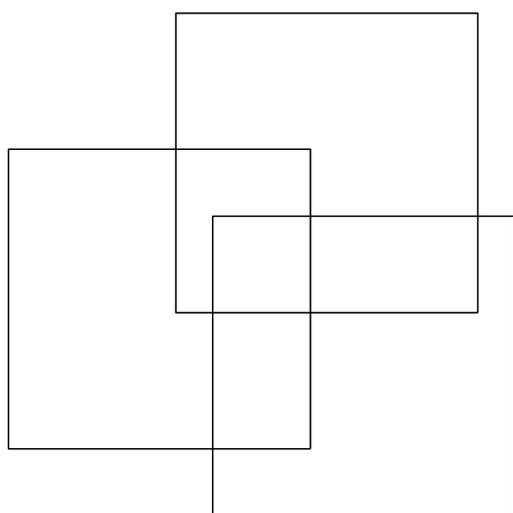




Final report

**Global Dialogue Forum on Decent Work in the Management
of Electrical and Electronic Waste (e-waste)**
(Geneva, 9–11 April 2019)



GDFEEW/2019/9

INTERNATIONAL LABOUR ORGANIZATION

Sectoral Policies Department

Final report

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of Electrical and Electronic Waste (e-waste)**
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Geneva, 2019

INTERNATIONAL LABOUR OFFICE, GENEVA

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I. Introduction

1. The Global Dialogue Forum on Decent Work in the Management of Electrical and Electronic Waste (e-waste) was held at the International Labour Office in Geneva from 9 to 11 April 2019. The Governing Body of the International Labour Organization (ILO) decided to convene the Forum at its 329th Session (March 2017) and approved the date and composition of the Forum at its 334th Session (October–November 2018).
2. The purpose of the Forum was to allow the tripartite participants to discuss current and emerging issues and opportunities related to the promotion of decent work in the management of e-waste, with the aim of adopting points of consensus, including recommendations for future action by the ILO and its Members. Taking place in the centennial year of the ILO, the Forum was also an opportunity to discuss more broadly the future of work in the circular economy.
3. The Chairperson of the Forum was Mr Nikhil Seth, Executive Director of the United Nations Institute for Training and Research (UNITAR). The Government Vice-Chairperson of the Forum was Mr Aniefiok Etim Essah (Nigeria). The Employer Vice-Chairperson was Mr Patrick Van den Bossche (Mr Van den Bossche was replaced by Mr Edgar Fernando Erazo Camacho on the first day), and the Worker Vice-Chairperson was Mr James Towers (Mr Towers was replaced by Mr Henrik Riisgaard and subsequently by Mr Kan Matsuzaki on the final day). The Secretary-General of the Forum was Ms van Leur, Director of the Sectoral Policies Department (SECTOR), the Deputy Secretary-General was Mr Isawa, Deputy Director of SECTOR, the Executive Secretary was Mr Edmonds, Head of the Extractives, Energy and Manufacturing Unit, who was assisted by Ms Nakagome, and the coordinator of the secretariat services was Mr Minocri, assisted by Ms Santini.
4. The Forum was attended by 60 participants, including the independent Chairperson, 16 Government representatives and advisers and 13 Government observers from 21 member States, as well as seven Worker and eight Employer representatives and eight additional members (three from the Employers' group and five from the Workers' group), and seven observers from intergovernmental organizations (IGOs) and international non-governmental organizations.
5. The Secretary-General welcomed the Chairperson. Prior to his present post as the Executive Director of UNITAR, Mr Seth had been Director of the Division for Sustainable Development in the Department of Economic and Social Affairs of the United Nations Secretariat, where he had served as head of the Rio+20 Secretariat and had been responsible for supporting the intergovernmental negotiations that had led to the adoption of the 2030 Agenda for Sustainable Development (hereinafter 2030 Agenda).
6. The Chairperson welcomed the participants. He indicated that he had recently attended the Fourth Session of the United Nations Environmental Assembly, which had examined six environmental outlooks prepared on the basis of a rigorous science-driven process. With one exception, the outlooks had found that the world was failing in all aspects of environmental management. The state of natural resources management and e-waste management had been subjects of special scrutiny. The twin forces of population growth and rising incomes were placing massive pressure on natural resources and leading to the cascading growth of e-waste. In the present circumstances, the circular economy was the only way in which the planet would be able to meet future demand. He recalled that the electronics industry was one of the largest and fastest growing sectors in the global economy. It was revolutionizing the way in which people lived in many ways, but was generating e-waste, which was not only the fastest growing waste stream, but was also highly complex, toxic and hazardous. It could therefore have an extremely negative impact on the environment and on human health,

particularly for the mostly informal and vulnerable workers who handled e-waste. It was also resulting in the creation of landfills that would be toxic for generations. Faced with what some have called a “tsunami of e-waste”, there was no room for complacency. The member States of the ILO and the United Nations urgently needed to design and strengthen the systems, policies and capacities required to manage e-waste in ways that advanced decent work, protected the planet and promoted health, especially for the women and children working with e-waste in the informal economy in poor countries. Research showed that, with the right mix of policies and targeted investment in municipal waste management systems, sustainable enterprises and cooperatives, the collection and reuse of e-waste offered profitable and productive business opportunities. However, there was still a long way to go before e-waste was managed in ways that advanced decent work, protected the environment and supported a just transition to a circular economy in the electronics industry. In response to those issues, the Forum brought together representatives from governments and from employers’ and workers’ organizations across the world with significant experience and insight on the challenges and opportunities involved in the management of e-waste.

7. The Secretary-General recalled that e-waste, which included any waste with a battery or a plug, had become one of the fastest growing streams of waste in the world. In 2016, a total of 44.7 million tonnes of e-waste had been generated globally, equivalent to almost 4,500 Eiffel Towers which, if put together, would cover an area the size of Manhattan. There was no sign that the growth of e-waste would slow down. By 2021, the amount of e-waste generated by the public and private sectors and by individual consumers was expected to reach 52.2 million tonnes. Since the 1990s, the discussion of e-waste had been largely focused on its devastating impacts on human health and the environment. The solutions put forward by the international community had focused on ways of preventing the transboundary movement of e-waste from developed to developing countries and the protection of the environment. However, many reports also highlighted significant decent work deficits in the management of e-waste, including: high levels of informality; poor, unsafe and unhealthy working conditions; child labour; lack of social security; and discrimination. The absence of trade unions and employers’ associations in the sector in many countries gave rise to considerable challenges for workers and employers to organize, protect the interests of their members and contribute to advancing decent work in the management of e-waste. However, the management of e-waste offered opportunities for business and decent work. With the adoption of the 2030 Agenda, the issue of e-waste management had become part of the broader quest for sustainability. The advancement of decent work in the management of e-waste was key to achieving several Sustainable Development Goals (SDGs), including SDG 8, which called for sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. Indeed, there was growing recognition that labour market policies, formulated by ministries of labour or employment, together with employers and workers, would play a crucial role in ensuring that e-waste was managed better. For example, in Mexico and Nigeria, e-waste entrepreneurs had created sustainable enterprises which extracted, reused and recycled the valuable materials contained in e-waste, while generating jobs. Cooperatives in Brazil and India handled e-waste in ways that were safer for the workers and better for the environment. The Forum was of historical importance, as it was the first time in the ILO’s long history that governments, employers and workers would be discussing current and emerging issues and opportunities related to e-waste. It offered a clear opportunity to discuss what worked, what did not work and what needed to be done better to advance decent work in e-waste management. It also offered an opportunity to look to the future and discuss how the linear model of “extracting–making–using–disposing” electronic products could be turned into a circular economy with much greater emphasis on reuse and recycling, which could feed into an emerging discussion of how to shape a future that worked for all in the circular economy. She therefore hoped that the members of the Forum would adopt points of consensus containing clear recommendations for future action by the ILO and its constituents to advance decent work in the management of e-waste.

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8. The Deputy Secretary-General introduced the procedural aspects of the Forum, which would be governed by the new Standing Orders for technical meetings and meetings of experts, adopted by the Governing Body at its 334th Session in October–November 2018.
 9. A member of the secretariat presented the Issues paper. Chapter 1 provided an overview of e-waste and the different approaches to its discussion. Chapter 2 described the key challenges and opportunities for decent work through the lens of the four strategic objectives of the Decent Work Agenda. Chapter 3 outlined the governance of e-waste, including international and regional regulations in selected countries. Finally, chapter 4 highlighted key considerations about how to address decent work challenges and opportunities in e-waste management.

II. General discussion

10. The Employer Vice-Chairperson said that e-waste offered opportunities for business and for employment and decent work, particularly in emerging economies. It was an important time for a sincere and open discussion to be held on the subject, the importance of which was underlined by the recent estimates that the total volume of e-waste now exceeded 50 million tonnes. It was incumbent on governments to lay out the direction of the action to be taken in response to the major challenges that arose in relation to e-waste, such as the prevalence of the informal economy in the management of e-waste, measures to give the workers concerned access to social protection, and to eliminate child labour in the sector in those countries where it occurred. Action would be needed to address the gender inequality that often affected the sector. A joint response was also required on how to communicate with the public and inform consumers of the action required for the environmentally friendly management of e-waste. For the workers concerned, it was important to explore means of improving their skills, eliminating hazards to their safety and health and improving their welfare. One significant aspect of e-waste was its considerable potential for job creation, with some estimates suggesting that over 350,000 green jobs could be created under decent conditions. That suggested that e-waste should be seen less as waste and more as a resource for the reuse of materials. The development of a circular economy based on re-using materials and components would reduce the negative impact on the environment. However, none of that could be achieved without broad cooperation to achieve common objectives, based on sound public policies. In November 2018, the United Nations University had found that only 20 per cent of e-waste was recycled. And yet responses were possible. In Colombia, for example, six years ago there had only been five organizations recycling e-waste in an environmentally sound manner, but the number had now grown to over 40. An appropriate mix was needed of policy measures and technological and organizational initiatives that were adapted to the needs and characteristics of each country. The measures adopted needed to take into account that the majority of enterprises working in the area were micro-, small and medium-sized enterprises. Investment in recycling infrastructure should be identified as a means of promoting decent work and introducing modern technology. Employers were committed to working with governments and workers in support of this agenda.
11. The Worker Vice-Chairperson emphasized that the Workers' group represented both union members and non-unionized workers in the e-waste industry. The trade unions represented were all affiliates of the IndustriALL Global Union, which represented over 50 million workers across supply chains in manufacturing, energy and mining. The e-waste industry was growing in importance and was producing the fastest growing waste stream, which was hazardous, complex and expensive to treat in an environmentally sound manner. There was still a great general lack of legislation and enforcement in the industry in many countries. Most e-waste work in developing countries was concentrated in the informal economy, where issues arose relating to the protection of fundamental workers' rights, the elimination of child labour, precarious working conditions, and neglect of health and safety. The supply

chains that fed the electrical and electronics industry were growing in size and complexity, as technology pervaded every area of people's lives, which would result in the continued growth in the quantity of e-waste. All stakeholders in the supply chain had the responsibility to provide safe, healthy, clean and sustainable jobs, and workers had the right to expect such jobs. The issues and challenges of e-waste should be more focused on the circular economy, and the ways to advance decent work in the industry would need to be discussed intensely in the Forum. The future of work should bring fair working practices and a just transition for e-waste workers, who should be provided with the knowledge and skills to handle e-waste properly. The industry needed to be formalized based on the proper implementation of international regulations and standards. Action by all the stakeholders should be strengthened to ensure trade union rights and decent working conditions throughout the supply chain and the life cycle of products. Strong and sustainable industrial policies were required to address the challenges of the circular economy and globalization, based on solidarity and cooperation between developed and developing countries, to achieve sustainable employment and environmental practices for the future manufacturing and management of e-waste. It was to be hoped that the Forum would engage in fruitful and constructive discussion of all those issues with a view to agreeing on a way forward to achieve decent work for all e-waste workers in all regions.

