

Mid to Long-term Objectives Comparative Table of the National Institutes for Quantum and Radiological Science and Technology (Draft)

Red letters/underlined parts are the revised parts.

Mid to long-term objectives (Proposed revision)	Current mid to long-term objectives	Remarks (reason)
<p style="text-align: center;">Table of Contents</p> <p>(Omitted)</p> <p>III. Matters Concerning to Maximization of the Achievements of R&D and the Improvement of Quality of Any Other Operations</p> <p>1. Research and development concerning quantum science and technology and concerning radiology</p> <p>(Omitted)</p> <p>2. Popularization of achievements, explained in an easy-to-understand manner, of the research and development, and promotion of utilization of the achievements</p> <p>3. Promotion of research and development through international cooperation and government-industry-academia collaboration</p> <p>4. Functions to be assumed as a public organization</p> <p>(1) Function as a core institution to take measures against nuclear disasters and to perform radiation protection</p> <p>(2) Contribution to reconstruction and revitalization of Fukushima</p> <p>(3) Nurturing of human resources</p> <p>(4) Promotion of utilization of facilities and equipment</p> <p><u>(5) Establishment and etc. of the next-generation synchrotron radiation facilities by the regional public-private partnership</u></p> <p>(Omitted)</p> <p><u>* Businesses from III.1. (1) to (5) and from III.2 to 4. shall be a certain group of businesses.</u></p> <p>I . Position and Role of the Quantum Science and Technology Agency under the Policy System (Omitted)</p>	<p style="text-align: center;">Table of Contents</p> <p>(Omitted)</p> <p>III. Matters Concerning to Maximization of the Achievements of R&D and the Improvement of Quality of Any Other Operations</p> <p>1. Research and development concerning quantum science and technology and concerning radiology</p> <p>(Omitted)</p> <p>2. Popularization of achievements, explained in an easy-to-understand manner, of the research and development, and promotion of utilization of the achievements</p> <p>3. Promotion of research and development through international cooperation and government-industry-academia collaboration</p> <p>4. Functions to be assumed as a public organization</p> <p>(1) Function as a core institution to take measures against nuclear disasters and to perform radiation protection</p> <p>(2) Contribution to reconstruction and revitalization of Fukushima</p> <p>(3) Nurturing of human resources</p> <p>(4) Promotion of utilization of facilities and equipment</p> <p><u>(Newly set)</u></p> <p>(Omitted)</p> <p><u>(Newly set)</u></p> <p>I . Position and Role of the Quantum Science and Technology Agency under the Policy System (Omitted)</p>	<p>Clarifying the certain group of businesses (the square bracket at left hand)</p> <p>Addition of the description on establishment and etc. of the next-generation synchrotron radiation facilities by the regional public-private partnership</p> <p>Clarifying the certain group of businesses</p>

Mid to long-term objectives (Proposed revision)	Current mid to long-term objectives	Remarks (reason)
<p>II . Period for Mid to Long-term Objectives (Omitted)</p> <p>III. Matters Concerning to Maximization of the Achievements of R&D and the Improvement of Quality of Any Other Operations</p> <p>1. Research and development concerning quantum science and technology and concerning radiology</p> <p>(1) Grant-in-aid research and creative R&D of quantum science technologies (Omitted)</p> <p>(2) Research and development for the innovative medical use of the radiation (Omitted)</p> <p>(3) Research on influence by radiation, and radiation medicine (Omitted)</p> <p>(4) Research and development for the application of quantum beam</p> <p>In order to promote the creation of scientific and technological innovation and thus to contribute to the promotion of science and technology, academics and industry, the Agency will use not only the facilities possessing accelerators and lasers including the ion irradiation research facility (TIARA) and the high-intensity laser generator (J-KAREN) but also the quantum beam facilities inside and outside the Agency, solving essential problems in the areas of substance and material science, life science, and industrial application, and thus performing advanced research having a high impact economically and socially, using quantum beams, thereby bringing about innovation. In addition, in order to promote the creation of the achievements in these areas, the Agency shall conduct leading research using comprehensively the best functions of quantum beams, developing state-of-the-art technology relating to the generation, control and use of beams such as charged particles and photons.</p> <p><u>Furthermore, as the national entity to promote establishment and operation of the high-brightness 3GeV class synchrotron radiation source favorable for soft-X-rays (hereinafter “the next-generation synchrotron radiation facility”), which is expected to be much needed both by academic and industrial use, the Agency shall conduct R&D for establishment and etc. of the next-generation synchrotron radiation facilities.</u></p>	<p>II . Period for Mid to Long-term Objectives (Omitted)</p> <p>III. Matters Concerning to Maximization of the Achievements of R&D and the Improvement of Quality of Any Other Operations</p> <p>1. Research and development concerning quantum science and technology and concerning radiology</p> <p>(1) Grant-in-aid research and creative R&D of quantum science technologies (Omitted)</p> <p>(2) Research and development for the innovative medical use of the radiation (Omitted)</p> <p>(3) Research on influence by radiation, and radiation medicine (Omitted)</p> <p>(4) Research and development for the application of quantum beam</p> <p>In order to promote the creation of scientific and technological innovation and thus to contribute to the promotion of science and technology, academics and industry, the Agency will use not only the facilities possessing accelerators and lasers including the ion irradiation research facility (TIARA) and the high-intensity laser generator (J-KAREN) but also the quantum beam facilities inside and outside the Agency, solving essential problems in the areas of substance and material science, life science, and industrial application, and thus performing advanced research having a high impact economically and socially, using quantum beams, thereby bringing about innovation. In addition, in order to promote the creation of the achievements in these areas, the Agency shall conduct leading research using comprehensively the best functions of quantum beams, developing state-of-the-art technology relating to the generation, control and use of beams such as charged particles and photons.</p> <p><u>(Addition)</u></p>	<p>Addition of the description on establishment and etc. of the next-generation synchrotron radiation facilities by the regional public-private partnership</p>

