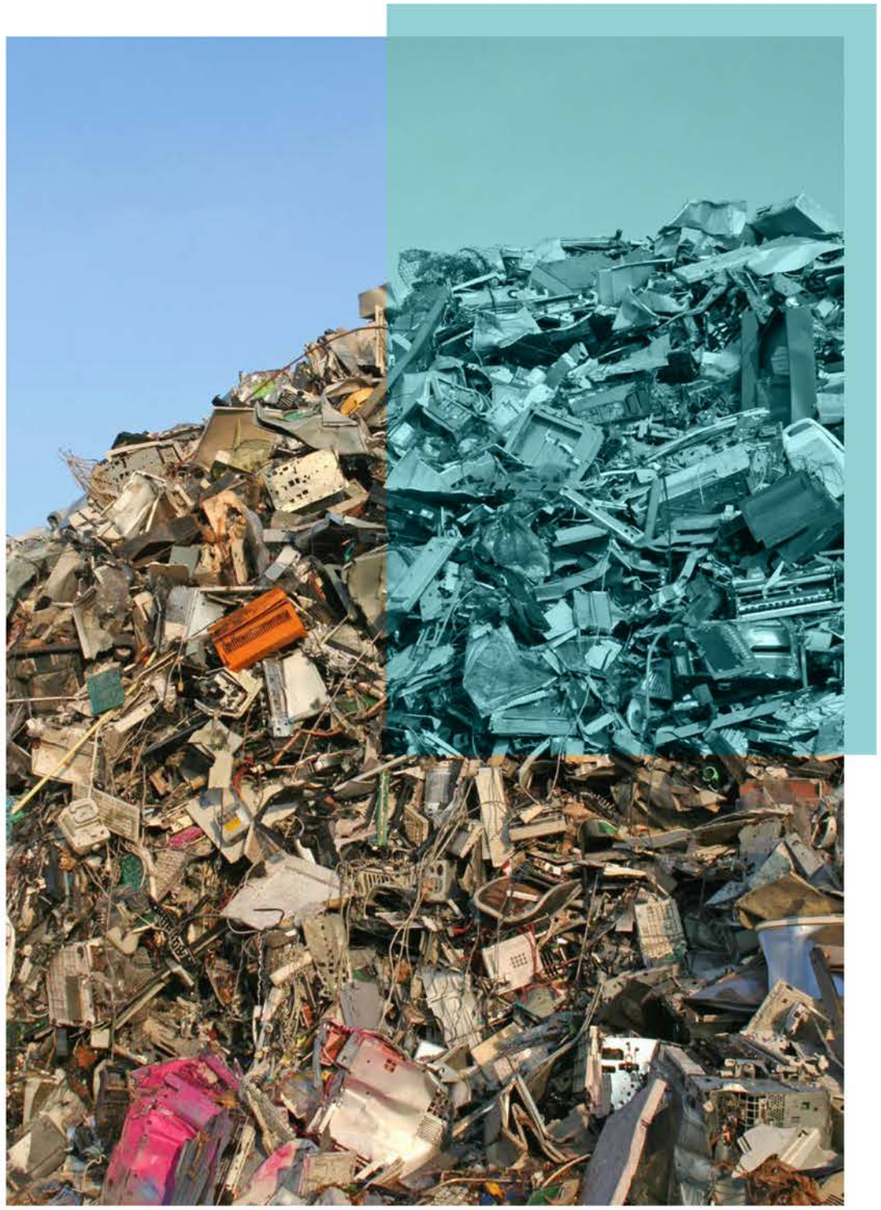
EXECUTIVE SUMMARY

E-waste constitutes one of the fastest growing streams of physical waste in today's global environment and is a threat to sustainable development. Data on e-waste are required to evaluate developments over time, delineate national and international policies, limit e-waste generation, prevent illegal dumping, promote recycling, and create jobs in the recycling sectors. However, few countries collect internationally comparable e-waste statistics, and many countries lack the capacity to collect e-waste data at both the regional and national level. Within the framework of the Global E-waste Statistics Partnership, the Regional E-waste Monitor for the CIS + Georgia is the first regional monitoring effort, re: e-waste statistics, legislation, and e-waste management infrastructure, to enhance the understanding and interpretation of regional e-waste data, with the goal of facilitating environmentally sound management of e-waste.

