-day management including flow of information and financing (including the establishment of contracts with CONCERT Grantee Consortia and CONCERT external contractors), reporting to EC, as well as providing support and guidance on consortium activities.

Description of programmed activities**Task 1.1 – Overall legal, contractual, administrative management and financial management (BfS)**

Key activities during year 4 are:

- Monitoring the compliance of beneficiaries with their obligations under the grant agreement
- Monitoring the progress of the project and review the deliverables and reports to verify consistency with the project objectives
- Collection of information from the partners about achievements in relation to the objectives every 12 months in order to ensure efficient follow-up of the project progress and proper reporting to EC.
- Updating the Grant Agreement as necessary.
- Administration of the EC financial contribution regarding its allocation between beneficiaries and activities, in accordance with the grant agreement and the decisions taken by the consortium.
- Keeping the records and financial accounts

Task 1.2 – Consortium, Executive and Management Board meetings (BfS, MB members)

Key activities during year 4 are:

- Organisation of periodic MB meetings in connection with reporting periods
- Organisation of regular ExB meetings.

Task 1.3 – Updating the rolling annual work plan (AWP) (BfS, MB members)

Key activities during year 4 are:

- Update of the AWP
- Submission of the AWP together with the annual project report to the EC not later than month 45 of the project year 4

Task 1.4 – External Scientific Advisory Board (ESAB) for the evaluation of CONCERT (BfS, MB members)

Key activities during year 4 are:

- Provision of all relevant materials and information to enable ESAB to carry out its tasks as described in the ToR
- Organisation of the annual ESAB meeting

Task 1.5 – Negotiation of projects to be funded through open RTD calls (BfS, ANR, MB members)

Key activities during year 4 are:

- no activities

Task 1.6 – Funding decision process for integration activities listed in the approved annual work programme (BfS, ExB members, MB members)

Key activities during year 4 are:

- Proposal by the coordinator and decision by the ExB on the funding of integration activities as listed in the AWP.
- When it is suggested by the ExB that an integration activity be performed, in part or in total, by one or more external entities, the Coordinator launches a European public procurement procedure to identify

and contract with such entities for the delivery of the required services

- Conclusion of contracts between CONCERT coordinator and course providers and grantees receiving travel grants as proposed by WP7

Task 1.7 – Attracting new members to the CONCERT EJP Consortium (IFA, BfS, FCT, VUJE, IMROH, RSC, UT)

Key activities during year 4 are:

- Establishment of links to national EURATOM contact points and institutions responsible for scientific and regulatory aspects of radiation protection to promote CONCERT integrative activities
- Invitation to new POMs from partner countries as well as new countries to join the CONCERT Consortium

Task 1.8 – Public CONCERT web page and a secure internal web-based work space (SCK•CEN, DH-PHE, BfS)

Key activities during year 4 are:

- Maintaining and updating the secure internal workspace
- Hosting the main CONCERT archive for the management of internal documents on the workspace
- Maintaining and updating the public CONCERT website.

Task 1.9 – Establishment of an expert database for the reviewing processes of CONCERT (MELODI; MB members)

Key activities during year 4 are:

- no activities

Deliverables

D1.4 – fourth periodic report to the EC in accordance with the provisions of the consortium contract (M45)

1.1.11.2 WP2 Integration and SRA development in radiation protection research

Set of activities number	2	Start date					M 37
Set of activities title	Integration and SRA development in radiation protection research						
CONCERT Consortium Members							
Participant number	1	2	3	5	6	7	8
Participant short name	BfS	STUK	SCK-CEN	DH-PHE	CEA	UniPv	MELODI
Person-months per participant	4,5	1,99	4,5	1,45	0,6	2,1	-
Participant number	9	10	11	12	14	15	16
Participant short name	ALLIANCE	NERIS	EURADOS	IRSN	CIEMAT	NRIRR	MTA EK
Person-months per participant	-	-	-	3,67	1,4	1,5	0,5
Participant number	18	19	20	21	22	23	25
Participant short name	HMGU	MUW	ENEA	ISS	NRPA	RIVM	IMROH
Person-months per participant	1,7	0,2	0,54	0,8	0,6	0,2	0,4
Participant number	28	29	30	32	33	34	36
Participant short name	EEAE	VUJE	UT	UL	UEF	GIG	APA
Person-months per participant	0,2	0,6	0,2	0,2	4,0	0,13	0,33
Linked Third Parties							
LTP short name / linked to	DTU/NERIS	MUTADIS/NERIS	UMIL/NERIS	PTB/EURADOS	IST/EURADOS	RBI/EURADOS	IFJ PAN/EURADOS
Person-months per LTP	0,2	0,4	0,2	0,2	0,2	0,2	0,2
LTP/Participant short name	SL/EURADOS	CEPN/IRSN	SU/MELODI	ISGlobal/CIEMAT	KIT/HMGU	HZDR/HMGU	NMBU/NRPA
Person-months per LTP	0,2	2	0,2	0,4	1	0,5	0,2
LTP/Participant short name	CTU-FBME / SURO	NRI/SURO	UJF/SURO	UTA/STUK	NCSRDEEAE	RTU/UL	
Person-months per LTP	0,4	0,2	0,6	0,2	0,25	0,03	

Description of programmed activities

Task 2.1 - Development of Strategic Research Agenda, roadmap and priorities for research on low dose risk (MELODI, BfS, MTA-EK, DH-PHE, HMGU, IRSN, STUK, ENEA; UEF, UniPv, CEA; LTPs: CTU-FBME, CREAL, SU, UEF)

Key activities during year 4 are:

- The list of priorities based on existing SRA is prepared by month42. Subject to extra funding, this is input to Joint Programming (WP3).
- Developing long-term roadmap
- Evaluate the impact of draft joint roadmap scenarios on SRA

Task 2.2 - Development of Strategic Research Agenda, roadmap and priorities for research on radioecology (ALLIANCE, IRSN, SCK-CEN, BfS, STUK, HMGU, CEA, CIEMAT, UEF; LTPs: HZDR)

Key activities during year 4 are:

- The list of priorities based on existing SRA is prepared by month42. Subject to extra funding, this is input to Joint Programming (WP3).
- Developing long-term roadmap
- Evaluate the impact of draft joint roadmap scenarios on SRA

Task 2.3 - Development of Strategic Research Agenda, roadmap and priorities for research on emergency preparedness and response (NERIS, SCK-CEN, BfS, DH-PHE, VUJE, IRSN, CIEMAT, NRPA, STUK, UEF; LTPs: DTU, CEPN, KIT, MUTADIS)

Key activities during year 4 are:

- The list of priorities based on existing SRA is prepared by month42. Subject to extra funding, this is input to Joint Programming (WP3).
- Developing long-term roadmap
- Evaluate the impact of draft joint roadmap scenarios on SRA

Task 2.4 - Development of Strategic Research Agenda, roadmap and priorities for research on dosimetry (EURADOS, HMGU, IRSN, SCK-CEN, CIEMAT, DH-PHE, ENEA, ISS, CEA, UEF; LTPs: PTB, IFJ, SL, RBI, IST)

Key activities during year 4 are:

- The list of priorities based on existing SRA is prepared by month42. Subject to extra funding, this is input to Joint Programming (WP3).
- Developing long-term roadmap
- Evaluate the impact of draft joint roadmap scenarios on SRA (36)

Task 2.5 - Development of Strategic Research Agenda, roadmap and priorities for research with the medical scientific community (UniPv, BfS, MUW, IRSN, NRPA, STUK, ISS, CEA, UEF; LTPs: CREAL, CTU-FBME)

Key activities during year 4 are:

- The list of priorities based on existing SRA is prepared by month 42. Subject to extra funding, this is input to Joint Programming (WP3).Developing long-term roadmap.
- Evaluate the impact of draft joint roadmap scenarios on SRA
- Organising meetings with stakeholders in the medical scientific community.

Task 2.6 - Creating a Strategic Research Agenda on Social Sciences and humanities in Radiation Protection (SCK-CEN, BfS, IRSN, EEAE, ISS, NRPA, VUJE, IMROH, UEF; LTPs: MUTADIS, CEPN, NMBU, UNIMI, UEF)

This work is divided into three sub-task groups: 1) Ethics and justification 2) Risk communication and perception, and 3) safety culture.

Key activities during year 4 are:

- The list of priorities based on existing SRA is prepared by month 42. Subject to extra funding, this is input to Joint Programming (WP3). Organizing reflection groups with professionals and experts with expertise in social sciences and humanities applied in radiation protection-related topics.
- Meeting(s) of reflection groups interested in social sciences and humanities, with focus on ethics, risk perception and risk communication, and safety culture.
- Stakeholders in social sciences and humanities are consulted.
- Subject to extra funding, input to Joint Programming is provided by identifying joint research needs and priorities.

Task 2.7 – Research and innovation supporting the implementation of the revised European Basic Safety Standards (NRIRR, STUK, IRSN, BfS, VUJE, ISS, RIVM, IMROH, UEF, UT; LTPs: UJV, UEF)

Key activities during year 4 are:

- Contacts with Art. 31 group and HERCA will continue and possibilities for joint activities searched. Feedback on long-term roadmap scenarios will be surveyed.
- The work for the identification of national level research needs will continue.
- Subject to extra funding, input to Joint Programming (WP3) is provided by identifying joint research needs and priorities.

Deliverables

none

1.1.11.3 WP3 Priority research and joint programming needs in the perspective of European Integration

Work package number		3		Start date										M 37			
Work package title		Priority research and joint programming needs in the perspective of European integration															
Participant Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Short name of participant	BfS	STUK	SCK-CEN	ANR	DH(PHE)	CEA	Univ	MELODI	ALLIANCE	NERIS	EURADOS	IRSN	SSM	CIEMAT	NRIRR (OSSKI)	MTA-EK	
Person-month per participant	0,60	0,1	4,8	0,02	1,45	0,44	0,44	0,00	0,00	0,00	0,00	1,50	0,02	0,44	0,44	0,44	
Participant Number	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
Short name of participant	NCRRP	HMGU	MUW	ENEA	ISS	NRPA	RIVM	FCT	IMROH	SURO	IFA	EEAE	VUJE	UT	RSC	UL	
Person-month per participant	0,35	0,44	0,05	0,6	0,14	0,14	0,14	0,00	0,02	0,2	0	0,02	0,02	0,02	0,02	0,0	
Participant Number	33	34	37														
Short name of participant	UEF	GIG	JSI	DTU/ NERIS	MUTADIS/NERIS	UMIL/NERIS	PTB/ EURADOS	IST/ EURADOS	RBI/ EURADOS	IFJ PAN/ EURADOS	SL/ EURADOS	CEPN/IRSN	ENSTTI/IRSN	SU/MELODI	ISGlobal/ CIEMAT	KIT/HMGU	
Person-month per participant	0,47	0,13	0,33	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,5	0,02	0,02	0,02	0,5	
Participant Number																	
Short name of participant	GSI/HMGU	FZJ/HMGU	HZDR/HMGU	Jülich/HMGU	NMBU/NRPA	CTU/SURO	NRI/SURO	IFIN-HH/IFA-MG	UTA/STUK	UIJ/SURO	NCSRD/EEAE	RTU/UL					
Person-month per participant	0,02	0,02	0,02	0,02	0,25	0,04	0,32	0,12	0,2	0,4	0,03	0,02					
Participant Number																	

Objectives

WP3 aims at joint programming for the entire field of radiation protection research, by developing joint research priorities and a joint long-term road map.

The main objectives of WP3 for the 4th year are:

1. Elaboration of a joint roadmap through stakeholder consultation
2. Proposal of a long-term research plan with according budget estimation

Description of Programmed Activities

Task 3.1 – Integration of SRAs and research priorities from research platforms and national programs (proposed lead: BfS; Partners: the representatives of the RP association, all CONCERT partners)

In the Grant Agreement, no funding is available for a 3rd open call. However the EURATOM Work Programme 2018 has a call for radiation protection research requiring a gap analysis of research needed based on previous research, and mentions the need to link with CONCERT. Therefore WP3 supports the elaboration of the Gap Analysis, to be presented for discussion 20 February 2018 in Munich by the radiation protection research platforms and hosted as a CONCERT-funded meeting.

Task 3.2 – Joint priority setting (lead: SCK-CEN; partners: all CONCERT partners)

- No further activities are foreseen by lack of funding.

Task 3.3 – Joint roadmap development for a long term strategy of radiation protection research in Europe (lead: MELODI; partners: ALLIANCE, EURADOS, NERIS, all CONCERT partners)

Key activities during year 3 are:

- Consultation of the stakeholders such as regulators, industry, associations, and the public, as well as ICRP. This is important as the aim is that the roadmap is based on societal needs rather than the needs seen by the scientific community itself. In this way, the Roadmap will help to convince decision makers to provide the research framework, in terms of resources needed for the next ~20 years
- A validation report of the Joint Roadmap is foreseen in M36 but will be replaced by a stakeholder involvement plan towards a first draft of the joint roadmap.

Deliverables

D3.5 If extra funding is available: Third Annual Joint priority list (M45)

D3.7 Second joint Roadmap (M48)

1.1.11.4 WP4 Organization and management of CONCERT open RTD Calls

Set of Activities number	4	Start Date or Starting Event				M 37
Set of Activities Title	Organization and management of CONCERT open RTD Calls					
Participant Number	4	13	26	35		
Short Name of Participant	ANR	SSM	FCT	MINECO		
Person-months per Participant	3	0,8	0,8	0,33		

Objectives

WP 4 will administer the CONCERT open research call process.

The main objectives of the fourth project year are:

- The preparation of the Mid-term and Final report templates;
- The follow-up of projects funded in the first and second CONCERT open research call.

The follow-up of projects funded in the first call started later than foreseen, due to the delay of the launch of the first CONCERT call 2016.

Description of Programmed Activities**Task 4.1 – Setting up a Joint Call Secretariat (JCS) (ANR)**

Key activities during year 4 are:

- The JCSs have been established at ANR for the respective CONCERT calls in 2016 and 2017. After finalisation of the evaluation procedures, the JCS is responsible for the follow-up and monitoring of funded projects in both calls.

Task 4.2 - Preparation of the Open Call documents and launch of the call (ANR, SSM, FCT)

Key activities during year 4 are:

- This task has been completed.

Task 4.3: Implementation of the open call (ANR, SSM, FCT)

Key activities during year 4 are:

- This task has been completed.

Task 4.4: Monitoring of the calls and the funded projects (ANR, SSM, FCT)

Key activities during year 4 are:

- Preparation of the documents for the monitoring of funded projects including the Mid-term and Final Report
- Follow-up and monitoring of the nine projects funded in the two CONCERT calls (three projects in call 1 and six projects in call 2).

