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Pact for the Future

Chapter 3 Science, Technology and Innovation and Digital Cooperation

Comparison between Rev-1 and Rev-2



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Pact for the Future: Chapter 3 on Science, Technology and Innovation and Digital Cooperation

Comparison between Rev-1 and Rev-2

ABOUT: The [Zero Draft](#) of the Pact for the Future was released on January 26th, 2024, to initiate formal negotiations ahead of the Summit of the Future (SOTF) in September 2024. A chapter-by-chapter first reading in early February led to a compilation text, followed by a paragraph-by-paragraph second reading from late February to April. A revised [compilation text](#) was circulated on April 3rd, 2024 (refer [here](#) for the ICH bulletin #28 on the first and second readings). In line with the Membership's directive to make the Pact for the Future more concise and action-focused, [Rev-1](#) was released on May 14th, 2024 (refer [here](#) for the ICH bulletin #35 comparing the Zero Draft and Rev-1). This was followed by the second revision, [Rev-2](#), on July 17th, 2024. This bulletin will focus on Chapter 3: Science, Technology, and Innovation and Digital Cooperation, comparing Rev-1 and Rev-2 in light of the compilation text to provide detailed insights.

EXECUTIVE SUMMARY:

The recent revisions (Rev-2) introduce several significant updates that broaden and refine the approach to science, technology, and innovation (STI). The revised version emphasizes the importance of international cooperation, shifting focus from immediate actions to **collaborative efforts** to maximize STI benefits. It expands the scope to address disparities both **within and between** developed and developing countries, including broader targets such as **hunger, food security, education, and social protection**. Gender equality receives increased attention, with Rev-2 addressing gender divides, including the gender digital divide, signaling a deeper commitment to tackling gender-based disparities in STI. The language has been updated to specify "**meaningful access**" to critical technologies, reflecting a commitment to ensure that all people benefit from technological advancements. Stakeholder engagement is broadened to include **technical, academic, and civil society groups**, promoting a more inclusive approach. The role of digital and emerging technologies, including AI, is highlighted as crucial for sustainable development. The language has been simplified to emphasize innovation, access, and trust, and now broadly calls for **increased capacity-building** in STI by developed and **capable developing countries** for the benefit of developing countries, without specifying the types of support. Rev-2 places a greater emphasis on human rights than Rev-1. It strengthens human rights language and extends protections to include indigenous and local communities, as well as **traditional afro-descendant populations**, thereby enhancing the inclusivity of the framework. It also specifies comprehensive financing for research and infrastructure and shifts focus to directly supporting national governments. These changes reflect a commitment to a more sustainable, equitable, and inclusive approach to STI.

DISCLAIMER: This bulletin aims to provide recent updates and is not a complete summary or official record of the SOTF proceedings. It has been prepared independently and does not necessarily represent the viewpoints of any collaborating organizations. For further details, please reach out to Fergus Watt at ferguswatt6@gmail.com. The content is freely distributed as it is not copyrighted.

HEADLINES:

