2020 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

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Action in support of the Treaty on the Non-Proliferation of Nuclear Weapons in the period 2015–2020

Implementation of the action plan agreed at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons

Report submitted by Germany

I. Introduction

1. Germany is actively engaged in promoting the principles and objectives of the Treaty on the Non-Proliferation of Nuclear Weapons, including the commitments entered into under the Treaty and its three pillars, as well as the 2010 action plan agreed at the 2010 Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons. To that end, Germany, beyond the full implementation of its obligations under the Treaty, has been pursuing a policy of comprehensive political engagement in related efforts and initiatives related to the Treaty, underpinned by significant financial support. Germany is convinced that progress towards the full implementation of the Treaty's goals – in particular the effective prevention of nuclear proliferation and the achievement of a world free of nuclear weapons – requires credible, sustained and all-encompassing multilateral engagement by all States parties on all aspects of the treaty.

2. Germany's efforts have been continuously directed towards realizing concrete practical steps towards strengthening nuclear non-proliferation and disarmament, as outlined in the 2010 Treaty action plan; fostering and sustaining meaningful dialogue with nuclear-weapon States on their commitments related to nuclear disarmament; enabling and carrying forward the technical groundwork for nuclear disarmament, including, but not exclusively, in the field of nuclear disarmament verification; contributing to reducing nuclear risks, building confidence and facilitating further reductions of nuclear arsenals; engaging, at all levels, on the ratification of the Comprehensive Nuclear-Test-Ban Treaty and the building up of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization/verification capacities; diplomatically engaging on overcoming the stalemate in the negotiations for the treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices; actively and sustainably engaging on proliferation crises,





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notably, but not exclusively, by negotiating, concluding and working towards the full implementation and preservation of the Joint Comprehensive Plan of Action (JCPOA) and by ensuring both due implementation of Security Council-mandated sanctions and actively supporting the diplomatic efforts aimed at the complete, verifiable and irreversible denuclearization of North Korea; incrementally strengthening safeguards standards and promoting their universal application; enhancing cooperation on the peaceful uses of nuclear technologies beyond nuclear power generation; and ensuring the highest standards of nuclear security and safety, reaching out to the youth, promoting nuclear education and strengthening and supporting civil society networks, academic expertise and projects related to nuclear disarmament and non-proliferation.

II. Nuclear disarmament

A. Political engagement in multilateral forums

Activating diplomacy: the Security Council and the Stockholm Initiative on Nuclear Disarmament

3. As a member of the Security Council in 2019 and 2020, Germany initiated two meetings of the Council in support of the Treaty on the Non-Proliferation of Nuclear Weapons, one in 2019 and one in 2020, thus bringing the global nuclear disarmament and non-proliferation regime back to the attention of the Council ahead of the tenth Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons (see A/75/283). Both meetings were followed by a press statement, agreed between the Council members, reaffirming the enduring value of the Treaty and all its commitments 50 years after its entry into force and the readiness of Council members to strengthen the nuclear disarmament and non-proliferation regime.

The Minister for Foreign Affairs of Germany, Heiko Maas, and the Minister for 4. Foreign Affairs of Sweden, Ann Linde, invited their counterparts to the second ministerial meeting of the Stockholm Initiative on Nuclear Disarmament and on the Non-Proliferation Treaty, which was held in Berlin on 25 February 2020. The meeting led to the adoption of a political declaration on the fiftieth anniversary of the Treaty and 22 stepping stones for advancing nuclear disarmament that was subsequently submitted to the Review Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons as a working document. Documents aimed at revitalizing political momentum for nuclear disarmament were opened to the Treaty community for co-sponsorship. A number of States parties to the Treaty have expressed their support or alignment with the documents. The Stockholm Initiative held a follow-up ministerial video call on 9 June 2020 to adjust the activities of the group in the light of the postponement of the Review Conference owing to the coronavirus disease (COVID-19) pandemic, and in support of the President-designate of the Review Conference, Gustavo Zlauvinen, who attended the meeting.

Assuming responsibility: the Non-Proliferation and Disarmament Initiative Coordinator and the Comprehensive Nuclear-Test-Ban Treaty article XIV co-presidency

5. Germany assumed responsibility as coordinator of the Non-Proliferation and Disarmament Initiative for the period 2015–2018. The Initiative is a cross-regional group committed to the implementation of the 2010 Treaty action plan. Several meetings at senior-official level held in Berlin contributed to reinvigorating the role of the Initiative as a key group within the Treaty community. The Initiative submitted various proposals for executing the actions contained in the 2010 action plan and continuously engaged with nuclear-weapon States on their implementation, notably

on enhancing transparency on nuclear arsenals and improved regular reporting. Apart from regular exchanges with the five permanent members of the Security Council, the Initiative held dialogue sessions with other groups within the Treaty community, such as the Non-Aligned Movement and the New Agenda Coalition. The work of the Initiative also concentrated on ways to strengthen the Treaty review cycle. The Initiative met in New York at the ministerial level in September 2017 and in Nagoya, Japan, in November 2019, adopting a ministerial statement on each occasion.

