AREAS OF REINFORCING THE EXISTING EURATOM NUCLEAR SAFETY LEGISLATIVE FRAMEWORK

OVERVIEW OF THE RESULTS OF THE ON-LINE PUBLIC CONSULTATION AND OF CONTRIBUTIONS FROM VARIOUS STAKEHOLDERS

Executive Summary

1. BACKGROUND

There are currently 132 nuclear reactors in operation in the EU, on 58 sites in 14 countries. Although their overall safety record is generally good, EU citizens' confidence in Europe's nuclear industry relies on continuous improvements of the EU nuclear safety and security framework, so as to ensure that it remains the most effective in the world, based on the highest safety standards.

The challenges which nuclear safety and its governance face were highlighted in the accident at the Fukushima Dai-ichi nuclear power plant in Japan following the earthquake and the tsunami in March 2011. The Fukushima accident resulted in unprecedented efforts to review the safety of nuclear installations in Europe and worldwide.

In the EU, the European Council, in March 2011 concluded that the safety of all EU nuclear plants should be reviewed, on the basis of a comprehensive and transparent risk and safety assessments. In addition, the European Council asked the Commission review the existing legal and regulatory framework for the safety of nuclear installations and to propose any improvements that may be necessary¹.

To respond to the second part of this mandate, initial views on potential areas of legislative improvement were included in the progress report that was submitted by the Commission to the European Council of 9 December 2011. For shaping its legislative proposals, the Commission decided to engage in an extensive and transparent process of dialogue with the various stakeholders and the public, which included launching an open consultation via the Internet, in line with the Commission's minimum consultation standards.

The online public consultation was carried out over a ten-week period from 21st December 2011 to 29th February 2012. It was published on the "*Your Voice in Europe*" website and announced to a range of stakeholders. As well as the input from the on-line questionnaire, a number of responses were received in writing or during meetings with various stakeholders. In total, 134 on-line responses were received, and these are summarised in Section 2. The views of stakeholders received outside of the on-line consultation are described in Section 3.

2. SUMMARY OF RESPONSES TO THE ON-LINE CONSULTATION

A very large majority of respondents to the public questionnaire (93%) considers itself as "very well" or "fairly well" informed about nuclear safety matters.

A. In the field of <u>areas of reinforcing the existing Euratom nuclear safety legislative</u> framework:

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¹ EUCO 10/11 (paragraph 31).

Referring to the general suggestions:

There was broad agreement in acknowledging the importance of an Euratom nuclear safety legislative framework, setting up common rules for EU 27 (almost 92% of the respondents considered that this is "important" or "very important"). Almost 76% of the respondents agree with the need to reinforce the existing safety legislative framework.

Referring to the **detailed suggestions**:

- As concerns defining Euratom basic nuclear safety principles and requirements (complemented by associated technical criteria and/or procedures, as appropriate) on the siting, design & construction and operation of nuclear installations, a wide majority of contributions considers as necessary to set up a set of Euratom basic nuclear safety principles and requirements in these technical areas.
- Different views were expressed in the question of possible strengthening of the competencies of national regulatory authorities. A slight majority of stakeholders considers the existing core competencies of the regulators (as for example to require the licence holder to comply with the national nuclear safety requirements and the terms of the relevant licence; to require demonstration of this compliance; to verify this compliance through regulatory assessments and inspections and to carry out regulatory enforcement actions) as sufficient, whereas almost the same amount of respondents have the opposite opinion. More than 10% of the respondents have no firm views on this issue.
- Exactly the same evaluation can be made for the aspect of strengthening the independence of the national regulatory authorities. Half of the contributors is of the opinion that the existing criteria to assure the independence are sufficient; whereas the other half would prefer to strengthen certain requirements as the requirement of functional separation of the regulatory authority from anybody or organisation concerned with the promotion or utilisation of nuclear energy.
- When it comes to increasing transparency, which includes inter alia the obligation that Member States shall ensure that information in relation to the regulation of nuclear safety is made available to the workers and the general public and information shall be made available to the public in accordance with national legislation and international obligations, the views are again divided. A slight majority of respondents would like to have transparency increased, whereas almost the half of the respondents considers the existing provisions as satisfactory.

B. In the area of **enhancing emergency preparedness and response**, the following responses were received:

In the field of usefulness to further reinforce the cross-border cooperation mechanisms between Member States, or between Member States and other neighbouring countries (non EU Member States) for ensuring the management of accidents and mitigation of accident consequences, broad agreement exists on the necessity of further reinforcement of these principles.

C. Concerning **nuclear liability:**

 For a wide majority of stakeholders the role of a Euratom nuclear liability legislative framework setting up common rules for all the 27 Member States, is important or very important. At the same time, there is a division of opinion regarding the necessity to introduce a Euratom nuclear liability legislative framework; a slight majority is against this proposal.

