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D1.1 – First Periodic Report in accordance with the provisions of the consortium contract – M1 to M9

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Abstract

This document is the “D1.1-First periodic report” of the PIANOFORTE Partnership and describes the work carried out by the consortium from the start in June 2022 until February 2023 .

During the first nine months of the project, a large part of the efforts has been devoted to the preparatory work for the first research call of the PIANOFORTE partnership (thanks to the work carried out in WP2, WP3 and WP7) but also to initiate transversal actions concerning on the one hand the optimization of the use of research infrastructures in the field of radiation protection on a European scale (WP5) and on the other hand actions in the field of Education and Training (WP4)

In addition, all the actions related to the communication around the PIANOFORTE partnership (WP6) have been launched, which now allows to have all the tools (website, social networks,...) permitting a large and efficient communication. This will be a key element as the launch of the first call is imminent.

Finally, WP 1 of PIANOFORTE provides the financial, consortium and partnership 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 GA was signed and the CA should be signed very soon.

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1. Introduction

The ambition of the PIANOFORTE partnership for radiation protection research is to improve radiation protection of members of the public, patients, workers and the environment in all exposure scenarios and to provide solutions and recommendations for optimized protection according to basic safety standards. Research projects focused on the identified research and innovation priorities will be selected through a series of three competitive open calls. The input to define the research priorities will be based on the priorities defined in the Joint Roadmap (JRM) developed during the H2020 CONCERT EJP but also on the results of ongoing H2020 projects and on the expectations expressed by other actions carried out in other European programs, in particular the SAMIRA action plan or by the European research platforms in radiation protection. A high priority will be given to medical applications, as 1) medical exposures are by far the largest source of man-made exposure of the European population and 2) the fight against cancer is a top priority of the current European Commission. In order to ensure appropriate continuity in research objectives and methodologies, in line with the content of the CONCERT JRM, two additional priorities were identified to better understand and reduce uncertainties associated with health risk estimates for low dose exposure in order to consolidate regulations and improve practices, and to strengthen a science-based European methodology for emergency management and long-term recovery. Once the research priorities are defined, the open call system will promote scientific excellence and broaden participation through a process open to the entire radiation protection community. In addition to the research actions, the selected projects will be able to benefit from the infrastructure sharing and pooling system that will be set up at the European level. This system will be accompanied by education and training programs for health personnel and young scientists in order to increase Europe's research capacity in this field.

A simple structuring of the activities presented above has been proposed, with a limited number of work packages (see the table below).

WP No	Work Package Title
1	Partnership coordination and management
2	Priority setting for R&I calls
3	Stakeholder engagement
4	Education and Training
5	Infrastructure and Data Management.
6	Dissemination, Communication and Impact
7	Open Calls organisation

The present document is the “D1.1-First periodic report” of the PIANOFORTE Partnership and it

describes the work carried out by each of the WPs from the start of the Partnership in June 2022 until February 2023 .

2. WP1 – Partnership coordination and management

Work carried out to date

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

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

The Grant agreement (GA) was signed. The Consortium agreement (CA) will be signed very soon. The pre-financing payment was transferred from the European Commission to the coordinator. The coordinator then dispatched it to the beneficiaries in accordance with their share of the project budget without delay. Planning and Co-ordination is led by the Executive Board (ExB) which is composed of WP leaders plus a MEENAS representative and is chaired by the co-ordinator. 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 General Assembly that is composed of all beneficiaries and the 6 research platforms. The following responsibilities have been allocated:

- Project coordinator: is responsible for the overall coordination of the project and also responsible for chairing ExB and General Assembly 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

Task 1.2 – Executive Board and General assembly meetings (IRSN)

Project meetings. During the first period, the following meetings were organised:

- Kick-off meeting, on 14-15 June 2022, in Fontenay-aux-Roses, France.
- First Executive Board meeting, on 24 August 2022 by Videoconfernece (VC).
- Second Executive Board meeting, on 22 September 2022 by VC.
- Third Executive Board meeting, on 30 November 2022 by VC.
- Fourth Executive Board meeting on 13 December 2022 in Brussels, Belgium.
- First extraordinary General assembly on 17 January 2023 by VC.
- Fifth Executive Board meeting on 13 February 2023 by VC.
- Each Work Package organised its own meetings as required

Meeting agendas of ExB were shared. Meeting minutes were prepared by the project coordination team and distributed to the participants. During the meetings, participants 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 progress of the 1st open call preparation. A extraordinary meeting of the GA was organised in January 2023 to give the opportunity to the ExB to present its

proposal for priority topics for the first Open call.

