



ETSON PROGRESS
REPORT

2012



FOREWORD

As safety and security are a growing concern to the public and to the international community, it is essential that the technical and scientific basis for regulatory decisions reach the highest level of quality and reliability. The development of Technical Safety Organisations (TSOs) contributes to this objective by providing regulators with a profound knowledge-based expertise in the field of nuclear and radiation safety and security.

The aim of the European Technical Safety Organisations Network (ETSON) is to promote the international exchange of safety assessments, methodologies and research in the field of nuclear safety and security. ETSON therefore contributes to the harmonisation of nuclear safety practices and initiates and carries out joint nuclear safety research programmes. The members of ETSON commit themselves to principles, values and practices that guarantee their independence of judgment in their technical work and the quality of their services.

An expanding network

European Countries and the European Union have made significant efforts over the last decades in order to build up a sustainable TSO capacity. The creation of ETSON in 2006 through a Memorandum of Understanding emphasised the contribution of this network to the harmonisation of nuclear safety assessment practices in Europe and encourages initiatives to define and implement coherent European research programmes. In February 2011, ETSON became an Association according to French law and consists of eight members and three associated member organisations.

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ORGANISATIONAL MATTERS

1.1 ETSON network extension

Since the publication in the French Official Journal of the Associations on the 17th February 2011, ETSON officially became an association according to French law. Its identification number is W921001929. The ETSON association statutes provide the general guidelines of co-operation between the partners in different activities.

During the General Assembly meeting in Helsinki on 28 June 2012, the Swiss TSO PSI signed an annex to the ETSON statutes and thus joined ETSON as a full member. The Russian TSO SEC-NRS also signed an annex to the ETSON statutes and thus joined ETSON as an associated member.

Further applications have been submitted by Jozef Stephan Institute (Slovenia) and INRNE (Bulgaria).



ETSON General Assembly meeting, Helsinki (Finland), 28 June 2012 , © VTT

1.2 General Assembly and Board meetings

The year 2012 was an opportunity to further strengthen the overall functioning of the association.

Two General Assembly meetings were held:

- On the 28th June 2012, in Helsinki (Finland);
- On the 7th November 2012, in Brussels (France), on the fringe of the EUROSAFE Forum 2012.

Three Board meetings were held:

- On 18th January 2012 in Vienna (Austria)
- On the 28th June 2012, in Helsinki (Finland);
- On the 7th November 2012, in Brussels (France), on the fringe of the EUROSAFE Forum 2012.

1.3 Accounting and fee payment

Following the opening of ETSON Bank account, the Association has collected the first annual fees of 2000 Euros from all ETSON members in order to finance the budget, starting 2012.

The money will be dedicated to the external promotion of ETSON, not for ETSON internal work.

As of 31 December 2012 ETSON received fee payments by all ETSON members.

1.4 ETSON communication

A new ETSON website, separated from the EUROS SAFE Forum website has been launched.

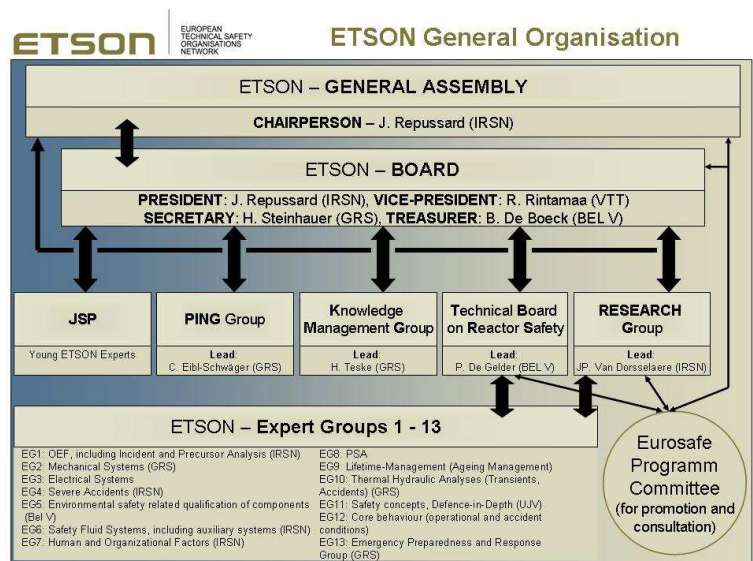
The website address is www.ETSON.eu. The Website is based on Microsoft SharePoint 2010. The preparation of a dedicated Eurosafe Website has been initiated.

ETSON members have launched the creation of an intranet. All ETSON groups can utilize the cooperation portal to organize their meetings and to manage documents. Special team sites have been created for all groups. The admission process has started.

1.5 Structure of ETSON Bodies

ETSON members have clarified the structure of ETSON Bodies in 2012, especially the links between the different ETSON groups and their activities : Techninal Board on Reactor Safety (TBRS), the Knowledge Management Group

(KMG), the Research Group (ERG) and the PING Group.



Creation of the TBRS: Following the proposals and decisions taken at the ETSON Board and General Assembly in Helsinki (June 28, 2012), the 9th September 2012 was held the Kick-off meeting of the newly created ETSON Technical Board on Reactor Safety (TBRS). On November 2012, the Term of Reference of the TBRS have been approved by the General Assembly.

The TBRS performs a technical programme quality review function within ETSON and provides scientific assistance to the decision making process of the ETSON Board and General Assembly. The TBRS advises the ETSON Board and GA on the management of the ETSON Expert Groups (EGs) and monitors the progress and the quality of on-going activities in the context of the ETSON EGs.

