

**ETSON**

EUROPEAN  
TECHNICAL SAFETY  
ORGANISATIONS  
NETWORK

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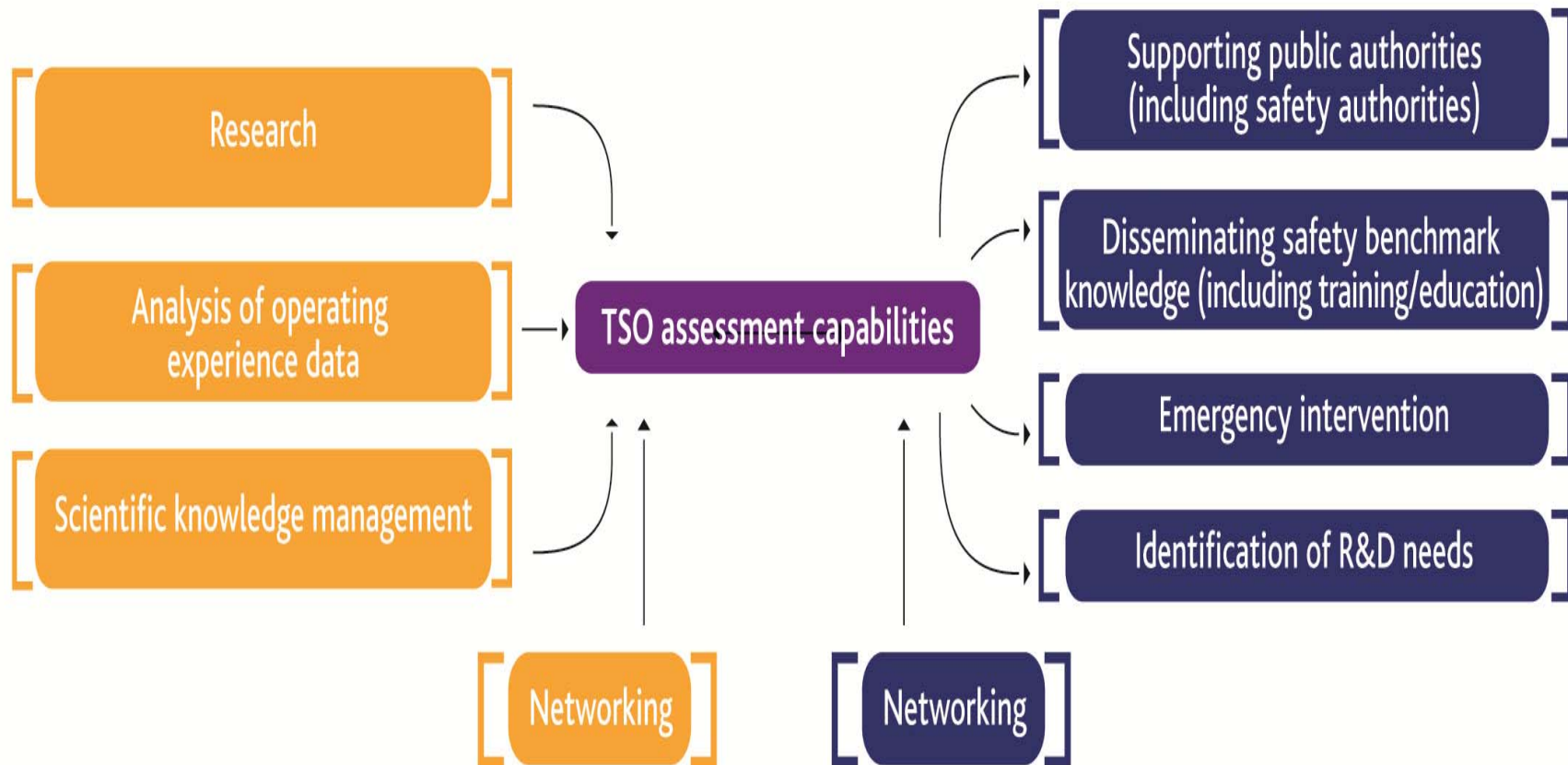
**EUROPEAN TECHNICAL SAFETY ORGANISATIONS NETWORK**

March 30, 2012

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# Nuclear safety is science-based and requires networking



