

# SITEX\_Network for the development of sustainable and independent technical expertise on radioactive waste management

*General overview of the Network  
&  
Interactions with Civil Society*

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# Outline of the presentation

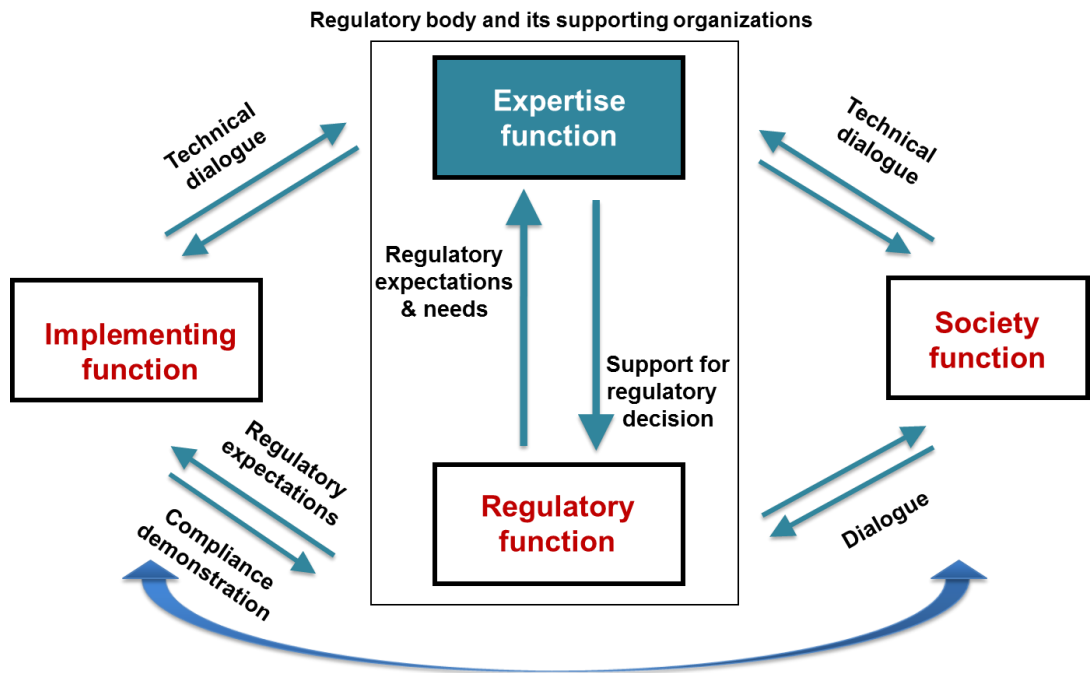
- General overview of SITEX\_Network
  - Context
  - From SITEX projects to SITEX\_Network
  - The SITEX\_Network
- SITEX\_Network interactions with Civil Society
- Conclusions



# General overview of SITEX\_Network

## Context – Focus on the Expertise Function

- General context: Safety of Radioactive Waste Management (RWM).
- Main functions interacting in the community of RWM:



# General overview of SITEX\_Network

## *Context – Mission and activities of the Expertise Function*

- SITEX\_Network focuses on the *Expertise Function*.
- Its key mission is to provide the technical and scientific basis for supporting the decisions made within the *Regulatory Function*.
- Article 6 of EC Directive 2011/70/Euratom (addressing safety of RWM) states notably:
  - Member states shall establish and maintain a competent regulatory authority;
  - Regulatory authority is functionally separate from Waste Management Organizations (WMOs).
- Independence and competence of the *Regulatory Function* calls for the support of a competent *Expertise Function*, independent from the *Implementing Function*.
- Typical activities of the *Expertise Function* include:
  - Contributing to the establishment of regulatory requirements;
  - Developing guidance for meeting these requirements;
  - Evaluating Safety Cases related to RWM facilities;
  - Develop and maintain its knowledge and skills.

