

# Preparatory Committee for the 2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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## Third session

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### **Implementation of the action plan of the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons and previous review conference outcomes**

#### **Report submitted by Italy for the period 2015–2019**

1. Pursuant to action 20 of the plan adopted at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, Italy submits the present report on national activities carried out since 2015 to implement the array of actions envisaged under the 2010 action plan.
2. The present report describes the activities that Italy has undertaken to contribute to the implementation of the three pillars of Treaty, notably (a) nuclear disarmament, (b) non-proliferation and (c) peaceful uses of nuclear energy that, according to Italy, are mutually reinforcing and of equal importance.
3. The entire set of these activities has been carried out by Italy as an active member of the European Union (e.g., participation in the European Council working party on non-proliferation – CONOP), the North Atlantic Treaty Organization – NATO and the G-7 (e.g., participation in the Non-Proliferation Directors Group – NPDG).

#### **Pillar I. Nuclear disarmament (actions 1 to 22)**

4. Throughout the reporting period, Italy has been supporting the goal of a peaceful and secure world free of nuclear weapons. Through its article VI, the Non-Proliferation Treaty provides the only realistic legal framework to pursue this objective, in a way that promotes international stability and undiminished security for all. Italy is convinced that the goal of a nuclear-weapon-free world can be attained only through a progressive approach, based on concrete measures, resulting in effective, verifiable and irreversible nuclear disarmament.
5. In February 2018 Italy therefore welcomed the announcement by the Russian Federation and the United States that they met the central limits of the New Strategic Arms Reduction Treaty (New START). Italy believes that the preservation of the New START Treaty is essential for international stability and represents a concrete measure of progressive nuclear disarmament. Consequently, Italy has consistently called on



the two parties to extend the Treaty and to pursue further discussions on confidence-building, transparency, verification activities and reporting.

6. Italy has also encouraged enhanced dialogue among nuclear-weapon States, aimed at building mutual trust, strengthening transparency and reducing risk, thus contributing to creating an environment more conducive to further nuclear disarmament. Several practical measures can indeed help avoid misunderstanding and miscalculation, thus contributing to greater security and stability. As consistently recalled in relevant forums, these could include transparency and dialogue on nuclear doctrines and postures; military-to-military dialogues; hotline agreements among relevant States; “accident measure” agreements; transparency and notification exercises, as well as missile launch notification and other data exchange agreements.

7. In relevant forums, notably in the Conference on Disarmament, Italy has also supported the resumption of substantive discussions on negative security assurances, with a view to elaborating recommendations dealing with all their aspects, not excluding an international legally binding instrument.

#### *Nuclear-weapon-free zone treaties*

8. Italy has expressed the strongest support to the establishment of nuclear-weapon-free zones to further peace and security in all possible regions, in accordance with the 1999 United Nations Disarmament Commission guidelines. Italy therefore attaches utmost importance to the Treaties establishing such zones in Latin America and the Caribbean (Treaty for the Prohibition of Nuclear Weapons in Latin America of 1967 (Treaty of Tlatelolco)); the South Pacific (South Pacific Nuclear Free Zone Treaty of 1985 (Treaty of Rarotonga)); South-East Asia (Treaty on the Southeast Asia Nuclear Weapon-Free Zone of 1995 (Treaty of Bangkok)); Africa (African Nuclear-Weapon-Free Zone Treaty of 1996 (Treaty of Pelindaba)); and Central Asia (Treaty on a Nuclear-Weapon-Free Zone in Central Asia of 2006 (Treaty of Semipalatinsk)).

9. Within the Non-Proliferation Treaty framework and under the relevant General Assembly resolutions, Italy has consistently supported the convening – on the basis of arrangements freely arrived at among the States of the region – of a conference on the establishment of a Middle East Zone free of nuclear weapons and all other weapons of mass destruction. In the light of the 1995 Review Conference resolution on the Middle East, Italy will continue to support efforts aimed at creating a conducive atmosphere and an inclusive process leading to the establishment of such a zone.

#### *Comprehensive Nuclear-Test-Ban Treaty*

10. Throughout the reporting period, Italy has promoted the prompt entry into force of the Comprehensive Nuclear-Test-Ban Treaty, which remains one of our key priorities in our progressive approach towards a peaceful and secure world free of nuclear weapons. In all relevant forums, Italy has consequently called upon all States that have not yet done so, in particular the remaining eight Annex-2 States, to sign and ratify the Treaty without further delay. In the meantime, Italy has consistently called upon all States to respect the existing moratorium on nuclear test explosions.