The key statistical findings of the region are that the Electrical and Electronic Equipment (EEE) placed on the market in the region increased by 10 percent–from 2.9 Mt (10.4 kg/inh) in 2010 to 3.2 Mt (11.0 kg/inh) in 2019. Belarus and Russia have large domestic production industries of EEE, whereas the other countries mostly import EEE for their EEE placed on the market. Over the same period, the e waste generation in the region increased by 50 percent to 2.5 Mt (8.7 kg/inh). Both the absolute and per inhabitant amount of e-waste generation is highest in Russia. The e-waste generated encompasses a variety of products in the region, and two category areas – temperature exchange equipment (Cat. I) and large and small equipment (Cat. IV and V) – comprise the highest share of e-waste generation at 77 percent. The annual growth rate declines for nearly all categories, but remains positive – except for screens and monitors (Cat II) and small IT equipment (Cat VI). These two categories have negative growth rates. The CIS+ countries collected and managed a total of 79 kt (0.3 kg/inh) of e-waste in 2019, which equates to a collection rate of 3.2 percent, compared to e-waste generated.



E-waste collection for environmentally sound management (ESM) takes place in Belarus, Kazakhstan, Russia, and Ukraine. As well, some countries have no e-waste collection (e.g. Georgia, Kyrgyzstan) due to lack of organised separate collection infrastructure for e-waste and/or absence of official data. Belarus has the highest e-waste collection per inhabitant and a collection rate of 33.6 percent (2.7 kg/inh), followed by Kazakhstan (8.8 percent; 0.6 kg/inh).

All twelve countries in the region have well-developed legal and regulatory frameworks in the field of waste management, but six of them have no specific legislations nor Extended Producer Responsibility (EPR) systems in place for regulating e-waste. Georgia, Moldova, and Ukraine have adopted e-waste-specific legislation or regulation. Belarus, Kazakhstan, and Russia regulate e-waste through bylaws in the national legislation (i.e. by specifically mentioning e-waste in their general waste law). Armenia and Ukraine are in a drafting process of the EPR for e-waste, and Uzbekistan has e-waste legislation in draft development. In most countries, the Ministry of Environment is the custodian government entity for legislating e-waste. Municipalities and other waste management authorities, as well as state-owned private companies, collect e-waste for further management, mostly landfilling. Producers/importers are also collectors of e-waste under the EPR, but informal operators of e-waste also exist in the region and focus on valuable e-waste fractions.

Since 2010, e-waste generation has increased in the CIS+ by 50 percent – to 2.5 Mt in 2019. The collection rate of e-waste is 3.2 percent.

The Basel Convention controls the transboundary movement (TBM) of e-waste, and all CIS+ countries have ratified it. Specific national bans on e-waste imports are enforced in Armenia, Georgia, Moldova, and Tajikistan. Additionally, Tajikistan restricts imports of used-EEE. Countries in the region do not have specific export bans in place unless the exports are non-compliant with the Basel Convention. Only eight countries in the region fulfil their formal reporting statistical obligations under the Basel Convention. Therefore, these statistics do not provide a complete picture of e-waste TBM. Per existing reportage, Belarus is the only exporter of e-waste; in 2018 and 2019, Belarus exported 14 tonnes of e-waste for resources recovery and recycling. No e-waste imports have been reported within national reports submitted to the Basel Convention by the CIS+ countries. Low quality of data and control of TBM of e-waste through the Basel Convention poses a threat to the environmentally sound management of e-waste and illegal movements. Furthermore, used-EEE imports result in more e-waste in the receiving countries and place burdens on existing e-waste management. Meanwhile, the functionality of imported used-EEE and (if mixed with e-waste) their quantities remain unknown.

