



## **Information document from the Czech Republic**

### **OHCHR REPORT: HUMAN RIGHTS AND TECHNICAL STANDARD-SETTING PROCESSES FOR NEW AND EMERGING DIGITAL TECHNOLOGIES**

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#### **Purpose**

The Office of the United Nations High Commissioner for Human Rights has recently published its report analysing the relationship between technical standard-setting processes and human rights. Following an overview of the technical standard-setting landscape, the report discusses the relevance of technical standards for the enjoyment of human rights and examines challenges to integrating human rights considerations in technical standard-setting processes. It presents approaches to addressing the challenges identified, providing a set of recommendations for effective integration of human rights considerations in technical standard-setting processes.

The Czech Republic submits this document to inform the ITU Council and the ITU Membership on this topic.

#### **Action required by the Council**

This report is transmitted to the Council **for information**.

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#### **References**

Document [C23/49](#)

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## **1. Background**

ITU has submitted to the Council the document C23/49 on collaboration with the United Nations system and other international intergovernmental processes, including on standards development. Furthermore, the OHCHR has recently published its report A/HRC/53/42, which is the advanced unedited version of its report on human rights and technical standard-setting processes for new and emerging digital technologies. The text represents the official version of the report for the time being. It can go through minor editorial changes in the near future but all the facts and opinions should remain the same, following the information by the OHCHR responsible staff. The document can also be found at [https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/sessions-regular/session53/advance-versions/A\\_HRC\\_53\\_42\\_AdvanceUneditedVersion.docx](https://www.ohchr.org/sites/default/files/documents/hrbodies/hrcouncil/sessions-regular/session53/advance-versions/A_HRC_53_42_AdvanceUneditedVersion.docx).

The Czech Republic would therefore like to inform the ITU Council and the ITU Membership on these valuable documents.

## ***Annex: 1***

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Agenda items 2 and 3

**Annual report of the United Nations High Commissioner  
for Human Rights and reports of the Office of the  
High Commissioner and the Secretary-General**

**Promotion and protection of all human rights,  
civil, political, economic, social and cultural rights,  
including the right to development**

**Human rights and technical standard-setting processes for  
new and emerging digital technologies****Report of the Office of the United Nations High Commissioner for  
Human Rights\****Summary*

The present report, submitted pursuant to Human Rights Council resolution 47/23, analyses the relationship between technical standard-setting processes and human rights. Following an overview of the technical standard-setting landscape, the report discusses the relevance of technical standards for the enjoyment of human rights and examines challenges to integrating human rights considerations in technical standard-setting processes. It presents approaches to addressing the challenges identified, providing a set of recommendations for effective integration of human rights considerations in technical standard-setting processes.

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\* The present report was submitted after the deadline in order to reflect the most recent information.

## I. Introduction

1. This report is submitted pursuant to Human Rights Council resolution 47/23, which requested the Office of the United Nations High Commissioner for Human Rights “to convene an expert consultation to discuss the relationship between human rights and technical standard-setting processes for new and emerging digital technologies” and “to submit a report thereon, reflecting the discussions held in an inclusive and comprehensive manner, to the Human Rights Council at its fifty-third session.” The report reflects the outcomes of the expert consultation in Geneva on 15 February 2023<sup>1</sup> and the responses received to the call for inputs issued by OHCHR<sup>2</sup>.

2. HTTP, HTML, 4G, 5G, WiFi, Bluetooth, JPEG – these terms represent only a tiny share of the thousands of standards that undergird the digital tools used every day. Booting a computer and connecting it to the internet relies on the interplay of hundreds of standards. Today’s networked digital landscape could not have emerged without technical standards. Open internet protocols and related standards, largely developed and maintained in open multistakeholder processes, have been key to the success of the free and open global internet, enabling innovation at breath-taking speed and scale, global real-time communication and unprecedented possibilities for free expression and access to information, the development of new business models and economic growth. Technical standards enable telecommunications networks to operate worldwide, billions of devices to seamlessly interact, music and videos to be played on varied devices, and digital products to work across borders. In other words, technical standards shape how we exercise our economic, social, cultural, civil and political rights. Technical standards can facilitate or inhibit the exercise of rights depending on their design. Diverse participation throughout the stages of decision-making about technical standards may lead to better understanding of their impacts on people’s enjoyment of human rights, and ultimately technical standards that are more conducive to upholding human rights.

3. Section II of this report provides a definition of technical standards and explains the roles of the actors involved in their development. Section III illustrates the breadth of human rights impacts of technical standards and outlines the duties and responsibilities of standard-setting organizations (SSOs) and their stakeholders, including States. The obstacles to integrating human rights considerations in technical standard-setting are considered in Section IV, followed by a presentation of actions that can strengthen the ways human rights can be promoted via standard-setting processes in Section V. The final section summarizes the findings of the report and outlines key recommendations for the way forward.

## II. Technical standard-setting landscape

### A. Definition of standards

4. The term “standard” refers to a method of doing something in an *agreed* and *repeated* manner. Technical standards constitute a form of codified technical knowledge that enables the development of products and processes. While they cover a broad range of products, services, processes and activities, for the purposes of this report, ‘standards’ will refer to technical standards pertaining to new and emerging digital technologies.

5. Technical standards are typically adopted based on consensus, and compliance with standards is usually voluntary.<sup>3</sup> Standards nevertheless regularize and constrain behaviour (regulative function) because they provide authoritative guidance necessary to participate competitively in the market. Sometimes, compliance with technical standards, particularly in

<sup>1</sup> <https://www.ohchr.org/en/events/events/2023/ohchr-consultation-human-rights-and-technical-standard-setting>.

<sup>2</sup> Call and responses received are available at <https://www.ohchr.org/en/calls-for-input/2023/call-inputs-relationship-between-human-rights-and-technical-standard-setting>.

<sup>3</sup> Para.14, S/WPDR/W/49, WTO.

that area of safety, is mandated by States.<sup>4</sup> Standards also have a normative function by effectively favouring cooperative strategies over adversarial ones.<sup>5</sup> They are important for interoperability and to prevent lock-in to a single company's technology.<sup>6</sup> SSOs allow the broader technical community to scrutinize standard proposals for errors and security.<sup>7</sup> Standards, put very simply, "make things work, help innovations spread and facilitate efficient trade among provinces, countries, economic regions and the international community of nations".<sup>8</sup>

6. The WTO Agreement on Technical Barriers to Trade (TBT) recognizes the benefits of international standards for trade. To determine when a standard qualifies as an international standard that does not erect a trade barrier under the TBT, WTO Committee on Technical Barriers to Trade has developed a set of principles for standard development and maintenance, which include transparency, openness, impartiality and consensus, effectiveness and relevance, coherence, and consideration of the development dimension.<sup>9</sup> While these are indeed important principles for standard-setting, WTO's concept of international standard-setting—effectively recognizing only the International Organization for Standardization (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU) as actors at the international level – has been criticized as being too narrow, excluding the majority of other international and national-level SSOs active in setting standards for digital technologies used across the globe.<sup>10</sup>

## B. Constellation of actors in the standard-setting landscape

7. The technical standard-setting landscape is vast and varied, with a large constellation of actors.<sup>11</sup> Standardization processes happen within national<sup>12</sup>, regional<sup>13</sup> and international SSOs.<sup>14</sup> The present report primarily focusses on standard-setting processes at the international level, but many of the observations and recommendations are also relevant for regional and national bodies.