11. On the eve of the twentieth anniversary of the opening for signature of the Comprehensive Nuclear-Test-Ban Treaty, Italy co-sponsored Security Council resolution [2310 \(2016\)](#), in which all States, in particular those whose ratification is essential for the entry into force of the Comprehensive Nuclear-Test-Ban Treaty, are urged to sign and/or ratify the Treaty without delay and without conditions. Italy has also actively participated in the 2015 and 2017 Conferences on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty (Article XIV Conferences), convened to promote the entry into force of the Treaty.

12. In its capacity as the 2018 Chair of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, Italy has further engaged in outreach efforts in order to promote the universalization and, ultimately, the entry into force of the Treaty. At the end of its mandate as Chair, Italy submitted to the General Assembly draft resolution [A/73/L.22](#), titled “Cooperation between the United Nations and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization”. The resolution, which has been submitted biennially for several years, has an important political value, as it furthers close collaboration between the United Nations and the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization in non-proliferation and security matters. The resolution was co-sponsored by more than 60 countries and adopted by consensus by the General Assembly.

13. Within the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, Italy remains the eighth largest contributor to the regular budget and provides the International Monitoring System with a laboratory for the detection of radionuclides in Rome and a seismological station located near Catania in Sicily.

#### *Fissile material cut-off treaty*

14. According to Italy, the immediate commencement of negotiations, within the Conference on Disarmament, of a treaty dealing with fissile material for nuclear weapons or other nuclear explosive devices stands among the highest priorities for nuclear disarmament.

15. Italy therefore voted in favour of General Assembly resolution [71/259](#), which established a high-level expert preparatory group to consider and make recommendations on substantial elements of a future non-discriminatory, multilateral and internationally and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices. Italy welcomed the consensual report produced by the expert preparatory group and stands ready to discuss its findings within the Conference on Disarmament without further delay.

16. Pending the conclusion of such a treaty, Italy has consistently called on all relevant States to abide by a moratorium on the production of fissile material for nuclear weapons.

#### *Nuclear disarmament verification*

17. Throughout the reporting period, Italy has attached the utmost importance to all initiatives undertaken in the field of nuclear disarmament verification, as important tools to build trust and confidence among nuclear- and non-nuclear-weapon States. In this regard, Italy supported the International Partnership for Nuclear Disarmament Verification and welcomed the consensual report of the group of governmental experts on nuclear disarmament verification, pursuant to General Assembly resolution [71/67](#), which Italy co-sponsored.

#### *Transparency and reporting*

18. Italy is submitting the present national report to the 2019 Preparatory Committee and in view of the 2020 Review Conference and would like to underline the importance of transparency and reporting under the Non-Proliferation Treaty framework.

#### *Education*

19. Italy has paid special attention to education and training as essential elements for fostering international peace and security. During the reporting period, the

Accademia Nazionale dei Lincei (the highest Italian cultural institution) organized two conferences dedicated to physicist Edoardo Amaldi in Rome, in 2015 and 2017. The two-day conferences provided an important forum for experts, scientists and representatives of international organizations to discuss different approaches to nuclear disarmament and promote progress towards enhanced nuclear safety, security, safeguards and non-proliferation. The Director General of the International Atomic Energy Agency (IAEA), Yukiya Amano, delivered a lecture at the start of the 2017 Amaldi Conference.

## **Pillar II. Nuclear non-proliferation (actions 23 to 46)**

### *Nuclear safeguards*

20. Throughout the reporting period, Italy has consistently supported the efforts of IAEA to implement worldwide its system of safeguards, based on the current standard of a comprehensive safeguards agreement, together with an additional protocol and, as applicable, a modified small quantities protocol. This is because Italy deems that the IAEA system of safeguards is a fundamental component of the nuclear non-proliferation regime and plays an indispensable role in the implementation of the Non-Proliferation Treaty (notably art. III).

21. Italy has been implementing integrated safeguards as a result of agreements in place between IAEA and EURATOM. The model of common safeguards activities run jointly by the two organizations is widely recognized as an international best practice. Italy has also firmly supported the continued evolution of safeguards, including the development of the State-level concept, convinced that its universal implementation will further strengthen the efficiency and effectiveness of the Agency safeguards system, thus contributing to global non-proliferation efforts.

22. With respect to current non-proliferation challenges, Italy looks forward to an open and constructive dialogue and further negotiating progress aimed at a complete, verifiable and irreversible denuclearization of the Korean Peninsula.

