

IRRS-ARTEMIS COMBINED MISSION to SPAIN (2018)

EAN meeting, 2019-06-05

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2 | Background

In 2008 Spain received its first IRRS mission, with a follow-up in 2011.

According to 2014/87/Euratom (“nuclear safety of nuclear installations”) and 2011/70/Euratom (“responsible and safe management of spent fuel and radioactive waste”), the member countries have to request these missions every 10 years

Per request of the Government of Spain, IAEA organized the first combined **IRRS-ARTEMIS mission**, in Madrid, 15-26 October, 2018. **[IRRS mission 3101]**



IRRS: Peer-review aimed to evaluate the regulatory framework against IAEA safety standards.



ARTEMIS: Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation.

3 | Singularities

Singularities of the mission

- ✓ IRRS-ARTEMIS to Spain is the first **combined mission**
- ✓ Spain is the fourth country **to undergo a second IRRS mission** (UK, France y Japan)
- ✓ Spain is the second country to **undergo a second full scope IRRS cycle** (after France)



4 | Scope

IRRS

- Responsibilities and functions of the government (Module 1).
- Global nuclear safety regime (Module 2).
- Responsibilities of the regulatory body (Module 3).
- Management system of the regulatory body (Module 4).
- Authorization, Review and assessment, Inspection, and Enforcement (Modules 5-8).
- Development of regulations and guides (Module 9, first level).
- Emergency preparedness and response (regulatory aspects) (Module 10)
- Covering all regulated activities and facilities and expositions

→ Except: Security and Nuclear Security interface and Uranium mines

5 | Scope

ARTEMIS

- National policy, framework and strategy for waste and spent fuel management.
- Spent Fuel and Radioactive Wastes Inventory
- Concepts, plans and technical solutions
- Safety case and safety assessment for the facilities and activities related to management
- Cost estimates, financing, and capacity building
- Human Resources devoted to management

6 | IRRS Main activities



Milestones: **CSN**

First internal meeting:	03.10.2016
Kick-off meeting:	10.02.2017
Self-evaluation:	03.07.2017
Response	23.02.2018
Analysis	25.04.2018
Initial Action Plan	
Presentation to CSN staff	10.10.2018

Milestones: **IAEA**

Follow up Meeting	01-02.06.2017
Preparatory Meeting	25-26.01.2018
Leadership Meeting	18-19.04.2018

Advanced Reference Material (ARM), 1.000 pages auto-evaluation, issued three months previously to the mission (July 2018).

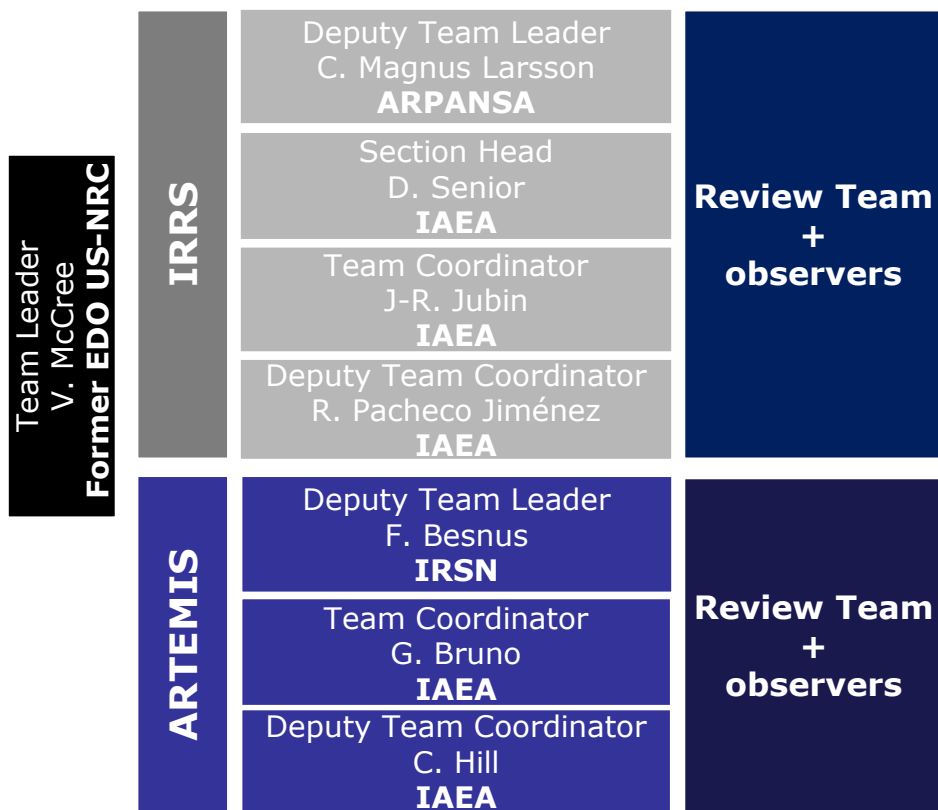
7 | IRRS self-evaluation: Advanced Reference Material