D. In the field of enhancing scientific and technological competence:

- A majority of respondents considers that scientific and technological competence is of foremost importance to ensure nuclear safety at all levels from design to construction, operation and decommissioning of nuclear facilities and therefore this technological leadership should be maintained, also in the framework of the Euratom Research Framework Programme. Nevertheless it should be stated that 30% of the contributors don't agree with this approach.
- The same division of opinion can be stated as for the question if the Euratom Research Framework Programme should be enhanced in this context.

E. The last set of questions referred to the area of **improving the global legal framework**:

- In this context, the Convention on Nuclear Safety (CNS) is one of the cornerstones of the international legal regime of ensuring nuclear safety. An Extraordinary Meeting to analyse the relevant issues arising from the accident at the Fukushima Daiichi NPP and to review the effectiveness of the CNS provisions was convened in August 2012. In responding to the question if EURATOM as a party to the Convention should support a change to the CNS, almost half of the stakeholders responded positively; whereas almost one third of contributors replied with no answer (which might be due to a lack of information on this specific issue).
- Concerning the question if Euratom as a Party to the Convention on Early Notification of a Nuclear Accident should play a leading role in submitting proposals to supplement the Convention in order to eliminate possible gaps in case of a review meeting in 2012, there is a balance in responses in favour of and against this proposal.

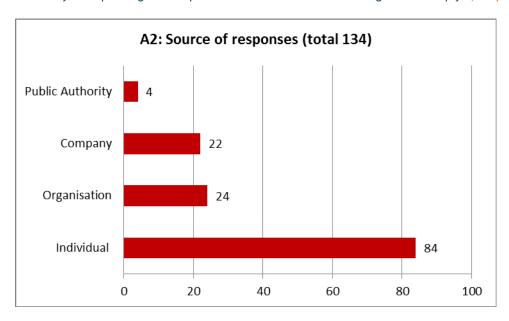
The questionnaire for the online consultation included space for free-text comments alongside some questions. These responses were reviewed but many lacked clarity or completeness and were not amenable to a meaningful summary, hence they are not included here.

2.1 RESPONSES TO THE QUESTIONNAIRE

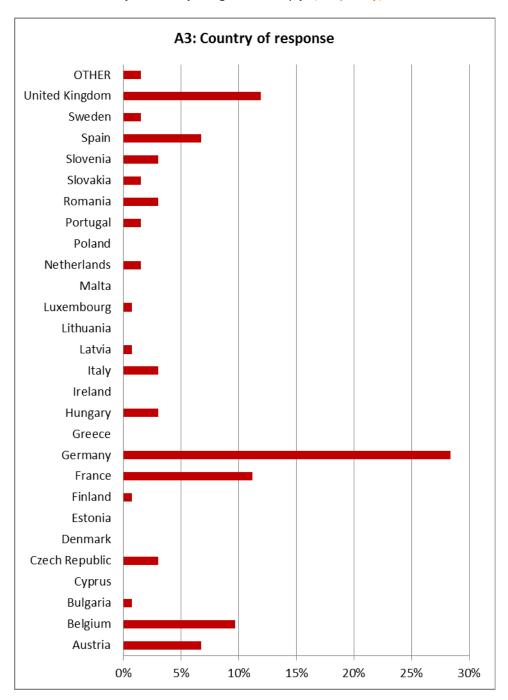
A- GENERAL INFORMATION ABOUT THE RESPONDENTS

A.1. Name and contact email of respondent. Please note that this consultation is subject to a <u>Pata Privacy Statement</u>.

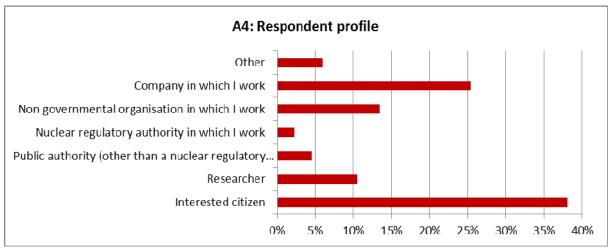
A.2. Are you responding to this questionnaire on behalf of /as: -single choice reply- (compulsory)



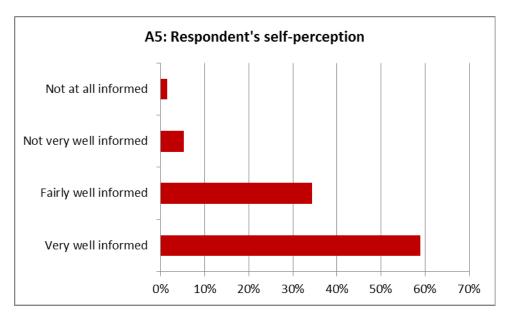
A.3. Please indicate your country -single choice reply- (compulsory)



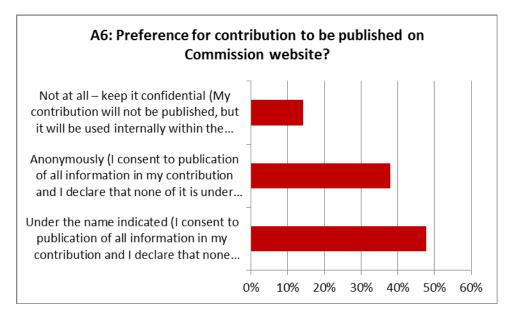
A.4. From which perspective are you interested in nuclear safety? -single choice reply- (compulsory)