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

Work on the AWP for the second year of CONCERT (M13-24) was co-ordinated by IRSN and the 2nd AWP submitted.

Task 1.4 – Negotiation of projects to be funded through open R&D calls

This work will start on the basis of the ranking outcome for call winning research projects (November 2023). However, a lot of effort has been performed by the coordination team to provide to WP7 all financial and legal information needed to prepare the Call document associated to the first Call (to be launch in April 2023). Several meeting have been organised with the Commission and WP7 representatives to prepare this Call document.

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 based on recommendations of WP4.

Milestones and Deliverables

- D1.1: First periodic report to the EC in accordance with the provisions of the consortium contract (present report)
- D1.2: Annual work programme for year 2

3. WP2 – Priority setting for R&I calls

Work carried out to date

The main task of WP2 was the preparation of the priorities of the first R&I call of PIANOFORTE. As a first step a procedure was set-up on how the prioritization was going to be done. This was discussed together with WP3 and the ExB and published as a milestone. PIANOFORTE (PF) set as a major priority to launch the first open call as soon as possible, within 10 months from the start of the project (by end of March 2023 at latest). Task 2.1 assembled a list of 17 research topics based on the CONCERT Joint Roadmap game changers reflecting the research priorities of the six European platforms on radiation protection research. The list was sent to platforms first for comments (improvements, changes, replacing topics but not suggestion of additional new topics). Platforms were also asked to rank the topics using scoring criteria provided by Task 2.1. Based on these scores Task 2.1 ranked the topics into very high, high, moderate and low. The list of topics with the priority ranking was sent to POMs, to PF Stakeholder and Advisory Board (SAB) and to external stakeholders for comments on the research topics text and their ranking. Task 2.1 together with WP3 summed up the priority ranking of POMs, SAB and external stakeholders. The feedback received indicated that more than 75% of the topics reached a high degree of consensus in the prioritisation by the different stakeholders. This allowed PF Executive Board to choose three topics, ranked as very high, to be included in the first PF open call. These topics were approved by the PF General Assembly as well. The whole process was done within

the time limits set in the Grant Agreement, the final prioritisation process made by WP2 and WP3 was sent to the PF Executive Board in the beginning of December 2022, PF Executive Board decided on the topics to be chosen for the first call on 13 December 2022, while the final approval of the General Assembly was obtained at 17 January 2023.

The chosen three topics are:

- A2: Developing a knowledge base for a better understanding of the disease pathogenesis of ionising radiation-induced cancer to improve human health risk assessment.
- D1: Individualised diagnostic and therapeutic procedures for optimisation of benefit/risk ratios.
- G2: Development of risk assessment and risk management approaches and technological capabilities to cope with scenarios arising from threats due to war or armed conflict situations or natural disasters taking into consideration social, ethical and legal issues.

Another task is to update the first edition of the Joint Roadmap for radiation protection research published in 2020, taking into account scientific progress and evolution of societal needs. As the Joint Roadmap is a document with a long-term vision, only one update is planned by the end of PIANOFORTE. Several preparatory steps are needed prior to publishing the second edition of the Joint Roadmap. The first step was taken in the first year of PIANOFORTE, the analysis of stakeholder feedback on the first edition of the Joint Roadmap and the game changer ranking. A milestone is under preparation for this.

A third task is the scientific follow up and integration of the research projects. Several projects will be selected that will handle several aspects linked to research priorities defined in Task 2.1, so it is important that the results from these projects can be efficiently communicated to avoid overlap and to maximise the projects' impact. Tools will be developed to monitor the project outcomes and to communicate the results between projects. In the first year a web-based tool for monitoring the project's outcomes was being prepared. Particular attention will be given to the integration of social sciences and humanities in funded projects. Guidelines have been set up to support cross-disciplinary collaboration and inclusion of social sciences and humanities research in radiation protection projects; these contributions will be monitored, and projects will be requested to report their achievements in this area using the abovementioned tools. These guidelines have been published as a deliverable.

