xxCo-funded by the







## SITEX-II (Contract Number: 662152) Deliverable n°D5.5

## Action plan for establishing SITEX network

Authored by:	CV REZ, IRSN, FANC, BelV, I	LEI, Mutadis, REC	
Edited by:	J. Mikšová, L. Nachmilner, M. Rocher, F. Bernier, V. D G. Heriard-Dubreuil, J. Dew	etilleux, A. Narkunien	e,
Checked by:	Jitka Mikšová Work Package 5 Leader	Indiane	Date: 31/01/2018
Approved by:	D. Pellegrini Coordinator	tte:	Date: 16 05 2018
Date of issue of this report: Report number of pages: Start date of project:	<b>31.1.2018</b> <b>59</b> 01/06/2015	Duration: 30 Months	5

Proje	ect co-funded by the European Commission under the Euratom Research and Training Pro Nuclear Energy within the Horizon 2020 Framework Programme	ogramme on
	Dissemination Level	
PU	Public	×
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the partners of the SITEX-II project	
со	Confidential, only for partners of the SITEX-II project	

#### Sustainable network for Independent Technical EXpertise of Radioactive Waste Disposal – Interactions and Implementation (SITEX-II)

The SITEX-II Project (Coordination and Support Action) was initiated in 2015 within the EC's Horizon 2020 programme to further develop the Sustainable Independent Expertise Function Network in the field of deep geological disposal safety. This Network is expected to ensure a capability for developing sustainable and coordinating, at the international level, joint and harmonized activities, related to the Expertise Function. SITEX-II brings together representatives from 18 organisations including regulatory technical support organisations, authorities, research organisations and specialists in risk governance and interaction with general public, including NGOs and an education institute. It is aimed at practical implementation of the activities defined by the former EURATOM FP7 SITEX project (2012–2013), using the interaction modes identified by that project. SITEX-II, coordinated by IRSN, is implemented through 6 Work Packages (WP).

**WP1 - Programming R&D** (lead by Bel V). The general objective of WP1 is to further define the Expertise Function's R&D programme necessary to ensure independent scientific and technical capabilities for reviewing a safety case for geological disposal. In this perspective WP1 will develop a Strategic Research Agenda (SRA) and define the Terms of Reference (ToR) for its implementation accounting for the preparatory work to be carried out in the framework of the JOPRAD project for construction of a Joint Programming of research for geological disposal.

**WP2 - Developing a joint review framework** (lead by FANC). The key objective of WP2 is to further develop and document in position papers and technical guides a common understanding of the interpretation and proper implementation of safety requirements in the safety case for the six phases of facility development (conceptualization, siting, reference design, construction, operational, post-closure). **WP3** - **Training and tutoring for reviewing the safety case** (lead by LEI). WP3 aims to provide a practical demonstration of training services that may be provided by the foreseen SITEX network. A pilot training module will focus on the development of training modules at a generalist level, with emphasis on the technical review of the safety case, based on national experiences, practices and prospective views. The training modules will integrate the outcomes from WP1, WP2 and WP4 and support harmonisation of the technical review processes across Europe.

WP4 - Interactions with Civil Society (lead by Mutadis). WP4 is devoted to the elaboration of the conditions and means for developing interactions with Civil Society (CS) in the framework of the foreseen SITEX network, in view of transparency of the decision-making process. The future SITEX network is expected to support development of these interactions at different levels of governance and at different steps of the decision-making process. Three thematic tasks, namelv R&D, safety culture/review and governance will be addressed by institutional experts and representatives of CS within SITEX-II as well as externally through workshops with other CS organisations.

**WP5** - Integration and dissemination of project results (lead by CV REZ). The overall objective of WP5 is to produce a synthesis of the results achieved within all the WPs of SITEX-II together with an Action Plan that will set out the content and practical modalities of the future Expertise Function network. WP5 will also foster the interactions of SITEX-II with external entities and projects, as well as the dissemination of SITEX-II results so as to allow possible considerations from outside the project in the process of developing the future SITEX network.

**WP6** - Management and coordination (lead by IRSN).

Contact: D. Pellegrini (IRSN), SITEX-II Coordinator delphine.pellegrini@irsn.fr

Further details on the SITEX-II project and its outcomes are available at <u>www.sitexproject.eu</u>



#### CONTENT

1	Forev	vord	4
2	Docu	ment objectives	4
3	Back	ground	5
	3.1	SITEX project	5
	3.2	SITEX-II project	5
4	Bases	for the SITEX network mission	6
	4.1	Vision, scope, and objectives for establishing the network	6
	4.2	Challenges to be solved	7
	4.3	Benefits for participants	7
	4.4	Definition of the expertise functions	7
5	Legis	ative and administrative conditions for creating and operating the network	9
	5.1	Bodies of the network	9
	5.2	Membership	9
	5.3	Associated Group	9
	5.4	Provision of resources	10
6	Coord	lination of activities with other international platforms/initiatives active in the area	11
	6.1	international entities - potential partners for cooperation with SITEX Network	12
	6.2	Commonalities of Sitex and other networks	17
7	A roa	dmap	18
8	Concl	usion	20
9	Anne	xes:	21
	Anne	x 1: SITEX-II SRA issues candidates for a deployment through the SITEX_Network $^1$	22
	Main	topics of SITEX SRA	23
	Anne	x 2: Overview of JOPRAD SRA Strategic Themes, Domains and Sub-Domains	26
	Anne	x 3: SITEX_Network leaflet	28
	Anne	x 4: SITEX_NETWORK STATUTES	37
	Anne	x 5: Questionnaire /WP5/T5.4	48
	Anne	x 6: Glossary	58



# 1 Foreword

The EC SITEX-II Project "Sustainable network for Independent Technical EXpertise of radioactive waste disposal - Interactions and Implementation" was initiated in 2015 within the EC's Horizon 2020 programme. SITEX-II is targeted at the establishment of a network to ensure sustainable capacity for the development and coordination of joint and harmonised activities related to the independent technical expertise function regarding the safety of geological disposal of radioactive waste. The independent expertise function is provided by organisations that are supporting regulatory authorities (in particular technical support organizations, TSOs and research entities, Res) and/or by the regulators themselves.

Action Plan provides the contents and practical modalities of this foreseen network. The former EU SITEX project (2012-2013) identified key issues to be solved prior commencing a sustainable SITEX network and summarized them in a Term of Reference (ToR) of the network. Four expertise functions as a Review of Safety Case, Implementation of R&D related to the safety issues of geological repository, Training and tutoring and an Interaction with Civil Society were proposed. However, there was a need to further elaborate this material, in particular in areas of (i) legal bases for the network operation, (ii) formal position of interested organisations, (iii) provision and mobilization of resources for its functioning, (iv) specification of working procedures, and (v) coordination of activities with other existing international platforms, projects or initiatives active in the area.

# 2 Document objectives

Final recommendations of both projects (SITEX and SITEX-II) were elaborated into this Action plan indicating necessary steps aiming at successful launching network activities.

The main objective of this document are as follows:

- A description of the scheme and functioning of the foreseen SITEX network,
- An overview of administrative conditions for establishing the network,
- A basis for SITEX network mission activities,
- An assessment of a potential cooperation with similar networks,
- A proposal of the step-by-step procedure to implement it in practice (a roadmap).

The document is completed by several Annexes presenting in more detailed level the main components supporting SITEX network launching and its successful functioning (in particular, SITEX network Statutes, SITEX network Flyer, proposal of main R&D topics).



# 3 Background

#### **3.1 SITEX PROJECT**

The objective of the SITEX project (EURATOM- FP7, 2012-2013) was to identify the conditions and means for establishing an international network allowing to harmonize European approaches to technical expertise of geological repositories for radioactive waste, as a support to national nuclear regulatory authorities. The SITEX project brought together 15 organisations representing technical safety organisations (TSOs) and safety authorities, as well as civil society outreach specialists during a 24-month of the project performance.

SITEX aimed at establishing conditions required for developing a sustainable network of technical safety experts who have their own skills and analytical tools, who work independently of the implementers, and who can conduct their own research programmes.

The project outcomes laid foundations for the expertise function in the context of the safety review of geological disposal facilities. It identified conditions and means of a sustainable expertise function in the concerned countries. It also identified the needs of international cooperation between organizations carrying expertise function in the context of a planned European SITEX network.

Project SITEX aimed at identifying the efficient means that should be developed through the establishment of a sustainable expertise function network within an European framework with the view to:

- allow mutual understanding between regulatory bodies, TSO's, and waste management organisations (WMO's) on (i) the regulatory expectations at decision hold points and (ii) how the scientific and technical elements carried out by the WMO's comply with these expectations. In that perspective the needs for clarification of regulatory guidance or in developing new guidance were addressed and the role of expertise function and the needs for improving it was discussed;
- in coordination with or in complement to WMO's research programme, define TSO's R&D programme that would ensure independent capability development for reviewing the Safety Case and assessing the scientific arguments provided by WMO's;
- ensure competence building of experts in charge of technical review and transfer of knowledge on waste safety and radiation protection: the needs in guidance development for harmonising technical review activities and in dedicated training and tutoring for spreading the expertise culture and practices were addressed;
- share, where needed, expertise approach with various stakeholders, in a manner more integrated that when only communication or dissemination are envisaged.

#### 3.2 SITEX-II PROJECT

SITEX II project was initiated as a follow up and continuation of SITEX one with the goal of implementing in practice activities along with the interaction models issued by the SITEX, in view of developing an Expertise Function Network. This network is expected to ensure sustainable capacity for developing and coordinating joint and harmonised activities related to the (D-N°: 5.4) – Action plan for establishing SITEX network 5 Dissemination level: PU Date of issue of this report: 30/11/2017



independent technical expertise in the field of safety of deep geological disposal of radioactive waste. SITEX-II tasks include in particular:

- the definition of the Strategic Research Agenda (SRA) based on the common R&D orientations defined by SITEX, the definition of terms of reference (ToR) for the implementation of specific topics from the SRA, and the interaction with IGD-TP and other external entities mandated to implement research on radioactive waste disposal regarding the potential setting up of a European Joint Programming;
- the production of a guidance on the technical review of the safety case at its different phases of development, fostering a common understanding on the interpretation and proper implementation of safety requirements for developing, operating and closing a geological repository and on then verification of compliance with these requirements;
- the commitment of a Civil Society (CS) in the definition of the SRA mentioned above, considering the expectations and technical questions to be considered when developing R&D for an Expert Function. Close interactions between experts conducting the review work and CS representatives should enhance establishing the safety culture and, more globally, proposing governance patterns with CS in the framework of geological disposal
- The preparation of an ,administrative' framework for creating a sustainable network of Technical Safety Organisations from EU members states by addressing the legal organisational and management aspects.

## 4 Bases for the SITEX network mission

#### 4.1 VISION, SCOPE, AND OBJECTIVES FOR ESTABLISHING THE NETWORK

The general objective of the SITEX network is to promote activities aiming at fostering at international level the high quality and independent expertise in the field of safety of RWM in general and radioactive waste disposal in particular.

The SITEX network shall support regulatory authorities as well as the public in the perspective of RWM. With respect to the complexity of this problem, the network will involve actors with a plurality of views and competencies (regulators, TSOs or similar and CSOs experts) from different programmes of different levels of advancement.

The scope of network activities shall include namely coordinating at international level R&D (preferable areas see Annex 1), development of methodology for compiling and assessing the Safety Case and for its reviewing, sharing relevant knowledge among network members, organizing training on selected topics regarding safety issues, and ensuring interactions with international entities dealing with similar or connected matters.

The EC support to R&D in selected areas regarding the management of radioactive waste will be in the next decade provided within the European Joint Programming scheme (EJP 1 and EJP 2). Topics have been selected as a result of the EC project JOPRAD, completed in November 2017. The comparison of SITEX preferential topics and JOPRAD topics is illustrated in Annex 2. The SITEX Network should coordinate and support participation of its members in the EJP programme.



A set of four position papers has been issued regarding the development of a common understanding on the interpretation and implementation of safety requirements (SITEX II, WP2). Similar statements might be issued on problems considered as topical for the members of the SITEX Network.

