# Overview of Q7/5 Work in Tackling E-waste and Achieving a Circular Economy

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# Importance of Global Standards

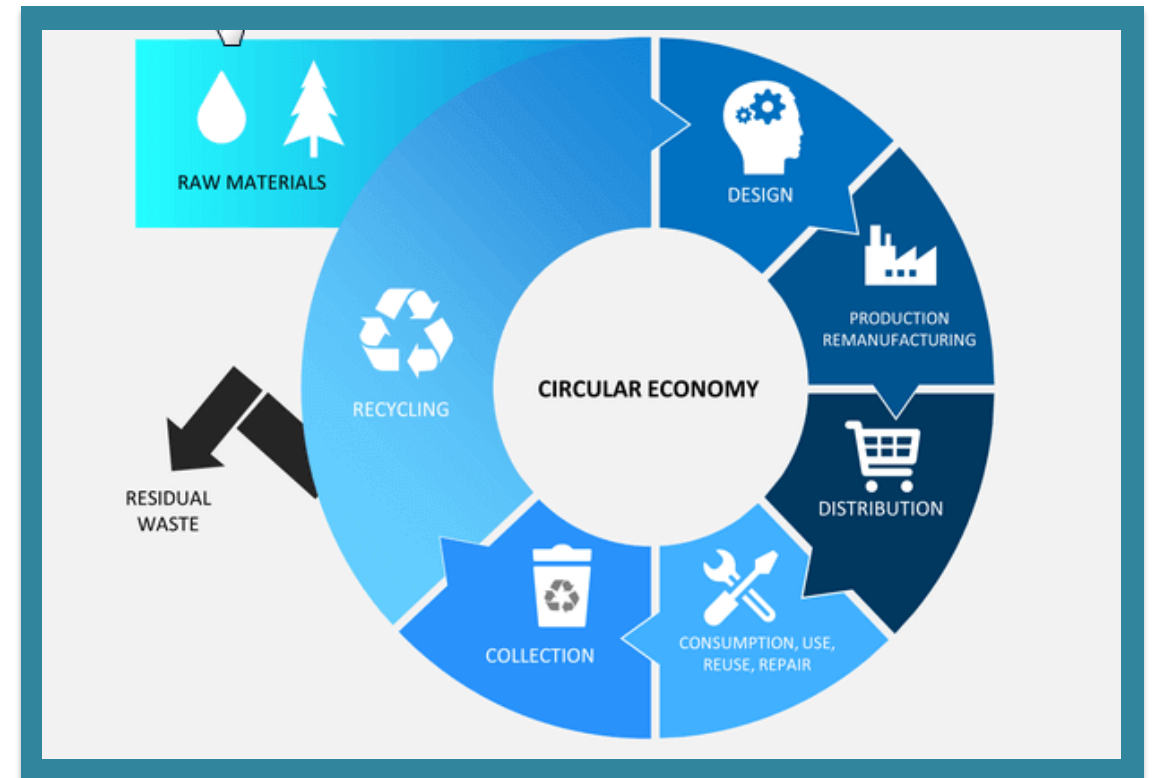**Drive competitiveness**, for individual businesses and world economy;

**Lower prices**

Reduce technical barriers

Foster **interoperability**

Manufacturers, network operators and consumers

**Reduce** negative **impacts on** the **environment**

# ITU Strategic framework for 2020-2023
# Environmental Sustainability Targets

**GOAL 3: SUSTAINABILITY**

**SUSTAINABILITY**

- **Target 3.1:** By 2023, improve cybersecurity preparedness of countries, with key capabilities: presence of strategy, national computer incident/emergency response teams and legislation
- **Target 3.2:** By 2023, increase the global e-waste recycling rate to 30%
- **Target 3.3:** By 2023, raise the percentage of countries with an e-waste legislation to 50%
- **Target 3.4:** By 2023, net telecommunication/ICT-enabled Greenhouse Gas abatement should have increased by 30% compared to the 2015 baseline
- **Target 3.5:** By 2023, all countries should have a National Emergency Telecommunication Plan as part of their national and local disaster risk reduction strategies