Deliverables

none

1.1.11.5 WP5 Stakeholder involvement and communication in radiation protection research

Set of Activities Number	5	Start Date or Starting Event							M37	
Set of Activities Title	Stakeholder involvement and communication in radiation protection research									
Participant Number	5	1	12	2	21	3	29	31	33	LTP
Short name of participant	DH-PHE	BfS	IRSN	STUK	ISS	SCK-CEN	VUJE	UL	UEF	NMBU/N RPA
Person-months per Participant:	13.2	0,1	1.5	0.05	1.0	1	0.5	0.1	0,37	0.5

Objectives

WP5 will promote stakeholder engagement activities and help develop information for the CONCERT website

The main objectives for the fourth project year are:

- To analyses responses to the public facing survey, and consider further sampling
- To hold a second stakeholder group meeting
- To refine the information on radiation exposure and risk on the CONCERT web pages

Description of Programmed Activities (possibly broken down into tasks), lead partner, role of participants, and relevant Work Package

Task 5.1 Strategy for public and societal stakeholder engagement (Lead: DH-PHE; Partners: ExB members, IRSN, ISS, VUJE; LTP: NMBU/NRPA)

Following the successful development of a stakeholder engagement strategy and its posting on the CONCERT website in December 2015, in the current year the strategy will be refined in the light of comments received.

Task 5.2 Establish a stakeholder group (Lead: IRSN; Partners: ExB members, IRSN, ISS, VUJE; LTP: NMBU/NRPA)

Key activities during year 4 are:

- To widen membership of the Stakeholder group
- Hold a second CONCERT stakeholder meeting

Task 5.3 Interaction with the civil society, including use of social media for stakeholder communication (Lead: ISS; Partners: ExB members, IRSN, ISS, VUJE; UL LTP: NMBU/NRPA)

Key activities during year 4 are:

- Analysis of the responses to the public facing survey (M42).
- In light of results of the analysis and the extent to which the respondents are representative of the population as a whole, investigate strategies to improve representation in the sampling if required, taking cost and time and other resource issues into account

Task 5.4 Development of general and specialist information for the CONCERT website (Lead: DH-PHE; Partners: ExB members, SCK.CEN, IRSN, ISS, VUJE; LTP: NMBU/NRPA)

Key activities during year 4 are:

- Continued identification and selection of existing web based information on radiation risk and developing appropriate content for the CONCERT website
- Publication of latest developments/achievements (news) to keep the stakeholders informed
- Promotion of upcoming events including but not limited to stakeholder meetings, workshops, courses

Deliverables

none

1.1.11.6 WP6 Access to infrastructures

Set of Activities number	6	Start date						M 37
Set of Activities title	Access to infrastructures							
	CONCERT Consortium Members							
Participant number	6	1	2	3	7	12	14	16
Participant short name	CEA	BfS	STUK	SCK-CEN	UniPv	IRSN	CIEMAT	MTA-EK
Person-months per participant	8	0.25	0.15	0.4	0.4	0.25	0.4	0.4
Participant number	17	18	21	22	23	28	32	33
Participant short name	NCRPP	HMGU	ISS	NRPA	RIVM	EEAE	UL	UEF
Person-months per participant	0.15	0.5	0.15	0.15	0.5	0.15	0.15	0,45
Participant number	34							
Participant short name	GIG		LTP NMBU/ NRPA	LTP SU/ MELODI	LTP GSI/ HMGU	LTP KIT/ HMGU	LTP CTU-FBME/ SURO	
Person-months per participant	0,07		0.5	0.15	0.15	0.15	0.15	

Objectives

WP 6 aims to increase the visibility of infrastructures fulfilling recommended criteria and facilitate their access to the radiation protection research community.

The main objectives for the fourth project year are:

- To implement the portal "Access to Infrastructures for Radiation protection Research Documented Database" (AIR²D²) (continued),
- To publish regular information about infrastructures in the bulletin AIR² (continued),
- To propose harmonization practices and protocols preferably exposures platforms, and possibly databases and biobanks (continued),
- To develop a strategy and a roadmap for facilitating access to infrastructures (continued).

Description of Programmed Activities

Task 6.1 Promote the visibility of research infrastructures (**Lead:** NMBU; **Partners:** IRSN, CIEMAT, CEA, BfS, STUK, SCK-CEN, UniPv, MTA-EK, NCRPP, HMGU, ISS, NRPA, RIVM, EEAE, UEF, UL, LTP: SU, GSI, KIT, CTU-FBME)

Key activities during year 4 are:

- Feedback on difficulties to use the database AIR²D² for owners and users (researchers), proposal of possible solutions, review of the criteria (lead: CEA),
- Increase the number of infrastructures included in AIR²D² (lead: IRSN),
- Publication of the monthly bulletin AIR² (10 issues per year) and dedicated special issues to increase visibility of particular infrastructures (lead: CEA),
- Present AIR²D² in each radiation protection-related event (e.g. ERPW) through posters or talks (all partners),
- Create a flyer on the database to distribute to members and other contacts of the CONCERT partners on each national and European level (lead: CEA).

Task 6. 2 Harmonize Practices and Protocols (Lead: RIVM; Partners: BfS, MTA-EK, SCK-CEN, CEA, CIEMAT all WP6 partners)

Key activities during year 4 are:

- Actions for facilitating use of open infrastructures by researchers (lead: BfS),
- Actions on incrementing the STORE database with past data connected to archived materials from OPERRA projects and those for on-going studies issued from CONCERT projects (lead: MTA-EK and SCK•CEN),
- Strategies of identified harmonization practices or protocols on identified pilot infrastructures (exposure platforms) (lead: SU and ISS).

Task 6.3 Strategy for Facilitating Access to infrastructure (Lead: CEA; Partners: all WP6 partners)

Key activities during year 4 are:

- Actions to build a roadmap including funding possibilities for some pilot open infrastructures (lead: CEA),
- Actions with WP7 for organize visit and/or courses on some infrastructures associated to E&T activities (lead: UniPv).

Deliverable

D6.5 Report on integration of archived materials in STORE/radioecology data bases (M48)

1.1.11.7 WP7 Education and training

Set of Activity number	7	Start Date						M 37
Set of Activity Title	Education and Training							
Participant Number	7	1	3	6	14	15	16	17
Short Name of Participant	UniPv	BfS	SCK•CEN	CEA	CIEMAT	NRIRR	MTA-EK	NCRRP
Person-months per Participant	8	0.4	1	0.2	0.2	1	0.2	0.2
Participant Number	18	19	20	25	28	29	30	33
Short Name of Participant	HMGU	MUW	ENEA	IMROH	EEAE	VUJE	UT	UEF
Person-months per Participant	1	0.2	0.24	0.2	0.2	0.2	0.2	0,49
Participant Number	LTP	LTP	LTP	LTP	LTP	LTP		
Short Name of Participant	IST/EU RADOS	ENSTTI /IRSN	ISGlobal/ CIEMAT	NMBU/ NRPA	SU/ MELODI	Jülich/ HMGU		
Person-months per Participant	0.2	0.2	0.2	0.2	1	0,2		

Objectives

WP7 aims to maintain an Education and Training (E&T) programme as an integral part into CONCERTs research programme activities.

The main objectives for the fourth project year are:

- Providing support for students and young post-doctoral researchers to European E&T by offering grants for training and travel
- Promoting E&T as an intrinsic part of knowledge management and dissemination of new science, through the provision of training courses, workshops and seminars within the CONCERT research programme.
- Organisation and sponsorship of targeted initiatives in order to promote the specialised skills and knowledge needed to maintain the full competence of the research community and to disseminate research results and stimulate exchanges; organising a second call for E&T short courses.
- Coordination and collaboration with all research platforms and the wider industry and regulatory interests in order to take advantage of common policies, resources, and funding streams.
- Encouraging the integration of junior scientists into the European radiation risk research community

Description of Programmed Activities

Task 7.1 – Attracting and retaining students and junior scientists into the Radiation Protection research fields (Task leader: SU, Task participants: UniPv, HMGU, NMBU, NRIRR, MTA-EK, SCK•CEN, MUW, IST, UT)

Key activities during year 4 are:

- The rolling call for travel grant applications will continue, and be actively promoted.
- Contact will be made with key EU universities and E&T institutions in order to initiate a dialogue on transferability and mutual recognition of competences acquired abroad. A meeting will be organised to discuss problems and possible solutions leading to Deliverable D7.6

Task 7.2: Education and training as an essential part of dissemination and knowledge management within CONCERT (Task leader: NRIRR, Task participants: SCK•CEN, UniPv, NCRRP, SU, MUW, VUJE, CEA, MTA-EK, NMBU, CREAL, STUK)

Key activities during year 4 are:

- The projects funded through the two CONCERT calls will be monitored and the incorporation of E&T will be assessed, leading to Deliverable D7.7. Collaboration between project E&T initiatives and existing CONCERT E&T activities will be encouraged.

Task 7.3: Targeted E&T initiatives (Task leader: UniPv, Task participants: NRIRR, NCRRP, HMGU, SU, CEA, MUW, MTA-EK, SCK•CEN, NMBU, CREAL, STUK)

Key activities during year 4 are:

- The fourth open call will have been made in April 2018, in collaboration with Task 1.6, for institutions to organise short courses (up to 3 weeks length), summer schools, or teaching seminars on topics of relevance to the CONCERT research programme. These courses will be held between September 2018 and June 2019. In the period covered by the AWP the successful courses will be scheduled and advertised. Feedback will be collected from the courses.
- The fifth and final call will open on 1 April 2019 and close 30 April 2019 for courses to be held during the academic year 2019-2020.

Task 7.4: Coordination and collaboration on E&T policy and strategy (Task leader: SCK•CEN, Task participants: BfS, HMGU, UniPv, NRIRR, VUJE, CEA, MTA-EK, ENEA, EEAE, ENSTII, UT, IST, NMBU, CREAL, STUK, IMROH, EURADOS)

Key activities during year 4 are:

- The annual E&T Forum will be hosted by CONCERT to be held in conjunction with the 3rd European Radiation Protection Week in Rovinj, Croatia, October 1-5 2018 in order to bring together all groups with interests in E&T for radiation protection and related topics, and to showcase the work being done by CONCERT.
Updated information on E&T will be presented on the CONCERT webpage.

Task 7.5: European integration of junior scientist career development (Task leader: HMGU, Participants: UniPv, NRIRR, CIEMAT, IST, VUJE, CEA, MUW, MTA-EK, UT, NCRRP, IMROH, NMBU)

Key activities during year 4 are:

- Promote the ERPW 2018 for young scientists.

Deliverables

D7.4 4th Annual report on awards and grants given (M48)

D7.8 2nd Report on E&T activities such as student placement, courses seminars, workshops, etc. in RTD Call 2 (M48)

D7.12 4th Annual report on E&T initiative funded under Task 7.3, including participant feedback and recommendations for next calls (M48)

1.1.11.8 WP8 Ethics

This work package sets out the 'ethics requirements' that the project must comply with. If there are any changes of the 'ethics requirements' that the project must comply with included as deliverables in this work package the corresponding deliverable will be updated by the CONCERT coordinator as WP leader accordingly.

1.1.11.9 WP9 Research projects selected through CONCERT open calls

Set of Activity number	9	Start Date	M37
Set of Activity Title	Research projects selected through CONCERT open calls		

Objectives

The objective of WP9 is to bring together RTD activities selected through two calls for research projects organised along the CONCERT project. As a result of the first Transnational call for proposals on “Radiation Protection Research in Europe” through the EJP CONCERT, launched in June 2016, three projects forming the three first tasks of the WP9 have been granted: As a result of the second Transnational call for proposals on “Radiation Protection Research in Europe” through the EJP CONCERT, launched in March 2017, six projects forming six new tasks (Task 9.4-Task 9.9) of the WP9 have been granted:

CONFIDENCE (Task 9.1) aims to close existing gaps in several areas, concentrating on the early and transition phases of an emergency but also dealing with longer-term decisions made during these phases. It brings together expertise from all four Radiation Protection Platforms and also from Social Sciences and Humanities, such that it can address the scientific challenges associated with model uncertainties and improve radioecological predictions and emergency management (NERIS and ALLIANCE), situation awareness and monitoring strategies (EURADOS), risk estimation in the early phase (MELODI), decision making and strategy development at local and national levels (NERIS) including social and ethical aspects (Social Sciences and Humanities). CONFIDENCE work-programme is to understand, reduce and cope with the uncertainty of meteorological and radiological data and their further propagation in decision support systems including atmospheric dispersion, dose estimation, food chain modelling and countermeasure simulations. Consideration of social, ethical and communication aspects will be a key part of the activities. Improvements in modelling and combining simulation with monitoring to obtain a comprehensive picture of the radiological situation will clearly improve decision making under uncertainties. Decision making principles and methods will be investigated, ranging from formal decision aiding techniques to simulation based approaches. These will be demonstrated and tested in stakeholder workshops applying the simulation tools developed within CONFIDENCE,

LDLensRad (Task 9.2) aims to bring together experts from across Europe to answer a number of key research questions on this topic, including: how does low dose radiation cause cataracts; is there a dose rate effect, and how does genetic background influence cataract development after radiation exposure. The research will also address the issue of ageing in a sensitive subset of mice and whether lens effects can be viewed as global biomarkers of radiosensitivity. The collaborators will work with mouse models supported by cellular studies to investigate the mechanistic chain of events from the initial radiation insult and biological responses through to formation of lens opacities. The biological investigations will be supported by rigorous statistical modelling for hypothesis development. In addition, the partners will explore the potential for a prospective molecular epidemiology programme using human lenses taken from the former Mayak PA workers. The results of this project will be highly relevant for CONCERT low dose radiation research and radiation protection and the work plan is particularly in line with the MELODI and EURADOS strategic research agendas with additional key implications for medical radiation protection. Concrete outcomes are anticipated to include: definitive information regarding the shape of the dose response curve and thus the risk of radiation cataract at doses < 500 mGy, advancing the debate as to the nature of radiation cataracts as either deterministic tissue reactions or stochastic effects and thus strengthening the evidence base for informed radiation protection; the assessment of lens effects as biomarkers of global radiosensitivity to provide potential new tools for health risk assessment as well as the education and training of a number of early career scientists in low dose radiation research.