The TSO services have been fully delegated in several EU countries; specifically, in smaller and starting programmes this function is provided by different entities, mostly on case-by-case basis. Thus, creating a stable TSO support in majority EU countries has been seen as a topical objective of the network.

#### 4.2 CHALLENGES TO BE SOLVED

The planned goals of the network could be achieved and maintained through the established administrative structure and clear plan of activities. Therefore, establishing the formal structure with defined links and responsibilities is the must for a successful start of the network work.

The activities to be performed should properly be planned. Translating the network vision into long term working plans, and their elaboration in annual implementation plans is another task of a high priority. Both long term and implementation plans should be revised and approved by network members at annual General Assembly meetings.

#### 4.3 **BENEFITS FOR PARTICIPANTS**

The added value to other existing TSOs and regulator's networks is seen in bringing together different categories of contributors to /end-users of the expertise, such as TSOs, REs, NRAs and CSSs. This will ensure a plurality of views in all the foreseen SITEX\_Network activities and on RWM safety as this plurality is considered as a way forward to build a strengthened and comprehensive expertise function. Most of expected benefits are widely described in the SITEX\_Network leaflet (Annex 3)., in general as a most significant can be seen as follows:

- Competence building
- Joint research work and use of resources
- Exchange of experience and methodologies
- Joint work on strategies
- Support of national programmes independently of their stage
- Training and Knowledge transfer

#### 4.4 DEFINITION OF THE EXPERTISE FUNCTIONS

The "Expertise function" entails activities carried out in the context of the regulatory review of the Safety Case to provide the technical and scientific basis for:

- Decisions by the National Regulatory Authorities (NRAs),
- Ensuring that Regulatory authorities expectations are clearly communicated to and interpreted by the Implementers,



• Improving the quality of the interactions with Civil Society (CS) in the decision-making process with a view to improving the quality of the review.

In order to implement its activities, the expertise function must in particular rely on the following requirements:

- Ensuring transparency, this may involve public release of its assessments and reports, interactions with Civil Society, etc.,
- Demonstrating the independence of its resources and competences vis-à-vis the Implementer in order to avoid conflicts of interests, notably regarding use and evaluation of scientific and technical knowledge.

These requirements contribute to guaranty the independence of the expertise function vis-à-vis in particular the implementing function.

The following scheme illustrates the way the expertise function interact with the other stakeholders involved in the Decision Making Process:



Due to the variety of national contexts and frameworks, the expertise function may be fulfilled by different types of actors (Technical Support Organisations, National Regulatory Authorities and/or Research Entities).



# 5 Legislative and administrative conditions for creating and operating the network

SITEX\_Network will be established in the statute of a French non-profit association. The complex information about the network composition and functioning are introduced in the Annex 3 (SITEX-Network leaflet) and Annex 4 (SITEX\_Network Statutes); a short summary of key point is shown in the following text of this Section.

#### 5.1 BODIES OF THE NETWORK

- The General Assembly (GA) organized in 3 Colleges (see Statutes, Section 4);
- The Management Board (MB) elected by the colleges and its Bureau (see Statutes, Section 3).

Both are composed of Members (see Statutes, Section 2). Among those are distinguished the Founding Members, consisting of the beneficiaries of SITEX and SITEX-II projects who candidated early enough to participate to the first GA meeting.

#### 5.2 MEMBERSHIP

The participants of the SITEX and SITEX-II project will be offered to become founding members. Other candidates for joining the network in the future will be required to present their experience and capacities in the field of RWM as well as to approve the vision of the network. The Management Board of the network will receive the application and assess them. The final approval of the application will be validated by the General Assembly.

There are three Colleges. Each college represents a type of function, and Members can belong only to one college at a time. Candidatures to SITEX\_Network will have to be duly justified with regard to the candidate national or international role, as well as the choice of the college (if a candidate is in position to choose between several colleges).

- College 1: Technical Expertise Function (comprises Technical Safety Organisations (TSOs) or other entities assuming this function for the Regulators, such as Research Entities (REs));
- College 2: Regulatory Function (comprises Nuclear Regulatory Authorities (NRA));
- College 3: Civil Society Function (comprises CSSs stakeholders who may either be individuals or groups, such as non-institutional experts, NGO's, etc.)

Each college will elect its representatives in the Management board. The members can be either an institution, a SME or an individual expert.

#### 5.3 ASSOCIATED GROUP

There will also be an Associated group (AG) of the SITEX network. It will be composed of:

• Representatives of expertise function or regulatory function that would like to follow the activities of the network without joining as members.



• An enlarged group of civil society representatives that will follow the activities and participate occasionally to the activities of the network. Mediation with this group will be ensured by the civil society experts' members according to the experience developed in the SITEX-II project.

The members of the Associated group will have a statute of observer. They will be proposed to participate to the General Assembly (without a right to vote) and/or to other general meetings, as well as to the activities of the network (according to conditions that will be specified by the Management Board).

#### 5.4 **PROVISION OF RESOURCES**

The basic rule is that SITEX\_Network Members bear the costs of their participation and that each Member participates actively and devotes sufficient amount of its workforce resources.

- Assets consist of the annual membership fees, other financial contributions and donations; Members may also bring any other kind of assets such as equipment, offices, and intellectual property rights. Assets shall not be used to remunerate any of its Members (Articles 6, 16), except if duly contracted;
- The Management Board (MB) prepares the budget plan for the coming fiscal period and renders the accounts for the past fiscal period (Article 15). The General Assembly approves the Association's budget and accounts (Article 12);
- Assets' use will be defined by the conditions specified in the Terms of References which must be approved by the General Assembly (Article 19).

The first resource of the network will be the financial contribution of the SITEX network members (annual fees notably). The financial contribution will be established for each category of members during a General Assembly. A contribution of Associated Group Members will also be considered. Other resources will be developed such as, for instance, fees for participation to SITEX training courses. Each member might also contribute with sharing of human and material capacities (detachment of personal, premises for meetings, etc.).

The WG activities will entail dedicated funding such as: EC subvention (European R&D Joint Programmes, training courses), ad-hoc resources or funding by specific participants will also be considered (SITEX-II members, Associated Group members, other partners).

#### 5.5 ACTIVITIES AND WORKING PROCEDURES

The SITEX network will carry out various activities in order to support, facilitate and strengthen the national activities of expertise of its members in the RWM field. In compliance with its own rules and with third-parties rights, SITEX\_Network will make the main results of its activities available to the public.



As designed in the SITEX Strategic Research Agenda, the SITEX network entails a broad spectrum of activities in the RWM field but will first focus on activities related to the implementation of Geological Disposal.

The paramount activities of the network will be:

- R&D activities: Support to R&D implementation, starting programmes, joint research independent from Implementers,
- Safety Case Review (SCR) activities: development of safety case reviewing procedures, implementation of a Working Group to discuss on guidance and requirements, position papers when appropriated.
- Training activities: development of professional training, exchanges of expertise, intercomparison exercises, preparation of training courses at European level.
- Dialogue and cooperation with Civil Society: development of a permanent dialogue and cooperation between the Sitex network and civil society at EU level, support to national expertise functions to the development of interactions with civil society at national level (methodologies, exchanges on available practices, cases studies, training).
- Dissemination and planning activities, in particular an interaction with international entities.

In order to carry out activities, Thematic Working Groups (WG) may be established to elaborate particular technical or "coordinated and support" activities. A working group will be composed of a chairperson (designated by the Management Board) responsible for coordination of the work and members of the SITEX network (and associated members as soon as they fulfil the conditions for their participation). The creation of a WG will be decided by the Management Board and endorsed by the General Assembly. Each WG will produce an annual report of its activities that it will present to the General Assembly.

# 6 Coordination of activities with other international platforms/initiatives active in the area

As an international entity, the SITEX network will develop interactions and collaboration with other entities in the field at international level. More specifically (but not exhaustively), the SITEX network will find interest in particular in interacting:

 With IAEA, NEA, OECD, ENSREG, WENRA, ETSON: dissemination, consulting for harmonization of the existing regulations and guidance, methodologies for safety assessment, regular informing of the progress and outcomes of SITEX activities, events, training etc.,



- With European Joint Programming: strong links for broadly speaking R&D issues, developing joint R&D actions,
- With international projects (e.g., IAEA projects such as GEOSAF): building specific trainings, Regular informing of the progress and outcomes of SITEX activities.

#### 6.1 INTERNATIONAL ENTITIES - POTENTIAL PARTNERS FOR COOPERATION WITH SITEX NETWORK

There are several international networks and platforms supporting a nuclear safety in general, some of them are currying up their activities in specific field of RWM, e.g. IGD-TP. The leading international entities acting in the field of radioactive waste disposal, e.g. the IAEA, NEA/OECD, are managing some activities which can be also seen as of high interest for mutual cooperation. A short description of these potential partners for collaboration with SITEX follows in this Section.

#### 6.1.1 IGD-TP

The main objectives of the Implementing Geological Disposal of radioactive waste - Technology Platform are to initiate and carry out European strategic initiatives to facilitate the stepwise implementation of safe, deep geological disposal of spent fuel, high-level waste, and other longlived radioactive waste by solving the scientific, technological and social challenges, and to support the waste management programmes of members. The IGD-TP intends to constitute means to further build confidence in the solutions, to reduce overlapping work, to produce savings in total costs of research and implementation, and to make better use of existing competence and research infrastructures.

#### 6.1.2 SNETP

Sustainable Nuclear Energy – Technology Platform aims to:

- Preserve and strengthen the European technological leadership and nuclear industry through a strong and long-term Research and Development programme, involving fuel cycles and reactor systems of Generation II, III and IV types.
- Enhance Europe's technological leadership in nuclear science and engineering by the production of scientific and technical skills to keep pace with corresponding industrial and R&D demand.
- Contribute to the production of synthetic fuels and hydrogen needs on the basis of nongreenhouse gas emitting production sources in an environmentally benign and sustainable economy.

#### 6.1.3 IAEA Networks: URF Network, DISPONET

Both networks regarding radioactive waste disposal are managed by the IAEA: while the former puts together operators of underground research facilities operated for the sake of geological disposal, the latter focuses on issues relevant to the disposal of low level radioactive waste.



The <u>Underground Research Facilities Network</u> for Geological Disposal (URF Network) establishes a community of practice and learning for geological disposal. The URF Network provides its members with a platform to assess and share best practices in developing, evaluating and implementing geological disposal solutions for intermediate level waste, high level waste and spent nuclear fuel. Emphasis is placed on the role and use of URFs to support successful disposal program development and implementation.

The Network Scope is to provide and maintain a (i) community of practice and learning for geological disposal; (ii) platform to assess and share best practices in developing, evaluating and implementing geological disposal solutions; and (iii) platform which emphasises the role and use of URFs to support successful geological disposal implementation.

The <u>Low Level Waste Disposal Network</u> (DISPONET) network has been established to increase efficiency in sharing international experience in the area. is intended to bring together those planners, developers and operators of disposal facilities who wish to steadily improve international practices and approaches in managing low and intermediate level waste. The network objectives are:

- To coordinate support to organizations or Member States with less advanced programmes for disposal of low and intermediate level waste, by making available the relevant skills, knowledge, managerial approaches and expertise from Member States with operating disposal facilities;
- To facilitate information and experience sharing amongst organizations with advanced designs and disposal facilities in operation;
- To organize training and demonstration activities with a regional or thematic focus providing hands-on, user-oriented experience and advising on proven technologies.
- To create a forum to receive expert advice and technical guidance for the Agency programme on low and intermediate level waste disposal; and
- To encourage knowledge transfer regarding good practices in low and intermediate level waste disposal.

As a potential cooperation between IAEA networks and SITEX could be seen to focus on knowledge sharing, training, and exchange of practices. In general, the cooperation with the IAEA could be focused on a recommendation development in the area of SC development and assessment, human intrusion scenario (HIDRA), safety of geological disposal (GEOSAF I-III), similar project might be anticipated – does not perform R&D activities, only interpretation of results of activities performed in MS's.

#### 6.1.4 MELODI

The Multidisciplinary European Low Dose Initiative research platform is dedicated to low dose ionising radiation risk. Established in 20009, it has currently 44 members. Priority areas for its activities include (i) improvement of access to infrastructures, (ii) re-use of archived materials using specific retrospective approach, (iii) enlargement and sustainability of RENEB, incl. intercomparison exercises, and (iv) favouring open access to radiation research data.