- **International Cooperation Emphasized:** Rev-2 stresses international cooperation as essential for maximizing STI benefits, shifting focus from immediate action to collaborative efforts.
- **Broadened Scope on Disparities:** The update includes "within and between developed and developing countries," highlighting the need to address both inter-country and intra-country disparities.
- **Enhanced Access Language:** Rev-2 specifies "meaningful access" to critical life-changing technologies, replacing the broader term used in Rev-1.
- **Expanded Stakeholder Engagement:** Rev-2 expands the list of stakeholders to include technical, academic communities, and civil society, indicating a more inclusive approach.
- **Digital and Emerging Technologies:** Rev-2 emphasizes the role of digital and emerging technologies, including artificial intelligence, in enabling sustainable development.
- **Emphasis on Present and Future Benefits:** Rev-2 shifts from focusing solely on future progress to addressing benefits for both today and the future, including a commitment to a "sustainable digital future."
- **Introductory Language Change:** The introductory phrase shifts from "We agree to" to "We decide to," indicating a stronger commitment.
- **Expanded Scope in Collaboration:** Rev-2 replaces "multidisciplinary" with "multi- and transdisciplinary" collaboration, broadening the approach to include various fields.
- **Enhanced Talent Mobility Strategy:** Adds "including through educational programs" and revises language to support both educational and working conditions for talent retention.
- **Specific Reference to Hunger and Inequalities:** Rev-2 explicitly includes addressing "hunger" and "reducing inequalities" as key targets. It changes "food and nutrition" to "food security and nutrition," providing a more specific focus on food security. Additionally, it expands the range of sectors addressed by adding "education" and "social protection" as new areas of focus.
- **Expanded Financing Scope:** Rev-2 specifies financing from all sources for scientific research and infrastructure, with a focus on increasing research cooperation, especially in developing countries.
- **Strengthened Intellectual Property Rights:** Shifts focus from "applying flexibilities" to upholding intellectual property rights to support sustainable development in developing countries.
- **Stronger Human Rights Commitment** Rev-2 introduces stronger language on human rights, replacing "threaten human rights" with "adversely impact human rights," and emphasizing a commitment to fully respect them. The revised version broadens the approach from merely "upholding human rights" to actively "promoting, protecting, and fulfilling all human rights," including the "right to development." This reflects a more comprehensive and proactive stance on human rights issues.
- **Enhanced Gender Focus:** Highlights the impact of STI on gender equality, addresses the "gender digital divide," and expresses concern about gender inequalities, expanding beyond previous focus on risks to women and girls.
- **Scope Expansion:** Rev-2 emphasizes "full" access to employment and research opportunities, adding "mathematics and engineering" alongside science and technology, and introduces new risks such as trafficking in persons and all forms of gender-based violence.
- **Broader Protection:** Rev-2 includes terms like 'protect,' 'indigenous,' and 'local communities and traditional afro-descendant populations,' expanding the scope of protection but omitting the term 'knowledge.'
- **Enhanced Focus:** The scope is broadened with terms like "systems" and "practices," and the clause on identifying and mitigating risks from Rev-1 is removed.
- **Revised UN Role:** Rev-2 uses "important role" instead of "critical role" for the UN's involvement in STI, reflecting a slightly less emphasized stance. It also uses more neutral language, replacing "welcomes" with "takes note of" the establishment of the UN's Scientific Advisory Board.

- **Support for Governments:** Rev-2 shifts focus to directly supporting national governments rather than just strengthening UN Country Teams' capacities.

METHODOLOGY:

This bulletin will focus on Chapter 3, comparing Rev-1 and Rev-2 in light of the compilation text. It will identify key terminology and language changes that were removed, modified, maintained, or added in Rev-2. The table will have four columns: the first column will display the original Zero Draft content, the second will show Rev-1 content, the third will present Rev-2 content, and the fourth will contain the author's observations on content changes between Rev-1 and Rev-2. Additionally, in the 'Author's Observations' column, it explains the content's journey from Rev-1 to Rev-2, detailing whether content was maintained, modified, removed, or added. New or revised content in Rev-2 is highlighted in **Yellow**, while content removed is marked in **Red** for reference.

RESOURCES:

1. [Rev-2 of the Pact of the Future](#)
2. [Rev-1 of the Pact of the Future](#)
3. [Compilation text \(as of 3 April 2024\)](#)
4. [Zero draft of the Pact for the Future](#)

Comparison

Comparison between Zero Draft and Rev-1			
Zero Draft (January 2024)	Rev-1 (14 May 2024)	Rev-2 (17 July 2024)	Author's observation
<p>91. We acknowledge the contribution of science, technology and innovation to sustainable development and as a critical source of economic growth and industrial development. We recognize that rapid technological change, in particular, can contribute to the faster achievement of the 2030 Agenda by improving real incomes, enabling faster and wider deployment of novel solutions, supporting more inclusive forms of participation and more sustainable modes of production, and giving policymakers powerful planning tools.</p>	<p>30. Science, technology and innovation have the potential to accelerate the realization of the United Nations' aspirations across all three pillars of its work. We will only realize this potential if we act now to harness the benefits and take bold and ambitious steps to bridge the growing divide between developed and developing countries. There are too many people in our world, especially the poorest and most vulnerable in developing countries, that do not have access to critical life-changing technologies. If we are to make good on our promise to leave no one behind, science and technology cannot be the preserve of the few. Innovations that can make our planet more sustainable and our countries more prosperous should be shared by all of humanity.</p>	<p>48. Science, technology and innovation have the potential to accelerate the realization of the United Nations' aspirations across all three pillars of its work. We will only realize this potential through international cooperation to harness the benefits and take bold ambitious and decisive steps to bridge the growing divide within and between developed and developing countries and accelerate progress on the 2030 Agenda. Too many people in our world, especially in developing countries, do not have meaningful access to critical life-changing technologies. If we are to make good on our promise to leave no one behind, science, technology and innovation cannot be the preserve of the few. Innovations and scientific breakthrough that can make our planet more sustainable and our countries more prosperous and resilient should be affordable and accessible to all.</p>	<p>Rev-2 explicitly emphasizes international cooperation as essential for harnessing the benefits of STI, while Rev-1 focuses on "acting now" to realize this potential.</p> <p>Rev_2 replaces "bold and ambitious steps" with "bold ambitious and decisive steps."</p> <p>In Rev-2, the language is updated to include the words "within and between developed and developing countries" and "accelerate progress on the 2030 Agenda," reflecting suggestions from several members for a change based on compilation text. This adjustment emphasizes the importance of addressing disparities not only between different countries but also within individual countries.</p> <p>Rev_2 removes the words the poorest and most vulnerable and simplifies it to "especially in developing countries."</p> <p>Rev-1 uses the phrase "do not have access to critical life-changing technologies," while Rev-2 adds "do not have meaningful access to critical life-changing technologies."</p> <p>Both versions emphasize that science and technology should not be exclusive. However, Rev-2 revises the language from 'more prosperous should be shared by all of humanity' to 'more prosperous and resilient should be affordable</p>