TERRITORIES (Task 9.3) targets an integrated and graded management of contaminated territories characterised by long-lasting environmental radioactivity, filling in the needs emerged after the recent post-Fukushima experience and the publication of International and European Basic Safety Standards. A graded approach, for assessing doses to humans and wildlife and managing long-lasting exposure situations (where radiation protection is mainly managed as existing situations), will be achieved through reducing uncertainties to a level that can be considered fit-for-purpose. The integration will be attained by:

- Bridging dose and risk assessments and management of exposure situations involving artificial radionuclides (post-accident) and natural radionuclides (NORM),
- Bridging between environmental, humans and wildlife populations monitoring and modelling, Bridging between radiological protection for the members of the public and for wildlife,
- Bridging between experts, decision makers, and the public, while fostering a decision-making process involving all stakeholders.

This project will interlink research in sciences supporting radiation protection (such as radioecology, human or ecological dose and risk assessments, social sciences and humanities, etc.), providing methodological guidance, supported by relevant case studies. The overall outcome will be an umbrella framework, that will constitute the basis to produce novel guidance documents for dose assessment, risk management, and remediation of NORM and radioactively contaminated sites as the consequence of an accident, with due consideration of uncertainties and stakeholder involvement in the decision making process. The results will be widely disseminated to the different stakeholders and accompanied by an education and training programme.

ENGAGE (Task 9.4) aims to improve the governance of radiological risks by strengthening and enhancing stakeholder engagement processes in relation to radiation protection policy and practice. The proposal will identify and address key challenges and opportunities for stakeholder engagement in relation to different ionising radiation exposure situations. It focuses on exposure situations corresponding to major (actual or potential) components of radiation exposures for the general population: i) medical use of ionising radiation, ii) emergency and recovery planning and response; and iii) indoor radon. These situations differ in terms of perception, acceptance and justification of exposure to radiological risk: voluntary vs. involuntary risk, existing vs. planned exposure, medical vs. nuclear energy related risk, natural vs. artificial sources of radioactivity. Moreover the stakeholders involved and the frameworks for engagement are also specific. For these reasons, the project addresses these three types of exposure situations in different subtasks throughout the project, and foresees joint reflections in each of the work packages allowing comparative assessments and the formulation and sharing of additional lessons learned with regard to meaningful differences and similarities of stakeholder engagement approaches. The innovative aspects of ENGAGE are twofold, relating to both the research needs it addresses and the research methodology employed. To address the research needs ENGAGE will:

- a) answer the questions why, when and how are stakeholders engaged in RP issues, by i) analysing the rationales for stakeholder engagement; ii) clarifying the influencing factors (legal, political, economic, cultural, social, ethical), and iii) examining the participatory models and tools employed (ST 9.4.1);
- b) develop novel approaches to analysing stakeholder interaction and engagement and, provide guidance for meeting challenges and opportunities identified in response to (a) (ST 9.4.2);
- c) investigate the processes for enhancing RP culture and their role in facilitating stakeholder engagement in RP, and develop guidelines for building RP culture (ST 9.4.3);
- d) develop guidelines and build a joint knowledge base for stakeholder engagement in RP (ST 9.4.1, -ST 9.4.4).

ENGAGE will draw on state of the art research methods in social sciences and humanities.

LEU-TRACK (Task 9.5) proposes to study basic mechanisms in low dose radiation-induced leukaemia by focusing on two highly innovative aspects in the mechanism of the disease: the role of signalling between the bone marrow microenvironment and the stem cell compartment in initiating the leukemic process and the role of extracellular vesicles (EVs) in mediating radiation-related signals among the different cellular

compartments of the haematopoietic system. While radiation-induced direct damage to the haematopoietic stem cell pool is suggested to be the major driver in the development of the disease after higher doses, radiation-induced leukaemia at low doses most probably involves additional mechanisms distinct from those at high doses. EVs are major vehicles of intercellular communication due to their complex cargo. Recent data have shown that EVs mediate radiation-induced bystander effects in the bone marrow, initiating signals that lead to bone marrow dysfunction. The proposal aims to investigate mechanisms and pathways how bone marrow-derived EVs, by influencing the communication between the different cellular components of the bone marrow can induce bone marrow damage and thus modulate low dose radiation-induced leukaemia. A further objective of the proposal is to perform a deep and systematic analysis of EV cargo by using multiple omics techniques and complex phenotypical approaches with the aim to identify biomarkers of radiation exposure potentially indicating an increased risk for leukaemia development. In order to correlate blood-derived EV markers identified in experimental animals with markers present in human leukaemia patients, a small pilot study, analysing blood-derived EV cargo from leukaemia patients subjected to prophylactic brain irradiation will also be carried out. In this way, the project will provide a better understanding of pathways and/or mechanisms of low dose radiation carcinogenesis and will contribute to a better evaluation of the risks associated with low doses, helping to improve risk perception, disease prevention, health promotion and in the later run therapy development.

PODIUM (Task 9.6) has the objective to improve occupational dosimetry by an innovative approach: the development of an online dosimetry application based on computer simulations without the use of physical dosimeters. Operational quantities, protection quantities and radiosensitive organ doses (e.g. eye lens, brain, heart, extremities) will be assessed based on the use of modern technology such as personal tracking devices, flexible individualized phantoms and scanning of geometry set-up. When combined with fast simulation codes, the aim is to perform personal dosimetry in real-time. A further objective is to develop an online application in which we will calculate individually the occupational doses, instead of measuring them with one or more dosimeters. For that purpose, the spatio-temporal radiation field, including its energy and angular distribution, needs to be known. We will use input from fixed dose monitors and we will capture real movements of exposed workers and transfer this to the calculation application.

SEPARATE (Task 9.7): Brain and skin cancer development is increased by an exposure of distant tissues in genetically sensitive mice, indicating that there is a level of communication between irradiated and non-irradiated tissues and organs. Changes in the levels of non-coding RNA molecules released from irradiated tissues in patients undergoing radiation therapy limited to the head. The nature of the molecule(s) and pathways responsible for this signalling is unknown, although numerous candidates have been proposed, ranging from calcium, NO, RNA, cytokines and growth factors. Understanding how the signal(s) are transmitted to non-irradiated cells/tissues and how it/they provoke a systemic response is crucial, but far from being complete. SEPARATE will extend these studies to the analysis of the effects on brain, heart, and liver, following exposures of the lower third of the body, whilst the target organs are shielded. Changes in these important organs at the transcriptome, non-coding RNAs, protein, and metabolic levels will be examined. Where possible, partial-organ irradiation will be carried out, and it will be looked at molecular and cellular damage in non-irradiated organ portions. Exosomes from exposed tissues and their specific bioactive cargo - particularly RNA content – for their role in mediating out-of-target effects in vitro and in vivo will also be investigated. By combining this cellular, molecular and bioinformatics data it will be able to identify the response pathways in the different tissues, and by inference, suggest the candidate signalling molecules involved. A second major outcome of this project will be the discovery of candidate biomarker molecules of both whole body and partial body irradiation responses.

SHAMISEN-SINGS (Task 9.8) built upon the recommendations of the EC-OPERRA funded SHAMISEN project, aims to enhance Citizen Participation in preparedness for and recovery from a radiation accident through novel tools

and APPs to support data collection on radiation measurements, health and well-being indicators. SHAMISEN-SINGS brings together an experienced multi-disciplinary and multi-national consortium to answer important objectives of the call: to improve countermeasures for nuclear emergency preparedness and provide important knowledge on stakeholder engagement in radiation protection, including a critical assessment of benefits and challenges of citizen science. By taking a practical ethics approach, fostering co-reflection between natural and social scientists, it will strengthen integration of social science in radiation protection. It will also provide an independent channel for collection and management of data for use by authorities for decision making, assessment of doses, evaluation of health/social condition and health surveillance in general, and support in the implementation of BSS.

VERIDIC (Task 9.9) focuses on the harmonisation of RDSR (Radiation Dose Structured Report) and on the validation of SDC (skin dose calculation) software products in IC, which will optimise radiation protection of patients.

Firstly, standards for digital dose reporting will be proposed including:

- 1) A complete list of parameters necessary to calculate MSD (maximum skin dose) and 2D dose distribution (tube voltage, filtration, beam orientation, table position, backscatter factor, table attenuation, air KERMA-to-skin dose conversion coefficient, etc.);
- 2) The recording (format and content) of MSD values and 2D dose distributions in the RDSR.

Secondly, protocols for acceptance testing and QC (quality control) of SDC software will be developed and tested, including:

- 1) comprehensive calibration of field dosimeters to be used for software benchmarking, including estimation of associated uncertainty;
- 2) acceptance testing of online and offline software in simple irradiation conditions;
- 3) QC tests of the software in clinical settings reproducing complex cardiac procedures such as Chronic Total Occlusions (CTO).

Thirdly, interventional Reference Levels (RL) and frequency of high-dose procedures as well as dose reduction strategies will be established thanks to a multi-centric data collection.

The project is supported by the European Federation of Organisations for Medical Physics (EFOMP) and collaboration with the European Society of Cardiology (ESC) will be sought, which ensures an optimal dissemination of results.

Description of Programmed Activities

The first 3 call winning projects started implementation in January 2017 (M20) by putting the project plans as submitted with their proposals into action. The six call winning projects of the 2nd call started between October 2017 and February 2018. The respective project coordinator will coordinate and direct project resources to meet the objectives of the project plan and will monitor all activities necessary to produce the deliverables.

Deliverables

Deliverables of WP9 cover the time frame Oct 2017 (M29) - May 2019 (M48), since 2nd call projects started differently

Task 9.1 (CONFIDENCE)

- | | | |
|--------------|--|-------|
| D9.1 | Guideline ranking uncertainties for atmospheric dispersion | (M31) |
| D9.19 | Structured communication technique results | (M31) |
| D9.26 | Paper on planned behaviour in nuclear emergency situations | (M35) |
| D9.33 | Indicators for robust decision making | (M35) |

- D9.11** Report on a workshop for integration of biodosimetry into emergency response (M37)
- D9.25** Report on case studies of nuclear and radiological events (M37)
- D9.34** Improved MCDA tool for decision making under uncertainty for panels (M37)
- D9.20** Addressing the uncertainties in urban/inhabited scenarios (M39)
- D9.21** Addressing the uncertainties in agricultural scenarios (M39)
- D9.8** Database of smartphone app / dosimeter evaluation (M39)
- D9.13** Improving models and learning from post-Fukushima studies (M43)
- D9.35** ABM tool with artificial intelligence to compare decision strategies for panels (M43)
- D9.4** Published sets of probability maps of threshold exceedance for scenarios provided to WP4, WP5 & WP6-->02 (M43)
- D9.9** Prototype of processing unit for thyroid dose monitor (M43)
- D9.22** Compilation of national stakeholder panel reports (M44)
- D9.14** Published dataset on transfer in Mediterranean ecosystems (M46)

Task 9.2 (LDLensRad)

- D9.52** Progress summary and actions-1st year (M31)
- D9.55** Year 1 advisory panel report (M31)
- D9.53** Progress summary and actions-2nd year (M43)
- D9.56** Year 2 advisory panel report (M43)

Task 9.3 (TERRITORIES)

- D9.75** After each training_1st year (M31)
- D9.74** After each training_2nd year (M43)
- D9.60** Guidance to reduce sampling uncertainty (M44)
- D9.62** Methodology to quantify improvement (M47)

Task 9.4 ENGAGE

- D9.80** Project website (M31)
- D9.81** Establishment of the management and advisory structures of ENGAGE (M33)
- D9.82** Report on key challenges and best practice for stakeholder engagement (M39)
- D9.83** Preliminary report on case studies (M46)
- D9.84** Stakeholder Workshop (M46)
- D9.85** Report on rationales and frameworks for stakeholder engagement in radiation protection in the medical field (part 1), nuclear emergency and recovery preparedness and response (part 2) and indoor radon exposure (part3) (M48)

Task 9.5 LEU-TRACK

- D9.95** Evaluating radiation effects on EV phenotype and cargo (M48)

Task 9.6 PODIUM

- D9.101** Report listing all requirements of the software (M32)
- D9.102** Detailed specification of the fields to be used (M34)
- D9.103** An IPS based on an infrared reflection time-of-flight sensor camera together with the corresponding software (M37)
- D9.104** Database of phantoms of different statures and postures (M40)
- D9.105** An IPS based on a developed camera network system and the multi-image acquisition computer system with the corresponding software (M43)
- D9.106** Guidelines for implementing the workplace geometry and the radiation field map in the dosimetry application (M43)
- D9.107** Prototype of fast MC real time radiation dose estimate application to be tested in hospitals (M43)
- D9.108** Report summarizing the feasibility of the methods, and the accuracy of personal dosimetry in a simple scenario (M43)
- D9.109** First annual progress report (M44)
- D9.110** Report with a documented test of concept in an experimental set-up (M45)

Task 9.7 SEPARATE

- D9.122** Irradiation and dosimetry procedures (M34)
- D9.123** Completion of PBI/TBI (M40)
- D9.124** Characterisation of exosomes from control, irradiated and shielded tissues (M46)
- D9.125** Progress report from 1st Periodic Meeting of SEPARATE (M46)

Task 9.8 SHAMISEN-SINGS

- D9.130** Stakeholder consultation report with needs, requirements for future tools (M31)
- D9.131** Project website with intranet for Partners (M34)
- D9.132** Review of applications for citizen health and welfare assessment (M37)
- D9.133** Review of applications and devices for citizen dose measurement (M40)
- D9.134** Stakeholders feedback report on proposed tools and protocols (M46)
- D9.135** Consensus workshop report on ethical issues (M46)

Task 9.9 VERIDIC

- D9.141** Standards for digital dose reporting (M42)

Participation in Annual Work Plan activities

Most of the CONCERT consortium partners (participants 1-39) do not plan to involve Linked Third Parties (LTP) or external experts at the initial stage of the CONCERT-EJP project.

Although, potential LTPs are not included in the initial consortium, there will be a chance for inclusion after the first or second call, in case this organisation is member of a successful consortium, pending on an amendment to the grant agreement.

Partner 1: BfS, Germany:

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<p><i>The STORE website has become an important tool for archiving and data sharing within the radiation protection research community in Europe and worldwide. While it was initially planned for purposes in the research field of MELODI only, it now is of interest also for ALLIANCE. The same accounts to some extent for EURADOS and NERIS, in particular with respect to biological dosimetry.</i></p> <p><i>The STORE website is hosted by BfS at no costs to the CONCERT project; and scientific curation of STORE will be done by BfS staff. Yet, a constant improvement of the website and of the software behind the website is crucial. This applies to both the data base which is fundamental for STORE and the user interface. To maintain and constantly improve the STORE website, to adopt it to the rapid development in international standards of data sharing, to establish links to other archiving and data sharing platforms, and to update the nomenclature used for best possible description of the available information BfS needs support from a subcontractor.</i></p> <p><i>This subcontractor will be the University of Cambridge, UK (UCam). UCam set up the STORE platform within the previous STORE project, further developed it within the DoReMi project and prepared the migration from Cambridge to BfS. Further, UCam gave advice regarding data sharing politics and in setting up the nomenclature.</i></p>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	N
at a later stage	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
If yes, describe the third party and their contributions	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
Please refer to 3.5 Financial support to third parties	

Potential Linked Third Parties to BfS

To be included at a later stage:

BfS is not involving any Linked Third Parties in the beginning of the CONCERT project but foresees this possibility in the later stages of CONCERT, in Calls organised by CONCERT, or other H2020 projects.