# General overview of SITEX\_Network

## *Context – Develop and maintain knowledge and skills*

- For complex issues such as those associated to operational and long-term safety of disposal facilities, following activities are essential:
  - Performing and/or overseeing R&D activities;
  - Exchanging between expertise function organizations on practices;
  - Organize and/or participate in training activities to transfer knowledge;
  - Interacting with the civil *Society Function*.
- These activities are essential to build the expertise and the credibility (e.g. vis-à-vis the civil society) of the *Expertise Function*.
- For instance, Article 8 of the EC 2011/70/EURATOM directive requires all parties (i.e. *Expertise Function* included) *to carry out education, training and R&D activities*.
- Concerning R&D, IAEA safety guides stresses that *the Regulatory Body* (and thus its supporting organizations) *may need to conduct or commission R&D in support of regulatory decisions* (see IAEA GS-G-1.1 and IAEA GS-G-1.2).

# General overview of SITEX\_Network

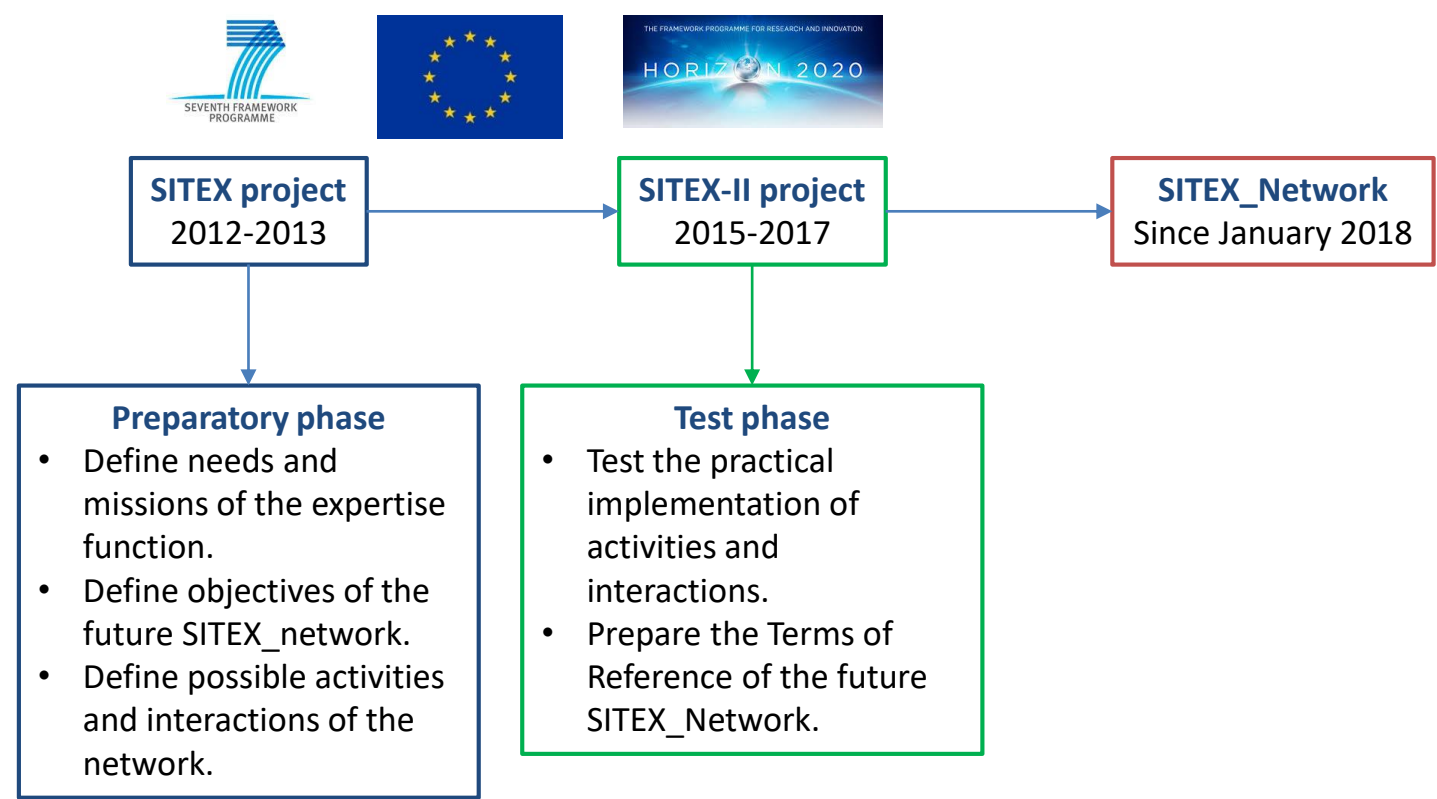
## Context – The born of the SITEX initiative