			<p>and accessible to all in reference to innovations and scientific breakthroughs.</p>
<p>92. We undertake to increase the use of science and scientific evidence in policymaking. We recognize that solutions to complex global challenges call for cross- and trans-disciplinary collaboration and a strong science-policy-society interface in order to build trust in science. We encourage the United Nations system to take an active role in forging closer links with national and multilateral science advisory bodies to optimally leverage science, technology and innovation for the Sustainable Development Goals. We welcome the establishment of the Secretary-General's Scientific Advisory Board.</p>	<p>31. At the same time, we must responsibly manage the risks of science and technology, in particular the ways in which science, technology and innovation can perpetuate and deepen divides and patterns of discrimination and inequality within and between countries and threaten human rights. We will deepen our partnerships with relevant stakeholders, especially the international financial institutions, the private sector and academia, and we will ensure science, technology and innovation is a catalyst for a more sustainable, secure and prosperous world.</p>	<p>49. At the same time, we must responsibly manage the potential risks posed by science and technology, in particular the ways in which science, technology and innovation can perpetuate and deepen divides, in particular gender divides, and patterns of discrimination and inequality within and between countries and adversely impact human rights. We will deepen our partnerships with relevant stakeholders, especially the international financial institutions, the private sector, the technical and academic communities, and civil society, and we will ensure science, technology and innovation is a catalyst for a more equitable, sustainable, and prosperous world for all, in which all human rights are fully respected.</p>	<p>Rev-2 explicitly adds gender divides, a concern proposed by many member states in the compilation text, when discussing the potential of science and technology to perpetuate inequality. This highlights a specific area of concern that is absent in Rev-1.</p> <p>Rev-2 replaces 'threaten human rights' with adversely impact human rights,' using stronger language to highlight the potential consequences of mismanaged STI. It also adds a concluding phrase emphasizing that all human rights should be fully respected.</p> <p>Rev-2 expands the list of stakeholders to include the technical and academic communities, and civil society, suggesting a broader stakeholder engagement. This implies a greater emphasis on inclusivity and a multi-sectoral approach to managing the risks of STI.</p> <p>Rev_2 removes the word secure and includes more equitable when describing the desired future world, suggesting a stronger focus on fairness and justice in how the benefits of STI are distributed. It also adds for all to further emphasize inclusivity.</p>