A.5. How well informed do you consider you are about the nuclear safety of nuclear installations? -single choice reply- (compulsory)

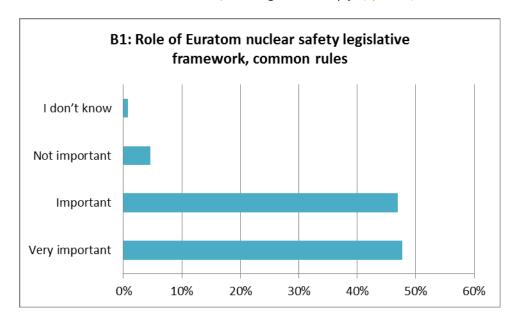


A.6. How would you prefer your contribution to be published on the Commission website, if at all? -single choice reply- (compulsory)

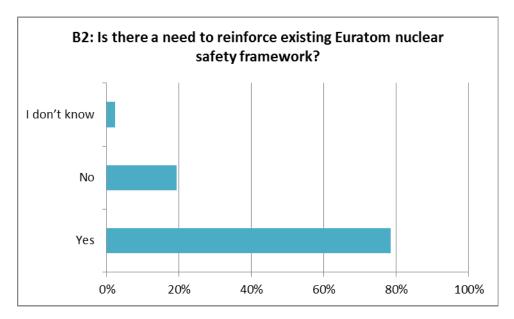


B.-GENERAL SUGGESTIONS FOR AREAS OF REINFORCING THE EXISTING EURATOM NUCLEAR SAFETY LEGISLATIVE FRAMEWORK

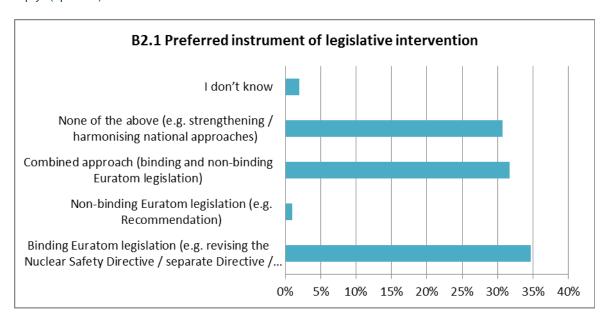
B.1. In your opinion, the role of an Euratom nuclear safety legislative framework, setting up common rules for all the 27 EU Member States, is... -single choice reply- (optional)



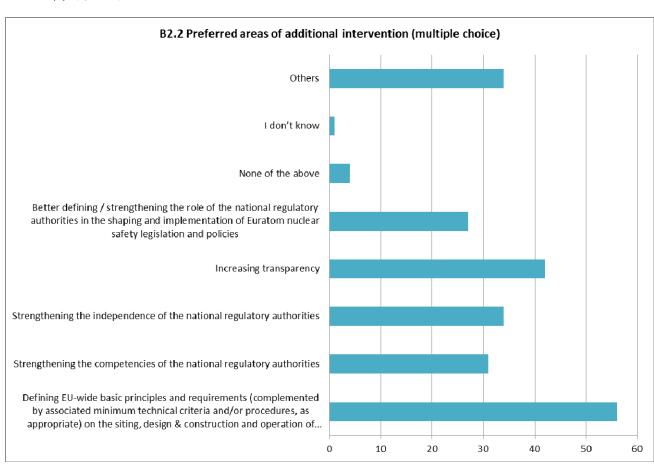
B.2. The consequences of nuclear and radiological accidents do not stop at national or regional borders ("an accident anywhere is an accident everywhere"). The Fukushima nuclear accident highlighted the need to consider new challenges and underlined the paramount importance of nuclear safety in the use of nuclear energy. In this context, do you consider necessary to reinforce the existing Euratom nuclear safety legislative framework? -single choice reply- (optional)



B.2.1. If 'Yes' to B2, which would be your preferred instrument of legislative intervention? -single choice reply- (optional)



B.2.2. If 'Yes' to B2, which would be your preferred areas of additional intervention? -multiple choices reply- (optional)

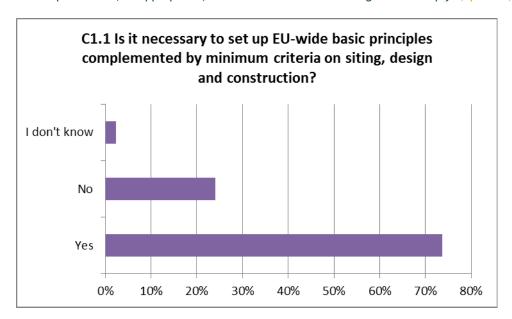


C. DETAILED SUGGESTIONS FOR THE AREAS PRESENTED IN QUESTION B.2.2.

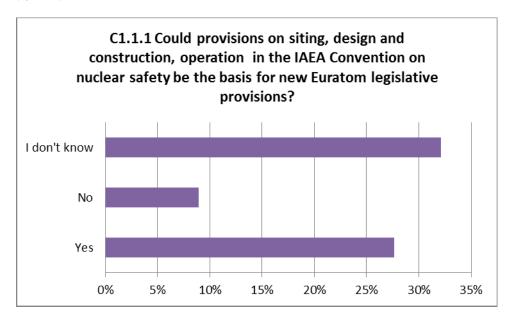
C.1. Defining EU-wide basic principles and requirements (complemented by associated minimum technical criteria and/or procedures, as appropriate) on the siting, design & construction and operation of nuclear installations