- In this context, several organizations fulfilling an *Expertise Function* and Civil Society Organizations (CSOs) started the “**SITEX** initiative” in 2012 (participating organizations: see in following slides).
- What does SITEX means ?
  - Sustainable network for Independent Technical **EX**pertise of Radioactive Waste Management
- What is the overall objective?
  - Enhance and foster cooperation at international level to achieve a high quality *Expertise Function*.
  - Independent from Waste Management Organizations (*Implementing Function*).
  - Aiming at supporting the *Regulatory Function* and the *Society Function*.
  - In the field of radioactive waste management (including disposal).
- The start of this « SITEX initiative » was funded by the European Commission.

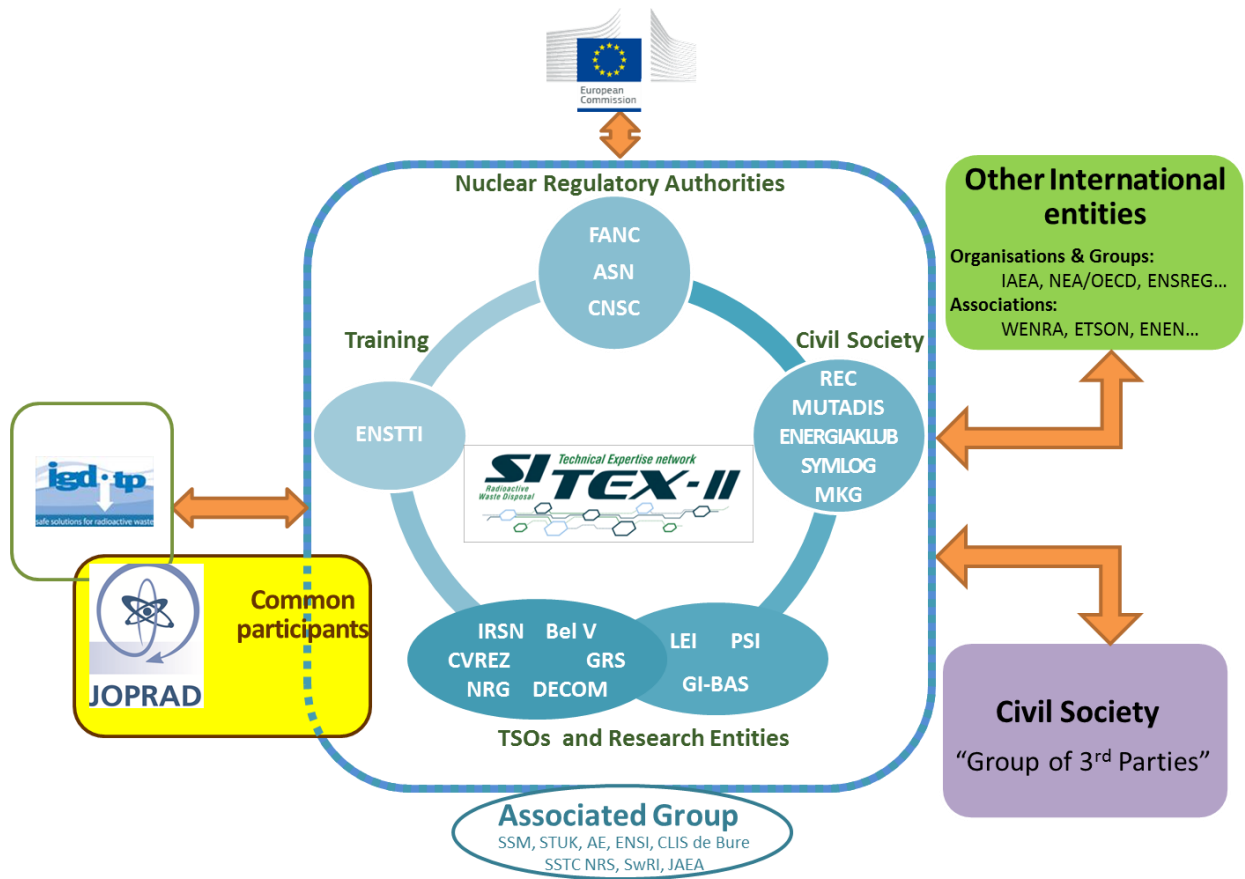
# General overview of SITEX\_Network

*From SITEX projects to SITEX\_Network – The timeline*