<p>93. We note with deep concern the existing disparities between developed and developing countries in terms of conditions, possibilities and capacities to produce new scientific and technological knowledge and to generate innovation.</p>	<p>32. Digital and emerging technologies, including artificial intelligence, are dramatically changing our world and offer huge potential for progress for people and planet in the future. We are determined to realize this potential and manage the risks through enhanced international cooperation. We have annexed a Global Digital Compact to this Pact in this regard</p>	<p>50. Digital and emerging technologies, including artificial intelligence, play a significant role as enablers of sustainable development and are dramatically changing our world. They offer huge potential for progress for the benefit of people and planet today and in the future. We are determined to realize this potential and manage the risks through enhanced international cooperation by promoting an inclusive, responsible and sustainable digital future. We have annexed a Global Digital Compact to this Pact in this regard.</p>	<p>Rev-2 adds the phrase play a significant role as enablers of sustainable development after mentioning digital and emerging technologies, including artificial intelligence.</p> <p>Rev-2 changes "progress for people and planet in the future" to "progress for the benefit of people and planet today and in the future." emphasizing benefits both today and in the future, whereas Rev-1 focuses solely on future benefits.</p> <p>Rev-2 includes additional language about promoting an inclusive, responsible, and sustainable digital future, expanding on the approach to managing risks compared to the more general mention in Rev-1.</p>
<p>94. We reaffirm that the creation, development and diffusion of innovations and new technologies and associated know-how, including the transfer of technology on mutually agreed terms, are powerful drivers of economic growth and sustainable development. We reiterate the need to accelerate the transfer of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed, and we note the importance of facilitating access to and sharing accessible and assistive technologies.</p>	<p>Action 25. We will seize the opportunities presented by science, technology and innovation for the benefit of people and planet.</p> <p>33. We will be guided by the principles of equity and solidarity, and promote the responsible and ethical use of science, technology and innovation. We agree to:</p> <p>(a) Foster an open, fair, inclusive and non-discriminatory environment for scientific and technological development and cooperation worldwide, including through actively building trust in science.</p>	<p>Action 30. We will seize the opportunities presented by science, technology and innovation for the benefit of people and planet.</p> <p>51. We will be guided by the principles of equity and solidarity, and promote the responsible and ethical use of science, technology and innovation. We decide to:</p> <p>(a) Foster and promote an open, fair, and inclusive environment for scientific and technological development and cooperation worldwide, including through actively building trust in science.</p>	<p>In the introductory sentence, Rev-2 changes "We agree to" to "We decide to".</p> <p>In point (a), Rev-2 adds promote, before an open, which means not just supporting but also actively encouraging the environment described. Additionally, the term non-discriminatory is removed in Rev-2, instead using only 'inclusive,' which simplifies the language and could broaden its scope.</p>

	<p>(b) Increase the use of science and scientific evidence in policy-making and ensure that complex global challenges are addressed through multidisciplinary collaboration, including the social sciences, arts and humanities.</p> <p>(c) Encourage talent mobility and circulation, and support developing countries to provide suitable working conditions and opportunities for their skilled workforce to retain talent and prevent a brain drain.</p>	<p>(b) Increase the use of science, scientific knowledge and scientific evidence in policy-making and ensure that complex global challenges are addressed through multi- and transdisciplinary collaboration.</p> <p>(c) Encourage talent mobility and circulation, including through educational programs, and support developing countries to retain talent and prevent a brain drain while providing suitable educational and working conditions and opportunities for the workforce.</p>	<p>In point (b), Rev-2 changes "multidisciplinary collaboration, including the social sciences, arts and humanities" to multi- and transdisciplinary collaboration.</p> <p>In point (c), Rev-2 adds including through educational programs to specify a strategy for encouraging talent mobility and circulation. Additionally, the language "provide suitable working conditions and opportunities for their skilled workforce to retain talent and prevent a brain drain" is revised to retain talent and prevent a brain drain while providing suitable educational and working conditions and opportunities for the workforce. This change broadens the support to include educational opportunities alongside working conditions.</p>
<p>95. We reaffirm the Beijing Declaration and Platform for Action, in which it is recognized that it is essential that all women not only benefit from technology, but also participate in the process from the design to the application, monitoring and evaluation stages. We pledge to harness the potential of technology and innovation to improve women's and girls' lives and to close the development divide and the digital divide,</p>	<p>Action 26. We will scale-up the means of implementation to strengthen their science, technology and innovation capacities.</p> <p>34. Science, technology and innovation are critical to support sustainable growth and accelerate the implementation of the 2030 Agenda. It is imperative that we bridge the</p>	<p>Action 31. We will scale up the means of implementation to strengthen their science, technology and innovation capacities.</p> <p>52. Science, technology and innovation are critical to support sustainable growth and accelerate the implementation of the 2030 Agenda. It is imperative that we collaborate to bridge the science, technology and</p>	<p>While Rev-1 focuses on bridging the gap, Rev-2 specifically highlights the need for collaboration to bridge the science, technology, and innovation gap both within and between developed and developing countries.</p>