In particular, the following universities have long-term cooperation links with BfS:

Ruprecht-Karls-University, Heidelberg:

Contact: Prof. Dr. Michael Hausmann (hausmann@kip.uni-heidelberg.de), Tel. 49 6221 54 9824

Address: Ruprecht-Karls-Universität Heidelberg, Hauptstr. 207 – 209, 69117 Heidelberg

Homepage: <http://www.kip.uni-heidelberg.de/user/hausmann>

Contact: Prof. Dr. rer. nat. Gerhard Glatting (gerhard.glatting@medma.uni-heidelberg.de), Tel: +49 621/383-4960 (Sekretariat)

Address: Universitätsmedizin Mannheim, Medizinische Fakultät Mannheim der Universität Heidelberg, Medizinische Strahlenphysik/Strahlenschutz, Theodor-Kutzer-Ufer 1-3, D-68167 Mannheim

Johannes Gutenberg University, Mainz, including university hospital:

Contact: Prof. Dr. M. Blettner (maria.blettner@unimedizin-mainz.de) Tel.: 06131 17-3252

Address: Universitätsmedizin der Johannes Gutenberg-Universität Mainz; Institut für Medizinische Biometrie, Epidemiologie und Informatik (IMBEI)

Obere Zahlbacher Str. 69; 55131 Mainz, Homepage: <http://www.unimedizin-mainz.de>

University Düsseldorf including University hospital

Contact: Dr. med. Arndt Borkhardt (lesch@med.uni-duesseldorf.de)

Tel. 49 (0) 211 - 81-17680

Address: Universitätsklinikum Düsseldorf, Moorenstr. 5, 40225 Düsseldorf

Homepage: www.uniklinik-duesseldorf.de/kinderonkologie

Homepage: <http://epi.klinikum.uni-muenster.de/>

Universität des Saarlandes:

Contact: Prof. Dr. Claudia Rübe (claudia.ruebe@uniklinikum-saarland.de)

Tel.: 06841/16-34614

Address: Universitätsklinikum des Saarlandes, Kirrberger Straße, Gebäude 51, D-66421 Homburg/Saar

Homepage: <http://www.uniklinikum-saarland.de/de/>

Uni Hannover: Institute for Radioecology and Radiation Protection

Contact: Prof. Dr. Clemens Walther, walther@irs.uni-hannover.de

Address: Herrenhäuser Str. 2, 30419 Hannover, Tel: +49 511 762 3312

Homepage: <http://www.irs.uni-hannover.de/walther>

Uni Bremen:

Contact: Dr. Helmut Fischer, hfischer@physik.uni-bremen.de => SSK

Head, laboratory of environmental radioactivity and the group of terrestrial environmental physics at IUP Bremen, Universität Bremen, FB 1; Tel. 218-62761

Landesmessstelle für Radioaktivität

Address: Otto-Hahn-Allee, D-28359 Bremen

Homepage: www.radioaktivitaet.uni-bremen.de

Partner 2 STUK:

National Radiation Safety Research Programme

The Finnish Government Resolution on Comprehensive Reform of State Research Institutes and Research Funding took place in September 2013 (document in English). The main goal of the reform is to strengthen multidisciplinary, high-level research of social significance. One line of action was to deepen cooperation between research institutes and universities. To achieve this goal, the Resolution envisaged a step-by-step integration process leading to centers of competence (agreement-based consortiums). According to government policy, such agreement-based consortia must have common research equipment, laboratories and

information resources (e.g. follow-up material, sample material, statistical and register material) as well as engage in close co-operation in research and education (e.g. sharing of mutually complementary competencies, joint professorships and duties, and shared staff). Furthermore, it was envisaged that, within the consortiums, the research institutes and universities form joint campus areas with common functions on a regional basis. Based on the Government Resolution, a process was initiated in 2013 to strengthen the co-operation between STUK and universities and create a national research consortium that would carry out research on various aspects of ionizing and non-ionizing radiation safety. This process has involved an analysis of scientific disciplines required for radiation protection and surveying the profiles of Finnish universities. Existing collaborations were formalised and additional competencies were identified. By early 2015, the first version of a National Programme for Radiation Safety Research has been prepared in collaboration of STUK and nine universities (link to document). By the end of 2014, seven of these universities had already signed Expressions of Interest with STUK for the formation of a National Consortium for Radiation Safety Research. The formalization of the agreements between STUK and universities is expected to take place during 2015. In addition of STUK, the following universities have contributed to the national programme: Aalto University, Lappeenranta University of Technology, Tampere University of Technology, University of Helsinki, University of Eastern Finland, University of Jyväskylä, University of Oulu, University of Tampere and University of Turku. Research areas for the national programme include health (low dose risk as well as medical use of radiation), environment (radioecology) and emergencies (emergency preparedness and response, security of sources). As cross cutting themes risk assessment, risk management as well as technological development (metrology and dosimetry) are addressed. Overall, the programme is well aligned with the objectives of European radiation protection research platforms (MELODI, ALLIANCE, NERIS and EURADOS), with additional elements relevant for non-ionizing radiation safety, security research and metrology research. Introduction to the European Strategic Research Agendas (MELODI, ALLIANCE, NERIS, EURADOS, EMPIR and CBRN Action plan) was provided in a national stakeholder seminar organized by OPERRA in June 2014. Based on the Government Resolution, the Agreement on National Consortium for Radiation Safety Research is expected to establish the necessary legal link for the beneficiary-Linked Third Party-relationship between the members of the Consortium.

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p>The LTP is research partners of STUK in its function as national radiation protection research programme manager.</p> <p>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP has special expertise and competence for input in the CONCERT joint programming or integrative activities. Its contribution is expert input in the tasks and deliverables of WP2, WP3, and WP9.</p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Party to STUK**University of Tampere (UTA)**Kalevantie 4, 33100 Tampere, Finland; Homepage: <http://www2.uta.fi/en>Contact: Liisa Laakso, Rector of the University of Tampere; rehtori@uta.fi**Participant 3: SCK-CEN**

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<i>SCK-CEN takes lead within the project CONFIDENCE regarding the Task 5.2 Socio-psychological study of understanding, processing and management of uncertainties and improved communication tools. Part of the upcoming survey research will be subcontracted.</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	N
at a later stage	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Participant 4: ANR

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	N
at a later stage	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Participant 5: DH-PHE

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<i>DH-PHE plans to subcontract the irradiation services to Medical Research Council (MRC), as an adjacent facility to PHE, as described in point 3.3 of the proposal for the participation in LDLensRAD.</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTPs are partners of the Department of Health - Public Health England (DH-PHE) and give major expert input in their work.</i></p> <p><i>In WP9 of the integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. The LTPs have special expertise and competence for input in the CONCERT joint programming integrative activities. Its contribution is expert input in the tasks and deliverables of WP9.</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Linked Third Party to DH-PHE

Met Office Met Office UK; Met Office, Fitz Roy Road; Exeter; Devon EX1 3PB; United Kingdom

Contact: Science lead – Susan Leadbetter susan.leadbetter@metoffice.gov.uk

Oxford Brookes University Headington Campus, Headington Rd, Gypsy Ln, Oxford OX3 0BP, United Kingdom

Contact: mkadhim@brookes.ac.uk

University of Durham Durham University; Palatine Centre, Stockton Road, Durham, DH1 3LE

Contact: Sally Hewlett lear.admin@durham.ac.uk

University of Warwick University of Warwick, University House, Kirby Corner Road, Coventry CV4 8UW

Contact: Dr Navdeep Bains, Head of Research Support

Partner 6: CEA

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<i>CEA plans to use subcontractors for the subtasks 6.1.3 Increase the visibility of recommended infrastructures and 6.3.2 Developing training “subcontractor will be called to prepare tools for increasing the visibility of the selected infrastructures (subtask 6.1.3) and to promote the training of the users (subtask 6.3.2) via leaflets, videotaping.”</i>	

Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	N
at a later stage	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Partner 7: UniPV

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	N
at a later stage	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Participant 8: MELODI

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTP is a partner of the research platform MELODI and give major expert input in the work of MELODI.</i></p> <p><i>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTP. The LTP has special expertise and competence for input in the CONCERT joint programming or integrative activities. Its contribution is expert input in the tasks and deliverables of WP2, WP3, WP5, WP6 and WP7.</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	

Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	N
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Linked Third Party to MELODI

University Stockholm (SU), Universitetsvägen 10A, SE-10691 Stockholm, Schweden, Tel: +46 8 16 1217, contact: andrzej.wojcik@su.se , and mats.harms-ringdahl@su.se www.su.se/english/

Potential Linked Third Parties to MELODI

To be included at a later stage:

European Society of Radiology (ESR), Neutorgasse 9, 1010 Wien, Österreich, T. +43 1 53340640, contact: monika.hierath@myesr.org , <https://www.myesr.org>

European Federation of Organisations for Medical Physics (EFOMP), Fairmount House, 230 Tadcaster Road, York YO24 1ES,UK, T. +44 1904 610 821, contact: office@efomp.org www.efomp.org/

European Association of Nuclear Medicine (EANM), Hollandstrasse 14 / Mezzanine, A-1020 Vienna, Austria, T. +43-(0)1-212 80 30, contact: office@eanm.org, www.eanm.org/

European Federation of Radiographer Societies (EFRS), Catharijnesingel 73, 3511 GM Utrecht, The Netherlands, Contact Person: Dorien Pronk-Larive, contact: info@efrs.eu, www.efrs.eu/

European Society for Radiotherapy & Oncology (ESTRO), T. +32.2.775.93.40, Contact: info@estro.org

Participant 9: ALLIANCE

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTP is a partner of the research platform ALLIANCE and give major expert input in the work of ALLIANCE.</i></p> <p><i>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programing and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTP. The LTP has special expertise and competence for input in the CONCERT joint programming or integrative activities. Its contribution is expert input in the tasks and deliverables of WP9.</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N

<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	N
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Linked Third Party to ALLIANCE

NERC Centre for Ecology & Hydrology (CEH) CEH Wallingford, Maclean Building, Benson Lane; Crowmarsh Gifford ; Wallingford Oxfordshire OX10 8BB

Contact: Mr Jack O'Brien (01491 692567); Mrs Liz Stansfield (01491 692324)

Email: cehresearchcontracts@ceh.ac.uk

External Experts to ALLIANCE:

Lorraine Currivan, EPA, (L.Currivan@epa.ie), Environmental Protection Agency (EPA), Office of Radiological Protection, 3 Clonskeagh Square, Clonskeagh Road, Dublin 14, Contact

Prof. Nick Beresford (nab@ceh.ac.uk), [Natural Environment Research Council](#) - Centre for Ecology & Hydrology (NERC-CEH), Lancaster Environment Centre, Library Avenue, Bailrigg, Lancaster LA1 4AP, Tel.: +44(0)1524 595800 Contact

Participant 10: NERIS

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p>The LTPs listed below are members of the research platform NERIS.</p> <p>They are key partners in the SRA working group of NERIS and give major expert input in the work of NERIS. In WP 2 and WP3 of the CONCERT joint programming and integrative activities input from the research platforms is required that cannot be covered by other NERIS members. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint programming or integrative activities on behalf of NERIS. Their contribution is expert input in the tasks and deliverables of WP2 and WP3.</p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	

Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	N
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Linked Third Parties to NERIS

Technical University of Denmark (DTU), Center for Nuclear Technologies, Frederiksborgvej 399, Building 201, room S56, 4000 Roskilde, Denmark, Tel.: 45 46 77 53 19, Contact Person: Per Roos
roos@dtu.dk, <http://www.dtu.dk/english>

MUTADIS, 5 Rue d'Alsace, 75010 Paris, France, Tel.: 33 (0)1 48 01 88 77, contact:
 Gilles Hériard Dubreuil: g.heriard-dubreuil@mutadis.fr, <http://www.mutadis.org>

Università degli studi di Milano (UNIMI), Via Festa del Perdono 7, I-20122 Milano, Italy, Tel.
 ++39 02503 111, contact: [Marie Claire Cantone: marie.claire.cantone@fisica.unimi.it](mailto:marie.claire.cantone@fisica.unimi.it),
<http://www.unimi.it/ENG/>

Partner 11: EURADOS

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTPs are members of the research platform EURADOS.</i></p> <p><i>They are key partners in the SRA working group of EURADOS and give major expert input in the work of EURADOS. In WP 2 and WP3 of the CONCERT joint programming and integrative activities input from the research platforms is required that cannot be covered by other EURADOS members. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint programming or integrative activities on behalf of EURADOS. Their contribution is expert input in the tasks and deliverables of WP2 and WP3.</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	N
<i>If yes, describe the procedure for selecting the third parties and the range of the envisaged financial support</i>	

Linked Third Parties to EURADOS

Physikalisch-Technische Bundesanstalt (PTB), Bundesallee 100 D-38116 Braunschweig, Telefon: (05 31) 592-3006, Contact: PTB Helmut Schuhmacher helmut.schuhmacher@ptb.de/ Stefan Neumaier

Campus Tecnológico e Nuclear (CTN), Instituto Superior Técnico (IST), Pólo de Loures do IST, Estrada Nacional 10 (km 139,7), 2695-066 Bobadela LRS, Portugal, Contact: Pedro Vaz (pedrovaz@ctn.ist.utl.pt) / Joao Alves (jgalves@ctn.ist.utl.pt)

Institut Ruđer Bošković (RBI), Bijenička cesta 54, 10000 Zagreb, Croatia, contact: Saveta Miljanic (saveta@irb.hr) Zeljka Knešević

Instytut Fizyki Jądrowej im. Henryka Niewodniczańskiego PAN (IFJ PAN), Krakow, Poland, contact: Pawel Olko (pawel.olko@ifj.edu.pl)

Seibersdorf Labor GmbH (SL), Forschungszentrum, 2444 Seibersdorf, Austria, [Tel:+43\(0\)50550-2500](tel:+430505502500), contact: Hannes Stadtmann (hannes.stadtmann@seibersdorf-laboratories.at)

