AIR²
Access to INFRASTRUCTURES for Radiation protection Research

Special Issue 11
May 2020

Editorial

After CONFIDENCE and LDLensRad here comes TERRITORIES, the last of the projects that were selected in the first call for tenders of CONCERT. TERRITORIES has a main objective, to reduce uncertainties in both sampling and modelling leading to risk management. Completed just before the epidemic hit Europe, the set of results presented on the website https://territories.eu is very rich, including presentations given during numerous workshops. In fact, the 9 projects conducted within the framework of CONCERT have included their results, with more or less details in dedicated websites. I invite you to consult this mine of information, which complements the summaries of the results that are described in the AIR² issues: https://concert-h2020.eu/en/Concert_info/Research_projects.

Last but not least: Stay safe!

Dr Laure Sabatier, CEA

The floor to...

TERRITORIES has aimed "To Enhance unceRtainties Reduction and stakeholders Involvement TOwards integrated and graded Risk management of humans and wildlife In long-lasting radiological Exposure Situations". It was built in the aftermath of the publication in 2014 of IAEA and European Basic Safety Standards, and upon the lessons learned in the recent international experience, mainly after the Fukushima-Daiichi nuclear accident.

TERRITORIES – To Enhance unceRtainties Reduction and stakeholders Involvement TOwards integrated and graded Risk management of humans and wildlife In long-lasting radiological Exposure Situations

This 3-year project (January 2017-January 2020), led by IRSN, gathered a consortium of 11 partners from 8 European countries, connected to a wider network of European and non-European parties (experts of the advisory board, invited stakeholders, students participating to workshops…).

Researches conducted along the TERRITORIES project have led to propose practical recommendations about how to reduce sampling uncertainties in radiological monitoring of territories (WP1), how to model fate of radionuclides in the environment in a fit-for-purpose approach, including uncertainty and sensitivity analyses (WP1), how to account for variability in exposure scenarios for dose assessment (WP2), how social and ethical considerations can be integrated into radiological protection research (WP2), or how to perform socio-economic analysis (WP3). Works undergone along the project have also included a review followed structured dialogues with stakeholders (using panels or a serious game) to investigate how uncertainty management comes into play in decision making processes for existing exposure situations (WP3), and a program of communication, education and training with a series of workshops (WP4).

Based on the output of these works, series of recommendations have been proposed to manage two types of existing exposure situations, on and around NORM sites and in the long term after a nuclear accident. These recommendations address co-constructed monitoring, dose assessment tools (populations and biota), rehabilitation of living conditions, socio-economic aspects of remediation, etc. Drafts were discussed with a wide audience during the Final Event in November 2019 and final versions have been delivered at the end of the project.

TERRITORIES Coordinator
Marie Simon-Cornu

Department for Radiological Protection of the Public and Assessment of the Radioactivity in the Environment

IRSN

Photo: IRSN

CONCERT CORNER

Future events:

ERPW 2020
Postponed to 2021. More information to be announced soon.

WP 6 News:

AIR²D²:
- Please complete the online form(s) to register your infrastructure(s) in the database.
- A new option to feature your infrastructure is now available: add document.

Follow STORE on Twitter: @STOREDatabase

Contents:

This project has received funding from the Euratom research and training programme 2014-2018 under grant agreement No 662287

TERRITORIES WP1

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

Work package 1 has aimed to identify and reduce uncertainties in radioecology models and to quantify variability in space and time in the characterisation, in terms of measurable quantities in the various environmental compartments, of long term contaminated territories, to provide fit-for-purpose information for environmental diagnosis and prognosis of long -lasting exposure situations. This led to 4 TERRITORIES deliverables, D9.59 to D9.62, available on http://concert-h2020.eu/en/Publications and on https://territories.eu/publications.

Sampling uncertainty was further discussed in the acquisition of 3 datasets from the TLD, which could be the most important contributor to the total uncertainty of the measurement process (D9.60). In this sense TERRITORIES recommends to make an effort in explaining and training laboratory staff in charge of performing sampling and monitoring campaigns for implementing the proposed methods to quantify sampling uncertainties.