In the judgement in the <u>Case C-29/99</u>, the Court of Justice of the EU acknowledged that Euratom possesses (shared) competencies under the Euratom Treaty in the fields relating to the siting, design & construction and operation of nuclear installations.

C.1.1. Do you consider that it is necessary to set up, in the Euratom nuclear safety legislative framework, a set of EU-wide basic principles and requirements (complemented by associated minimum criteria and/or procedures, as appropriate) in these technical areas? -single choice reply- (optional)



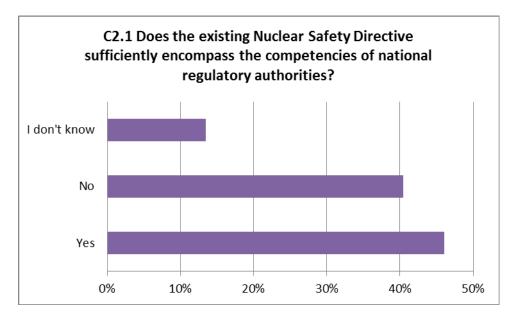
C.1.1.1. If 'Yes' to C1.1, do you consider that the provisions of Articles 17 (Siting), Article 18 (Design and construction) and Article 19 (Operation) of the IAEA <u>Convention on Nuclear Safety</u> could represent a basis for these new Euratom legislative provisions? -single choice reply(optional)



C.2. Strengthening the competencies of the national regulatory authorities

Currently, at Euratom level, the <u>Nuclear Safety Directive</u> [Article 5(3)] enumerates a number of core competencies of the national regulatory authorities (to require the licence holder to comply with the national nuclear safety requirements and the terms of the relevant licence; to require demonstration of this compliance; to verify this compliance through regulatory assessments and inspections and to carry out regulatory enforcement actions, including suspending the operation of nuclear installations).

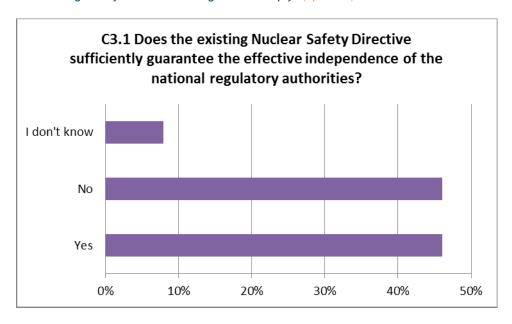
C.2.1. Do you consider that this enumeration is sufficient to properly reflect the various competencies of the national regulatory authorities? -single choice reply- (optional)



C.3. Strengthening the independence of the national regulatory authorities

Currently, at Euratom level, the <u>Nuclear Safety Directive</u> [Article 5(2) and (3)] contains a number of provisions underlying the independence of the national regulatory authorities (requirement of functional separation of the regulatory authority from any body or organisation concerned with the promotion or utilisation of nuclear energy, including electricity production, in order to ensure effective independence from undue influence in its regulatory decision-making; requirement that the regulatory authority is given the legal powers and human and financial resources necessary to fulfil its obligations in connection to the national framework).

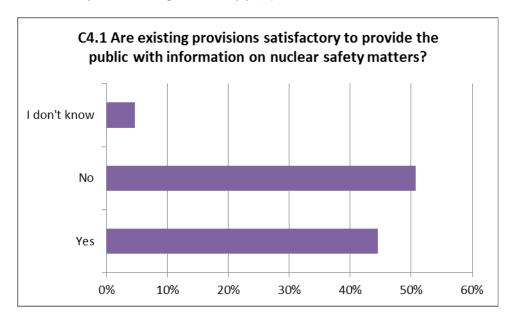
C.3.1. Do you consider that these criteria are sufficient to guarantee the effective independence of the national regulatory authorities? -single choice reply- (optional)



C.4. Increasing transparency

Currently, at Euratom level, the <u>Nuclear Safety Directive</u> [Article 8] contains requirements on public information (requirement that the EU Member States shall ensure that information in relation to the regulation of nuclear safety is made available to the workers and the general public; this obligation includes ensuring that the competent regulatory authority informs the public in the fields of its competence; information shall be made available to the public in accordance with national legislation and international obligations, provided that this does not jeopardise other interests such as, inter alia, security, recognised in national legislation or international obligations).