The last task is on the integration of Artificial Intelligence in Radiation Protection. This task will coordinate, harmonize and stimulate activities related to the application of Artificial Intelligence (AI) and big data approaches in radiation protection topical fields. Several tasks have started but have not been finalized:

- A literature review on relevance and applicability of AI and big data technologies in radiation protection domains
- Identification and development of links with scientific communities specializing on AI and big data technologies
- Preparation of the Workshop (planned in May 2025) with leading experts on ethics and AI

Milestones and Deliverables

- MS2.1.1 Finalisation of the first prioritisation procedure for the first open call to be launched (M6)
- MS2.3.1 Concept design of the reporting tool (M6)
- MS2.4.3 Workshop with leading experts on ethics and AI (M36)
- D2.1.1 Research priorities for the first open call (M10)
- D2.3.1 Guidelines on integration of social sciences and humanities in R&I (M6)

4. WP3 – Stakeholder engagement

Work carried out to date

Task 3.1 International partners and partnership priority setting

Subtask 3.1.1. Link to international RP research initiatives/networks

European radiation protection organisations and advisory bodies as well as international organisations in the field of radiation protection have been approached in terms of the 1st Open Call and the PIANOFORTE partnership in general. The dialogue comprised an open exchange on the overarching strategy concerning the selection of relevant topics and partly led to a written feedback on the proposed call topics. The research on potential stakeholders, i.e. with regard to European and international organisations was carried out and put to use in the frame of the PIANOFORTE e-survey.

Subtask 3.1.2 Priority setting for R&I calls

In the frame of the topic prioritisation process of the 1st Open Call, WP3 analysed the acquired feedback/ranking from several stakeholder groups, including the Stakeholder and Advisory Board and external stakeholders, with the aim to gather as much knowledge as possible on the needs of the radiation protection community. As a whole, the proposed rankings of topics by PIANOFORTE (based on the input of platforms), the SAB and the external stakeholders have been in accordance and aside from a few subtopics a high level of consensus was reached. The results of the analysis were transferred to WP2 for the integration in the overarching prioritisation process.

Subtask 3.1.3 Coordination of stakeholder engagement within PIANOFORTE

WP3 has coordinated the work with external stakeholders and established links with internal stakeholders and work packages as appropriate. Specifically, a high level of collaboration and integration of work was achieved with WP2, i.e. in the research priority setting process. As soon as the implementation of PIANOFORTE funded projects starts, WP3 will channel and link the project activities to the partnership and internal as well as external stakeholder.

Task 3.2 Partnership Projects

Subtask 3.2.1 Learning from CONCERT EJP projects to create stakeholder engagement criteria for R&I calls

General stakeholder recommendations for PIANOFORTE which built upon the experience of the EJP

CONCERT have been developed. The recommendations aim to help various stakeholders, including those which have not yet joined the PIANOFORTE network, to reach a decision on their involvement in the radiation protection research, thus enriching the European Research Area with new and validated knowledge and helping the industry and medicine to gain and produce new high technological products based on the peaceful and innovative use of ionizing radiation. The recommendations have been published as deliverable D3.4.

Subtask 3.2.2 Oversee running projects and link to overall stakeholder activity

The subtask will start as planned as soon as the projects from the 1st Open Call have been granted.

Task 3.3. Stakeholder Engagement Planning and Management

Subtask 3.3.1. Stakeholder and Advisory Board (SAB) establishment

A permanent SAB has been set-up, including 8 internationally recognised experts covering all major scientific disciplines relevant for PIANOFORTE activities. There is a balance within the SAB members regarding their expertise, geographical distribution, and gender (deliverable D3.5).

Subtask 3.3.2 Stakeholder Engagement Plan (SEP)

The SEP has been developed and assures an optimal involvement of stakeholders throughout PIANOFORTE. The first version of the SEP has been presented as deliverable D3.6, with the following contents: stakeholder analysis; Engagement strategy and plan, implementation of the SEP and Evaluation of the SEP. An updated version will be published in September 2025.

Task 3.4 Direct Stakeholder Engagement

Subtask 3.4.1. Stakeholder mapping and establishing stakeholder networks for direct engagement

The identification of potential external stakeholders has started immediately after the PIANOFORTE partnership was launched. An invitation letter for stakeholder registration in the PIANOFORTE webpage was sent in August 2022 to a wide range of identified stakeholder groups. The mapping of registered stakeholders is completed (but further stakeholders can still register) and was done with regard to the stakeholders' main field of expertise or interest and the stakeholder's field of work.

