



6-10 July 2026
Geneva, Switzerland

Session Outcome Document

Advancing Circular ICT: Eco-design, E-waste and Digital Product Information Systems (DPIS)

ITU, UNEP, BRS Secretariat, One Planet Network

Monday, 6 July 2026, 17:00–17:45 (UTC+02:00)

Key Issues discussed

The session explored how Digital Product Information Systems (DPIS) and Digital Product Passports (DPPs) can support the transition towards a circular economy by improving transparency, traceability and sustainability across product value chains. Discussions highlighted the role of digital product information in enabling informed consumer choices, supporting responsible production and consumption, and facilitating environmentally sound end-of-life management.

Speakers presented policy, implementation and standardization developments related to DPPs, including Uruguay's feasibility project on Digital Product Passports for batteries. The project demonstrated how digital product information can strengthen environmental management systems, improve traceability, support extended producer responsibility schemes, and facilitate the collection, reuse and recycling of products.

UNEP highlighted the broader application of DPPs beyond batteries, including textiles and other product sectors. Participants discussed how access to reliable lifecycle information can support sustainable consumption and production, reduce information fragmentation, strengthen trust between consumers and producers, and provide policymakers with better evidence for decision-making. The discussion also explored how DPIS and DPPs could contribute to chemicals and waste management by improving transparency on product composition and supporting the objectives of the Global Framework on Chemicals.

The standardization perspective highlighted the importance of globally interoperable approaches to avoid fragmentation across markets and regions. Reference was made to ongoing work within ITU-T Study Group 5 related to circular economy, e-waste management and digital product information systems, as well as efforts to support common data categories and information requirements that can enhance interoperability and facilitate wider adoption of DPIS and DPP solutions.

Academic research and the ITU Capstone Project provided insights into opportunities and challenges associated with DPP implementation, including supply chain complexity, data availability, commercial confidentiality and governance considerations. Speakers emphasized the importance of adopting practical and phased approaches to implementation while ensuring that information remains useful and accessible to consumers, recyclers, manufacturers and policymakers. The session also highlighted the valuable contribution of students and young professionals to research and standardization activities.

Key Outcomes of the session

- Participants recognized DPIS and DPPs as important tools for advancing circular economy objectives by enhancing transparency, traceability, sustainability performance and responsible end-of-life management of products.
- Experiences from pilot projects, including the Uruguay battery initiative, demonstrated the practical value of digital product information for strengthening environmental management systems, supporting policy implementation and improving e-waste management.
- Participants agreed that international standards play an important role in promoting interoperability, reducing fragmentation and facilitating broader adoption of DPIS and DPP solutions across sectors and regions.
- The discussion highlighted the growing applicability of DPPs beyond batteries, including ICT equipment and textiles, and their potential contribution to sustainable consumption and production, circular economy objectives and improved chemicals and waste management.
- Research findings confirmed the feasibility of DPP implementation while highlighting challenges related to data governance, supply chain transparency, commercial confidentiality and information usability for different stakeholders.
- Participants emphasized the importance of involving governments, industry, academia, recyclers, consumers, standards bodies and youth in the development and implementation of DPIS and DPP frameworks.
- The session reinforced the value of collaboration among ITU, UNEP, the BRS Secretariat, academia and other stakeholders in advancing practical solutions, pilot projects and evidence-based standardization activities.

Key Recommendations and Forward-Looking Actions

- **Promote additional pilot projects and real-world implementations of DPIS and DPPs**, particularly in developing countries, to build capacity, assess practical challenges and generate evidence for future policy and standardization efforts.
- **Accelerate the development and adoption of internationally harmonized standards and common data categories** to support interoperability, consistency and scalability of digital product information systems across sectors and regions.
- **Strengthen collaboration among governments, industry, standards bodies, academia, environmental organizations and recyclers** to ensure that DPIS and DPP frameworks remain practical, inclusive and aligned with circular economy objectives.
- **Leverage upcoming international processes, including discussions under the Global Framework on Chemicals, to advance globally interoperable approaches for Digital Product Information Systems and Digital Product Passports, enabling better traceability, safer management of materials and chemicals, and more circular product value chains.**
- **Foster greater participation of youth and academia in research, innovation and standardization activities**, recognizing their important role in developing future solutions for circular ICT, sustainable product design and e-waste management.