6. Germany has actively and consistently promoted the entry into force of the Comprehensive Nuclear-Test-Ban Treaty and substantially supported the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization. As of the eleventh Conference on Facilitating the Entry into Force of the Comprehensive Nuclear-Test-Ban Treaty, on 25 September 2019, co-chaired by the Minister for Foreign Affairs of Germany, Heiko Maas, and the Minister for Foreign Affairs of Algeria, Sabri Boukadoum, Germany assumed the Comprehensive Nuclear-Test-Ban Treaty article XIV co-presidency together with Algeria from 2019 to 2021 (see paras. 22–27).

Groundwork: nuclear disarmament verification and the Creating an Environment for Nuclear Disarmament initiative

7. As an active member of the International Partnership for Nuclear Disarmament Verification and in close partnership with France, Germany facilitated the achievement of tangible progress in developing robust, proliferation-proof nuclear disarmament verification procedures open to both nuclear-weapon States and non-nuclear-weapon States, beyond holding a German-French practical exercise named NuDiVe in Jülich, Germany, in September 2019 (see paras. 13–21). Altogether, Germany has spent approximately 4.5 million euros in support of nuclear disarmament verification – indispensable groundwork for achieving a world free of nuclear weapons.

8. Within the framework of the United States initiative Creating the Environment for Nuclear Disarmament, Germany, together with Finland, assumed responsibility by co-chairing the working group on risk reduction. Efforts are directed towards establishing a common work programme aimed at actionable measures to reduce nuclear risks, defuse tensions, rebuild confidence and thereby improve the environment for future reductions of nuclear arsenals. To that end, Finland and Germany have presented a draft work programme on risk reduction to participating States.

Stimulating thought on further reductions: the Deep Cuts Commission

9. In 2013, the Government of Germany established the Deep Cuts Commission, which is aimed at overcoming the standstill in nuclear disarmament. Deep Cuts is a trilateral commission of experts from the United States, Russia and Germany, coordinated by the Institute for Peace Research and Security Policy at the University of Hamburg, the Arms Control Association, and the Primakov Institute of World Economy and International Relations of the Russian Academy of Sciences, with the active support of the German Federal Foreign Office and the Free and Hanseatic City of Hamburg. With its unique trilateral format, the Commission reflects a cross section of the interests of the two major nuclear powers and of a non-nuclear-weapon State engaged on arms control and disarmament.

10. The Deep Cuts Commission addresses key obstacles to cutting nuclear weapons arsenals and develops concepts for overcoming current challenges to further significant reductions. Through a number of workshops and reports, the Commission provides policy options and concrete recommendations to decision makers and the

public for nuclear and conventional arms control, thus contributing to diplomatic efforts aimed at advancing nuclear disarmament.

Sustained engagement in the Conference on Disarmament and outreach to the wider nuclear community

11. As a member of the Conference on Disarmament, Germany actively supports the establishment of a subsidiary body to deal with nuclear disarmament within the context of an agreed, comprehensive and balanced programme of work. Germany has consistently called for the adoption by the Conference of a programme of work that would provide for the implementation of this action and has supported negotiations and proposals to that effect. In 2017, Germany held the combined chair of the sub-working groups on negative security assurances and the fissile material cut-off treaty (see paras. 28–31). In 2018, Germany chaired the subsidiary body of the Conference of Disarmament on negative security assurances, and for many years Germany engaged in taking discussions on negative security assurances forward in both the Conference on Disarmament and the First Committee. Germany remains convinced that reaffirming, formalizing and tightening negative security assurances can significantly improve the security environment, contribute to increased trust between nuclear-weapon States and non-nuclear-weapon States and facilitate nuclear disarmament. To acquire a better understanding and identify possible entry points for advancing the issue, Germany maintained an exchange with nuclear-weapon States, notably France.

12. Germany supplemented its political efforts by reaching out to the wider nuclear community and enabling exchanges with civil society and experts from academia. Since 2015, Germany has spent approximately 1.7 million euros on track-1.5 conferences, seminars, workshops and academic studies. Furthermore, Germany has funded nuclear education and research activities with 2.3 million euros.