8. ISO, IEC and ITU are among the largest and oldest SSOs and develop standards for a vast field of digital technologies and applications. ITU plays a unique role given its status as a UN specialized agency.<sup>15</sup> While States are ITU's core members, companies, service

<sup>4</sup> See also footnote 47.

<sup>5</sup> Delimatsis, Panagiotis. "*Relevant international standards' and 'recognised standardization bodies' under the TBT Agreement.*" The Law, Economics and Politics of International Standardisation, Cambridge, 2015.

<sup>6</sup> <https://doi.org/10.1093/oso/9780198841524.003.0001>, p.6.

<sup>7</sup> Ibid.

<sup>8</sup> <https://www.cigionline.org/articles/global-standards-digital-cooperation/>

<sup>9</sup> Principles for the Development of International Standards, Guides and Recommendations adopted by the WTO Committee on Technical Barriers to Trade, G/TBT/9, para.20 and Annex 4.

<sup>10</sup> See <http://e15initiative.org/wp-content/uploads/2015/09/E15-Innovation-KarachaliosMcCabe-FINAL.pdf>; Delimatsis, Panagiotis. "*Relevant international standards' and 'recognised standardization bodies' under the TBT Agreement.*" The Law, Economics and Politics of International Standardisation, Cambridge, 2015.

<sup>11</sup> For a detailed overview of SSOs, see A/HRC/35/22/Add.4.

<sup>12</sup> Member list of ISO available at <https://www.iso.org/members.html>.

<sup>13</sup> EG., the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), the European Telecommunications Standards Institute (ETSI) and the CARICOM Regional Organization for Standards and Quality (CROSQ), the Pacific Area Standards Congress (PASC), the Pan American Standards Commission (COPANT), the African Organisation for Standardisation (ARSO), and the Arabic industrial development and mining organization (AIDMO).

<sup>14</sup> <https://www.consortiuminfo.org/> provides a non-exhaustive overview of SSOs working on digital topics.

<sup>15</sup> The Constitution and Convention of the International Telecommunication Union is the treaty that establishes the legal basis for the ITU and defines its purpose and structure, see <https://www.itu.int/en/history/Pages/ConstitutionAndConvention.aspx>. ITU became a specialized agency through the Agreement between the United Nations and the International Communication Union, concluded in 1947.

providers, SMEs, academic institutions and other organizations can participate under their own name, with limited rights, as Sector Members, Associates or Academia in ITU study groups that develop standards.<sup>16</sup> ITU has three main areas of activities organized in ‘Sectors’, among which Radiocommunications (ITU-R) and Telecommunication Standardization (ITU-T) develop technical standards (called ‘Recommendations’) that are relevant for digital technologies. ITU-T, for example, plays an important role in defining access and transport technologies-related standards that underpin global communications networks.<sup>17</sup>

9. IEC develops standards for electrical and electronic technologies, such as fiber optics, cables and smart energy. ISO develops standards for all kinds of technology, beyond digital technologies, and thus covers a larger scope, which includes standards that relate to matters such as e-commerce, robotic, and smart transport systems.<sup>18</sup> Both ISO and IEC are composed of national entities, one per country,<sup>19</sup> which can be public or private bodies. These entities put forward expert members for the committees tasked with developing the various standards. ISO, IEC and ITU coordinate their activities by direct communications between concerned technical committees as well as in the management-led World Standards Cooperation (WSC).<sup>20</sup>

10. Beside these international SSOs, a vast landscape of other SSOs with various focus areas and governance models has emerged, only a small number of which can be mentioned in this report. Generally, many of these organizations are industry-driven and comprised of businesses or engineers with a corporate background. While a number of them have a closed circle of participants, others operate with processes that are open to the general public. The Internet Engineering Task Force (IETF)<sup>21</sup> and the World Wide Web Consortium (W3C)<sup>22</sup> are two such examples.

11. The IETF is the largest forum dedicated to the development and maintenance of Internet technical standards, which play a key role in ensuring the interoperability and security of data flows via the internet. It is hosted and funded by the Internet Society (ISOC), a global, non-profit, membership organization that supports the development of the Internet, and consists of in-person and online meetings and activities. The standards are free for public use.

12. The IETF works closely with its sister organization, the Internet Research Task Force (IRTF), focusing on long-term research related to Internet protocols, applications, architecture and technology, and the Internet Architecture Board (IAB), providing technical direction for Internet development. ISOC also plays a key role here, hosting the administrative entity that supports the IETF, IAB, and the IRTF.<sup>23</sup>

13. The W3C is a membership organization that develops and maintains application-layer standards for the World Wide Web, such as HTML and CSS, which are free for use by anyone.

14. The Institute of Electrical and Electronic Engineers (IEEE) is a non-profit professional association that, among its main activities, produces standards that underpin telecommunications, IT, consumer electronics, wireless communications and power-generation products and services.<sup>24</sup>

<sup>16</sup> Membership rights depend on membership class, with States having the broadest range of rights, including with the exclusive right to vote. See <https://www.itu.int/hub/membership/become-a-member/member-terms-conditions/>.

<sup>17</sup> <https://www.itu.int/en/mediacentre/backgrounders/Pages/itu-t-setting-the-standard.aspx>.

<sup>18</sup> <https://www.diplomacy.edu/wp-content/uploads/2022/02/Digital-standards-ARIN-region-EN.pdf>, p. 7.

<sup>19</sup> In the case of ISO, member entities are the recognized national standards bodies (<https://www.iso.org/members.html>) and in the case of IEC the so-called National IEC Committees (<https://www.iec.ch/national-committees#nclist>).

<sup>20</sup> <https://www.worldstandardscooperation.org/>.

<sup>21</sup> <https://www.ietf.org/about/introduction/>

<sup>22</sup> <https://www.w3.org/>

<sup>23</sup> <https://www.rfc-editor.org/rfc/rfc8712.html>.

<sup>24</sup> <https://www.ieee.org/about/at-a-glance.html>.

15. The Third Generation Partnership Project (3GPP) is a collaborative project between seven regional and national SDOs.<sup>25</sup> It develops specifications for mobile telecommunication networks, including 5G.

16. While not narrowly defined as an SSO, the Internet Corporation for Assigned Names and Numbers (ICANN) is a key player in the Internet Governance context adjacent to standard development. It is a global not-for-profit public-benefit corporation that provides the technical operations of Domain Name Systems (DNS) resources and coordinates policy development related to the Internet's system of unique identifiers, using a multistakeholder model.<sup>26</sup> In its policy development, ICANN often takes into account DNS standards developed at IETF.

### III. The relevance of technical standards for the enjoyment of human rights

#### A. Human rights impacts

17. Technical standards reflect the interests, values and concerns of those participating in their elaboration.<sup>27</sup> Many of the decisions made in the development process have crucial ramifications for human rights. Design decisions can lead to technical solutions that facilitate human rights violations and abuses, but they can also lay the foundations for widespread adoption of technologies that effectively enhance and enable the exercise of human rights. Certain standards may have characteristics that could be both beneficial and restrictive for certain rights, depending on how they are implemented. The following illustrates some ways in which technical standards can contribute to such beneficial or adverse impacts.