# General overview of SITEX\_Network

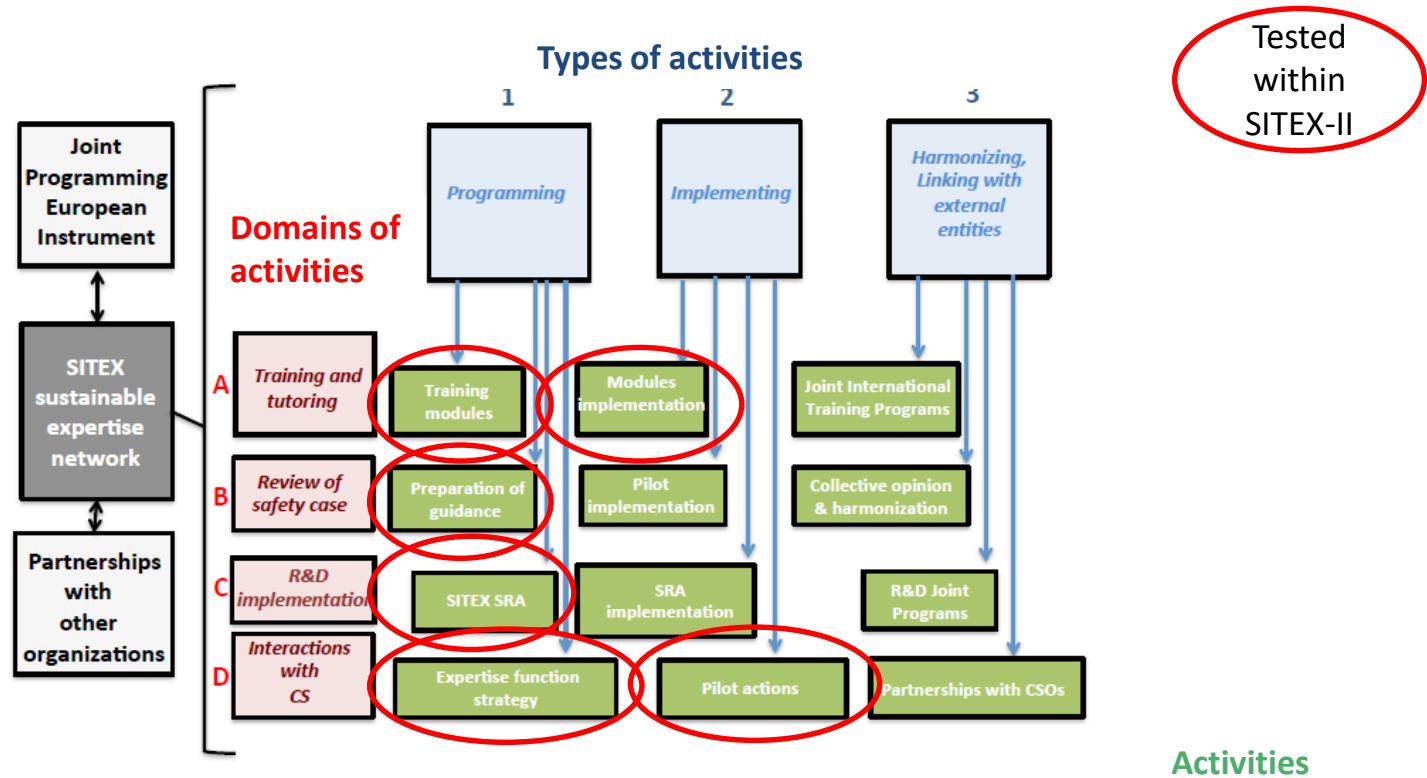
From SITEX projects to SITEX\_Network – SITEX-II project participants and interactions





# General overview of SITEX\_Network

From SITEX projects to SITEX\_Network – Activities tested in SITEX-II



# General overview of SITEX\_Network

## From SITEX projects to SITEX\_Network – Outcomes of SITEX-II

- R&D activities:
  - Expertise function Strategic Research Agenda (SRA) in the field of RWM was defined;
  - It was used as input for the development of the proposal for a 1st European Joint programme (EJP1) on RWM (EURAD);
  - Terms of reference for the implementation of future R&D activities.
- Training activities:
  - A training module for generalist experts was developed;
  - It was tested during a pilot 1 week training session organized in Kaunas (Lithuania) in 2017.