B. Nuclear disarmament verification

International Partnership for Nuclear Disarmament Verification

13. Germany actively participated in the work of the International Partnership for Nuclear Disarmament Verification from its launch in 2015, including with three distinguished national experts. The Partnership, which brought together some 30 parties, both nuclear-weapon and non-nuclear-weapon States, seeks to improve the understanding of the technical challenges and issues related to nuclear disarmament verification and to develop potential solutions that address those challenges.

14. The Partnership's work was conducted in two complementary and incremental phases. In the first phase, from 2015 to 2017, the focus was on verification of the physical dismantlement of a nuclear weapon and conceptual questions, whereas in the second phase, from 2018 to 2019, technologies and procedures were identified that could be applied across all stages of the nuclear weapons dismantlement life cycle and put them to the test in a series of practical exercises and technology demonstrations. In the third phase, from 2020 to 2025, the Partnership will expand its practical work "from paper to practice", incorporating scenario-based discussions and hands-on exercises.

15. In March 2017, in Berlin, Germany hosted a three-day joint meeting of the Partnership's three working groups on, respectively, monitoring and verification objectives; on-site inspections; and technical challenges and solutions. The meeting was focused on various complex and technologically challenging aspects in connection with the monitoring and inspection of a national nuclear weapon dismantlement process. The Federal Foreign Office seized the opportunity afforded

by the presence of nuclear disarmament verification experts to inform both German parliamentarians and the German public about the valuable work conducted in the framework of the Partnership.

Joint French-German exercise to verify nuclear disarmament

16. Nuclear disarmament under strict and effective international control, as enshrined in article VI of the Non-Proliferation Treaty, will be instrumental for ultimately achieving a world without nuclear weapons and for helping to build confidence and trust among and between nuclear-weapon States and non-nuclearweapon States.

17. During the second phase of the work of the Partnership, Germany and France jointly led a comprehensive multilateral technical exercise named "NuDiVe" to verify nuclear disarmament. This exercise was the result of an extensive dialogue between France, a nuclear-weapon State, and Germany, a non-nuclear-weapon State. It thus furthered understanding, expectations and focal points in both countries and served as an example of how trust and confidence between a nuclear-weapon State and a non-nuclear-weapon State can be enhanced.

18. In a one-week exercise held in September 2019, NuDiVe brought together 22 participants from 13 nations at Forschungszentrum Jülich (Jülich Research Centre) in Germany. It was the first international nuclear disarmament verification exercise that simulated the dismantlement of a mock nuclear weapon. In order to make the exercise as realistic as possible while at the same time complying with Treaty and International Atomic Energy Agency (IAEA) provisions, a surrogate radioactive material radiation source was used to carry out inspection procedures. In that way, non-proliferation, safety and security obligations, as well as national security constraints, were fully respected.

19. NuDiVe provided sufficient confidence about the absence of diversion of nuclear materials during the dismantlement operation of a nuclear warhead within a Treaty-related disarmament regime. It proved that the chain of custody can be maintained during and after the dismantlement step in a way that strengthens the confidence and effectiveness of a nuclear disarmament verification regime. NuDiVe thus advanced our collective understanding of building effective verification regimes, thus facilitating the work of future negotiators of arms control agreements.

Group of Governmental Experts to consider the role of verification in advancing nuclear disarmament

20. At the seventy-first session of the General Assembly, Germany voted in favour of Assembly resolution 71/67 on nuclear disarmament verification, by which the Group of Governmental Experts to consider the role of verification in advancing nuclear disarmament was established with 25 participants and tasked with considering the role of verification to make nuclear disarmament progress. The Group met in Geneva in 2018 and 2019 for a total of 3 five-day sessions. Germany actively participated in the Group with an expert, who presented a comprehensive background paper on key aspects of nuclear disarmament verification, including a definition, general principles, scope, methods, institutional arrangements and legal considerations. The Group concluded with a consensual report that recommended the continuation of work and set out possible avenues of action for the future.

21. At the seventy-fourth session of the General Assembly, Germany again voted in favour of the resolution that would establish a new Group with 25 participants tasked with exploring issues related to nuclear disarmament verification. Germany is ready to continue to participate in this work, which will be conducted in 2021 and 2022.

C. Putting an end to nuclear testing

22. Germany was among the first countries (the nineteenth State) to ratify the Comprehensive Nuclear-Test-Ban Treaty on 20 August 1998. Since then, Germany has been a staunch supporter of early entry into force of the Treaty. Although the norm enshrined in the Treaty has a de facto effect, Germany's view is that only entry into force will put a legally binding and verifiable end to all nuclear testing.

