

IUR International Workshop Worldwide harmonization of radioecology networks

19-20 June 2014
La Baume, Aix en Provence - France



International Union of Radioecology

François Bréchnignac and Per Strand
(IUR President & General Secretary)



Union Internationale de Radioécologie
International Union of Radioecology

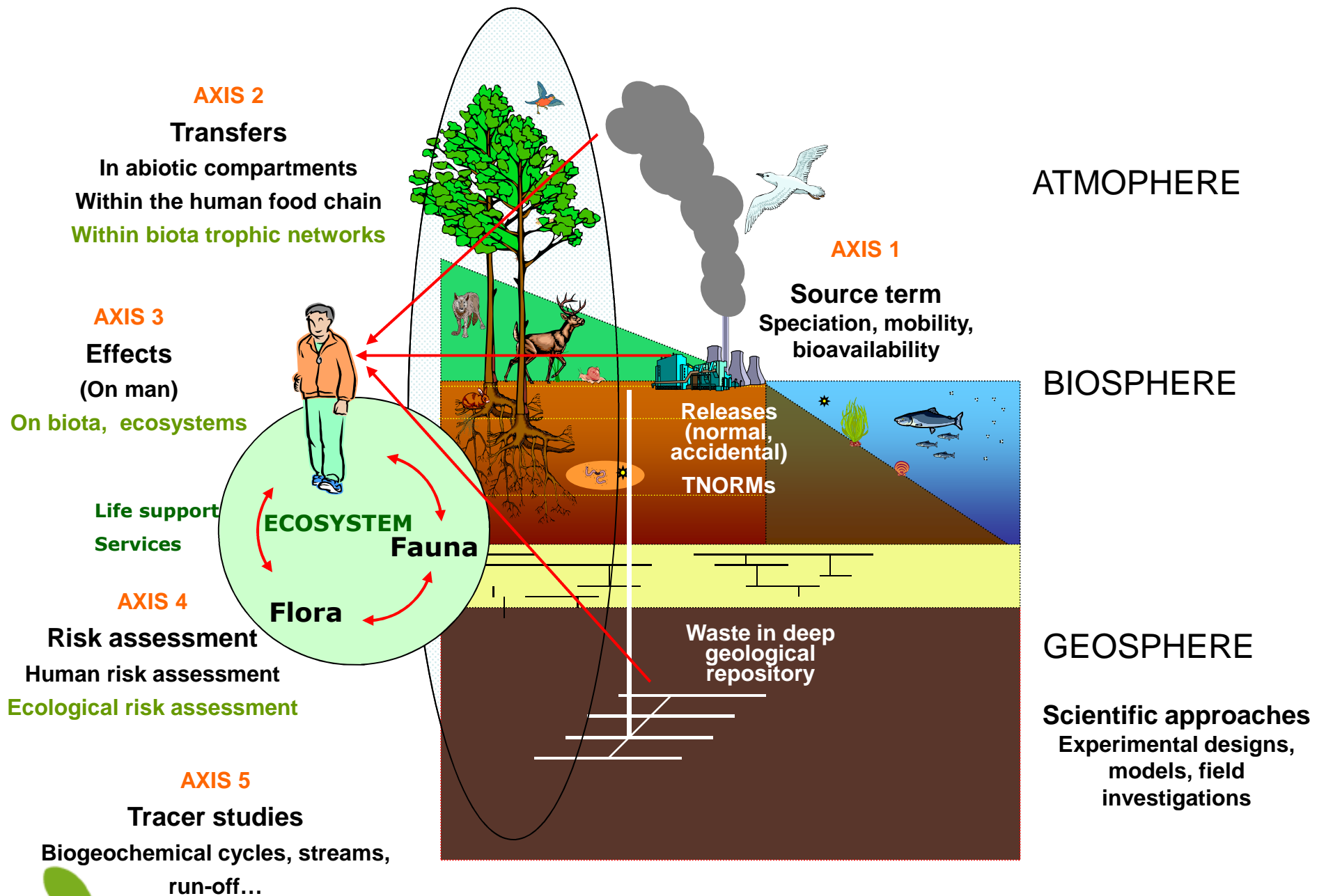
What is Radioecology

A multidisciplinary scientific discipline:

biology, chemistry, physiology, ecology, biogeochemistry, geophysics, ecotoxicology, mathematics (models, statistics), metrology, ...