Photo: CIEMAT

Juan Carlos Mora

Ten radioecology models, some already existing and some created fit-for-purpose in the project, were tested against the TLD datasets by 8 partners (IRSN, BfS, CIEMAT, DSA, NMBU, PHE, SCK•CEN and University of Tartu): For surface waters ARCTICMAR and its advanced version AMIS; For forest ecosystems CROM and FORESTCROM (a simple model derived from CROM for forests), ECOFOR and REGEMA (site specific developed models), TREE4-simple (forest model implemented in SYMBIOSE), and its improved version TREE4-advanced; And for external doses CROM, GRANIS (Gamma Radiation Above Nuclides In Soil) and NORMALYSA (NORM And LegacY Site Assessment). A method to quantitatively and qualitatively compare the obtained results by different models, based on their accuracy and uncertainty, have been developed and tested to show advantages and limits of process-based versus simpler models for different context/scenarios (D9.61). Methods and recommendations were also proposed to identify, prioritize and calculate model uncertainties, including conceptual uncertainty, which is often not quantified (D9.62).

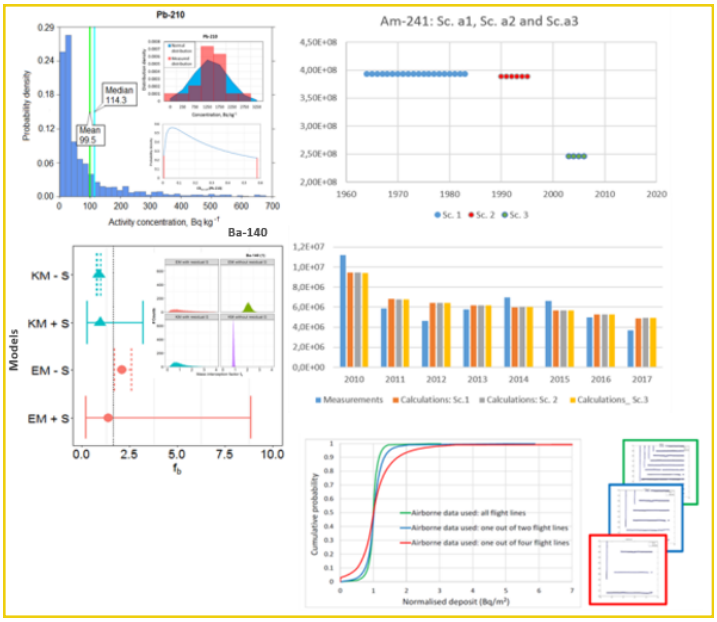

Photo: BfS, CIEMAT, University of Tartu, IRSN

Illustration of various models' uncertainties quantifications

The TERRITORIES Library Database (TLD, described in D9.59 and publicly available at http://radioecomachine.ciemat.es) was created by PHE with data provided by several partners, from publically available information, generated within the project. The TLD contains datasets of monitored data from five different sites (in brackets the partner providing the data):

- NORM contaminated forest site, data acquired within the project, including the installation of a radioecological monitoring station, Belgium (SCK•CEN);
- Fukushima, activity concentration measurements in forests and airborne gamma ray surveys treated by geostatistics, Japan (IRSN);
- Fen activity concentrations and ambient dose rates from NORM contaminated site, Norway (DSA & NMBU);
- Sellafield, routine monitoring and radioactive particles on beaches, UK (PHE);
- Rontok Lake, including data acquired along the project, Poland (IRSN).