- 12.** The Government Vice-Chairperson welcomed the organization of the Forum and the discussion of decent work in the management of e-waste, which was long overdue, especially in view of the large amounts of e-waste generated and the job opportunities available in the sector. He called on member States to share their experiences and relevant national regulations to promote best practices in the industry. It was the responsibility of governments to create a conducive environment for the development of the sector, based on broad discussion of the necessary policies and regulations. The work that was created in the sector should be decent, with the workers involved benefiting from social protection and other rights at work. In order to improve conditions in the industry, it would also be necessary to strengthen social dialogue institutions in the countries concerned.
- 13.** The representative of the Government of Ireland said that prior to the adoption of Directive 2012/19/EU of 4 July 2012 on waste electrical and electronic equipment (WEEE), much of the e-waste produced in his country had been dumped. However, since the implementation of the Directive, the situation had changed and the objective in 2019 was for 65 per cent of e-waste to be collected for recycling and reuse. He added that the collection of e-waste was only possible through the use of compliance schemes and the protection of workers' rights in the operation of the collection facilities. He also emphasized the need for more sustainable consumption patterns and the increasing reuse and better repairability of electrical and electronic equipment. A major concern for Ireland was the leaking of electrical and electronic waste into the informal economy, where it often subsequently found its way to developing countries. A key priority for the country was the transition to the circular economy, which would provide better jobs in the sector. Eco-design requirements and associated modulated fees could drive the growth of reuse enterprises.
- 14.** The representative of the Government of India said that the electrical and electronic waste sector was adequately covered by national laws, namely the Factories Act (No. 63 of 1948) and its subsidiary legislation. The Government had also adopted safety and health and environmental policies covering all workplaces. India was considering the ratification of the Occupational Safety and Health Convention, 1981 (No. 155), the Chemicals Convention, 1990 (No. 170), and the Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187).
- 15.** The representative of the Government of Uruguay recalled that the national Constitution covered the protection of workers, guaranteed decent work and protected the environment. It was important in the present discussion to take into account the relationship between decent work and environmental protection, as well as the synergy between existing

instruments and programmes on the management of chemicals, including the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (the Basel Convention) and the Strategic Approach to International Chemicals Management (SAICM). The rapid growth of the sector offered the opportunity to generate employment, and particularly green jobs as part of the circular economy. However, there were also significant challenges related to decent work and health in the sector, particularly with regard to informality, health and safety risks and limitations on freedom of association. The management of waste in Uruguay, including e-waste, was covered by the General Act on the Environment and the Parliament was currently examining a bill on integrated waste management, which considered e-waste to be a specific category of waste and took into account many of the aspects covered in the Issues paper prepared for the Forum. The number of cooperatives dealing with this type of waste had increased in Uruguay in recent years, with a high level of reuse. Local governments had provided important support for that process. Finally, she referred to the “Ceibal” Plan in Uruguay, through which laptop computers were provided for young persons with a view to reducing the technological gap, and which had its own department for the management of e-waste and was providing important guidance on the proper management of e-waste. International cooperation would be key in addressing the issues arising in relation to e-waste.

16. An observer representing the International Telecommunication Union (ITU) reaffirmed the ITU’s mandate in relation to the information society and related environmental issues. At the ITU Plenipotentiary Conference in 2018, two targets had been set to be accomplished by 2023: increase the global e-waste recycling rate to 30 per cent and raise the percentage of countries with e-waste legislation to 50 per cent. He added that in 2016, around 67 countries had legislation on e-waste. Both of the targets related to labour in certain ways, as more recycling had the potential to increase employment in the circular economy and legislation on e-waste should ideally give effect to international labour standards. The ITU was engaging in several activities relating to the reduction of e-waste, including making recommendations on standards for universal power adaptors and chargers and green battery solutions. The ITU, in partnership with other agencies, and particularly the United Nations University, was jointly publishing the Global E-waste Monitor and regional e-waste monitors, and was developing an online portal, globalewaste.org, which would store and disseminate global data and statistics on e-waste. However, it was widely recognized that there was very little data on e-waste, especially in relation to labour matters, such as the number of informal workers involved or the potential for creating green jobs in e-waste. Finally, he noted that the ITU, in the same way as the ILO and six other United Nations agencies, was a signatory to a letter of intent to establish a United Nations E-waste Coalition.

17. An observer representing the Organization of African Trade Union Unity (OATUU) recalled that the OATUU represented the African trade unions in over 50 countries with 40 million members. He emphasized that workers were the first victims of unsafe work practices in the e-waste sector which were an affront to the fundamental values of the ILO.

III. Consideration of the proposed points for discussion

1. What decent work challenges and opportunities have arisen in the management of electrical and electronic waste (e-waste)?

18. The Worker Vice-Chairperson highlighted the many decent work deficits faced by e-waste workers, and particularly the lack of social protection and respect for fundamental workers’ rights, precarious working conditions and poor occupational safety and health (OSH),

including exposure to hazardous or contaminated waste, and the prevalence of child labour in the sector. For example, in India, workers engaged in the management of e-waste did not have the knowledge and skills to handle e-waste properly and were unaware of the operation of the markets in which they were working. They did not have proper employment contracts, lacked social protection, laws and regulations were not implemented effectively and there was no constructive social dialogue to find solutions for e-waste workers to transition to formality. It was necessary to engage in social dialogue at the international, regional and national levels to examine how the value of e-waste could be upgraded to achieve decent work for all involved. It was also important to examine the types of international regulation, conventions, recommendations and guidelines that could be applied to advance decent work for e-waste workers, over and above fundamental rights at work. There were many good examples and practices of e-waste work in developed countries, and more research was required on how they could be transferred to developing countries. Mapping and research was also needed on the actual operation of the e-waste market and the responsibilities of the various stakeholders.

- 19.** The Worker representative from India, representing the Self Employed Women's Association (SEWA), explained the conditions in which women worked in India to dismantle components of used electronic equipment that had been recovered from ships sent to Rajasthan for breaking. They had no idea of the techniques to be used to break up the waste and no precautions were taken, resulting in much damage to their skin, bodies and health, including miscarriages. Their work consisted of manually separating the various metals, including copper, gold and aluminium, and selling it to intermediaries. The women had no knowledge of the value of the waste they were recuperating or of the proper techniques for dealing with hazardous materials. Their work was entirely manual and they had no protection against exposure to hazardous or contaminated waste. They were unaware of the circular economy and had no visibility. To address these issues, SEWA focused on organizing the women, improving health and safety conditions, increasing their visibility and working with the authorities to obtain social protection.
- 20.** The Worker Vice-Chairperson emphasized that the example of women workers in India highlighted the need for better working practices. Good examples existed of how the work should be carried out, for example in the European Union (EU), but those good practices stopped at the borders of the countries concerned. There was an urgent need to support e-waste workers, particularly in developing countries, by finding ways of transferring good practices adopted elsewhere. In particular, it was important to encourage the multinational enterprises which produced electrical and electronic equipment to act in a responsible manner, based on a social conscience, and not to confine themselves to strictly financial considerations.
- 21.** The Employer Vice-Chairperson reviewed the challenges and opportunities arising out of the management of e-waste. Although e-waste offered significant opportunities for employment creation, most of the jobs involved were still informal, and the workers concerned therefore lacked social protection and the fundamental rights necessary to ensure decent work. It was important to ensure that the work created in the sector was decent so that all the workers in the value chain could benefit. If suitable methods were adopted, raw materials would be recycled and new products and services could be offered, ensuring that value was added through recycling and reuse. There were good examples of job creation in the sector with improved working conditions. By way of illustration, in Colombia, public-private partnerships were being developed to encourage the green economy and formalization. The number of organizations involved in the management of e-waste had increased markedly over recent years in the country. Initiatives of that type offered the potential to overcome the negative image of work in the e-waste sector and to provide training and capacity-building in an area that could generate resources for the national economy. It was necessary to focus on how the challenges could be addressed through the protection and formalization of the workers involved, the strengthening of small and

medium-sized enterprises (SMEs) in the sector and the establishment of social protection floors. Such measures would help to ensure equality for women and men in the e-waste business, and the elimination of child labour where it existed. Formalization of work in the sector would help to improve opportunities for social dialogue and for the involvement of all actors in ensuring equitable and environmentally sustainability solutions, in accordance with the guidance provided by the ILO *Guidelines for a just transition towards environmentally sustainable economies and societies for all* (2015). However, it should be recalled that the types of dialogue and involvement that existed differed in the various countries and that the application of the respective principles should take into account national specificities.

22. The Chairperson highlighted the need for more granular and specific data and analysis, based on a more rigorous and scientific approach, as a basis for an informed discussion with a strong evidence base. Wherever possible, data should be gender and age disaggregated, and country specific.
23. The Government Vice-Chairperson agreed on the great need for data as a basis for analysing the situation and planning the appropriate measures. He emphasized that there were clearly opportunities in the sector for job creation for young and creative entrepreneurs. In view of the very high level of informality in the sector in developing countries, it was necessary to outline specific measures. There were many different forms of legislation and regulation at the national level, as well as important international labour standards, particularly on OSH, but better coordination was needed for their application in the sector, especially between ministries of labour and of the environment. It would be necessary to develop and implement a functional policy framework covering such areas as employment, waste management, the protection of workers, formalization and the development of cooperatives, backed up by a stronger capacity for the enforcement of the applicable laws and regulations. In some countries, the agencies or institutions responsible for enforcement were either weak or non-existent, and there was accordingly a great need to strengthen the relevant institutions and to build the capacity of inspectors to inspect work in the e-waste sector and identify cases of exploitation and the vulnerability of workers. It was also essential to develop social dialogue to ensure the constructive engagement of the social partners and guarantee freedom of association in the sector. However, there was currently an absence of organizations representing e-waste workers. Strong awareness was required, with the proper engagement of all stakeholders, of the hazards and health implications of work with e-waste. As work with e-waste, particularly in developing countries, was mainly carried out by micro-, small and medium-sized enterprises, maximum benefits could be achieved through the registration of SMEs, which would facilitate their inspection and regulation. Labour inspectors did not normally visit establishments that were not registered and formalized. The sharing of good practices at the national level could help to improve the situation.
24. The representative of the Government of India indicated that legislation on e-waste had been adopted in India in 2012, and revised in 2016. In accordance with the legislation, all e-waste collection centres, dismantlers and recyclers were required to register with the State Pollution Control Boards. The legislation was based on extended producer responsibility (EPR) as an integral part of e-waste management. With the revision of the legislation in 2016, EPR had become a federal responsibility and producers were required to establish deposit mechanisms and incentives for consumers to return used electronic equipment for recycling and reuse. The national policy on safety, health and the environment was based on the premise that without a clean and safe environment and healthy working conditions, social justice and economic growth could not be achieved and that a safe and healthy working environment was a fundamental human right. The Government was also taking the lead in the adoption of social protection measures for workers in the unorganized sector, including medical and old-age benefits.