18. Many standards define processes and actions that directly respond to certain human rights-related concerns. This includes, for example, standards that are designed to enhance privacy-protections through organizational measures, such as ISO 31700-1:2023 (establishing high-level requirements for privacy by design throughout the lifecycle of a consumer product)<sup>28</sup> and ISO/IEC 27557:2022 (on organizational privacy risk management specifically addressing individual privacy harms).<sup>29</sup> Other standards intend to improve accessibility of websites, digital technologies and digital services for persons with disabilities. W3C and ITU, for example, developed a range of influential accessibility standards.<sup>30</sup>

19. IETF in 2015 introduced http error code 451 “unavailable for legal reasons” which indicates website takedowns or blocking carried out for legal reasons.<sup>31</sup> The protocol seeks to increase transparency around incidents of content blocking to comply with legal demands by governments and private parties. It thus enables individuals and the public to better understand legal interventions in the availability of internet resources and enhances access to remedies against unlawful acts of censorship and accountability.

20. SSOs also increasingly work on standards addressing shortcomings of AI systems that may affect human rights, such as embedded biases that lead to or facilitate discriminatory outcomes. For example, IEEE standard P7003 includes specific methodologies to address and eliminate issues of bias in algorithms.<sup>32</sup>

21. Others address broader human rights-related issues, covering business operations more generally. For example, ISO 26000:2010, Guidance on social responsibility<sup>33</sup> provides

<sup>25</sup> [https://www.3gpp.org/ftp/Information/Working\\_Procedures/3GPP\\_WP.htm#Article\\_10](https://www.3gpp.org/ftp/Information/Working_Procedures/3GPP_WP.htm#Article_10).

<sup>26</sup> <https://www.icann.org/policy>.

<sup>27</sup> A/HRC/35/22/Add.4, para.25; <https://doi.org/10.1177/14614448231152546>.

<sup>28</sup> ISO 31700-1:2023, <https://www.iso.org/standard/84977.html>.

<sup>29</sup> ISO/IEC 27557:2022, <https://www.iso.org/standard/71675.html>.

<sup>30</sup> <https://www.w3.org/WAI/> and <https://www.itu.int/en/ITU-T/accessibility/Pages/default.aspx>.

<sup>31</sup> <https://datatracker.ietf.org/doc/rfc7725/>.

<sup>32</sup> <https://standards.ieee.org/ieee/7003/6980/>.

<sup>33</sup> <https://www.iso.org/standard/42546.html>.



recommendations and tools that enable companies and organizations to shape their operations in ways that enhance positive impacts on society and environment while minimizing harms.<sup>34</sup>

22. Standards that define the technical features necessary for the function of digital infrastructure can have particular importance for human rights, as experiences with Internet-related protocols such as the Domain Name System (DNS), the Transmission Control Protocol (TCP) and the Hypertext Transfer Protocol (HTTP) have shown.

23. These protocols are foundational for data communications on the Internet and in the World Wide Web, providing the basis, for example, for online banking, e-health, social media, cloud data storage, and the functioning of many devices constituting the so-called Internet of Things. They enable rights that are exercised online, from the rights to freedom of expression to freedom of association and peaceful assembly, and to take part in the conduct of public affairs. The properties of these protocols, however, also enable a variety of interferences with human rights: DNS is designed in a way that makes it one of the central entry points for blocking access to websites and services,<sup>35</sup> enabling the undermining of a range of rights.<sup>36</sup> DNS, TCP and HTTP do not inherently include encryption properties, thus enabling interferences, such as traffic interception and traffic manipulation, which may have adverse impacts on many rights. Firstly, intercepting traffic can interfere with the right to privacy. For example, weaknesses in TCP and HTTP have contributed to the emergence of mass surveillance programmes that systematically undermine the right to privacy<sup>37</sup> and facilitate targeted surveillance by State and non-State actors. They also impact directly or indirectly other rights, such as freedom of expression (e.g., when traffic is intercepted to identify dissidents, or because of chilling effects due to surveillance<sup>38</sup>), right to a fair trial and to liberty (e.g., when evidence gathered unlawfully via communications interception is used in court and leads to imprisonment), and the right to security (e.g., if intercepted traffic is used by a stalker to harass and threaten victims). Lack of encryption properties in TCP and HTTP also enables traffic manipulation attacks, allowing intruders to take control of the affected devices and networks.

24. Over the past decade, partly in reaction to an increase in security incidents and revelations of mass data interception, there have been strong pushes towards the encryption of internet traffic. New protocols, integrating or improving encryption features have emerged.<sup>39</sup> The large majority of web services have started using HTTPS, a version of HTTP that encrypts data via TLS.<sup>40</sup> These developments contributed to vastly enhanced security online, increasing trust and reliability of internet connections with considerable beneficial effects on human rights, such as privacy, security, non-discrimination and rights that are enabled by accessing digital services, such as financial, health and education services. However, law enforcement agencies, have argued that the shift to encryption undermines their ability to investigate and prevent crime. An in-depth analysis of this challenge can be found in reports of OHCHR and the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression.<sup>41</sup>

25. Recent internet-related proposals show how standardization, depending on its content, can turn into a standard for systematically undermining rights-enabling properties of technologies. They include the introduction of backdoors, requirements for permanent device identifiers immutably stored via decentralized ledger technology, as well as expanding the information in packet headers, which would be accessible to ISPs and others, to include information about packet content. These approaches not only weaken the security of

<sup>34</sup> For a critical analysis, see <https://doi.org/10.1017/CBO9781316423240.013>.

<sup>35</sup> <https://datatracker.ietf.org/doc/html/rfc8280>.

<sup>36</sup> A/HRC/48/31 on the impacts of shutting down or blocking communications platforms.

<sup>37</sup> A/HRC/35/22, para.44.

<sup>38</sup> A/HRC/27/37, para.20; A/HRC/51/17, paras 10, 27 and 47; A/HRC/23/40, paras.49, 52; A/HRC/32/38, para.57.

<sup>39</sup> E.g., Transport Layer Security (TLS)1.3 and Quick UDP Internet Connection (QUIC).

<sup>40</sup> TLS and any protocol using TLS rely on ITU-T Recommendation X.509 defining the format of [public key certificates](#).

<sup>41</sup> A/HRC/51/17; A/HRC/29/32, Interpol resolution AG-2021-89-RES-09.



communications and enable pervasive tracking of each internet user and transactions, but also enable censorship by facilitating shutting off specific devices, servers and data flows.<sup>42</sup>

## **B. Human rights obligations of States and responsibilities of other relevant actors**

26. Standard-setting processes and the content and implementation of standards are shaped by a variety of actors, most importantly States, businesses and SSOs. Under international human rights law, they have a range of obligations and responsibilities.