Partner 12: IRSN

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<i>IRSN will use the money to cover costs related to the services of an external consultant in charge of Task 2.6 ("Creating a SRA for social sciences and humanities in radiation protection").</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p>The LTPs are research partners of IRSN in its function as national radiation protection research programme manager.</p> <p>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP2, WP3, WP5, WP6 and WP7.</p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to IRSN

Centre d'étude sur l'Évaluation de la Protection dans le domaine Nucléaire (CEPN), 28, rue de la Redoute, F-92260 FONTENAY AUX ROSES, Tel: +33 1 55 52 19 20, contact: thierry.schneider@cepn.asso.fr, <http://www.cepn.asso.fr/en/>

European Nuclear Safety Training und Tutoring Institute (ENSTTI), 12, rue de la Redoute, 92260 Fontenay-aux-Roses – Franc, Phone: +33 (0)1 58 35 72 32, Contact Person: Didier Louvat (didier.louvat@enstti.eu), <http://www.enstti.eu/>

External Experts to IRSN

Dietrich Aeverbeck, IRSN, France
Kevin Prise, QUB, UK

Partner 14: CIEMAT

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<i>CIEMAT plans to subcontract programmers for the further development of OPCROM modelling platform (FFEE foundation in the Madrid Polytechnic University) in WP1 within LDLensRAD.</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties

ISGlobal, Institut de Salut Global de Barcelona - Campus MAR, Parc de Recerca Biomèdica de Barcelona (PRBB), Doctor Aiguader, 88, 08003 Barcelona, contact: Prof. Elisabeth Cardis, elisabeth.cardis@isglobal.org Tel. +34 932 147 312, www.isglobal.org, radiation.isglobal.org

Partner 18: HMGU

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
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<i>The Ukrainian Radiation Protection Institute (RPI) is subcontractor to HMGU in CONFIDENCE. HMGU uses the research results of RPI from other projects.</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p>The LTPs are research partners of HMGU in its function as national radiation protection research programme manager.</p> <p>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP2, WP3, WP5, WP6 and WP7.</p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to HMGU

Karlsruher Institut für Technologie (KIT), Campus North, Building 433, Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Tel.: +49-(0)721-608/25525, contact: angelika.bohnstedt@kit.edu

GSI Helmholtzzentrum für Schwerionenforschung (GSI), Planckstraße 1, 64291 Darmstadt, contact:
Sylvia Ritter (S.Ritter@gsi.de)

Forschungszentrum Jülich GmbH, Department of Safety and Radiation Protection, D-52425 Jülich, Germany, contact: Dr R Kriehuber (r.kriehuber@fz-juelich.de), Tel: ++49 (0)2461 61-4054

Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Institute of Resource Ecology, , contact: Dr. Thuro Arnold (t.arnold@hzdr.de), Tel: ++49 351 260 2432, Prof. Thorsten Stumpf (t.stumpf@hzdr.de), Tel. ++49 351 260 3210

Potential Linked Third Parties to HMGU

To be included at a later stage:

German Aerospace Center, Aerospace Medicine (DLR), Linder Höhe, 51147 Köln, Germany Tel: ++49 2203 601 3137, contact: Dr. Günther Reitz (guenther.reitz@dlr.de)

Partner 22 NRPA

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
Subcontract University of Life and Environmental Sciences of Ukraine (NUBiP) and Jozef Stefan Institute, Slovenia	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
The LTP is a research partner of NRPA in its function as national radiation protection research programme manager. In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTP. The LTP has special expertise and competence for input in the CONCERT joint programming or integrative activities. Its contribution is expert input in the tasks and deliverables of WP2, WP3, WP5, WP6 and WP7.	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to NRPA

Norwegian University of Life Sciences (NMBU), P.O. Box 5003, NO-1432 Ås, Norway,
+47 67 23 00 00, contact: deborah.oughton@nmbu.no , <http://www.nmbu.no>

Tel.:

Partner 23 RIVM

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	N
at a later stage	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Potential Linked Third Parties to RIVM

To be included at a later stage:

RIVM is not involving any Linked Third Parties in the beginning of the CONCERT project but foresees this possibility in the later stages of CONCERT, in Calls organised by CONCERT, or other H2020 projects.

In particular, the following universities have long-term cooperation links with RIVM:

Erasmus MC, Rotterdam:

Mail address: Postbus 2040, 3000 CA Rotterdam

Leiden University Medical Center (LUMC), Leiden:

Correspondence address: P.O. Box 9600, 2300 RC Leiden, The Netherlands Street address: Einthovenweg 20, 2333 ZC Leiden; Tel. +31 71 526 91 11

Partner 26 Statni ustav radiacni ochrany (SURO) Czech Republic

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTPs are research partners of SURO in its function as national radiation protection research programme manager.</i></p> <p><i>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarised in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP2, WP3, WP5, WP6 and WP7.</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to SURO

Ústav jaderné fyziky AV ČR, v. v. i. - Nuclear Physics Institute of the Czech academy of science,

Department of Radiation Dosimetry (UJF) Czech Republic, CZ-250 68, Rez; E-mail: ujf@ujf.cas.cz;

Website: <http://www.ujf.cas.cz>

Contact. Dr. Marie Davidková, Ph.D. davidkova@ujf.cas.cz

NRI UJV-REZ a.s. Mr. Vladimír Fišer, UJV Rez, a. s., Hlavní 130 - Rez, 250 68 Husinec, Czech Republic, Tel: 420 2 6617 2000

Potential Linked Third Parties to SUROTo be included at a later stage:

JIHOESKA UNIVERZITA V CESKYCH BUDEJOVICICH (JCU) Branišovská 1160/31a, 370 05 České Budějovice, Tschechische Republik; contact: Friedo Zoelzer zoelzer@zsf.jcu.cz

Partner 27: Institutul de Fizică Atomică (IFA, Romania)

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTPs are research partners of IFA in its function as national radiation protection research programme manager.</i></p> <p><i>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP2, WP3, WP5, WP6 and WP7.</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to IFA-MG:

Horia Hulubei National R&D Institute for Physics and Nuclear Engineering (IFIN-HH), Str. Reactorului no.30, P.O.BOX MG-6, Bucharest-Magurele, Romania, Tel.: +(4021) 404.23.00 Webpage: <http://www.nipne.ro/> Contact person: Ana Stochioiu stoc@nipne.ro

Potential Linked Third Parties to IFA-MGTo be included at a later stage:

National R&D Institute for Laser, Plasma and Radiation Physics (INFLPR), Str. Atomistilor, Nr. 409, Box MG-36, 077125, Magurele, Bucharest, Romania, Tel.: +40-21-4574550. Webpage <http://www.inflpr.ro/> Contact person: Cătălin Ticoș catalin.ticos@inflpr.ro PO

National R&D Institute for Materials Physics (INCDPM), Atomistilor Str., No. 105 bis PO Box 7, 077125, Magurele, Romania, Tel.: +40-(0)21-3690185. Webpage: <http://www.infim.ro/> Contact person: Andrei Gălățanu gala@infim.ro MG

National R&D Institute for Isotopic and Molecular Technologies (INCDTIM), 67-103 Donat, PO 5 700, 400293 Cluj-Napoca, România, Tel.: +40 264 58 40 37. Webpage: <http://www.itim-cj.ro/en/index.php>; Contact person: Claudiu Filip claudiu.filip@itim-cj.ro

Grigore Antipa National Institute for Marine Research and Development (ICDM-NIMRD), Blvd Mamaia no. 300, Constanta 3, RO-900581, România, Tel.: +40 241 543288, +40 241 540870. Webpage: <http://www.rmri.ro/Home/Home.html?lang=en>; Contact person: Vasile Pătraşcu vpatrascu@alpha.rmri.ro

University of Bucharest, Faculty of Physics (UNIBUC), CP MG - 11, Bucuresti-Magurele, RO – 077125 Romania, Tel.: 4 021 457 4949 contact: secretariat@fizica.unibuc.ro, Web page: <http://www.fizica.unibuc.ro/> Contact person: Ionel Lazanu ionel.lazanu@g.unibuc.ro

State Owned Company “Technologies for Nuclear Energy” (**RATEN**), with the two subsidiaries:
Institute for Nuclear Research (RATEN-ICN [Piteşti]), Campului Str., Nr. 1, POB 78, 115400 - Mioveni, Arges, Romania, Tel.: + 40 248 21.34.00, contact: office@nuclear.ro, office_adj@nuclear.ro, Web page: <http://www.nuclear.ro/en/index.php>, Contact person: Alexandru Toma alexandru.toma@nuclear.ro

Center of Technology and Engineering for Nuclear Projects (RATEN-CITON), 409, Atomistilor Street, Magurele, Judet Ilfov, Romania, Tel.: 021-45 744 31 Contact Person: Adrian Rizea (rizeaa@router.citon.ro), contact: citon@router.citon.ro, Web page: http://www.citon.ro/english_index.html, Contact person: Gabriela Florescu <florescu@router.citon.ro>

Politehnica of Bucharest, Faculty of Applied Sciences (UPB), Splaiul Independentei nr. 313, sector 6, Bucuresti, Romania, Postal cod: RO-060042, Tel.: + 4021-402 98 72, contact: e_nedelcu@rektorat.pub.ro, Contact person: Ana Maria Popovici popovici@physics.pub.ro Web page: <http://www.upb.ro/en/the-faculty-of-applied-sciences.html>

Babeş-Bolyai University, Faculty of Physics (UBB-FF), 1 Mihail Kogălniceanu street, 400084 Cluj- Napoca, Tel: + 40 (264) 405300, contact: phys@phys.ubbcluj.ro, Contact person: Decebal-Radu <dr.ciurchea@academic.ro> Web page: http://phys.ubbcluj.ro/index_en.htm

Partner 28: Greek Atomic Energy Commission (EEAE)

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTPs are research partners of IFA in its function as national radiation protection research programme manager.</i></p> <p><i>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programing and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTP have special expertise and competence for input in the CONCERT joint</i></p>	

<i>programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP2, WP3.</i>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to EEAE:

National Centre for Scientific Research “Demokritos” (NCSR) Patr. Gregoriou E' & 27, Neapoleos str., PO Box 60037, Postal Code 153 41, Agia Paraskevi, Attica, Greece
Contact: Dr. Nikolaos Kanellopoulos, Chairman of the Board and Director of NCSR;
 E-mail president@central.demokritos.gr

Partner 32 University of Latvia (UL)

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	N
<i>If yes, describe and justify the tasks to be subcontracted</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p>The LTPs are research partners of JSI in its function as national radiation protection research programme manager.</p> <p>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTPs have special expertise and competence for input in the CONCERT joint programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP2 and WP3.</p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to UL:

Riga Technical University (RTU) Faculty of Machinery, Transport and Aeronautics Institute of Biomedical Engineering and Nanotechnologies; KALKU IELA 1, Riga LV-1658, Latvia, director Prof. Yuri Dekhtyar,
 Contact Prof. Aldis Balodis [/Aldis.Balodis@rtu.lv](mailto:Aldis.Balodis@rtu.lv)

Partner 37 INSTITUT JOZEF STEFAN (JSI)

Does the participant plan to subcontract certain tasks (please note that core tasks of the programme should not be sub-contracted) (article 13 of MGA)	Y
<i>The Slovenian POM (JSI) subcontracts EIVM able to carry out the envisaged CONCERT tasks in WP9.</i>	
Does the participant envisage that part of its work is performed by linked third parties (article 14 of MGA)	Y
<p><i>The LTPs are research partners of JSI in its function as national radiation protection research programme manager.</i></p> <p><i>In WP 2, WP 3, WP5, WP6, WP7 and WP9 of the CONCERT joint programming and integrative activities input is required that cannot be covered by the national PM in total. Additional expertise and competence is provided by the LTPs. If the input provided per LTP is less than 0.1 person-month it is not specified in detail and summarized in the amount given for the participant, in case of higher input it is given separately. The LTPs have special expertise and competence for input in the CONCERT joint programming or integrative activities. Their contribution is expert input in the tasks and deliverables of WP3 (FSS), and WP9 (REC).</i></p>	
Does the participant envisage the use of in-kind contribution provided by third parties (articles 11 and 12 of MGA)	N
<i>If yes, describe the third party and their contributions</i>	
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)	Y
<i>Please refer to 3.5 Financial support to third parties</i>	

Linked Third Parties to JSI:**Univerza V Ljubljani (UL) - Department: Faculty of Social Sciences (FSS)**

Kardeljeva ploščad 5; 1000 Ljubljana, Slovenia,

Contact: Prof. dr. Ivan Svetlik, Rector is.jl-inu.vdf@kiltevs.navi**Regional Environmental Centre (REC) Regional Environmental Center, Country Office;**

Ljubljana; Slovenska 5; 1000 Ljubljana

Contact: dr. Nadja Železnik NZeleznik@rec.org

Remaining CONCERT consortium partners

4	ANR	The French National Research Agency	FR
7	UniPv	University Pavia	IT
8	MELODI	MELODI Research Platform	FR
13	SSM	STRALSAKERHETSMYNDIGHSETEN	S
15	NRIRR (OSSKI)	ORSZAGOS FREDERIC JOLIOT-CURIE SUGARBIOLOGIAI ES SUGAREGESZSEGUGYI KUTATO INTEZET	HU
16	MTA EK	MAGYAR TUDOMANYOS AKADEMIA ENERGIATUDOMANYI KUTATOKOZPONT	HU
17	NCRRP	NATIONAL CENTRE OF RADIOBIOLOGY AND RADIATION PROTECTION	BG
19	MUW	MEDIZINISCHE UNIVERSITAET WIEN	AT
20	ENEA	AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	IT
21	ISS	ISTITUTO SUPERIORE DI SANITA	IT
24	FCT	FUNDACAO PARA A CIENCIA E A TECNOLOGIA	PT
25	IMROH	Institut za medicinska istrazivanja i medicinu rada	HR
29	VUJE	VUJE AS	SK
30	UT	TARTU ULIKOOL	EE
31	RSC	RADIACINES SAUGOS CENTRAS	LT
33	UEF	ITA-SUOMEN YLIOPISTO	FI
34	GIG	GLOWNY INSTYTUT GORNICTWA	PL
35	MINECO	MINISTERIO DE ECONOMIA Y COMPETITIVIDAD	ES
36	APA	Agencia Portuguesa do Ambiente, I.P.	PT
38	FOPH	EIDGENOESSISCHES DEPARTEMENT DES INNERN	CH
39	EPA	Environmental Protection Agency	IE
Does the participant envisage the provision of financial support to third parties (article 15 of MGA)			Y
<i>Please refer to 3.5 Financial support to third parties</i>			