Photo: PHE, CIEMAT, DSA, NMBU, SCK•CEN, IRSN

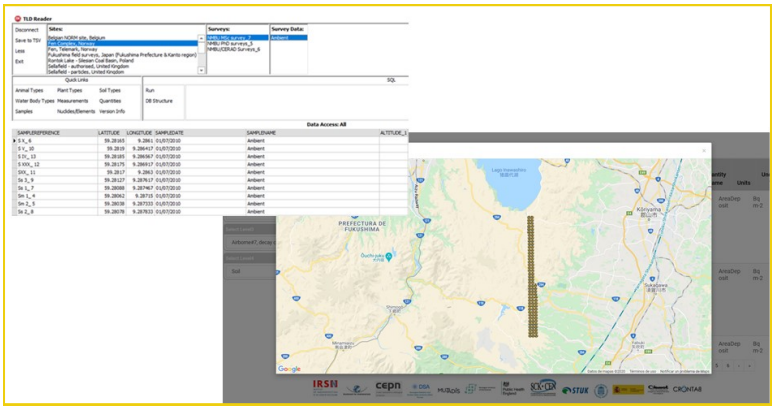

Illustration of the TERRITORIES Library Database (TLD)

ID Card:

Keywords:
Radioecology, sampling, monitoring, models generation and validation, uncertainties

Work Package leader:
Juan Carlos Mora Cañadas, CIEMAT

Partners:
- CIEMAT, Spain
- SCK•CEN, Belgium
- University of Tartu, Estonia
- IRSN, France
- BfS, Germany
- DSA, Norway
- NMBU, Norway
- PHE, United Kingdom

Duration:
31 months

Total budget:
1324 k€ with 739 k€ EC contribution

Infrastructures:
Observatory sites
2 ALLIANCE radioecological observatories: Belgium NORM site and upper Silesian coal basin (Poland)
Databases
TERRITORIES Library Database (TLD)
Models and tools
ARCTICMAR, AMIS, CROM, FORESTCROM, ECOFOR, REGEMA, NORMALYSA, TREE4-simple (SYMBIOSE) and -advanced

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Related to:
ALLIANCE

Spatial properties of soil analyses and airborne measurements for reconnaissance of soil contamination by ^{137}Cs after Fukushima nuclear accident in 2011, Masoudi P., Le Coz M., Cazala C., Saito K. (2019), J Environ Radioact, 202, 74-84

Performance evaluation of Monte Carlo simulation: Case study of Monte Carlo approximation versus analytical solution for a chi-squared distribution, Ohvril H., Tkaczyk A. H., Saari P., Kollo T., Mauring K., Post P., Vilbaste M., Vedru J., Ipbüker C. (2020), Meas Sci Technol, 31, 045012

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Reducing uncertainties when characterizing exposure scenarios, accounting for human and wildlife behaviour, and integrating social and ethical considerations in the management of uncertainties

Tasks 2.1 and 2.2 looked at the variability in human and animal behaviours respectively for most important exposure pathways with state-of-the-art reviews, associating 2 case studies related to Chernobyl deposits (human populations in a Belarus village, and reindeers in Norway), whereas Task 2.3 aimed to integrate social and ethical considerations in the management of uncertainties.

Photo: IRSN

Field case-study in Komaryn, Belarus: Open Radiation map of the ambient dose rate as measured by the children

In Task 2.1, led by PHE, partners have addressed main variabilities in human dose assessments and their influence on the dose calculation (D9.63). The variability in external exposure is mainly influenced by differences in occupancy in contaminated areas, times spent indoors and outdoors and housing type. This does depend on the indoor vs outdoor ambient dose rates being different, which was not found to be the situation in the Belarus case-study (IRSN, CEPN) of Bertho et al. (2019). For internal exposure to human populations, the greatest variability in dose is related to food consumption rates and the amount of the food consumed that is locally produced.