23. As co-chair of the eleventh Conference on Facilitating the Entry into Force of the Treaty on 25 September 2019, Germany, together with Algeria, assumed the article XIV co-presidency from 2019 to 2021. The final declaration was negotiated under German co-chairmanship and adopted by consensus at the eleventh Conference. In its capacity as article XIV co-president, Germany will continue to promote the Treaty's entry into force though a comprehensive work programme.

24. Germany continues to stress the importance of entry into force at all levels and urges signature and ratification of the Treaty, in particular by the remaining annex II States, in high-level meetings and public statements, including at the highest political level, and relevant multilateral forums, including the Security Council.

25. Every year, Germany co-sponsors the General Assembly resolution in the First Committee that stresses the fundamental importance of the Treaty in the context of the global non-proliferation and disarmament architecture and calls for its entry into force without further delay. As a member of the Non-Proliferation and Disarmament Initiative, Germany supports all statements promoting entry into force and universalization. As a member of the European Union, Germany has firmly supported all statements, positions, voluntary contributions and outreach activities by the European Union. In November 2018, Germany hosted a meeting of the CTBTO Youth Group, founded by the Executive Secretary, Lassina Zerbo, in 2013, at the Federal Foreign Office in Berlin.

26. Germany has been a member of the Friends of the Comprehensive Nuclear-Test-Ban Treaty group since May 2013 and regularly participated in the group's biennial ministerial meetings at the level of Foreign Minister. Germany is also represented in the Group of Eminent Persons by the first Executive Secretary of the Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization, Ambassador Wolfgang Hoffmann, and holds the chairmanship of Working Group B on verification (2015–2020).

27. Germany hosts five monitoring stations as part of the International Monitoring System: two seismological, two infrasound and a radionuclide station. In October 2018, radionuclide station RN-33, located close to Freiburg, was officially inaugurated after modernization. In addition, primary seismic station PS-19, near Freyung, is undergoing complete modernization. Germany actively assists the work of the Preparatory Commission by providing funding for participation by experts from developing countries in technical meetings and by regularly hosting National Data Center preparedness exercises. Germany also provides national experts for developing and rehearsing on-site inspections. Germany consistently calls on Treaty signatory States to honour assessed contributions in full and on time. Through the European Union, Germany provides significant voluntary contributions to further improve the verification regime for the Treaty.

D. Cutting off fissile material for nuclear weapons

28. Starting negotiations on a fissile material cut-off treaty is one of Germany's priorities on the way to a nuclear-weapons-free world. Germany has intensified its

engagement in advocating for a fissile material cut-off treaty and has pushed hard for the commencement of negotiations for one.

29. To overcome the long stalemate in discussions on a fissile material cut-off treaty in the Conference of Disarmament in Geneva and to inject new momentum into the process, Germany, together with Canada and the Netherlands, co-sponsored a General Assembly resolution in 2016 by which a new process of diplomatic efforts towards a fissile material cut-off treaty was launched. The resolution, adopted with only one dissenting vote, called for the establishment of a high-level fissile material cut-off treaty expert preparatory group aimed at formulating consensual recommendations for concrete and substantive elements of a future fissile material cut-off treaty. The high-level expert preparatory group, consisting of 25 nations including the five permanent members of the Security Council, met twice, in July and August 2017, and in May 2018. Germany participated actively in the high-level expert preparatory group process: conceptually, by presenting various working and concept papers with a focus on the verification issue, and financially, by sponsoring the participation and work of German experts. In addition, Germany organized briefings aimed at enhancing knowledge and understanding of the fissile material cut-off treaty substance and process. The consensual final report of the high-level expert preparatory group offers recommendations on substantial elements of a future fissile material cut-off treaty, including possible definitions, scope, verification, and legal and institutional arrangements. In 2018, in a resolution on a fissile material cut-off treaty co-sponsored by Canada, Germany and the Netherlands and adopted by an overwhelming majority of 182 States, the General Assembly urged States Members of the United Nations to give due consideration to the report of the high-level expert preparatory group, including further consideration of confidence-building measures, and called for the immediate commencement of treaty negotiations in the Conference on Disarmament.

30. The work of the high-level expert preparatory group laid the groundwork for a fissile material cut-off treaty. The aim is now to move swiftly towards treaty negotiations. In 2019, Canada, Germany and the Netherlands once more submitted a draft resolution to the General Assembly on a fissile material cut-off treaty in order to keep the treaty high on the arms control agenda of the United Nations.

31. Germany encourages nuclear-weapon States to assume their special responsibility and show leadership in overcoming the ongoing stalemate. Therefore, Germany, together with the Netherlands, Canada and Australia, presented concrete proposals to the five permanent members of the Security Council for enhanced engagement by nuclear-weapon States in the treaty process. Germany remains convinced that a fissile material cut-off treaty is the next logical step on nuclear disarmament and would make a significant practical contribution to both non-proliferation and disarmament objectives.