List of participants and their assignment to tasks

No	Participant Status	Participant organization name	Country	WP/ Task
1	Coordinator, WP 1 Leader and PM	Bundesamt für Strahlenschutz, BfS	Germany	WP 1/ Task 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9 WP 2/ Task 2.1, 2.2, 2.5, 2.7, WP 3/ Task 3.1; 3.2 WP 6/ Task 6.2.1 WP 7/ Task 7.4 WP 9/ Task 9.1/9.3/9.4
2	PM	STUK	Finland	WP 2/ Task 2.1, 2.2, 2.3, 2.5, 2.7 WP 3/Task 3.2 WP 5 WP 6 WP 7/ Task 7.2, 7.3, 7.4 WP 9/ Task 9.1/9.3
3	WP 3 Leader and PM	SCK-CEN	Belgium	WP 1/ Task 1.8 WP 2/ Task 2.2, 2.3, 2.4, 2.6 WP 3/ Task 3.2 WP 5 WP 6 WP 7/ Task 7.1, 7.2, 7.3, 7.4 WP 9/ Task 9.1/ 9.3/ 9.4/ 9.6/ 9.9
4	WP 4 Leader and PM	ANR	France	WP 1/ Task 1.5 WP 3/Task 3.2 WP 4/ Task 4.1, 4.2, 4.3, 4.4
5	WP 5 Leader and PM	DH (PHE)	UK	WP 1/ Task 1.8 WP 2/ Task 2.1, 2.3 WP 3/Task 3.2 WP 5/ Task 5.1, 5.4 WP 9/ Task 9.1/ 9.2/ 9.3/ 9.5/ 9.6
	<i>LTP to PHE</i>	<i>DurhamUni</i>	<i>UK</i>	<i>WP 9/ Task 9.2</i>
	<i>LTP to PHE</i>	<i>· MetOffice</i>	<i>UK</i>	<i>WP 9/ Task 9.1</i>
	<i>LTP to PHE</i>	<i>· OBU</i>	<i>UK</i>	<i>WP 9/ Task 9.2/ 9.7</i>
	<i>LTP to PHE</i>	<i>· WarwickUni</i>	<i>UK</i>	<i>WP 9/ Task 9.3</i>
6	WP 6 Leader and PM	CEA	France	WP 2/ Task 2.2 WP 3/Task 3.2 WP 6/ Task 6.1.3, 6.2.4, 6.3 WP 7/ Task 7.2, 7.3, 7.4, 7.5 WP 9/ Task 9.9
7	WP 7 Leader and PM	UniPv	Italy	WP 2/ Task 2.5 WP 3/Task 3.2 WP 6 WP 7/ Task 7.1, 7.2, 7.3, 7.4, 7.5
8	Research Platform	MELODI	Europe	WP 2/ Task 2.1 WP 3/Task 3.2., 3.3 WP 5
8.1	<i>LTP to MELODI</i>	<i>Stockholm University (SU)</i>	<i>Sweden</i>	<i>WP 2</i> <i>WP 3/Task 3.2</i> <i>WP 6</i> <i>WP 7/ Task 7.1, 7.2, 7.3</i>

9	Research Platform	ALLIANCE	Europe	WP 2/ Task 2.2 WP 3/Task 3.2 WP 5
	<i>LTP to ALLIANCE</i>	CEH		WP 9/ Task 9.1
10	Research Platform	NERIS	Europe	WP 2/ Task 2.3 WP 3/Task 3.2 WP 5
	<i>LTP to NERIS</i>	<i>Università degli studi di Milano (UMIL)</i>	<i>Italy</i>	<i>WP 2/ Task 2.6 WP 3/Task 3.2 WP 9/ Task 9.1/ 9.4</i>
	<i>LTP to NERIS</i>	<i>Technical University of Denmark (DTU)</i>	<i>Denmark</i>	<i>WP 2/ Task 2.3 WP 3/Task 3.2 WP 9/ Task 9.1</i>
	<i>LTP to NERIS</i>	MUTADIS	France	WP 2/ Task 2.6 WP 3/Task 3.2 WP 9/ Task 9.1/ 9.3
11	Research Platform	EURADOS	Europe	WP 2/ Task 2.4 WP 3/Task 3.2 WP 5 WP 7
	<i>LTP to EURADOS</i>	<i>Physikalisch-Technische Bundesanstalt (PTB),</i>	<i>Germany</i>	<i>WP 2/ Task 2.4 WP 3/Task 3.2</i>
	<i>LTP to EURADOS</i>	<i>Instituto Superior Técnico (IST)</i>	<i>Portugal</i>	<i>WP 7/ Task 7.1, 7.4, 7.5 WP 3/Task 3.2 WP 9/ Task 9.1</i>
	<i>LTP to EURADOS</i>	<i>Institut Ruđer Bošković (RBI)</i>	<i>Croatia</i>	<i>WP 3/Task 3.2 WP 9/ Task 9.9</i>
	<i>LTP to EURADOS</i>	<i>Instytut Fizyki Jądrowej (IFJ PAN)</i>	<i>Poland</i>	<i>WP 2/ Task 2.4 WP 3/Task 3.2</i>
	<i>LTP to EURADOS</i>	<i>Seibersdorf Laboratory (SL)</i>	<i>Austria</i>	<i>WP 2/ Task 2.4 WP 3/Task 3.2</i>
12	PM	IRSN	France	WP 2/ Task 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7 WP 3/Task 3.2 WP 5/ Task 5.2 WP 6 WP 7 WP 9/ Task 9.1/ 9.3/ 9.4/ 9.8
	<i>LTP to IRSN</i>	<i>European Nuclear Safety Training und Tutoring Institute (ENSTTI)</i>	<i>France</i>	<i>WP 7/ Task 7.4 WP 3/Task 3.2</i>
	<i>LTP to IRSN</i>	<i>Centre d'étude sur l'Evaluation de la Protection dans le domaine Nucléaire (CEPN)</i>	<i>France</i>	<i>WP 2/ Task 2.3, 2.6 WP 3/Task 3.2 WP 9/ Task 9.1/ 9.3/ 9.4/ 9.8</i>
13	PM	SSM	Sweden	WP 2 WP 3/Task 3.2 WP 4 WP 6 WP 7

14	PM	CIEMAT	Spain	WP 2/ Task 2.2, 2.3 WP 3/Task 3.2 WP 6 WP 7/ Task 7.5 WP 9/ Task 9.1/ 9.3
	<i>LTP to CIEMAT</i>	<i>Barcelona Institute for Global Health, ISGlobal</i>	<i>Spain</i>	<i>WP 2/ Task 2.1, 2.5 WP 3/Task 3.2 WP 7/ Task 7.2, 7.3, 7.4 WP 9/ Task 9.4/ 9.8</i>
15	PM	NRIRR (OKI)	Hungary	WP 2/ Task 2.7 WP 3/Task 3.2 WP 7/ Task 7.1, 7.2, 7.3, 7.4, 7.5 WP 9/ Task 9.5
16	PM	MTA EK	Hungary	WP 2/ Task 2.1 WP 3/Task 3.2 WP 6 WP 7/ Task 7.1, 7.2, 7.3, 7.4, 7.5 WP 9/ Task 9.
17	PM	NCRRP	Bulgaria	WP 2 WP 3/Task 3.2 WP 6 WP 7/ Task 7.2, 7.3, 7.5
18	PM	HMGU	Germany	WP 2/ Task 2.1, 2.2, 2.4 WP 3/Task 3.2WP 6 WP 7/ Task 7.1, 7.3, 7.4, 7.5 WP 9/ Task 9.1/ 9.2/ 9.5/ 9.6/ 9.7
	<i>LTP to HMGU</i>	<i>GSI Helmholtzzentrum für Schwerionenforschung (GSI)</i>	<i>Germany</i>	<i>WP 6 WP 3/Task 3.2</i>
	<i>LTP to HMGU</i>	<i>Forschungszentrum Jülich (Jülich)</i>	<i>Germany</i>	<i>WP 3/Task 3.2 WP 7/Task 7.2</i>
	<i>LTP to HMGU</i>	<i>Helmholtz-Zentrum Dresden-Rossendorf (HZDR),</i>	<i>Germany</i>	<i>WP 2/ Task 2.2 WP 3/Task 3.2</i>
	<i>LTP to HMGU</i>	<i>Karlsruher Institut für Technologie (KIT)</i>	<i>Germany</i>	<i>WP 2/ Task 2.3 WP 3/Task 3.2 WP 6 WP 9/ Task 9.1</i>
19	PM	MUW	Austria	WP 2/ Task 2.5 WP 3/Task 3.2 WP 7
20	PM	ENEA	Italy	WP 2/ Task 2.1, 2.4 WP 3/Task 3.2 WP 7/ Task 7.4, WP 9/ Task 9.2/ 9.7
21	PM	ISS	Italy	WP 2/ Task 2.4, 2.5, 2.6, 2.7 WP 3/Task 3.2 WP 5/ Task 5.3 WP 6 WP 9/ Task 9.8

22	PM	NRPA	Norway	WP 2/ Task 2.3, 2.5, 2.6 WP 3/Task 3.2 WP 5 WP 6 WP 7 WP 9/ Task 9.1/ 9.3
	<i>LTP to NRPA</i>	<i>Norwegian University of Life Sciences (NMBU)</i>	<i>Norway</i>	<i>WP 2/ Task 2.6 WP 3/Task 3.2 WP 5 WP 6/ Task 6.1 WP 7/ Task 7.1, 7.2, 7.3, 7.4, 7.5 WP 9/ Task 9.1/ 9.3/ 9.8</i>
23	PM	RIVM	Netherlands	WP 2/ Task 2.7 WP 3/Task 3.2 WP 6/ Task 6.2 WP 9/ Task 9.1
24	PM	FCT	Portugal	WP 1/ Task 1.7 WP 3/Task 3.2 WP 4
25	PM	IMROH	Croatia	WP 1/ Task 1.7 WP 2/ Task 2.6, 2.7 WP 3/Task 3.2 WP 7/ Task 7.4, 7.5
26	PM	SURO	Czech Republic	WP 2 WP 3/Task 3.2 WP 6
	<i>LTP to SURO</i>	<i>Czech Technical University in Prague (CTU)</i>	<i>Czech Republic</i>	<i>WP 2/ Task 2.1, 2.5 WP 3/Task 3.2 WP 6 WP 3/Task 3.2</i>
	<i>LTP to SURO</i>	<i>NRI (UJV)</i>	<i>Czech Republic</i>	<i>WP 2/Task 2.7 WP 3/Task 3.2</i>
27	PM	IFA_MG	Romania	WP 2 WP 3/Task 3.2 WP 7
	<i>LTP to IFA</i>	<i>Horia Hulubei National RTD Institute for Physics and Nuclear Engineering (IFIN-HH)</i>	<i>Romania</i>	<i>WP 3/Task 3.2 WP 9/ Task 9.4</i>
28	PM	EEAE	Greece	WP 2/ Task 2.6 WP 3/Task 3.2 WP 6 WP 7/ Task 7.4 WP 9/ Task 9.1/ 9.4/ 9.6/.9.9
29	PM	VUJE	Slovak Republic	WP 1/ Task 1.7 WP 2/ Task 2.3, 2.6, 2.7 WP 3/Task 3.2 WP 5 WP 7/ Task 7.2, 7.4, 7.5 WP 9/ Task 9.1/ 9.4
30	POM	UT	Estonia	WP 1/ Task 1.7 WP 2/ Task 2.7

				WP 3/Task 3.2 WP 7/ Task 7.1, 7.4, 7.5 WP 9/ Task 9.3
31	PM	RSC	Lithuania	WP 1/ Task 1.7 WP 2 WP 3/Task 3.2
32	POM	UL	Latvia	WP 2/T2.2 WP 5/ T5.3 WP 6/T 6.3
33	WP 2 Leader and PM	UEF	Finland	WP2 WP 3/Task 3.2 WP5 WP 6/ Task 6.2.1 WP 7/ Task 7.4
34	PM	GIG	Poland	WP2 WP 3/Task 3.2 WP6
35	POM	MINECO	Spain	WP4
36	POM	APA	Portugal	WP2 WP 3/Task 3.2 WP 9/ Task 9.1
37	PM	JSI	Slovenia	WP2 WP 3/Task 3.2 WP 9/ Task 9.4
	<i>LTP to JSI</i>	<i>REC</i>	<i>Slovenia</i>	<i>WP 9/ Task 9.1</i>
38	POM	FOPH	Switzerland	WP2 WP 3/Task 3.2 WP 9/ Task 9.4
39	POM	EPA	Ireland	WP2 WP 3/Task 3.2

1.1.12 List of programmed activities (table 2.3.b)

AWP Set of Activities

Activity No	Activity Title	Lead Participant No	Short name of lead participant	Person-Months Total for this activity	Start Month	End month
WP 1						
1.1	Overall legal, contractual, administrative management and financial management	1	BfS	30	37	48
1.2	Consortium, Executive and Management Board meetings	1	BfS	3,95	37	48
1.3	Updating the rolling annual work plan	1	BfS	3,95	37	48
1.4	External Scientific Advisory Board (ESAB) for the evaluation of CONCERT	1	BfS	3,95	37	48
1.5	Negotiation of projects to be funded through open RTD calls	1	BfS	4,55	37	48
1.6	Funding decision process for integration activities listed in the approved annual work programme	1	BfS	2,95	37	48
1.7	Attracting new members to the CONCERT EJP Consortium	27	IFA	3,10	37	48
1.8	Public CONCERT web page and a secure internal web-based work space	1	BfS	2,80	37	48
1.9	Establishment of an expert database for the reviewing processes of CONCERT	8	MELODI	1,45	37	48
			Total WP1	56,68		
WP 2						
2.1	Development of Strategic Research Agenda, roadmap and priorities for research on low dose risk	8	MELODI	7,32	37	48
2.2	Development of Strategic Research Agenda, roadmap and priorities for research on radioecology	9	ALLIANCE	6,17	37	48
2.3	Development of Strategic Research Agenda, roadmap and priorities for research on emergency preparedness and response	10	NERIS	7,08	37	48
2.4	Development of Strategic Research Agenda, roadmap and priorities for research on dosimetry	11	EURADOS	4,37	37	48
2.5	Development of Strategic Research Agenda, roadmap and priorities for research with the medical scientific community	1+7	BfS + UniPv	4,52	37	48
2.6	Creating a Strategic Research Agenda on Social Sciences, humanities and Safety Culture in Radiation Protection	3	SCK-CEN	5	37	48