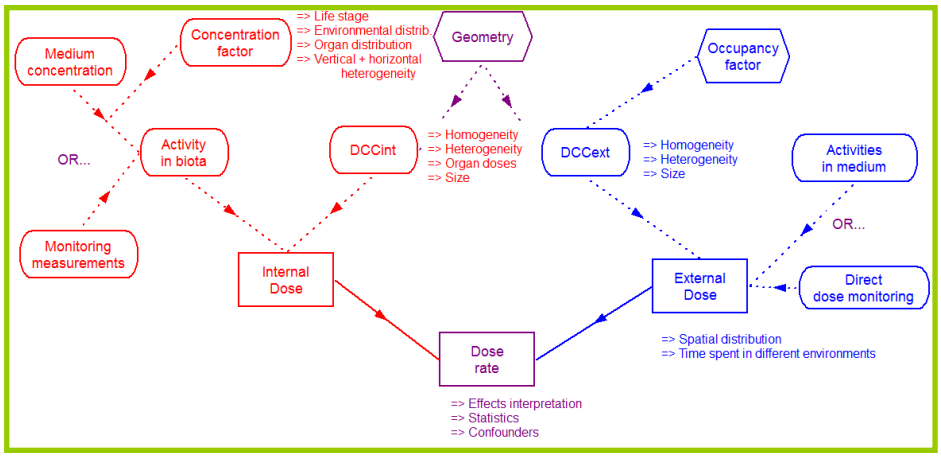
Task 2.2, led by IRSN, has demonstrated that estimating the dose to wildlife exposed to ionising radiation can be even more complex than for human populations, due to the wide biodiversity and variability between modes of life. It has been concluded in D9.63 that for wildlife, large variabilities or uncertainties in behaviour do not necessarily translate into a large range in the overall dose received, because the impact of behavioural variabilities or uncertainties most significantly depends on the dominant exposure pathway, which in turn is dependent on the nature of the ionising radiation to which organisms are exposed. The reindeer case study (DSA) clearly illustrated one situation with added value of considering wildlife behaviour in dose assessment, as it demonstrated that no relevant dose assessment can be obtained without taking into account the actual location of the animals *via* their GPS tracks.

Photo: PHE

Kelly Jones

Task 2.3, led by SCK•CEN, engaged students and their supervisors in 3 laboratories: 1) Laboratory of Environmental Physics, University of Tartu (Estonia); 2) Biosphere Impact Studies group, Belgian Nuclear Research Centre SCK•CEN (Belgium); 3) Environmental Radioactivity and Radiological Surveillance Unit of CIEMAT (Spain). The work done delivered a proof of concept, illustrating the potential of socio-technical integration research (STIR) to enhance reflexive awareness among technical and social scientists of the uncertainties that accompany radiation protection research, specifically in the processes of modelling and dose and risk assessment. These uncertainties are of a technical nature but are bound up with various 'non-technical' considerations – economic, social, ethical, psychological, etc.

Photo: IRSN, SCK•CEN



Main components of dose assessment for non-human biota

ID Card:

Keywords:
Exposure pathways, STIR (socio-technical integration research)

Work Package leader:
Kelly Jones, PHE

Partners:
- PHE, United Kingdom
- SCK•CEN, Belgium
- IRSN, France
- CIEMAT, Spain
- University of Tartu, Estonia
- BfS, Germany
- CEPN, France
- DSA, Norway
- NMBU, Norway
- STUK, Finland

Duration:
30 months

Total budget:
567 k€ with 308 k€ EC contribution

Infrastructures:
Observatory sites
Human behaviour field study: Komaryn, a Belarus village
Animal behaviour field study: reindeers in Vågå (Norway)
Databases
Activity concentrations in Komaryn foodstuffs, International Wildlife Transfer Database
Models and tools
ERICA-tool, RESRAD Biota, ECO-SPACE, Dynamic reindeer model

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Assessment of population radiation exposure at the edge of the exclusion zone 32 years after the Chernobyl accident: methods and preliminary results, Bertho J.-M., Maître M., Croüail P., Naito W., Shkliarava N., Mostovenko A., Jones K., Simon-Cornu M. (2019), Radioprotection, 54 (4), 247-257
2 TERRITORIES deliverables, D9.63 to D9.64, available at http://concert-h2020.eu/en/Publications and at https://territories.eu/publications

Stakeholder engagement for a better management of uncertainty in risk assessment and decision-making processes including remediation strategies

The overall objective of the TERRITORIES WP3 was to analyse the decision-making processes in the management of long-lasting radiological exposure situations with a specific focus on two types of situations: the contamination of territories affected by a nuclear accident, and sites contaminated by naturally occurring radioactive materials (NORM). A key point of WP3 was to identify the uncertainties facing the decision makers and the impacted population (hereinafter referred to as stakeholders) and how the management of these uncertainties, in particular through the involvement of the various stakeholders in decision-making processes, could lead to better, more informed, decisions.

