

SITEX-II, for developing an international Expertise function network

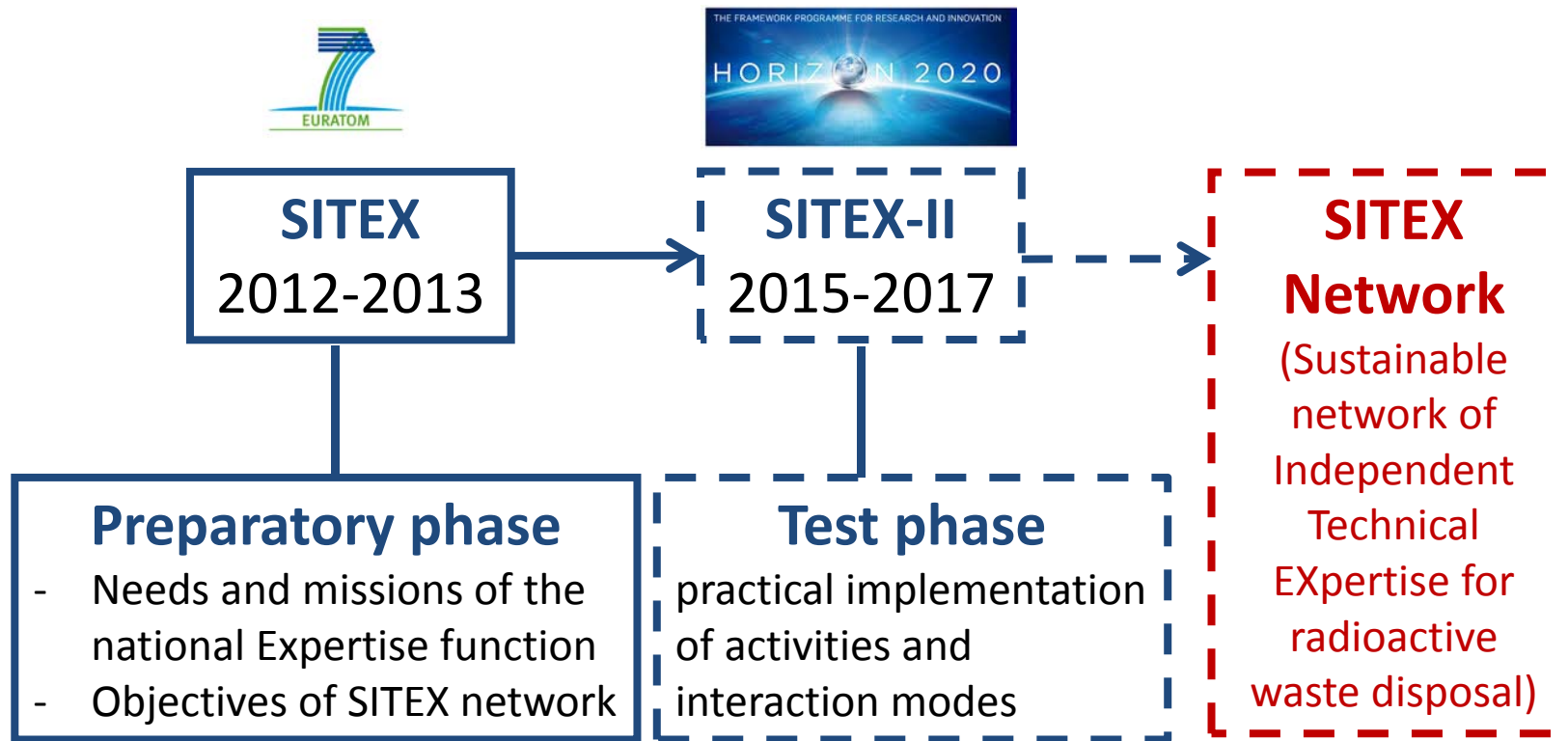


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Context



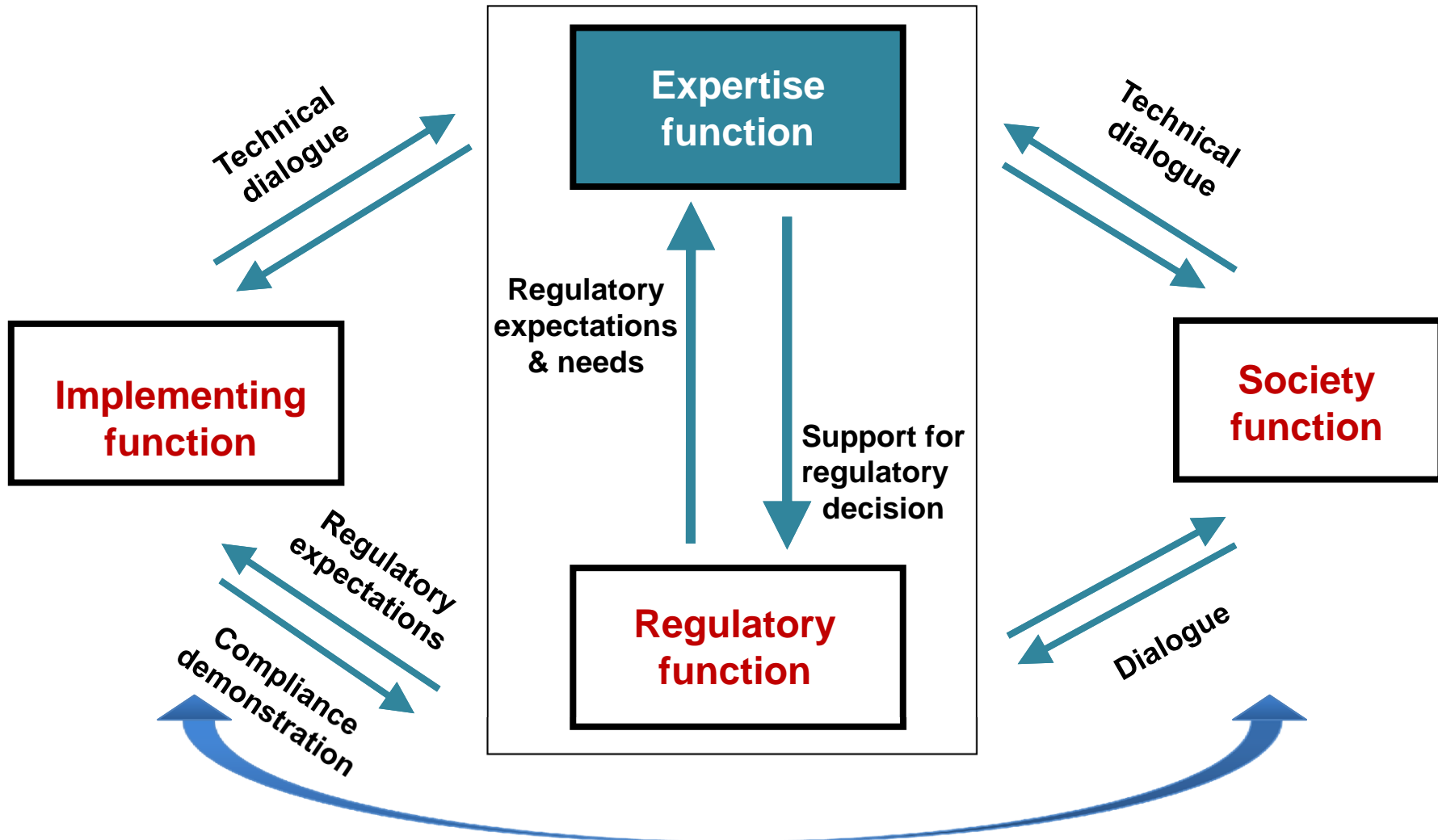
<http://www.sitexproject.eu>



The Expertise function and its interactions

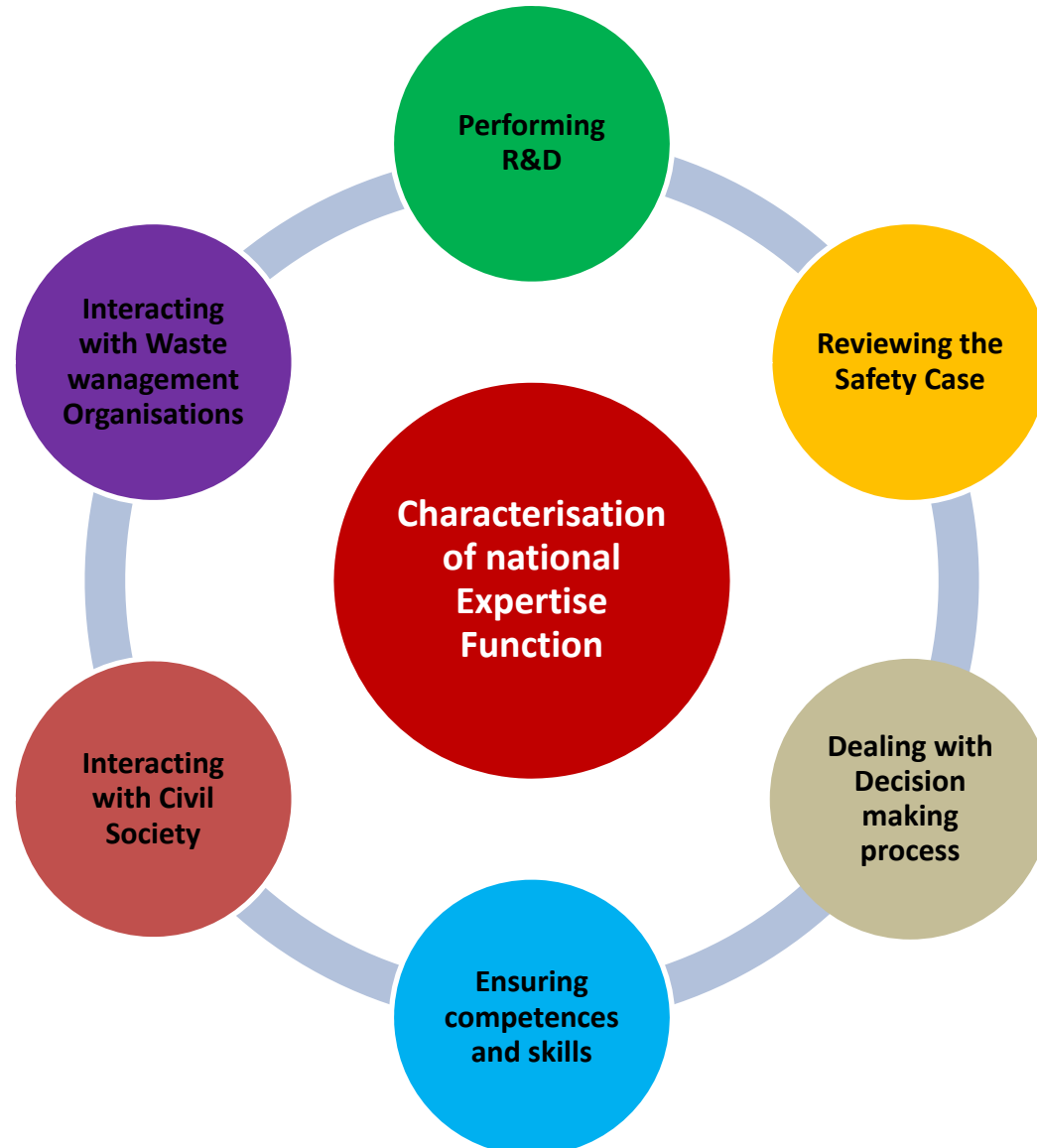


Regulatory body and its supporting organizations