27. States have obligations to respect, protect and fulfil human rights.<sup>43</sup> They apply to their involvement in standard-setting. When engaging in standard-setting processes, States must fully comply with their obligations under international human rights law. For example, standards that would likely lead to arbitrary interferences with the right to privacy must not be proposed or supported by States. In addition, when contributing to standard-setting processes, States should take necessary steps, in good faith and meaningful fashion, to actively promote human rights and ensure that their proposals be in compliance with international human rights law. States should identify any potential conflict between their obligations under international human rights law and possible outcome of standards-setting processes and refrain from adopting such standards where a conflict is found to exist, as required under the principle of the binding character of treaties. Should the outcome of standard-setting process be incompatible with it, States have the obligation to disregard it.

28. The obligation to respect and protect also means that States should not, through legislative or other measures, require the private sector to apply standards whose implementation would undermine human rights.<sup>44</sup> Moreover, when setting legal or regulatory frameworks for national standard-setting processes (in particular for recognized national SSOs), these frameworks must be human rights-compliant, for example by ensuring transparency and accountability, as well as participation by a broad range of stakeholders.<sup>45</sup> Furthermore, the duty to protect entails a positive duty to adopt mandatory human rights due diligence legislation as part of the smart mix of measures to foster business respect for human rights”, requiring business entities to exercise human rights due diligence.<sup>46</sup>

29. States’ duties under international human rights law are also relevant for the de facto delegation of regulatory functions to SSOs, for example through legislation that leaves it to SSOs to specify requirements set out in laws or regulations.<sup>47</sup> Such delegations raise important questions concerning democratic legitimacy and rule of law and can mean that critical decisions affecting the exercise of human rights are left to SSOs rather than State entities. This makes it particularly important to ensure utmost transparency, and meaningful access for all stakeholders in standard-setting processes, and the availability of meaningful accountability mechanisms, including judicial review.<sup>48</sup> States’ delegation of regulatory functions to SSOs does not absolve States of their obligations under international human rights law.

30. Under the United Nations Guiding Principles on Business and Human Rights (UNGP), businesses have a responsibility to respect all internationally recognized human rights, meaning that they should avoid infringing on the human rights of others and address adverse human rights impacts stemming from or linked to their business activities.<sup>49</sup> Pillar II

<sup>42</sup> <https://www.icann.org/en/system/files/files/octo-017-27oct20-en.pdf>.

<sup>43</sup> Article 2, ICCPR; Article 2, ICESCR; Article 2, ICERD; Article 2, CEDAW; Article 4, CRPD; Article 2, CRC. See also [CCPR/C/21/Rev.1/Add.13](#) and [E/C.12/GC/24](#), paras.10 et seqq.

<sup>44</sup> Human Rights Committee, CCPR/C/GC/31, para.8.

<sup>45</sup> See [A/HRC/RES/45/9](#).

<sup>46</sup> [E/C.12/GC/24](#), para.16; [A/HRC/77/201](#), para 99b

<sup>47</sup> Eg., under the [draft EU AI Act](#), the EC has delegation powers in various human rights-sensitive areas (<https://ec.europa.eu/docsroom/documents/52376?locale=en>); under art. 48 of the [EU Digital Markets Act](#), European SSOs could be tasked to define interoperability standards for messaging apps.

<sup>48</sup> For an analysis of the practice of delegating regulatory powers to SSOs: <https://doi.org/10.31235/osf.io/38p5f>.

<sup>49</sup> Guiding Principle 11. The GPs were unanimously endorsed by [A/HRC/RES/17/4](#).

of the UNGP provides an authoritative blueprint for all enterprises, regardless of their size, sector, operational context, ownership and structure, for preventing and addressing adverse human rights impacts. The responsibility to respect applies throughout a company's activities and business relationships and regardless of where affected people are located.<sup>50</sup> In other words, the responsibilities of businesses extend to their participation in standard development. This conclusion is supported by the commentary to UNGP 16 that specifically spells out the necessity for businesses to consider human rights as part of their public policy engagement.<sup>51</sup>

31. Meeting the responsibility to respect requires that businesses(a) avoid *causing* adverse human rights impacts through their own activities; (b) avoid *contributing to* such impacts through their own activities and address such impacts when they occur and (d) seek to prevent or mitigate adverse human rights impacts directly linked to their operations, products or services by their business relationships.<sup>52</sup> The main instrument for ensuring companies meet these responsibilities is human rights due diligence. The aim of human rights due diligence processes is to identify, assess, prevent, mitigate and account for adverse impacts on human rights that an entity may cause, contribute or be directly linked to. Assessing human rights impacts is an essential element of human rights due diligence, for example through conducting human rights impact assessments.<sup>53</sup> Moreover, human rights due diligence requires meaningful engagement with diverse stakeholders, including with potentially affected rights holders and civil society. Experts with interdisciplinary skills should be involved in impact assessments, including in the development and evaluation of mitigations.<sup>54</sup> The results of human rights impact assessments, action taken to address human rights risks and public consultations should be made public.<sup>55</sup>

32. Businesses should thus carefully consider how proposed standards to which they are contributing would cause or contribute to adverse human rights impacts.<sup>56</sup> If adverse impacts are possible or likely, they should take steps to respect human rights as described in the previous paragraph. Moreover, the above principles demonstrate the key importance of transparency and ongoing meaningful stakeholder engagement in developing technical standards. Businesses should also apply these principles when implementing technical standards.

33. SSOs themselves have a responsibility to avoid that the standards developed under their auspices facilitate human rights violations and abuses. For business consortia and SSOs more broadly which act as businesses, these responsibilities flow directly from the UNGP and are the same as those described above.

34. Given the ITU's role on technical standards processes and their implementation, it is worth noting that States, as members of ITU, are key contributors to its standard-setting processes – and ITU standards can only be adopted with consensus among Member States. As noted, States themselves must act in compliance with their human rights obligations, a requirement that also applies to their actions within the ITU framework. They are obliged to create and support policies and practices within ITU that uphold human rights. This can include requiring technology companies to respect human rights through a "smart mix" of mandatory or voluntary measures, which also entails standard setting processes (pillar 1 of the UNGPs).<sup>57</sup> The centrality of human rights in addressing the growing challenges of the digital age has been emphasized in recent reports<sup>58</sup> and resolutions, including by ITU itself

<sup>50</sup> A/HRC/50/56.

<sup>51</sup> <https://www.ohchr.org/en/documents/thematic-reports/a77201-report-corporate-political-engagement-and-responsible-business>

<sup>52</sup> Guiding Principle 13.

<sup>53</sup> Guiding Principle 18.

<sup>54</sup> Ibid.

<sup>55</sup> A/73/348, para. 68; A/HRC/48/31, para.50.

<sup>56</sup> <https://www.ohchr.org/en/documents/thematic-reports/a77201-report-corporate-political-engagement-and-responsible-business>

<sup>57</sup> A/72/350, paras 18-22 regarding access to information policies at UN organizations.

<sup>58</sup> E.g., the reports of the Secretary-General "Road map for digital cooperation: implementation of the recommendations of the High-level Panel on Digital Cooperation" (A/74/821) and "The Highest Aspiration – A Call to Action for Human Rights".

which in its strategic plan for 2020-2023 recognized “the overarching pre-eminence of human rights.”<sup>59</sup> Furthermore, the promotion and protection of all human rights lie at the core of the UN, defining one of its main purposes.<sup>60</sup> The Vienna Declaration and Programme of Action<sup>61</sup> underscores that human rights “must be considered as a priority objective of the UN”, mentioning particularly the role of the organs and specialized agencies.

