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## **EJP-CONCERT**

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# **D 6.3–Recommendations for Infrastructure related topics for the 2<sup>nd</sup> CONCERT call and recommendations for funding schemes to support infrastructure use for the 2<sup>nd</sup> CONCERT call input to WP3**

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## Abstract

This deliverable deals with the recommendations for the second CONCERT Call about infrastructures. Infrastructures that can be used for CONCERT projects include: (1) exposure platforms and contaminated sites, (2) databases, sample banks and cohorts, (3) analytical platforms (particularly omics platforms), models and tools.

Going beyond infrastructures, the recommendations are enlarged to the Quality Management and Open Access processes including all data obtained within CONCERT.

The document comprises two sections:

- First section: For insertion in the call text,
- Second section: For insertion in the Annex of the call text,

The first section provides an abstract of the recommendations to be included in the second CONCERT call text. Further details and guidelines for applicants are given in the section 2.

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## Introduction

Research infrastructures are committed to provide access to the most advanced, unique, and large-scale resources, instruments and expertise in Europe. These services enable European scientists to conduct competitive and cutting edge research. The necessity to address research in radiation protection field to identified infrastructures was highlighted in the HLEG report of 2009. Since then, large EURATOM projects like DoReMi, OPERRA, COMET etc. have included specific WPs and tasks dedicated to infrastructures.

Surveys performed in former projects have revealed that the prevailing opinion is that most necessary infrastructures are available though not readily so to all users. Indeed, besides the funding of experiments, the access to state of the art infrastructure is a major bottle-neck for researchers. This topic is the major concern of CONCERT-WP6: Access to Infrastructures.

Infrastructures include so-called large infrastructures such as exposure facilities including those for animal and plant experiments (both laboratory and field facilities), databases, sample banks, epidemiological cohorts, and finally analytical platforms (including e-infrastructures). This deliverable contains recommendations for infrastructure related topics for the 2<sup>nd</sup> CONCERT call, which result from work tasks completed within WP6. Going beyond infrastructures, we enlarged the Quality Management and Open Access processes to include all data obtained within CONCERT. In order to keep the field as open as possible to new infrastructures, we decided to abandon the selection of “recommended infrastructures” and adopt instead “recommended criteria” that infrastructures must fulfil. The document comprises two sections:

- First section: For insertion in the call text,
- Second section: For insertion in the Annex of the call text,

The first section provides an abstract of the recommendations to be included in the first CONCERT call text. Further details and guidelines for applicants are given in the section 2.

### **For insertion in the call text**

Proposals must clearly identify all the chosen infrastructures belonging to the three categories: (1) exposure platforms and contamination sites (2) databases, sample banks and cohorts, (3) analytical platforms (including 'omics ones), models and tools.

The applicant to the call should document the expertise in using such infrastructures.

Proposals must demonstrate the appropriateness of the approaches, techniques or infrastructures that they plan to use, in terms of feasibility, reliability, quality assurance and traceability of the results to be generated in relation to the objectives of the project (e.g. reliable dose quantification, common standards for omics). A Data Management Plan (DMP), and if applicable, a Sample Management Plan (SMP), should be included in the proposal

([http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf)).

Research data (post-publication) should be made available via open access in STORE (<http://www.rbstore.eu/>) or in another open, searchable database (unless there are legal restrictions on data sharing).

It is strongly recommended that those identified infrastructures are registered by owners in the database AIR<sup>2</sup>D<sup>2</sup> (<http://www.concert-infrastructures.eu/home>).

The cost for using each infrastructure should be included in the proposal and identified separately.

The costs of intercomparison between infrastructures can be included in the proposal.

The costs of sample banking should be included when it is desirable considering the difficulties to do/to obtain those sample again.

If an infrastructure is used only for a service as a subcontractor and not as a partner of the consortium, it should be clearly indicated with the associated costs.

Full details of the call text are provided in annex.

### **For insertion in the Annex of the call text**

Most of the infrastructures needed for research in radiation protection exist across Europe. CONCERT will promote the visibility of those infrastructures. One of the roles of CONCERT is to ensure the availability of and facilitate ready access to the state-of-the-art research infrastructures required to support the research efforts of radiation protection researchers. The priority is done in order to promote the use of mature infrastructures and avoid unnecessary duplication.