Subtask 3.4.2. Direct stakeholder engagement – e-survey

The PIANOFORTE e-survey with the aim to explore public views on radiation protection issues has been launched in November 2022. The identified target groups were internal and external stakeholders from various interest groups related to radiation protection. The responses were obtained from 440 stakeholders in 29 European countries, Canada, China, Colombia, India and the USA. A preliminary analysis of the specific issues raised by the survey was provided in deliverable D3.8.

Subtask 3.4.3. Direct stakeholder engagement - topical online meetings

Two topical online meetings with the main objective to discuss and gather input from external stakeholders regarding the proposed research topics for the first R&I Open Call within PIANOFORTE have been implemented according to the work plan. The inputs received after the meetings (written form) were compiled, analysed and communicated to WP2 for further integration and work on the

final research topic prioritisation process.

Task 3.5 Addressing stakeholder interests of DG Health: radiation protection and proton therapy (PT)

Subtask 3.5.1 Clinical and research practices in modern proton therapy

A report on the status of proton therapy, considering the justification of the current (and further) investments has been produced. The report identifies knowledge gaps from Physical and Clinical perspectives and provides an overview of the literature that is paving the way of progress in this field. The report has been submitted as deliverable D3.7.

Subtask 3.5.2 Proton Therapy Stakeholder Workshops

The planning of the first workshop has started and the workshop will be held in October or November 2023 likely in Krakow. The focus of the event will be on the prospective collection of PT data to promote standardization and establish a minimal dataset for clinical trials. The workshop aims to promote discussions for reaching a consensus on the clinical criteria to generate sufficient medical, biological and physical parameters, to strengthen collaboration among PT centres and to generate the structure of a European database.

Milestones and Deliverables

- MS18 E-survey on public understanding of radiation protection issues - launching
- MS19 First series of topical online meetings (consultations before Open call)
- D3.4 General stakeholder recommendations for the PIANOFORTE open calls (call criteria, what partnership projects should look for wrt stakeholder activities).
- D3.5 Stakeholder and Advisory Board composition, mission and rules
- D3.6 First version of the Stakeholder Engagement Plan
- D3.7 Report with the view on recommended clinical and research practices in modern proton therapy
- D3.1 Stakeholder comments on Exeboard suggestion for call topics & criteria from connected entities (3.1.1), SAB (3.3.1) and online consultations of target groups (3.4.3) for first call
- D3.8 E-survey on public understanding of radiation protection issues

5. WP4 – Education and training

Work carried out to date

Task 4.1: Support of targeted courses to promote knowledge, skills and competences of MSc/PhD students, early career researchers and professionals

A call for training courses was also launched in November 2022 with application deadline of 2022 12 31: <https://pianoforte-partnership.eu/calls/training-courses>. The received course applications are listed in table 4.1 below. All were found to be eligible for funding.

Table 4.1. List of targeted courses approved for funding during 2023.

Name of applicant(s)	Employment	Country	Course title	Course dates
Nina Chobanova	NCRRP, Sofia	Bulgaria	Emergency and recovery preparedness and response	13-17 March 2023
Martin Bucher; Ursula Oestreicher	BsF	Germany	Application of Biological Dosimetry in Radiation Protection and Radiation Research - BIODORA	26th June - 14th July 2023
1) Rui Gaspar 2) Isabel Paiva 3) Lina Vieira	1) Catholic University of Portugal 2) University of Lisbon 3) Politechnic Institute of Lisbon (IPL)	Portugal	A mental models approach to risk communication on health applications of ionizing radiation	26th June - 4th July 2023
Kremena Ivanova	NCRRP, Sofia	Bulgaria	Building protection against radon: measurement, prevention and corrections measures	3-7 April 2023
Giorgio Baiocco	University of Pavia (UniPv)	Italy	BioMod - "Models" in biomedical physics and radiation protection research: from in vitro cell systems to population studies	May 2023
1) Siamak Haghdoost 2) Jaques Balosso	University of Caen	France	Cellular, molecular and organs effects of particle irradiation with focus on healthy tissue effects (CANTATA)	12-16 June 2023
1) Protti Nicoletta 2) Yann Perrot 3) Lovisa Lundholm	1) University of Pavia 2) IRSN 3) Stockholm University	1) Italy 2) France 3) Sweden	PROtecting while TREATing: from the basic principles of the biological effects of ionizing radiations up to their use in neurodegenerative diseases (PRO_TREAT)	September 2023
Zaccheus Gilpin	Zack Gilpin Education	United Kingdom	-	-

Task 4.2: Support of mobility for MSc/PhD students and early career researchers

A call for MSc/PhD students and early career researcher travel grants was launched in August 2022:

<https://pianoforte-partnership.eu/calls/travel-grants-for-researchers>.