ADVANCED REFERENCE MATERIAL (ARM)

- **ARM includes:**
 - **SARIS**, answers and analysis, harmonized by 4 experts team in 2 months
 - **Summary Report according to IAEA template**
 - **Initial Action Plan**, Passed by CSN Plenary
 - **Consolidated references list**, translated into English
 - **Policy issues**: identified by the CSN Planery, and discussed

8 | IRRS-ARTEMIS Review Team

STRUCTURE



COMBINED TEAM

- **32 members:**
- 24 Senior Experts from 16 IAEA member States: TL + 16 IRRS + 7 ARTEMIS (30 years av. experience)
- IAEA STAFF: 6 experts, 2 administrative
- **4 Observers:** EC, Germany (2), Bangladesh

9 | Review Process

- *Advanced Reference Material* review
- Documents review and counterparts interviews.
- Direct observation of facility inspections:
 - Vandellós 2 NPP
 - José Cabrera NPP (decommissioning)
 - Hospital Puerta de Hierro
 - SGS Techno Industry
 - Juzbado fuel factory
- Discussion of findings between review team and counterparts
- Recommendations, Suggestions and Good Practices.



10 | Mission results

IRRS

- 13 recommendations
- 20 suggestions
- 1 good practices
- (+ 10 good performance areas)



ARTEMIS

- 5 recommendations
- 2 suggestions
- 1 good practices
- (+1 GPA)