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25. The representative of the Government of Ireland said that Irish legislation covering e-waste was underpinned by the polluter pays principle, now known as EPR, which formed the basis of much EU legislation on waste management. Where costs were involved in the management of waste, they should be covered by the producer. The approach adopted to e-waste was in certain ways an extension of the action taken on plastics.
 26. The representative of the Government of Algeria drew attention to the lack of precise data on decent work in the e-waste sector, which was dominated by people working informally. Progress in the management of e-waste and in the related work would only be achieved with greater knowledge of the sources of the waste, namely the producers and importers of electrical and electronic equipment. Such knowledge could be used to develop much better awareness among workers of the risks involved in e-waste recovery and to educate consumers, households and the community concerning the principles of the circular economy, based on the recycling and reuse of waste.
 27. The Chairperson said that the lack of data on the sector did not mean that no action should be taken. Indeed, the urgency and magnitude of the problem made it necessary to move forward based on the information that was available, while emphasizing that the collection of reliable data was a priority for the resolution of e-waste issues in future.
 28. The Worker Vice-Chairperson warned that data collection might not be of much use without a clear purpose. Discussion of the issues in the sector necessarily focused on the dynamic between informal and formal work. Job creation in and of itself would not be a favourable outcome unless the quality of the jobs was ensured, so that it could be guaranteed that the workers concerned were not exploited. It was important to place emphasis on education and increased awareness of the need for producers to reorient their thinking to prioritize an extended lifespan for their products, which could be supported by financial incentives. While it was not difficult to identify the overall problems relating to e-waste workers, the challenge lay in identifying the measures to be taken to improve their situation. In particular, it was very difficult to ensure the effective coverage of informal workers by the four strategic objectives of the Decent Work Agenda.
 29. The Employer Vice-Chairperson welcomed the many areas of consensus that had emerged during the discussion, and particularly the emphasis placed on the creation of decent jobs, for which the process of formalization, as set out in the Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204), was essential. Regulation alone would not solve the problem, but should be part of a balanced and integrated approach that also included the education of consumers, cooperation and planning. It would be very difficult to address such issues as OSH in e-waste work unless there was an effective transition to formality. The benefits of any commitment made by employers could not be extended to those whom they could not reach, namely those working informally. Social dialogue was also of great importance and could help to achieve progress in the medium and long term with the involvement and support of the stakeholders. The Forum offered the opportunity for knowledge generation and increased awareness of the importance of involving the community as a whole in the adoption of new measures, which could help to change the image of the sector. Increased social acceptance would in turn facilitate the transition to formality.
 30. The Government Vice-Chairperson, speaking on behalf of his country, Nigeria, said the creation of decent work in the e-waste sector was the shared responsibility of all the social partners. However, at the national level, certain social partners were stronger than others. Formalization was not only a matter for governments, and employers and workers also had a distinctive role to play. He emphasized the need to strengthen capacities for oversight and inspection, including of informal and domestic workers. Noting the lack of statistics in the Issues paper on gender equality in the sector, he added that it would be difficult to address

issues of gender inequality in e-waste management adequately without better and more granular data on the subject.

- 31.** The Chairperson, summarizing the discussion, noted the agreement among all speakers that e-waste was an issue of such gravity and seriousness, and was closely related to the principles set out in the SDGs, that meaningful dialogue was essential across the sector, including with producers, consumers and the authorities responsible for the regulatory framework. There was a pressing need to improve awareness, education, information, data and regulation in the sector, including incentives for action, with a view to promoting transparency, creating a safe environment for workers and further developing a life-cycle approach to electrical and electronic products. A major issue was how to speed up the transition from informality to the formal economy. Finally, reflection was needed on how to engage in more effective social dialogue with workers, employers and societies as a whole on the management of e-waste.
- 32.** The Worker Vice-Chairperson emphasized the need for a broad and universal definition of “e-waste”. At present, depending on the national provisions and context, e-waste originating from such varied sources as vehicles, weapons or ships might not be classified as e-waste. That meant in practice that much e-waste was still scrapped, rather than being recycled or reused. A broad definition of e-waste would increase the accountability of manufacturers and the traceability of products. He added that it was important to focus on how the wealth generated by producers could be redistributed throughout the supply chain, and particularly how it could benefit low-paid workers in global supply chains. It was very important to increase observance of the polluter pays principle in the sector, for example through financial incentives to convince more consumers to recycle used products. Moreover, although developed countries exported high volumes of e-waste, they tended to have policies on the collection of e-waste, but not on its export. Research on the export of e-waste could therefore be interesting.
- 33.** The Employer Vice-Chairperson said that the discussions had highlighted several areas of consensus. The first was the specificity of the sector and the importance of ensuring the sound management of e-waste, which would be to the benefit of everyone, especially through the application of ILO principles to workers in the sector. Secondly, it was necessary to gather more information on the e-waste practices in the various countries as a basis for developing a broad and sustainable approach to e-waste management in a greener economy, in line with SDGs. For example, in certain Latin America countries, progress was being made in the transition of informal e-waste workers into formal employment. With political will, improvements in the management of e-waste could make an important contribution to the development of a circular economy.
- 34.** The representative of the Government of Ireland said that, in his country, a scheme of visible recycling fees had proved to be effective in promoting the recycling of e-waste and raising public awareness. However, he noted that, under EU legislation, vehicles that reached the end of their life were not currently treated as containing e-waste because end-of-life vehicles were treated differently from e-waste. The situation was similar in relation to shipbreaking.
- 35.** The Executive Secretary said that, in preparing the Issues paper, considerable efforts had been made to contact the relevant organizations, and particularly United Nations agencies, to obtain gender disaggregated data for the sector. However, it had only been possible to identify rather unreliable and limited data for the general waste management sector. As part of the preparations for the Forum, the Office had commissioned three country studies covering Argentina, India and Nigeria, which would be published soon. The studies contained fragmentary gender disaggregated data on the sector, suggesting that the participation of women in the sector varied from country to country. In Nigeria, the study had found almost equal numbers of women and men workers in the e-waste sector, while in contrast, although on the basis of rather unreliable data, it appeared that most e-waste

workers in Ghana were women. The study on India had found that the gender distribution of workers in the e-waste sector was heavily influenced by the caste system, resulting in a pyramid-type distribution of the e-waste workforce. A majority of women workers were found in the lower parts of the pyramid, and were often from the Scheduled Tribes and Castes. The profits from the trade in e-waste tended to be concentrated among a few men at the top of the pyramid, often from other castes.

36. The Worker representative from India, in response to a question from the Chairperson, indicated that official employment data on women in the e-waste sector in India did not exist because of the informality of the sector, although it was clear that there were very few men involved at the lower levels. The informality of the sector made it extremely difficult for trade unions to unionize workers. Moreover, with regard to the collection of data, many women e-waste workers were extremely reluctant to speak about their work and the related problems in public because they feared losing their jobs.
37. The Government Vice-Chairperson agreed that the informality of the sector made it difficult to compile reliable data and for labour inspectors to enforce fair labour practices. Women working in the e-waste sector in Nigeria also tended to keep quiet about their conditions of work due to fear of losing their jobs. It was critical to transform informal e-waste work into formal employment through the adoption of some of the good formalization practices adopted in other regions.
38. The representative of the Government of the Syrian Arab Republic emphasized that, due to the differences in conditions in the sector in the various countries, and particularly between developing and developed countries, a one-size-fits-all approach could not be applied. It was also important to highlight the disadvantages faced by women workers in the sector, as well as children, where they were involved.
39. The Employer Vice-Chairperson agreed that the solutions proposed needed to be adapted to the situations that existed at the country level. While it was urgent to take action, it was also necessary to undertake research and data collection to guide the action taken. ILO constituents should cooperate in sharing knowledge and experience of good e-waste management practices.

2. What has worked, what has not worked, and what more needs to be done to address these decent work challenges and opportunities?

40. The Worker Vice-Chairperson emphasized the need to produce more reliable and gender disaggregated data and information on work in the e-waste sector, and particularly to raise public awareness about e-waste, in a similar way to what had been done in relation to plastics, which had resulted in policy changes in practice. He referred to the example of the Tokyo Olympic Games as a good practice of public awareness raising. A call had been made to collect used mobile phones, from which materials had been extracted that had been used to produce the Olympic medals. All the stakeholders had participated, including the unions, which had served to raise public awareness of the e-waste value chain. Lessons could also be learnt from best practices in other sectors, such as mining. Another example was a community initiative in Amsterdam, where a repair café had been established to repair electronic equipment and facilitate its continued use. However, care needed to be taken to ensure that community and other initiatives did not result in the exploitation of workers. Another initiative had been adopted in the Russian Federation, where the requirement for labels facilitated recycling. The lack of reliable data and of resources was hindering the design of training programmes to improve skills in the sector, and to promote the health and safety and well-being of workers. The example of women workers in India showed that they essentially broke up the used equipment and extracted the materials as best they could. It

was important to ensure that the manufacturers of electrical and electronic equipment contributed to training on the dismantling, recycling and reuse of that equipment. Although many countries had ratified the relevant international labour standards, they were frequently not applied in e-waste work as much of it was carried out in the informal economy and it was a fledgling sector in its early stages of development. Although the limited data available hindered the promotion of gender equality and non-discrimination policies in the e-waste sector, it seemed self-evident, especially in view of the information provided by SEWA, that women made up the majority of e-waste workers and were subject to low wages as unskilled workers. It was also necessary to take into account the fact that, although safety and health and social protection measures should cover all workers, if the costs of implementation had to be borne by informal workers, their earnings would be further reduced.

41. The Employer Vice-Chairperson emphasized that something was not working, as around 80 per cent of the recycling of e-waste was still carried out in the informal economy in developing countries. Although the production of e-waste had largely been confined to developed countries, it was now expanding in developing countries. What was crucial was to find a means of facilitating the transition to formality with the support, not only of the producers of e-products, but also national and municipal governments, companies, workers and consumers. It was essential to promote consumer awareness, backed up by a sound business environment to deal with e-waste in a responsible and sustainable manner, which offered the potential for employment creation. It would not be possible to copy the policies adopted in countries at different levels of development, such as in the EU, and the approaches adopted would need to be adapted to the local context. One of the key aspects of the transition from informality lay in improving the productivity of informal workers. With formalization, it would be easier to recognize the valuable materials contained in e-waste and develop more effective processes for their collection and reuse. The skills available were often not adapted to those required by employers, and it was therefore vital to adopt a holistic and evidence-based approach to skills development. Although there was a shortage of reliable data, some data did exist and needed to be used as a basis for decision-making.
42. The Government Vice-Chairperson noted a diversity of views among Government representatives, influenced by regional differences and levels of development. However, there was agreement on the importance of reliable statistics and statistical institutions, based on international statistical standards, including gender disaggregated data. It was important to encourage informal operators to provide data as a means of identifying the challenges faced, especially relating to gender and safety issues. However, informal economy operators were often reluctant to report such data out of a fear of having to pay taxes or levies or being found to be illegal. Without reliable data at the national level, regional and international databases could not be accurate. E-waste was a fairly new issue and was not yet subject to the same level of awareness as plastic waste. There was therefore a shared responsibility among the social partners to raise awareness of the need for better management of e-waste. Greater awareness was also required of the need for investment in infrastructure and for manufacturers to invest in the management of e-waste. Governments were responsible for taking measures in several areas to facilitate the transition to the formal economy, such as improved enforcement, the promotion of cooperatives and the registration of small enterprises, and the reduction of administrative barriers to formalization. Once small enterprises were registered, they could be covered by social protection measures. Workers in e-waste were often some of the lowest paid and their informal status made it difficult to organize them, which in turn prevented them from engaging in consultation and negotiation with employers and governments to improve their safety and health and working conditions. Recycling should start with the design and manufacture of products, which placed the primary responsibility on producers. It was necessary to create an enabling environment in which sustainable enterprises and green jobs could prosper, based on enterprise-friendly laws and policies. When workers were registered, they would benefit from greater protection from a variety of social and economic organizations. When they were organized, they would have a voice and could engage in discussion with the Government. Some countries were

more advanced in the adoption of a regulatory framework governing e-waste, and particularly the Member States of the EU. Although the models adopted in developed countries could not be applied in developing countries without adaptation, assistance should be provided to developing countries in the form of training and capacity building.