<p>including the gender digital divide, as well as address the risks and challenges emerging from the use of technologies. We commit to addressing persistent barriers to equal access for women and girls to science, technology and innovation.</p>	<p>science, technology and innovation gap between developed and developing countries, particularly those in special situations. We agree to:</p> <p>(a) Ensure science, technology and innovation contributes to our efforts to eradicate poverty in all its forms and dimensions, including in the areas of food and nutrition, health, water and sanitation, energy, climate and environment.</p> <p>(b) Accelerate the transfer of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.</p> <p>(c) Build capacity in and scale up the development, deployment and sustainable</p>	<p>innovation gap within and between developed and developing countries, to support developing countries to harness science, technology and innovation to achieve sustainable development, particularly those in special situations. We reiterate the need to accelerate the transfer of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed. We decide to:</p> <p>(a) Ensure science, technology and innovation contributes to our efforts to eradicate poverty in all its forms and dimensions and hunger, and to reduce inequalities, in addition to areas such as of food security and nutrition, health, education, social protection water and sanitation, energy, climate and environment.</p> <p>(b) Increase capacity building efforts, in particular by developed countries and those developing countries in a position to do so, in science, technology and innovation.</p> <p>(c) Support the development, deployment and sustainable use of emerging and open-source technologies and support policies</p>	<p>Rev-2 adds the objective of supporting developing countries in their efforts to harness science, technology, and innovation to achieve sustainable development. Which was not explicitly stated in Rev-1.</p> <p>Additionally, In Rev-2, point (b) of Rev-1, which emphasizes accelerating the transfer of environmentally sound technologies to developing countries on favorable terms, including concessional and preferential terms, based on mutual agreements, has been moved to the introductory paragraph from point (b) of section 34 in Rev-1.</p> <p>Rev-2 broadens the scope by explicitly including hunger and reduce inequalities as key targets. It changes “food and nutrition” to “food security and nutrition,” providing a more specific focus on food security. Additionally, Rev-2 adds education and social protection as new areas of focus, expanding the range of sectors addressed.</p> <p>Rev-2 (b) broadly calls for increased capacity-building efforts by developed countries and other capable developing countries without specifying the types of support, which are detailed in Rev-1 (d) as specific forms of assistance from developed countries to developing countries.</p> <p>Rev-2 removes Build capacity in and scale up and includes the word Support. Further Rev-2 (c) adds a focus on “emerging and open-source technologies,” emphasizing technologies that are</p>
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	<p>utilization of emerging technologies for the achievement of the Sustainable Development Goals, especially by developing countries.</p> <p>(d) Call upon developed countries to assist developing countries in capacity-building in science, technology and innovation through policy exchanges, knowledge sharing, technical assistance, financing, joint international research and personnel training tailored to specific needs, policies and priorities of developing countries.</p> <p>(e) Strengthen North-South, and where capacities are available, South-South and triangular cooperation to build capacity for and improve access to science, technology and innovation, and to increase resources for the implementation of technical and scientific initiatives.</p> <p>(f) Scale up financing of relevant scientific research that supports sustainable development and increase opportunities for research cooperation.</p>	<p>towards open science and open innovation and know-how for the achievement of the Sustainable Development Goals, especially by developing countries.</p> <p>(d) Strengthen North-South cooperation, South-South and triangular cooperation to build capacity for and improve access to science, technology and innovation, and to increase resources for the implementation of technical and scientific initiatives.</p> <p>(e) Scale up financing from all sources for scientific research and research infrastructure that supports sustainable development and increase opportunities for research cooperation, especially in developing countries.</p>	<p>open-source. Additionally, it introduces support for policies towards open science, open innovation, and know-how, indicating an emphasis on policy frameworks that promote openness and innovation."</p> <p>In Rev-1, (e) there is a conditional clause where capacities are available, which specifies that South-South and triangular cooperation should be strengthened only where capacities exist. This clause is removed in Rev-2, suggesting unqualified support for both North-South and South-South and triangular cooperation.</p> <p>Rev-2 (e) broadens Rev-1 (f) by specifying financing from all sources for both scientific research and research infrastructure, with a particular emphasis on increasing research cooperation opportunities especially in developing countries.</p>
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	<p>(g) Attract and support private sector investment in science, technology and innovation, and deepen public-private partnerships by fostering a conducive environment in developing countries that encourages investment and entrepreneurship and by ensuring that innovation can reach global markets.</p>	<p>(f) Attract and support private sector investment in science, technology and innovation, and deepen public-private partnerships by fostering a conducive environment in developing countries that encourages investment and entrepreneurship and promotes decent work, and by ensuring that innovation can reach global markets.</p> <p>(g) Promote resilient, and stable global supply chains and make scientific and technological products and services more accessible to all.</p>	<p>Rev-2 (f) adds the promotion of decent work as a specific goal within the conducive environment being fostered in developing countries.</p> <p>Point (g) in Rev-2 is an additional inclusion not found in Rev-1, introduced in response to numerous member states stressing its importance during intergovernmental negotiations under operational paragraph 94 of the zero draft (source: compilation text)</p>
<p>96. We recognize the need to mobilize and scale up the means of implementation, including financing, for science, technology and innovation, especially in developing countries, in support of the Sustainable Development Goals.</p>	<p>Action 27. We will uphold intellectual property rights and apply flexibilities when we can to support developing countries achieve sustainable development.</p> <p>35. We recognize the importance of intellectual property rights to progress on science, technology and innovation. We agree to:</p> <p>(a) Protect and enforce intellectual property rights to build trust and encourage and</p>	<p>Action 32. We will uphold intellectual property rights to support developing countries achieve sustainable development.</p> <p>53. We recognize the importance of intellectual property rights to progress on science, technology and innovation. We decide to:</p> <p>(a) Protect and enforce intellectual property rights to promote technological innovation, build trust and contribute to the transfer and</p>	<p>Rev-2 removes the mention of apply flexibilities from Rev-1 and specifically emphasizes upholding intellectual property rights to support developing countries in achieving sustainable development.</p> <p>Rev-2 reorders and simplifies the language, focusing on promoting technological innovation and contributing to the transfer and dissemination of technology, while removing the word</p>