SITEX-II SRA



SITEX-II training session,  
Kaunas (Lithuania), 2017

<http://sitexproject.eu>

# General overview of SITEX\_Network

## *From SITEX projects to SITEX\_Network – Outcomes of SITEX-II*

- Review activities:
  - Guidance for the technical review of Safety Cases for geological disposal facilities was issued;
  - Position papers were developed on the following aspects of geological disposal:



- Interactions with CS: will be covered later in the presentation.
- Terms of reference for setting up the SITEX\_network were developed.

# General overview of SITEX\_Network

## The SITEX\_Network

- Founded as a French non-profit organization.
- Constitutive General Assembly in January 2018. 14 founding members, from 9 countries:
  - Expertise function: Bel V, EIMV, FANC, GI-BAS, IRSN, PSI, SURO, TS Enercon, VTT
  - Civil Society function: Energiaklub, MKG, Mutadis, NTW, SYMLOG
- With as purpose  
*« Enhance and foster cooperation at international level in order to achieve a high quality expertise function, independent from organizations responsible for the implementation of waste management programmes, aiming at supporting the Nuclear Regulatory Authorities, as well as the Civil Society, in the field of safety of radioactive waste management. »*
- Achieved through a close cooperation between its members with a plurality of actors and views: NRAs, TSOs, REs with an expertise function and Civil Society Organizations.
- This plurality of actors and views is seen as an added value of the network, compared to other existing networks.

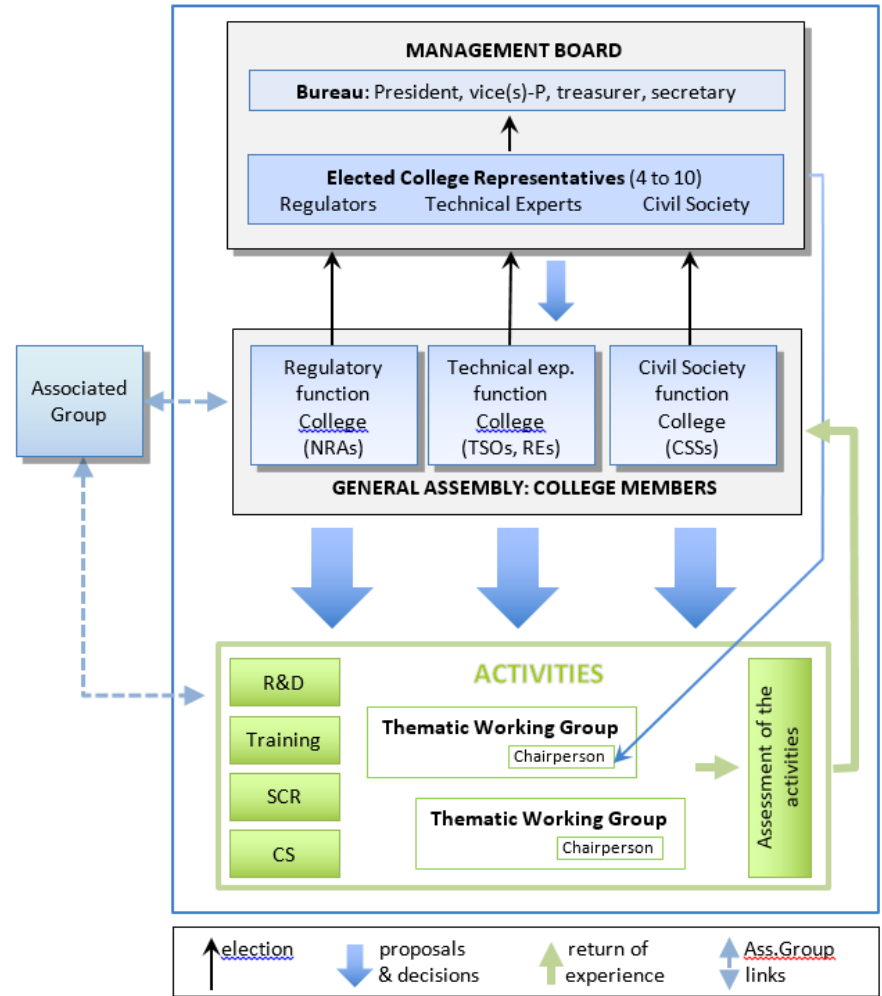
Constitutive GA of SITEX\_Network  
January 2018