Sets of activities of the Expertise Function



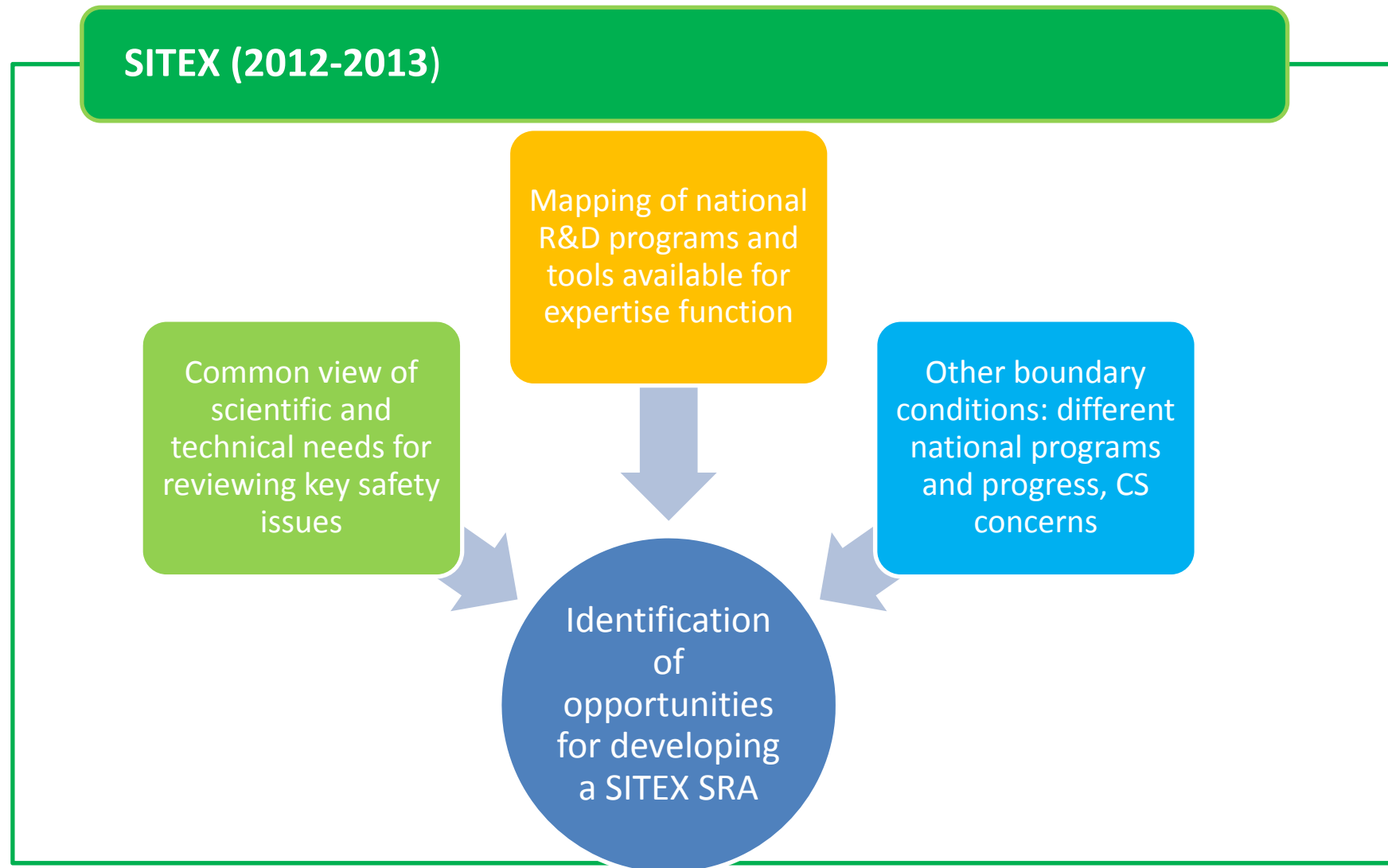


Defining and implementing R&D

Rationales for Independent R&D in support to Expertise Function

- specific safety issues that require an independent knowledge from the reviewer to perform a contradictory review and check assumptions taken by the implementer with respect to safety
- analysis of uncertainties and sensitivity of containment capabilities to processes
- issues that are not or not sufficiently addressed by the implementer with regards to safety or societal concerns, and require a particular attention from the reviewer

Defining and implementing R&D





Defining and implementing R&D

SITEX-II plans

- Setting the Expertise function **SRA**
 - R&D topics not addressed to date or not sufficiently, or for independent knowledge or sensitivity analyses,
 - prioritized in time, accounting notably for the foreseen agenda of safety case reviews
- Setting the **ToR** for the SRA implementation
 - Conditions and topics for implementing **European Joint Programming (EJP)** with other research platforms and entities (*Joprada*)
 - Defining the ToR for the implementation of the **SRA topics that will not be included into an EJP**