23. Italy strongly believes that international sanctions against the Democratic People's Republic of Korea must remain in force and be effectively implemented. During 2017, as a non-permanent member of the Security Council, Italy chaired the Security Council Committee established pursuant to Security Council resolution [1718 \(2006\)](#) and maintained a sharp focus on the effective implementation of sanctions by organizing informative meetings with regional groups at the United Nations. According to Italy, sanctions should be fully implemented to sustain the current negotiating process and to encourage the Democratic People's Republic of Korea to return to Non-Proliferation Treaty compliance, implementation of integrated safeguards and proceed with ratification of the Comprehensive Nuclear-Test-Ban Treaty.

24. Italy has always considered the Joint Comprehensive Plan of Action (JCPOA) on the Iranian nuclear issue as a landmark diplomatic success and as an extremely valuable achievement in the context of international efforts to strengthen the overall non-proliferation architecture in accordance with the Non-Proliferation Treaty.

25. During 2017, as a non-permanent member of the Security Council, Italy acted as facilitator for the implementation of Council resolution [2231 \(2015\)](#). In this capacity, Italy systematically recalled the crucial role that JCPOA is playing to ensure the exclusively peaceful nature of the Iranian nuclear programme. The comprehensive verification and monitoring activities carried out by IAEA, including through the complementary access conducted to all relevant sites and locations under the provisional application of the Additional Protocol, have provided constant evidence of Teheran's compliance with its nuclear-related commitments.

26. Italy has commended the Agency's quarterly reporting mechanism aimed at assuring the international community about the non-diversion of Iran's nuclear programme. In this regard, over the period 2015–2019 Italy has financially contributed to the IAEA budget for verification and monitoring activities under JCPOA with an amount of EUR 360,000.

27. Italy firmly believes that the international community should continue to take every action to ensure that JCPOA continues to provide benefits for all and remains a success story. Its full implementation, together with the full implementation of all provisions of Security Council resolution [2231 \(2015\)](#), can foster international and regional security.

#### *Export controls*

28. Italy is an active member in all export control regimes, including the Nuclear Suppliers Group and the Zangger Committee, in order to help ensure that nuclear-related exports do not lead to proliferation. Italy consistently reports its denials through the respective regimes' mechanisms and, within the European Union framework, to all other European Union member States.

29. In line with the European Union dual-use export regulation and following the Nuclear Suppliers Group guidelines, Italy handles each export licence application on a case-by-case basis. As a result of an inter-agency procedure, each application goes through a risk-assessment based on: the sensitivity of the goods; a general assessment of the recipient State, including its track record in non-proliferation commitments; the potential risk of unwanted end use; the plausibility of the stated end use and end user; Government to Government assurances (if needed); and the risk of diversion.

30. Italy remains deeply concerned by the increasing risk of weapons of mass destruction falling into the hands of non-State actors, particularly in relation to terrorist acts. In this respect, Italy strongly supports the full and universal implementation of Security Council resolution [1540 \(2004\)](#) and its follow-on resolutions.

#### **Pillar III. Peaceful uses of nuclear energy (actions 47 to 64)**

31. Throughout the reporting period, Italy has supported the inalienable right of all States parties to the Non-Proliferation Treaty to benefit from the peaceful uses of nuclear energy, science and technology and strongly sustained the International Atomic Energy Agency (IAEA) efforts in this field, as the seventh largest contributor to the regular budget of the Agency.

32. The right to peaceful uses of nuclear energy, science and technology should be exercised according to the highest standards of safeguards, safety and security, to which Italy attaches the utmost importance, as systematically recalled in its current capacity as a member of the IAEA Board of Governors.

33. With an overall contribution of more than EUR 13.5 million over the reporting period, Italy strongly supports the IAEA technical cooperation programme to increase the capacities of State Parties wishing to develop peaceful nuclear technologies. Under the programme, Italy has hosted several foreign researchers every year in its laboratories, universities and medical centres in the framework of fellowships and scientific visits.

34. Italy hosts the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, which has been a driving force behind global efforts to advance scientific expertise in the developing world since its foundation in 1964. For more than 50 years, ICTP has accomplished its mandate by providing scientists from developing countries with the continuing education and skills that they need in order to serve in

their home countries in a number of sectors, notably those related to nuclear science and technology. As a concrete example of the didactics provided in this field, ICTP, in conjunction with the University of Trieste, runs a two-year Master of Advanced Studies in Medical Physics, which enables young graduates to become clinical medical physicists.