43. The representative of the Government of India explained that a unique approach was being adopted in his country for the transition to formality. Over 90 per cent of the workforce in India, especially in agriculture and services, was in the informal economy. The formalization of the workforce was being achieved by issuing “organized workers identification cards”, containing a social security number, which allowed the enforcement of labour laws and social protection. The ministry responsible for skills development cooperated with the authorities responsible for labour, the environment, social security, health and other matters. Various public–private partnerships had also been established for the recycling of hazardous and chemical waste, based on the applicable legal framework.
44. The representative of the Government of Ireland said that, although there was a lack of data and statistics, all EU Member States were required to report the volumes of e-waste collected, recycled and reused for the various categories of electronic equipment. Although gender disaggregated data was not available, statistics existed on the volumes of e-waste generated and treated throughout the EU.
45. The representative of the Government of Nigeria said that in his country public–private partnerships had not produced the desired results. It was therefore necessary to engage in a discussion involving all those in the value chain, including the social partners and manufacturers. He noted that the main international producers were not represented in the Forum. The management of e-waste was now becoming a huge business in developing countries and it was important to hear the voices of all concerned, however small their role was in the sector.
46. The Chairperson agreed that it was necessary to consider the whole life cycle of the product when dealing with e-waste, from design to recycling and reuse, with the engagement of the large producers of electrical and electronic equipment and the media. Approaches adopted elsewhere should be examined, such as the penalties on the use of plastic bags in Kenya, to help develop measures applicable to e-waste.
47. The representative of the Government of Uruguay emphasized the importance of the various points noted during the discussion, including: the need for the formalization of the sector; the important role played by local government and municipalities in raising awareness and adopting good practices; the sharing of responsibility between governments and manufacturers for the proper management of waste; the importance of taking into account the views of workers in the sector when taking action; the understanding of recycling as a complete process from manufacturing to recycling; and the need to protect vulnerable populations and, particularly, the women and children working in the sector.
48. The Worker Vice-Chairperson, with regard to the calls to improve the productivity of informal workers, said that the lack of negotiation and collective bargaining in the sector made it very difficult for informal e-waste workers to benefit from the profits generated. Specific proposals were needed to ensure that the profits made in the sector cascaded down to the informal workers. For example, in Argentina, informal workers were able to join unions and a network of waste workers had engaged in collective bargaining with the authorities with a view to improving working conditions and other matters. It was important for those involved in the value chain to take responsibility at the local level.
49. The Employer Vice-Chairperson indicated that, contrary to what had been suggested, major manufacturers of electronic devices were represented by the members of the Employers’ group. The ability to integrate recyclability and ease of disassembly at the design stage would

have a ripple effect along the global supply chain. Action was needed to prevent illegal shipments of e-waste and to ensure that e-waste generated in Europe was recycled properly, in accordance with the Basel Convention. The challenge was to ensure the formalization of the e-waste value chain, which would require action by governments, including the reduction of regulatory barriers. There were clear differences between the profits generated in the formal and informal economy. Moreover, “cherry-picking” was widespread in the informal economy, which meant hazardous waste was left untreated. Formal operators were better able to select the most profitable aspects of e-waste, but they could also make use of the benefits generated to improve health and safety and other conditions of work. There could also be a balance between the lowering of bureaucratic barriers, to promote formalization, and an improvement in working conditions. If administrative and regulatory measures were too harsh, they could impede formalization.

- 50.** The Government Vice-Chairperson added that development cooperation programmes needed to be adapted to the development context of the beneficiary country. It was also necessary to ensure policy coherence among the various agencies and at the different levels, which was probably best achieved through policy developed at the national level with a view to the harmonization of action throughout the sector.
- 51.** The Worker representative from India said that, over the past 20 to 25 years, SEWA had noted that women working in the e-waste sector had no employment relationship or visibility, did not understand the relevance of their work, earned very little and worked long hours. They were faced with the need to buy scrap at a high price, which resulted in many of them going into debt. They had insufficient information concerning the toxicity of the materials contained in the e-waste, and were subject to both minor and more significant accidents on a daily basis. Their lack of knowledge of the value of the materials recovered meant that they were unable to negotiate better prices and obtain higher incomes, and they did not benefit from any type of collective bargaining. Even the Government lacked knowledge of those involved in the sector, especially women, which meant that their needs were not taken into account.
- 52.** The representative of the Government of Ireland noted that producers complied with the legislation in the countries where their products were marketed. Under the legislation applicable in the EU, they were required to apply the EPR principle, which meant that they were financing recycling measures in European countries, but not when their products were marketed in other countries that did not have the necessary legislation. That created a problem when e-waste was transferred from developed to developing countries. In his own country, cases had been identified of e-waste that had found its way to a developing country, which had acted as an incentive to close the gaps in the system. It was a priority to take all the necessary measures to develop standards that drove investment and fostered good relations with producers to improve the management of e-waste.
- 53.** The Employer Vice-Chairperson confirmed that large producers were indeed represented at the Forum. While recognizing that the management of e-waste was regulated effectively in Ireland, he emphasized that there was no one-size-fits-all solution that could be adapted to all countries. It was first necessary to ensure formalization before adopting stricter regulation based on a step-wise approach to improve the efficiency of collection and recycling and ensure decent work in the sector.
- 54.** The Chairperson, referring to the issue of development cooperation and the various dimensions that it could take, such as between countries or at decentralized levels, recalled the importance of cooperation between cities in different countries, as well as partnerships with companies and public-private partnerships, North-South and South-South cooperation in raising awareness of the need for change and how it could be achieved.

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- 55.** The Worker Vice-Chairperson agreed that it was difficult to reach out to informal workers and that legislation that was too restrictive could have an adverse effect on informality. However, manufacturers also had a responsibility to address the problem, and should not be scared of trying to do so. It was particularly important for the support provided to be aimed at ensuring that all workers had full access to fundamental principles and rights at work, especially the right to organize and to collective bargaining. Government action was required to ensure that the large numbers of informal workers could organize so that they had a voice and could call for the improvement of their working conditions.
- 56.** The Government Vice-Chairperson reaffirmed that it was proper for workers to aspire to better conditions of work. Combined efforts would be required of the ILO, governments and multinational enterprises, together with the social partners, to improve conditions in the sector, in accordance with the Decent Work Agenda. There was also a need for collaboration between the national, or inter-ministerial level, and the municipal level. The main initiatives probably needed to be taken at the inter-ministerial level, with responsibility being transferred to those on the ground. It was therefore important to build the capacity of governments to take the measures required to ensure more decent work.
- 57.** The representative of the Government of the Plurinational State of Bolivia reaffirmed the need for policy measures to promote the rights of workers in the sector and the importance of the present discussion in that respect. As recalled in the case of Ireland, where regulation of the sector was based on the polluter pays principle, it was important for governments to give effect to internationally agreed principles. The principle of shared responsibility was essential in that respect, and the cost of measures to protect labour rights should not only be borne by workers and governments, but also by companies in application of their corporate responsibility. Planned obsolescence only increased the problem and should be reduced as much as possible through the development of a circular economy. In that respect, international cooperation would have a major role to play in strengthening capacity and the transfer of technology for both the management of e-waste and the achievement of decent work.
- 58.** The Employer Vice-Chairperson said that effective development cooperation was not always easy to implement. However, he referred to an example in Belgium, where a non-profit organization collected old PCs from banks, refurbished them and donated them to schools in Africa. The approach included local investment in appropriate dismantling and the development of formal recycling operations in receiving countries. It was necessary to examine how such experiences could be replicated, based on structural improvements, although it was clear that such initiatives would not solve the whole problem.
- 59.** The Worker representative from Denmark noted that recycling was not necessarily always the best solution to the problem of e-waste, especially for the workers concerned. In general, recycling resulted in much of the material being recovered, although some of the waste, usually the toxic materials, might be exported to other countries. Reuse, refurbishment and retrofitting normally offered greater potential for better paid and more formal jobs than recycling. Although the level of EPR was generally good in the EU, it could still be improved. Certain initiatives showed where improvements could be made, such as a public-private initiative in Flanders which involved formal training for the workers. It was important for product design to be smart to incorporate the best possible solutions.
- 60.** The Government Vice-Chairperson, while noting that the aim of the current discussion was to improve the protection of e-waste workers, said that such workers often did not have formal associations or unions, and were therefore fairly invisible. He asked how the Office could help to identify and characterize the workers concerned so that their needs could be addressed and targeted more effectively.

61. The Executive Secretary said that the issue of the invisibility of e-waste workers had been highlighted in the Issues paper as a major challenge. However, there were practical examples of the organization of such workers, such as in India where a worker's organization had succeeded in organizing several thousand informal workers in the ship-breaking industry. SEWA and other cooperative associations were playing an important role in organizing vulnerable workers. Another example was in Nigeria, where refurbishers had successfully organized themselves to represent their interests and had introduced innovative apprenticeship schemes for the development of the skills needed by the industry.

3. What recommendations would you make for future action by the International Labour Organization and its Members (governments, employers' and workers' organizations) regarding the promotion of decent work, productivity and sustainable management of e-waste?

62. The Chairperson recalled that the discussions had already emphasized the need for the involvement of large-scale producers of electrical and electronic equipment in the development of solutions to improve the management of e-waste. He added that it was fully in line with the 2030 Agenda to place emphasis on collective responsibility, in a spirit of partnership and cooperation, including governments and the social partners, in the implementation of the various dimensions of the SDGs, and particularly in the present case in the management of the tsunami of e-waste that was threatening to engulf the world in the decades to come.

63. The Employer Vice-Chairperson expressed agreement with the emphasis placed on the objectives of the SDGs in the context of the present discussion, which would need to be achieved through a step-wise approach. Many of the key aspects had been developed in the Issues paper, and could be supplemented by the following ideas. It was important to start with the mapping and sharing of best practices, which could be a source of inspiration for all stakeholders. Another element that could be further emphasized was public-private partnerships, which could play an important role in assisting the action taken by governments, wherever possible. Although reference had been made to capacity building in the Issues paper, it was important to recall its importance in helping both developing and developed countries achieve the 2030 Agenda. Action to remedy the data and information gap should not only target decent work, but also the enhancement of productivity, not only for economic benefit, but also to move towards the circular economy, which would involve improved recycling and produce more added value for society. The ILO should develop partnerships with other organizations active in the field, such as the United Nations University. The recommendations concerning awareness-raising for governments, employers, workers and consumers should be more concise and should include not only a change of culture in relation to e-waste, but should be broadened to include all actors, and particularly local communities. There needed to be public investment in waste management systems and infrastructure, taking into account the possibilities for the involvement of SMEs and the creation of decent jobs. It was also important to ensure that the legislative provisions adopted covered the situation in both the formal and informal economies, with environmental and OSH rules that were effective, sufficiently business friendly not to scare informal operators into becoming illegal, and were also smart, afforded appropriate protection to intellectual property, where necessary, and were adapted to local needs. The enforcement capacity of environmental and labour administrations was a key element and should take into account not only regulations relating to the management of e-waste, but also safety and health and the imperatives of decent work. The focus should be on avoiding unnecessary red tape and promoting facilitation. Another important element was investment in skills, not only for the labour force, but also for governments and local authorities. Skills development was an area in which the ILO could take the lead, with the support of workers'

and employers' organizations, to promote lifelong education and learning. It was clear that workers should have access to fundamental principles and rights at work, in line with the applicable ILO standards, with emphasis on protecting the safety and health of e-waste workers. In all those areas, it was important to place emphasis on partnerships, which should also be developed at the regional level. Finally, there should be a reference in the points of consensus to the ILO conclusions concerning the promotion of sustainable enterprises adopted in 2007.