During the period June 1 2022 – March 31 2023 applications for travel grants could be submitted three times: 2022 09 30, 2022 12 31 and 2023 03 31. All applications were reviewed by the members of the task group.

Tables with lists of submitted applications are given below. Approved applications are **marked green**. Rejected applications are **marked red**. Not eligible applications are marked **grey**.

*Table 4.2 List of applicants for the MSc/PhD students and early career researchers travel grants. . Approved applications are **marked green**. Rejected applications are **marked red**. Not eligible applications are marked **grey**.*

Application deadline: 2022 09 30

Name of applicant	Employment	Country	Position
Milagrosa Lopez Riego	Stockholm University	Sweden	PhD student
Erica Maremonti	NMBU	Norway	Post doc
Omar Elsaeed	BfS	Germany	PhD student
Sofie Apers	University of Antwerp	Belgium	PhD researcher
Ana Vaniqui	SCK CEN	Belgium	PhD researcher
Tabassom Mohajer Shojai	Uppsala University	Sweden	PhD student
Albena Staynova	National Centre of Radiobiology and Radiation Protection	Bulgaria	Post doc
Carmen Tuca	National Institute for Physics and Nuclear Engineering, IFIN-HH	Romania	Researcher
Mehran Hariri	Uppsala University	Sweden	PhD student
Mostafa Karimi Roshan	Stockholm University	Sweden	Post doc
Rima SALMA	GANIL	France	PhD student
Najeh Mohammed	Ministry of health of Morocco	Morocco	Medical Physicist

Application deadline: 2022 12 31

Name of applicant	Employment	Country	Position
Jannes Torfs	University of Hasselt	Belgium	Master student
Stephen Ahenkorah	Katholieke Universiteit Leuven	Belgium	Post doc
Matthijs Sevenois	Vrije Universiteit Brussel	Belgium	PhD student
Nathalie Heynickx	University of Ghent / SCK CEN	Belgium	PhD student
Zuzana Kocibalova	Stockholm University	Sweden	Post doc
Mostafa Karimi	Stockholm University	Sweden	Post doc

Roshan			
Lidya Hailu	Debre Tabor University	Ethiopia	Lecturer
Anthony Waked	SCK CEN	Belgium	PhD student

Application deadline: 2022 03 31 (not evaluated yet – all applications received by 2023 03 24 are listed)

Name of applicant	Employment	Country	Position
Ghizela-Ana Maria Salagean	Topmed medical centre Targu Mures	Romania	PhD student
Dan Baaken	IMBEI, University Medical Center Mainz	Germany	PhD student
Victor González	Hospital Universitario Puerta De Hierro, Madrid	Spain	Resident in-house radiophysicist (master degree)
Jessica Ribeiro	SCK CEN	Belgium	PhD student
Nona Movsisyan	Center for Ecological-Noosphere Studies of NAS RA	Armenia	PhD student
Angeliki Gkikoudi	National Technical University of Athens	Greece	PhD student
Deepak Shamvedi	School of Science & Engineering, Univ. of Dundee	United Kingdom	Lecturer
Christina Neofytou	Karolinska Institutet	Sweden	PhD student
Rose Ile obase	Fortescue Future Industries	Cameroon	PhD student
Abhisek Verma	Sorbonne University	France	PhD student
Abdolrasoul Habibipour	Botnia Living Lab	Sweden	Senior lecturer

Task 4.3: Support of a continuous professional development programme for radiation protection professionals

A call for radiation protection professionals travel grants was launched in August 2022: <https://pianoforte-partnership.eu/calls/travel-grants-for-early-career-radiation-protection-professionals>.

During the period June 1 2022 – March 31 2023 applications for travel grants could be submitted three times: 2022 09 30, 2022 12 31 and 2023 03 31. All applications were reviewed by the members of the task group.

Tables with lists of submitted applications are given below. Approved applications are **marked green**. Rejected applications are **marked red**. Not eligible applications are marked **grey**.