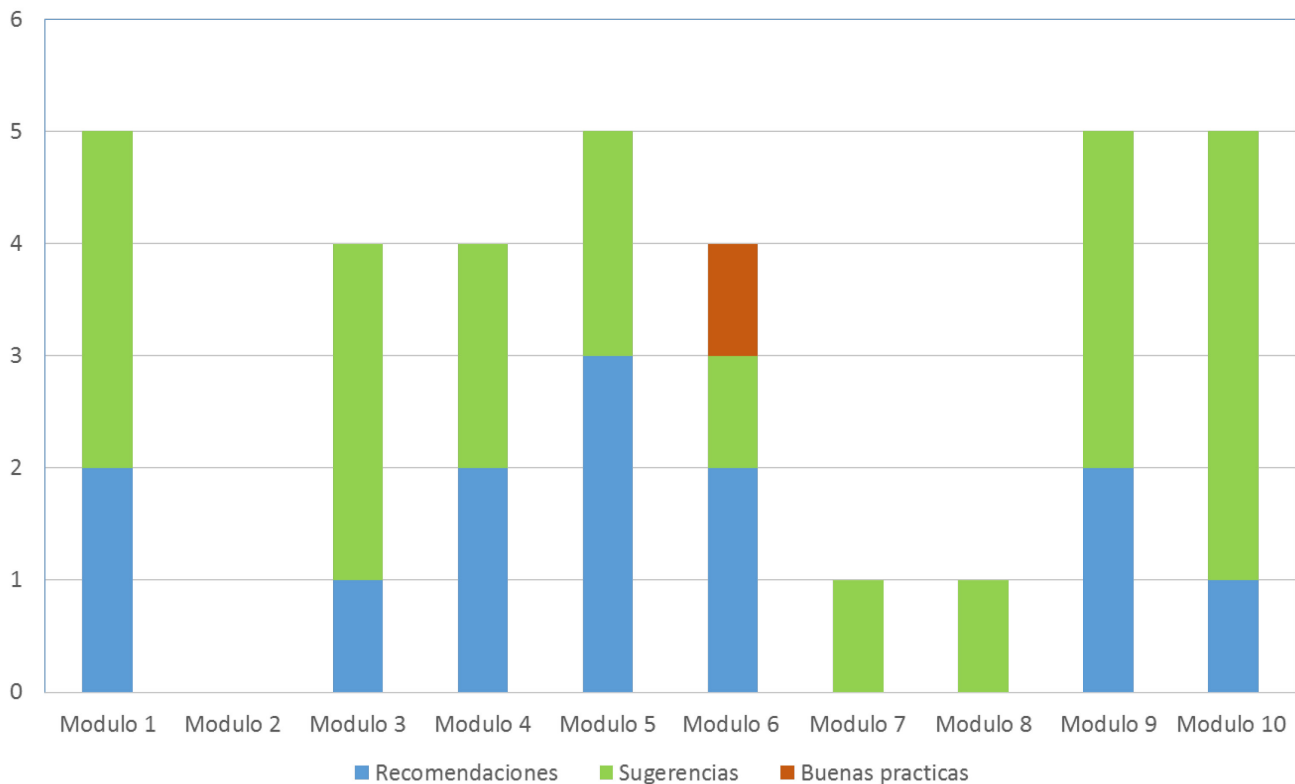
Combined mission

- 17 recommendations
- 22 suggestions
- 2 good practices
- (+11 GPAs)



11 | IRRS: Análisis de observaciones según requisitos del IAEA

Resultado misión IRRS España 2018



12 | IRRS Results Analysis

Distribución de Recomendaciones y Sugerencias resultantes de la misión IRRS ES 2018 (por módulos y responsables de acción)

Modulo	Gobierno	CSN	Autoridades competentes
Module 1 Responsibilities and Functions of the Government	2 Recomendaciones 1 Sugerencia (S1, R1, R2)	1 Sugerencia (S3)	1 Sugerencia a Ministerio de Sanidad (S2)
Module 2 Global nuclear safety Regime			
Module 3 Responsibilities and functions of the Regulatory Body	3 Sugerencias (S4, S5, S6),		1 Recomendación (R3)
Module 4 Management System		2 Recomendaciones 2 Sugerencias (S7, R4, R5, S8)	
Module 5 Authorization	3 Recomendaciones (R6, R7, R8)	2 Sugerencias (S9, S10)	
Module 6 Review and Assessment	1 Recomendación (R10)	1 Recomendación 1 Sugerencia (S11, R9,)	
Module 7: Inspection		1 Sugerencia (S12)	
Module 8: Enforcement	1 Sugerencia (S13)		
Module 9 Regulations and Guides	1 Recomendación 1 Sugerencia (S15, R12)	1 Sugerencia (S16)	1 Recomendación 1 Sugerencia (S14, R11)
Module 10 Emergency preparedness and Response regulatory aspects	1 Recomendación 1 Sugerencia (S19, R13)	3 Sugerencias (S17, S18, S20)	
Total	8 R 7 S	3 R 11 S	2 R 2 S

13 | IRRS, good practices y good performances areas

Good practice:

- Database to manage licensing, control, inspection and incidents in transportation

Good performance areas:

- International cooperation
- Information and interactive content related to environmental radiation surveys
- Metallic scraps protocol
- Joint “University Chairs” sponsored by CSN on NS and RP
- Development of a procedure to identify potential breaches in safety requirements, used to reinforce monitoring
- Program of crosscutting elements of the “ROP” and the inspection of security culture to the holders of the nuclear power stations
- Comprehensive application of lessons learned in response to the Fukushima accident, including safety improvements in nuclear power plants
- Extensive safety instruction and guidance group related to the transport of radioactive material
- Agreements with CSN support organizations and other organizations to strengthen emergency response capacities
- Availability and provision of alternative facilities (back-up) to operate during nuclear emergencies

14 | ARTEMIS, good practices y good performances areas

Good practice:

- Design of the TSFS (Temporary Spent Fuel Storage). Particularly the process that incorporates the best elements in the design of this installation, together with its multiple capacities for the management of spent fuel.