#### **IV. Challenges to integrating human rights considerations in technical standard-setting processes**

35. Despite the potential and real impacts of technical standards on the enjoyment of human rights, human rights considerations often play only a minor role in technical standard-setting processes. The resulting standards thus may at times facilitate human rights violations and abuses or fail to make the most of an opportunity to promote human rights. A range of factors contribute to those outcomes.

##### **A. Lack of expertise and capacity of SSOs and resistance to human rights integration**

36. Typically, SSOs and their traditional stakeholders focus on technical aspects of standard-development, with limited consideration of other aspects that standards may touch upon. Participants mostly have engineering, computer science and natural science backgrounds, with an underrepresentation of human rights expertise or other fields, such as social sciences at large, constitutional law, ethics, and risk management.<sup>62</sup>

37. Moreover, most SSOs have not made clear commitments to put human rights at the core of their activities and human rights staff dedicated to standards work is generally missing. Human rights analysis and impact assessments are exceptions. Systematic monitoring of the human rights impacts of standards, once adopted, is not taking place.

38. Some SSOs and stakeholders appear to oppose to the integration of human rights considerations into standard-setting processes for different reasons.. In some cases, such opposition appears to be motivated by self-interest that runs counter to human rights.<sup>63</sup> Some SSOs and stakeholders argue that standards are not political and hence need not include space for human rights considerations. There is also a prevalent perception that including human rights considerations would hinder efficient, speedy standard development and implementation processes, as it would require building new expertise and the participation of more actors. Some businesses argue that human rights compliant technical standards may raise the cost of innovation, development, production and operation of new products and services.

39. At the same time, there is growing awareness among SSOs and those active in standard-setting processes of the importance of human rights. For example, the IRTF hosts a Human Rights Protocol Considerations Research Group<sup>64</sup>, IEEE’s Ethically Aligned Design principles for autonomous and intelligent systems have elevated respect for human rights as their core principle,<sup>65</sup> and the Ethical Web Principles of W3C’s Technical Architecture Group state that “[w]e need to put internationally recognized human rights at the core of the web platform”.<sup>66</sup> The participation of representatives of SSOs, such as ITU, ISO, and IEC alongside experts from IETF and IAB in recent human rights-focused discussions signals

<sup>59</sup> [https://www.itu.int/en/council/planning/Documents/ITU\\_Strategic\\_plan\\_2020-2023.pdf](https://www.itu.int/en/council/planning/Documents/ITU_Strategic_plan_2020-2023.pdf).

<sup>62</sup> Submission Ayden Féderline; see <https://datatracker.ietf.org/doc/html/draft-gont-diversity-analysis-00> for an analysis of factors limiting diversity at IETF.

<sup>63</sup> Eg., when pursuing rights-abusing business models.

<sup>64</sup> Founded in 2014, <https://irtf.org/hrpc>, see particularly guidelines for human rights considerations in standard-setting, <https://datatracker.ietf.org/doc/html/rfc8280>.

<sup>65</sup> [https://standards.ieee.org/wp-content/uploads/import/documents/other/ead\\_v2.pdf](https://standards.ieee.org/wp-content/uploads/import/documents/other/ead_v2.pdf).

<sup>66</sup> <https://w3ctag.github.io/ethical-web-principles/>.

increasing willingness to strengthen their engagement.<sup>67</sup> Finally, 54 ITU Member States have recently called for a human rights-based approach to technical standard-setting processes, including at ITU.<sup>68</sup>

## B. Transparency and participation gaps

40. Many obstacles for integrating human rights are intimately linked to the limited scope of inputs that feed into technical standards. Participants in standard-setting processes overall lack diversity in terms of thematic expertise, cultural, professional, institutional, socio-economic background, geographical representation, and gender. Processes are often opaque and complicated, while frequently failing to seek or receive meaningful public inputs. Participation from stakeholders has not reached a level that reflects the range of knowledge available and the multiple, varied impacts potentially experienced by various constituents once standards are implemented.

41. For example, according to IETF data presented in 2021<sup>69</sup>, participants in IETF meetings were predominantly from the United States (38.9%), followed by China (9.7%), Germany (7.2%), United Kingdom (4.8%), Japan (3.9%), Canada (3.6%), India (3.4%) and France (2.9%). W3C does not collect data about meeting participants, but data about gender and geographic representation in several of their representative bodies paint a similar picture. For example, in 2022, 7 of 11 members of its Advisory Board and 66% of its management were men. While the geographic representation has shifted over the years to include a growing number of people from Asia-Pacific, there were no people from Africa or Central and South America in any of the bodies for which W3C releases data.<sup>70</sup>

42. Those gaps mirror power and resource disparities within and between societies. Participants in many standard-setting processes have overwhelmingly corporate backgrounds, strongly skewed towards large companies from a handful of high- and middle-income countries which have resources to fund participation in hundreds of parallel multi-year standard-setting processes. For others, such as civil society organizations, researchers, and even small and medium sized companies, consistently participating in even a single process can be challenging.<sup>71</sup>

43. Costs are among the main barriers facing participants, including membership and registration fees,<sup>72</sup> and travel costs for lengthy meetings, often for many weeks every year.<sup>73</sup> Moreover, many organizations must hire experts to represent them in SSO meetings, which again is costly.

44. Relatedly, the lack of access to working documents, proposed and adopted standards, meeting minutes, participant lists and correspondence limits the public's understanding of

<sup>67</sup> <https://www.ohchr.org/en/events/events/2023/ohchr-consultation-human-rights-and-technical-standard-setting>; <https://www.ohchr.org/en/statements/2023/02/turk-addresses-world-standards-cooperation-meeting-human-rights-and-digital>; <https://www.itu.int/net4/wsis/forum/2023/Agenda/Session/368>; <https://intgovforum.org/en/content/igf-2022-open-forum-101-open-forum-on-technical-standard-setting-and-human-rights>.

<sup>68</sup> [https://www.eeas.europa.eu/delegations/un-geneva/itu-plenipotentiary-conference-joint-policy-statement-human-centric-approach\\_en?s=62](https://www.eeas.europa.eu/delegations/un-geneva/itu-plenipotentiary-conference-joint-policy-statement-human-centric-approach_en?s=62).

<sup>69</sup> <https://datatracker.ietf.org/meeting/112/materials/slides-112-ieta-ietf-chair-report-01>.

<sup>70</sup> <https://www.w3.org/blog/2022/07/diversity-and-inclusion-at-w3c-2022-figures/>. Data released over the years show clear trends of gradual improvements, and W3C itself acknowledges further room for improvement.

<sup>71</sup> Various challenges to participation were highlighted by several submissions. Eg., see submissions by the EU and the Czech Republic.

<sup>72</sup> ITU, for example, has a tiered fee system with annual fees of CHF 1'987.50 for academia and SMEs from developing countries (SMEs in that case would be allowed to participate in one Study Group), CHF 3'975 for academia and SMEs from developed countries and companies from developing countries (in that case as sector members, giving access to all Study Groups in one Sector), and CHF 31'800 for other companies as Sector Members for ITU-T and ITU-R, <https://www.itu.int/hub/membership/become-a-member/fees/>.