III. Non-proliferation of nuclear weapons

A. Actively engaging on proliferation crises

Joint Comprehensive Plan of Action on Iran

32. Germany is committed to ensuring that Iran will never develop or acquire a nuclear weapon. Along with our E3 partners France and the United Kingdom, with the European Union High Representative for Foreign Affairs and Security Policy, as well as with China, Russia and the United States, Germany contributed to the negotiations that culminated on 14 July 2015 in the conclusion of the JCPOA, which was unanimously endorsed by the Security Council in its resolution 2231 (2015). The

agreement provided for tight technical nuclear-related restrictions coupled with the world's most robust nuclear verification regime, implemented by IAEA, in order to ensure the exclusively peaceful nature of Iran's nuclear programme.

33. Since 2014, Germany has provided financial support of more than 5 million euros to IAEA for ensuring effective verification and monitoring of the nuclear commitments that Iran agreed to under the Joint Plan of Action and subsequently JCPOA. Germany has actively and substantially contributed to the work of all JCPOA formats.

34. Faced with the unilateral withdrawal of the United States from JCPOA on 8 May 2018, which we regretted, Germany and its E3 partners undertook considerable efforts aimed at preserving and continuing to fully implement the agreement. The E3/European Union countries maintained the lifting of sanctions in line with their JCPOA commitments. The E3 countries also embarked on voluntary supplementary efforts beyond their commitments in order to ensure the maintenance of legitimate trade with Iran. Moreover, the E3 countries underlined on numerous occasions that Iran must continue to fully cooperate with IAEA in a timely, transparent and complete manner.

35. Reacting to Iran's systematic phasing out of key nuclear commitments, which started in July 2019, the E3 countries initiated the JCPOA dispute resolution mechanism in January 2020, with the aim of finding a diplomatic way to resolve the JCPOA crisis and upholding the non-proliferation benefits of the agreement. Our overarching objective remains to preserve the JCPOA and to bring Iran back into compliance with its JCPOA commitments.

36. Furthermore, Germany is concerned about the continued advancement of Iran's missile programme and supports working towards a negotiated framework to address this issue. Since 2015, Iran has repeatedly conducted ballistic missile activities such as tests and launches involving technology of ballistic missiles designed to be capable of delivering nuclear weapons, which are thus inconsistent with Security Council resolution 2231 (2015). Moreover, Germany has repeatedly called on Iran to cease missile technology transfers to the region that may be in breach of Council resolution 2231 (2015) and other relevant Council resolutions, such as resolution 1540 (2004) prohibiting the provision of weapons of mass destruction and their means of delivery to non-State actors.

Complete, verifiable and irreversible denuclearization of North Korea

37. Germany assesses North Korea's nuclear weapon and ballistic missile programme and its striving for a nuclear deterrence capability as a serious threat to the global nuclear order and to the Non-Proliferation Treaty. Germany recalls that the international community never recognized North Korea's self-declared exit from the Treaty in 2003. Against that background, Germany is committed to the complete, verifiable and irreversible denuclearization of North Korea, as enshrined in various Security Council resolutions. In close cooperation with its international and European partners, Germany has persistently called on North Korea to engage in meaningful negotiations towards dismantling its nuclear weapons programme, and has consistently condemned all North Korean nuclear-weapon and ballistic missile tests throughout the reporting period.

38. Against the background of North Korea's continued breaches of international law, Germany actively contributed to maintaining pressure through sanctions in order to bring North Korea to the negotiating table. Those efforts included demarches, regional conferences and bilateral workshops, inter alia with countries in South-East Asia, to strengthen their capabilities in sanctions implementation. On 1 January 2019,

as part of its Security Council membership, Germany took over the chairmanship of the sanctions committee on North Korea.

39. Should a denuclearization agreement with North Korea be reached, Germany stands ready to mobilize and make available its expertise on the fuel cycle along the enrichment path for verification purposes. Furthermore, should an agreement be reached, Germany believes that IAEA must play an essential role in verifying North Korea's nuclear programme and therefore made extrabudgetary contributions to IAEA in order to maintain and enhance the readiness of its North Korea team.

B. Strengthening safeguards, strengthening the International Atomic Energy Agency

40. Germany is fully committed to respecting and implementing the obligations under the Non-Proliferation Treaty regarding nuclear-non-proliferation. The IAEA safeguards system fundamentally contributes to ensuring that those non-proliferation objectives can be verifiably met. The non-diversion of nuclear material and the absence of undeclared nuclear material and nuclear-related activities can best be verified in States that have both a comprehensive safeguards agreement and an additional protocol in place. The application of the comprehensive safeguards agreement combined with the additional protocol is therefore regarded as the current international verification standard.

