



Sustainability of STAR's Main Outcomes and Plans for the Future

Challenges and Solutions Identified by STAR

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www.star-radioecology.org www.radioecology-exchange.org

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Situation of radioecology in Europe when STAR was conceived

- The analysis of the radioecology programmes in Europe showed:
 - A steadily decreased funding base.
 - Fragmentation; with poor coordination among national strategies and programmes.
 - Poor recruitment of young scientists, retirement of key personnel and closing of important infrastructure.
 - Loss of knowledge and ability to address future problems.
- The approach in radiation protection research in Europe was evolving: creation of platforms to coordinate the work done in the different disciplines (MELODI, NERIS, EURADOS).
- MoU between 8 European organisations active in radioecology: The seed for the European Radioecology Alliance





The European Radioecology Alliance (2009)

- The founding members state their intention to bring together, with an aspiration of **sustainability**, part of their respective R&D programmes into an integrated trans-national programme.
- Maintain and enhance radioecological competences and experimental infrastructure in Europe.
- Address **scientific and educational challenges** relative to the impact of radioactive substances on humans and the environment.
- Maintain radioecology such that it covers the needs of regulators, society and industry in Europe.







The European Radioecology Alliance

- One of the first actions of the ALLIANCE was to prepare a proposal to create a Network of Excellence in Radioecology (STAR), for the 7FP.
- Aim of STAR:



To facilitate the long term sustainable integration of European radioecological research, with an appropriate governance structure

To achieve the long-term sustainable integration of Radioecology in Europe, STAR has developed and optimised the use of a variety of valuable resources





Sustainability of the STAR's Outcomes

- Optimize the use of resources: existing and newly created.
 - R&D activities
 - Infrastructure
 - Education & Training
 - Communication: Dissemination; Stakeholders.
- Join forces with other disciplines/organizations:
 - European platforms on RP (MELODI, NERIS, EURADOS, EUTERP): Common interests, synergisms.
 - International organizations: IUR, IAEA, ICRP, etc.
 - Complementary disciplines: SETAC, CINCH-II.
 - Horizon 2020: EJP-CONCERT
- Funds for radioecology









Challenge

Optimize the use of the resources available for R&D activities and explore new funding mechanisms for research in radioecology.



- Optimization of resources available:
 - Focus in the research lines prioritized in the SRA (STAR survey 2011): COMET/ALLIANCE will update the SRA and Roadmap.
 - EJP-CONCERT: Synergisms with other disciplines (OPERRA survey 2014: higher priority research lines).
- Funding mechanisms for research activities:
 - EJP-CONCERT Open Calls; National organizations/programmes committed with radioecology; End-users (industry, regulators, etc.).





Challenge

Maintain and optimize the use of key infrastructure for radioecology (single, highly-specialised, but essential facilities)

- Maintain infrastructure
 - COMET (May 2017).
 - ALLIANCE will take over
 - EJP-CONCERT.
- Optimize the use of infrastructure.
 - Harmonize practices and protocols (Virtual laboratory).
 - COMET: Define protocols for access to infrastructure.







Challenge

Create observatories and demonstrate the added value of using them.

- Develop the mechanisms to perform joint, coordinated research in the observatories (COMET).
- Encourage the use of the observatories for research activities
 - Multidisciplinary.
 - Innovative approach to maximize the efficacy of radioecological field investigations and to promote integration of the organizations involved.
 - Create a comprehensive database (development and validation of models).
 www.star-radioecology.org
 www.radioecology-exchange.org







Challenge

Strengthen and secure a sustainable integrated European training and education platform in radioecology that will attract top-level graduates.

- Explore joint EU MSc/PhD opportunities: *Erasmus Mundus*, OPERRA, EJP-CONCERT.
- Mobility of students and scientists.
- Fostering collaborations with E&T activities organized by other platforms/organizations.



- Organize joint courses for students and professionals (with academic and vocational credits) and distance learning courses.
- Encourage stakeholder and employer to get involved in E&T.





Challenge

Maintain and increase the integration achieved during STAR: beyond radioecology.

Solutions

- SRA, Roadmap (COMET, ALLIANCE).
- Close interaction with IUR.
- Synergisms with European RP platforms.
- Collaboration with international organizations: SETAC, IAEA, ICRP.
- Joint projects (proposals in open calls).
- Mobility strategies: research activities, use of infrastructure, E&T events.







Challenge

Show the usefulness and role of radioecology: Solve the needs of the society, authorities and stakeholders/end-users.

Solutions

- Dissemination of the results and its importance.
- Meaningful interaction/communication with stakeholders/end-users.
- Rapid response to unexpected events.



• Scientific and practical support in the implementation of the legislation: e.g. European BSS.





Challenge

Accessible long-term radioecological knowledge management system:

Ensure open access to key radioecological information.

Solutions

- *The Radioecology Exchange*: maintain and update the resources created in the portal.
 - ALLIANCE webpage.
 - Project web pages (STAR, COMET, etc.)
- Social media: Facebook, Twitter, blogs, etc.
- Continued update is needed.









Challenge

Keep the ALLIANCE dynamic, vibrant and open. Increase the visibility of European radioecology.

- Roadmap working groups.
- Active and strong involvement in EJP-CONCERT.
- Ensure commitment of scientists and organizations.
- Promote involvement and contribution of students.
- Organize conferences and workshops.
- Responsiveness to questions.
- Produce position papers on key radioecology topics









Funds for Radioecology

Challenge

Develop mechanisms for the sustainability of radioecological research, infrastructure and E&T, without EC funding.



Solutions

- Commitment of the organizations and countries.
- Organization of courses and other events.
- Elaborate an strategic plan for sustainability.







Thank you for your attention!