- 64.** The Chairperson, speaking in his capacity as Head of UNITAR, indicated that an agreement had recently been concluded with a Swiss company to work on the training of trainers in five African countries. As a member of the United Nations Coalition on E-waste, emphasis would be placed on developing links between the analysis of emerging issues and the conversion of that knowledge into training methods and materials. However, capacity building needed to be demand-driven and customized to the needs of the various countries.
- 65.** The Worker Vice-Chairperson expressed support for all the points set out in the key considerations in the Issues paper and the points for discussion. In addition, the ILO should be requested to develop a comprehensive guideline/benchmark for e-waste management covering OSH, work design, education (for example, on hazardous chemicals), skills training, social security and appropriate delivery systems and structures. A public awareness campaign on e-waste should be undertaken in collaboration with other organizations and agencies, building on existing initiatives on waste management systems, such as plastics, with a specific focus on working conditions, employment and enterprises, and on increased visibility for informal e-waste workers. In collaboration with other organizations and agencies, labelling and other schemes should be developed covering the life cycle of electrical and electronics products to identify hazardous components and recyclable components and materials. In light of the additional challenges encountered in dealing with e-waste in developing countries, where there were fewer, if any, requirements for companies to take back e-waste from their own products, a solution needed to be found to address producer responsibility. Informal e-waste workers needed to be empowered through legal protection, the creation of structures that made it possible for workers to exercise freedom of association and the right to collective bargaining, and the development of a more viable, fair and formalized market. Governments should be called upon to develop schemes to ensure decent work and a circular economy in the electrical and electronics supply chain, for example, through the sponsorship of events that engaged with social partners (as noted in relation to the Tokyo Olympic Games). Governments, in cooperation with the social partners, should set and implement targets and strategies for the reuse of e-waste. The ILO should promote the creation of decent jobs in industries that reused, repaired, refurbished and retrofitted e-waste, as the higher values and the skill requirements in those industries would lead to better and more formal working conditions for better trained workers. Finally, he emphasized the importance of all relevant international labour standards and fundamental principles and rights at work as both rights and enabling conditions for the full realization of all of the strategic objectives of the Decent Work Agenda, including strategies for the transition to a formal e-waste economy based on the principles and guidance set out in the Recommendation No. 204 and the 2015 ILO *Guidelines for a just transition towards environmentally sustainable economies and societies for all*.
- 66.** The Government Vice-Chairperson emphasized that the world of work was changing fast and that rapid technological advances would change how e-waste was generated and managed, now and in the future. In general, it was the role of governments to create the legal and regulatory framework and an enabling environment, which should be strong and coherent. The social partners also had key roles and responsibilities. Government responsibilities included ensuring the implementation in law and practice of ratified international labour standards and fundamental principles and rights at work, including in the management of e-waste and in the informal economy. Governments should engage in bilateral and regional cooperation to learn from each other and improve the management of

e-waste, in accordance with their international obligations. Governments needed to ensure that OSH was a top priority, while it was the responsibility of enterprises to comply with the respective national labour laws and practices in the waste and e-waste sector. Municipalities played a key role in waste management and, in view of population growth and urbanization, they should be provided with sufficient resources to manage e-waste. It was the responsibility of governments to ensure that national development was sustainable and that green jobs were created in all sectors. They could consider the introduction of regulations to give effect to the polluter pays principle. It was important for governments and their statistical offices to ensure the availability of more and better data on decent work in the management of e-waste, include information on the generation and flows of e-waste, the e-waste value chain and its actors. That data should be disaggregated by gender. A key element was the transfer of technology to assist in improving e-waste management at the national level. ILO constituents should therefore help raise awareness about e-waste, including its safety and health aspects and its environmental impact. The ILO should design and implement development cooperation programmes and projects in support of the work of constituents in promoting decent work in the management of e-waste. Those programmes and projects would need to take into account the diverse national contexts and unique challenges in each country, and should be implemented in collaboration with local organizations. The ILO should also assist member States by building their capacity to collect data, conduct studies and share information on good practices to advance decent work in the management of e-waste. The ILO should strengthen its collaboration with other international organizations in relation to the management of e-waste.

- 67.** A member of the secretariat of the Workers' group, in response to a request for clarification from the Employer Vice-Chairperson, expressed openness concerning the exact format of the requested guidelines. Rather than engaging in a very formal process for their adoption, simple guidance would be sufficient if it was developed in full consultation with employers and governments. There was a great need for guidance, not only on safety and health issues, but also the design and structure of jobs in the industry. It would be a missed opportunity if a broader approach to the working environment was not adopted when considering OSH issues.
- 68.** The representative of the Government of the Syrian Arab Republic, recalling that a point of no return had been reached in terms of global warming, said that it was important to have more reliable information on trends in e-waste and the differences between developing and developed countries as a basis for making the best possible use of new technologies for the management of e-waste.
- 69.** The Government Vice-Chairperson added that, while the situation regarding the future of e-waste was very uncertain, the volume of e-waste would undoubtedly increase. That reinforced the need to have baseline data on the current situation, which also reflected the changing situation for developing and developed countries. He called on the ILO to undertake another study providing more detailed information to give a clearer picture of the tsunami of e-waste that might be expected.
- 70.** The Employer Vice-Chairperson, with regard to the division of responsibilities, said that it was clear that much depended on the ILO and governments. Businesses were not in a position on their own to change informal practices, and indeed rather feared informality. There was a need for strong action by governments, supported by the sharing of responsibilities with industry in certain areas, for example in the provision of education to those working in the sector.
- 71.** The Worker Vice-Chairperson said that progress was being made in the formal economy, where the social partners were able to play a role through social dialogue. However, it was much more difficult for the social partners to reach out to the informal economy. The recent intensification of action on plastic waste, the profile of which had been raised massively over

the past 12 to 18 months, offered a way forward. Over the next decade, e-waste could become the new plastic waste. It was therefore necessary to focus on relatively simple processes, such as labelling and incentives, and a radical change in perception. The responsibility of manufacturers should cover the whole risk management process, and there should be no more risk involved in disassembling than assembling products. There was no justifiable reason to expect e-waste workers to work under hazardous conditions.

72. The Worker representative from Sweden recalled that manufacturers in developed countries had the responsibility to take back products when they became electronic waste, but that this requirement was not established in most developing countries. One of the main challenges was therefore to ensure that the same requirements applied to products sold in both developed and developing markets, and to prevent the illegal export of e-waste. There should be labelling requirements to facilitate the dismantling of products, and to prevent the disassembly by hand of toxic components.
73. The Chairperson said that the deterioration of products during use often increased the risk of handling them at the end of their life. For example, there was a high risk of leakage from used batteries. Landfills containing unprocessed e-waste would remain toxic for generations, and could give rise to a series of environmental problems, including the contamination of aquifers and the generation of health problems. As recognized in the Paris Agreement on Climate Change, the world was facing a situation in which it was essential to tackle the problem of the extremely high levels of greenhouse gasses by applying the precautionary principle and taking action now.
74. The Secretary-General, in response to a request for clarification concerning the processes to be followed for the development of guidance materials, emphasized that e-waste was a new area of work for the ILO in which there was currently limited guidance available. If the Forum decided to recommend the development of formal guidelines, it would be necessary to propose to the Sectoral Advisory Bodies, which would meet in January 2021, the convening of a meeting of experts in the 2022–23 biennium. If the Forum envisaged requesting the development of a code of practice, that should be clearly specified in its recommendations. It might be useful to envisage a two-stage approach in which the Office was given the mandate to continue carrying out the research needed to develop guidance materials, which would lay the ground for the development of more formal guidance at a later stage.
75. The Employer Vice-Chairperson, underlining the urgency of the issue, said that society needed the products produced by manufacturers of electrical and electronic appliance, but that non-compliant handling of e-waste, especially in the informal economy, was leading to a loss of materials and adverse environmental impacts. He emphasized the difference between hazards and risks. While hazards were linked to substances, risks arose out of the way in which hazards were handled. Computers contained certain hazardous materials, which remained the same throughout their lifetime, but the risks were associated with the way in which those materials were handled, for example when they were broken up without protection, or dumped. There were also differences between the challenges relating to plastic waste and e-waste. While the issue with plastic waste was related to inadequate collection and littering, the problem with e-waste was linked to the cherry picking of valuable materials and the dumping of non-valuable parts by informal operators. Although recycling was a challenge in relation to plastic waste, there were technically feasible ways of recycling e-waste, with the main problem arising out of the lack of value of certain components and materials for informal operators. Care was therefore needed when drawing parallels between plastic waste and e-waste.
76. The Chairperson added that recent studies showed that water, including very reputable brands of mineral water, was contaminated with microplastics, which were deeply engrained in the ecosystem. Information on the consequences of unprocessed landfills and toxic waste

materials ending up in water systems had not yet been widely publicized, but could be used to generate more urgent and widespread action for the sound management of e-waste.

77. The Government Vice-Chairperson considered that the main priority in relation to e-waste was OSH. While environmental pollution would affect populations in the long term, the focus of the present discussions was on the immediate impact of e-waste on workers. He added that if a requirement were placed on manufacturers to recall their products at the end of their life cycle as part of the recycling process, that would have a significant impact on a whole range of employment opportunities, especially for workers at lower skill levels. The implementation of the precautionary principle, as applied in the case of plastic waste, would have a major impact on e-waste workers. It was therefore urgent to ensure collaboration with employers, workers and the ILO. With regard to the suggested two-pronged strategy for the ILO to continue research before the possible convening of a meeting of experts, the Office could be mandated to conduct more research and share statistics and experience from other regions on the management of e-waste, and the possibility could also be considered in the future of holding a tripartite meeting of experts on e-waste.
78. The Employer Vice-Chairperson shared the commitment to focus on the issue of decent work in relation to the management of e-waste. However, if the action taken prevented the management of e-waste in developing countries, there would be a significant effect on livelihoods in those countries. The way forward might lie in developing links with the Green Jobs Initiative and waste collection. It would be necessary to choose the most flexible and efficient way of addressing the problems, while avoiding duplication.
79. The Worker representative from Denmark, with reference to the concept of the circular economy, emphasized the importance of drawing a distinction between the different circles in the circular economy. The inner circle, consisting of the repair, reuse, refurbishment or retrofitting of products, offered many good job opportunities and more value. It was therefore important to focus on the meaning of the circular economy in the context of e-waste management.
80. The Chairperson raised the issue of whether reference should be made to “a” circular economy, “the” circular economy, or perhaps a general circular economy approach, which might avoid definitional issues.
81. The Government Vice-Chairperson called on the Office to reflect further on the types of jobs available in e-waste management, including engineering and dismantling, to facilitate discussion of the employment potential in the sector.
82. A member of the secretariat of the Workers’ group suggested that a value analysis could be undertaken of the chain to improve understanding of where there was scope for economy activity, and consequently job creation. For instance, there might be more value and potential for jobs in reuse and retrofitting.

IV. Consideration of the draft points of consensus

83. At its closing session, the Forum considered document GDFEEW/2019/5, containing the proposed points of consensus drafted by the Office on the basis of the deliberations in plenary, and discussed them point by point.

Proposed paragraph 1

84. The Worker Vice-Chairperson proposed the inclusion of the words “and reuse” after the word “Recycling” in the second sentence; and the addition to the footnote of the sentence: “Electrical and electronic components are always considered e-waste regardless of the waste products they are placed in.”
85. The Employer Vice-Chairperson proposed the addition in the first sentence, after “has become”, of the words “one of”. With regard to the footnote, he proposed the identification of the source of the definition.
86. The Government Vice-Chairperson proposed to replace the words “unless action is taken urgently” at the end of the paragraph by the words “and action should be taken by all countries to manage it better as a matter of urgency.”
87. The Worker representative from Sweden indicated that the purpose of the proposed addition to the footnote was to ensure that electrical and electronic components taken from such sources as cars, ships and aeroplanes were considered as e-waste, even though their sources might be classified by law as other types of waste.
88. The Government Vice-Chairperson said that the Forum did not have the competence to develop a new definition of e-waste and that the reference to the United Nations Environment Programme (UNEP) definition should be retained, with the identification of the source.
89. Following further consideration, it was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 2

90. The Employer Vice-Chairperson proposed the replacement of the words “as is the case” in the first line by the words “as can be the case”; the replacement of the words “are exposed” in the second sentence by the words “could be exposed” and the addition at the end of the paragraph of the words “, when no appropriate measures are taken”.
91. The representative of the Government of Algeria said that the threats to human health and the environment, and to the safety and health of workers, occurred when e-waste was poorly managed, and was therefore due to the weakness of the management measures.
92. The Employer Vice-Chairperson said that it was important to recall that with such measures as the provision of personal protective equipment, workers were not exposed to hazardous substances. The proposed addition was therefore important. However, the proposed amendment to the first sentence could be withdrawn.
93. It was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 3

94. The Worker Vice-Chairperson proposed the addition, at the end of the paragraph, of the following sentence: “But there is a lack of statistics on this.”
95. The Employer Vice-Chairperson proposed the addition, in the second sentence, of the words “in some countries” after the words “There are reports that”.