C.4.1. Do you consider that these provisions are satisfactory to provide you sufficient information on nuclear safety matters? -single choice reply- (optional)



C.5. Better defining / strengthening the role of the national regulatory authorities in the shaping and implementation of Euratom nuclear safety legislation and policies

The national regulatory authorities are reunited in the High Level Group on Nuclear Safety and Waste Management (later renamed European Nuclear Safety Regulators Group - ENSREG), whose role is to advise and assist the European Commission in progressively developing common understanding and eventually additional European rules in the fields of the safety of nuclear installations and the safety of the management of spent fuel and radioactive waste.

In the area of nuclear safety, to date, <u>ENSREG</u> provided an important contribution to the elaboration of the Nuclear Safety Directive (e.g. by providing expert input), as well as to its implementation (e.g. by developing guidelines on reporting under the Directive, by establishing a first ten-years plan for the Member States' periodic international peer reviews). In addition, the Commission and ENSREG reached agreement on the criteria, methodology and timeframe for the EU comprehensive risk and safety assessments ('stress tests') triggered by the Fukushima nuclear accident and are cooperating closely in the various steps of this ongoing process.

D. QUESTIONS ON RELATED AREAS

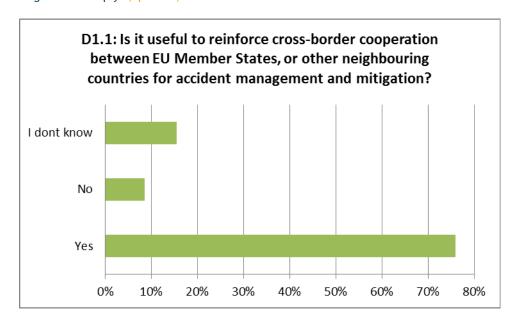
D.1. ENHANCING EMERGENCY PREPAREDNESS AND RESPONSE

Actions to prevent, prepare for and deal with nuclear and radiological emergencies are often taken at national level. However, at EU level, there is a range of legislative instruments and mechanisms and special provisions relating to nuclear accidents, which can be activated in such events (including Basic Safety Standards Directive, the Public Information Directive, the ECURIE Decision, the Civil Protection Mechanism legislation, as well as the foodstuffs and feeding stuffs regulations).

More information on the Euratom radiation protection legislation: http://ec.europa.eu/energy/doc/energy_legislation_by_policy_areas.pdf

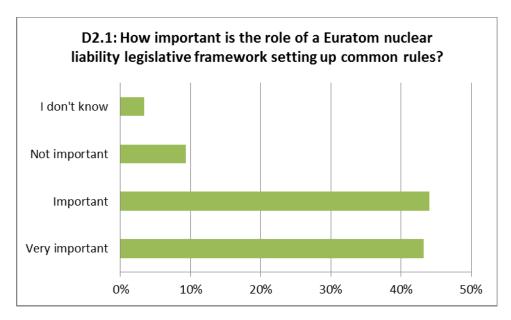
More information on the Euratom emergency preparedness and response mechanisms: http://ec.europa.eu/energy/nuclear/radiation_protection/radiation_protection_en.htm

D.1.1. Do you consider that it is useful to further reinforce the cross-border cooperation mechanisms between EU Member States, or between EU Member States and other neighbouring countries (non EU Member States) for ensuring the management of accidents and mitigation of accident consequences? - single choice reply- (optional)



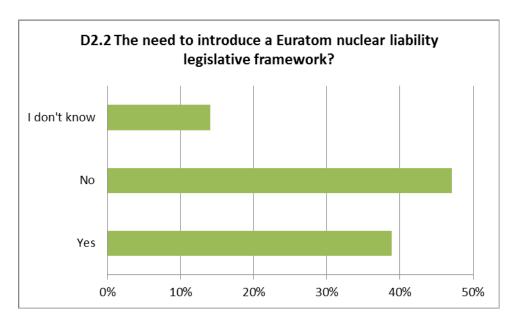
D.2. CLARIFYING QUESTIONS OF NUCLEAR LIABILITY

D.2.1. In your opinion, the role of a Euratom nuclear liability legislative framework setting up common rules for all the 27 EU Member States, is... -single choice reply- (optional)

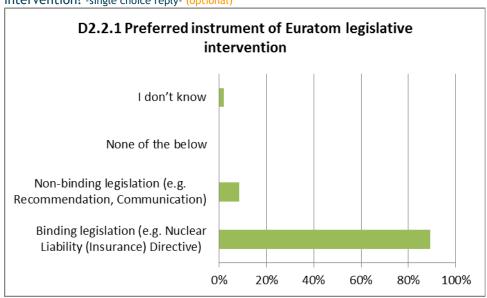


D.2.2. The consequences of nuclear and radiological accidents do not stop at national or regional borders ("an accident anywhere is an accident everywhere"). The Fukushima nuclear accident highlighted the need to consider new challenges and underlined the paramount importance of nuclear safety in the use of nuclear energy.

