Commission for the Protection
From Ionising and Non Ionising-Radiation

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Annual report of the Commission for the Protection from Ionising and Non-Ionising Radiation for 2021

Pursuant to Article 11(6) of the Nuclear Safety and Radiation Protection Act, Cap 585 the Commission for the Protection from Ionising and Non-ionising Radiation is presenting this report for the attention of the Minister.

This is the fourth report produced by the Commission and covers the period from 1st January 2021 to 31st December 2021.

Contents

1. Executive Summary

2021 was the third full year of operation of the Commission for the Protection from Ionising and Non-Ionising Radiation (the Commission). During this period, the Commission was under the ministerial portfolio of the Ministry for Tourism and Consumer Protection.

The Commission evaluated its legal personality and it was strengthened by a new regulation published in June under the Nuclear Safety and Radiation Protection Act CAP 585 (the Act) entitled: Commission for the Protection from Ionising and Non-ionising Radiation Regulations SL 585.04.

In December 2021, the Commission approved the following Mission and Vision Statements:

Mission Statement	To allow and regulate the beneficial and justified uses of ionising and non-ionising radiation for the well-being of the population and the environment.
Vision Statement	A culture that allows for the beneficial uses of radiation, safely.

During 2021 the Commission started the process to recruit staff and set up new offices at the Mosta Technopark.

The Commission has worked endlessly to ensure that Malta fulfils its European and International regulatory obligations. During this year, the Commission addressed issues raised by the European Commission (EC) in the letter of formal notice and also submitted the necessary reports to the EC and the International Atomic Energy Agency (IAEA), with respect to the EURATOM Nuclear Safeguards and the Nuclear Safety and Radioactive Waste management conventions. Preparations for the next international peer review on the management of radioactive waste have also been initiated.

In 2021, the Commission continued to strengthen its relationship with various stakeholders through public consultations, meetings and establishment of MOUs. The Commission also completed a number of national technical projects which were co-funded by the IAEA. These projects provided Malta with new regulatory structures, enhanced national capabilities on radioactive waste management and better infrastructure to monitor and assess for radiation protection. This strengthened the role of the Commission as the competent regulatory body in protection from radiation.

The Commission continued to pursue its effort to ensure optimisation of the radiation exposure to individuals by developing policies within the medical field and beyond. During this reporting period, the Commission drafted guidance on Diagnostic reference levels for medical imaging purposes and criteria for approval of radiation protection experts and medical physics experts.

The Commission is also committed to the education and training of experts on topics related to radiation protection legislation and for the first time this year its Secretariat provided two training sessions.

Despite the challenges posed by insufficient staffing of the Secretariat and the COVID-19 pandemic, the Commission endeavoured to fulfil its legal obligations emanating from the Act. The Commission continues to recognise that the Secretariat has insufficient human resources to comply with its legal obligations under the Act and to rectify this, the Commission did all in its powers to increase the staffing of the Secretariat. Of concern is the fact that the

Commission has not started regulatory activities in relation to non-ionising radiation. The Commission remains committed to see through all its obligations to the best of its capabilities.

2. Conduct of the Affairs of the Commission

2.1. The Structure and functioning of the Commission

The Commission consists of a chairperson, deputy chairperson, nine expert members and a Secretariat to perform its executive functions, as outlined in Figure 1.