Good performance area:

- Development of national strategy to describe the safe management of radioactive waste and spent fuel, including radioactive waste generated in dismantling operations. The current strategy is consistent with international security standards.

15 | Opportunities for improvement

GOVERNMENT

- Decision-making on the approval of the updates to the General Plan for radioactive waste.
- Ensure that any delay in TCSFR (temporary central spent fuel repository) does not adversely affect the safety of the management of radioactive waste and spent fuel.
- Complement the regulatory framework and an implementation plan for the DGR (deep geological repository).
- Periodically review the financing mechanism for the management of radioactive waste.
- Update dose limits in eye lens.
- Include certain provisions relating to control of radioactive Sources (GSR Part 3, and EU BSS directive)
- Ensure the effective implementation of responsibilities assigned to the AUTONOMOUS communities in the field of radiation protection of the patient.
- Ensure the completion and approval of the National Radon Action Plan.
- To establish the levels of reference of doses to the public before exposures due to the presence of radionuclides in building materials.

16 | Opportunities for improvement

COMPETENT AUTHORITIES

- Improve the process of systematically establishing and amending regulations and guidelines in accordance with international standards.
- Comprehensively review the regulatory provisions to ensure consistency with IAEA Safety Standards and specifically in the areas of Occupational Exposure (conditions of service), Medical Exposure, Radioactive Waste, Fuel Cycle Facilities and Decommissioning.
- The regulatory authorities should require the relevant authorized parties to inform the public about the possible radiation risks associated with their facilities and activities, in accordance with a graded approach.

17 | Opportunities for improvement

CONSEJO DE SEGURIDAD NUCLEAR

- Develop a regulatory commitment to the deep geological repository (AGP), including planning definition to license this facility.
- Complete agreements with other competent authorities to manage contaminated areas.
- Conduct self-assessments of the management system and safety culture.
- Consolidate the set of emergency preparedness and response regulations.
- To achieve the Government's commitment to provide CSN with flexibility in adjusting the CSN's organizational structure.
- To establish a more systematic training and to consider requiring qualifications, in a formal way, for certain positions.

18 | Opportunities for improvement

ENRESA (WASTE MANAGEMENT)

- Complete the license extension of El Cabril to ensure continued availability of this installation, according to the required capacity.
- Complete the technical basis of the DGR (deep geological repository), particularly the location selection.
- Consider actions to avoid the loss of knowledge in the management of radioactive waste and spent fuel.
- Reassess the adequacy of R&D funding to develop the DGR program.

19 | IRRS-ARTEMIS workload at CSN

- CSN: more than 13.500 hours (senior experts)
- ENRESA: 1.500 hours (senior experts)
- **Total: more than 15.000 senior experts hours**
- **ARM IRRS-ARTEMIS 1.000 pages**



20 | IRRS-ARTEMIS workload at CSN

RESPONSE

Methodology and Human Resources:

- Response team (RT): 40 experts (main and support)
- 4 months.
- Consolidated references list and RT procedures.
- Periodic meetings (within modules, among modules, with coordination panel).

ANALYSIS / ACTION PLAN

Methodology and Human Resources:

- Analysis Team (AT): 16 main experts and 24 support experts.
- 6 months – finished by February 2018.
- Consolidated references list and RT procedures
- Periodic meetings (AT-RT, within modules, among modules, with coordination panel).
→ avoid duplication of proposed actions.
- Initial Action Plan Proposal (PAI). Validated by other national institutions.
- PAI Passed by CSN Plenary.
- **Main analysts served as main counterparts.**

21 | Policy Issues: USA, Australia, UK, France, Finland, Japan

Financial independence

- For regulators, it is important to have freedom to manage resources in a manner consistent with the needs and objectives of the Organization, without restriction.