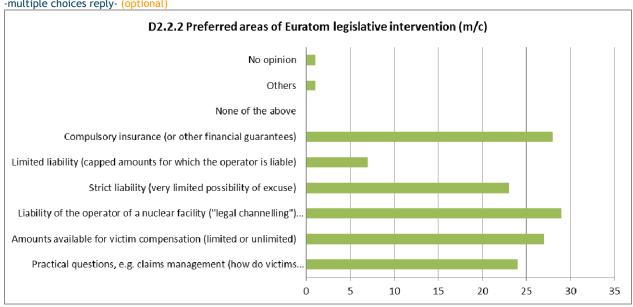
In this context, do you consider necessary to introduce, bearing in mind the existing international conventions (Paris Convention, Vienna Convention, Brussels Convention), a Euratom nuclear liability legislative framework? -single choice reply- (optional)



D.2.2.1. If 'Yes' to D2.2, which would be your preferred instrument of Euratom legislative intervention? -single choice reply- (optional)



D.2.2.2. If 'Yes' to D2.2, which would be your preferred areas of Euratom legislative intervention? -multiple choices reply- (optional)

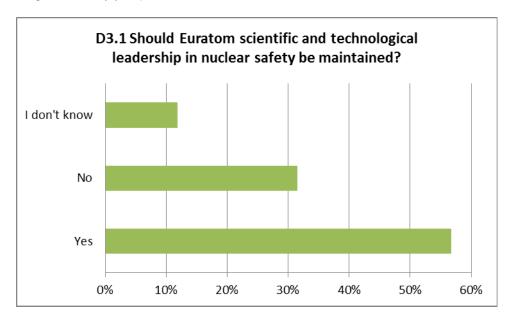


D.3. ENHANCING SCIENTIFIC AND TECHNOLOGICAL COMPETENCE

D.3.1. Scientific and technological competence is of foremost importance to ensure nuclear safety at all levels from design to construction, operation and decommissioning of nuclear facilities. It applies to nuclear power plants but also all other nuclear facilities. Nuclear research and development, innovation, education and training are therefore making an important chapter of the Euratom Treaty. Over the last decades, the **Euratom Research Framework Programme** has contributed to enhance the nuclear scientific and technological competence in the EU, making it a leading region in this field.

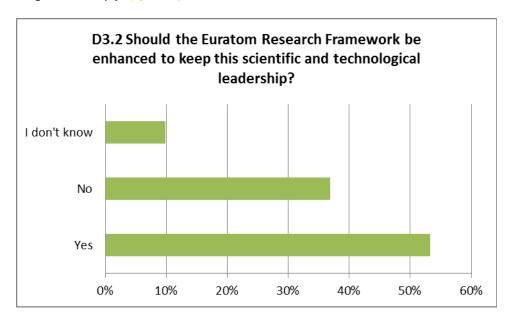
Do you consider that this scientific and technological leadership should be maintained?

-single choice reply- (optional)



D.3.2. Do you consider that the Euratom Research Framework Programme should be enhanced to keep this scientific and technological leadership?

-single choice reply- (optional)

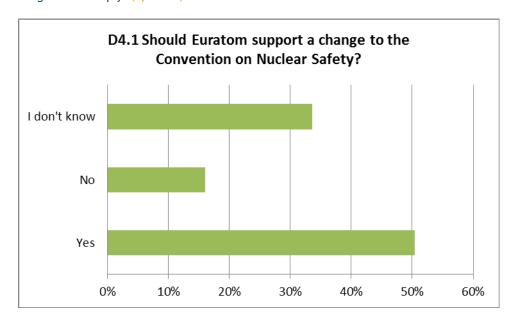


D.4. IMPROVING THE GLOBAL LEGAL FRAMEWORK

D.4.1. The **Convention on Nuclear Safety** (CNS) is one of the cornerstones of the international legal regime of ensuring nuclear safety. An Extraordinary Meeting to analyse the relevant issues arising from the accident at the Fukushima Daiichi nuclear power plant and to review the effectiveness of the CNS provisions has been convened in August 2012.

Do you consider that Euratom, as a Party to the Convention, should support a change to the CNS with a view to enhance the international nuclear safety regime?

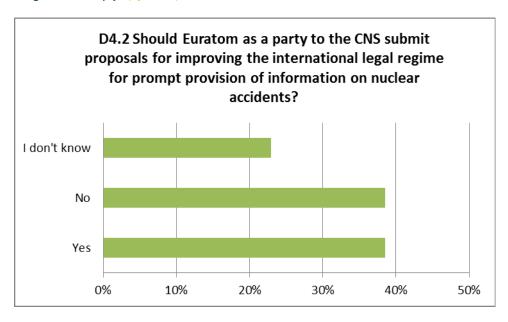
-single choice reply- (optional)



D.4.2. The accident the Fukushima Daiichi nuclear power plant has revealed possible deficiencies in the international legal regime of ensuring prompt provision of information on nuclear accidents, regulated primarily by the **Convention on Early Notification of a Nuclear Accident**.