Managing e-waste could be an economic opportunity, as the e-waste generated in 2019 contained 10 t of gold, 0.5 t of rare earth metals, 1 Mt of iron, 85 kt of copper, 136 kt of aluminum, and 0.7 kt of cobalt – representing a total value of 200 billion Russian rubles (or equivalent of $2.6 billion USD) of secondary raw materials. Over 95 percent of e-waste in the region is not collected or sent to ESM facilities for proper management. Most e-waste ends up in landfills, with the informal sector cherry-picking some valuable components. The hazardous substances in e-waste – comprising at least 2.4 t mercury, 1.1 t cadmium, 8.1 kt lead, and 4 kt brominated flame retardants – are poorly managed within the region and are most likely to be untreated, generating various risks to the stability of a healthy environment.

The assessment of e-waste management, statistics, and legislation and the existing challenges evidently show that changes for the improvement of the e-waste management systems applied thus far would also vary from country to country. The countries in the region will need to introduce and enforce either: a) a robust legal and policy framework focused on ESM of e-waste, or b) monitor and reinforce existing systems to make them more efficient and effective. Adequate financing of the systems, monitoring, and cooperation of all stakeholders are essential for ensuring that the policies setup for e-waste management is sustained. Seven general recommendations can be drawn from the analysis presented herein, and an all-encompassing approach, involving all actors and stakeholders in each country, would be needed in order to implement them. A somewhat strengthened transnational cooperation is necessary in order to reduce the burden of large investments and secure the necessary turn-around. The seven recommendations are: (i) Prevent More, (ii) Be More Aware, (iii) Collect More, (iv) Pollute Less, (v) Pay Adequately, (vi) Work More Safely, and (vii) Train More.

E-waste generated in the CIS+ region represents a total value of 200 billion Russian rubles (equivalent to $2.6 billion USD) of secondary raw materials.

ABBREVIATIONS

BAT	Best Available Technologies
Cat.	Category
CIS (CIS+)	Commonwealth of Independent States (+ Georgia)
CRT	Cathode Ray Tube
EAEU	Eurasian Economic Union
EEE	Electrical and Electronic Equipment
EEE POM	Electrical and Electronic Equipment Placed On Market
EHS	Environmental Health and Safety
EPR	Extended Producer Responsibility
ESM	Environmentally Sound Management
EU	European Union
E-waste	Electronic Waste, synonym of Waste Electrical and Electronic Equipment (WEEE)
inh	Inhabitant
ITU	International Telecommunication Union
kt	(Metric) Kiloton, or 1,000,000 kg
MEA	Multilateral Environmental Agreement
NGO	Non-Governmental Organisation
OEPR	Organisations of the Extended Producer Responsibility
PCB	Polychlorinated Biphenyl
POM	Placed On Market
PPP	Purchasing Power Parity
REM	Regional E-waste Monitor
SDG	Sustainable Development Goal
t	(Metric) Ton, or 1,000 kg
TBM	Transboundary Movement
UN Comtrade	United Nations Commodity Trade Statistics Database
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNEP	United Nations Environment Program
UNITAR	United Nations Institute for Training and Research
UNU	United Nations University
UNU-KEY	Product-based classification distinguishing 54 products, used to measure e-waste statistics
USSR	Union of Soviet Socialist Republics
WEEE	Waste Electrical and Electronic Equipment

	OFFICIAL COUNTRY NAME	NAME USED IN THE REPORT
ARM	Republic of Armenia	Armenia
AZE	Republic of Azerbaijan	Azerbaijan
BLR	Republic of Belarus	Belarus
GEO	Georgia	Georgia
KAZ	Republic of Kazakhstan	Kazakhstan
KGZ	Kyrgyz Republic	Kyrgyzstan
MDA	Republic of Moldova	Moldova
RUS	Russian Federation	Russia
TJK	Republic of Tajikistan	Tajikistan
TKM	Turkmenistan	Turkmenistan
UKR	Ukraine	Ukraine
UZB	Republic of Uzbekistan	Uzbekistan