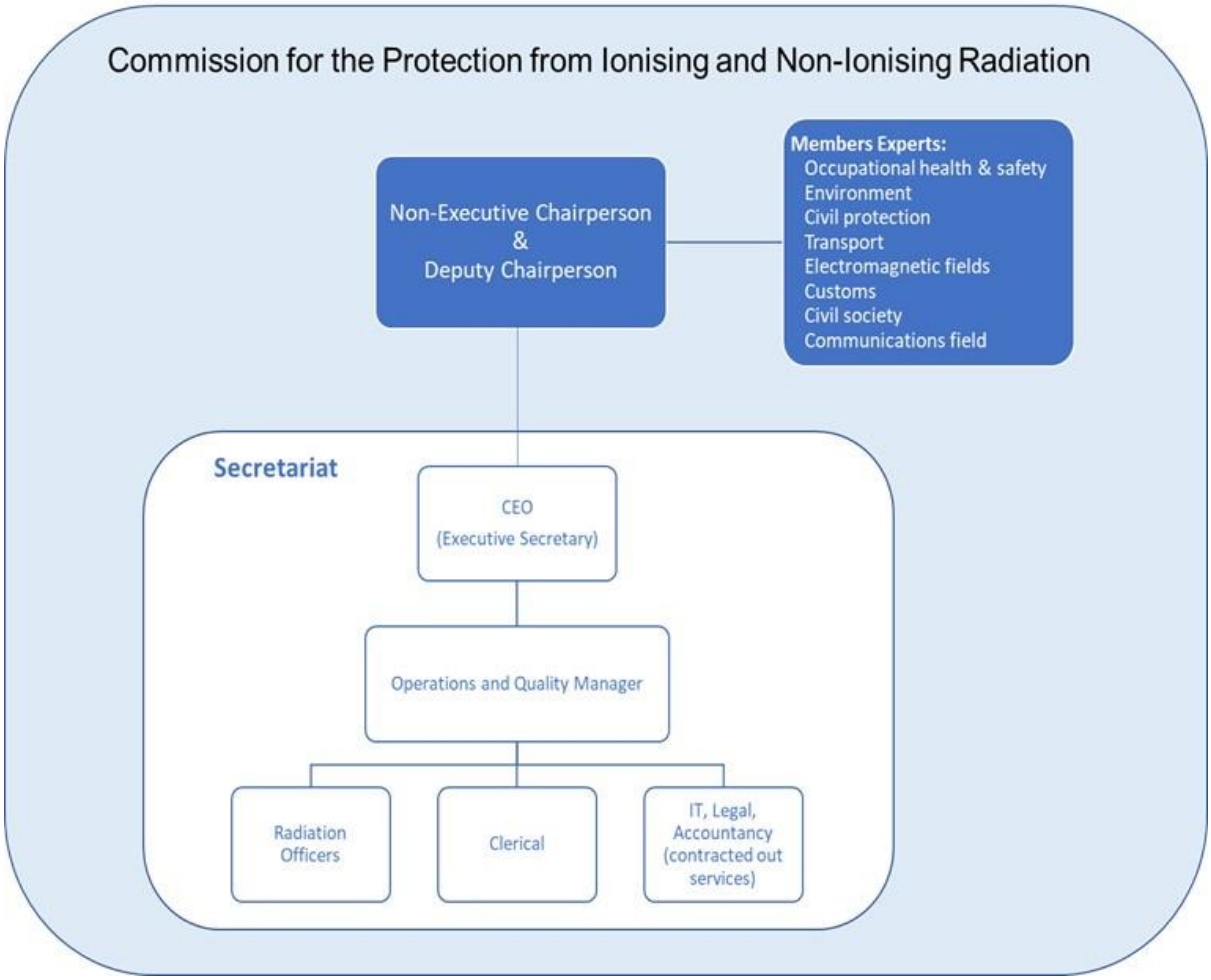

Figure 1 Structure of the Commission.

During 2021 the Commission held eleven meetings which were all held online due to the COVID-19 pandemic. Five different sub-groups were established within the Commission. Each sub-group included expert members from the Commission and invited experts. The choice of experts depends mostly on the policies addressed within the sub-group and these sub-groups met as often as required, together with members of the Secretariat, to draft policies addressing various legal obligations, policies and documentation on:

- Legal personality of the Commission
- Radon

- Approval criteria for Medical Physics Experts and Radiation Protection Experts
- Diagnostic reference levels for medical exposures
- Education and training

2.2. The Secretariat

The functions of the Secretariat were performed by one Radiation Officer, employed in 2021 by the Commission and another two senior employees of the Occupational Health and Safety Authority (OHSA). Requests have been made for the latter two OHSA employees to be redeployed to the Commission.

In December 2021 interviews were held for the employment of further Radiation Officers with an additional Radiation Officer planned to join office in March 2022.

A new grading structure for 2022-2024 was approved in 2021 which includes the positions of:

- Chief Executive Officer (Executive Secretary)
- Principal for Radiation Protection (*New role*)
- Manager
- Radiation Officer
- Junior Radiation Officer (*New role*)
- Administrative Officer
- Clerk

3. Budget

The Commission's budget for 2021 was €320,000.

Part XVI of the Act 585 does not apply as the Ministry is responsible for managing the Commission budget.

4. Memorandum of Understanding

A Memorandum of Understanding (MOU) between the Commission and Transport Malta has been drafted and is under discussion by the different parties.

5. Commission Premises

During 2021 the Commission started to set up its premises at the Mosta Technopark. The premises were leased from MCCAA and has sufficient space for the Secretariat operations. It includes areas which can be used for offices, training and the setting up of a laboratory for the analysis of environmental samples.

Figure 2 New premises for the Commission and its Secretariat.

6. Website

The Commission developed the backend for its website which is planned to go live in the first quarter of 2022.

7. European Commission Regulatory issues

7.1. Transposition of EU Basic Safety Standards Directive

The European Commission issued a letter of formal notice (infringement 2021/2097) in July 2021 with regard to the Maltese transposition of the Basic Standards Directive. The Commission replied to all issues raised by the European Commission and up until the end of 2021 no reply from the European Commission had been received.

7.2. Reporting under EURATOM Nuclear Safeguards

The Secretariat sent all the necessary reports on the nuclear material accountancy to the European Commission as required under the European safeguards agreements.

8. International obligations

8.1. Joint Convention on Radioactive Waste Management - 7th Review cycle

Malta is a contracting party to the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management and is therefore required to attend review meetings and report on Malta's compliance with the obligations set out in the Convention.

Due to the COVID-19 pandemic, the 7th Review meeting that was scheduled to take place in Vienna in May 2021 has been postponed to June 2022. In preparation to this review meeting, a detailed reply to a questionnaire was initiated and will be sent prior to the next meeting.

Additionally, in 2021, other contracting parties to the Convention posted 19 questions and comments on the Maltese national report prepared for the 7th review meeting. Replies to these questions will be sent to the IAEA by March 2022.