Do you consider that Euratom, as a Party to the Convention, should play a leading role submitting proposals to supplement the Convention in order to eliminate these possible gaps in case of a review meeting for the Early Notification Convention is convened in 2012?

-single choice reply- (optional)



3. OVERVIEW OF THE CONTRIBUTIONS RECEIVED FROM VARIOUS STAKEHOLDERS IN ADDITION TO THE ON-LINE PUBLIC CONSULTATION

Several contributions from different stakeholders were received by the Commission outside the on-line public consultation. Meeting based contributions were received from non-governmental organisations such as Greenpeace². The analysis of the contributions shows that most of the stakeholders having submitted contributions see scope for reinforcement of the current Euratom nuclear safety framework and present various proposals for legislative improvements and harmonisation measures. Slightly fewer respondents though believe that instead of adopting new legislative provisions, the focus should be at this moment towards improving the implementation of existing mechanisms both at EU and international level. There is a general view that WENRA and ENSREG have so far been effective to enhance and harmonise nuclear safety and should be further involved. Several stakeholders also called for reinforced cooperation/coordination among and between Member States and enhanced peer review processes, including a suggestion for international inspections.

In the following text, a summary is provided of the contributions received.

3.1 VIEWS FROM ELECTRICITY UTILITY COMPANIES

From the side of electric utility companies, the opinion was expressed that, as for the reinforcement of legislation, the Commission should improve the implementation of existing provisions and promote harmonisation measures taking into account the results of the on–going peer reviews and the work done by consolidated bodies like WENRA and ENSREG.

It was also claimed that there is no need to modify or improve the existing legislation in order to strengthen the concept of independence and to add further regulatory competencies to the nuclear regulatory body. The governments should have the freedom to detect the most suitable measures in order to give effect to the independence principle. As for the possible reinforcement of the principle of transparency, high levels of public information and transparency on nuclear safety matters are said to have been achieved and competent authorities provide public information via a number of tools.

It was recommended that any further harmonisation measures should be implemented through a bottom-up approach and not directly by the Commission with the adoption of binding legislation (i.e. top down approach).

In this respect, fields of further harmonisation/coordination under ENSREG current scope of work could be the following:

- Design standardisation: It is necessary to create at least homogeneous minimum safety levels in the whole European territory and a fair level playing field where no advantages are given to countries that use inadequate technologies;
- Licensing procedures for new plants: Licensing procedures for new NPPs need to be made at least compatible, in order to minimise licensing risks among countries and to facilitate the development of licensing documents;

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Critical Review of the EU Stress Test performed on Nuclear Power Plants Study commissioned by Greenpeace Antonia Wenisch, Oda Becker Wien, Hannover, May 2012.

- Site safety and site hazard evaluation: It should be harmonised at the European level, through the definition of common hazard parameters, external event scenarios, assessment methodologies. Criteria for site exclusion and evaluation should be identified and applied in a consistent way throughout Europe. Site safety assessment criteria should be adopted as a basis for uniform risk evaluation;
- Management of nuclear emergencies; etc.

On the other hand, from the perspective of an utility operating an important number of NPPs, a less favourable view to new harmonisation measures has been put forward: while there may be scope for improvements in legislation, the focus should now be on the effective implementation of the EU existing rules. The current nuclear safety legislation should be reviewed in the light of the Stress Tests and the experience of its implementation by Member States. New legislation should not be brought forward until there is a demonstrable need that cannot be satisfied adequately by existing mechanisms.

As to the question of further regulation of peer reviews and their scope, this more prudent opinion was that such reviews should not be overly prescribed by the legislation as this would be detrimental to the effectiveness of the process. An opinion was also expressed that the approach where these peer reviews might in future examine design as well as operational safety issues would be difficult to apply. It was also suggested that any move in this direction needs to be taken cautiously.

Finally, under this more cautious approach, the suggestion to specify minimum technical criteria relating to safety in areas covering siting, design, construction, and operation seems to risk challenging the primacy of the national safety regulator in these areas and could call into question the authority of the national safety regulator.

3.2 VIEWS FROM THE VENDORS'S SIDE

A contribution received form vendor specialised in nuclear reactor design and construction, and related services suggested that lessons to be drawn at the European level from the Fukushima accident and the stress tests mainly concern national safety organisation and allocation of responsibilities as well as emergency preparedness and response. A possibility was seen to reinforce the Euratom nuclear safety framework suggesting that the Euratom could adopt a comprehensive "nuclear safety partnership programme" covering the following issues: encouraging cooperation among safety authorities, promoting highest level safety standards for new builds, modernising nuclear emergency tools, promoting transparency, developing education and training in nuclear safety and extending financing for R&D on nuclear safety.

Furthermore, it was recommended incorporating WENRA safety objectives in the Euratom framework by:

- Adding to the current recital of the 2009 Safety Directive referring to WENRA reference levels for existing NPPs, a new recital referring to the WENRA safety objectives for new build.
- Introducing a new article in the revised directive requesting Member States to enhance cooperation among their national safety authorities in order to define and implement common safety objectives and standards for new reactors.