#### 6.1.5 ETSON

The European Technical Safety Organisation Network (ETSON), realize the technical evaluation of safety files in support of their national authorities and aims to develop and promote best practices in nuclear safety assessment. There are several Experts Groups performing their activities within ETSON

ETSON benefits from the experience of its members in matters of nuclear safety assessment in order to contribute to the harmonisation of nuclear safety practices. ETSON also intend to foster the dialogue between the European TSO Network and the European Nuclear Safety Authorities, as well as other European Union Institutions, the IAEA and other international organisations.

The members of ETSON assign the following objectives to the Association:

- Form a suitable forum for voluntary exchanges on analyses and R&D in the field of nuclear safety by sharing experiences and exchanging technical and scientific opinions,
- Contribute to fostering the convergence of technical nuclear safety practices within the European Union and beyond,
- Further the planning of nuclear safety research programmes and facilitate their implementation,
- Facilitate the application of the European directive on the nuclear safety,
- Work together in safety assessment and research projects.

As a potential cooperation with SITEX could be seen to complete their efforts in the RWM area, with a specific focus on DGR programme and related research?

#### 6.1.6 ENSREG

The European Nuclear Safety Regulators Group (ENSREG) is an independent, expert advisory group created in 2007 following a decision of the European Commission.

It is composed of senior officials from the national nuclear safety, radioactive waste safety or radiation protection regulatory authorities and senior civil servants with competence in these fields from all 28 Member States in the European Union and representatives of the European Commission.

ENSREG's role is to help to establish the conditions for continuous improvement and to reach a common understanding in the areas of nuclear safety and radioactive waste management.

Based on the Convention on Nuclear Safety and the Joint Convention ENSREG's role is to help to establish the conditions for continuous improvement and to reach a common understanding in these areas. As an independent authoritative expert body, ENSREG is working to:

- improve the cooperation and openness between Member States on nuclear safety and radioactive waste issues;
- improve the overall transparency on nuclear safety and radioactive waste issues; and



• as appropriate, advise the European Commission on additional European rules in the fields of the safety of nuclear installations and the safety of the management of spent fuel and radioactive waste.

As a potential cooperation with SITEX could be seen to provide R&D support to ENSREG activities in the RWM area, with a specific focus on DGR programme?

#### 6.1.7 WENRA

Originally, the main objectives of the Western European Nuclear Regulators Association (WENRA) were to develop a common approach to nuclear safety and to provide an independent capability to examine nuclear safety in applicant countries.

Today's challenge: to become a network of chief nuclear safety regulators in Europe exchanging experience and discussing significant safety issues. There is a Working Group on Waste and Decommissioning (WGWD) acting in the field of RWMD.

As a potential cooperation with SITEX could be seen to inform about RD&D issues regarding RWM and, specifically, DGR development and/or operation supporting WENRA activities? In particular to establish mutual cooperation with WENRA WGWD would be highly beneficial for SITEX foreseen activities.

#### 6.1.8 IAEA TSO forum

The objective of the IAEA TSO Forum (TSOF) is to encourage open dialogue and sharing of scientific and technical information among TSOs worldwide. It promotes coordination and collaboration among the TSOF Member States to contribute to the worldwide harmonization of practices. This includes:

- Strengthen the role of TSOs and their global coordination and collaboration, including countries in the process of expanding or embarking on a nuclear programme;
- Promote coordination and collaboration among the TSOF Member States to foster scientific and technical capacity building including education and training;
- Share and mutually learn safety and security experience and communicate lessons learned including feedback on the use of IAEA Safety Standards and security publications.

As a potential cooperation with SITEX could be seen to establish direct contacts (delegating a representative?) with the Forum and provide support to its activities?

#### 6.1.9 EuCAS network

The Europe and Central Asia Safety Network (EuCAS Network) was initially envisaged to address the management of radioactive waste resulting from nuclear power plants and other nuclear applications. Preparatory work has also identified environmental remediation and the decommissioning of power and research reactors as "very relevant areas" for its future activities.



IAEA has established this network to help strengthen nuclear and radiation safety in Europe and Central Asia by facilitating dialogue and knowledge exchange between Member States in these regions. It operates within the framework of the Global Nuclear Safety and Security Network.

The network brings together national organisations with advanced expertise in safety and with an international reach.

As a potential cooperation with SITEX could be seen mutual exchange concerning RWMD.

#### 6.1.10 GEOSAF

The International Project on Demonstration of the Operational and Long-Term Safety of Geological Disposal Facilities for Radioactive Waste is managed by the IAEA

The project focuses on safety aspects of geological disposal. Launched in 2008, its objective was to harmonize views and opinions on the construction of a safety case for a geological disposal facility, mainly focused on long term safety. However, it also tackled the integration of operational safety and post-closure safety within the framework of an integrated safety case.

Regarding the safety case, GEOSAF I and II have provided so far a collection of findings addressing what is expected from a safety case covering both the operational and post-closure period. GEOSAF III aims at developing practical guidance for the safety case while considering the concept of Design Target, Safety Envelope and As Built State. This guidance is to be based on practical examples and case studies, how the safety case is to be built by waste management organizations and evaluated by regulatory bodies and technical and scientific support organizations.

There is a potentially strong cooperation with SITEX expected.

#### 6.1.11 NEA RWMC

The NEA seeks to assist its member countries in developing safe, sustainable and societally acceptable strategies for the management of all types of radioactive materials, with particular emphasis on the management of long-lived waste and spent fuel and on decommissioning of disused nuclear facilities. The Nuclear Energy Agency Radioactive Waste Management Committee (RWMC) created in 1975 is an international committee of senior representatives from regulatory authorities, radioactive waste management and decommissioning organisations, policy making bodies, and research-and-development institutions from the NEA countries. The purpose of the RWMC is to support international co-operation in the management of material from nuclear installations, including facility decommissioning and long-term waste management. The Committee implements a programme of work that:

- fosters a shared and broad-based understanding of the state of the art and emerging issues;
- facilitates the elaboration of waste management strategies that respect societal requirements;
- helps to provide common bases to the national regulatory frameworks;
- enables the management of radioactive waste and materials to benefit from progress of scientific and technical knowledge, e.g., through joint projects and specialist meetings;



- contributes to knowledge consolidation and transfer, e.g., through the publication of technical reports, consensus statements and short flyers; and
- helps to advance best practice, e.g., by supporting international peer reviews.

The regulator members of the RWMC also participate in a separate Regulators' Forum (RWMC RF) through which they discuss and report on topics of specific regulatory interest and which determines, where appropriate, how such issues are progressed within the full Committee.

The programme of work includes the following items:

- Forum on Stakeholder Confidence (FSC);
- Integration Group for the Safety Case (IGSC);
- Expert Group on Operational Safety (EGOS)
- Working Party on Management of Materials from Decommissioning and Dismantling (WPDD);
- Expert Group on Predisposal Management of Radioactive Waste (EGPMRW).

Other NEA Committees also having interests in this field are the Committee on Radiological Protection and Public Health (CRPPH) and the Nuclear Development Committee (NDC).

#### 6.1.12 NEA Regulators' Forum

The mission of the RWMC Regulators' Forum (RWMC RF) is to:

- Facilitate multilateral communication and information exchange between RWMC regulators and promote a frank interchange in open dialogue among peers.
- Define and address future regulatory challenges and issues in the area of waste management and disposal, including decommissioning and dismantling.
- Promote discussion and exchange with other groups involved in regulatory affairs, both within and outside the NEA. The emphasis is on two-way exchanges to benefit from related experience.
- Take the initiative within the RWMC in the area of regulation and licensing.

As a potential cooperation with SITEX could be seen to provide a support to the Forum's activities, specifically in the area of RD&D regarding RWM and DGR issues, specifically. Some contacts has been already established.

#### 6.2 COMMONALITIES OF SITEX AND OTHER NETWORKS

The IGD-TP is a logical partner of the SITEX Network in planning and performing joint R&D. It puts together the most advanced European programmes and prepares inputs for the documentation which shall be assessed by the nuclear regulator. Thus, joint effort in formulating requirements on particular elements of the safety case, the development of the methodology and processes for their assessment, the identification and development of understanding of critical features of the disposal system belong to key issue which call for coordinated effort of both partners.



A common characteristic of IAEA driven networks and projects is that they focus on recommendation development in the area of safety case formulation and assessment and on waste management practices. The IAEA does not perform its own R&D activities, rather collects achievements from advanced programmes and interprets them for the use by all its Member States. The main goal is to formulate recommendations, share knowledge and practices regarding radioactive waste management, and train the staff. In these areas, the goals of SITEX Network and the IAEA are similar and, specifically in the staff training, coordinated action might be for both sides beneficial.

The NEA-RWMC approach is similar to that of the IAEA. In its working groups it collects experience achieved in NEA Member States, and sorts and interprets it for the application in national waste management programmes. The IAEA and EC are represented in the RWMC, thus, coordination of SITEX Network activities with those of RWMC working parties may increase the effectiveness of the international effort in the radioactive waste management area.

# 7 A roadmap

The establishment of the SITEX Network was anticipated after the termination of the SITEX II project. However, the preparatory activities for the formal launching the Network have been performed during the final period of the project implementation. The overview of the main preparatory milestones is shown in the following Table.

Action	Planned	Status	Note
		(30 Nov 2017)	
Establishing preparatory team	Feb 2017	Done	Members of the SITEX SC
Drafting Network statute	Oct 2017	1 <sup>st</sup> draft submitted for comments	To be approved at the 1 <sup>st</sup> GA
Drafting Network information leaflet	Oct 2017	1 <sup>st</sup> draft submitted for comments	To be approved at the 1 <sup>st</sup> GA
Preparatory meeting of interested parties	Oct 2017	Completed	External participants
Invitation to join the network	Oct 2017	Done	About 15 responses
Calling the Kick-off GA	Jan 2018	To be sent by 31 Dec 2017	Establishing managing structure
Calling the 1 <sup>st</sup> regular GA	May 2018	To be sent by	1 <sup>st</sup>

(D-N°: 5.4) – Action plan for establishing SITEX network Dissemination level: PU Date of issue of this report: **30/11/2017** 



		31 March 2018	implementation plan
Start of the 1 <sup>st</sup> implementation plan	May 2018		
2 <sup>nd</sup> regular GA	Jan 2019		Preparatory activities for EJP1, 2 <sup>nd</sup> wave
EJP1, 1 <sup>st</sup> wave call	March 2018	Under preparation	EJP Core Group
EJP1, 1 <sup>st</sup> wave submission	Sept 2018	Under preparation	EJP Core Group

The Network preparatory team was created from the members of the SITEX II Steering Committee. The team formulated a plan of activities, allocated deadlines and responsibilities for their implementation, and coordinated the preparation of supporting materials.

SITEX Network Statutes were developed as an in-kind contribution of IRSN in its legal department. However, the inputs for its formulation (Network structure, managing principles, provision of resources, etc.) were formulated by the preparatory team.

The Network information leaflet was developed to provide a concise information about the Network vision, objectives, its planned activities, management and operational issues, and financing scheme. The leaflet shall be distributed to parties potentially interested in the Network membership.

The International meeting was intended to share the information among representatives of similar initiatives regarding radioactive waste management and to establish mutual exchange information channels.

The invitation to join the Network was distributed by the Steering Committee to all organisations involved in the SITEX II project. The participants met at the SITEX Plenary meeting, discussed the proposed Network arrangements and agreed upon calling the constitutive General Assembly.

The Kick-off General Assembly is to be held in January 2018. Its main purpose is to agree upon the Network structure, approve the Statutes of the Association, elect the Management Board's members and the Bureau.

The 1st regular General Assembly shall focus on the approval of the 2017 imp=lamentation plan and budget. The proposal will be drafted by the Bureau and submitted prior the meeting. Another topic shall be information about the status of the EJP 1 projects preparation in regard of the involvement of Network members.

In 2019, the General Assembly shall evaluate the results of the first year activities, receive information regarding approval of EJP1 projects, be informed about preparation of the 2nd wave of EJP 1 projects, and approve the plan of activities as well as the budget for 2019.