Human resources

- For regulatory bodies, it is important to have the authority and flexibility to have qualified personnel when necessary to maintain the necessary regulatory competence, and to implement a systematic approach to training.



22 | Joint press conference and press release



IAEA Mission Says Spain Demonstrates Strong Commitment to Safety, Notes Challenges in Radioactive Waste Management

26 Oct 2018
48/2018
Madrid, Spain

23 | IRRS – OUR VIEW

PREPARATION

- Self-assessment is an essential part of peer review and involves a high effort for the regulatory body. Estimated workload above 13.500 hours for the IRRS mission. → The entire organization has been involved, particularly the most experienced technicians, area managers and deputy directors.
- Analysis and response teams created in the initial stages. Some flexibility has been required → Interphases not initially planned, retirements, sick leaves, etc.
- Completion (response, analysis, and initial action plan) of the SARIS questionnaire was an arduous task. → Very detailed questions, duplications in several cases. There is potential to optimize the questionnaire more and focus on more relevant aspects for the country requesting the review. Difficulty harmonizing.
- SARIS should be a more friendly tool. It takes time to get acquainted with the methodology (primary and subsidiary questions, loading references, etc.)

24 | IRRS – OUR VIEW

PEER-REVIEW

- Positive and well-prepared mission. Constructive and open discussions.
- Se organizaron entrevistas entre los Team Leaders de la misión (IRRS/ARTEMIS) y el Pleno del CSN, y con el Secretario de Estado de Energía.
- Experiencia extremadamente positiva para promover el trabajo en equipo dentro del propio organismo regulador. → Equipos cruzados, integración de expertos de distintas áreas, etc.
- Discusiones positivas sobre *Policy Issues*. Sin embargo, hubo un tiempo limitado para obtener conclusiones útiles para el país. → Podría mejorarse el proceso si se recibieran los documentos por escrito de los expertos antes de las discusiones.
- It is advisable to establish prior to the mission a unique reviewer <-> expert communication for each module.

25 | IRRS – OUR VIEW

PEER-REVIEW

BUT....

- For IRRS, IAEA should ensure that the structure (modules) of the questionnaire SARIS, Summary Report, Mission report and interviews during the mission are exactly the same.
- The number of visits must be balanced and compatible with interview planning → Visits, if far from the headquarters, may lead to more than one day unavailability.
- IAEA should ensure adequate harmonization of the expert's criteria → Diminish subjectivity when recommendations/suggestions/good practices are proposed and good performance areas.
- Reviewers should take the safety regulations of the IAEA as reference (*fundamentals, requirements y safety guides*). → Some bias towards their country regulation.
- Reviewers should go through the complete ARM. → In some modules, the answers to the SARIS were not fully used as support material, hindering the interview process.

26 | ARTEMIS – OUR VIEW

PREPARATION

- Self-assessment is a fundamental basis. It implies an effort of coordination and elaboration of documents. The estimated workload was 1500 h.
- Response team with senior experts from the different institutions
- The ARTEMIS questionnaire can be better developed with the aim of guiding the responses and avoiding repetitions. Some questions may need to be explained or illustrated to better target the answers.
- A well-defined list of IAEA safety regulations should be available for the preparation of the peer review process.

27 | IRRS-ARTEMIS – OUR VIEW

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- **Positive vision of the IRRS-ARTEMIS combined mission. However, there is potential for improvement, particularly with regard to coordination between institutions → [National Coordinating Committee](#).**
- The identification of interfaces between IRRS and ARTEMIS should be carried out in the initial stages. → [Combined team from ENRESA/MITECO/CSN](#). It is important to maintain consistency and ensure proper coordination.