	<p>enhance the transfer, promotion and dissemination of technological innovation, on mutually agreed terms.</p> <p>(b) Apply the flexibilities enshrined in relevant international legal obligations in the field of intellectual property rights, where applicable, to enable developing countries to deploy technological innovations.</p>	<p>dissemination of technology on mutually agreed terms.</p> <p>(b) Uphold the agreements enshrined in relevant international legal obligations related to trade and intellectual property rights, including the right of Member States to use the flexibilities contained therein, to facilitate access for developing countries to scientific and technological innovations.</p>	<p>promotion and placing “building trust” as a secondary focus.</p> <p>Rev-2 adds terms like uphold the agreements, and facilitate access to scientific and technological innovations and removes the specific focus on deploying technological innovations. While Rev-2 broadens the scope to include trade-related obligations and emphasizes access to innovations, whereas Rev-1 is more focused on specific flexibilities for technological deployment.</p>
<p>97. We resolve to take action to enhance the ability of developing countries to benefit from science, technology and innovation. We commit to addressing the major structural impediments to accessing new and emerging technologies, including by scaling up the use of open science, affordable and open-source technology, research and development.</p>	<p>Action 28. We will ensure that science, technology and innovation contribute to the full enjoyment of human rights by all.</p> <p>36. We recognize the opportunities and risks presented by science, technology and innovation to upholding human rights. We agree to:</p> <p>(a) Ensure that all scientific and technological research is conducted in a responsible manner that respects human rights, and protects the autonomy, freedom and safety of scientific researchers.</p>	<p>Action 33. We will ensure that science, technology and innovation contribute to the full enjoyment of human rights by all.</p> <p>54. We recognize the opportunities and risks presented by science, technology and innovation to promoting, protecting and fulfilling all human rights, including the right to development. We decide to:</p> <p>(a) Ensure that all scientific and technological research is conducted in a responsible and ethical manner that protects and promotes all human rights, and protects the autonomy, freedom and safety of scientific researchers.</p>	<p>Rev-2 broadens the scope from “upholding human rights” in Rev-1 to promoting, protecting, and fulfilling all human rights, with a specific addition of the right to development, indicating a more active and comprehensive approach.</p> <p>Rev-2 adds the word ethical in point (a) and changes “respects human rights” to protects and promotes all human rights.</p>