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96. The Government Vice-Chairperson proposed the addition at the beginning of the paragraph of the words “While recognizing that e-waste is an issue for both developed and developing countries,” and the addition of the word “some” before the words “developing countries” later in the sentence. He also proposed the addition at the end of the paragraph of the words “in contravention of the ILO Worst Forms of Child Labour Convention, 1999 (No. 182).”
 97. The Employer Vice-Chairperson indicated that, although he could agree with most of the proposals made, he would prefer it if the words “is an issue for both” in the first part of the amendment proposed by the Government Vice-Chairperson were replaced by the words “represents challenges and opportunities for”, which better reflected the actual situation.
 98. The Chairperson proposed a reformulation to accommodate all the ideas suggested, involving the replacement in the amendment proposed in the first line of the words “developed and developing countries” by “all countries” and the addition, at the beginning of the second sentence, of the words “While there is a lack of hard statistics.”
 99. It was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 4

100. The Employer Vice-Chairperson proposed the replacement, in the second sentence, of the words “many cooperatives and micro-, small and medium-sized enterprises” by the words “all economic units regardless of their size, and for informal workers”.
101. The Worker Vice-Chairperson agreed to the proposed amendment and suggested the addition of the following sentence at the end of the paragraph: “A large part of the materials recovered from e-waste are hazardous and do not currently have a resale value and pose additional challenges for the development of economic activities in the processing of e-waste.” He explained that certain materials in e-waste, such as the insulation of cables, which was often just burned off, did not have a resale value.
102. The Government Vice-Chairperson proposed the replacement of the words “in the rapidly growing” in the last line by the words “and facilitate a rapid transition to”. While he could accept the amendment proposed by the Employer Vice-Chairperson, he opposed the proposal by the Workers’ group, as it lengthened a text that was already too long.
103. The Employer Vice-Chairperson also preferred the text without the additional sentence proposed by the Workers’ group. In response to the point raised by the Worker Vice-Chairperson, he indicated that cable sheeting was recycled in Europe. It might be possible to introduce the idea put forward by the Workers’ group in the first sentence by replacing the words “gold, copper and other valuable materials” by the words “valuable materials, but also materials without current resale value”.
104. The Government Vice-Chairperson agreed that, although everything had value, the value of some materials contained in e-waste was not known to many operators in the value chain.
105. The Worker Vice-Chairperson accepted the proposed rewording, but emphasized the need to focus on elements that did not have an evident value, which could pose an additional risk to workers.
106. The representative of the Government of Algeria proposed a single term, “valorisation” in French, meaning “to increase the value of”, to cover the list “recover, repair, refurbish, reuse, repurpose and recycle”. The proposed amendment was withdrawn, partly due to the difficulty of finding an appropriate equivalent term in English.

107. The paragraph was adopted, as amended.

Proposed paragraph 5

108. The Employer Vice-Chairperson proposed the deletion of the words “With the right infrastructure, regulations, incentives, policies and processes in place to manage e-waste in ways that advance decent work and protect the environment” from the beginning of the first sentence.

109. The Government Vice-Chairperson proposed the replacement, at the end of the first sentence, of the words “green jobs” by the words “decent employment opportunities”; and the insertion in the second sentence, after the word “towards”, of the words “inclusive growth and decent work,”. However, he opposed the deletion proposed by the Employers’ group, as the advancement of decent work and the protection of the environment in the sector was based on the premise of the existence of the right infrastructure, regulation and other elements set out in the original wording.

110. The Employer Vice-Chairperson withdrew his proposed amendment.

111. The paragraph was adopted, as amended.

1. Advancing decent work in the management of e-waste

Proposed paragraph 6

112. The Employer Vice-Chairperson proposed the deletion of the paragraph, as its content was already covered in previous points.

113. It was so agreed.

Proposed paragraph 7

114. The Employer Vice-Chairperson proposed, in the first sentence, to add the words “management of” after the words “Coherent and effective”; to add the words “through, where appropriate” after the word “e-waste”; the deletion of the word “well” before the word “aligned”; and the replacement of the words “international labour standards are a precondition for” by the words “decent work principles, can contribute to”. In the second sentence, he proposed the deletion of the words “, as well as other key actors,”; and in the third sentence he proposed the addition of the words “the principle of” before the words “freedom of association”; and the addition of the words “effective recognition of” before the words “the right to bargain collectively. He explained that it was better to refer to decent work principles, as many countries had not ratified the relevant Conventions. Moreover, many e-waste laws were not related in any way to international labour Conventions and merely established the requirement for producers to take back their products at the end of their life cycle, rather than setting out how e-waste should be managed.

115. The Government Vice-Chairperson proposed, in the first sentence, to replace the words “are well aligned with” by the words “take into account”; and to replace the words “a precondition for” by the words “key to”.

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116. The Worker Vice-Chairperson said that the text was losing clarity and emphasized the need to retain the reference to international labour standards, although it might be possible to refer to the “relevant” standards.
117. The Chairperson, with a view to accommodating the various points of view, suggested, in the first sentence, the addition of the words “as appropriate” after the words “regulation and policies”; and the addition of the words “, where relevant,” after “international labour standards”; with the rest of the sentence remaining as amended by the Government Vice-Chairperson.
118. The Secretary-General, in light of the points raised, proposed the deletion of the word “e-waste” at the beginning of the first sentence and the addition of the words “in the management of e-waste” at the end of the sentence. With that change, the reference to laws, regulations and policies at the beginning of the sentence would be more general, and the whole sentence would refer to advancing decent work in the management of e-waste.
119. It was so agreed.
120. The Worker Vice-Chairperson, in relation to the amendment proposed by the Employers’ group to the last sentence, said that there should be a reference to the “right” to freedom of association.
121. The Employer Vice-Chairperson, in response, said that the aim was to be consistent with the language contained in the Declaration of Philadelphia. He accordingly proposed to withdraw the words “the principle of”, so that the sentence would read: “This in turn requires that freedom of association and the effective recognition of the right to bargain collectively are guaranteed in law and practice.”
122. It was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 8

123. The Worker Vice-Chairperson proposed, in the last sentence, to replace the word “employers” by the words “employers’ organizations”; to delete the word “electronics” before the word “companies”; and to add, after the word “companies”, the words “that generate e-waste”. He explained that it was not only electronics companies that generated e-waste.
124. The Employer Vice-Chairperson proposed the deletion of the first sentence; and the addition, in the third sentence, of the words “and environmental” before the word “inspection”. He expressed great difficulty with the last sentence, since the Employers’ group already represented large electronic companies and e-waste recycling enterprises.
125. The Government Vice-Chairperson proposed the addition, at the beginning of the first sentence, of the words “Enactment and”; the deletion, in the second sentence, of the words “environmental and labour” and the addition, after the word “administrations”, of the words “responsible for decent work in e-waste management”; the replacement, in the second sentence, of the word “local” by the word “municipal”; and the replacement of the last sentence by the following: “The capacity of employers’ organizations and trade unions to organize and convene all relevant actors in the e-waste sector should be enhanced”. He explained that responsibility for the e-waste sector was not confined to environmental and labour administrations. He hoped that the rewording of the last sentence would cover the point raised by the Employers’ group.

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126. The Chairperson noted that the first sentence merely expressed the reason for the proposed action, as already explained earlier in the text and during the discussions. It would therefore seem reasonable to accept its deletion.
127. It was so agreed.
128. The Employer Vice-Chairperson expressed support for the amendment to the second sentence proposed by the Government group, with the exception of the word “responsible”, as no single government agency was responsible for decent work. Following a brief discussion, it was agreed to replace the word “responsible” by the words “engaged in ensuring”.
129. The Employer Vice-Chairperson, with reference to the reformulation of the last sentence proposed by the Government group, said that, as currently worded, it questioned the capacity of employers to organize and convene their members. Employers’ organizations were already fulfilling that role. However, it would be acceptable if language could be found that focused on enhancing the capacity of organizations to provide services to their members.
130. A member of the secretariat of the Workers’ group said that the essential role of workers’ organizations was to organize their members, not to provide services to them.
131. The Chairperson, in light of the views expressed, proposed that the last sentence should read: “The capacity of trade unions to organize and employers’ organizations to provide services, including more effective organization and convening of all relevant actors in the e-waste sector, should be enhanced.”
132. It was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 9

133. The Worker Vice-Chairperson proposed, in the first sentence, to replace the words “and injury” by the words “, injury and even death; to replace the word “incorrect” by the words “absence of appropriate PPEs, tools and processes that lead to the unsafe”; to add, after the word “including”, the words “through the development of specialized equipment and processes and”; to include, after the word “participatory”, the words “education and”; and to add, before the words “informal economy”, “, including those in the”.
134. The Government Vice-Chairperson proposed, in the first sentence, to replace the word “illness” by the word “diseases”; to replace the word “incorrect” by the word “poor”; and to change the order of the last sentence to read as follows: “Safety and health at work should be protected and promoted as fundamental human rights.”
135. The Employer Vice-Chairperson noted that the term “diseases” was used in Convention No. 187, and was therefore preferable in the present context. However, the proposed list of “PPEs, tools and processes” raised concerns, as any list was liable to leave out other important elements. Moreover, he raised further concerns with regard to the meaning of “participatory education”.
136. The Chairperson, in response, proposed the inclusion of the words “inter alia” before the list and the replacement of the words “participatory education” by “inclusive education”.
137. The Government Vice-Chairperson expressed difficulty in accepting the term “education” in the present context if the meaning could be interpreted as formal education. What was required was the development of awareness and learning, rather than education.

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138. The Worker Vice-Chairperson expressed a clear preference for the term “education”, which implied a higher level than just “learning”. However, following a long discussion and in the interests of making progress in view of the tight deadline for the completion of the work of the Forum, he would accept the term “inclusive learning”.
139. It was so agreed.
140. The Employer Vice-Chairperson, with reference to the last sentence, said that, while health was widely recognized as a human right, safety and health at work were not considered to be fundamental human rights. Only such labour-related rights as the elimination of child labour and forced labour, the effective recognition of collective bargaining and freedom of association, and non-discrimination, were recognized as fundamental human rights at work.
141. The Government Vice-Chairperson emphasized that the right to work was a fundamental human right, and that safety and health at work should be protected and promoted as fundamental human rights.
142. The Secretary-General indicated that there was a growing movement for occupational safety and health to be recognized as a fundamental human right, particularly in the context of the ILO Centenary.
143. The Executive Secretary noted that Article 23 of the Universal Declaration of Human Rights referred to “just and favourable conditions of work” and Article 7 of the International Covenant on Economic, Social and Cultural Rights set out the right to “safe and healthy working conditions”. Article 3 of Convention No. 187 established the requirement to promote a safe and healthy working environment.
144. The Employer Vice-Chairperson indicated in response that the present meeting was not the appropriate forum to determine the rank of the right to occupational safety and health, although it was clear that safe and healthy conditions at work should be protected and promoted.
145. The Worker Vice-Chairperson, following further consultation and in light of the lack of agreement on the subject, wished to place on record the insistence of his group that safety and health at work were fundamental human rights. Rather than weakening the reference to those important rights, and in view of the shortage of time available and the discussions being held elsewhere in the Office on the subject, it would be preferable to delete the sentence.
146. It was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 10

147. The paragraph was adopted without amendment.

Proposed paragraph 11

148. The Employer Vice-Chairperson proposed, in the second sentence, to replace the word “defended” by the word “promoted”; and to replace the words “fought for” by the word “advocated”. He considered that the proposed changes more fully reflected the fact that formal and decent work opportunities were still not a universal reality.
149. The Government Vice-Chairperson proposed to delete the second sentence, but could accept it with the changes proposed by the Employers’ group.

150. It was so agreed and the paragraph was adopted, as amended.

Proposed paragraph 12

151. The Employer Vice-Chairperson proposed, in the first sentence, to insert the word “emerging” before the words “circular economy,”; to delete, in the first sentence, the words “, such as repair and refurbishment,”; and, in the final sentence, to include the words “and productivity growth” after the words “the market,”. The proposed changes would better capture the nature of the circular economy in the e-waste sector.

152. The Government Vice-Chairperson proposed the deletion of the first sentence; the deletion, in the second sentence, of the word “ILO”; and, in the second sentence, the insertion of the words “including aspects of corporate social responsibility,” after the words “in 2007,”. He agreed with the proposed addition of the words “and productivity growth”.

153. The Chairperson noted that the first sentence described the existing situation in the sector and that its deletion would make the points of consensus more action-oriented.

154. It was so agreed and the paragraph was adopted, as amended

Proposed paragraph 13

155. The Worker Vice-Chairperson proposed, in the last sentence, to insert the words “, repair, refurbishing” after the word “recovery”; and to delete the words “in the electronics industry”. He noted that e-waste was not only produced by the electronics industry.