Photo: CEPN & J. Drefvelin

Pascal Croüail **Astrid Liland**

Photo: CLIN of Blayais

Group photo of the participants to the stakeholder panel co-organized by CEPN, EDF and Local Commission of Information (CLIN) of Blayais in Bordeaux, France

A review was carried out in order to collect the various decision factors and criteria proposed by the main international organizations as well as those implemented in national frameworks for assessing and managing Post-Accident and NORM situations (D9.65).

The work also involved gathering information and developing insights on existing exposure situations that have arisen from major nuclear accidents in the past (e.g. Chernobyl, Fukushima) and from the legacies arising from previous mining and minerals processing activities (NORM sites). This has allowed to capture the manifestation of uncertainty in the decision-making processes, which includes uncertainties related to: the radiological characterization and impact assessment, the feasibility and effectiveness of the remediation options, the long term health consequences, the socio-economic and financial aspects, the quality of future life in the territory (including environmental concerns), the socio-ethical aspects, the governance and the communication issues.

On that basis, specific approaches, innovative assessment methods and tools for informing debate and dialogue with stakeholders have been developed and then used in the framework of the WP3. Indeed, a set of case-studies (i.e. hypothetical or real existing exposure situations) was developed (D9.66 to 70). For each of them, remediation and recovery options were further discussed and critically assessed through stakeholder panels, discussion groups or dedicated serious game sessions. These involved institutional and non-institutional experts, scientists, NGOs and citizens at both national and local levels. The decision pathways and related uncertainties were examined according to possible consequences in terms of dose to humans and wildlife, environmental contamination, waste production but also with regard to future land uses, socioeconomic consequences for the affected territory, social and ethical issues, and public acceptability considerations i.e. what is necessary for a return to dignified living conditions for the impacted population.

The participation and commitment of various stakeholders at the different steps of the reflection was the key element and a real added value for the elaboration of the final recommendations (D9.71 and 72).

Photo: Aquabella

Group photo of the participants to the TERRITORIES Final Event, Aix en Provence, France

cepn

DSA Norwegian Radiation and Nuclear Safety Authority

ID Card:

Keywords:
Post-accident, NORM, uncertainty, decision-making, recovery, socioeconomic analysis

Work Package leader:
Pascal Croüail, CEPN
Astrid Liland, DSA

Partners:
- CEPN, France
- DSA, Norway
- IRSN, France
- SCK•CEN, Belgium
- Mutadis, France
- CIEMAT, Spain
- University of Tartu, Estonia
- NMBU, Norway
- PHE, United Kingdom
- STUK, Finland
- BfS, Germany

Duration:
37 months

Total budget:
14363 k€ with 737 k€ EC contribution

Infrastructures:
Tools
Serious game, stakeholders' panels, MCDA, CBA

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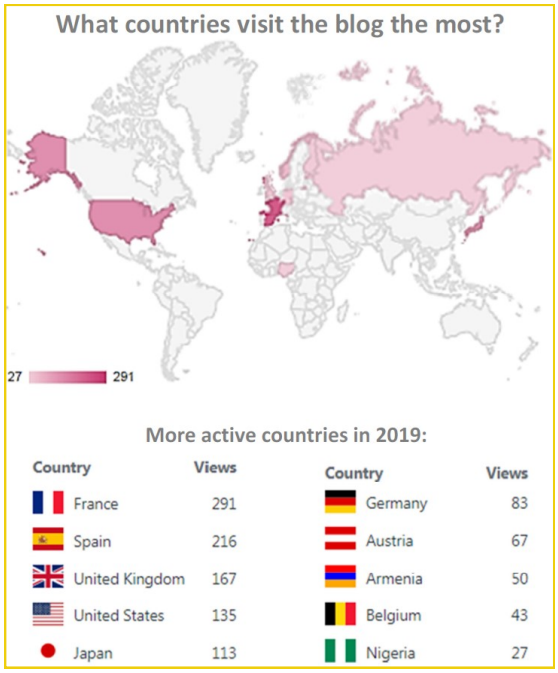
8 TERRITORIES deliverables, D9.65 to D9.72, available at http://concert-h2020.eu/en/Publications and at https://territories.eu/publications