Table 4.3 List of applicants for radiation protection professionals travel grants. . Approved applications are marked green. Rejected applications are marked red. Not eligible applications are marked grey.

Application deadline: 2022 09 30 – no applications were received

Name of applicant	Employment	Country	Position
-			

Application deadline: 2022 12 31

Name of applicant	Employment	Country	Position
Pieter De Meutter	SCK CEN	Belgium	Researcher
Tamara Lusa	Hospital Clínico Universitario of Valencia	Spain	Medical Physics Trainee
Francisco Mosquera-Pena Sánchez	University Hospital Vigo	Spain	Medical Physicist
Ioannis Stathopoulos	University of Athens	Greece	PhD student
Suryakanta Acharya	Assam Cancer Care Foundation	India	Consultant
Mahmut Cüneyt Kahraman	İstanbul Technical University	Turkey	PhD student
Tortorelli Francesco	-	Italy	Medical Physics Trainee

Application deadline 2022 03 31 (not evaluated yet – all applications received by 2023 03 24 are listed)

Name of applicant	Employment	Country	Position
Francisco San Miguel	HOSPITAL CENTRAL DE LA DEFENSA 'GÓMEZ ULLA'	Spain	Medical Physicist
Ioannis Kaissas		Greece	Assistant professor
Tönjes Koschine	BfS	Germany	PhD
Ana Milosevic		Serbia	Medical Physicist

Task 4.4: Development of sustainable early career researchers and professionals networking to facilitate training and career upgrades

A call for supporting European early career researcher and professional networking activities was launched in February 2023: <https://pianoforte-partnership.eu/calls/pianoforte-support-for-european-early-career-researcher-and-professional-networking-activities>. A meeting of task 4.4. members was held on 2023 03 06. It was decided send out the information about the call to selected organizations. By 2023 03 24, two early career professionals have expressed the interest to start networking activities.

Milestones and Deliverables

- D4.1: Rules and guidelines for the support of: 1) courses, 2) the mobility programme for PhD students and early career researchers, 3) CPD for RP professionals
- D4.2: Criteria for financing a European PhD and early career researcher/professional association

6. WP5 – Infrastructures and data management for radiation protection research

Work carried out to date

WP 5 is focused on the maintenance of sustainable infrastructure capabilities and expertise relevant to radiation protection research (RPR) issues across the EU, with the aim to foster the availability, use, sharing and optimization of existing state-of-the-art infrastructures and data management systems at the European level and beyond, and by conducting education and training activities.

During year 1, the key focus has been the establishment of the WP5 Infrastructures Oversight Committee (IOC), to ensure a seamless link between the data and infrastructure communities, and their involvement in the initiation of the WP5 activities focused on provision of access to, training and intercomparisons for, and the strategic vision in relation to key RPR infrastructures within Europe.

The aim of the IOC is to oversee the work of the Partnership in relation to infrastructure requirements as described in the Work Package 5 description of work, and the specific activities will include: Coordination of WP5 work between the different WP5 tasks to ensure efficient and effective delivery of WP5 objectives and timely production of deliverables. Review of deliverables following establishment of the IOC; Facilitating coordination of work related to infrastructure across all Pianoforte WPs, and advise the Pianoforte Executive Board on infrastructure topics; Consideration of the infrastructure needs of relevant European Platforms in support of Pianoforte funded activities to ensure that access to the infrastructures required to deliver the Pianoforte work programme are available; Coordination of interactions and communication with the infrastructure related aspects of the project successfully funded under NRT-01-12; Develop criteria for the evaluation of applications for infrastructure training as described under Task 5.2.3 (to include aspects relating to relevance to Pianoforte work programme, benefit to applicant and relevance to their individual research programme) and coordinate the evaluation process in a transparent manner, and Develop criteria for the evaluation of applications for intercomparison exercises as described under Task 5.3.1 (to include aspects relating to relevance to Pianoforte work programme, benefits to the technical area, overlap with other intercomparison exercises/programmes in Europe and more widely) and coordinate the evaluation process.