156. The Employer Vice-Chairperson proposed, in the first sentence, to delete the words “, electronic brands and producers”; to replace the words “entire life cycle of electronic equipment” by the words “e-waste recovery, reuse and recycling”; and, in the last sentence, to delete the words “about designs, materials, business models and skills”. He explained that the final deletion was due to a concern that intellectual property rights could be jeopardized if there were a requirement to divulge information about designs, materials and business models.

157. The Government Vice-Chairperson proposed, in the second sentence, to insert the words “and statistics” after the words “gender disaggregated data”; and, in the final sentence, to add the words “, market opportunities” after the words “business models”. He emphasized the need to promote the recycling of all types of e-waste. With regard to the concern expressed by the Employers’ group in relation to the protection of intellectual property rights, he noted that when electrical and electronic products became waste it was because they were no longer useful and in many cases had become obsolete, in which case the protection of their design was no longer important.

158. The Chairperson, with reference to the proposed deletion of the reference to designs and business models, considered that the issue that arose was whether the paragraph was intended only to address the current stock of e-waste, or should also encompass action related to future flows of e-waste.

159. The Worker Vice-Chairperson expressed a preference for the broad scope of the original wording of the paragraph. With regard to the proposal by the Employers’ group to delete the words “electronic brands and producers”, he suggested that the term “electronics brand” should be changed to “brand owners”, which would broaden the reference. He added that the words “producers, workers and consumers” should be retained to identify more precisely the main stakeholders.

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160. The Employer Vice-Chairperson emphasized that the discussions had focused on the essential issue of decent work and the current problems relating to e-waste. While the legislation in some countries, and particularly the Member States of the EU, addressed issues relating to the future management and life cycle of e-waste, the present Forum should focus on global needs and gaps. It was also necessary to take into account the fact that design went well beyond recycling issues and that any requirement to divulge information on design aspects would therefore raise issues concerning the protection of intellectual property, as well as product liability. For example, if a coffee machine was repaired and refurbished, but caused a fire in a house because of faulty repair work, would the original manufacturer still be held responsible? It was therefore important to draft the paragraph in broad terms so that it would remain applicable in the rapidly changing e-waste sector.
161. The Worker Vice-Chairperson, noting the concerns expressed, said that the reference to design could be modified to wording such as the “relevant life cycle aspects” of design, or the “relevant design aspects”, which would make it clear that only aspects of design related to the life cycle of products and their recycling were covered.
162. The Employer Vice-Chairperson proposed to replace the list of “governments, employers, electronics brands and producers, workers and consumers” by the words “all relevant stakeholders”.
163. The Worker Vice-Chairperson said that the term “all stakeholders” on its own would not be acceptable, as it was necessary to specify the most relevant stakeholders.
164. The Government Vice-Chairperson considered that too much compromise would weaken the text. It was necessary to refer to producers and consumers, and to the need for their collaboration to raise awareness of the need for the sound management of e-waste.
165. Following further reflection and discussion, during which various compromise proposals were put forward, and in view of the lack of time remaining for further discussion, it was eventually agreed that: in the first sentence, the words “all relevant stakeholders, such as” would be added after the word “engage”; the words “electronic brands and” would be deleted; the words “in advancing decent work and protecting the environment” would be replaced by the words “to promote sustainable production and consumption, advance decent work and protect the environment”; and that, at the end of the sentence, the words “, in particular through e-waste recovery, reuse and recycling” would be added. In the final sentence, it was agreed that: the words “While respecting intellectual property rights,” would be added at the beginning of the sentence; the word “designs” would be replaced by the words “relevant aspects of design”; the words “, market opportunities” would be added after the words “business models”; the words “, repair, refurbishment” would be added after the word “reuse”; and the words “in the electronics industry” would be replaced by the words “of electrical and electronic equipment”.
166. The paragraph was adopted, as amended.

2. Recommendations for future action by the International Labour Organization and its Members

Proposed paragraph 14

167. The Employer Vice-Chairperson proposed to replace the words “both the national and municipal” by the word “all”; and to add the words “, as appropriate,” after the word “levels”.

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168. The Worker Vice-Chairperson proposed to add, at the end of the paragraph, the following two sentences: “Employers should find a way to contribute to these investments in proportion to the e-waste that their products generate on each specific market. Priority should be given to managing e-waste locally, and each country taking responsibility for its own e-waste.”
169. The Government Vice-Chairperson proposed to add the words “and promote” after the word “increase”. While he agreed that measures were needed at the local level for the management of e-waste, he noted that the flow of electrical and electronic equipment tended to be from developed to developing countries.
170. The Employer Vice-Chairperson, with regard to the additional sentences proposed by the Workers’ group, noted the large increase in the number of take-back systems. The second proposed additional sentence lacked clarity. It was clear that there was an international trade in e-waste. What was needed was an improvement in local structures for the collection of e-waste. In that regard, it would be useful to refer to the role that could be played by public–private partnerships, for example through the addition of a sentence which would read: “Public–private partnerships can be considered in these investments.”
171. The Worker Vice-Chairperson considered that the wording proposed by the Employers’ group was very weak. The sentences proposed by the Workers’ group placed emphasis on the principle of EPR. While recognizing the importance of exported e-waste, the focus of the amendment proposed by the Workers’ group was on the collection and pre-treatment of waste generated within each country.
172. The Chairperson, in light of the discussion, suggested that the words “to effectively contribute to these investments” could be added to the first new sentence proposed by the Workers’ group.
173. The Government representative of Algeria suggested, in the first sentence, the addition of the words “in collaboration with employers” to cover one of the points raised by the Workers’ group.
174. The Employer Vice-Chairperson said that private companies could not be forced to invest in infrastructure, which was more a government responsibility. Enterprises had to comply with the national regulations in each country.
175. The Chairperson, with a view to accommodating the latter point, proposed the addition of the words “, as appropriate,” after the words “at all levels, in collaboration with employers” to give greater flexibility to the sentence.
176. The Government Vice-Chairperson agreed with the emphasis placed on the sharing of responsibilities between governments and the social partners.
177. The Employer Vice-Chairperson proposed to remove the reference to employers in the first sentence; to rephrase the sentence referring to public–private partnerships to read: “Public–private partnerships could be a useful modality for these investments.”; and to replace, in the final sentence proposed by the Workers’ group, the words “, and each country taking responsibility for its own e-waste” by the words “, where possible”.
178. It was so agreed. The paragraph was adopted, as amended.

Proposed paragraph 15

179. The paragraph was adopted without amendment.

Proposed paragraph 16

- 180.** The Worker Vice-Chairperson proposed, in the chapeau to the paragraph, to replace the words “in consultation” with the words “through social dialogue”; and to add the word “organizations” after the word “workers”.
- 181.** The Employer Vice-Chairperson recalled that consultation did not include social dialogue in all countries.
- 182.** The Government Vice-Chairperson proposed to bring forward proposed paragraph 17, which would be inserted as the first sentence of the chapeau to proposed paragraph 16, and would read as follows: “Governments, employers and workers should engage, as appropriate, in all forms of effective social dialogue at all levels to advance decent work in e-waste management, support a just transition to environmental sustainability and shape a brighter future of work in the circular economy.” In the next sentence, he proposed to replace the words “in consultation” by the word “together”.
- 183.** The Employer Vice-Chairperson agreed with the suggestion to move forward the wording of proposed paragraph 17, but considered that the present wording was too broad and that the paragraph should focus on e-waste management. He therefore proposed the insertion, after the words “at all levels”, of the words “, as appropriate, in line with national practices”; and the deletion of the words “and to shape a brighter future of work in the circular economy”.
- 184.** The Worker Vice-Chairperson could agree with the proposal by the Employer Vice-Chairperson if the words “in line with national practices” were removed.
- 185.** It was so agreed and the chapeau to the paragraph was adopted, as amended.
- 186.** It was agreed to adopt proposed subparagraph (a) without amendment, but a member of the secretariat of the Workers’ group proposed the addition of the following new subparagraph: “collect data, generate knowledge on forward and backward linkages in the e-waste supply chain”. He explained that, as shown by the example of women workers engaged in processing e-waste in shipbreaking in India, it was important for workers to have knowledge of how business worked throughout the supply chain.
- 187.** The Employer Vice-Chairperson considered that the proposed new subparagraph could be integrated into proposed subparagraph (a).
- 188.** It was so agreed and proposed subparagraph (a) was adopted, as amended.
- 189.** With reference to proposed subparagraph (b), the Employer Vice-Chairperson proposed to replace the word “protect” by the words “promote a culture of”. He explained that it was possible to promote a culture, rather than protection in itself. Employers could ensure that protective equipment was provided, but not necessarily that it was used.
- 190.** A member of the secretariat of the Workers’ group preferred the term “protect”.
- 191.** The Chairperson suggested that both protection and promotion could be included by using the wording “promote the culture of and protect the safety and health”.
- 192.** It was so agreed and proposed subparagraph (b) was adopted, as amended.
- 193.** Proposed subparagraphs (c), (d) and (e) were adopted without amendment.

194. With reference to proposed subparagraph (f), the Employer Vice-Chairperson proposed to add the words “and that enhance productivity growth” at the end of the subparagraph.

195. It was so agreed and proposed paragraph 16 was adopted, as amended.

Proposed paragraph 17

196. In accordance with the earlier proposal made by the Government Vice-Chairperson, proposed paragraph 17 was included, as amended, in the chapeau to proposed paragraph 16.

Proposed paragraph 18

197. With reference to proposed subparagraph (a), the Executive Secretary informed the meeting that the Office proposed to replace the words “respect for” by the words “the respect, promotion and realization of”, to bring the language into line with the wording of the appropriate ILO instruments.

198. It was so agreed and proposed subparagraph (a) was adopted, as amended.

199. With reference to subparagraph (b), a member of the secretariat of the Workers’ group proposed, after the words “conditions of work,” to add the words “technology used”.

200. The Employer Vice-Chairperson proposed, at the end of the subparagraph, to add the words “skills, employment and productivity, disaggregated by gender, branch of activity and urban-rural population”.

201. The Government Vice-Chairperson proposed the addition of the word “, statistics” after the word “data”.

202. The Employer Vice-Chairperson, in response to a comment by the Government representative of Algeria that it would be redundant for data on gender equality to be disaggregated by gender, proposed that the words “, disaggregated by gender, branch of activity and urban-rural population,” should be placed after the word “statistics”.

203. It was so agreed and proposed subparagraph (b) was adopted, as amended.

204. With reference to proposed subparagraph (c), a member of the secretariat of the Workers’ group proposed the addition of the word “, experience” after the word “knowledge”; and the addition of the words “, including the use of equipment and processes to perform work safely,” after the words “good practices”.

205. The Employer Vice-Chairperson proposed the deletion of the word “benchmarks”; and the addition of the words “evidence-based” before the words “country case studies”.

206. It was so agreed and proposed subparagraph (c) was adopted, as amended.

207. The Employer Vice-Chairperson proposed the addition, after the word “analyse”, of the words “the structure and trends of the labour market in the e-waste management sector in an integrated way”. He explained that “in an integrated way” meant that the analysis should cover all aspects of the situation.

208. A member of the secretariat of the Workers’ group proposed the deletion of the words “of the labour market” from the proposed amendment.

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209. It was so agreed and proposed subparagraph (d) was adopted, as amended.
210. With reference to proposed subparagraph (e), a member of the secretariat of the Workers' group proposed the replacement of the word "workers" by the words "workers' organizations".
211. It was so agreed and proposed subparagraph (e) was adopted, as amended.
212. With reference to proposed subparagraph (f), the Executive Secretary, in response to requests for clarification, indicated that WARM (Work Adjustment for Recycling and Managing Waste) was a tool that had been developed by the ILO in consultation with workers and employers engaged in waste management and was therefore an example of a "participatory tool".
213. Proposed subparagraph (f) was adopted without amendment.
214. With reference to proposed subparagraph (g), the Government Vice-Chairperson proposed the addition of the words "and South–South collaboration" after the word "projects".
215. It was so agreed and proposed subparagraph (g) was adopted, as amended.
216. With reference to proposed subparagraph (h), the Government Vice-Chairperson proposed the replacement of the words "and collaboration" by the words ", collaboration and coordination".
217. It was so agreed and proposed subparagraph (g) was adopted, as amended. Proposed paragraph 18 was adopted, as amended.