- **centered on the environment,**

- **aimed at describing, understanding and predicting:**
 - the fate of artificial and natural radioactivity in environmental systems,
 - its impact on man via the environment - human risk assessment
 - Its impact on the environment itself (biota, ecosystems) - ecological risk assessment,
 - biogeochemical processes by means of tracer studies



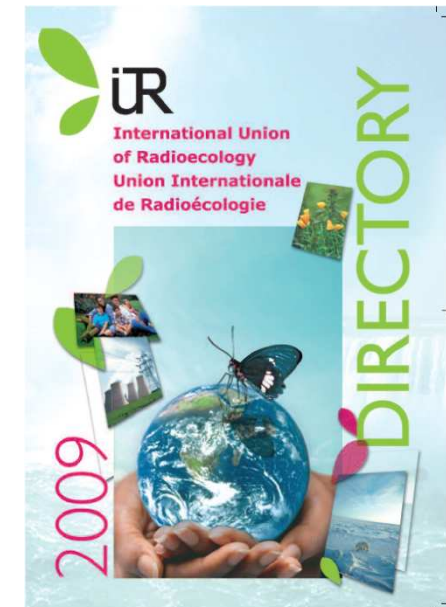
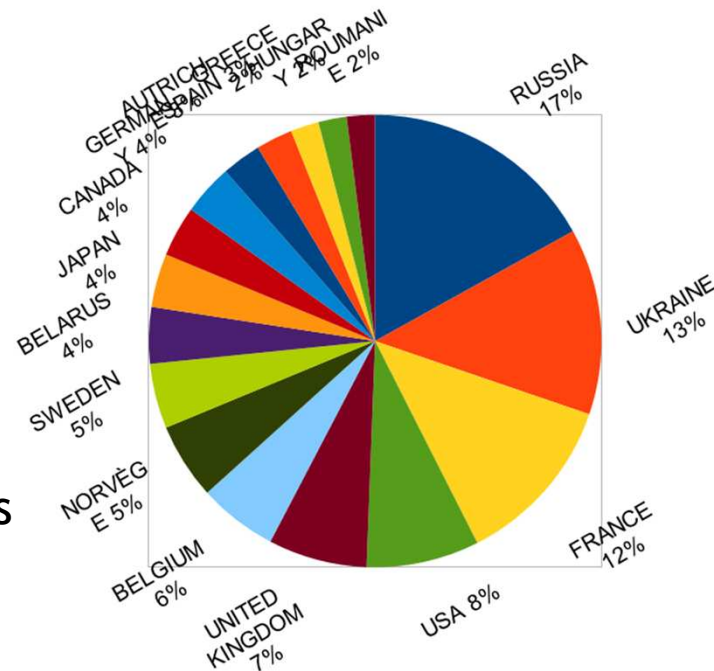
IUR goals and objectives

- To ensure, stimulate and maintain high level radioecological expertise capacity throughout the world to secure the safe development of nuclear based technologies and the public awareness and acceptance (teaching and training)
- To promote scientific innovation, identify research priorities and stimulate the co-construction of international programmes, sharing resources and research infrastructures (brain-storming in Task Groups)
- To perpetuate and strengthen its 37 years old network of scientists and professionals for the benefit of all members and member countries (communication, information, publication, dissemination)
- To liaise all the above radioecological outputs with other relevant international organisations, whether focused on science, operational radioecology, or regulation for radiation protection

IUR in brief

- Non-political, non-profit Knowing Society dedicated to the worldwide development of Radioecology : “Think Tank“
- Founded in the 70s as an International Association (registered in Belgium)
- More than 1500 registered, 624 active members, worldwide (68 countries)