2.7	Research and innovation supporting the implementation of the revised European Basic Safety Standards	15	NRIRR	5,64	37	48
			Total WP2	40,10		
WP3						
3.1	Integration of SRAs and priorities from platforms and national programmes (M1)	1	BfS	5,50	37	48
3.2	Joint priority setting of research and integrative activities; deliverable to WP4	3	SCK-CEN	5,50	37	48
3.3	Joint programming for a long term strategy of RP research in EUROPE	8	MELODI	5,50	37	48
			Total WP3	16,49		
WP4						
4.1	Set up Call Steering Committee (CSC) and Joint Call Secretariat (JCS).	4	ANR			
4.2	Identification of indicators to assess the efficiency of JTC	4	ANR	1,43	37	48
4.3	Implementation of the open call	4	ANR			
4.4	Monitoring of the calls and the funded projects	4	ANR	3,5	37	48
			Total WP4	4,93		
WP5						
5.1	Strategy for public and societal stakeholder engagement (5	DH-PHE	7,85	37	48
5.2	Establish a stakeholder group	12	IRSN	1,25	37	48
5.3	Interaction with the civil society, including use of social media for stakeholder communication	12	ISS	1,35	37	48
5.4	Development of general and specialist information for the CONCERT website	5	DH-PHE	7,85	37	48
			Total WP5	18,32		
WP6						
6.1	Promote the visibility of key research infrastructures for R/D	29	NMBU	6,45	25	36
6.2	Harmonize Practices and protocols	23	RIVM	3,12	25	36
6.3	Strategy for facilitating access to infrastructures	6	CEA	4,05	25	36
			Total WP6	13,62		
WP7						
7.1	Attracting and retaining students and junior scientists into the Radiation Protection research fields	49	SU	3,36	25	36

7.2	Education and training as an essential part of dissemination and knowledge management within CONCERT	15	NRIRR	2,76	25	36
7.3	Targeted E&T initiatives	7	UniPv	2,88	25	36
7.4	Coordination and collaboration on E&T policy and strategy	3	SCK•CEN	4,07	25	36
7.5	European integration of junior scientist career development	18	HMGU	2,86	25	36
			Total WP7	15,93		
			Total Months ALL	166,07		

Activity No	Activity Title		Total Person-Months of CONCERT POMs and LTPs active in the respective activity		Start Month	End month
WP9					entire term of respective project	
9.1	CONFIDENCE			537,15	20	55
9.2	LDLensRad			336,5	20	55
9.3	TERRITORIES			374,45	20	55
9.4	ENGAGE			70,80	30	54
9.5	LEU-TRACK			134,8	29	56
9.6	PODIUM			103,65	32	55
9.7	SEPARATE			127	29	56
9.8	SHAMISEN-SINGS			58,65	29	55
9.9	VERIDIC			23,50	33	56
				1766,50		

1.1.13 Annual Deliverables List (table 2.3.c)

- All WP9 deliverables (D9.xy) with due date M31-M35 are listed since newly introduced and not covered in the 3rd AWP (M25-M36)
- D4.9 Newly introduced deliverable in WP4 as per request by the EC

Deliverable No	Deliverable Name	Lead Beneficiary	Type	Dissemination Level	Due Date (months)
D9.1	Guideline ranking uncertainties for atmospheric dispersion	IRSN	R	PU	31
D9.19	Structured communication technique results	CIEMAT	R	PU	31
D9.52	Progress summary and actions-1st year	DH	R	PU	31
D9.55	Year 1 advisory panel report	DH	R	PU	31
D9.75	After each training_1st year	CIEMAT	R	PU	31
D9.80	Project website	SCK-CEN	DEC	PU	31
D9.130	Stakeholder consultation report with needs, requirements for future tools	CIEMAT	R	PU	31
D9.101	Report listing all requirements of the software	SCK-CEN	R	PU	32
D9.81	Establishment of the management and advisory structures of ENGAGE	SCK-CEN	R	PU	33
D4.9	Researches funded under the two CONCERT calls	ANR	R	PU	34
D9.102	Detailed specification of the fields to be used	DH	R	PU	34
D9.122	Irradiation and dosimetry procedures	ENEA	R	PU	34
D9.131	Project website with intranet for Partners	CIEMAT	DEC	PU	34
D9.26	Paper on planned behaviour in nuclear emergency situations	SCK-CEN	R	PU	35
D9.33	Indicators for robust decision making	HMGU	R	PU	35
CONCERT M37-M48 (4th year deliverables)					
D9.11	Report on a workshop for integration of biodosimetry into emergency response	BFS	R	PU	37

D9.25	Report on case studies of nuclear and radiological events	NRPA	R	PU	37
D9.34	Improved MCDA tool for decision making under uncertainty for panels	HMGU	OTHER	PU	37
D9.103	An IPS based on an infrared reflection time-of-flight sensor camera together with the corresponding software	SCK-CEN	OTHER	PU	37
D9.132	Review of applications for citizen health and welfare assessment	CIEMAT	R	PU	37
D9.8	Database of smartphone app / dosimeter evaluation	HMGU	OTHER	PU	39
D9.20	Addressing the uncertainties in urban/inhabited scenarios	CIEMAT	R	PU	39
D9.21	Addressing the uncertainties in agricultural scenarios	CIEMAT	R	PU	39
D9.82	Report on key challenges and best practice for stakeholder engagement	BFS	R	PU	39
D9.104	Database of phantoms of different statures and postures	HMGU	OTHER	PU	40
D9.123	Completion of PBI/TBI	ENEA	R	PU	40
D9.133	Review of applications and devices for citizen dose measurement	ISS	R	PU	40
D9.141	Standards for digital dose reporting	SCK-CEN	R	PU	42
D9.4	Published sets of probability maps of threshold exceedance for scenarios provided to WP4, WP5 & WP6-->02	IRSN	R	PU	43
D9.9	Prototype of processing unit for thyroid dose monitor	CIEMAT	DEM	PU	43
D9.13	Improving models and learning from post-Fukushima studies	DH	R	PU	43
D9.35	ABM tool with artificial intelligence to compare decision strategies for panels	HMGU	OTHER	PU	43
D9.53	Progress summary and actions-2nd year	DH	R	PU	43
D9.56	Year 2 advisory panel report	DH	R	PU	43
D9.74	After each training_2nd year	CIEMAT	R	PU	43

D9.105	An IPS based on a developed camera network system and the multi-image acquisition computer system with the corresponding software	SCK-CEN	OTHER	PU	43
D9.106	Guidelines for implementing the workplace geometry and the radiation field map in the dosimetry application	SCK-CEN	R	PU	43
D9.107	Prototype of fast MC real time radiation dose estimate application to be tested in hospitals	HMGU	DEM	PU	43
D9.108	Report summarizing the feasibility of the methods, and the accuracy of personal dosimetry in a simple scenario	DH	R	PU	43
D9.22	Compilation of national stakeholder panel reports	CIEMAT	R	PU	44
D9.60	Guidance to reduce sampling uncertainty	CIEMAT	R	PU	44
D9.109	First annual progress report	SCK-CEN	R	PU	44
D1.4	Fourth periodic report and draft annual work plan to the EC in accordance with the provisions of the consortium contract	BFS	R	PU	45
D3.5	If extra funding is available: Fourth Annual Joint Priority List	SCK-CEN	R	PU	45
D9.110	Report with a documented test of concept in an experimental set-up	SCK-CEN	R	PU	45
D9.14	Published dataset on transfer in Mediterranean ecosystems	CIEMAT	R	PU	46
D9.83	Preliminary report on case studies	IRSN	R	PU	46
D9.84	Stakeholder Workshop	IRSN	OTHER	PU	46
D9.124	Characterisation of exosomes from control, irradiated and shielded tissues	ENEA	R	PU	46
D9.125	Progress report from 1st Periodic Meeting of SEPARATE	ENEA	R	PU	46
D9.134	Stakeholders feedback report on proposed tools and protocols	CIEMAT	R	PU	46

D9.135	Consensus workshop report on ethical issues	NRPA	R	PU	46
D9.62	Methodology to quantify improvement	UT	OTHER	PU	47
D3.7	Second joint Roadmap	SCK-CEN	R	PU	48
D6.5	Report on integration of archive materials in STORE/ Radioecology data bases	CEA	R	PU	48
D7.4	4th Annual report on awards and grants given	UNIPV	R	PU	48
D7.8	2nd Report on E&T activities such as student placement, courses seminars, workshops, etc. in RTD Call 2	UNIPV	R	PU	48
D7.12	4th Annual report on E&T initiative funded under Task 7.3, including participant feedback and recommendations for next calls	UNIPV	R	PU	48
D9.85	Report on rationales and frameworks for stakeholder engagement in radiation protection in the medical field (part 1), nuclear emergency and recovery preparedness and response (part 2) and indoor radon exposure (part3)	JSI	R	PU	48
D9.95	Evaluating radiation effects on EV phenotype and cargo	DH	R	PU	48

[Resources to be committed](#)

1.1.14 Summary effort table (Table 2.3.d)

		Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 6	Activity 7	Activity 8	Activity 9	Total Person/ Months per Participant
WP1											
1	BfS	30,00	3,50	3,50	3,50	3,50	2,50	1,50	2,00	1,00	51,00
2	STUK		0,03	0,03	0,03	0,03	0,03			0,03	0,17
3	SCK•CEN								0,60		0,60
4	ANR					0,60					0,60
5	DH-PHE								0,20		0,20
6	CEA		0,02	0,02	0,02	0,02	0,02			0,02	0,10
7	UniPv		0,02	0,02	0,02	0,02	0,02			0,02	0,10
12	IRSN		0,02	0,02	0,02	0,02	0,02			0,02	0,10
13	SSM		0,02	0,02	0,02	0,02	0,02			0,02	0,10
14	Ciemat		0,02	0,02	0,02	0,02	0,02			0,02	0,10
15	NRIRR		0,02	0,02	0,02	0,02	0,02			0,02	0,10
16	MTA EK		0,02	0,02	0,02	0,02	0,02			0,02	0,10
17	NCRRP		0,02	0,02	0,02	0,02	0,02			0,02	0,10
18	HMGU		0,02	0,02	0,02	0,02	0,02			0,02	0,10
19	MUW		0,02	0,02	0,02	0,02	0,02			0,02	0,10
20	ENEA		0,03	0,03	0,03	0,03	0,03			0,03	0,16
21	ISS		0,02	0,02	0,02	0,02	0,02			0,02	0,10
22	NRPA		0,02	0,02	0,02	0,02	0,02			0,02	0,10
23	RIVM		0,02	0,02	0,02	0,02	0,02			0,02	0,10
24	FTC							0,20			0,20
25	IMROH							0,20			0,20
26	SURO		0,02	0,02	0,02	0,02	0,02			0,02	0,10
27	IFA							0,60			0,60
28	EEAE		0,02	0,02	0,02	0,02	0,02			0,02	0,10
29	VUJE							0,20			0,20
30	UT							0,20			0,20
31	RSC							0,20			0,20
32	UL		0,02	0,02	0,02	0,02	0,02			0,02	0,10
33	UEF		0,04	0,04	0,04	0,04	0,04			0,04	0,23
34	GIG		0,02	0,02	0,02	0,02	0,02			0,02	0,13
35	MINECO		0,02	0,02	0,02	0,02	0,02			0,02	0,13
36	APA		0,02	0,02	0,02	0,02	0,02			0,02	0,13
37	JSI		0,02	0,02	0,02	0,02	0,02			0,02	0,13
38	FOPH										0,00
39	EPA										0,00

		Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 6	Activity 7	Activity 8	Activity 9	Total Person/ Months per Participant
WP2											
33	UEF	0,80	0,80	0,80		0,80		0,80			4,00
1	BfS	0,75	0,75	0,75		0,75	0,75	0,75			4,50
2	STUK	0,40	0,40	0,40		0,40		0,40			1,99
	· UTA	0,20									0,20
3	SCK•CEN		1,13	1,13	1,13		1,13				4,50
5	DH-PHE	0,48		0,48	0,48						1,45
6	CEA	0,30	0,30								0,60
7	UniPv	1,05				1,05					2,10
8	MELODI										
	· SU	0,20									0,20
9	ALLIANCE										
	· CEH										
10	NERIS										
	· DTU			0,20							0,20
	· MUTADIS			0,20			0,20				0,40
	· UMIL						0,20				0,20
11	EURADOS										
	· PTB				0,20						0,20
	· IST				0,20						0,20
	· RBI				0,20						0,20
	· IFJ PAN				0,20						0,20
	· SL				0,20						0,20
12	IRSN	0,52	0,52	0,52	0,52	0,52	0,52	0,52			3,67
	· CEPN			1,00			1,00				2,00
14	CIEMAT		1,00	0,20	0,20						1,40
	· ISGlobal	0,20				0,20					0,40
15	NRIRR							1,50			1,50
16	MTA EK	0,50									0,50
18	HMGU	0,57	0,57		0,57						1,70
	· KIT			1,00							1,00
	· HZDR		0,50								0,50
19	MUW					0,20					0,20
20	ENEA	0,27			0,27						0,54
21	ISS				0,20	0,20	0,20	0,20			0,80
22	NRPA			0,20		0,20	0,20				0,60
	· NMBU-IMT						0,20				0,20
23	RIVM							0,20			0,20
25	IMROH						0,20	0,20			0,40

26	SURO										
	· CTU	0,20				0,20					0,40
	· NRI							0,20			0,20
	· UJF	0,60									0,60
28	EEAE						0,20				0,20
	· NCSRD	0,25									0,25
29	VUJE			0,20			0,20	0,20			0,60
30	UT							0,20			0,20
32	UL		0,20								0,20
	· RTU	0,03									0,03
34	GIG							0,13			0,13
36	APA							0,33			0,33
WP3											
1	BFS	0,20	0,20	0,20							0,60
2	STUK	0,03	0,03	0,03							0,10
	· UTA	0,07	0,07	0,07							0,20
3	SCK-CEN	1,60	1,60	1,60							4,80
4	ANR	0,01	0,01	0,01							0,02
5	DH-PHE	0,48	0,48	0,48							1,45
	· DurhamUni										
	· MetOffice										
	· OBU										
	· WarwickUni										
6	CEA	0,15	0,15	0,15							0,44
7	UNIPV	0,15	0,15	0,15							0,44
8	MELODI										
	· SU	0,01	0,01	0,01							0,02
9	ALLIANCE										
	· CEH										
10	NERIS										
	· DTU	0,01	0,01	0,01							0,02
	· MUTADIS	0,01	0,01	0,01							0,02
	· UMIL	0,01	0,01	0,01							0,02
11	EURADOS										
	· PTB	0,01	0,01	0,01							0,02
	· IST	0,01	0,01	0,01							0,02
	· RBI	0,01	0,01	0,01							0,02
	· IFJ PAN	0,01	0,01	0,01							0,02
	· SL	0,01	0,01	0,01							0,02
12	IRSN	0,50	0,50	0,50							1,50
	· CEPN	0,17	0,17	0,17							0,50
	· ENSTII	0,01	0,01	0,01							0,02
13	SSM	0,01	0,01	0,01							0,02