# 8 Conclusion

This SITEX-II project is at its end and there is thus a strong necessity to set up a new structure to maintain a mutual cooperation among TSOs, NRAs, REs and CS with aim to support identified expertise functions at an international level. A proposed Action plan for SITEX network establishment is based on SITEX and SITEX-II results and includes main aspects related to a sustainability of this foreseen expertise function network, including its administrative matters.

As vision of SITEX network is to promote activities aiming at fostering at international level the high quality and independent expertise in the field of safety of RWM in general and radioactive waste disposal in particular, participating SITEX partners believe in its successful launching and subsequent functioning.



### 9 Annexes:

#### List of annexes:

Annex 1: SITEX-II SRA issues candidates for a deployment through the SITEX\_Network, Main topics of SITEX SRA Annex 2: Overview of JOPRAD SRA Strategic Themes, Domains and Sub-Domains Annex 3: SITEX\_Network leaflet Annex 4: SITEX\_NETWORK STATUTES Annex 5: Questionnaire (T5.4, SITEX-II) Annex 6: Glossary



# ANNEX 1: SITEX-II SRA ISSUES CANDIDATES FOR A DEPLOYMENT THROUGH THE SITEX\_NETWORK $^{\rm 1}$

SITEX-II SRA Issues candidate for a deployment		RA Issues candidate for a deployment		
through the SITEX_Network			Explanation	
Main topic	Issue	Description		
1	2	Evolution of the waste inventory due to possible neutron activation	Not covered by on-going EC projects and Low common priority in the JOPRAD PD.	
2	1	Oxidative transient	This issue has a low common priority in the JOPRAD PD but could be (at least partly) covered by the RD&D WP #2.	
	4	Co-disposal of waste: interactions between different types of wastes	Not covered by on-going EC projects and Low common priority in the JOPRAD PD.	
	2 Behaviour of metallic components		This issue could be partly covered by the R&D WP #2 of EJP1. However, the following specific points mentioned in the SITEX-II SRA would not be covered:	
3		2 Behaviour of metallic components	• Study of metal (e.g. steel, copper) corrosion in repository conditions or of canister design lifetime.	
			<ul> <li>Exchanging on container design and manufacturing issues (e.g. modelling codes and standards and QA/QC programs and procedures for container design and manufacturing)</li> </ul>	
4	1	Competition between sorption of radionuclides and other elements from EBS/waste	Not covered by on-going EC projects and do not seem to be covered by RD&D WP #6 of EJP1.	
	2	Assessment of the risk of fire and explosion	Not covered by on-going EC projects and	
5	3	Assessment of the risk of flooding	Low common priority in JOPRAD PD.	
	4	Influence on long term safety of pre-closure disturbances	Not covered by on-going EC projects and by current Networking WP of EJP1.	
6	3	General methodologies for the safety assessment	Not covered by on-going EC projects and not fully covered by the Networking WP #2 of EJP1 (only the aspects related to uncertainty management will enter the scope of this WP).	
7	all	Lifecycle of a disposal programme and its safety case	Not covered by on-going EC projects and not fully covered by the Networking WP #2 of EJP1 (only the aspects related to uncertainty management will enter the scope of this WP).	



8	all	Pre-disposal radioactive waste and spent fuel management	Not covered by on-going EC projects and not fully covered by the Networking WP #2 of EJP1 (only the aspects related to uncertainty management will enter the scope of this WP).
---	-----	----------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<sup>1</sup> SITEX-II (Contract Number: 662152), Deliverable n°D1.2, Setting the Terms of References for the SRA implementation

#### MAIN TOPICS OF SITEX SRA

#### Main Topic 1: Waste inventory and source term

• Uncertainty about databases and methodologies used for defining waste inventories

(including historical waste)

- Evolution of the waste inventory due to possible neutron activation
- Understanding of the release processes and speciation of the radionuclides for spent

fuel, vitrified and cemented waste

• Waste acceptance criteria

#### Main Topic 2: Spatial extent and evolution of transient THMBC conditions in the near-field

- Oxidative transient
- Chemical conditions induced by metallic and/or cement materials and components
- Transients associated with gas production and migration
  - o Generation processes and rates of safety-relevant gases other than H2
  - Influence of gas on geochemistry and microbial activity in HR and EBS
  - Gas migration through EDZ and EBS

#### Main Topic 3: Evolution of EBS material properties

- Effective closure of a disposal facility
- Influence of high salinity and high temperature on bentonite properties
- Heterogeneous behaviour of bentonite components
- Behaviour of metallic components
- Behaviour of cementitious components

#### Main Topic 4: Radionuclide behaviour in disturbed EBS and HR



- Competition between sorption of radionuclides and other elements from EBS/waste
- Influence of organic matter on radionuclide migration
- Influence of the thermal transient on RN migration in EBS and HR
- Influence of microbial activity on RN migration
- Transport of volatile radionuclides in the disposal system

#### Main Topic 5: Safety relevant operational aspects

- Efficiency of the monitoring system over the operational period
- Assessment of the risk of fire and explosion
- Assessment of the risk of flooding
- Influence on long term safety of pre-closure disturbances

#### Main Topic 6: Managing uncertainties and the safety assessment

- Uncertainties associated with site characteristics
- Management of uncertainties associated with geodynamics and tectonic movements
- General methodologies for the safety assessment
- Safety assessment models

#### Main Topic 7: Lifecycle of a disposal programme and its safety case

- Methods to review the safety case
- Assessment of the technical feasibility of a geological disposal concept
- Site selection process
- Co-disposal of waste: interactions between different types of wastes
- Application of the optimization principle
- Evolution of the safety case content with the lifecycle of the disposal programme
- Organization of the pre-licensing phase
- Reversibility and Retrievability

#### Main Topic 8: Social and citizen sciences

- Knowledge transfer and interpretation
- Uncertainty and social trust along RWM and geological disposal implementation
- Aggregating a diversity of people, unfold capacities of collective intelligence along RWM



and geological disposal implementation

- Socio-technical hybridization of geological disposal implementation strategies
- Safety culture in the context of geological disposal
- Ontological and axiological commitments of geological disposal stakeholders
- Background democratic culture of geological disposal implementation



# ANNEX 2: OVERVIEW OF JOPRAD SRA STRATEGIC THEMES, DOMAINS AND SUB-DOMAINS<sup>1</sup>

Strategic Theme 1: Building Understanding			
1.1 Inventory, Waste Form and Waste Characterisation			
1.1.1 Inventory Uncertainty	1.1.7 Chemotoxic Species		
1.1.2 Non-destructive Assay Testing	1.1.8 Novel Radioactive Waste Treatment Techniques		
1.1.3 Non-mature and Problematic Waste Conditioning	1.1.9 High Burn-up Spent Fuel Evolution		
1.1.4 Radionuclide Release from Wasteforms other than Spent Fuel	1.1.10 Spent- Fuel Release Processes		
1.1.5 Geopolymers	1.1.11 Spent Fuel Fissile Content		
1.1.6 Fourth generation (Gen (IV)) wastes			
1.2 Waste Package			
1.2.1 Damaged and Re-working Packages	1.2.3 Alternative HLW/Spent Fuel Container Material Development		
1.2.2 Waste Package Interfaces			
1.3 Consequences of Storage			
1.3.1 Re-working of Aged Waste	1.3.2 Impacts of Extended Storage on Waste Packages		
1.4 Near-field and Engineered Barrier System	m		
1.4.1 Bentonite and other Clay Based Components	1.4.5 Metallic & Cementitious Chemical Perturbations		
1.4.2 Microbial Influence on Gas Generation	1.4.6 Salt Backfill		
1.4.3 Cementitious Component Behaviour	1.4.7 HLW/ILW Near-field Evolution		
1.4.4 Low pH Cements			
1.5 Gas Generation and Transport			
1.5.1 Gas Migration through the EDZ/EBS and Far- Field 1.5.2 Gas Generation Processes	1.5.3 Gas Transients		
1.6 Radionuclide and Chemical Species Mig	cation		
<ul><li>1.6.1 Chemical Thermodynamics</li><li>1.6.2 Sorption, Site Competition, Speciation and Transport</li></ul>	<ul><li>1.6.7 Temperature Influence on Radionuclide Migration</li><li>1.6.8 Colloid Influence on Radionuclide Migration</li></ul>		
1.6.3 Incorporation of Radionuclides in Solid Phases	1.6.9 Redox Influence on Radionuclide Migration		
1.6.4 Transport of Strongly Sorbing Radionuclides	1.6.10 Ligand-Influenced Transport Modelling		
1.6.5 Effects of Microbial Perturbations on Radionuclide Migration	1.6.11 Transport of Volatile Radionuclides		
1.6.6 Organic-Radionuclide Migration			
1.7 Geosphere	17 4 Deale Martin Difference		
1.7.1 Fracture Filling 1.7.2 Geological Uncertainties	1.7.4 Rock Matrix Diffusion 1.7.5 Site Descriptive Models		
1.7.3 Groundwater Evolution			
	1		

<sup>&</sup>lt;sup>1</sup> JOPRAD )Contract Number: 653951), Deliverable n°4.2, Programme Document – The Scientific and Technical Basis of a Future Joint Programme on Radioactive Waste Management and Disposal



Strategic Theme 2: Building Confidence			
2.1 Safety Case			
2.1.1 Pre-closure disturbances	2.1.4 Dose Thresholds		
2.1.2 Assessment Methodologies	2.1.5 Managing Deviations		
2.1.3 Uncertainty Treatment	2.1.6 Waste Acceptance Criteria		
2.2 Post-closure Process modelling and upsc	aling		
2.2.1 THMC Evolution	2.2.4 Upscaling THMC Models		
2.2.2 Performance of Plugs and Seals	2.2.5 Natural Analogues		
2.2.3 Oxidative Transients			
2.3 Numerical Tools			
2.3.1 Performance Assessment Tools	2.3.5 Upscaling in Performance Assessment		
2.3.2 Open-source Performance Assessment Code	2.3.6 Heterogeneity		
2.3.3 Long-range Transport Models	2.3.7 Improved Computing		
2.3.4 Multi-scale Reactive Transport Models	2.3.8 Biosphere Models		
2.4 Operational Safety			
2.4.1 Fire and Explosion Assessment	2.4.4 Accident Management and Emergency Preparedness		
2.4.2 Flooding Risk Assessment	2.4.5 Interim Storage Facility Safety		
2.4.3 Impacts of Operational Safety			
2.5 Practical Implementation			
2.5.1 Operational Monitoring Strategies	2.5.5 Concept & Design Adaptation		
2.5.2 Monitoring Strategies for Closure and Post-	256 Maak un Europinanta		
closure	2.5.6 Mock-up Experiments		
2.5.3 Monitoring Technologies	2.5.7 Backfill Industrialisation		
2.5.4 Reversibility and Retrievability			
Strategic Theme 3: Integrated Know	wledge Management System (IKMS)		
3.1 Site Uncertainty Treatment	3.9 Safety Case Guidelines, Management & Review		
3.2 Site Evolution Models	3.10 Disused Sealed Radioactive Sources		
3.3 Site Selection Process	3.11 Pre-licensing Management		
3.4 Technical and Socio-political Siting Criteria	3.12 Co-disposal Interactions		
3.5 Inventory Collation & Forecasting	3.13 Radiation Protection Optimisation Principle		
3.6 Evolution of Waste Inventory	3.14 Information Management (NEA RepMet)		
3.7 Link to Waste Producers/ Fuel Manufacturers	3.15 EU Research Infrastructure		
3.8 Concept Adaptation and Optimisation	3.16 EU DGR Curricular		



#### ANNEX 3: SITEX\_NETWORK LEAFLET

Version 1 drafted by SITEX-II WP5, October 13th, 2017

#### FOREWORD

This leaflet provides fundamental information about plans for setting "SITEX\_Network", which emanates from the results of SITEX project (2012-2013) and its continuation SITEX-II (2015-2017)<sup>1</sup>. SITEX\_Network will work as an association for which statutes have been drafted accordingly and are referred to in this document.

SITEX\_Network is planned to be launched in due time to enable a participation of SITEX\_Network Members in the foreseen European Joint Programming (EJP) (see EC H2020 JOPRAD project): a time schedule is proposed at the end of this document.