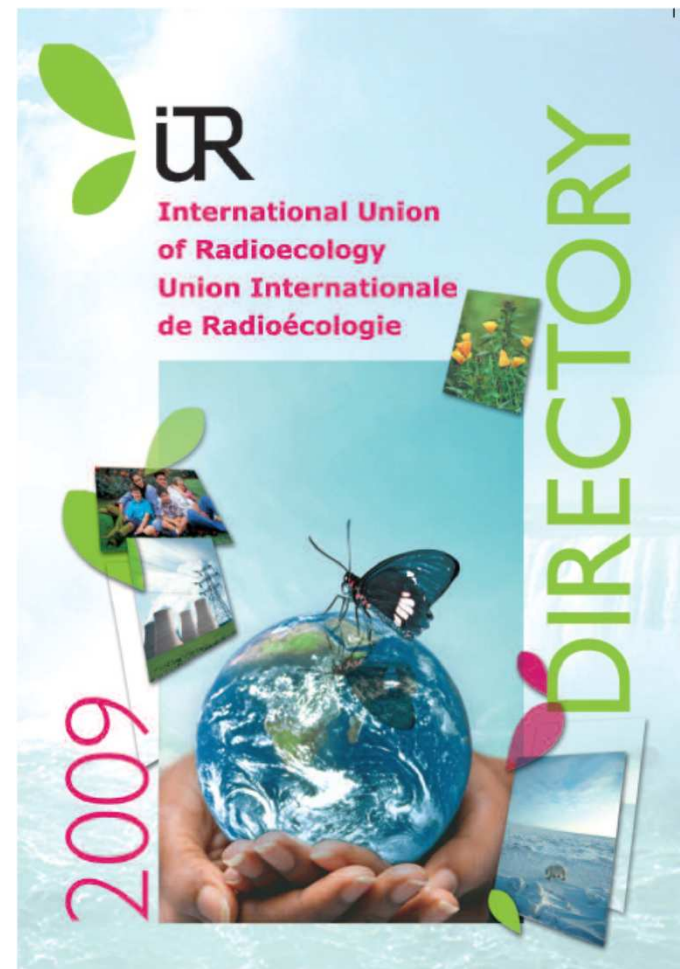
Countries > 10 members



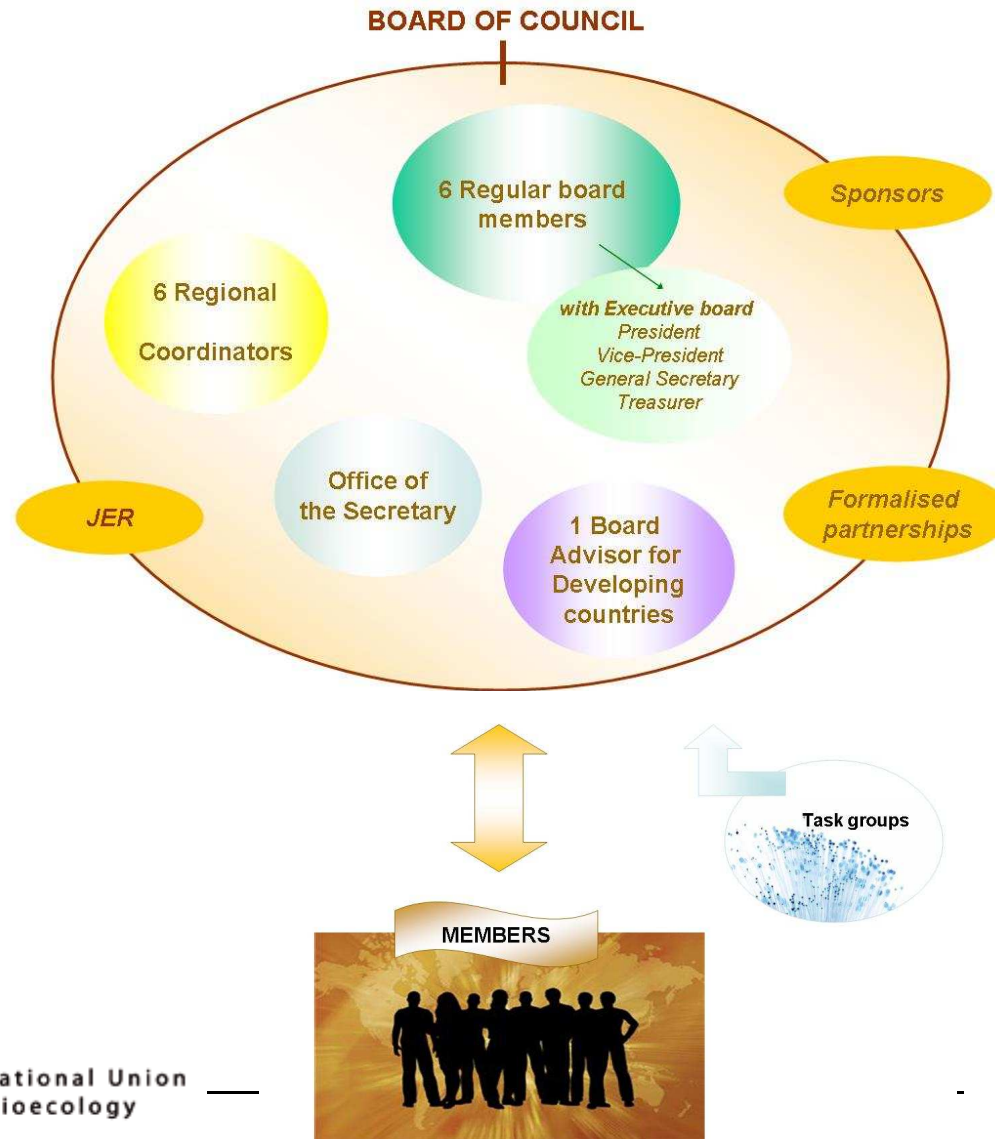
Union Internationale de Radioécologie
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IUR in brief

- Main tools of action:
 - Dedicated Task Groups (brain storming)
 - Dissemination of information
(Congresses, Workshops, Seminars)
 - Networking – Website: www.iur-uir.org
 - Training courses



Organisation



Current Board of Council (elected)

Regular Board members

François Bréchnignac (France), President
Rudolf Alexakhin (Russia), Vice-President
Per Strand (Norway), General Secretary
Simon Carroll (New Zealand), Treasurer
Jose Marcus Godoy (Brasil)
Steve Sheppard (Canada)

Advisor for Developing Countries

Regional Coordinators Board members

Rachid El Mrabet (Morocco), Africa & Middle East
Kathy Higley (USA), Northern America
Yuri Kutlakhmedov (Ukraine), CIS countries
Satoshi Yoshida (Japan), Asia & Australasia
Paulina Schuller (Chile), South America & Caraibean
Hildegarde Vandenhove (Belgium), Europe

A. Sattar Mollah (Bangladesh)

Task Groups

Active

- Radioecology in a multipollution context (Hildegarde Vandenhove, Belgium) IUR/IAEA
- Ecosystem approach (2d) to EP (François Bréchignac, France) IUR/ICRP
- Biota transfer parameters for EP (David Copplestone, U.K.) IUR/IAEA
- Arctic and Antarctic Regions (Mark Dowdall, Norway)
- Radioecology and waste (Mike Thorne, U.K.)
- Asian Radioecology network (Satoshi Yoshida, Japan)
- Speciation (Brit Salbu, Norway)
- Non-lethal methods for Radioecology (Mike Woods, U.K.)
- Ring of Five (Olivier Masson, France)

Completed (in the recent years)

- Radioecological Parameter Values - Update of TRS 364 (D. Copplestone, U.K.), IAEA/IUR
- Radioecology of Rice (H. Tsukada, Japan)
- Radioecological sensitivity (F. Carini, Italy)
- Ecosystem approach (1st) to EP (François Bréchignac, France)