Proposed paragraph 19

218. The Employer Vice-Chairperson proposed the replacement of all the words following "The Office should" by the following: "undertake evidence-based research on decent work in the management of e-waste. This research is to inform possible future action of the ILO." He explained that, as the present Forum was the first ILO meeting on e-waste, it would be premature to go further than focusing on research as a basis for any future ILO action.
219. A member of the secretariat of the Workers' group proposed the addition, in the amendment put forward by the Employers' group, of the following text: ", including the possibility of convening a meeting of experts to develop guidelines or a code of practice to advance decent and sustainable work in the management of e-waste". He said that it was necessary to keep the door open for the adoption of either guidelines or a code of practice.
220. The Secretary-General, in response to a request for explanations, recalled that the Sectoral Advisory Bodies, which would next meet in January 2021, would have to decide between several competing proposals for the holding of meetings. If the points of consensus did not ask for the holding of a meeting, the next available opportunity to hold such a meeting would not be until the 2024–25 biennium. It might therefore be advisable to include reference to the possibility of convening a meeting.
221. During a brief discussion, a member of the secretariat of the Workers' group said that it was essential to include a reference to guidelines of a code of practice. In response, the Employer Vice-Chairperson said that his group wished to leave it to the Sectoral Advisory Bodies to decide on the type of meeting to be held. It was accordingly decided to delete the words "of experts" after the word "meeting".

222. Proposed paragraph 19 was adopted, as amended.

223. The points of consensus were adopted, as amended.

V. Closure of the meeting

224. A member of the secretariat of the Workers' group welcomed the constructive discussions on a very important topic. What was vital in relation to e-waste was to ensure the formalization of the sector so that e-waste workers could benefit from fundamental principles and rights at work and the application of the relevant labour standards. It was particularly important for all the various stakeholders, in both developed and developing countries, to work together and show solidarity. The discussion had constituted a good start and he hoped that it would be instrumental in encouraging research and information gathering on what was happening in the e-waste sector in the various countries and in pursuing a sustainable future in e-waste management. It was time to take action.

225. The Employer representative from Portugal welcomed the results of the meeting. As e-waste management was a relatively new sector adapted to an increasingly global economy, discussion of the challenges by the various stakeholders was the way to deal with the new issues that were arising.

226. The Government Vice-Chairperson welcomed the positive spirit shown in dealing with very sensitive subjects. E-waste would be a challenge for a long time to come. Areas of agreement had now been found as a basis for moving forward and he hoped that the social partners would join with governments in offering greater support for all the extremely vulnerable workers in the sector who had to make a living from scraps.

227. The Secretary-General thanked all those who had participated in an extremely productive and positive meeting covering a new area of work for the ILO. All the participants had shown deep knowledge and experience in dealing positively with difficult challenges.

228. The Chairperson thanked all the participants for making his first tripartite meeting such a positive experience. It was urgent to act now on e-waste and the type of joint commitment and compromise shown during the Forum was the only way to make a real difference. He emphasized that, unless the SDGs were achieved for everyone, and particularly the most vulnerable, they would not be achieved for anyone. He declared the Forum closed.

Points of consensus ¹

The Global Dialogue Forum on Decent Work in the management of electrical and electronic waste (e-waste),

Having met in Geneva from 9 to 11 April 2019,

Adopts this 11th day of April 2019, the ILO Centenary, the following points of consensus:

1. Increased demand for electrical and electronic equipment and devices has resulted in the rapid growth of e-waste, ² which has become one of the fastest growing streams of waste in the world. Recycling and reuse rates are generally low. E-waste is expected to continue to grow at a significant rate and action should be taken by all countries to manage it better as a matter of urgency.
2. When e-waste is poorly managed, as is the case in many countries, it poses a severe threat to human health and the environment. Workers handling e-waste, their families and those living near disposal sites could be exposed to hazardous substances when no appropriate measures are taken.
3. While recognizing that e-waste represents challenges and opportunities in all countries, most work on the management of e-waste in some developing countries takes place in the informal economy in poor conditions, with limited opportunities for workers to organize and improve their livelihoods. While there is a lack of hard statistics, there are reports that in some countries a higher proportion of women than men work in particularly vulnerable situations, and that the work is sometimes carried out by children in contravention of the ILO's Worst Forms of Child Labour Convention, 1999 (No. 182).
4. E-waste differs from other streams of waste as it contains highly hazardous substances, as well as valuable materials, but also materials without current resale value. It is becoming an increasingly important resource for all economic units regardless of their size and for informal workers along the e-waste value chain who recover, repair, refurbish, reuse, repurpose and recycle used electrical and electronic equipment, bring innovative services and products to the market and facilitate a transition to the circular economy.
5. With the right infrastructure, regulations, incentives, policies and processes in place to manage e-waste in ways that advance decent work and protect the environment, used electrical and electronic equipment has the potential to fuel the generation of sustainable enterprises and the creation of decent employment opportunities. This would be a significant step towards inclusive growth and decent work, more sustainable production and consumption, and achieving the 2030 Agenda for Sustainable Development.

¹ These points of consensus were adopted by the Global Dialogue Forum on 11 April 2019. In accordance with established procedures, they will be submitted to the Governing Body of the ILO at its 337th Session in October–November 2019 for its consideration.

² E-waste has been defined as any “electrical or electronic equipment that is waste, including all components, sub-assemblies and consumables that are part of the equipment at the time the equipment becomes waste”, *Technical guidelines on transboundary movements of electrical and electronic waste and used electrical and electronic equipment, in particular regarding the distinction between waste and non-waste under the Basel Convention* (United Nations Environment Programme, 2015, p. 19).

Advancing decent work in the management of e-waste

6. Coherent and effective laws, regulation and policies, as appropriate, that take into account international labour standards, where relevant, are key to advancing decent work in the management of e-waste. Social dialogue in all its forms is essential to engaging governments and employers' and workers' organizations in the formulation of such laws, regulations and policies, and to ensuring that they are effectively coordinated and implemented in practice. This in turn requires that freedom of association and the effective recognition of the right to bargain collectively are guaranteed in law and practice.
7. The capacities of administrations engaged in ensuring decent work in e-waste management should be strengthened, and the coordination between key ministries and agencies at both the state and municipal levels should be enhanced. Strengthening the capacity of labour and environmental inspection should be an integral part of any future investment in e-waste systems. The capacity of trade unions to organize and employers' organizations to provide services, including more effective organization and convening of all relevant actors in the e-waste sector, should be enhanced.
8. The considerable risk of injuries, diseases, and death, inter alia from the absence of appropriate personal protective equipment, tools and processes that lead to the inappropriate handling of e-waste and exposure to its hazardous substances, should be addressed as a matter of urgency, including through the development of specialized equipment and processes, raising the awareness of e-waste workers about the hazards and risks that they face, and the development of inclusive learning and training tools and methodologies for e-waste workers, including those in the informal economy.
9. The high incidence of informality poses a major challenge for the enforcement of legislation, the growth of sustainable, productive and efficient enterprises, the improvement of the livelihoods and working conditions of e-waste workers, and the realization of their rights at work. The ILO's *Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204)*, and *Guidelines for a just transition towards environmentally sustainable economies and societies for all (2015)*, provide guidance for governments and employers' and workers' organizations to help move millions of informal e-waste workers and thousands of micro, small and medium-sized enterprises into the formal economy, while ensuring that livelihoods are preserved and improved.
10. Cooperatives and other social and solidarity economy organizations and enterprises perform a key role in e-waste management in many countries. They have promoted the rights of informal workers, advocated their inclusion and recognition, and created formal and decent work opportunities.
11. The conclusions concerning the promotion of sustainable enterprises, adopted by the International Labour Conference in 2007, including aspects of corporate social responsibility, should be used by governments and employers' and workers' organizations to foster an enabling environment for sustainable enterprises in the e-waste sector in order to harness the potential of micro, small and medium-sized enterprises to create decent jobs, introduce new technologies, bring innovative business models to the market and contribute to productivity growth, thereby advancing decent work and environmental sustainability.
12. There is an urgent need to raise awareness about the growing challenge of e-waste management and effectively engage all relevant stakeholders, such as governments, employers, producers, workers and consumers, to promote sustainable production and consumption, advance decent work and protect the environment during the entire life cycle of electrical and electronic equipment, in particular through e-waste recovery, reuse and recycling. There is a need for more reliable, consistent and gender disaggregated data and statistics, analysis and research about ways to effectively address decent work challenges,

particularly in the informal economy. While respecting intellectual property rights, there is also a need for more information about relevant aspects of design, materials, business models, market opportunities and skills that can facilitate greater recovery, reuse, repair, refurbishment and recycling of electrical and electronic equipment in ways that advance decent work opportunities for all.

Recommendations for future action by the International Labour Organization and its Members

- 13.** Governments should increase and promote investment in waste management infrastructure and systems at all levels, as appropriate, to manage the rapidly growing flows of e-waste in ways that advance decent work. Employers should, where appropriate, find a way to effectively contribute to and promote these investments. Public–private partnerships could be a useful modality for these investments. Priority should be given to managing e-waste locally, where possible.
- 14.** Governments have the duty to adopt, implement and enforce labour laws and regulations to ensure that the fundamental principles and rights at work and ratified international labour Conventions protect and apply to all workers engaged in the management of e-waste.
- 15.** Governments and employers’ and workers’ organizations should engage, as appropriate, in all forms of effective social dialogue at all levels to advance decent work in e-waste management and support a just transition towards environmental sustainability in e-waste management. Governments, together with employers’ and workers’ organizations, should develop and implement coherent policies, strategies and measures to:
 - (a) collect data, generate knowledge and raise awareness on decent work in the management of e-waste, including a better understanding of the functioning of the e-waste value chain;
 - (b) promote the culture of and protect the safety and health of all e-waste workers and improve their working conditions through labour inspection and other measures;
 - (c) support the formalization of enterprises, cooperatives and workers in the informal e-waste economy;
 - (d) extend the coverage of social protection to e-waste workers and their families;
 - (e) promote cooperatives and other social and solidarity economy organizations and enterprises in the e-waste sector; and
 - (f) create an enabling environment for micro, small, medium and large enterprises that provide sustainable services and products along the e-waste value chain and that enhance productivity growth.
- 16.** The Office should continue its work to:
 - (a) promote the ratification and effective implementation of international labour standards relevant to the management of e-waste, as well as the respect, promotion and realization of the fundamental principles and rights at work, and build the capacity of constituents in this regard;
 - (b) support member States with the collection and dissemination of data and statistics, disaggregated by gender, branch of activity and urban–rural population, as well as information on e-waste management, including on the number of workers involved,

conditions of work, technology used, safety and health, gender equality and discrimination, skills, employment and productivity;

- (c) develop and share knowledge, experience and evidence-based country case studies, map good practices, including the use of equipment and processes to perform work safely, and raise awareness about decent work in e-waste management;
- (d) analyse the structure and trends in the e-waste management sector in an integrated way, including the value generated, potential for green job creation, efficiencies and productivity improvements and skills requirements in different segments of the e-waste value chain;
- (e) organize training for representatives of governments and employers' and workers' organizations to enhance their capacity to advance decent work in e-waste management;
- (f) adapt existing participatory tools on the improvement of occupational safety and health, work practices, skills and social security for use in the e-waste sector;
- (g) design and implement development cooperation programmes and projects and south-south collaboration to advance decent work in the management of e-waste; and
- (h) continue and strengthen international cooperation, collaboration and coordination with other international organizations.

17. The Office should undertake evidence-based research on decent work in the management of e-waste. This research is to inform possible future action of the ILO, including the possibility of convening a meeting to be decided by the Governing Body to develop guidelines or a code of practice to advance decent and sustainable work in the management of e-waste.