<sup>73</sup> Submission of W3C participants; submission of Derechos Digitales.

the rationale behind the adopted approaches and the interests at play, thereby impeding the meaningful participation in standard-setting processes, and limiting opportunities for public input as well as public oversight and accountability.

45. Restrictive requirements for participation in some SSOs can hinder civil society groups and smaller businesses to bring their perspective into standard-setting processes. ISO and IEC allow only one member-organization per country. This means that other stakeholders are confined to going through their domestic standards bodies to be either nominated as experts or make comments on ongoing standards processes. While ITU technically allows broader membership, in practice, only a few civil society organizations are on ITU-T's membership lists. One major obstacle is that States may object to the Membership of specific non-state stakeholders.<sup>74</sup> Moreover, applicable procedural rules and practices favor Member States, limiting the impact of non-State participants. At ITU, to work around membership-related obstacles, several organizations and experts have become members of State delegations. However, such models become untenable when the objectives of civil society members and State collide.

46. The predominance of the English language in international standard-setting environments is another significant hurdle to meaningful, widespread participation.<sup>75</sup> Contributing to standards requires a level of proficiency in English that allows for active participation in highly complex, technical discussions, both orally and in writing.<sup>76</sup> This effectively excludes a broad range of stakeholders.

47. Furthermore, the prevailing operating cultures of SSOs can be discouraging and exclusionary. A study of human rights advocacy at the IETF described a culture of “rugged masculinity” with exclusionary effects on women and participants from the Global South, as well as on human rights advocates at large.<sup>77</sup> Several submissions to this report highlighted similar problems, with one pointing out that self-appointed gatekeepers in some SSOs determine who may or may not be regarded as legitimate participants.<sup>78</sup>

48. The lack of equal gender representation in standard-setting processes is of particular concern. As consistently pointed out in the consultations informing the present report, the vast majority of participants in standard-setting processes are men. It is difficult to find reliable data on the scale of the problem, largely because SSOs do not systematically collect disaggregated data on participants' gender. One credible estimate puts the share of women's participation at IETF at 15%.<sup>79</sup> In 2022 and 2023, women constituted 27% of the participants in ITU-T study groups.<sup>80</sup>

## V. Addressing the challenges

49. Overcoming these challenges requires combining efforts by governments, SSOs, their participants, companies and civil society towards a shift in SSO culture. Technical standard-setting must not be understood as merely a technical matter, but rather as embedded in complex social, cultural, economic and political fabrics; impacts on societies, communities and individuals need to be guiding themes of standards development. It is fundamental to put people and their human rights – rather than interests of developers of technology or company profit – at the centre of processes.<sup>81</sup> The IAB and W3C have made this priority a guiding

<sup>74</sup> Art. 19(1), ITU Convention, see <https://www.itu.int/hub/membership/become-a-member/member-terms-conditions>.

<sup>75</sup> Submission of W3C participants.

<sup>76</sup> Submission of Derechos Digitales.

<sup>77</sup> Cath, pp.66 et seqq., 205.

<sup>78</sup> Submission of Ayden Féderline; [https://www.ndi.org/sites/default/files/NDI%20Norms%20White%20Paper%20May%202022\\_1.pdf](https://www.ndi.org/sites/default/files/NDI%20Norms%20White%20Paper%20May%202022_1.pdf), p. 35.

<sup>79</sup> Submission of Derechos Digitales based on IETF data: <https://www.arkko.com/tools/allstats/>.

<sup>80</sup> <https://app.powerbi.com/view?r=eyJrIjoia0WM3MWE2YjYtYzdmYS00MDU5LTk4YjYtYWFiOTA0YjU2ZDYyIiwidCI6IjZTQ2NGQ3LTA0ZTYtNGI4Ny05MTNjLTl0YmQ0OTIxOWZkMyIsImMiOjI9>.

<sup>81</sup> Submission of W3C participants.



principle of their work.<sup>82</sup> But upholding human rights within and through standard-setting cannot stop there. It requires fully committing to applying international human rights law, standards and principles, using human rights methodologies, and being accountable for implementing this commitment.

## A. Standard-setting organizations

### Human rights due diligence

50. A starting point for SSOs should be a high-level recognition of their responsibility to respect human rights through a statement of commitment that stipulates SSO's human rights expectations of personnel, members and participants in standard-setting processes.<sup>83</sup> It should also be reflected in operational policies and procedures across the organization.<sup>84</sup>

51. Conducting human rights due diligence is essential for identifying, preventing, mitigating and accounting for adverse impacts on human rights.<sup>85</sup> Mandatory procedures should identify and assess potential impacts of standards on the exercise of human rights. Different models can inspire the development of such assessment mechanisms. For example, many companies have for years carried out human rights impact assessments, in line with the UNGPs.<sup>86</sup> The UN is in the process of adopting its own framework for Human Rights Due Diligence and Human Rights Impact Assessments in the context of the use of new technologies.<sup>87</sup> The Harms, Misuse and Abuse Assessment of the Coalition for Content Provenance and Authenticity provides an example that can inspire other SSOs, regarding both the process of its development and its content.<sup>88</sup>

52. Organization-wide human rights-focused reviews are necessary to achieve consistent support of human rights across an organization. W3C, for example, conducts reviews that cut across many working groups and technical standards, zooming in on topics such as privacy, security, and accessibility. These reviews involve soliciting feedback from diverse stakeholders, implementers, experts and the general public. Such cross-cutting processes are particularly important where standards may differ in their human rights impacts but, combined, may result in significant constraints.<sup>89</sup> Establishing screening mechanisms to proactively identify standard-setting processes that may entail high risk for human rights would greatly improve human rights integration in SSOs.<sup>90</sup> Informational documents,

<sup>82</sup> <https://www.rfc-editor.org/rfc/rfc8890>; <https://www.w3.org/TR/design-principles/>.

<sup>83</sup> UNGP, Principles 15 (a);16.

<sup>84</sup> Few, if any, SSOs have adopted human rights statements and policies. The Guiding Principles for C2PA Designs and Specifications of the Coalition for Content Provenance and Authenticity are one example for a foundational document committing future developments to a limited set of human rights that are particularly relevant for the Coalition's work, <https://c2pa.org/principles/>.

<sup>85</sup> States must also adopt legal frameworks requiring human rights due diligence from businesses, , see para 30.

<sup>86</sup> Telia Company's HRIA: <https://www.teliacompany.com/globalassets/telia-company/documents/sustainability/hria/human-rights-impact-assessment-telia-sweden.pdf> ; Ericsson's 5G Human Rights Assessment, available at <https://www.ericsson.com/49295a/assets/local/about-ericsson/sustainability-and-corporate-responsibility/documents/2021/5g-human-rights-assessment---final.pdf> ; Microsoft's Human Rights Annual Report, available at <https://query.prod.cms.rt.microsoft.com/cms/api/am/binary/RE54vFsA/74/821>, para.86.

<sup>87</sup> A/74/821, para.86.

<sup>88</sup> WITNESS submission.