Conferences

Co-organized/sponsored by IUR

- NORM 6, Marrakesh, Morocco, March 2010
- African IRPA 3, Nairobi, Kenya, September 2010
- VI Congress on Radiation Research, Moscow, Russia, October 2010
- INSINUME 2010, Dubna, Russia, October 2010
- Joint Third International Conference (N.V. Timofeeff-Ressovsky), Alushta, Crimea, Ukraine, October 2010.
- XXXIX Klechkovsky Radioecological Readings, Obninsk, November 2010
- ICRER 2, Hamilton, Canada, June 2011
- INSINUME 2012, Brussels, June 2012
- 6th SETAC World Congress, Berlin, Germany, May 2012
- ICOBTE 12th, Athens, Georgia, USA, June 2013
- Woodshole Fukushima Meeting, Woodshole, MS, USA, May 2013
- INSINUME 2014, Uzhgorod, Ukraine, October 2014
- ICRER 3, Barcelona, Spain, September 2014

Workshops

Sponsored/organized by IUR

- IUR TG Workshop, Multiple pollution, SCK-CEN, Belgium, September 2010
- IUR TG Workshop, Ecosystem approach, Aix-en-Provence, France, April 2011
- IUR Environmental radioactivity session at SETAC Annual Meeting, Boston, USA, Nov 2011
- IUR Environmental radioactivity session at SETAC World meeting, Berlin, Germany, 2012
- IUR TG Workshop, Non-lethal methods, Cambridge, UK, september 2012
- IUR TG Seminar, Ecosystem approach, Stockholm University, december 2013
- IUR TG Workshop, Ring of Five, Barcelona, Spain, september 2014
- IUR TG Workshop, Harmonisation of radioecology networks, Aix en Provence, France, june 2014
- IUR TG Workshop, Ecosystem approach, place tbd, France, October 2014

Liaison

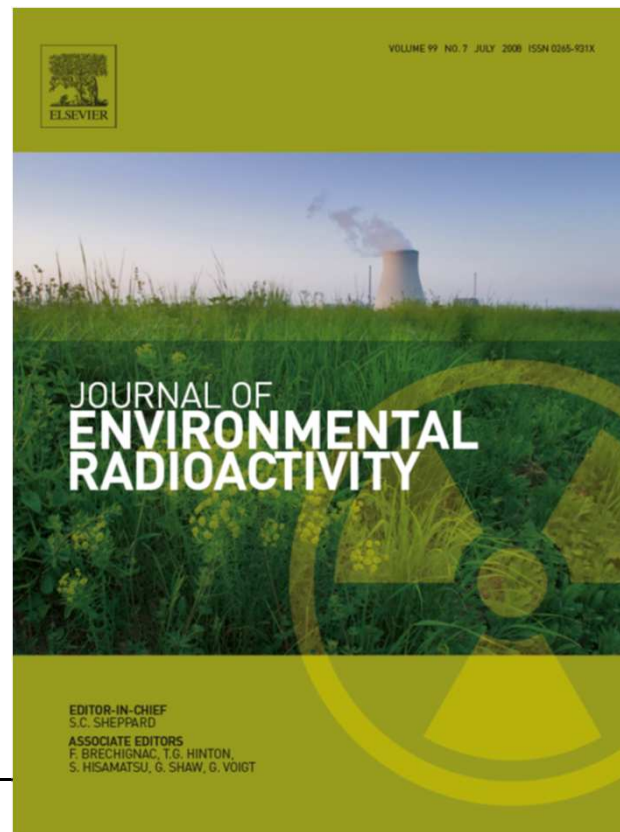
- An active web site for communication and visibility
www.iur-uir.org (> 10,000 visits per month)



Link to Journal of Environmental Radioactivity

IUR encourages publication in JER

- An official link of affiliation with an international Journal (JER)
Easy and cheap access to all IUR members, preferential rate of subscription to E-Journal



Networking

IUR develops and supports networking initiatives

- A number of formal agreement/MoUs with sister organisations, to support a commitment to worldwide networking:

- NREA
- SPERA
- NCoRE
- ALLIANCE
- SETAC
- JER

Memorandum of Understanding between
South Pacific Environmental Radioactivity Association (SPERA)
and
International Union of Radioecology (IUR)
As contributing to the foundation of the
International Federation of Environmental Radioactivity Associations (IFERA)

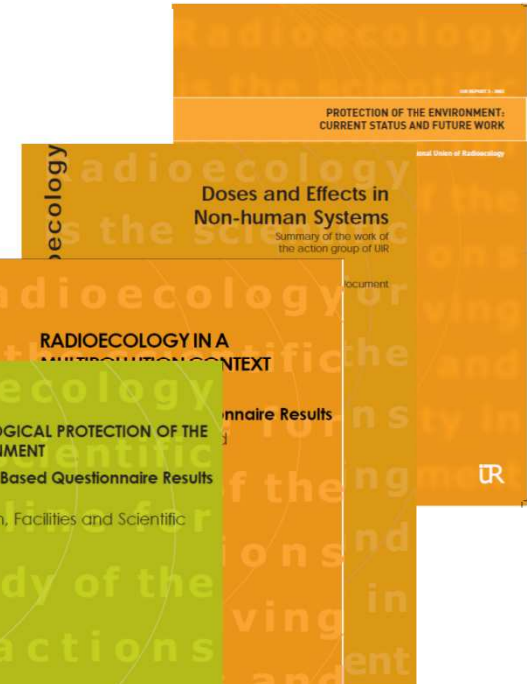
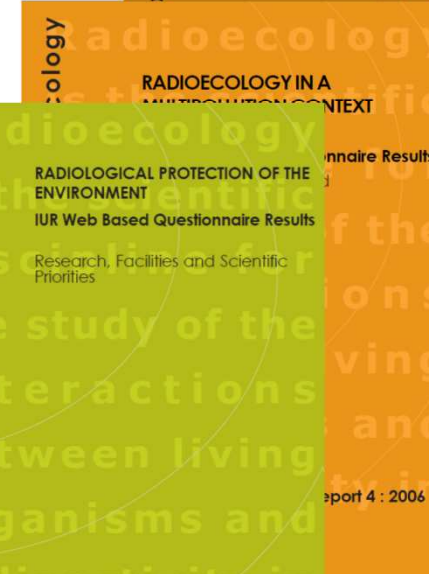
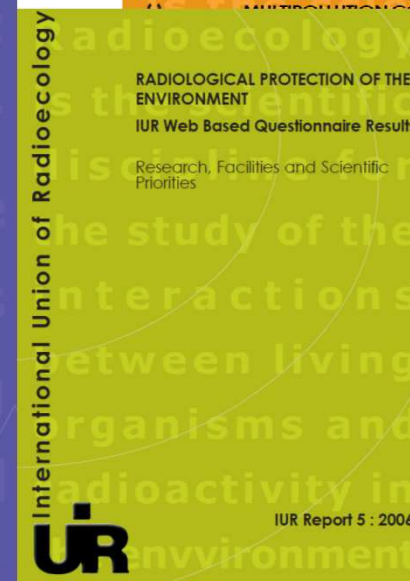
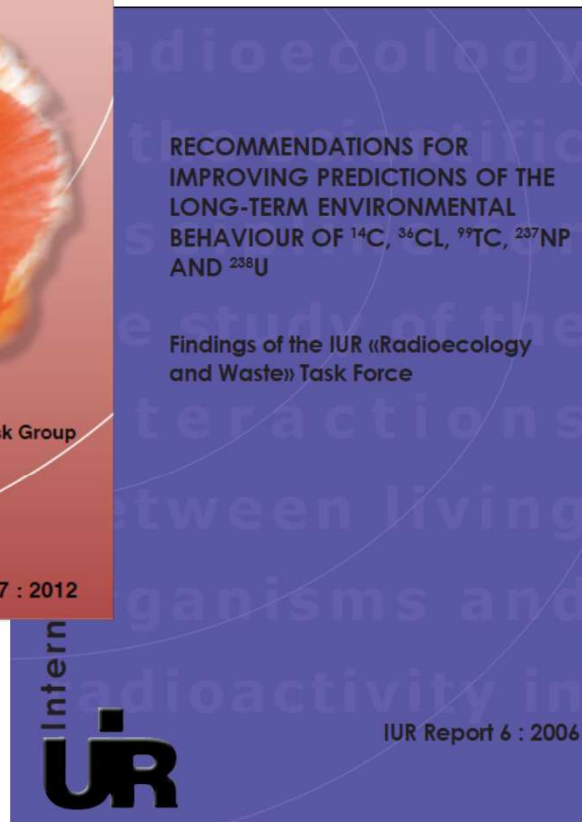
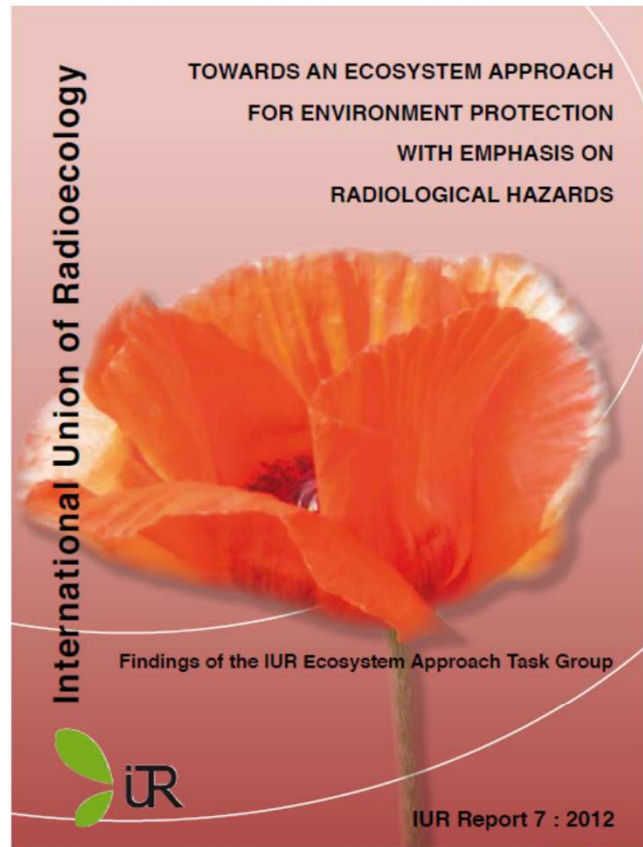