**Resolution 71 (Rev. Dubai, 2018)**
Strategic plan for the Union for 2020-2023

**Target 3.2:** By 2023, increase the global e-waste recycling rate to 30%

➢ **Recommendation L.1031** "Guideline on implementing the e-waste reduction target of the Connect 2020 Agenda"

**Target 3.4:** By 2023, net telecommunication/ICT-enabled Greenhouse Gas abatement should have increased by 30% compared to the 2015 baseline

➢ **Recommendation L.1460** "Connect 2020 greenhouse gases emissions – Guidelines"

BASEL CONVENTION

United Nations Framework Convention on Climate Change

UNITED NATIONS UNIVERSITY

UNIDO

ITU

# Q7 Circular economy including e-waste; Sample of Tasks and Topics

➡ Develop Recommendations, Supplements and/or Technical Reports on circular economy requirements and how ICTs could contribute to a circular economy

➡ Study how to measure and predict the e-waste reducing effect of ICT induced dematerialization

➡ Analyze how to minimize the negative effect of existing devices, new products (under development) and the resulting e-waste on the environment

➡ Develop Recommendations and/or Supplements and to determine processes to minimize the environmental impact of products (including avoidance of hazardous and virgin materials)

➡ Ensure that the ICT products, equipment and facilities cause minimum environmental and health impact on the entire life cycle including production and use of materials

➡ Ensure the safety and environmental performance associated with ICTs, including the avoidance of virgin and hazardous materials and final disposal through standards
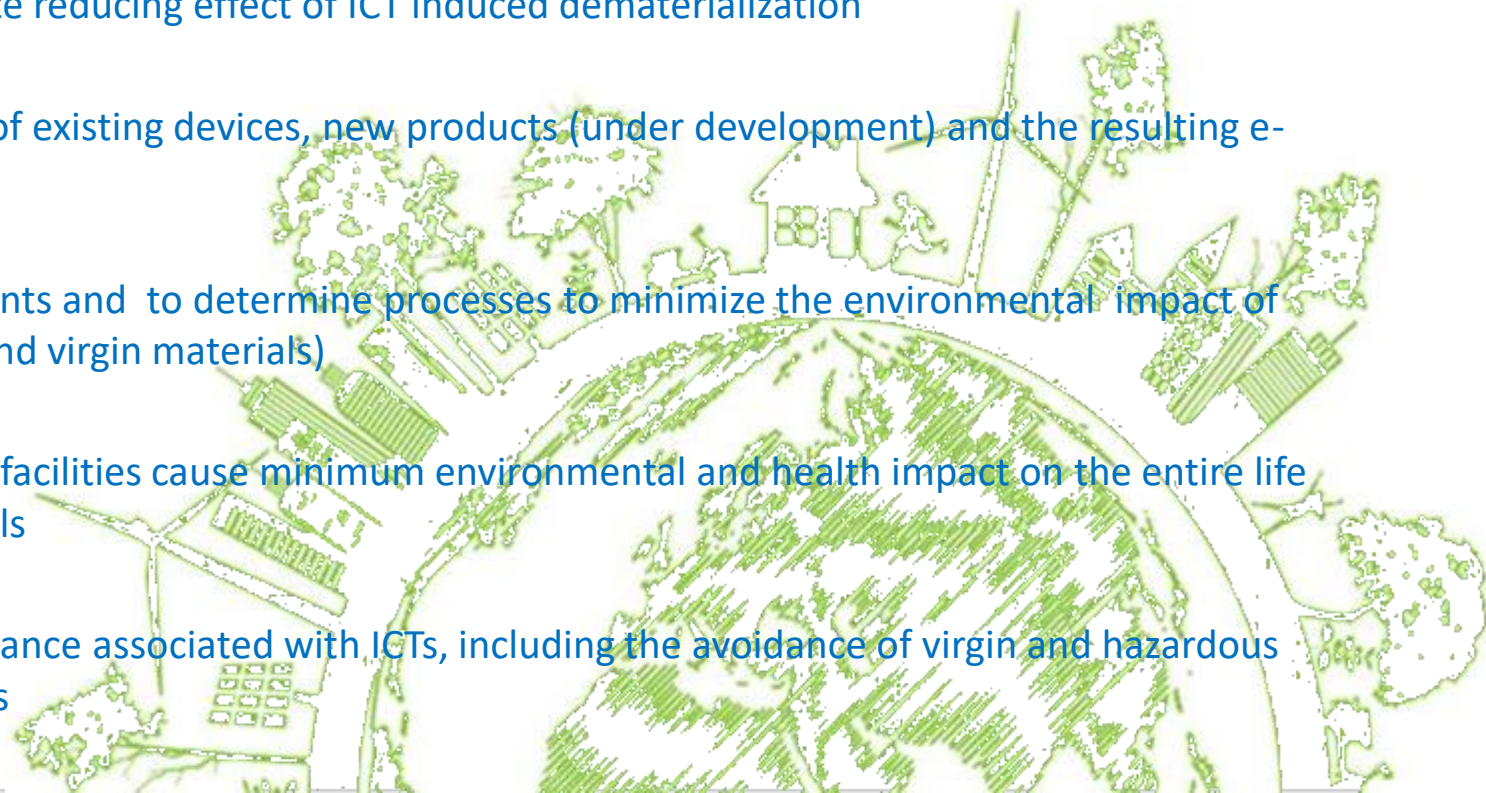
# Q7/5 - Circular Economy including E-waste