<sup>89</sup> Submission of W3C participants, pointing to browser fingerprinting as an example. Browser fingerprinting is done through cumulative analysis of different configuration characteristics, each of which may be minimal and non-identifying on their own. But when combined, those characteristics are often used to re-identify people and correlate their online activities.

<sup>90</sup> <https://www.ohchr.org/en/statements/2023/02/turk-addresses-world-standards-cooperation-meeting-human-rights-and-digital>.

questionnaires and checklists can also be important tools for mainstreaming human rights considerations across organizations.<sup>91</sup>

53. The responsibilities of SSOs do not end with the adoption of their standards, but also require actively supporting their rights-respecting implementation. Monitoring the real-life impacts of technical standards on human rights once implemented would be an invaluable source of information for future standard-setting processes, and also essential for flagging where standards may need to be amended. Mechanisms for appealing outputs, outcomes, or other decisions that fall short of the SSO's human rights commitments are also needed. While there are currently no examples of this kind of structure in SSOs, ICANN's Global Public Interest Framework could be a starting point for developing such mechanisms.<sup>92</sup>

54. Recruiting and/or drawing on existing staff with human rights expertise could support SSOs in building their work on stronger human rights foundations. Such staff could, for example, help with the review processes described above and support the monitoring of the implementation of standards in practice. Staff could also serve as advisors for standard developing committees and contribute more generally to mainstreaming human rights across the organization.

### **Effective access to information and inclusive participation**

55. Human rights respecting standard-setting processes must ensure transparency, openness and inclusiveness. These principles enable SSOs to consider their standards proposals from broader perspectives, ensuring that interests of affected stakeholders are known and can be taken into account to minimize negative side-effects.

56. Key information about standard-setting processes, including working documents and standards under development and information on all participants, meeting minutes, and written communications, should be readily available to enable the public to understand the processes, key problems associated with specific proposals and adopted standards, the reasoning behind the chosen approaches, and the interests at play. It also provides an opportunity for public oversight and accountability. Researchers can use such information to better understand the work and impacts of specific SSOs as well as standards more generally. SSOs such as the IETF and W3C have for years been at the forefront of such transparency efforts.

57. Standard-setting processes, while focused on technological aspects, gain in depth and sustainability when they are not only multi-disciplinary but also built on multistakeholder participation. The Guidelines for States on the effective implementation of the right to participate in public affairs<sup>93</sup> specifically stipulate in relation to meetings of international organizations, mechanisms and other forums, that “[p]articipation of civil society actors ..., at all relevant stages of a decision-making process, should be allowed and proactively encouraged”. In line with this, SSOs should ensure that their policies minimize barriers to participation by civil society organizations, academic institutions and other stakeholders and take active steps to facilitate participation. ITU, for example, should consider reassessing its model of participation, which *inter alia* allows Member States to object to the participation of civil society groups based in their territory. It is of vital importance that SSOs continue and further strengthen their efforts to increase participation from the Global South, including through awareness raising and capacity building.<sup>94</sup>

<sup>91</sup> Eg., the IRTF's Human Rights Protocol Considerations Research Group (<https://irtf.org/hrpc/>), which produces in-depth guidance documents on human rights questions, such as <https://datatracker.ietf.org/doc/rfc8280/>. The IAB's <https://datatracker.ietf.org/doc/rfc6973/> is another example. W3C's task force of experts in privacy, Web architecture, etc. writing a statement of privacy principles that can then be applied throughout the Web standards process, <https://www.w3.org/TR/privacy-principles/>.

<sup>92</sup> <https://community.icann.org/display/prjxplrpublicint/GPI+Toolkit>.

<sup>93</sup> <https://www.ohchr.org/en/documents/tools-and-resources/guidelines-effective-implementation-right-participate-public-affairs>. A/HRC/RES/39/11 presented these Guidelines as a set of orientations for States and others.

<sup>94</sup> Bridging the Standardization Gap is, for example, a strategic priority of ITU-T, <https://www.itu.int/en/ITU-T/gap/Pages/default.aspx>.



58. Addressing resource constraints – a related priority – can be done by reducing or dropping fees or granting fee waivers and providing travel and other funds to underfunded stakeholders to promote inclusivity.

59. A particular focus should be on promoting equal gender representation in standard-setting processes and gender responsiveness of standards.<sup>95</sup> UNECE's Declaration for Gender Responsive Standards and Standards Development<sup>96</sup> outlines key actions to this effect. This includes the need to proactively create and maintain cultures free from misogyny and discrimination. SSOs should develop codes of conduct and effectively enforce them. Ombudspersons or other dedicated units that hear victims of discrimination and abuse, investigate incidents and sanction perpetrators are indispensable for creating an enabling environment.

60. SSOs should also collect and publish data about gender, geographic origin, institutional background of participants in their committees and/or management bodies.<sup>97</sup> Such data facilitates accurate assessments of representation gaps, where to focus resources – and also of successes in addressing inclusion failures.

61. Proactively seeking inputs from the public is important for broadening the basis of information that should inform standard developing processes. Many SSOs already built public consultations into their standards-setting processes, for example by inviting the submission of written comments. However, such consultations are often little known and sometimes impose unrealistic timeframes. SSOs could improve the situation by pro-actively reaching out to relevant experts and those affected by the technology.

62. When SSOs limit membership to single national entities, mirror committees can be a vital forum for all stakeholders to participate in elaborating a national position, provided they are established in line with the principles of transparency, openness and inclusiveness.<sup>98</sup>

## B. Participants in standard-setting processes

63. Participants in working groups and committees driving the development of a standard for a particular technology have a paramount role to play in aligning standards with human rights. Companies have a central role, from the negotiations of a standard to its adoption and implementation. In addition to their responsibility to respect human rights,<sup>99</sup> companies are also often in the best position to achieve better human rights integration within standard-setting processes. They have greater resources than other stakeholders, have access to a pool of technical expertise, and are at the heart of the implementation of the standards once adopted – giving them greater leverage in the negotiations. In addition, many of them can rely on existing capacities and experience in the field of business and human rights.

64. There are many good examples of companies implementing the UNGP in meaningful ways, including in standard-setting processes where companies at times have been at the

<sup>95</sup> For examples of positive action, see [ITU WTSA Resolution 55 – Promoting gender equality in ITU Telecommunication Standardization Sector and the ITU Women in Standardization Expert Group \(WISE\)](#), ISO's Gender Action Plan 2022 – 2025, <https://www.iso.org/strategy2030/key-areas-of-work/diversity-and-inclusion.html>; and guidance on gender responsive standards by ISO/IEC Joint Strategic Advisory Group on Gender Responsive Standards, <https://www.iso.org/files/live/sites/isoorg/files/standards/docs/en/Guidance%20on%20Gender%20Responsive%20Standards.pdf>.

<sup>96</sup> <https://unece.org/trade/wp6/Gender-Resp%20-Stds-declaration>.

<sup>97</sup> See as examples of current practices <https://www.w3.org/blog/2022/07/diversity-and-inclusion-at-w3c-2022-figures/>; <https://datatracker.ietf.org/meeting/112/materials/slides-112-ietf-sessa-ietf-chair-report-01> and ISO's Gender Action Plan 2022-2025.