Communications in scientific congresses and conferences, available at https://territories.eu/dissemination

Strategic and integrated communication, education and training

The aim of WP4 was (i) to identify and communicate to appropriate audiences the existing capabilities, key uncertainties, needs and knowledge gaps, (ii) to strengthen the competence and capacity in the scope of the project, (iii) to disseminate all results from the TERRITORIES project, targeting a wide international audience.



Statistics of the blog views in 2019 (Provided by CIEMAT)

The website https://territories.eu (created and managed by University of Tartu), the blog https://territoriesweb.wordpress.com (created and managed by CIEMAT), and the 4 workshops (as detailed below) have been crucial in reaching this threefold aim and in building a multi-disciplinary community at three levels: (i) among the researchers directly involved in the project (including early stage researchers), (ii) with researchers or practitioners from fields related to ongoing researches, (iii) with a wider audience of stakeholders and students.

The 1st TERRITORIES workshop, held on November 14th – 15th, 2017, in Oslo, was entitled "Key factors contributing to uncertainties in radiological risk assessment". D9.73 discusses the key factors contributing the most to overall uncertainties when linking source term and deposition to ecosystem transfer, and to human and environmental radiological impact/risk assessment models. It was followed by a 2nd workshop entitled "Communication of uncertainties of radiological risk assessments to stakeholders", organised on 16th of November 2017, in Oslo. D9.75 discusses the implications and relevance of uncertainties in radiological risk assessments (in long-lasting exposure situations) for different stakeholders, and works out how these uncertainties could be better communicated, obtaining feedback from regulators, industry, scientists and the general public on these issues.

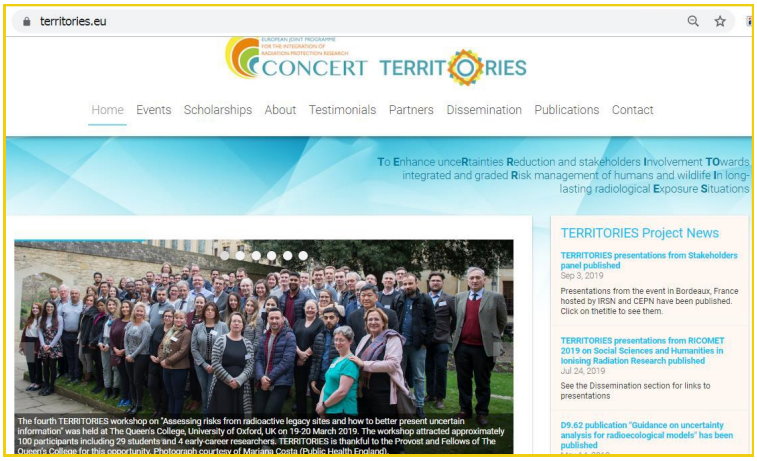
Photo: University of Tartu

Alan Tkaczyk

The "Multidisciplinary forum to discuss the scientific basis for reducing uncertainties and improving risk assessment" was organised in Madrid on 13th and 14th of June 2018. The objective of this 3rd workshop was to get feedback from experts in different scientific disciplines, to inform ongoing development of D9.60 and D9.61. Thus, the workshop focused on methodologies to reduce uncertainties related to sampling and monitoring strategies and the quantitative handling of the various types of uncertainties that play a major role in radioecological modelling, including conceptual model uncertainty and scenario uncertainty (D9.74).

The last TERRITORIES workshop, was held on 19th - 20th of March 2019 in Oxford, on the topic of "Assessing risks from radioactive legacy sites and how to better present uncertain information" (D9.76). General aspects of uncertainties in risk assessments of radioactively contaminated legacy sites were discussed. Furthermore, the case of the risk assessment process applied to a real site at Sellafield, UK was presented. There was a significant representation of students and early career scientists (32 of the 100 participants), most of them not involved in the TERRITORIES project.