35. In order to carry out its mission, ICTP operates under a tripartite agreement between the Italian Government, IAEA and the United Nations Educational, Scientific and Cultural Organization (UNESCO), and its budget is largely funded by the Italian Government, whose contribution annually amounts to approximately EUR 20 million (EUR 100 million over the period 2015–2019).

36. Italy has also been working to develop peaceful, safe and secure uses of nuclear technologies and applications in a variety of fields.

37. In the field of agricultural and animal health, Italy has provided a significant contribution to international research and development activities. For instance, the “Giorgio Nicoli” Agriculture Environment Centre in Bologna has been for a number of years an IAEA Collaborating Centre in the development and implementation of a sterile insect technique package for the suppression of *Aedes* mosquitoes. Moreover, an analytical traceability laboratory has recently been established at the Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), where isotopic and radiometric studies are carried out to enhance food safety and security and meet consumers’ needs by monitoring the agro-food supply chain and tracking the geographical origin of food.

38. In the field of nuclear medicine, Italy has been promoting the sustainable production of radioisotopes through various initiatives such as: (a) a project for the production of technetium isotopes for diagnostic purposes at the TRIGA reactor based in Rome and operated by ENEA, (b) a three-year project managed by ENEA for molybdenum-99 solutions for diagnostic imaging, (c) a research programme on Boron Neutron Capture Therapy and on copper isotope production for theranostics applications at the TRIGA reactor operated by the Pavia University Nuclear Applied Energy Laboratory. The National Institute for Nuclear Physics is also focusing on state-of-the-art nuclear applications, such as radiotherapy with beams of protons and heavier nuclei and accelerator-based alternatives to uranium-based production of radioisotopes of medical interest.

39. Lastly, Italy has been actively engaging in advancing research on fusion and innovative nuclear systems. In this context, ENEA has started the construction works in Frascati, near Rome, for the Divertor Tokamak Test (DTT) facility. This will become the international centre of excellence for nuclear fusion research and will be built in collaboration with European and international partners. The DTT facility aims in particular at facing the greatest challenges posed by fusion, with the objective of creating a connecting link between the international nuclear fusion project ITER and the DEMO reactor.

#### *Nuclear security*

40. Italy has actively supported the Nuclear Security Summit process, which has added a political dimension to the global dialogue on nuclear security, especially with reference to the threat of nuclear terrorism. The process has achieved several objectives: the reduction of the use of highly enriched uranium in a number of countries; the transfer of uranium to the countries of origin; the securing of vulnerable nuclear installations and fissile materials; an increased fight against nuclear smuggling and improved prevention against acts of nuclear terrorism.

41. As a concrete contribution to the process, Italy has sponsored the launch of the joint ICTP-IAEA international school on nuclear security, which every year since 2011 has brought together professionals from developing countries to enhance their skills on the international legal framework supporting nuclear security. During the reporting period, the overall contribution of the Italian Government to the joint ICTP-IAEA international school on nuclear security amounted to EUR 360,000.

42. At the 2016 Nuclear Security Summit, Italy promoted a new and more focused Nuclear Security Training and Support Centres Gift Basket, aimed at strengthening the IAEA network and the establishment of regional networks, ensuring the sustainability of these centres and fostering a culture of scientific advancements.

43. During the reporting period, Italy has ratified the International Convention for the Suppression of Acts of Nuclear Terrorism and the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (the Convention itself was ratified in 1991). Italy has consistently encouraged all States to become party to this set of legal instruments for nuclear security.

#### **Other topics**

44. Italy has also been considerably engaged in relevant international non-proliferation partnerships, such as the Global Initiative to Combat Nuclear Terrorism (GICNT) and the Proliferation Security Initiative (PSI).

45. Italy organized the 2016 session of the GICNT Nuclear Forensic Working Group, in Rome. The event provided an excellent opportunity for GICNT partners to share best practices among nuclear forensics experts in order to increase capabilities in prevention, investigation and prosecution of nuclear security events. At the meeting, partners also defined the activities of the Working Group up to 2019.

46. Furthermore, in the framework of the PSI Mediterranean Initiative, Italy hosted a table-top exercise in Rome in 2016 and organized a live naval exercise at the port of Catania in 2018. Both exercises brought together high-level officials from PSI partners to test coordination mechanisms aimed at stopping proliferation trade in weapons of mass destruction, related materials and delivery systems.

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