



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

Promoting sustainable e-waste management systems in developing countries

Edward Clarence-Smith
UNIDO Representative

Background to e-waste (1)

- Current regulatory loopholes that allow exports of “used” EEE & WEEE from developed to developing countries



- At the same time, e-waste is growing in developing countries: by 2030, they will discard 400-700 million obsolete PCs/year compared to 200-300 million in developed countries

Background to e-waste (2)

- **Urban mining:** 40-800 times more gold in 1t of Printed Wiring Boards (PWB) than in 1t of ore
- But it also yields hazardous substances: POPs, Ba, Cd, Pb, Hg, Cr, Pd, etc.
- **Products of main concern:** Cathode Ray Tubes, flat screens, batteries, CFCs in refrigerators, Hg in lamps



Background to e-waste (3)

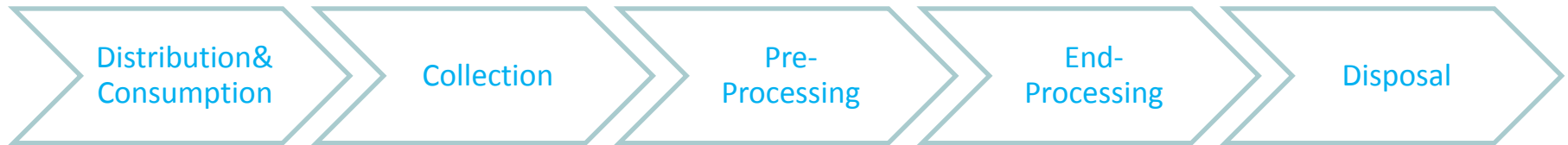
- Poor / illegal “recycling” of e-waste and “cherry-picking” of valuable fraction
- Few recycling options for critical fractions
 - Only 5 smelters globally can treat PWB according to international standards
 - Treatment of CRT glass, Hg-lamps, contaminated plastics,...



Sources: Khaliq et al. (2014); Global E-waste Management Market (2011-2016)

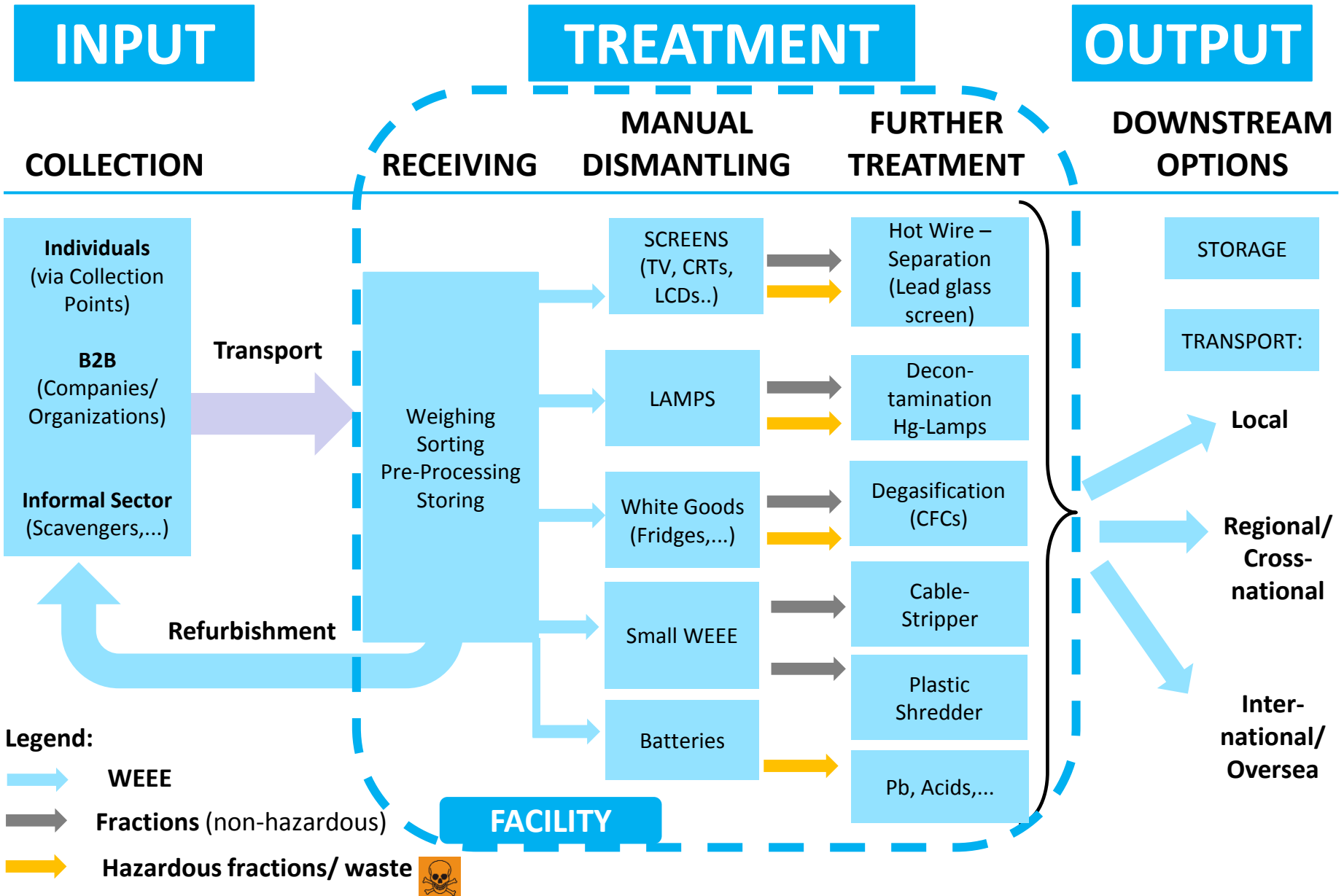
General UNIDO E-Waste concept

Help build and consolidate local capacities to promote sustainable e-waste recycling industries, to efficiently recover marketable resources, while generating quality jobs and caring about the environment and health.



- Support green industries that safeguard the environment and create quality jobs
- Promote partnerships for knowledge exchange and technology transfer
- Help countries develop their e-waste management systems and strategies based on the whole recycling chains and life-cycle
- Enhance North-South, South-South, and triangular cooperation and knowledge sharing

Process of E-Waste Flows



Key elements of UNIDO's approach

1. Detailed inventory of existing volumes and ongoing initiatives
2. Design of collection and processing schemes
3. Set-up / scale-up of national e-waste treatment options, including the establishment of sustainable business models
4. Connection to downstream markets at national, regional or international level, in accordance with international conventions, e.g. Basel Convention
5. Policy and legislation development or enhancement, including collection strategies and financing mechanisms
6. Capacity building, training and awareness-raising



GENERAL

Inventory

Initial inventories to get an overview of:

- Existing policies and ongoing initiatives
- Financing mechanisms and stakeholder networks
- Collection, treatment and downmarket schemes
- Units in stock, current and future e-waste flows- *e.g. volumes:*



预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_3106