The Terms of Reference of the KMG and the ERG have also been adopted by the General Assembly in November 2012. The two groups have presented in 2012 their first annual work programme.



ETSON ACTIVITIES

2.1 ETSON Expert Groups

All ETSON members stressed the importance of the ETSON expert groups. The ETSON General Assembly passed Terms of Reference for these expert groups.

Most expert groups have been meanwhile installed and first meetings have taken place. The priority has been the further development of the Technical Safety Assessment Guides (TSAG) for the ETSON Safety Assessment Guide (SAG). The ETSON General Assembly will be kept informed by the TBRS on the results of the groups work.

ETSON Expert Groups exist for the following topics:

2.2 ETSON Publications

SAG and TSAGs:

In 2012 ETSON efforts have been focused on the revision of the Safety Assessment Guide (SAG) and the finalisation of three technical assessment guides (TSAG).

For the Eurosafe Forum 2012 in Brussels, ETSON agreed on the publication on the new ETSON website www.etsong.eu of four reports, the SAG and the three following TSAGs:

- TSAG Event review and precursor analysis
- TSAG Deterministic severe accidents analysis
- TSAG Human and organisational factors in nuclear facilities design and modification processes

Progress Report:

ETSON published the 2011 ETSON Progress Report. It's available on the ETSON Website for [download](#).

ETSON Expert Groups exist for the following topics

EX N°	Technical issue
1.	OEF, including Incident and Precursor Analysis
2.	Mechanical Systems
3.	Electrical Systems
4.	Severe Accidents
5.	Environmental qualification
6.	Safety Fluid Systems, including auxiliary systems
7.	Human and Organizational Factors
8.	PSA
9.	Lifetime-Management
10.	Thermal Hydraulic Analyses (Transients, Accidents)
11.	Safety concepts, Defense-in-Depth
12.	Core Behavior (operational and accident conditions)
13.	Emergency Preparedness

2.3 ETSON PING

The EGA decided to implement the PING to support the establishment of ETSON members as international providers of nuclear safety, radiation protection, waste management, decommissioning and security expertise to national and international organizations. In June, the Term of Reference of the PING have been adopted by the General Assembly. PING members organized and sent a proposal to the Turkish Regulator TAEK.

- Location: Leuven in Belgium, hosted by Bel V

LEI will host the ETSON JSP Summer Workshop 2013. The general topic will be "Accident Management".

2.4 ETSON JSP

The ETSON Junior Staff Programme (JSP) brings together young experts from all ETSON members and associates. The JSP aims at improving the long-term partnership of the member TSOs, establish a network for cooperation between young expert from different countries, and to encourage intercultural interaction. The main yearly events within this framework are the ETSON Junior Staff Summer Workshop.

JSP SUMMER WORKSHOP 2012 (20-24.08.2012)

- Subject: Waste Management
- Attendees: 25 from 6 countries
- Lectures and working groups: 26 instructed by the young professionals themselves



ETSON RELATED INITIATIVES

As part of their activities, ETSON members have been involved in different initiatives in 2012.

3.1 EUROSAFE Forum

On 05 and 06 November 2012, the EUROSAFE Forum 2012 with the title: "Towards Enhanced Robustness in Nuclear Safety" was held in Brussels with great success. ETSON members were highly involved in the preparation of the Forum. The programme and additional information can be found [here](#).

ETSON members decided in November 2012 to create an ETSON Award in the framework of the EUROSAFE Forum. The Award rewards annually a paper written by a group of young engineers among the Technical Safety Organisations (TSOs) by offering an ETSON Award, to be officially attributed at the annual EUROSAFE Forum.

The paper to be rewarded each year should be written by a group of two or more young engineers from different TSOs, and report on their activity in domains covered by the ETSON members' activities. The reward will consist of 2.500 € to be shared among the members of the winner group. The first prize will be attributed during EUROSAFE Forum in November 2013.

3.2 EUROSAFE Tribune

All ETSON members participated in the publication of two issues of the EUROSAFE Tribune in 2012:

- EUROSAFE Tribune #21 was published in June 2012. This issue assesses the presentations and themes addressed during the EUROSAFE Forum 2011 in Paris. The overall theme of this issue was: "Nuclear Safety: Taking the Bend - New Challenges, gained experience and public expectations".
- EUROSAFE Tribune #022 was published in November of 2012. This issue focusses on "Severe accidents & emergency preparedness".

The preparation of the EUROSAFE Tribune #023 and #24 are on the way.

3.3 ENSTTI

In 2012, the ENSTTI induction course was successfully carried out at GRS, Garching, from 11 June until 06 July 2012.



ETSON EXTERNAL RELATIONS

4.1 SNETP

The European Technical Safety Organisations (TSOs) support the Sustainable Nuclear Energy Technology Platform (SNETP) with the objective to promote safety as a fundamental issue in any research and development on existing and future reactors.

Prof. Dr. Frank-Peter Weiss (GRS) has been nominated as ETSON main representative in the Sustainable Nuclear Energy Technology Platform (SNETP) Board and ETSON Vice-President, M. Eugenijus Uspuras (LEI), as alternate.

4.2 European Commission

The ETSON General Assembly recognized the need to consolidate the relations with the European Commission.

ETSON may provide technical support to EC for the implementation of the waste management directive.

4.3 IAEA

ETSON took part at the following IAEA activities:

- TSO Forum: Berlin 06-07 September 2012
- General Conference: Vienna 17-21 September 2012
- Ministerial Conference: Fukushima Prefecture 15-17 December 2012

Through the TSO Forum, ETSON members are participating in the preparation of a document especially devoted to the definition of the TSOs, their missions and objectives.



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