Photo: University of Tartu for the website / Mariana Costa (PHE) for the photograph



TERRITORIES website: home page, including a group photo of the 4th workshop (Queen's College, Oxford, UK)

ID Card:

Keywords:
Dissemination, workshops, communication of uncertainties

Work Package leader:
Alan Tkaczyk, University of Tartu

Partners:
- University of Tartu, Estonia
- CIEMAT, Spain
- NMBU, Norway
- DSA, Norway
- SCK•CEN, Belgium
- BfS, Germany
- CEPN, France

Duration:
37 months

Total budget:
490 k€ with 225 k€ EC contribution

Infrastructures:
Tools
Blog, website

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6 TERRITORIES deliverables, D9.73 to D9.78, available at http://concert-h2020.eu/en/Publications and at https://territories.eu/publications

Communications in scientific congresses, conferences and TERRITORIES workshops, available at https://territories.eu/dissemination

AIR²

Access to INFRASTRUCTURES

Issue	Exposure platforms	Databases, Sample banks, Cohorts	Analytical platforms, Models & Tools
Published to date:			
Oct 2015, #1	FIGARO	FREDERICA	RENEB
Nov 2015, #2	B3, Animal Contamination Facility	The Wismut Cohort and Biobank	The Hungarian Genomics Research Network
Dec 2015, #3	Pulex Cosmic Silence	STORE	METABOHUB
Feb 2016, #4	SNAKE	French Haemangioma Cohort and Biobank	Dose Estimate, CABAS, NETA
Mar 2016, #5	Radon exposure chamber	3-Generations exposure study	PROFI
Apr 2016, #6	Biological Irradiation Facility	Wildlife TransferDatabase	Radiobiology and immunology platform (CTU-FBME)
May2016, #7	CIRIL	Portuguese Tinea Capitis Cohort	LDRadStatsNet
Jun 2016, #8	Mixed alpha and X-ray exposure facility	Elfe Cohort	ERICA Tool
Jul 2016, #9	SCRS-GIG	RES³T	CROM-8
Sep 2016, #10	Facility radionuclides availability, transfer and migration	INWORKS cohort	France Génomique
Oct 2016 #11	LIBIS gamma low dose rate facility ISS	JANUS	Transcriptomics platform SCKCEN
Nov 2016, #12	Microtron laboratory	EPI-CT Scan cohort	CATI
Dec 2016, #13	Nanoparticle Inhalation Facility	UEF Biobanking	The Analytical Platform of the PREPARE project
Feb 2017, #14	Infrastructure for retrospective radon & thoron dosimetry	Chernobyl Tissue Bank	HZDR Radioanalytical Laboratories
Special Issue 1	1st CONCERT Call: CONFIDENCE, LDLensRad, TERRITORIES	1st CONCERT Call: CONFIDENCE, LDLensRad, TERRITORIES	1st CONCERT Call: CONFIDENCE, LDLensRad, TERRITORIES
Mar 2017, #15	Alpha Particles Irradiator Calibration Laboratory at KIT		SYMBIOSE
Apr 2017, #16	Changing Dose rate (SU) Low dose rate (SU)		Advanced Technologies Network Center
May 2017, #17	Chernobyl Exclusion Zone	Chernobyl clean-up workers from Latvia	BfS whole and partial body Counting
Jun 2017, #18	MELAF	Belgian Soil Collection	INFRAFONTIER
Jul 2017, #19	MICADO'LAB	Estchern Cohort	ECORITME
Sep 2017, #20	DOS NDS		CERES
Oct 2017, #21	CALLAB Radon Calibration Laboratory		CORIF
Nov 2017, #22	Calibration and Dosimetry Laboratory (INTE-UPC)	German airline crew cohort	Centre for Omic Sciences (COS)
Dec 2017, #23	NMG	Techa River Cohort (TRC)	iGE3
Special Issue 2	MEDIRAD	MEDIRAD	MEDIRAD
Feb 2018, #24	UNIPI-AmBe	Greek interventional cardiologists cohort	SNAP

Future events:

CONCERT Short Courses

18-29 May 2020

Modelling radiation effects from initial physical events,
University of Pavia, Italy
Contact:
Andrea Ottolenghi

To verify for modifications due to the COVID-19 outbreak!