	<p>(b) Integrate a human rights-based perspective to norm-setting processes for new and emerging technologies.</p> <p>(c) Ensure that all marginalized groups benefit from and can participate in the development and application of science, technology and innovation.</p>	<p>(b) Integrate a human rights perspective into regulatory and norm-setting processes for new and emerging technologies and call on the private sector to respect human rights and uphold ethical principles in the development and use of new technologies.</p> <p>(c) Ensure that people in vulnerable situations benefit from and fully and meaningfully participate in the development and application of science, technology and innovation.</p> <p>(d) Seize on opportunities provided by new and emerging technologies to empower and advance equity for persons with disabilities.</p>	<p>Rev-2 adds regulatory before "norm-setting processes." It also introduces a new element by calling on the private sector to respect human rights and uphold ethical principles in the development and use of new technologies. This aspect was not present in Rev-1.</p> <p>Rev-2 point (c) broadens the focus by replacing from marginalized groups to people in vulnerable situations and further emphasizes by adding fully and meaningfully participating in the development and application of science, technology, and innovation.</p> <p>Point (d) in Rev-2 is an additional inclusion not found in Rev-1. It was introduced in response to calls from several member states, based on the compilation text of operational paragraph 97 of the zero draft.</p>
<p>98. We aim to increase funding for research and innovation related to the Sustainable Development Goals and build capacity in all regions to contribute to and benefit from this research.</p>	<p>Action 29. We will ensure that science, technology and innovation improve gender equality and the lives of all women and girls.</p> <p>37. We are gravely concerned that rapid technological change can exacerbate existing gender inequalities and present serious risks to all women and girls. We agree to:</p>	<p>Action 34. We will ensure that science, technology and innovation improve gender equality and the lives of all women and girls.</p> <p>55. Science, technology and innovation can improve gender equality and women's and girls' lives. We are gravely concerned about the gender digital divide and that rapid technological change can exacerbate existing gender inequalities and</p>	<p>Rev-2 highlights the positive impact of STI on gender equality, and add the gender digital divide, and expresses concern about gender inequalities, while Rev-1 only focuses on the risks to women and girls.</p>

	<p>(a) Address persistent barriers to equal and meaningful access to and participation and leadership in science, technology and innovation for all women and girls, including through improving educational opportunities for women and girls in these fields.</p> <p>(b) Address gender-related risks and challenges emerging from the use of technologies, including violence, harassment, bias and discrimination against all women and girls that occurs through, or is amplified by, the use of technology.</p>	<p>present serious risks to all women and girls. We decide to:</p> <p>(a) Address barriers to full equal and meaningful access to and participation and leadership in science, technology and innovation for all women and girls, including through improving education, employment and research opportunities for women and girls in science, technology, innovation, mathematics and engineering.</p> <p>(b) Address gender-related risks and challenges emerging from the use of technologies, including all forms of gender-based violence, trafficking in persons, harassment, bias and discrimination against all women and girls that occur through, or are amplified by, the use of technology.</p>	<p>Rev-2 (a) removes the word persistent and expands the scope by emphasizing full access, adding employment and research opportunities, and additional addition by specifying mathematics and engineering alongside science and technology.</p> <p>Rev-2 adds trafficking in persons as an additional risk and specifies all forms of gender-based violence, broadening the scope compared to the general "gender-related risks" mentioned in Rev-1.</p>
<p>99. We support calls for sharing technologies and skills to solve the basic health issues of water, sanitation and food security.</p>	<p>Action 30. We will build on and complement traditional and local knowledge.</p> <p>38. We recognize the need for science, technology and innovation to be adapted and made relevant to local needs and circumstances, including the knowledge of Indigenous Peoples. We agree to:</p>	<p>Action 35. We will protect, build on and complement indigenous, traditional and local knowledge.</p> <p>56. We recognize the need for science, technology and innovation to be adapted and made relevant to local needs and circumstances, including Indigenous Peoples, local communities and traditional afro-descendant populations. We decide to:</p>	<p>Rev-2 adds protect and the term indigenous to broaden the scope.</p> <p>Rev-2 adds local communities and traditional afro-descendant populations, broadens the scope, but also removes the word knowledge.</p>