IRRS



ARTEMIS

Module 1: Responsibilities and functions of the Government

Module: Safety Requirements for predisposal of radioactive wastes,

Module: Safety Requirements for disposal of radioactive waste

Module: Regulation of fuel cycle facilities

Topic 1B: Legal, regulatory and organisational framework

Topic 5: Safety case and safety assessment of radioactive waste and spent fuel management activities and facilities

Topic 7: Capacity building for radioactive waste and spent fuel management – expertise, training and skills

28 | IRRS-ARTEMIS – OUR VIEW

- The size of the review team (and the participation of observers) must be comensurate with the size of the institutions involved in the host country.
- Logistics between the IRRS and ARTEMIS missions should be better integrated from IAEA. → Although it is important to keep certain logistical provisions independently, the common events (i.e. coordination meetings during the mission, etc.) should be better communicated and coordinated between the IAEA and the host country.
- **Joint Final Report**, with two differentiated parts. → Difficult to coordinate in time all the comments from all the institutions involved in the mission.
- **Joint press conference and press release** → Positive experience for effective and integrated communication to the public and media. However, it is important to improve the press call for more media to attend.

29 | Combined IRRS-ARTEMIS mission - PROS

PROS

- Synergies between the two missions that can lead to improved efficiency when both missions are prepared and executed at the same time.

IRRS

Module 1: *Responsibilities* and functions of the Government

Module: Safety Requirements for predisposal of radioactive wastes,

Module: Safety Requirements for disposal of radioactive waste

Module: Regulation of fuel cycle facilities

ARTEMIS

Topic 1B: Legal, regulatory and organisational framework

Topic 5: Safety case and safety assessment of radioactive waste and spent fuel management activities and facilities

Topic 7: Capacity building for radioactive waste and spent fuel management – expertise, training and skills

- Preparation of the mission and the follow-up of the action plans can be integrated in a better way if the combined mission is carried out, since it is easier to share a single roadmap between the institutions involved.
- The leaders of the host country have a better overall vision of both missions for proper management and coordination.

30 | Combined IRRS-ARTEMIS mission - PROS

PROS

- Shared milestones:
 - Entrance Meeting
 - Exit Meeting
 - Press conference and press releases
 - High level interviews - meetings
- **The combined mission can also contribute to improving coordination among national institutions: MITECO, Ministry of Health, Ministry of Foreign Affairs, CSN, ENRESA**

31 | Combined IRRS-ARTEMIS mission - CONS

CONS

- High effort of coordination among IAEA and institutions.
- IAEA hasn't optimized the integration of both missions (duplicity).
- Different approach
 - Per module interviews in parallel for IRRS
 - Full scope meetings and presentations with all experts for ARTEMIS
- The activities performed simultaneously during the mission could hinder the optimal execution of the mission (i.e. the same expert for different subjects, etc.).

32 | Combined IRRS-ARTEMIS mission - CONCLUSIONS

IRRS-ARTEMIS combined mission contributes to:

- Improve regulatory infrastructure and waste management,
- Improve coordination among national institutions with competences,
- Improve team-work in the regulatory body,
- Maintain and improve social credibility:
 - It requires transparency and openness during the process.
 - It requires to communicate to the methodology and results to the public and Parliament
 - IAEA and review-team expertise endorse the quality of the results

But also carries a very high workload – mission and follow-up every 10 years seem enough

33 | IRRS Results Analysis

ADDITIONAL INFORMATION

IRRS RESULTS ANALYSIS

34 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRRS ES 2018

Modulo 1 Responsabilidades y funciones del Gobierno

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Cooperation/interaction among organizations, bodies	3	5	1
b	National policies and strategies for safety	16	4	1
c	Providing resources to the regulatory body	7	0	0
d	Providing/using legal framework for regulatory activities	11	2	0
e	Transparency, public involvement	7	2	0
f	Prime responsibility for safety	2	1	0
g	Building competence in safety	7	2	1
h	Independence of the regulatory body	6	3	0
x	Other	0	0	0
Σ	Sum of observations	66	19	3

IRRS ES 2018

Subject Group	R	S	GP
Cooperation/interaction among organizations, bodies	R1	S2 S3	
National policies and strategies for safety	R2		
Providing resources to the regulatory body		S1	
Providing/using legal framework for regulatory activities			
Transparency and public involvement			
Prime responsibility for safety			
Building competence for safety			
Independence of the regulatory body			
Other			
	2R	3S	