14	CIEMAT	0,15	0,15	0,15						0,44
	· ISGlobal	0,01	0,01	0,01						0,02
15	NRIRR	0,15	0,15	0,15						0,44
16	MTA-EK	0,15	0,15	0,15						0,44
17	NCRRP	0,12	0,12	0,12						0,35
18	HMGU	0,15	0,15	0,15						0,44
	· KIT	0,17	0,17	0,17						0,50
	· GSI	0,01	0,01	0,01						0,02
	· Juelich	0,01	0,01	0,01						0,02
	· HZDR	0,01	0,01	0,01						0,02
19	MUW	0,02	0,02	0,02						0,05
20	ENEA	0,20	0,20	0,20						0,60
21	ISS	0,05	0,05	0,05						0,14
22	NRPA	0,05	0,05	0,05						0,14
	· NMBU-IMT	0,08	0,08	0,08						0,25
23	RIVM	0,05	0,05	0,05						0,14
25	IMROH	0,01	0,01	0,01						0,02
26	SURO	0,07	0,07	0,07						0,20
	· CTU	0,01	0,01	0,01						0,02
	· NRI	0,11	0,11	0,11						0,32
	· UJF	0,13	0,13	0,13						0,40
27	IFA-MG									
	· IFIN-HH	0,04	0,04	0,04						0,12
28	EEAE	0,01	0,01	0,01						0,02
	· NCSR	0,01	0,01	0,01						0,03
29	VUJE	0,01	0,01	0,01						0,02
30	UT	0,01	0,01	0,01						0,02
31	RSC	0,01	0,01	0,01						0,02
32	UL									
	· RTU	0,01	0,01	0,01						0,02
33	UEF	0,16	0,16	0,16						0,47
34	GIG	0,04	0,04	0,04						0,13
37	JSI	0,11	0,11	0,11						0,33
	· FSS-Uni-LJ	0,02	0,02	0,02						0,07
WP4										
4	ANR		1,00		2,00					3,00
13	SSM		0,15		0,65					0,80
24	FCT		0,15		0,65					0,80
35	MINECO		0,13		0,20					0,33

WP5											
5	DH-PHE	6,60			6,60						13,20
1	BfS	0,03	0,03	0,03	0,03						0,10
2	STUK	0,01	0,01	0,01	0,01						0,05
3	SCK-CEN	0,25	0,25	0,25	0,25						1,00
12	IRSN	0,38	0,38	0,38	0,38						1,50
21	ISS	0,25	0,25	0,25	0,25						1,00
22	NRPA										
	· NMBU-IMT	0,13	0,13	0,13	0,13						0,50
29	VUJE	0,13	0,13	0,13	0,13						0,50
32	UL			0,10							0,10
33	UEF	0,09	0,09	0,09	0,09						0,37
WP6											
6	CEA	3,50	1,50	3,00							8,00
1	Bfs	IK	0,25	IK							0,25
2	STUK	0,15	IK	IK							0,15
3	SCK-CEN	IK	0,40	IK							0,40
7	UniPV	IK	IK	0,40							0,40
8	MELODI										
	· SU	0,15	IK	IK							0,15
12	IRSN	0,25	IK	IK							0,25
14	CIEMAT	0,40	IK	IK							0,40
16	MTA-EK	IK	0,40	IK							0,40
17	NCRPP	0,15	IK	IK							0,15
18	HMGU	IK	IK	0,50							0,50
	· KIT	0,15	IK	IK							0,15
	· GSI	0,15	IK	IK							0,15
21	ISS	0,15	IK	IK							0,15
22	NRPA	0,15	IK	IK							0,15
	· NMBU-IMT	0,50	IK	IK							0,50
23	RIVM	IK	0,50	IK							0,50
26	SURO										
	· CTU	0,15	IK	IK							0,15
28	EEAE	0,15	IK	IK							0,15
32	UL			0,15							0,15
33	UEF	0,45	IK	IK							0,45
34	GIG	IK	0,07	IK							0,07
WP7											
7	UniPv	1,60	1,60	1,60	1,60	1,60					8,00
1	BfS				0,40						0,40

3	SCK-CEN	0,25	0,25	0,25	0,25						1,00
6	CEA		0,05	0,05	0,05	0,05					0,20
8	MELODI										
	· SU	0,80	0,10	0,10							1,00
11	EURADOS										
	· IST	0,07			0,07	0,07					0,20
12	IRSN										
	· ENSTII				0,20						0,20
14	CIEMAT					0,20					0,20
	· ISGlobal		0,07	0,07	0,07						0,20
15	NRIRR	0,20	0,20	0,20	0,20	0,20					1,00
16	MTA-EK	0,04	0,04	0,04	0,04	0,04					0,20
17	NCRRP		0,07	0,07		0,07					0,20
18	HMGU	0,25		0,25	0,25	0,25					1,00
	· Juelich				0,20						0,20
19	MUW	0,05	0,05	0,05		0,05					0,20
20	ENEA				0,24						0,24
22	NRPA										
	· NMBU-IMT	0,04	0,04	0,04	0,04	0,04					0,20
25	IMROH				0,10	0,10					0,20
28	EEAE		0,07		0,07	0,07					0,20
29	VUJE		0,07		0,07	0,07					0,20
30	UT	0,07			0,07	0,07					0,20
33	UEF		0,16	0,16	0,16						0,49

This table shows the total efforts of CONCERT partners in the respective project over its entire term.

WP9											
		Activity 1	Activity 2	Activity 3	Activity 4	Activity 5	Activity 6	Activity 7	Activity 8	Activity 9	Total Person Month/entire term of respective project
1	BFS	7,00		12,50	8,00						27,50
2	STUK	5,50		6,50							12,00
3	SCK-CEN	44,85		29,70	16,75		35,50			10,00	136,80
5	DH	21,00	101,00	20,50		20,30	24,15				186,95
	· DurhamUni		27,50								27,50
	· MetOffice	13,00									13,00
	· OBU		28,00					32,00			60,00
	· WarwickUni	3,00									3,00
6	CEA									10,00	10,00
9	ALLIANCE										
	· CEH	28,80									28,80
10	NERIS										
	· DTU	14,50									14,50
	· MUTADIS	11,00		6,50							17,50
	· UMIL	7,00			9,50						16,50
11	EURADOS										
	· IST	7,75									7,75
	· RBI									1,50	1,50
12	IRSN	20,75		88,75	2,50				3,00		115,00
	· CEPN	15,00		22,00	10,25				1,00		48,25
14	CIEMAT	48,75		64,00							112,75
	· ISGlobal				3,95				37,65		41,60
15	NRIRR (OKI)					80,00					80,00
16	MTA EK	10,00									10,00
18	HMGU	66,50	96,00			34,50	12,00	35,00			244,00
	· KIT	44,00									44,00
20	ENEA		84,00					60,00			144,00
21	ISS								15,00		15,00
22	NRPA	61,00		41,00							102,00
	· NMBU-IMT	37,25		27,50					2,00		66,75
23	RIVM	9,75									9,75
27	IFA-MG										
	· IFIN-HH				2,00						2,00
28	EEAE	23,75			5,00		32,00			2,00	62,75
29	VUJE	24,75			6,50						31,25
30	UT			55,50							55,50
36	APA	5,50									5,50

37	JSI				3,85						3,85
	· REC	6,75									6,75
38	FOPH				2,50						2,50
										WP9	1766,50

1.1.15 Other major cost items (travel, equipment, infrastructure, goods and services) (Table 2.3e)

WP1

Participant BfS Number/Short Name	Cost (€)	Justification
Travel	6000	joining 4 SRA meetings organised by WP2 as T3,1 leader
Goods and services	12000 2000	Set up CONCERT homepage (public, restricted, newsletter), meeting room cost
Total	20000	

WP2

Participant SCK•CEN Number/Short Name	Cost (€)	Justification
Travel	5000	joining 4 SRA meetings organised by WP2 as T3,2 leader
Goods and services	5000	Printing cost for the promotion of CONCERT
Total	5000	

15/CIEMAT	Cost (€)	Justification
Travel	2000	Travel to the two workshops to support the activities of WP2
Total	2000	

WP3

Participant SCK•CEN Number/Short Name	Cost (€)	Justification
Travel	5000	joining 4 SRA meetings organised by WP2 as T3,2 leader
Total	5000	

Participant ALL (52) Number/Short Name	Cost (€)	Justification
Travel	500	travel and subsidence to open workshop
Total	26000	

Participant MELODI Number/Short Name	Cost (€)	Justification
Travel	40000	Open workshop organiser
Total	40000	

WP4

Number/Short Name	Cost (€)	Justification
Travel	5500	For the 4 partners of WP4 (ANR - 2500, FCT - 1000, SSM – 1000, MINECO – 1000)
Other	2500 10000 30000 7500	Submission and Evaluation Tool Peer Review Meeting organisation (hotel, room, meals...) Travels for reviewers Reviewers' fee
Total	555000	

WP6

CEA total eligible costs under these categories do not exceed 15% of the personnel costs,

LTP NMBU/ NRPA	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

12/IRSN	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

15/CIEMAT	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

25/RIVM	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

1/BfS	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

17/MTA-EK	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

3/SCK-CEN	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

7/UniPV	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

2/STUK	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

18/HMGU	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

21/ISS	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Goods and services	1000	Consumables and supplies related to an intercomparison exercise
Total	3000	

LTP KIT/HMGU	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

28/EEAE	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

LTP SU/MELODI	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Goods and services	1000	Consumables and supplies related to an intercomparison exercise
Total	3000	

22/NRPA	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

17/NCRPP	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

LTP GSI/HMGU	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

LTP CTU-FBME/SURO	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

32/UL	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

33/UEF	Eligible Cost (€)	Justification
Travel	2000	Travel to the workshops to support the activities of WP6
Total	2000	

Planned activities for the fourth year

The activities of the CONCERT EJP in the first three years were dominated by the cyclical workflow of CONCERT to prepare for open scientific calls. In the third year the cycle, the second CONCERT open research call was finished, i.e. submitted proposals have been evaluated by the procedures described in WP4, i.e., remote evaluation of submitted eligible proposals by the PRP members and finally ranking of proposals recommended to be considered for funding and ranked by the PRP members during the PRP meeting. The outcome have been two ranking lists of eligible proposals (one for topic 1 and one for topic 2) in month 25 of the CONCERT EJP. Based on these ranking lists the CONCERT MB reached a funding decision in a special CONCERT funding meeting on 27th of June 2017. The CONCERT MB made sure that the criteria of scientific excellence with the highest weight and the criteria of integration were met. Immediately after the funding decision, the coordination team of CONCERT (WP1), supported by WP4, started the contract negotiations with the projects coordinators of ranked and fundable proposal. Negotiations have been finalised with the last project in M31.

In the fourth year, all nine projects of the two CONCERT open research calls will be monitored to see if goals are met. Progress will be reported on an ongoing basis through deliverables. Assessing the progress achieved within these projects, along with the progress made with regard to other CONCERT activities, will enable to determine what are the gaps and missing tasks/activities, in order to realise the full potential and objectives of the future respective research in the radiation protection area.

All CONCERT WP are integrated into this cyclical work flow, which is in principle designed to start with an evaluation of the joint strategic research agenda (WP2), the formulation of research priorities by joint programming (WP3) and finally the funding (WP4 and WP1) and monitoring of research projects (WP4) which fulfil all the requirements of scientific excellence and integration. Cross-cutting through this cyclical work flow are WP dedicated to integration activities which on one side have input through interfaces into the cyclical work flow and on the other side have the target for a sustainable support of radiation protection research. These principle work flows, one cyclical, one more or less continuous are described in the CONCERT proposal and will be repeated throughout the lifetime of the CONCERT EJP (with the assumption that a CONCERT follow up EJP will be announced).

For the crosscutting work packages the continuous work flow activities in year three are as follows:

WP 3 Priority research and Joint programming needs in the perspective of European Integration

As there are no resources for a third call in CONCERT, WP3 will only concentrate on the elaboration of the joint roadmap in radiation protection research, complemented with activities looking for continuous funding to enable the radiation protection research community to implement the roadmap.

WP 4 Organisation and management of CONCERT open RTD calls

In the fourth year, the follow-up and monitoring of projects funded in the two CONCERT calls is starting and Mid-term reports will be requested by the JCS in June 2018 for projects funded in the first CONCERT call 2016 and between November 2018 and February 2019 for projects funded in the second CONCERT call 2017.

WP5 Stakeholder involvement and communication in radiation protection research

Over the course of year 4 CONCERT WP5 aims to (i) organise and run further stakeholder meetings (ii) analyse the survey results and consider further sampling strategies (iii) further develop and refine the public facing website information in light of comments received from internal and external stakeholders.

WP6 Access to Infrastructures

Work with representatives of different institutions/countries will be initiated to identify their infrastructures that are not currently listed and could be included in the database AIR²D², and WP6 will continue to publish the bulletin (10 issue/year). Work to strengthen STORE and other databases will continue. Some voluntary infrastructures (exposure platforms) will develop together an embryo package about harmonization practices and protocols with the help of WP6 partners. In close collaboration with WP7, visit of (and/or courses on) some infrastructure facilities during the training sessions for students and postdocs will be developed. Actions to build a roadmap including funding possibilities to support access to some pilot infrastructures will be proposed.

WP7 Education and training

In the 4th year, the rolling calls for student travel grants and provision of short courses will continue. The E&T activities carried out in the projects funded in the 2 CONCERT calls will be reviewed. An E&T Forum will be held as part of the ERPW 2018, to further develop the links already established with other E&T initiatives. A programme to attract young scientists into the research area will be organised at the European Radiation Research Congress (ERR 2018) in Pécs, Hungary.

WP9

The research activities by the nine projects selected through the two open calls for research projects organised along the CONCERT will be monitored. Progress will be reported on an ongoing basis through deliverables. The first reporting period for the six projects of the 2017 call are set for month 42-44. The results of their first reporting will feed into the fourth periodic report of CONCERT 2019. The respective project coordinators will coordinate and direct project resources.