8.2. Incident and Trafficking Database

The Commission receives and distributes reports from the IAEA's Incident and Trafficking Database (ITDB) to the relevant Maltese stakeholders. This database is the IAEA's information system on incidents of illicit trafficking and other unauthorized activities and events involving nuclear and other radioactive material outside of regulatory control.

9. International peer review of radioactive waste management

Preparations started for an Integrated Review Service for Radioactive Waste and Spent Fuel Management, Decommissioning and Remediation (ARTEMIS) which will take place in October 2022.

10. IAEA national technical support project for the Commission

Malta receives assistance from the IAEA through various technical cooperation projects (TCPs). Proposals for TCPs are written by member states of the IAEA and then submitted for evaluation and review to the IAEA. When awarded, national TCPs are run on a two-year project cycle and may be nearly fully funded by the IAEA or co-funded with the member state. The ongoing TCPs and those ending in 2021 are summarised below.

10.1. MAT 9008: Developing New Regulatory Authority Structures

2021 saw the conclusion of an IAEA national technical cooperation project with the Commission entitled "Developing New Regulatory Authority Structures". This included the IRRS follow-up Mission in 2020 and the purchasing of new server for the regulatory database and personal electronic radiation monitors for Commission staff. (The total project cost was €40,950 of which Malta's contribution was 5%).

10.2. MAT 9009: Enhancing National Capabilities on Radioactive Waste Management and Disposal of Radioactive Waste

In 2021, the IAEA approved a proposal submitted by the Commission for an ARTEMIS mission to Malta in 2022 and provide expert advice in 2023 in order for Malta to assess disposal options for radioactive waste as part of the Maltese radioactive waste management programme. Malta will be contributing 50% of the total project cost of €46,400 towards the completion of this project.

10.3. RER 7014: Improving Environmental Monitoring and Assessment for Radiation Protection in the Region

Together with ERA, the Commission developed a plan to set up a gamma spectrometry laboratory to be located at the Commission Premises in Mosta. The equipment costs about €88,000 and will be supplied to Malta through this IAEA regional project. The equipment will be used for the gamma analysis of environmental samples.

10.4. MAT 9010: Monitoring of Gaseous Radioactive Iodine in the Air

The overall aim of the project is to strengthen the existing environmental monitoring capacities in Malta with the additional monitoring of the radionuclide Iodine-131 in air, which will fall under the responsibility of ERA. Malta will be contributing 5% of the total project cost of €67,180, towards the completion of this project. ERA monitors the levels of various radionuclides in air and reports this data to the Commission, which in turn reports to the Joint Resource Centre of the European Commission.

11. Radiation Protection Experts and Medical Physics Experts

Under the Basic Safety Standards Regulations (SL 585.01) employers, depending on the nature of their work, need to seek use the services of Radiation Protection Experts (RPE) and Medical Physics Experts (MPE).

Following two rounds of consultations with the stakeholders, the Commission approved criteria for the approval of MPEs and RPEs in October 2021.

12. Diagnostic Reference Levels.

In 2021 the Commission drafted guidance following consultations with stakeholders on the use of diagnostic reference levels for medical exposures.

Diagnostic reference levels (DRL) are levels used in medical imaging to indicate whether, in routine conditions, the dose to the patient or the activity of radiopharmaceuticals administered in a specified radiological procedure is unusually high or unusually low for that procedure.

The establishment and periodic review of DRLs is an essential component of this optimisation process. The analysis of DRL values over time can be useful in identifying dose trends which in turn can be used in the process of optimisation.

13. Radon

The issue of Radon, a naturally occurring radioactive gas falls within the scope of the Basic Safety Standards Regulations (SL 585.01).

In line with the Radon Action Plan, which the Commission developed in line with Regulation 127 of SL 585.01, the Commission performed a survey of the radon levels in subterrain work areas and the results are due early in 2022.

14. Training in Radiation Protection

Through one of the sub-groups, the Commission started working on policies for radiation protection training.

The Secretariat held two training sessions on radiation protection legislation at its premises in Mosta in December 2021.

15. Non-ionising Radiation

The Commission was unable to effectively start any work on the regulation of non-ionising radiation due to lack of resources in the Secretariat.

The Commission being aware that more attention needs to be paid to the issues related to non-ionising radiation, will be giving priority to this area once the human resources plan is implemented and new staff is recruited.

16. Future priorities for the Commission

The key priority is to ensure that the Secretariat is adequately staffed with trained personnel.

The following issues need to be addressed.

i. Preparation for the ARTEMIS mission.
ii. Draft of new Regulation of Non-Ionising radiation including possibly the use of lasers for aesthetic procedures.
iii. Development of training policies for undertakings.
iv. Review of Environmental monitoring procedure.
v. Review of radon policies.
vi. Joining Early notification and assistance Conventions.
vii. Use of the IAEA Unified System for Information Exchange in Incidents and Emergencies (USIE).
viii. Increasing the number of specialities that can refer and act as practitioners for medical exposures.

Dr Lourdes Farrugia
Chairperson
18th March 2022

Mr Paul Brejza
Executive Secretary
18th March 2022