Of this document will be drawn the Terms of Reference and the Statement of Support referred to in the Statutes (Article 19 and Article 5 respectively) which will commit participants of SITEX\_Network to proactively support its vision and its objectives.

#### SITEX\_NETWORK CONTEXT, VISION AND OBJECTIVES

About 15 European countries, namely those having experienced nuclear energy, have initiated or plan to launch a national deep geological repository programme. The R&D efforts of Waste Management Organizations (WMOs) responsible for the implementation of these repositories are coordinated at EU level by the voluntary initiative on 'Implementing Geological Disposal of Radioactive Waste Technology Platform' (IGD TP). Repository developers run extensive multilateral national and international projects aiming at bringing evidence that their facilities will be built and operated with respect to internationally promulgated safety requirements and national regulations. This evidence, documented in the so-called "safety case", must be independently reviewed by national regulatory authorities (NRAs) who may engage also their technical support (so-called technical safety/support organisation (TSOs) or research entities (REs)) – organisations having capacities and capabilities to independently and responsibly review the documentation submitted by repository implementers/operators or contribute to such reviews. The regulatory activities are even broader: they also consist of specifying requirements, formulating procedures, and may include expressing informal (i.e. not required as a part of the licensing process) views and statements regarding implementer/operator's plans and activities.

The purpose of SITEX\_Network is to enhance and foster cooperation at the international level in order to achieve a high quality Expertise Function, <u>independent from organizations responsible for</u> <u>the implementation</u> of waste management programmes, aiming at supporting the Regulatory Authorities, as well as the Civil Society (CS), in the field of safety of radioactive waste management (RWM).

<sup>&</sup>lt;sup>1</sup> This draft leaflet has been elaborated by SITEX-II / WP5 (<u>http://sitexproject.eu/index\_2.html#work\_packages\_wp5</u>) and approved by SITEX-II coordinator.



To achieve this purpose, SITEX\_Network objective is to create a partnership of the "Expertise Function". As defined within the above-mentioned SITEX projects, the "Expertise function" entails activities carried out in the context of the regulatory review to provide the technical and scientific bases for:

Decisions by NRAs,

Interacting with Civil Society in the decision-making process with a view to improving the value of the review.

Entering SITEX\_Network may be achieved by becoming a Member of the association, or by belonging to the Associated Group for institutions, groups or individuals interested in SITEX\_Network but which prefer not to be Members (see "Management" below).

SITEX\_Network objective shall be achieved through close cooperation of Members (Statutes, Section 2) with a <u>plurality of views and competencies</u>, involved or willing to be involved in different waste management programs in different states of their development: NRAs, TSOs, REs supporting the Expertise Function and CS stakeholders (CSSs). Though CSSs do not have any formal regulatory or expertise functions, their views and concerns shall nevertheless be considered while developing a disposal facility, in respect of the Aarhus convention. The Societal Function (carried out by non-institutional experts, CS groups and the public) also exerts vigilance and gives additional inputs (CS expertise and expectations) that constitute a complementary contribution to safety case reviews.

#### SITEX\_NETWORK ACTIVITIES

SITEX\_Network will carry out various activities in order to support, facilitate and strengthen the Expertise function of its Members in the RWM field; however, in its starting period it will first focus on Geological Disposal Repository safety.

Acting in accordance with the orientations set by its Members, SITEX\_Network defines a strategy for reaching its purpose, as well as a programme of activities, resources and infrastructures that the achievement of this strategy requires. SITEX\_Network records its strategy in a Roadmap, which it develops, maintains, makes publicly available and promotes, in interaction with the scientific and technical community in Europe and beyond.

In compliance with its own rules and with third-parties rights, SITEX\_Network makes the main results of its activities available to the public.

The paramount activities of the SITEX\_Network, which will have to be identified and prioritized by the Management Board and the General Assembly in a Roadmap (see below) may entail:

R&D related activities, programmed via a SITEX\_Network Strategic Research Agenda and Deployment Plan : development, or contribution to, high quality R&D project proposals, coordination or facilitation of participation in international projects (e.g. European Joint Programming, EJP), or of joint research within the network, guidance and advice to



organizations fulfilling an Expertise Function in initiating R&D activities related to waste management safety;

- Activities related to Safety Case Review (SCR) methodology and practices: exchanging on guidance and requirements, when appropriate formulating position papers or harmonizing approaches and practices (e.g., development of safety case reviewing procedures, development of safety case reviewing tools);
- Training activities: development of professional capabilities, preparation and delivery of training programmes at European level for generalist experts and about specific technical domains, that may include training courses, seminars, visits to disposal facilities sites and underground research facilities, safety case review exercises;
- Work on how to promote efficient interaction with Civil Society: establishing principles and ways for the dialogue and transparent information between the Expertise function and the CS, strengthening knowledge and skills, adapting culture and practices of the Expertise function and the CS to accommodate the active contributions of CSSs, acting in complement to WMOs where public expects an independent view on its scientific and safety concerns and expectations;
- Further, SITEX\_Network carries out dissemination and planning activities, such as:
  - Knowledge exchange: providing a forum for information exchange and sharing data among Members; supporting Less Advanced RWM Programmes (LAPs);
  - Interaction with international entities: organize interactions with international entities involved in regulatory activities (e.g. WENRA, ETSON, ENSREG, ENEN, IAEA, OECD/NEA) or in implementing activities (e.g. IGD-TP): possible interactions could be dissemination, consulting for harmonization of the existing regulations and guidance, regular informing of the progress and outcomes of SITEX\_Network activities, establishing cooperation with specific projects (e.g. IAEA GEOSAF), etc.;
  - Presenting its activities and results of joint effort at different international events, such as established conferences and seminars;

In order to carry out activities, Thematic Working Groups (WG) may be established to elaborate particular technical or "coordinated and support" activities. A WG will be composed of a Leader responsible for coordination of the work and by eligible participants (see below). The creation of a WG and nomination of its Leader will be proposed by the Management Board and endorsed by the General Assembly (see Statutes 9.3). Each WG will produce an annual report of its activities to be presented to the General Assembly.

An assessment of the performed activities (feedback for improving and learning from implementation of the SITEX\_Network programme) will have to be conducted as well as planning future joint activities.



#### **ANTICIPATED BENEFITS FOR PARTICIPANTS**

The added value to other existing TSOs and regulator's networks is seen in bringing together different categories of contributors to /end-users of the expertise, such as TSOs, REs, NRAs and CSSs. This will ensure a plurality of views in all the foreseen SITEX\_Network activities described above and on RWM safety as this plurality is considered as a way forward to build a strengthened and comprehensive expertise function.

SITEX\_Network is opened to any institution or individual party having interest in independent regulatory assessment of RWM activities and willing to join SITEX\_Network activities while proactively contributing to support SITEX\_Network vision and objectives. As described in the "Management chapter" below, being a Member allows not only participating to all the activities stated above that will be planned, but to be part of the decision process in the SITEX\_Network concerning the organization of these activities. Belonging to the Associated Group enables only to take part to annual plenary meetings and on a case by case basis to SITEX\_Network activities (upon decision of the management board).

In addition to the benefits from SITEX\_Network activities described above (R&D and SCR related activities, training; exchanges and guidance...), which provide services in order to increase national skills and competencies, seeking mutual understanding of key concept of regulatory review and fostering harmonization or common position where needed in order to enhance confidence in the national decision making process, a specific point is made here regarding the perspective of EC projects. SITEX\_Network intends to maintain and further develop the position of the Expertise function within the international R&D scene, as initiated by the SITEX projects (SITEX 2012-2013, SITEX-II 2015-2017) notably in the preparation of the future European Joint Programming (EJP) within the JOPRAD project. Specifically concerning the R&D that will be performed within the EJP if approved by the EC (or within another framework if not approved), being a SITEX\_Network Member may allow:

- To influence the joint research and related horizontal activities implemented at EU level on RWM;
- To exchange with other SITEX\_Network Members to develop high quality and balanced proposals having more chance to be selected for funding through the EJP;
- To have access to information on ongoing EJP projects while not being directly part of them.

At last, being a SITEX\_Network Member may help to fulfil the national obligation of the COUNCIL DIRECTIVE 2011/70/EURATOM<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> COUNCIL DIRECTIVE 2011/70/EURATOM Article 8 on Expertise and skills:

Member States shall ensure that the national framework require all parties to make arrangements for education and training for their staff, as well as research and development activities to cover the needs of the national programme for spent fuel and radioactive waste management in order to obtain, maintain and to further develop necessary expertise and skills.



#### SITEX\_NETWORK MANAGEMENT

SITEX\_Network will be established in the statute of a French non-profit association<sup>3</sup>. Its bodies are, as described in the figure below:

the General Assembly (GA) organized in 3 colleges (see Statutes, Section 4);

the Management Board (MB) elected by the colleges and its Bureau (see Statutes, Section 3).

Both are composed of Members (see Statutes, Section 2). Among those are distinguished the Founding Members, consisting of the beneficiaries of SITEX and SITEX-II projects who candidated early enough to participate to the first GA meeting. In the future, at all times, the MB's members will have to include at least half Founding Members.

Each college represents a type of function, and Members can belong only to one college at a time. Candidatures to SITEX\_Network will have to be duly justified with regard to the candidate national or international role, as well as the choice of the college (if a candidate is in position to choose between several colleges).

- College 1: Technical Expertise Function (comprises Technical Safety Organisations (TSOs) or other entities assuming this function for the Regulators, such as Research Entities (REs));
- College 2: Regulatory Function (comprises Nuclear Regulatory Authorities (NRA));
- College 3: Civil Society Function (comprises CSSs stakeholders who may either be individuals or groups, such as non-institutional experts, NGO's ... )

As part of the GA (convened at least once a year), Members elect their college representatives in the MB, adopt the Roadmap and the annual plan of activities on the basis of the MB propositions, bring forward proposals for activities, and assess the work performed. They are committed to the SITEX\_Network Statement of Support and also have the role to promote SITEX\_Network and disseminate the information inside their organisation, in their national context and in agreement with the MB, at the international level (conferences, workshops ...).

The MB consists of 4 to 10 elected representatives (among which 1 French) for a 3 year mandate (numbers for each college will have to be defined at the first GA) who meets at least twice a year. The MB evaluates candidate memberships, elaborates the Roadmap and program of activities proposal, nominates activities leaders (who participate to MB meetings), establishes the budget and manages the assets. Within them, they elect the Bureau (executive board), composed of at least a President and one Vice-president (eventually, other VPs and a Treasurer) and they nominate a Secretary General (Member or not, eventually subcontracted). The Bureau is responsible for SITEX\_Network day to day activities, GA organization, communication with external entities, and preparation of annual and long term plans.

<sup>&</sup>lt;sup>3</sup> Loi de 1901

<sup>(</sup>D-N°: 5.4) – Action plan for establishing SITEX network Dissemination level: PU Date of issue of this report: **30/11/2017** 



Members' representation or delegation of powers (for the GA, for the MB in formal occasions or legal actions) is possible within the limits fixed by the Statutes.

In addition, the Associated Group consist of institutions or individuals interested in SITEX\_Network topics and stand by SITEX\_Network vision and objectives but who prefer not to be Members. They are also committed to the SITEX\_Network Statement of Support, may be Observers at SITEX\_Network GA or at other general meetings and can take part in selected activities when agreed by the MB (e.g. SITEX\_Network training, workshops, Working Groups ...).



(D-N°: 5.4) – Action plan for **SITEX\_Network management and functioning outline** Dissemination level: PU Date of issue of this report: **30/11/2017** 



#### FINANCING SITEX\_NETWORK ACTIVITIES

As indicated in the Statutes:

- Assets consist of the annual membership fees, other financial contributions and donations; Members may also bring any other kind of assets such as equipment, offices, and intellectual property rights. Assets shall not be used to remunerate any of its Members (Articles 6, 16), except if duly contracted (see below);
- The Management Board (MB) prepares the budget plan for the coming fiscal period and renders the accounts for the past fiscal period (Article 15). The General Assembly approves the Association's budget and accounts (Article 12);
- Assets' use will be defined by the conditions (proposition as follows) specified in the Terms of References which must be approved by the General Assembly (Article 19).