41. Germany applies IAEA safeguards to all nuclear activities and nuclear material in Germany on the basis of the comprehensive safeguards agreement of 1977 and the additional protocol, which entered into force in 2004. In cooperation with the European Atomic Energy Community (EURATOM), IAEA safeguards inspections take place regularly and are fully facilitated by the competent German authorities. During the COVID-19 crisis of 2020, the Federal Government ensured continued access for IAEA and EURATOM inspectors to German nuclear facilities, as requested.

42. Germany is an active promoter of the universalization of the current verification standard around the globe and calls upon all States that have not yet done so to conclude both a comprehensive safeguards agreement and an additional protocol without delay, and to implement those agreements provisionally pending their entry into force. Germany strongly encourages States with a small quantities protocol in place to either amend it without delay or rescind it and apply the comprehensive safeguards agreement in full. These points are regularly raised in national and European Union declarations at relevant IAEA and United Nations forums, as well as in bilateral consultations, where appropriate. Also, as a member of the informal "Friends of the additional protocol" group chaired by Japan, Germany is engaged with other IAEA members in order to promote universal application of the additional protocol and to further strengthen safeguards worldwide.

43. Germany is fully committed to upholding obligations under the Treaty regarding nuclear-non-proliferation. That includes strong support for ensuring the integrity of the IAEA safeguards system. It is important for safeguards questions to be addressed and clarified in a timely and complete manner. Germany fully supports the IAEA mandate in that regard. This requires swift and full cooperation with IAEA by the States concerned, including by granting the access the Agency requests, in accordance with applicable safeguards obligations.

44. Germany has consistently underlined this commitment at the IAEA Board of Governors and the IAEA General Conference. This included safeguards in Syria and Iran, and the case of North Korea. In order to enable the continuity of safeguards application all over the world during the COVID-19 crisis of 2020, Germany actively facilitated the free movement of IAEA inspectors and staff for travel through German territory at all times. Germany supports international efforts aimed at enhancing the effective and efficient application of safeguards. In that context, Germany commends the progress made by IAEA in developing and implementing the State-level approach.

45. Germany pays the fourth-largest annual contribution to the regular budget of IAEA. In addition, Germany has provided voluntary contributions each year, inter alia to support the Agency's safeguards activities. Since 2015, Germany has spent 3.4 million euros for the renovation and modernization of the IAEA Safeguards Analytical Laboratory in Seibersdorf (Renovation of the Nuclear Applications Laboratories (ReNuAL) project).

46. As early as in 1978, IAEA and the Federal Republic of Germany formally established the Joint Programme on the Technical Development and Further Improvement of IAEA Safeguards, also referred to as the German Support Programme. The overall aim is to cooperate with IAEA in developing state-of-the-art methods and techniques, to ensure the implementation of the developed methods and techniques, and to provide training, expert advice and consultancy on safeguards issues and provide cost-free experts or junior professional officers for the Agency's staff. Cooperation with other Member State support programmes, with the support programme of the European Union and with international organizations to promote safeguards techniques and methods is part of the German Member State support programme to advance IAEA safeguards. With more than 40 years of experience in safeguards research and development, and with the appropriate research networks, Germany will continue to support IAEA.

47. Altogether, including ReNuAL, Germany has supported IAEA Department of Safeguards financially and with in-kind contributions to the tune of approximately 8.5 million euros since 2015 beyond the latter's Iran-related activities (see above).

C. Effective export controls

48. Germany is convinced that export controls are of utmost importance for comprehensively and sustainably ensuring the non-proliferation of weapons of mass destruction and their means of delivery. Germany is strongly committed to multilateral export control approaches and actively contributes to existing international export control regimes.

49. As an active member of the Nuclear Suppliers Group, Germany organizes its export licensing procedure in accordance with the objectives and conditions of the Nuclear Suppliers Group guidelines. Germany thus strictly complies with the fundamental principles for safeguards and export controls in connection with nuclear transfers for peaceful purposes to any non-nuclear weapon State and, in the case of controls on retransfers, to any State. Germany exercises a policy of restraint with respect to transfers of sensitive facilities, equipment, technology and material which could potentially be used for nuclear weapons or other nuclear explosive devices. Moreover, Germany pursues a "catch-all" approach with regard to export controls, which includes the control of non-listed but potentially sensitive items.