Mid to long-term objectives (Proposed revision)	Current mid to long-term objectives	Remarks (reason)
<p>(5) Research and development of nuclear fusion (Omitted)</p> <p>2. Popularization of achievements, explained in an easy-to-understand manner, of the research and development, and promotion of utilization of the achievements</p> <p>In order to deepen citizens' understanding on the significance of research and development concerning quantum science and technology, the Agency will publish appropriate and easy-to-understand information concerning the achievements expected by the above research and development and concerning the content given back to society.</p> <p><u>And the Agency shall promote practical application of the results in its R&D, and create innovation with this. Specifically,</u> regarding patents, the Agency will develop a guideline for the stages from application including review on marketability and feasibility at the time of domestic application, up to acquisition and possession of patent rights, promoting effective patent licensing at home and abroad. <u>In addition to that, the Agency shall provide investment and personnel and technical supports to the parties which utilize or intend to utilize such R&D results in an appropriate and timely manner.</u></p> <p>3. Promotion of research and development by industry-academia-government collaboration (Omitted)</p> <p>4. Functions to be assumed as a public organization</p> <p>(1) Function as a core institution to take measures against nuclear disasters and to perform radiation protection (Omitted)</p> <p>(2) Contribution to reconstruction and revitalization of Fukushima (Omitted)</p> <p>(3) Nurturing of human resources (Omitted)</p> <p>(4) Promotion of utilization of facilities and equipment (Omitted)</p> <p><u>(5) Establishment and etc. of the next-generation synchrotron radiation facilities by the regional public-private partnership</u></p> <p><u>As the national entity to promote establishment and operation of the next-generation synchrotron radiation facility, the Agency shall promote establishment and etc. of the next-generation synchrotron radiation</u></p>	<p>(5) Research and development of nuclear fusion (Omitted)</p> <p>2. Popularization of achievements, explained in an easy-to-understand manner, of the research and development, and promotion of utilization of the achievements</p> <p>In order to deepen citizens' understanding on the significance of research and development concerning quantum science and technology, the Agency will publish appropriate and easy-to-understand information concerning the achievements expected by the above research and development and concerning the content given back to society</p> <p>Regarding patents, the Agency will develop a guideline for the stages from application including review on marketability and feasibility at the time of domestic application, up to acquisition and possession of patent rights, promoting effective patent licensing at home and abroad.</p> <p>3. Promotion of research and development by industry-academia-government collaboration (Omitted)</p> <p>4. Functions to be assumed as a public organization</p> <p>(1) Function as a core institution to take measures against nuclear disasters and to perform radiation protection (Omitted)</p> <p>(2) Contribution to reconstruction and revitalization of Fukushima (Omitted)</p> <p>(3) Nurturing of human resources (Omitted)</p> <p>(4) Promotion of utilization of facilities and equipment (Omitted)</p> <p><u>(Newly set)</u></p>	<p>Addition of description on the works including investment</p> <p>Addition of the description on establishment and etc. of the next-generation synchrotron radiation facilities by the regional</p>