- Complementing the new provisions of a revised directive with a non-binding document which could cite, in extenso, the seven WENRA safety objectives for new builds.

Finally, it was proposed that harmonisation of nuclear safety in Europe should be achieved through enhanced cooperation among European regulators gathered within WENRA and ENSREG aiming at:

- Safety objectives and standards: Cooperation should aim at systematically implementing the WENRA safety objectives for new projects in Europe and at further detailing these objectives (e.g. WENRA position papers)
- Harmonisation of licensing through progressive cross-recognition of assessments: aiming at the mutual recognition of analysis and assessments undertaken by national regulators; safety authorities could either define common methods, or recognize each other's methods and analysis.

The safety authorities could therefore be tasked by Euratom to define a roadmap in these two domains: (1) European standard definition and implementation for new reactors, (2) harmonisation of licensing through progressive cross recognition of safety assessments.

Lastly, the opinion was put forward that the scope of peer reviews could be extended to cover operational safety of nuclear power plants. Some elements of the design could be considered in the scope of these peer reviews.

3.3 VIEWS FROM THE NUCLEAR INDUSTRY FORUM

This body, involving for example nuclear site licensees and other players who carry the responsibility for nuclear safety is of the view that there is no clear evidence at this moment for reinforcing the legislation as the peer reviews of the stress test results at European level are not yet complete and the full impact of the Nuclear Safety Directive implemented only last year is not yet known. It highlights that the authority and independence of the National Safety Regulator is essential to maintain and improve Nuclear Safety standards and that more prescription at the European level should not undermine this authority and independence.

3.4 VIEWS FROM THE NATIONAL NUCLEAR SAFETY AUTHORITIES

Both less and more favourable approaches as to the possible reinforcement of Euratom nuclear safety legislative framework have been identified in the contributions received from national nuclear safety authorities.

In this context, one opinion suggested that currently it is not yet possible to make the judgement as to whether a change is needed to the current European legal framework, including European legislation on technical measures for nuclear safety. The root lessons from the Fukushima accident should be considered to be more institutional and cultural than technical. However, it was recommended to take forward any initiatives to improve nuclear safety, in particular by taking into account amongst other aspects: the need to engender a culture of continuous improvement; clarity on the respective roles and responsibilities of governments, independent regulators and utilities; the need to enhance the independence and capabilities of nuclear regulators; and to have effective peer and

periodic reviews. From this, it would therefore be sensible to consider such root lessons and whether change might best be achieved by ensuring the full implementation of the existing Directive, improving the implementation of existing mechanisms, enhancing peer review processes and amending guidance.

Conversely, other public authorities of some non-nuclear Member States were clearly in favour of some new legislative measures making some concrete proposals, such as:

- A list of concrete safety objectives should be included into a directive. These objectives should be the same for existing NPPs as for new builds. Since however not all objectives can be implemented in the existing NPPs appropriate compensatory measures should be permitted during a defined transition time.
- The legal powers of the competent authorities for nuclear safety in Member States that operate nuclear installations or that decide to build such installations should be further extended and those authorities should by fully independent from external influences.
- An obligation of organising international inspections in the nuclear installations should be introduced. This could include OSART missions, but also cross inspections from inspectorates of one Member State in another Member State.
- It should be considered to permit national stakeholders and members of the competent authorities of neighbouring countries having nuclear installations close to their borders to take a part into the national consultation process concerning important decisions in the Member States with nuclear installations, such as the review of the legislative framework, relevant licensing procedures (new discharge limits, new builds, prolongations of lifetime) and important safety reviews (ex: stress test, PSA)
- Legislative initiative should be aiming at reinforcing the cooperation mechanisms between neighbouring countries (either Member States, or non-Member States) for ensuring the management of accident and mitigation of accident consequences.

3.5 VIEWS FROM EUROPEAN SOCIAL PARTNERS FOR THE ELECTRICITY INDUSTRY

In its response (Eurelectric for the employers and EPSU/Industri-All-Europe for the trade unions) the European Social Partners for the Electricity Industry considers very important the role of a Euratom nuclear safety legislative framework in setting up common rules for Member States. It favours additional intervention in defining Euratom-wide basic principles and requirements, complemented by associated technical criteria – but cautions that this should not imply reduction of standards through meeting just minimum levels. Better defining, and strengthening the role and competencies of national regulatory authorities in shaping and implementing nuclear safety legislation and policies are necessary. Applying the highest levels of health and safety, provisions for training, ensuring the qualified staff are available, and checking their skills and competencies are important issues for the workforce and particularly for sub-contractors. The lessons learnt from the stress-tests should be applied; the improvements identified in national action

plans to should be made mandatory. Nuclear safety would benefit from regular international peer reviews, with more frequent peer reviews for older facilities. Off-site emergency preparedness in the event of a severe accident which has radiological consequences in nearby European countries is an important issue. In the area of effective regulatory independence, transparency and accountability are considered absolute necessities. Obligatory consultation of workers' representatives and trade unions by nuclear safety regulatory bodies would improve accountability.