50. Germany has comprehensive legislation to ensure the effective implementation of the Nuclear Suppliers Group Guidelines, including export licensing regulations, enforcement measures and penalties for violations. Within the Nuclear Suppliers Group, Germany is also working to further develop and improve the Guidelines, their implementation and nuclear-weapon-related export controls and supports other States in strengthening their export control mechanisms through technical outreach assistance.

51. In accordance with the Nuclear Suppliers Group Guidelines, Germany transfers items and technology included on the trigger list to a non-nuclear-weapon State only on condition that the receiving State has brought into force an agreement with IAEA requiring the application of safeguards on all source and special fissionable material to its current and future peaceful activities. In accordance with the Nuclear Suppliers Group Guidelines, Germany also always takes into account whether the receiving State has brought into force such an agreement with IAEA when authorizing transfers of other items and technology that could constitute a major contribution to a nuclear explosive activity.

D. Security and physical protection

Ensuring the highest standards of security and physical protection

52. Aiming to maintain the highest possible standards of security and physical protection of nuclear materials, Germany maintains a comprehensive and well-functioning nuclear legislative and regulatory framework in line with its international obligations. All aspects and stages of nuclear-related activities in Germany are subject to supervision by specialized government agencies, thus ensuring that nuclear materials, facilities and transports are protected from malicious acts and illegal interference at any time.

53. Germany applies the IAEA recommendations on the physical protection of nuclear material and nuclear facilities (INFCIRC/225/Rev.4 (Corrected)), as well as other relevant international instruments. Germany notably adheres to the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, including the annexes and the Amendment thereto. Germany has been a party to the Convention since 1991, and deposited its instrument of acceptance of the 2005 Amendment to the Convention in 2010. The latter entered into force through national legislation on 8 May 2016. Germany actively supported international efforts to obtain the quorum for the Convention's international entry into force and continued to support its universalization. Germany applies the IAEA Code of Conduct on the Safety and Security of Radioactive Sources in all its aspects as well as the Guidance on the Import and Export of Radioactive Sources.

Combating illicit trafficking and nuclear terrorism

54. Germany ratified the International Convention for the Suppression of Acts of Nuclear Terrorism in 2007 and has since supported its universalization. Germany continuously evaluates and adapts its well-established national framework to detect, deter and disrupt illicit trafficking in nuclear materials and to prevent the proliferation of nuclear weapons in line with applicable international conventions and the IAEA nuclear security and non-proliferation framework.

55. Germany continued to actively foster international radiological and nuclear security cooperation through various multilateral and bilateral formats. In particular, Germany made several voluntary contributions to the IAEA Nuclear Security Fund, contributed to the development of guidance in the Nuclear Security Series, and co-organized IAEA workshops and training courses, including a large-scale technical conference on computer security approaches and applications in nuclear security held at the Federal Foreign Office in Berlin in 2019. Germany has successfully made use of IAEA advisory and peer review services, in particular an International Physical Protection Advisory Service mission to Germany, which was conducted in 2017.

56. Since 2012, domestic law enforcement and customs reporting on nuclear and radiological security matters has been conducted through a specialized chemical, biological, radiological and nuclear incident scheme. In order to sustain Germany's

response capacity to radiological and nuclear security events, domestic training and exercises, and information-sharing meetings among all relevant authorities continued to be held on a regular basis. Germany has taken part in information sharing by making active use of the IAEA Incident and Trafficking Database. Germany also cooperated within the frameworks of the radiological and nuclear terrorism programme of the International Criminal Police Organization (INTERPOL) and the European Bomb Data System and the European Explosive Ordnance Disposal Network of the European Union Agency for Law Enforcement Cooperation, all of which address illicit uses of nuclear or other radioactive materials, among other things.

57. Germany is a long-standing funding member of the Group of Seven Global Partnership against the Spread of Weapons and Materials of Mass Destruction. Following the successful finalization of its Global Partnership nuclear security projects in Russia and Belarus, Germany continued its engagement with the Global Partnership by launching new multiannual nuclear security projects in Ukraine. Since 2015, Germany has allocated approx. 9.5 million euros for enhancing the physical protection of two Ukrainian nuclear power plants and is planning to soon expand its Global Partnership nuclear security programmes to additional countries. Germany actively supported the Global Initiative to Combat Nuclear Terrorism by participating in several of the Initiative's exercises and by attending its plenary meetings in Helsinki, Finland, in 2015, in Tokyo, Japan, in 2017, and in Buenos Aires, Argentina, in 2019. Germany played an active part in the Nuclear Security Summit process. As a "gift basket" for the last summit held in 2016 in Washington, Germany hosted a large-scale international workshop on the safety and security of radioactive sources at the Federal Foreign Office in Berlin. Since then, Germany has regularly participated in meetings of the Nuclear Security Contact Group.