Furthermore, during this period, the PIANOFORTE Data Management Plan (DMP) has been developed, outlining the need to establish and maintain within the project and wider RPR landscape a culture of effective management of the data and research outputs according to the 'FAIR' principles, so that the data are Findable, Accessible, Interoperable and Re-Usable, in order to facilitate effective open, exchange between researchers, stakeholders and policymakers. The DMP describes the strategies, measures and tools for data sharing according to the FAIR principles in the radiation research

community. The DMP includes the security, regulatory and ethical aspects to ensure safe, transparent and efficient data storage, maintenance, sharing and use. The DMP also addresses the key issues of the data structure, standardised strategies for data collection and archiving, and secure and transparent platforms for data sharing and exploitation in proposed and funded PIANOFORTE projects. The practical implementation of the DMP within PIANOFORTE has been agreed, with the requirement for adoption of the DMP by all funded project partners.

Additional progress within WP 5 during year 1 has included initial work towards development of recommendations for use of and access to infrastructures, in support of Task 5.2.2. Developing a fair and transparent system to allow researchers to access key infrastructures through open calls; Initial collation and dissemination of information regarding recurring training courses already organised by infrastructures, and initiation of development of training materials about different infrastructures and their role in the RPR research landscape, in support of the wider Task 5.2.3. Developing and promoting training in the use of key RPR infrastructures; Analysis of existing systems of and funding for intercomparisons, in support of wider Task 5.3.1. Development of a system for funding inter-comparisons to promote standardization (identify tools and funding framework, and to identify and categorise the challenges faced by RPR infrastructures, in support of Task 5.4.1. Identification of challenges faced by RPR infrastructures. The use of AI is an additional topic of focus for the WP, and work on this is progressing in collaboration with WP2 colleagues.

Finally, the collaboration with NRT-01-12 project OFFERR has been cemented, with RP and PIANOFORTE infrastructures included in the topic list and infrastructure database of OFFERR, respectively, PIANOFORTE experts nominated to help with RP aspects of OFFERR calls, and OFFERR WP1 lead nominated as a member of the WP5 IOC.

WP5 leaders and task leads are meeting regularly and a meeting of the entire WP partners was held in March 2023. In conclusion the work of WP5 is progressing as planned, and no problems or delays are anticipated.

Milestones and Deliverables

Two deliverables were planned during year 1 and both of these have been submitted during this period, both at Month 6:

- D 5.1: Terms of reference for the WP5 Infrastructures oversight committee
- D 5.2: Project Data Management Plan (describing the DMP)

7. WP6 – Knowledge management, communication, dissemination and impact creation

Work carried out to date



The main objectives of PIANOFORTE WP6 are:

- To enable bidirectional communication about PIANOFORTE and its results effectively to the broader research community, key stakeholders and the public
- To make PIANOFORTE open calls projects results transferable and accessible to audiences that may use the new knowledge, data and information in their own work, enable use and uptake of results and maximize the impact of the EU-funded research
- To develop practical knowledge management tools that contribute to the integration of national research programs as well as to a sustainable collective memory in the radiation protection field on the basis of open science principles.
- To exploit the outputs of PIANOFORTE in order to maximize its impact

The main task of WP6 during the first year of PIANOFORTE partnership was to set internal and external communication means in order to:

- **allow efficient communication between project partners immediately from the start of the project**
- **establish the framework for the communication tools that will be used to inform all interested parties and stakeholders throughout the duration of the project.**

The first step was the creation of the logo and corresponding graphic features, which shall be used along the whole project for all communication means towards the research community, stakeholders and the public. The first proposals of project logo have been discussed by Executive board and public relation specialists of the coordinator. Preselected proposals have been presented to consortium members, which selected the project logo by voting. Together with the logo, set of colors and fonts have been defined. We were able to prepare presentation template for the project kick-off meeting hold 14th - 15th June 2022 in Paris. Templates for all documents (deliverables, word documents, power point presentation, poster presentations) has been prepared and are available to all project partners.

During the kick-off meeting, we were also able to present the main online communication means of the project, which were set up between June and September 2022:

- creation of the project website: Early after project start, a website domain name was registered (www.pianoforte-partnership.eu). The website was created during summer 2022 by a private company based on our requirements and with contents prepared by WP6 partners.
- creation of the project accounts on the most widespread social media (Twitter: @Pianoforte_EU, LinkedIn <https://www.linkedin.com/company/pianoforte-partnership>).

Since then, information about project activities are regularly updated on the website and on social media. Information about calls for travel grants for early career researchers and RP professionals and for PIANOFORTE training courses can also be found on project website, together with the list of funded courses (WP4 and WP6). The registration as the stakeholder, in order to actively participate in the partnership, has been allowed through online form published on project website in collaboration of WP3 and WP6.