<sup>98</sup> In its guidance for ISO national standards bodies, ISO recommends that national mirror committees are established whenever possible, <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100269.pdf>.

<sup>99</sup> Paras.32-34.

forefront of upholding human rights.<sup>100</sup> But based on the consultations for this report, proactive engagement of companies needs to improve. In particular, more companies should apply a human rights lens when approaching standard-setting and standard implementation. To avoid duplication of work while enhancing positive impact, companies can share resources. For example, impact assessments, information gathering and engagement with affected groups and stakeholders can be coordinated and partly done together.

65. Progress will also depend on the ability of the better-resourced and influential actors in standard-setting processes to bridge internal silos. Too often, States and companies leave standard development to technical experts rather than integrating already existing internal human rights capacity into their delegations, missing a crucial opportunity to contribute to human rights-respecting outcomes.

## VI. Conclusions and recommendations

66. This report addresses the multifaceted relationship between human rights and technical standards for digital technologies. It has highlighted the range of impacts – positive and negative – that technical standards have on the exercise of human rights. While they can create conditions conducive for exercising human rights, they may also enable rights violations and abuses. Further, they may be an obstacle for more inclusive, empowering technology. Acknowledging that technical standards are not deterministic in the sense that human rights can always easily be hard-coded therein, there can be no doubt that making human rights considerations an integral part of standard-setting processes - in terms of inclusive participatory processes and assessing human rights impacts more systematically - would be an important step forward for upholding and strengthening human rights in the digital age.

67. Despite some encouraging examples, this analysis surfaced a multitude of shortcomings regarding human rights integration in standard-setting processes. Standard-setting processes reflect power and resource disparities that shape the digital technology sector at large – benefitting large companies and governments of high-income countries. In many SSOs, participation by civil society actors is extremely limited, leading to outcomes that neglect important perspectives. Resource constraints create barriers for participants from the Global South, members of marginalized communities, civil society organizations, and SMEs. A male-dominated culture disadvantages women and LGBTIQ+ people. And a widespread attitude that regards technology, and thus its underlying standards, as neutral and focuses on technological expertise to the detriment of other skill sets, makes it difficult for experts with backgrounds in social sciences, human rights and ethics to be accepted as legitimate contributors. This in turn undermines consistent integration of human rights.

68. There is no simple solution to these complex challenges.<sup>101</sup> Rather, sustained multidimensional efforts by States, SSOs and all stakeholders are needed. These must put human rights front and center and ensure that standard-setting processes rest on multistakeholder principles and become as transparent, open and inclusive as possible. While some SSOs have recognized the need for such action and initiated valuable programs to overcome gaps, more is needed. To support such efforts, OHCHR is initiating a project on technical standard-setting to contribute to the implementation of recommendations set out below, and hopes for the active engagement and support of SSOs, States, and civil society. OHCHR stands ready to assess existing processes and advise on efforts to integrate human rights within standard-setting processes, and to provide the Council with updates on the project and standard-setting related developments at large. We recommend the Council remain seized of the matter.

69. Against this background, the High Commissioner recommends that Member States:

<sup>100</sup> Eg., Ericsson advocated in 3GPP for protecting against IMSI-catchers, <https://www.ericsson.com/49295a/assets/local/about-ericsson/sustainability-and-corporate-responsibility/documents/2021/5g-human-rights-assessment---final.pdf>.

<sup>101</sup> <https://www.ohchr.org/en/statements/2023/02/turk-addresses-world-standards-cooperation-meeting-human-rights-and-digital>.

(a) When participating in standard setting processes, refrain from and prevent the development of standards that could foreseeably facilitate human rights violations and abuses. States should conduct meaningful consultations with all stakeholders to gain a comprehensive picture of the issues at stake and possible solutions and include human rights experts in their delegations alongside technical subject matter experts.

(b) Ensure that national, recognized SSOs are open, transparent and inclusive, applying the same standards as set out in para 70.

(c) When delegating regulatory functions to SSOs, ensure that this is done in compliance with States' human rights obligations and that such delegation does not put the enjoyment of human rights at risk, bearing in mind that States' human rights obligations are not transferable. This includes ensuring that all stakeholders can meaningfully participate throughout standard-developing processes, which may include providing funds to those under-resourced and facilitating inputs from the public. In addition to other aspects, such as safety, efficiency, and technological soundness, States should ensure that human rights considerations are adequately integrated in legally mandated processes.

(d) Provide assistance and support to civil society to develop capacity to meaningfully and independently participate in standard-setting processes.

70. The High Commissioner recommends that SSOs:

(a) Review their operations to assess how they affect the enjoyment of human rights, identify possible shortcomings and take meaningful action to improve the integration of human rights considerations into their practices, in line with UNGPs.

(b) adopts policy commitments to respect human rights throughout their operations, reflected in operational policies and procedures and paired with the establishment of accountability mechanisms.

(c) Put in place adequate human rights due diligence processes to identify, prevent, mitigate and account for adverse human rights impacts. This should include assessing actual and potential human rights impacts, integrating and acting upon findings, tracking responses, and communicating how impacts are addressed. In particular, they should consider establishing organization-wide screening mechanisms to identify from the get-go standard-setting processes with high risks for human rights, monitor the human rights impacts of their standards throughout implementation, mitigate adverse human rights impacts, and provide remedy where harm has occurred.

(d) Make standard-setting processes as transparent, open and inclusive as possible. All relevant documentation should be free and publicly available, including working documents, standards under development, information on all participants, meeting minutes, and written communications. Standards should be adopted consensually and published for general use, ideally without fees. When participation in international SSOs, such as ISO and IEC, is limited to single national entities, the process for developing their positions, for example in mirror committees, should apply the same principles.

(e) Take proactive steps to facilitate and increase participation by women, experts and stakeholders from underrepresented backgrounds, including from the Global South. It is crucial to address resource inequity, including by reducing or dropping fees or granting fee waivers and providing travel funds. Other measures can include adopting or revising and enforcing codes of conduct and developing mentoring and onboarding programmes.

(f) As part of their standard-development processes, carry out effective public consultations and outreach to experts, groups and individuals who may be affected by the standards in question.

(g) Collect and publish data about participation patterns in their standard-setting processes, including on gender, geographic origin, stakeholder groups of participants, and other relevant information for assessing inclusiveness.

71. The High Commissioner recommends that businesses:

(a) When participating in standard developing processes, fully meet their responsibility to respect human rights and strive for coherence of their engagement in standard-setting processes and their commitment to human rights.

(b) Conduct human rights due diligence regarding their participation in standard-setting processes and the resulting standards. This includes carrying out adequate human rights impact assessments and meaningful engagement with potentially affected stakeholders. Businesses should not propose or support standards that could be the basis for or facilitate human rights violations and abuses. They should use their leverage to prevent or mitigate adverse impacts that decisions about the design of certain standards may have.

(c) When implementing technical standards, do so in the most rights-respecting way possible.

72. The High Commissioner encourages that civil society:

(a) Expand understanding and capacity necessary to enhance participation in standard-setting processes.

(b) Establish mechanisms for information sharing about ongoing and forthcoming standard-setting processes of relevance for human rights.