Teaching and training

Currently...

- IUR sponsors the European Master in Radioecology (based in Norway and France)
- IUR sponsors students for travels/works/participation in conferences/workshops/summer schools
- IUR sponsors training based on the ERICA risk assessment tool
- ...

Publications



Prices and awards from IUR

- IUR “V.I. Vernadsky” Award (senior scientists)
 - W. Whicker (Nice, France, 2005)
 - G. Polikarpov (Bergen, Norway, 2008)
 - Y. Omomo (Hamilton, Canada, 2011)
 - XXX YYY (Barcelona, Spain, 2014)
- Young Investigator Award (junior scientists)
 - 2005, 2008, 2011, 2014

Strategy for the future focused on science

- **Promoting prospective view and scientific innovation**

- Chronic exposure effects to low dose irradiation
- Propagation of effects from individuals to ecosystems, long term significance through the succession of generations
- Appraisal of ecological knowledge (indirect effects, resilience,...)
- Ecosystem approach to ecological risk assessment (cf. International soft laws, such as Convention on Biological Diversity,...)
- Appraisal of multicontaminant mixtures, comparative risk assessments (synergies/antagonisms)
- Harmonisation of human and ecological risk assessment
- Transfers in tropical/changing environments
- NORMs and TNORMs

**IUR proposes to promote the construction of a
coordination process dedicated to harmonize
Radioecology networks...**

... to be brain-stormed during this workshop