Reviewing the Safety Case

Working methodology

- **Safety requirements** on which international consensus exists are taken as reference:
- EC Directive on SF & Radioactive Waste Management (2011/70/Euratom)
- Draft WENRA Safety Reference Levels (SRLs)
 - Set of requirements against which the situation of each country is assessed
 - Engagement to transpose SRLs into national regulatory frameworks of WENRA member states
- IAEA Safety Fundamentals and Requirements
- ICRP recommendations



Reviewing the Safety Case

Harmonization of review practice

- **EPG Report 2011-Draft**, on the Regulatory Review of a Safety Case for Geological Disposal of Radioactive Waste; **PAMINA** EC project, **GEOSAF** IAEA project...
- 35 **needs in clarification and/or new requirements** identified within SITEX as having a high level of interest and urgency
 - eg Operating Limits and Conditions (how to establish OLCs (safe domain), how to maintain OLCs to ensure compliance with end-state, how to design monitoring program....), radiological protection principles applied to geological disposal...
- **Technical guidance** is required to structure the review:
 - 1 unique structure (SC aim, focus of review, safety strategy, assessment basis, safety assessment, optimization and management of uncertainties, integration)
 - Items + or - highlighted depending of the progress of the SC (conceptualization, siting, design, construction, operation, post-closure)
 - Tested for the “site investigation and selection phase”



Reviewing the Safety Case

Within SITEX-II

- position papers on how to implement in practice high level international safety requirements, for 4 topics selected in the needs/priorities identified in the former SITEX project
- Technical guide on the regulatory review of SC for the phases of geological disposal facilities for radioactive waste: (1) conceptualization, (2) siting, (3) reference design, (4) construction, (5) operational and (6) post-closure



Developing and maintaining competencies

General objectives

- A common culture of safety (support for exchange of experience and best practices),
- Awareness on key safety issues,
- Common methods for reviewing the Safety Case (support for harmonization of practises),
- Awareness on complexity of safety governance considering key social and ethical aspects.

As example: Reviewing the safety case

- Common core module : **implementation of a pilot training session for generalist experts within SITEX-II**
- Specialisation modules dedicated to specific profiles (environmental scientists, specialists in fire, ventilation, radiation protection, numerical calculations...)