Promoting circular design combined with responsible e-waste management will not only reduce e-waste but will also help curb the other negative impacts related to the use of ICTs worldwide.

**ITU-T L.Suppl. 27** Supplement on success stories on e-waste management

**ITU-T L.Suppl. 28** Circular economy in ICT; definition of approaches, concepts and metrics

**ITU-T L.Suppl. 5** Life-cycle management of ICT goods

**ITU-T L.1020** CE: Guide for operators and suppliers on approaches to migrate towards circular ICT goods and networks

**ITU-T L.1021** Extended producer responsibility – Guidelines for sustainable e-waste management

**ITU-T L.1015** Criteria for evaluation of the environmental impact of mobile phones

**Power supply series**

ITU-T L.1000
ITU-T L.1001
ITU-T L.1002
ITU-T L.1005
ITU-T L.1006
ITU-T L.1007

**E- waste Management**

ITU-T L.1021
ITU-T L.1030
ITU-T L.1031

**Recycling of rare metals in ICT products**

ITU-T L.1100
ITU-T L.1101
ITU- T L. 1102

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

Target 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

# Q7/5 - Circular Economy including E-waste

| Current Work items | Subject / Title |
|---|---|
| L.1000rev | Universal power adapter and charger solution for mobile terminals and other hand-held ICT devices |
| L.ARCH_EoL_CE | Environmental Impact of architecture solutions with regards to End of Life and Circular Economy (CE) |
| L.AUVE | Effects of ICT enabled autonomy on vehicles longevity and waste creation |
| L.CE_Concepts | Circular Economy; Definitions and concepts for material efficiency for ICT |
| L.ER | Guidelines and Accreditation for E-waste Recyclers |
| L.SM_B | Sustainable management of batteries resulting from ICT equipment |
| L. ICT_CE | ICT response to circular economy |
| L.methodology_arch | Methodology to assess the environmental impact of the different proposed architectures |
| L.SEEQ | Effect for global ICT of the potential of selling Services instead of Equipment on the waste creation and environmental impacts |
| L.Counterfeit | Adequate Assessment and Sensitisation on Counterfeit ICT Products and their Environmental Impact |
| L.CE Industry 4.0 | Circular Economy and Industry 4.0 |

# Conclusion

- Policy makers should have **long-term sustainability ambitions**
  - ➢ Consider e-waste management in the design of ICT policies
  - ➢ Implement international standards (ITU-T Recommendations) at the national level
  - ➢ Encourage concerted **cooperation** in handling e-waste
    **at the national, regional and international level**
- Improve the **sustainability and competitiveness of manufacturing and business practices**
  - ➢ Create manufactured products through economically-sound processes that minimize negative environmental impacts while conserving energy and natural resources
  - ➢ Sustainable manufacturing also enhances employee, community, and product safety and promote green jobs
- Foster **public-private partnerships**
- Raise **awareness** at consumer level
- Consider early enough – during the up taking phase of emerging technologies- the impact of frontier technologies through experts' groups and standardization bodies.

**Thank you**

**ITU-T, Environment  Climate**
**Change and Circular Economy**
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