# General overview of SITEX\_Network

## The SITEX\_Network

- Possible activities in coming years:
  - R&D:
    - programmed via SITEX\_Network SRA;
    - coordination of TSO positions during EJP1 (EURAD) proposal preparation;
    - SITEX can pursue this role during the future EJP1.
  - Safety Case Review:
    - exchange on guidance and requirements;
    - exchanges on review practices (a benchmark of review practices is envisaged).
  - Training:
    - Organization of new training sessions for generalist experts.
  - Interaction with Civil Society:
    - see further in the presentation.



# General overview of SITEX\_Network

## *SITEX\_Network interactions with Civil Society (CS)*

- In the SITEX-II project: willingness to explore the possibilities of interactions between Expertise Function and Civil Society Organizations (CSOs).
- A special Work Package (WP) was developed with this objective. Three specific issues were explored:
  - (1) How could CSOs concerns be integrated in R&D activities of the expertise function?
  - (2) How safety culture for RWM can be shared through different stakeholders, including CS?
  - (3) Issues on intergenerational governance.
- See next slides for more information on the work done.
- A small group of CS experts was directly involved in SITEX-II and interacted with a larger group of 35 CSOs from 18 European countries.
- This WP interacted with other WPs of the SITEX-II project.
- This interaction between organizations with an Expertise Function and CSOs was a success and paved the way to CSOs involvement in SITEX\_Network, where they have their own college.

# General overview of SITEX\_Network

## *SITEX\_Network interactions with Civil Society*

(1) How could CSOs concerns be integrated in R&D activities of the Expertise Function?

- CSOs formulated R&D key technical and socio-technical issues they expected to be covered by Expertise Function SRA.
- These issues were discussed between Expertise Function and CSOs and considered in the final version of SRA.
- For example, based on the input from CSOs a first list of socio-technical topics, for which both technical and societal aspects need to be investigated in an integrated manner, were identified and included in the SRA. Eg. License for disposal operation, conditions for closure, ...
- Following notably these successful interactions between CSOs and Expertise Function, as well as outcomes of the EC-JOPRAD project, CSOs are now engaged in:
  - SITEX\_Network
  - the BEACON R&D project
  - the proposal for EJP1 (EURAD).

# General overview of SITEX\_Network

## *SITEX\_Network interactions with Civil Society*

(2) How can safety culture in the framework of RWM be shared through different stakeholders, including CS?

- CSOs and Expertise Function organizations collaborated to identify (through a questionnaire) commonalities and differences in the vision of safety culture in RWM.
- Conditions and means for engagement of CS during the decision making process for a GD facility were also identified.



(3) Issues on intergenerational governance

- Review and analysis of the literature on past and on-going research projects devoted to intergenerational aspect of RWM were performed.
- A new approach called *PEP « Pathway Evaluation Process »* was developed to stimulate exchanges between different stakeholders (including CS) on the comparison of different possible scenarios for the long term management of radioactive waste.



# General overview of SITEX\_Network

## *Conclusions*

- Participation of the Expertise Function in activities such as R&D, training and exchange on practices contribute to develop and strengthen its expertise and independence.
- In the context of RWM, SITEX\_Network was founded to coordinate such activities at the international level. It is the result of a SITEX initiative that started in 2012.
- SITEX\_Network allows interactions between Civil Society Organizations and the Expertise Function. Such interactions were tested in previous SITEX projects and found enriching by participants.
- SITEX\_Network thus involves a plurality of views and actors (NRAs, TSOs, REs with an Expertise Function and Civil Society Organizations). This plurality of views is seen as an important added value of the network, compared to existing networks.
- SITEX\_Network was actively involved in the development of the proposal for a future EJP1 on radioactive waste management (EURAD). If this proposal is accepted by EC, SITEX\_Network can coordinate the TSO college of EJP1 (as IGD-TP for the WMO college).