The General Assembly invests the MB to take all decisions regarding the management of the Association's assets necessary to achieve the Association's objectives within the frame of the provisional budget.

The basic rule is that SITEX\_Network Members bear the costs of their participation and that each Member participates actively and devotes sufficient amount of its workforce resources.

Besides in kind contributions of human or material capacities, SITEX\_Network Members contribute financially, through their membership fees, the level of which will have to be established by the General Assembly. Other financial contribution is possible: for example, it could correspond to the retribution of lectures given in the name of SITEX\_Network.

These financial contributions constitute a common fund. This fund shall be restricted to cover the expenses necessary for the establishment and maintenance of the Association's administrative infrastructure, in particular the costs resulting from the establishment of a secretariat and creation and maintenance of the website (if necessary including subcontracting), premises renting, etc. According to the Management Board decision, only certain travel costs for Members (e.g. for GA, MB, Working Group meetings, official representation of SITEX\_Network) strictly limited in the frame of work performed for the Association, and up to a spending limit, may be reimbursed. Further, WG projects may get funds from SITEX\_Network in case its resources make it possible.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Before establishing the fees, costs will have to be estimated, and revised along the way, depending of the amount of activities to be managed. A first estimation of expenses is given here on the basis of the feedback from SITEX-II and also NERIS :

Establishment costs	17 000 €
<ul> <li>egal establishment of the network (could be done by IRSN as an in-kind contribution)</li> <li>ebsite creation (knowing that it will be a major tool of SITEX_Network for communication and dissemination)</li> </ul>	l in kind W 15 000 1
st GA with founding members (without travel expenses)	2 000
Recurrent yearly costs (let's say beginning 2018)	64 000 €
1. Functioning (based on 1 Man-month estimated = 8000 €),	<u></u>
(D-N°: 5.4) – Action plan for establishing SITEX network	34
Dissemination level: PU	



In addition, other resources will be developed such as, for instance, fees for participation to SITEX\_Network training courses.

SITEX\_Network may also entail dedicated funding such as EC subvention/grants for activities carried out on its own (e.g. knowledge sharing or training courses in the EJP, if any), and ad-hoc resources.

As far as fees are concerned here is a first proposal which would barely reach the estimated costs as identified in the footnote, based on SITEX-II declared mean man-month per year, and on an estimation of potential future Members<sup>5</sup>:

- First category : 1500 EUR/y (~10 members)
- Second category : 4500 EUR/y (~10 members)

#### SITEX\_NETWORK PROVISIONNAL SCHEDULE

#### November 2017: end of SITEX II project

**December 2017- January 2018:** SITEX\_Network Launching with 1<sup>st</sup> GA (extraordinary) with Founding members

Agenda: 1<sup>st</sup> fees proposition discussion & approval, administrative provisional budget...

Winter 2017: Submission to the MB of candidates and preparation of the next meeting.

**Early spring 2018**: 2<sup>nd</sup> GA (1<sup>st</sup> ordinary) with all members:

Agenda: acceptation of new candidates, answer mode wished by Members to answer the EJP 1<sup>st</sup> call...

• reasurer (accounting), Secretariat (French administration, website, meeting organization) ~ 4 MM/y	T 32 000 M
iscellaneous (furniture's, edition, SITEX_Network representation in congress) :	4 000
organizational meetings" (1 GA/y- 5000 € (REX SITEX-II), 2 MB+Bureau meetings/y (1500 €x2) 2. Meetings for activities (workshops, WG meetings - rules need to be established) minimum to start with :	8 000 <b>10 000</b>
(NERIS counts nearly 30000 for its yearly activities)	

<sup>5</sup> propositions made here will have to be discussed further; the idea is that the fees should be fair compared to the economic power of the Member:

Proposition is based on two levels of fees calculated on the basis of a fraction (about 0.45) of SITEX-II mean man-month per year, which ranges from  $600 \in as$  a minimum and  $17000 \in as$  a maximum, with a mean personnel cost at about  $8000 \notin$ /month. From there are derived two "mean levels" respectively in the lower and in the upper ranges (it's a start, even though there are plenty of way, in a given country, to calculate the man month cost), which will then be applied to each member falling in either the lower or upper category.

Another possibility which was proposed was to be directly proportional to the man-month direct costs for each partner (same caution apply on the way man-month are estimated) but it appear far too complicated to manage.



#### March 2018: EJP 1<sup>st</sup> call

**October 2018**: answer to EJP 1<sup>st</sup> call (note that preparation of the answers has already started in JOPRAD in parallel Working Groups)


#### ANNEX 4: SITEX\_NETWORK STATUTES

#### SECTION 1. LEGAL FORM – NAME – REGISTERED OFFICE – OBJECTIVES – TERM

#### ARTICLE 1. LEGAL FORM AND NAME

The association is named "Sustainable Network for Independent Technical Expertise on radioactive waste management" in short "SITEX\_Network" (hereinafter referred to as the "Association").

The Association is organized under the French law of July 1, 1901 as amended and texts concerning its application or any further modification to the applicable Law or regulation to associations with nonprofit purpose.

#### ARTICLE 2. REGISTERED OFFICE

The registered office of the Association shall be located at 31 avenue de la Division Leclerc, BP 17, 92262 Fontenay-Aux-Roses Cedex, France, in the Judicial District of the city of Nanterre.

It may be transferred to any other location in continental France by decision of the Management Board, subject to ratification by the General Assembly with the rules applicable to the amendment of the present statutes (hereafter the "Statutes").

The Management Board may set up committees in any country or group of countries in order to collect the membership fees and to perform such other duties as may be prescribed by the Board.

#### ARTICLE 3. OBJECTIVES

The Association shall have as objectives to enhance and foster cooperation at the international level in order to achieve a high quality expertise function in the field of safety of radioactive waste management (RWM), independent from organizations responsible for the implementation of waste management programs, aiming at supporting the Nuclear Regulatory Authorities (NRA) as well as the Civil Society.

The Association may undertake all activities relating directly or indirectly to its objectives and may, by any means, provide assistance to, or collaborate with organizations pursuing the same objectives or whose activities contribute to the realization of these objectives.

SITEX\_Network records its priorities on research and development in a Strategic Research Agenda, which it develops, maintains, makes publicly available and promotes, in interaction with the scientific and technical community in Europe and beyond.

#### ARTICLE 4. DURATION

The Association is constituted for an indefinite duration.

SECTION 2. MEMBERS



#### ARTICLE 5. CONDITIONS OF MEMBERSHIP

Members of the Association (hereafter "Member(s)") shall:

- be natural persons or legal persons qualified in the fields to which the objectives of the Association relate and,

- be in capacity in her/his/its own country to be a member of a non-profit association and,
- sign a Statement of Support to the Association and comply with it.

In case the Member is a legal person, it shall nominate a representative and one or more subsidiaries among its permanent staff exclusively. Notification of the representatives shall be sent to the Management Board not less than a month following effective adhesion to the Association by the Member.

#### ARTICLE 6. TYPES OF MEMBERSHIP

#### 6.1 FOUNDING MEMBERS

They are the Members that have participated in the constitution of the Association.

They abide to the same fees regime that Ordinary Members.

#### 6.2 ORDINARY MEMBERS

Ordinary Members shall be admitted by the Management Board of the Association and shall be subject to the present Statutes.

Each candidate shall have the right to appeal, to the next General Assembly, a decision refusing the candidate membership.

Ordinary Members shall pay an annual membership fee. The amount of the membership fees shall be fixed by the Management Board, unless otherwise decided by the General Assembly on a proposal by the Management Board.

The Management Board may convert the amounts referred to in this paragraph into the equivalent in national currencies in round figures at the beginning of each year. The membership fee shall be paid by 30 April of each year.

#### 6.3 HONORARY MEMBERS

The Management Board may confer the title of Honorary Member to a person (as defined in article 5) for its renowned expertise in the fields to which the objectives of the Association aim at.

#### ARTICLE 7. COLLEGES



The Association brings together different categories of Members, represented through three (3) colleges, each representing a type of function:

- College 1: Technical Expertise Function

(comprises Technical Safety Organizations or other entities assuming this function for the Regulators, such as research entities);

- College 2: Regulatory Function

(comprises Nuclear Regulation Authorities);

- College 3: Civil Society Function

(comprises civil society stakeholders who may either be individuals or groups )

A Member can belong only to one college at a time.. Candidatures to SITEX\_Network will have to be duly justified with regard to the candidate national or international role, as well as the choice of the college (if a candidate is in position to choose between several colleges).

When the Management Board approves a candidature, it will notify all the Members and inform them of the new Member field of expertise and statute and of its choice of college.

#### ARTICLE 8. END OF MEMBERSHIP

#### 8.1 RESIGNATION

A Member may resign at any time from the Association by giving written notice to the Management Board.

Resignation shall be effective at the end of the current year.

#### 8.2 TERMINATION FOR OTHER REASONS THAN RESIGNATION OF A MEMBER

a) Members who fail to pay their membership fees, and who fail to respond to a late payment reminder notice within two (2) months of its delivery, will be considered as having resigned from the Association.

b) Members who contravene the objectives or interests of the Association (notably if they stop or don't comply partially or entirely with the Statement of Support) may be expelled there from by decision of the General Assembly, which shall be taken by a two-thirds majority vote.

c) Members who resign or cease to be members of the Association for any other reason shall have no right to claim reimbursement of membership fees already paid or any title to the assets of the Association.

#### SECTION 3. MANAGEMENT AND CONTROL

#### ARTICLE 9. MANAGEMENT BOARD



#### 9.1 COMPOSITION OF THE MANAGEMENT BOARD

The Association shall be managed by a Management Board (hereafter the "Management Board") composed of at least four (4) Members, and ten (10) at the most.

The Management Board must include at least one Member of each College (described in article 7) elected by the General Assembly, which may also revoke such election and decide upon another minimum of Members of each College.

At least fifty (50%) percent of the Management Board shall be constituted of Founding Members.

At least one (1) Member of the Management Board shall be of French nationality.

The duration of the functions of Members of Management Board (hereinafter referred to as "Board Members") is fixed at three (3) years beginning on January 1 of the year following the date of election. Such mandate may be renewed.

The term of a Board Member elected at an Extraordinary General Assembly of the Association held between meetings of the Ordinary General Assembly, expires at midnight on December 31 of the year of the first ordinary General Assembly held following the election of such member.

If a Member of the Management Board resigns, or if its/his/her membership is terminated according to article 8.2 during the term of such member, the Management Board may fill the vacant Board position for the remainder of the term of such member by electing another member of the Association to the vacant Board position belonging to the same College, subject to confirmation by the next General Assembly.

The Management Board Members for each college are elected within their College by the College Members during the General Assembly.

Membership of the Board shall carry no remuneration.

#### 9.2 MEETINGS OF THE MANAGEMENT BOARD

#### 9.2.1 Organization of meetings

The Management Board' meetings are held:

- as convened by the President, at least twice a year moreover, it shall meet whenever such a meeting is required in the interests of the Association, or;

- if requested by one-fourth of the Board Members.

All such meetings shall be convened by the President, or by the Immediate Past President or a Vice-President acting together with the Secretary General or by a majority of elected Board Members.

Meetings shall be chaired by the President or, if the President is prevented from doing so, by one of its Vice-Presidents.

The notice of convocation for a meeting are sent with at least thirty (30) calendar days' notice from the date of the meeting, unless all Board Members agree on a shorter term, via registered letter or e-mail with read report or, if not, after reception of an email confirmation by the sendee.



The notice of convocation for a meeting of the Management Board shall contain the date, time, location and agenda of each such meeting.

#### 9.2.2 Deliberations

The Management Board may validly deliberate if at least half of the Board Members are present or represented. Board Members may be represented by another Board Member provided that a duly signed proxy is shown. Board Members can only hold one proxy.

Deliberations of the Management Board may be conducted by means of conference call, videoconference or any other electronic means accepted by the Management Board. The vote of Board's Members may be oral or written provided that it is clearly expressed and without any ambiguity.

The Management Board's deliberations are recorded in minutes which shall be submitted for approval to the Management Board, at the latest during the next meeting of the Board, and shall be signed by the President and the Secretary General. Excerpts from or copies of such minutes shall be certified by a member of the Board, or the Secretary General.