Most of these above-mentioned activities belong to key activities of *Task 6.3: On-line communication tools*. As one parameter to assess the impact of the PIANOFORTE project on RP in the EU for different target groups (Task 6.4), the statistics on use of project website has been setup. Activities of the *Task 6.4: Impact creation* are mainly focused to the organization of the information meeting for EU researcher groups after the first open call launch. The call is expected to be opened in mid-April. Corresponding information meeting is planned to be organized online on the 10th May 2023. The infographics and other information materials are under preparation so they can be published as soon as WP7 will launch first open call for projects.

Activities of Task 6.1 Knowledge management and Task 6.2: Communication and dissemination focused to setting up internal and external communication plans. The knowledge management tools developed in member states have been compared and the Internal Communication Plan has been formulated (D6.2). External communication plan has also been prepared (D6.3), however it needs to be better adapted to provide tailored information to the target groups through available channels. PIANOFORTE intends to be present and visible at national and international events. During the plenary session of the European Radiation Protection Week (ERPW, 9th – 14th October 2022, Estoril, Portugal) project coordinator Jean-Christophe Gariel presented detailed project overview “PIANOFORTE: A European partnership for radiation protection research” (J.-C. Gariel, F. Vanhavere & F. Rauser). Florian Rauser and Mandy Birschwilks presented “PIANOFORTE-Partnership for European research in radiation protection and detection of ionising radiation: towards a safer use and improved protection of the environment and human health. Work package 3 - Stakeholder engagement” and Liz Ainsbury represented Pianoforte at the ICRP session. Some presentations and seminars were also organized at national level by consortium members.

The communication team has invited the entire consortium to participate in internal and external communication activities.

Milestones and Deliverables

- MS6.1 Information for the PIANOFORTE web and social media channels (M3)
- MS6.2 Establishment of the on-line tools (M3)
- MS6.3 Communication Plan WP6 (M3)
- D6.1 Strategy and plan for communication, dissemination and exploitation of results
- D6.2 Internal communication plan
- D6.3 External communication plan (M4 – will be submitted)

8. WP7 – Organisation and management of PIANOFORTE R&I Open Calls

Work carried out to date

The main objectives of the first project year were establishment of Call Secretariat and Call Steering Committee and preparation of the documents for the first PIANOFORTE open research call, which should lead to launching the call in month 10.

For month 9 the status was following:

- the Call Secretariat and Call Steering Committee was set up
- the Call documentation was under preparation. The final scoping as well as financial rules for the call were finalised and clarified, which was basis for preparation of the coherent Call documentation.

The pre-assumption, that PIANOFORTE can easily build up on lessons learnt from CONCERT Calls, was quickly verified by the reality. The new EURATOM as well as PIANOFORTE Grant Agreement rules and resulting from that changes, impacted the conditions of the first Call. The consultations on new requirements were ongoing between European Commission, the PIANOFORTE Coordinator and WP7 up to M10. The finalisation of first version of the call text was feasible after getting a full picture of new rules.

The aims of the call are to support transnational research projects that combine innovative approaches in the field of radiation protection in line with the research priorities of PIANOFORTE, to actively integrate Education&Training activities and collaboration with universities in multidisciplinary research projects, and to make optimal use of research infrastructures.

The project proposals should address one out of 3 main topics:

- Developing a knowledge base for a better understanding of disease pathogenesis of ionising radiation-induced cancer to improve risk assessment.
- Individualised diagnostic as well as therapeutic procedures with regard to optimisation of the benefit/risk ratio.
- Development of risk assessment and risk management approaches and technological capabilities to cope with scenarios arising from threats due to war or armed conflicts situations or natural disasters taking into consideration social, ethical and legal issues.

The Call will be implemented as a one-step submission procedure. An electronic submission portal is being adapted to PIANOFORTE call procedures.

Milestones and Deliverables

There were no deliverables or milestones to be achieved up to M9 for the WP7. For M10 are scheduled:

- D7.1: Call documents: governance of the Call and evaluation document, Call Text, Guidelines for applicants, proposal templates, for the PIANOFORTE open Call 1 – under finalisation
- M10: 1st PIANOFORTE open research call announced – expected to be launched in M11, after approval of the Call Text by the European Commission.