58. Germany actively supports IAEA activities to assist States parties in strengthening their national regulatory controls of nuclear material. Through its contributions to the IAEA Nuclear Security Fund, Germany has financed projects in various Member States to increase the physical security of nuclear materials and radioactive sources, and to improve the nuclear security detection architecture for materials out of regulatory control.

IV. Peaceful uses of nuclear energy, science and technology

59. Germany is committed without reservation to the inalienable right of all States parties to the Non-Proliferation Treaty to peacefully make use of nuclear energy, science and technology in conformity with their international obligations under articles I, II and III of the Treaty and in line with IAEA verification standards to safeguard non-proliferation for peaceful purposes. As the third pillar is a major cornerstone of the Treaty, it is our firm belief that its sustainable implementation reinforces the overall structure of the Treaty and should serve as motivation to effectuate similarly positive developments in other areas of the Treaty as well.

A. Expanding cooperation

60. Germany commends and fully supports the valuable work of IAEA, notably in the framework of the Agency's technical cooperation programme and Peaceful Uses Initiative as effective means of globally propagating the benefits of nuclear technology, which helps many countries meet their development needs and reach the Sustainable Development Goals set out in the 2030 Agenda for Sustainable Development. Germany is a major extra-budgetary contributor to the IAEA Technical Cooperation Fund.

61. Germany substantially contributed to modernizing the IAEA nuclear applications laboratories in Seibersdorf and – together with South Africa – is co-chairing the Friends of ReNuAL group.

62. In the framework of the Peaceful Uses Initiative project Coordination Group for Uranium Legacy Sites, we give expert advice concerning the remediation of legacy waste, especially in Central Asia.

63. Germany strongly supports the non-power applications of nuclear science and technology as they improve the lives of people all over the world. That is why Germany continues to contribute to nuclear science applications in fields such as health, environmental protection, water, food and agriculture.

64. Nuclear science also plays an essential role in fundamental research in physics, which provides the basis for the continuous advancement of applications that promise to provide new benefits for mankind in the future. At the Technical University in Munich, the FRM II research neutron source is one of the most powerful and advanced neutron sources in the world. The neutrons produced are used for the production of radioisotopes for medicine, for industry – e.g. to examine the stress in railway lines – and for research. With DESY, the German Electron Synchrotron, Germany hosts one of the world's leading centres for accelerator physics. Germany is also the largest contributor to the European Organization for Nuclear Research.

65. Within the framework of technical cooperation, Germany welcomes fellows from many countries for scientific visits each year as well as for longer term traineeships in fields such as nuclear medicine, hydrological isotope analysis and non-destructive testing for industrial uses or the management of nuclear waste. In order to gain and reaffirm the interest of young scientists in nuclear safety and waste management research, also spanning the entire fuel cycle, Germany is preparing intensified action in education, training and research, as well as in career prospects, international networking and economic cross-border activities and societal anchoring.

66. Germany fully supports a multilateral approach to the nuclear fuel cycle, ensuring that high standards of safety, security and safeguards are implemented to protect the collective non-proliferation interests of the parties to the Treaty. Germany welcomes the establishment of the IAEA low enriched uranium bank in 2019.

B. Ensuring nuclear safety and security

67. Seeing that the benefits of nuclear technology lie in a wide variety of applications beyond nuclear power generation, Germany stresses the need for all nuclear uses to be subject to the highest standards of safety and security. Germany strongly supports the role of IAEA in advancing nuclear safety standards and security guidelines. In addition to its support for IAEA as the fourth-largest IAEA budget contributor, Germany has spent more than 14.3 million euros on bilateral safety and security projects since 2015.

68. Germany strongly supports the relevant conventions in that regard: the Convention on Nuclear Safety, the Convention on Early Notification of a Nuclear Accident, the Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency, and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

69. Germany highly values the central role of IAEA in the global nuclear security architecture. Both bilaterally, as the fourth-largest contributor to the IAEA budget,

and through the European Union, Germany continues to support the valuable work of IAEA through contributions to the Nuclear Security Fund.

70. Germany strongly supports the conventions in that area, notably the Convention on the Physical Protection of Nuclear Material and Nuclear Facilities, and the International Convention for the Suppression of Acts of Nuclear Terrorism. Our contributions focus particularly on the protection of radioactive sources and nuclear materials and facilities, and the protection of nuclear infrastructure against cyberattacks.

71. Our long-standing Member State support programme for Agency safeguards is one of the oldest (over 40 years) and most active ones, thereby contributing technically and financially to efficient and effective IAEA safeguards.