All the documents necessary for the French administration shall be written in French and shall be established or signed following these Statutes rules.

#### 9.2.3 Votes

Each elected member of the Board is entitled to one vote. Resolutions of the Management Board shall be agreed upon by a simple majority vote of the Board's Members present or represented. In the case of equal votes, the President's vote shall be decisive.

#### 9.3 DUTIES AND RESPONSABILITIES

The Management Board has the powers conferred on it by the French law. The Management Board shall have any and all powers to make all arrangements and take all measures regarding the Association. Thus, it shall be authorized to take all actions, which are not specifically reserved to the General Assembly by law or by these Statutes.

The Management Board is responsible for performing all formalities, including those of official reporting and publication, required by the French law.

The Management Board may, at its discretion, delegate the performance of the daily management of the Association to one or more persons, chosen from among its Members or otherwise.

The Management Board may delegate specific powers of authority to its Members, Members of the Association, or to third parties. Such powers of authority shall be limited to the specific scope and duration set forth by the Management Board and shall be made in writing.

Commitments binding the Association shall be valid if signed by at least (2) two Members of the Management Board, or by one Member of the Management Board and the Secretary General, without requiring proof of a previous decision of the Management Board.

In legal actions, the Association shall be represented by the Management Board both as a plaintiff and as a defendant, the Management Board being represented by its President or one Vice-President or any other member of the Management Board specifically designated by the Management Board.



In all of its relations with the Post Office and Banking institutions, in particular for payments and collection of mail (registered or otherwise) and the opening, closing and management of accounts, the Association shall be duly represented by one of the Board Members or by a person mandated by the Management Board to perform such tasks.

As to third parties, the Association shall be bound by acts of a special delegate of the Association unless the third party has actual knowledge that such acts exceed the authority of the delegate.

As between the Association and a special delegate, the Association shall be bound by acts of a special delegate which are taken within the limits of the authority of the special delegate.

The Association shall also be bound by acts of the delegate in charge of the daily management of the Association within the limits of such delegate's authority of daily management.

#### ARTICLE 10. BUREAU

The Management Board shall establish a Bureau consisting of the President, the Vice-President(s), the Treasurer (if any), the Secretary General, and possibly any other Board Member the Board deems appropriate, to prepare the meetings of the Management Board.

The Members of the Management Board shall elect from among themselves a President, one or more Vice-Presidents and, if necessary, a Treasurer.

The President, the vice President and the Treasurer are elected for a period of three (3) years renewable.

The Management Board shall appoint a Secretary General of the Association, who may or may not be a member of the Management Board and set a fixed term for the mandate of the Secretary General. The Management Board may, at any time, without notice and at its sole discretion, revoke the appointment of the Secretary General.

In case the Secretary General is not a member of the Management Board, the Secretary General may be invited to attend all or part of the Board's Meetings without, however, having a right to vote. The Secretary General shall be informed of every major decision taken by the Management Board.

In the interest of the continuity of the Association, the term of the mandate of the Secretary General shall not necessarily coincide with that of the Management Board.

The Secretary General shall not be auditor of the Association.

The Secretary General shall liaise with the President and the Bureau establish links between the Members, and perform required financial and administrative functions, including in particular the coordination of information, the secretarial administration of the Management Board, and contribute to the organization of the Association's activities.

#### SECTION 4. GENERAL ASSEMBLY

#### ARTICLE 11. COMPOSITION OF THE GENERAL ASSEMBLY



The General Assembly shall consist of all Founding and Ordinary Members who have duly paid their membership fees.

Honorary Members shall equally have the right to attend the General Assembly.

#### ARTICLE 12. DUTIES AND RESPONSABILITIES

The General Assembly shall have any and all rights to give instructions to the Management Board and to take or authorize actions to be taken concerning the Association. In particular:

a) it shall approve the Statutes of the Association and their amendment;

b) it shall nominate the Board's Members and if necessary revoke such nomination ; this implies the power to determine their number (for each college) within the limits set by the present Statutes;

c) it shall appoint and, if necessary, revoke the appointment of the auditors;

d) it shall decide, on the basis of a report by the Management Board relating to a particular period, the scientific activities and administrative organization of the Association;

e) it shall approve the Association's budget and accounts;

f) it shall discharge the administrators, auditor(s) and, in the event of a dissolution, the liquidators of the Association;

g) it shall decide upon the voluntary dissolution of the Association;

h) It shall decide upon the appeal of a rejected candidate member against the decision of the Board not to accept the candidate member as a member of the Association.

#### ARTICLE 13. DELIBERATIONS

#### 13.1 ORGANIZATION OF MEETINGS

General assembly meetings are convened at the initiative of the Management Board at least every year within six (6) months after the end of the financial year.

Extraordinary General Assemblies may be called whenever the Management Board thinks fit or appropriate to do so, or whenever at least ten percent (10%) of the Founding and Ordinary Members file a substantiated and signed application to this effect.

Notice of convocation for a meeting are sent with at least twenty-one (21) calendar days' notice from the date of the meeting via registered letter or e-mail with read report or, if not, after reception of email confirmation by the sender to all Members of the Association. The notice of convocation shall contain the date, time, location and agenda of each such meeting.

Notice of convocation shall be signed by the President or, if the President is unable to do so, by the Immediate Past President acting together with one of the Vice-Presidents, by two Vice-Presidents acting together, or by the Immediate Past President or a Vice-President acting together with the Secretary General.



The General Assembly shall be chaired by the President or, in the absence of the President, by the Immediate Past President or one of the Vice-Presidents. If neither the President nor the Immediate Past President nor any Vice-President is present, the General Assembly shall elect a chair from among its members.

The chair of the Assembly shall appoint a Secretary, and the General Assembly shall designate two Clerks for the voting procedure from among the members present. These four shall constitute the Assembly Secretariat.

#### 13.2 DECISIONS

The General Assembly may only take valid decisions on the points outlined in the agenda if twothird (2/3) of the Founding and Ordinary Members is either present or represented.

If the General Assembly does not constitute this quorum, another General Assembly shall be called within the shortest possible time. This second General Assembly may take valid decisions irrespective of the number of Funding or Ordinary Members present or represented.

The decisions of the General Assembly are made by a simple majority. In the case of an equality of votes, the vote of the President shall be decisive. Resolutions on points that were not included in the agenda may only be adopted by a two-third (2/3) majority vote of the Members present or represented.

However, any amendment of the Statutes and any decision regarding eviction of a Member under Article 8.2 b) or regarding the dissolution of the Association under Article 19 shall require a two-thirds (2/3) majority vote of the Members present or represented.

The decisions adopted by the General Assembly are recorded in a minutes signed by the members of the Assembly Secretariat.

Excerpts from, or copies (especially in French version) of such minutes shall be certified by the President, or one of the Vice-Presidents, or the Immediate Past President or the General Secretary or by any other party with a valid mandate from the Management Board to conduct the daily management of the Association.

Any amendment of these Statutes shall be filed, without delay, to the French State's representatives where the Association has its registered office and shall be published in the "Journal Officiel de la République Française" in accordance with the French Law.

#### 13.3 VOTES

Each Founding and Ordinary Member shall have one vote.

Each natural person Member may be represented by another natural person Member of the Association with a duly signed proxy on the date of the meeting. A Member without a duly signed original proxy shall not be allowed to vote on behalf of the concerned Members. The maximum number of proxies hold by a natural person Member is limited to three (3).

A specific voting method (e.g. votes inside colleges, oral votes, secret votes ...) may be decided in the Terms of Reference.



#### ARTICLE 14. ASSOCIATED GROUP, OBSERVERS

Natural persons or legal persons not wishing to become Members but desiring to be allowed to take part to some of SITEX\_Network Activities may be part of the Associated Group as defined in the Terms of Reference.

Exceptionally, the Management Board may invite legal entities or individual to participate, as observer, to the General Assembly. Participation of observers shall be formally agreed by the General Assembly and must be foreseen on the proposed agenda.

#### SECTION 5. BUDGET ACCOUNTING AND ASSETS

#### ARTICLE 15. BUDGET AND ACCOUNTING

The Management Board shall render the accounts for the past fiscal period and shall prepare the budget for the coming fiscal period.

#### ARTICLE 16. ASSETS OF THE ASSOCIATION

The resources of the SITEX Network consist of membership contributions, grants or external funding to the Association from the European Commission or other organizations and all other resources admitted by applicable law and regulations, such as voluntary contributions of its members. Fees other than funding may be required to cover the cost of some activities (i.e. Training).

Members may also bring any other kind of assets such as equipment, offices, and intellectual property rights.

The assets of the Association shall be used in accordance with the budget plan mentioned in article 15 and may be used, under conditions specified in the Terms of reference, to reimburse certain travel costs of its Members limited strictly in the frame of work performed for the Association. It shall not be used to remunerate any of its Members.

#### ARTICLE 17. AUDIT AND RECORDS

The Association shall maintain accounting records in accordance with the French Law. The financial year shall commence on 1 January and end on 31 December of each year.

The accounts of the previous year, the budget for the following year, and an activity report shall be presented every year to the General Assembly for approval by the Board Management. The budget shall reflect the proceeds and the charges for the following financial year. The accounts shall be filed in accordance with the French Law.

The General Assembly shall elect from among its Members, with the exception of its Members who are also Board's Members, one or more auditors who shall be responsible for duly auditing the accounts of the Association and writing a report about the accounting and the annual budget.



#### ARTICLE 18. REGISTERS

The General Secretary handles two registers:

- A register for the Minutes of the Management Board
- A register for the Minutes of the General Assembly.

#### SECTION 6. MISCEALLANOUS

#### ARTICLE 19. TERMS OF REFERENCE

The Management Board shall regulate the internal administration of the Association in Terms of Reference, which shall be submitted to the General Assembly for approval; any modification will be subject to General Assembly approval. It shall not contravene to the present Statutes.

#### ARTICLE 20. DISOLUTION – LIQUIDATION

The dissolution of the Association may be decided upon at any time by the General Assembly, subject to the provisions of the Statutes regarding their amendment.

In such case, the General Assembly shall appoint the liquidators, determine their powers, and decide upon the disposition of the proceeds of the liquidation, which shall be donated to another association pursuing the same or similar objectives except non-monetary assets brought by one or several Members which shall return to their genuine owners.

Any decision relating to dissolution, the conditions of the liquidation, the nomination and the suspension of the functions of the liquidator, the closure of the dissolution, or the disposition of the net assets shall be filed and published in accordance with the French Law.

#### ARTICLE 21. CONFIDENTIALITY

In compliance with its own rules and with third-parties rights, the Association makes the main results of its activities available to the public.

The SITEX\_Network Members must keep confidential any data, documents or other material (in any form) which is disclosed within the SITEX\_Network and is explicitly marked as confidential at the time it is disclosed ('confidential information'). If information has been identified as confidential only orally, it will be considered to be confidential only if this is confirmed in writing within 15 days of the oral disclosure.

Unless otherwise agreed between the SITEX\_Network Members, they may use confidential information only to implement the objectives of the Association.

The Management Board shall require that any person wishing to participate to a General Assembly as an observer or to access to information deemed confidential signs a non-disclosure agreement.



#### ARTICLE 22. LANGUAGE

The French version shall prevail over any other translation. English is the working language of the Association. However any communication with the French authorities shall be conducted in the French language.



#### ANNEX 5: QUESTIONNAIRE (WP5/T5.4)

### Purpose of the questionnaire

The **SITEX project** (2012-2013) defined the terms of reference for the implementation of an international and sustainable network of organisations carrying out the national expertise function (**SITEX network**). In this perspective, a characterization of the expertise function was established and main functions and modes of interactions were identified<sup>6</sup>.

On this basis, this annex introduces a questionnaire addressed to the partners of the WP5, Task 5.4 of **SITEX-II project** and also to the CS experts' representatives aiming at further preparing the rules of functioning of the foreseen **SITEX network**. The objective of this questionnaire was to collect in particular the partners' expectations and views regarding the goals, ways and governance of the SITEX network, its interactions with external entities and the implementation of potential activities related to the four identified functions of the network (R&D, Review of Safety Case, Training, Interactions with CS). The questionnaire aimed also at collecting their views on the ways to finance and maintain the network. It has been disseminated and evaluated in the first period of SITEX-II project. The main findings were taken into account in the SITEX network proposal.