	<p>(a) Foster synergies between science and technology and traditional, local, afro-descendant and indigenous knowledge and capacities, while putting in place measures to identify and mitigate potential associated risks.</p>	<p>(a) Foster synergies between science and technology and traditional, local, afro-descendant and indigenous knowledge, systems, practices and capacities.</p>	<p>Rev-2 expands the scope by adding words like systems and practices alongside knowledge and capacities and removes the clause about risk identifying and mitigating potential risks, which was present in Rev-1. It is no longer explicitly mentioned in the Rev-2 document.</p>
<p>100. We recognize the importance of the creation of a conducive environment that attracts and supports private investment, entrepreneurship and corporate social responsibility, including an efficient, adequate, balanced and effective intellectual property framework, while encouraging access to science, technology and innovation by developing countries.</p>	<p>Action 31. We will support the Secretary-General to strengthen the United Nations' role in science, technology and innovation.</p> <p>39. We recognize the critical role of the United Nations in science, technology and innovation. We welcome the establishment of the Secretary-General's Scientific Advisory Board to provide independent scientific advice. We request the Secretary-General to:</p> <p>(a) Strengthen the United Nations' capacities to leverage science, technology and innovation in the work of the Organization, including futures thinking and foresight, and to monitor and measure ongoing global progress to bridge the science and technology gap between developed and developing countries.</p>	<p>Action 36. We will support the Secretary-General to strengthen the United Nations' role in science, technology and innovation.</p> <p>57. We recognize the important role of the United Nations in science, technology and innovation. We take note of the establishment of the Secretary-General's Scientific Advisory Board to provide independent scientific advice. We request the Secretary-General to:</p> <p>(a) Strengthen the United Nations' capacities to leverage science, technology and innovation in the work of the Organization, including futures thinking and foresight, and to monitor and measure ongoing global progress to bridge the science and technology gap within and between developed and developing countries.</p>	<p>Rev-1 uses the term "critical role" to describe the UN's involvement in STI, whereas Rev-2 uses important role, which slightly lessens the emphasis on the UN's role. Additionally, Rev-2 replaces welcomes with takes note of, reflecting a more neutral stance.</p> <p>Rev-2 adds within and before "between developed and developing countries," expanding the scope to include disparities both among and within countries.</p>

	<p>(b) Explore ways to strengthen the capacity of United Nations Country Teams to support national governments in leveraging science and technology for sustainable development.</p>	<p>(b) Support national governments to leverage science and technology for sustainable development, including by strengthening the capacity and expertise of United Nations Country Teams.</p>	<p>In Rev-2, the focus is shifted to support national governments directly, rather than just exploring ways to strengthen the UN Country Teams' capacity.</p>
<p>101. We call upon the United Nations system to support the efforts of developing countries to develop and strengthen their national science, technology and innovation ecosystems. To facilitate these efforts, we welcome the Secretary-General's vision to work towards a UN 2.0 to increase the effectiveness of the Organization through enhancing capabilities in data analytics, digital transformation, strategic foresight, and results orientation.</p>			

The words or phrases that have been added, revised, or removed in Rev-2 are mentioned here in one place.

Words/phrases that are either add or revised

- International cooperation
- Within
- Accelerate progress on the 2030 Agenda,
- Meaningful
- Resilient
- Affordable and accessible
- Gender divides
- Adversely impact
- All human rights should be fully respected
- The technical
- Civil society
- More equitable
- All
- Play a significant role as enablers of sustainable development
- Benefit of
- Today
- Inclusive, responsible, and sustainable digital future
- We decide to
- Promote
- Multi- and transdisciplinary collaboration
- Including through educational programs
- Collaboration
- Harness science, technology, and innovation to achieve sustainable development
- Hunger
- Reduce inequalities
- Education
- Social protection
- Increased
- Other capable developing countries
- Open source

- Support for policies towards open science, open innovation, and know-how
- All sources
- Research infrastructure
- Especially in developing countries
- Decent work
- Uphold the agreements,
- Facilitate access
- Trade-related obligations
- Promoting, protecting, and fulfilling all human rights,
- The right to development,
- Ethical
- Protects and promotes all human rights.
- Regulatory
- Private sector to respect human rights and uphold ethical principles in the development
- People in vulnerable situations
- Fully and meaningfully
- Gender digital divide
- Full
- Employment and research opportunities
- Mathematics and engineering
- Trafficking in persons
- All forms of gender-based violence
- Protect
- Indigenous
- Local communities and traditional afro-descendant populations
- Systems
- Practices
- Important role
- Support national governments
- Security

Words/phrases that are removed

- Non-discriminatory
- The poorest and most vulnerable
- Build capacity in and scale up
- Where capacities are available
- Apply flexibilities
- Promotion
- Deploying technological innovations
- Marginalized groups
- Persistent
- Knowledge
- Measures to identify and mitigate potential associated risks
- Welcomes
- Takes note of
- Secure