Interaction with Civil Society

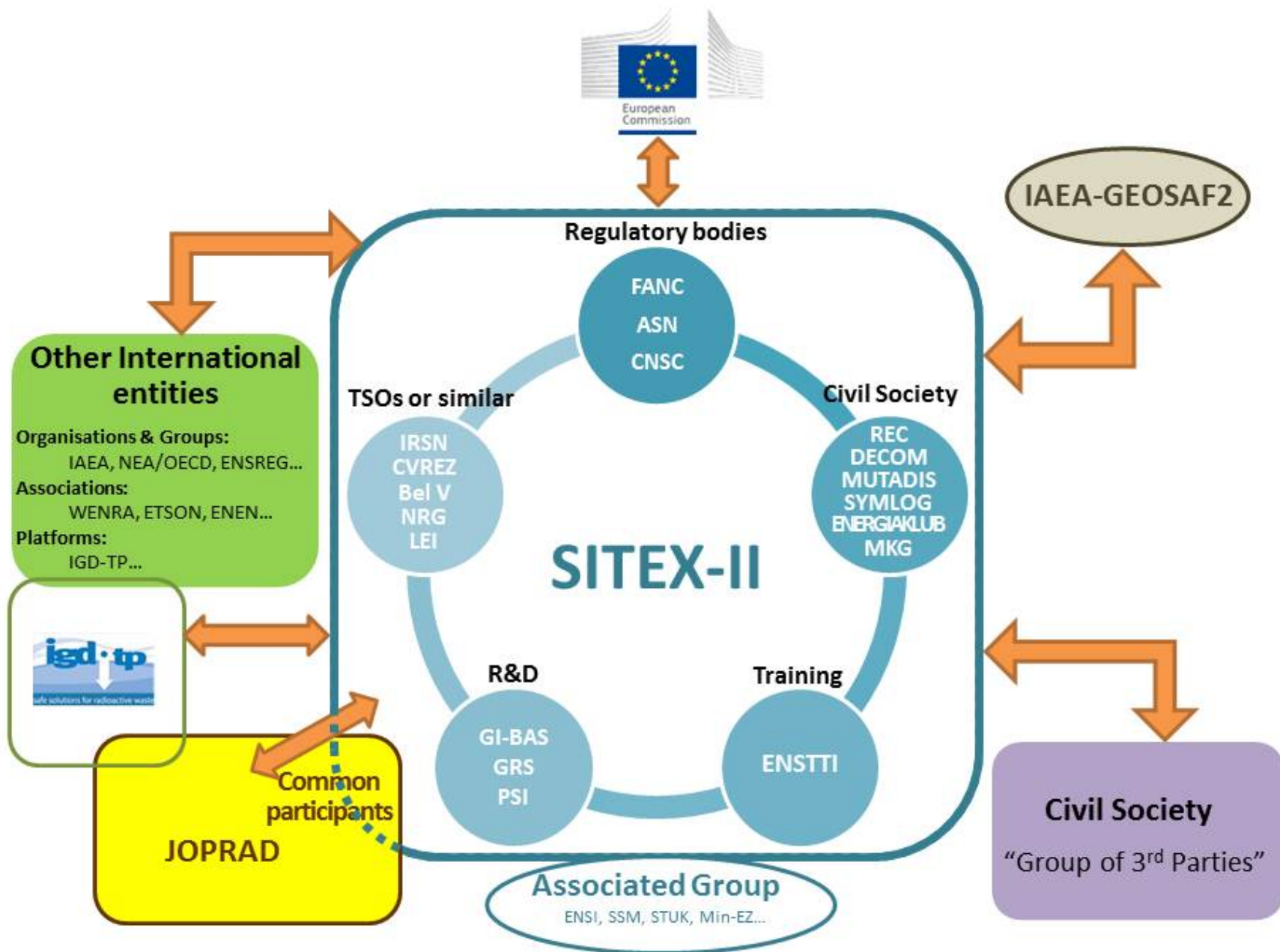
General objectives

- Supporting engagement of civil society actors and strengthening their skills in the framework of interaction processes
- Adapting culture and practices of expertise function to accommodate the active contributions of civil society as an added value to the quality of safety, appraisal and decisions
- Directly supporting an autonomous, continuous and long-term process in which civil society develops skills, capacity to engage in issues of public interest, networking capacities (safe space...)
- acting in complement to WMOs where public expects an independent view on its scientific and safety concerns and expectations, allowing to enlarge its understanding and knowledge of geological disposal

Within SITEX-II

- CS interacting with R&D, safety culture & safety case review, training

SITEX-II composition and interaction with external entities





Thank you for your attention!



SITEX-II participants



Participant No	Participant organisation name	Country
1 (Coordinator)	Institut de Radioprotection et de Sûreté Nucléaire (IRSN)	FR
2	Lithuanian Energy Institute (LEI)	LT
3	Bel V	BE
4	Federal Agentschap voor nucleaire Controle- Agence Fédérale de Contrôle Nucléaire (FANC)	BE
5	MUTADIS CONSULTANTS SARL (Mutadis)	FR
6	DECOM, a.s. (DECOM)	SK
7	Canadian Nuclear Safety Commission (CNSC)	CA
8	Energiaklub Szakpolitikai Intezet Modszertani Kozpont Egyesulet (ENERGIAKLUB)	HU
9	Nuclear Research and Consultancy Group (NRG)	NL
10	Centrum výzkumu Řež s.r.o. (CVREZ)	CZ
11	Gesellschaft für Anlagen-und Reaktorsicherheit mbH (GRS)	DE
12	European Nuclear Safety Training and Tutoring Institute (ENSTTI)	/
13	Miljöorganisationernas kärnavfallsgranskning (MKG)	SE
14	Geologicheski Institut Pri Ban St. Dimitrov (GI-BAS)	BG
15	Autorité de Sûreté Nucléaire (ASN)	FR
16	Regional Environmental Center for Central and Eastern Europe, Country Office Slovenia (REC)	HU
17	SYMLOG	FR
18	Paul Scherrer Institute (PSI)	CH

SITEX-II Work Breakdown Structure