### Questions

#### 1. FEEDBACK OF THE SITEX PROJECT (2012-2013)

The SITEX project (2012-2013) elaborated terms of reference for the expertise function and future SITEX network and described its potential missions and activities (see synthesis in Appendices of this document).

Q.1.1.1. Do you agree with the terms of reference missions foreseen for the SITEX Network by the SITEX project (2012-2013)?

Q.1.1.2. What are, according to you, the paramount activities of the future SITEX network?

Q. 1.1.3. What should be the focus of the SITEX network activities? (Geological Disposal, or a

<sup>&</sup>lt;sup>6</sup> Deliverable 6.2 "Terms of reference of the SITEX network" realized during the SITEX project (2012-2013). It is a complementary document of the D6.1 "Conditions for establishing a sustainable expertise network" presenting a common understanding of the definition of the expertise function and the different needs of experts.



broader perspective on RWM?)

#### 2. FEEDBACK OF THE SITEX-II PROJECT, GOVERNANCE SCHEME

The SITEX-II project elaborated a figure to represent its composition and the different interactions the project have with external entities (see Figure 1 below).



Figure 1 : SITEX-II composition and interactions with external entities

To begin with, the SITEX-II project is currently experiencing forms of governance that are interesting to assess in the perspective of the organisation of a future SITEX network.

### Q.1.2.1. Regarding the procedure of decision and governance, what is the feedback of your experience within the SITEX-II project?

- Should the system of administrative decisions of the SITEX network be the same that the system of the SITEX-II projects? (Steering Committee, consortium agreement of SITEX-II)
- WP1 & WP2 of the SITEX-II project experimented procedures of votes for selecting topics of interest and setting priorities between them, notably during the Plenary Meeting of November 2015.
  - o Are these procedures efficient? Fair? Could it be duplicated in the future network?



SITEX II (through its WP4) is experiencing a model of interactions between technical experts and Civil Society Organisations (CSOs). A small CS ("consultative") group composed of CS experts organisations (partners of SITEX: Mutadis, MKG, REC, Symlog, Energyaklub) is interacting with a larger group of CS representatives (as 3rd parties). The CS "consultative" group send them information on the progress of work etc. They regularly met within dedicated workshops where experts and CSO can interact.

Q.1.2.2. What is your feedback on these interactions of the technical experts with CS that are experienced in SITEX II ?



#### **3. STRUCTURE, GOVERNANCE OF THE SITEX NETWORK**

The Figure 2 below is presenting a proposed scheme of how the SITEX network could be organised:



*Figure 2: Governance scheme of the SITEX network and its interactions with external entities (CS: Civil Society; SCR: Safety Case Review).* 

# Q1.2.3. The SITEX network will a priori adopt a legal associative format with the usual structure (General Assembly, Management Board= executive group, Chairman, secretariat). It is raising several issues:

- Who should be the CORE members of the SITEX network? In particular, would you see the regulatory authorities inside/outside the network? The Civil Society participants inside/outside the network? How do you see the role (duties, responsibilities) of the CORE members?
- How do you see the role (duties, responsibilities) of entities that are not CORE members inside the SITEX network ?
- Should different colleges of members be implemented? (Regulatory Authorities, TSO or similar, R&D, etc.)?



- What should be the composition of the Board(one representative of each organization of the Core group, or less, or enlarged to the whole SITEX network?) How should be designated the members of the Board? The Chairman? (Direct vote or qualified vote?)
- How long the first phase of the SITEX network should last? Within this first phase, should the Board and/or the Chairman be renewed (which mandate duration) ?

### There is also a diversity of needs among the SITEX partners. How would you address this diversity in the organisation of the future SITEX network?

### Q1.2.4. What should be the rules for ensuring fair balance between the interests of different members of the network?

- How to organise and finance the sharing of existing knowledge? (between More or Less advanced programmes).
- How to organise and finance the knowledge transfer? (Adaptation to the specificities of the different countries).
- How to deal with the diversity of situations? (Big/small organisations; More/Less advanced programmes).
- Should exist any criteria for "new members" to participate in SITEX network? If yes . what kind of criteria?

### The future SITEX Network needs dedicated resources for its institutional functioning. (secretariat, organisation of meetings, communication costs, engagement of CS, etc.)

#### Q1.2.5. How should the institutional costs of SITEX network be financed?

#### New members may candidate to enter the SITEX network in the future.

Q.1.2.6. Will organisations carrying out expertise function that are not yet involved in the network have the possibility to enter the network? How (eg. Board decision)? At what conditions? When?

#### 4. INTERACTIONS OF THE NETWORK WITH EXTERNAL ENTITIES

### Q.1.3.1. What should be the interaction of the expertise function with the regulatory function (as an external entity)?

#### Q.1.3.2. Should an associated group be created?

• With the same decision process regarding the candidate approval and the role of the members as in SITEX-II (eg. decisions made by the steering committee) ?



- With additional type of members and extended/modified role?
- What should be a role of an associated group?

#### Q.1.3.3. What should be the interactions with CS?

- Do you foresee that the CS Organisations should join the SITEX network?
- Should CS experts organisation linked with the CS (in SITEX-II: MKG, REC, Symlog, Energya Klub, Mutadis) constitute a college in the future network? Or should it be outside, while associated with a specific role?
- Should the CSOs be involved in the SITEX activities? (R&D, training, SCR) How?
- If a CS group is implemented as a consultative group to interact with the SITEX network,
  - What would be its role?
  - o Who would be the members of the consultative group?
  - o What would be the procedure for selecting them?
  - Would dedicated resources be allocated to enable the participation of the members of this consultative group?

# Q.1.3.4. What types of interactions with other external entities are foreseen for the SITEX network?

- With IAEA, NEA, OECD, ENSREG?
- With European Joint Programming?
- With international projects (e.g., IAEA projects such as GEOSAF)?
- With other TSOs that are not members of SITEX?
- With Educational institutions, universities or associations? ENEN, ENSTTI?
- With other institutions?



#### **5. SPECIFICATION OF THE SITEX NETWORK'S FUNCTIONS**

The SITEX (2012-2013) identified the following functions - see Figure 3 below:



Figure 3: Framework of the SITEX network developed by SITEX (2012-2013).

#### 5.1 Function Review of safety case:

Q.2.1.1. What are your expectations regarding the future network activities related to safety case review (SCR)?

The following issues related to this question are addressed in WP2 and WP4.2 of SITEX-II project.

- How do you foresee the implementation of activities related to SCR? What should be the priorities?
  - What would be for you a reasonable deadline for safety case review harmonization?
    - Ad hoc Working Groups, Peer review activities, Redaction of position paper, etc.
- What could be the interactions between experts and CS along the SCR?

#### Other issues related to this question have to be addressed by all potential partners of the SITEX

(D-N°: 5.4) – Action plan for establishing SITEX network Dissemination level: PU Date of issue of this report: **30/11/2017** 



#### network :

- What human and material resources could be shared by SITEX partners for implementing SCR activities?
- What sources could be found to finance theses SCR activities?

#### 5.2 Function R&D Implementation:

Q.2.1.2. What are your expectations regarding the future R&D activities of the network?

Elements of answers of the following issues are addressed in SITEX project (2012-2013) and in WP1 of SITEX-II project. Answers of these questions will be brought by the review of the SRA organized by WP1.

- What should be the principles for doing R&D with WMO and Research Entities?
- What human and material resources of SITEX members could be shared to R&D function? (Laboratories, in kind resources, etc.)
- How to ensure regular updating of SRAs, resp. R&D function and how often should be it done?

### Other issues related to this question will be addressed by WP1 that will present elements of answers to WP5 for purpose of integration:

- How do you foresee the implementation of SITEX network's R&D programmes?
  - With the development of research programmes specific to expertise function,
  - With the participation to a EU Joint Programming (JP) with Implementers and Research Entities, like discussed at present in JOPRAD?
  - o With the creation of a JP dedicated to experts working for regulators?
- What sources could be found to finance the R&D activities?
  - National resources, EU resources, others?
- How do you foresee involvement of CSO and linked Research Organisations within the Research Programmes in the future?
  - As a facilitator with other CS (in a kind of consultative group),
  - As direct contributor to research regarding technical and governance issues (as in SITEX-II),
  - o Other?

#### **5.3 Function Training and Tutoring:**

The following issues related to this question are addressed in SITEX project (2012-2013) and in WP3 of SITEX-II project:



#### Q.2.31.3. What are your expectations regarding the future training activities of the network?

The following issues related to this question are addressed in SITEX project (2012-2013) or in WP3 of the SITEX-II project:

- What should be the content of training courses developed by SITEX network?
- How do you foresee the implementation of training course?
  - What could be the complementarity with existing programmes?

# Other issues related to this question have to be addressed by all potential partners of the SITEX network :

- What human and material resources of SITEX members could be shared to training function? (Experts for courses, etc.?)
- What sources could be found to finance the training activities?
  - o joint training programmes in future JP, others?
  - o Should it be financed only by the trainees' registration fees?
- Regarding the interactions with CS:
  - o Should the training course be opened to CS representatives? To what extent?
  - Could it be interesting to have CS representatives giving specific training courses?
  - 0

#### **5.4 Function Interaction with Civil Society:**

### Q.2.3.4 What are your expectations regarding the future interactions of the network with Civil Society?

- How do you foresee the needs for harmonizing the interactions of organisations carrying out the expertise function with CS and CSO at national level?
- Should the network answer to specific requests coming from Civil Society at international or national level?



#### **6. PRACTICAL IMPLEMENTATION**

#### Q.2.4.1. How to organize the practical implementation of the different activities?

- o Meetings? (Physical/Skype), Workshops, exchange by mails, other?
- o Which regularity? Monthly meetings, annual meetings, case-by-case meeting?
- o Which participants? All members, Specific Working Group?

#### Q.2.4.2. To what extent are you "ready to go"

- o for training (as lecturer)?
- o for SCR?
- o for R&D?
- o for interactions with CS?

Q.2.4.3. What could be the process to get a formal position of your organization regarding its participation to the future network?

Q.2.4.4. Are you aware of any limitation due to your national legal framework for participation to such a network?



#### **ANNEX 6: GLOSSARY**

CS, CSO: Civil Society, Civil Society Organisation **DISPONET:** Low Level Waste Disposal Network **DMP:** Decision Making process **GD:** Geological Disposal **EC:**European Commission **ENSREG:** European Nuclear Safety Regulators Group **ENSTTI:** European Nuclear Safety Training and Tutoring Institute **ETSON:** European Technical Safety Organization Network GEOSAF: The International Intercomparison and Harmonisation Project on Demonstrating the Safety of Geological Disposal **IAEA:** International Atomic Energy Agency **ICRP:** International Commission on Radiological Protection IGD-TP: Implementing Geological Disposal of Radioactive Waste Technology Platform JOPRAD: Towards a Joint Programming on Radioactive Waste Disposal MELODI: Multidisciplinary European Low Dose Initiative (EC H2020 CSA) **NEA:** Nuclear Energy Agency **NRA:** National Regulatory Authority NTW: Nuclear Transparency Watch (European Network of CSOs) **R&D:** Research and Development **RE:** Research Entity **RWMC:** Radioactive Waste Management Committee RWM: Radioactive Waste Management SITEX: Sustainable network of Independent Technical Expertise for Radioactive Waste Disposal SITEX-II: Sustainable network of Independent Technical Expertise for Radioactive Waste Disposal - Intergation and Implementation SNE-TP: Sustainable Nuclear Energy---Technological Platform SCR: Safety Case Review SRA: Strategic Research Agenda SSG: Specific Safety Guide (IAEA Safety Standards) **ToR:** Terms of references **TSO:** Technical Support Organisation



Sustainable network for Independent Technical EXpertise of radioactive waste disposal - Interactions and Implementation

TSOF: IAEA TSO Forum

URF: Underground Research Facilities (URF) Network
WENRA: Western European Nuclear Regulator Association
WGWD: Working Group on Waste and Decommissioning
WMO: Waste Management Organisation