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# ETSON Members

- Bel V (BEL)
- GRS (GER)
- IRSN (FRA)
- LEI (LIT)
- ÚJV (CZE)
- VTT (FIN)
- VUJE (SVK)
  
- SSTC (UKR), JNES (JPN) and SEC-NRS (RF) as associated members

# TSO characteristics

Requirements for full membership

- **Non profit organisation** without shareholders
- **Independence** (expression of technical judgments independently from external interest)
- Delivery of services **supporting national nuclear regulatory authorities** in the field of nuclear safety
- **R&D programmes** for the development of new knowledge

# TSO characteristics

- **Value charter** (impartiality, proactivity and initiative, respect for all stakeholders...) and **code of ethics** (no conflict of interests towards a licensee's safety authority...)
- **High level of competence** in the field of nuclear safety
- **Training and knowledge management** for its staff
- **Safety assessment performances on a regular basis**

# ETSON objectives and activities

## ▪ Objectives :

- provide a forum for exchanges on analyses, evaluations and R&D in the field of nuclear safety
- foster the convergence of technical nuclear safety practice within the EU and beyond
- elaborate safety assessment technical guides
- cooperate in emergency preparedness and response
- develop and implement common research programmes in nuclear safety
- support training and knowledge management
- provide expert services in all fields of nuclear safety and radiation protection

# ETSON objectives and activities

## ▪ **Activities and current efforts:**

- promote scientific and technical networking in nuclear safety, in Europe and beyond
- foster the dialogue between ETSON and the European Nuclear Safety Authorities as well as other European institutions, the IAEA and other international organizations
- support European nuclear regulators and the European Commission
- develop safety assessment guides to harmonize and formalize common practices
- develop a strategy for European research programmes, conduct jointly research projects
- provide training directly and through ENSTTI

# 13 ETSO Expert Groups

1. **OEF, including Incident and Precursor Analysis**
2. **Mechanical Systems**
3. **Electrical Systems**
4. **Severe Accidents**
5. **Environmental qualification**
6. **Safety Fluid Systems,**
7. **Human and Organizational Factors**
8. **PSA**
9. **Lifetime-Management**
10. **Thermal Hydraulic Analyses**
11. **Safety concepts, defence-in-Depth**
12. **Core behaviour**
13. **Post-Fukushima analyses, emergency preparedness and response**



# ETSON Training Activities

- **First steps**
  - Successful launching of Summer Schools
    - 2008 & 2010 in Garching, Germany
    - 2009 in Cadarache, France
    - 2011 in Prague
    - 2012 in Leuven, Belgium
- **Further development**
  - Implementation of the European Nuclear Safety Training and Tutoring Institute ENSTTI



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## TSO International Networking at a glance

### EUROSAFE

**Members (10) :**  
TSOs and RA from  
10 European Countries

**Form of Cooperation :**  
Terms of Reference

**Activities :**

- Eurosafe Forum
- Tribune
- Working Groups
- Programme Committee

### RISKAUDIT

**Members (2) :**  
IRSN and GRS as  
shareholders

**Form of Cooperation :**  
European Economic  
Interest Grouping (EEIG)

**Activities :**

- European Programmes  
like INSC (Instrument for  
Nuclear Safety  
Cooperation)
- Project Management for  
IRSN, GRS and other  
European partners

### ETSON

**Members (7+2) :**  
IRSN, GRS, Bel V, VTT,  
UJV, LEI, VUJE, SSTC,  
*JNES*

**Form of Cooperation :**  
Association under French  
law

**Activities :**

- Mutual Information
- Safety assessment  
guide
- Expert Groups /  
Project Initiation Group
- TSO Forum
- „Junior Staff  
Programme“

### ENSTTI

**Members (3) :**  
IRSN, LEI, GRS

**Form of Cooperation :**  
EEIG

**Activities :**

- Training und Tutoring
- Induction Courses
- Specialist Courses

# ETSON – Future Perspectives

- Further development of Safety Assessment Guides
- Strengthening of TSO contribution to future R&D programmes in the field of nuclear safety
- Further support of ENSTTI
- Extension of knowledge management activities and the contribution to the GNSSN
- Increase of global technical cooperation and contribution to other networks such as the IAEA TSO Forum
- Special common programme on studies and research following from the Fukushima NPS accident