See also on CONCERT website

Editorial Committee: Maria Panagiotopoulou, Jean-Michel Dolo, Laure Sabatier

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Access to INFRASTRUCTURES

Issue	Exposure platforms	Databases, Sample banks, Cohorts	Analytical platforms, Models & Tools
Published to date:			
Special Issue 3	2nd CONCERT Call: LEU-TRACK, PODIUM, SEPARATE, VERIDIC, ENGAGE, SHAMISEN-SINGS	2nd CONCERT Call: LEU-TRACK, PODIUM, SEPARATE, VERIDIC, ENGAGE, SHAMISEN-SINGS	2nd CONCERT Call: LEU-TRACK, PODIUM, SEPARATE, VERIDIC, ENGAGE, SHAMISEN-SINGS
Mar 2018, #25	IRRAD	MARiS	BIANCA
Apr 2018, #26	Forest observatory site in Yamakiya	BBM	OEDIPE
May 2018, #27	Belgian NORM Observatory Site	The German Thorotrast Cohort Study	VIB Proteomics Core
Jun 2018, #28	CERF	Mayak PA worker cohort	Geant4-DNA
Jul 2018, #29	TIFPA	RHRTR	D-DAT
Sep 2018, #30	HIT	The TRACY cohort	COOLER
Oct 2018, #31	PTB Microbeam	The BRIDE platform	BRENDA
Nov 2018, #32	AGOR Facility at KVI-CART LNK		MARS beamline at SOLEIL
Dec 2018, #33	PARISII	The ISIBELa cohort	CIEMAT WBC
Feb 2019, #34	The MIRCOM microbeam	The ISE cohort	EFFTRAN
Special Issue 4	NSRL	LSAH & LSDA	GeneLab
Mar 2019, #35	IRSE Experimental Farm	The MWF database	DSA Environmental Laboratory
Apr 2019, #36	PG stack at Barreiro, Portugal	CONSTANCES	The MCDA Tool
May 2019, #37	LERF	IMMO-LDRT01 cohort	Radiochemical and Radioactive Analysis Laboratory (INTE-UPC)
Jun 2019, #38	FAIR	The BACCARAT study	CIEMAT *In Vitro* Internal Dosimetry Laboratories
Jul 2019, #39	AMBIC	LSS	LRM
Sep 2019, #40	FRM II	REQUITE	TU Dublin Analytical Platform
Special Issue 5	CONFIDENCE	CONFIDENCE	CONFIDENCE
Special Issue 6	PODIUM	PODIUM	PODIUM
Special Issue 7	LDLensRad	LDLensRad	LDLensRad
Special Issue 8	ENGAGE	ENGAGE	ENGAGE
Special Issue 9	LEU-TRACK	LEU-TRACK	LEU-TRACK
Special Issue 10	CIEMAT External Dosimetry Service and Retrospective Luminescence Dosimetry Lab, AIFIRA Microbeam, The Calliope Facility, ZATU	The 'hematopoietic system' database for Mayak nuclear workers chronically exposed to ionizing radiation	
Special Issue 11	TERRITORIES	TERRITORIES	TERRITORIES

Future events:

Other Events

1st ISORED scientific and organisation meeting, Sitges, Spain: Postponed until spring 2021 because of the COVID-19 pandemic. The new dates will be communicated soon.

27-29 May 2020

6th NERIS workshop: Operational and research achievements and needs to further strengthen preparedness in emergency management, recovery and response, Barcelona, Spain

ERPW2020: European Radiation Protection Week 2020, Estoril, Portugal: Postponed to 2021. More information to be announced soon.

To verify for modifications due to the COVID-19 outbreak!

Editorial Committee: Maria Panagiotopoulou, Jean-Michel Dolo, Laure Sabatier