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en los temas de cooperación entre organismos, y establecimiento de políticas nacionales y estrategia de seguridad

35 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 3: Responsabilidades y funciones del Organismo regulador

EUROPEAN SURVEY 2015-2017

IRRS ES 2018

	Subject group	R	S	GP
a	Staffing of the regulatory body	5	1	0
b	Competence of the regulatory body	3	4	1
c	Resources of the regulatory body	1	1	0
d	Organization of the regulatory body	1	1	0
e	Developing documents for regulatory activities and cooperation	2	0	0
f	External involvement in the regulatory process	1	0	0
g	Training of the regulatory body	3	2	1
h	Decision making process, contents of decisions	2	0	0
x	Other	0	0	1
Σ	Sum of observations	18	9	3

Subject Group	R	S	GP
Staffing of the regulatory body			
Competence of the regulatory body			
Resources of the regulatory body		S6	
Organization of the regulatory body		S4	
Developing documents for regulatory activities and cooperation			
External involvement in the regulatory process			
Training of the regulatory body		S5	
Decision making process, contents of decision			
Other (GRADED APPROACH)	R3		
	1R	3S	

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en los aspectos de formación del personal del organismo regulador. En caso de ES necesidad de SAT.

36 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 4: Sistema de gestión integrada

MODULE 4- EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Developing an (integrated) management system, general	12	4	2
b	Details of the management system, developing the manual	2	3	0
c	Management system review and audits	1	2	1
d	Safety culture	2	0	1
e	Knowledge management and information technology tools	3	3	4
f	Managing organizational changes	0	0	0
x	Other	0	0	0
Σ	Sum of observations	20	12	8

IRRS ES 2018

Subject Group	R	S	GP
Developing an integrated management system, general			
Details of the management system, developing the manual	R4	S7	
Management system review and audits	R5		
Safety culture		S8	
Knowledge management and information technology tools			
Managing organizational changes			
Other			
	2R	2S	

Resultado análisis comparativo: ES no coincide con EU en ninguna de las áreas de mejora normalmente identificadas. Lo que significa que dispone de un grado de desarrollo mas avanzado que la mayoría de países EU porque ya dispone de un sistema de gestión integrado implantado encontrándose en curso de actualización.

37 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRRS ES 2018

Modulo 5: Autorización

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Authorization of modifications and back-fittings	0	0	1
b	Authorization of new facilities / activities	4	1	0
c	Graded approach	3	5	0
d	Procedures and guidance	17	8	0
e	Competence of qualified experts and staff, including authorization	4	2	0
f	License validity time and hold points	0	0	0
g	Scope of authorizations	0	0	0
h	Radioactive source registry	0	0	0
x	Other	0	0	0
Σ	Sum of observations	28	16	1

IRRS ES 2018

Subject Group	R	S	GP
Authorization of modifications and back fittings			
Authorization of new facilities/activities			
Graded approach			
Procedures and guidances	R8 R6		
Competence of qualified experts and staff including authorization			
License validity time and hold points			
Scope of authorizations			
Radioactive source registry			
Other (Integrated management system for decommissioning) (Completion of decommissioning actions and termination of the authorization for decommissioning) (Establishment of a framework for safety) (Dose limits eye lens)	R7 R8	S9 S10	
	4R	2S	

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en los temas de desarrollo de procedimientos y guías. Este tema esta extendido en toda EU ya que esta asociado a la publicación de nuevo marco normativo tanto comunitario como OIEA, que requiere traslado a la normativa nacional

38 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 6: Revisión y evaluación

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Developing the review and assessment process	1	0	0
b	Procedures and guidance	6	3	0
c	Technical support	0	0	0
d	Independent verification by the licensee	0	2	0
e	Operational experience feedback	2	2	0
f	Periodic Safety Review, updating Safety Analysis Report	2	1	1
g	Probabilistic safety analysis	0	0	0
h	Ageing management	0	0	0
i	Safety performance	0	0	2
x	Other	0	0	0
Σ	Sum of observations	11	8	3

IRRS ES 2018

Subject Group	R	S	GP
Developing the review and assessment process	R9		
Procedures and guidelines		S11	
Technical support			
Independent verification by the licensee			
Operational experience feedback			
Periodic safety review, Updating safety analysis report			
Probabilistic safety analysis			
Ageing management			
Safety performance			GP1
Other (Radon Action Plan)	R10		
	2R	1S	1GP

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en los temas de desarrollo de procedimientos y guías. Este tema esta extendido en toda EU ya que esta asociado a la publicación de nuevo marco normativo tanto comunitario como OIEA, que requiere traslado a la normativa nacional. Se ha identificado un GP en el tema de Safety performance.