Infrastructures include so-called large infrastructures such as exposure facilities and contaminated sites, databases (including cohorts), sample banks and analytical platforms.

#### **Article 1: Quality assurance**

Proposals need to describe the envisaged approaches of the research project. This description should include the quality assurance of the results to be generated, as well as their feasibility and reliability. For example, the use of models or tools for reliability of the received dose, the use of common standards for omics analysis, etc. It should also include a Data Management Plan (DMP) and if applicable a Sample Management Plan (SMP).

([http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf)).

Partners who apply to the CONCERT call must be involved in a quality approach to guarantee their results.

Projects which require external or internal dose/radioactivity assessment must demonstrate proper quality assurance in radioactivity or dosimetry measurements and their traceability to International System of Units.

CONCERT funded projects using analytical platforms, such as proteomics, genomics, chemical and radiological analysis, will agree to include recognized standards to guarantee the results of the project. Particularly, the maturation of the so-called 'omics technologies and systems biology may offer novel opportunities for European radiation protection research. As the quality of the technologies and supporting managerial and technical support varies widely, information on quality assurance system around those analytical methods must be described.

Proposals which include efforts with harmonization practices and intercomparison will be preferred.

A Data Management Plan (DMP) is requested. It should include how and where data will be stored and how it can be accessed. The costs of these activities should be included in the project budget, together with a Sample Management Plan (SMP) if applicable.

The costs of Quality Assurance processes including DMP, SMP, Standard Operating Procedures (SOP), traceability, intercomparisons, and standards for testing or checking references, should be clearly identified separately and included in the project budget.

#### **Article 2: Open Access**

Open access refers to the practice of providing online access to scientific information that is free of charge to the end-user and reusable <https://www.openaire.eu/support/faq#faqCat-20>.

The use of STORE ([www.storedb.org](http://www.storedb.org)), or a similar open access data archive, as a repository for data linked to all publications arising from EU-funded projects in radiation protection research should be required where appropriate in line with the recent guidelines for H2020 supported projects. ([http://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-pilot-guide\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-pilot-guide_en.pdf)).

Research data will preferably be housed in the STORE database, which offers four options for storage: (1) unlimited open access; (2) access only to a pre-defined group of users; (3) access only upon demand; (4) access via link to a database containing the data.

For those partners who do not wish to house their data in STORE, the data must be stored in a secured, searchable, clearly identified database with long-term access, and the partners must agree to provide access to the database post-publication. CONCERT funded projects will agree to provide all resulting data, together with clear supporting metadata, in order to ensure the potential re-use of the data generated and to harmonize field practices as far as practicable (field sampling protocols etc.).

CONCERT recommends the re-use of archived material and/or data if possible. Applicants will be required to indicate whether some or all of the proposed work can be carried out using archived material and/or data. Justification must be provided for those projects which intend to generate material and/or data which are already available in open databases such as STORE. Where appropriate, the creation of an open sample bank is highly encouraged and should preferably be localized on the site of one partner in the proposal. It is strongly recommended that the data and information describing the sample should be housed in the STORE database, which will be further developed to meet the needs of all platforms during the course of CONCERT. It is also recommended that this material be made available for re-use in the future.

New prospective cohorts, as well as the development of new collections of biological material that will be necessary to support radiation research in the next decades can be envisaged, but preferably if housed in STORE.

The costs of all data and sample banking activities (for at least 5 years post-CONCERT) should be included in the project budget.

### **Article 3: Infrastructures**

The open approach of CONCERT involves the use of infrastructures which fulfil recommended criteria. Infrastructures will be integrated into a searchable available database AIR<sup>2</sup>D<sup>2</sup> (<http://www.concert-infrastructures.eu/home>) that can be updated to include new candidates. If the infrastructure to be used in the project is not yet in AIR<sup>2</sup>D<sup>2</sup> database, an extensive description of the infrastructure and its selection criteria should be provided in the proposal.

In order to provide evaluators with sufficient information to critically assess the feasibility of the proposed studies, proposals must demonstrate the appropriateness of the approaches, techniques or infrastructures that they plan to use, in terms of feasibility, reliability, quality assurance and traceability of the results to be generated in relation to the objectives of the project.

The costs for using infrastructures in the project should be included in the proposal.