39 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 7: Inspección

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Developing the inspection programme/system	1	5	1
b	Use of previous results	0	0	0
c	Procedures and guidance	2	6	0
d	Follow-up of inspections (monitor, evaluate, share)	0	0	0
e	Preparation of inspection reports	0	1	0
f	Site inspectors	0	0	0
g	Inspector team composition	0	0	0
h	Graded approach	0	0	0
i	Inspector training and qualification	1	1	0
x	Other	0	0	0
Σ	Sum of observations	4	13	1

IRRS ES 2018

Subject Group	R	S	GP
Developing the inspection programme/system		S12	
Use of previous results			
Procedures and guidances			
Follow up of inspections (monitor, evaluation, share)			
Preparation of inspection reports			
Site inspectors			
Inspector team composition			
Graded approach			
Inspector training and qualification			
Other			
		S12	

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en el tema de desarrollo de programas o sistemas de inspección

40 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 8: Proceso sancionador

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Establishing the enforcement policy and system	5	0	0
b	Developing enforcement tools and guidance	4	2	0
c	Graded approach	0	0	0
d	Sanctions	0	0	0
x	Other	0	0	0
Σ	Sum of observations	9	2	0

IRRS ES 2018

Subject Group	R	S	GP
Establishing the enforcement policy and system			
Developing enforcement tools and guidance			
Graded approach			
Sanctions			
Other		S13	
		S13	

Resultado análisis comparativo: ES en el modulo 8 de proceso coercitivo ha recibido una sugerencia muy focalizada a su propio sistema nacional que no es comparable con otros países, sin embargo no tiene aspectos de mejora en establecimiento de una política o proceso coercitivo porque tiene ese tema resuelto de acuerdo a los estándares del OIEA.

41 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 9: Regulación y guías

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Development of regulations and guides in general	4	3	0
b	Review of regulations and guides	1	6	0
c	Basic safety requirements	30	10	0
d	Specific topics for regulations and guides	41	6	0
x	Other	0	0	0
Σ	Sum of observations	76	25	1

IRRS ES 2018

Subject Group	R	S	GP
Development of regulations and guides in general	R12	S14 S16	
Review of regulations and guides			
Basic safety requirements			
Specific topics for regulations and guides	R11	S15	
Other			
	2R	3S	

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en los temas de desarrollo de regulaciones y guías específicos. Este tema esta extendido en toda EU ya que esta asociado a la publicación de nuevo marco normativo tanto comunitario como OIEA, que requiere traslado a la normativa nacional

42 | IRRS Results Analysis

Comparativa resultados análisis resultados misiones IRRS EU años 2015-2017 frente a misión IRR ES 2018

Modulo 10: Preparación y respuesta en emergencias

EUROPEAN SURVEY 2015-2017

	Subject group	R	S	GP
a	Guidance and procedures for EPR	19	8	0
b	Communication and cooperation with other authorities	1	2	1
c	Emergency planning	3	6	2
d	Training and exercises	2	1	0
e	Complying with EPR requirements	0	0	0
x	Other	0	0	0
Σ	Sum of Observations in the module	25	17	3

IRRS ES 2018

Subject Group	R	S	GP
Guidance and procedures For EPR		S17 S10 S19	
Communication and cooperation with other authorities	R13	S18	
Emergency planning			
Training and exercises			
Complying with EPR requirements			
Other			
	1R	4S	

Resultado análisis comparativo: ES coincide con EU en disponer de área de mejora en el tema de guías y procedimientos para preparación y respuesta emergencias.