





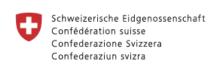
High-Level Dialogue















Reduce production

Standards and guidelines

Toxic-free circularity

Comprehensive responses

Life cycle approach

NEXT STEPS

Extended producer responsibility

Regional and national processes

Global legally binding agreement

Existing international instruments

Communication

Scientific research



Geneva Beat Plastic Pollution Dialogues | Plastics and Standards

28 JAN 2021 14:00 - 15:15 Online | Webex GEN

- Chemicals and Pollution | Green Economy
- O SDG3 | SDG12 | SDG9

Speakers



Reinhard WEISSINGER Former Senior Expert, Research and Education, ISO Central Secretariat



UNIVERSITY OF WOLLONGONG AUSTRALIA

Karen RAUBENHEIMER
Lecturer, Australian National Centre for
Ocean Resources and Security (ANCORS),
University of Wollongong



Justin WILKES
Executive Director, ECOS



environment programme

Feng WANG
Coordinator, Circularity and Waste,
Consumption and Production Unit,
United Nations Environment Programme



Anja VON DER ROPP
Senior Program Coordinator, Climate
Change and Food Security, World
Intellectual Property Organization





Carolyn DEERE BIRKBECK
Senior Researcher, Global Governance
Centre, The Graduate Institute
(moderator)





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Geneva Beat Plastic Pollution Dialogues | Plastics and Standards

Thursday 28 January 2021 | 14.00 CET

Setting the Scene





Reinhard WEISSINGER Former Senior Expert, Research and Education, ISO Central Secretariat



Geneva Environment Network (GEN):

Plastics and Standards

The standardization landscape and an overview of standards work on plastics

Reinhard Weissinger, Former Senior Expert, Research and Education, ISO Central Secretariat, Geneva

Date: 28 January 2021

What are standards?

Standards are **voluntary instruments** that address products, processes, systems, services etc. and are **developed by consensus** between different stakeholders.

The purpose of standards is to provide, for common and repeated use, rules, guidelines or characteristics for activities or their results.

Standards should be based on the consolidated **results of science**, **technology**, and **experience**, and aimed at the promotion of optimum community benefits.

The **legal status of standards as voluntary instruments can change** e.g. through their incorporation into law or private contracts.

Sources: ISO/IEC Guide 2 and WTO TBT Agreement, Annex 1

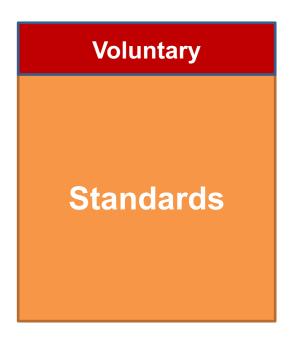
Standards are not Technical regulations!

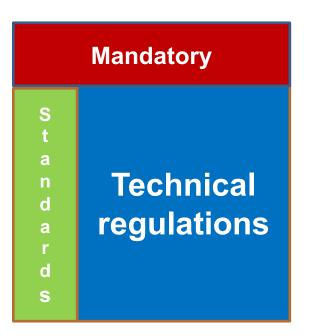
Voluntary
Standards

Mandatory

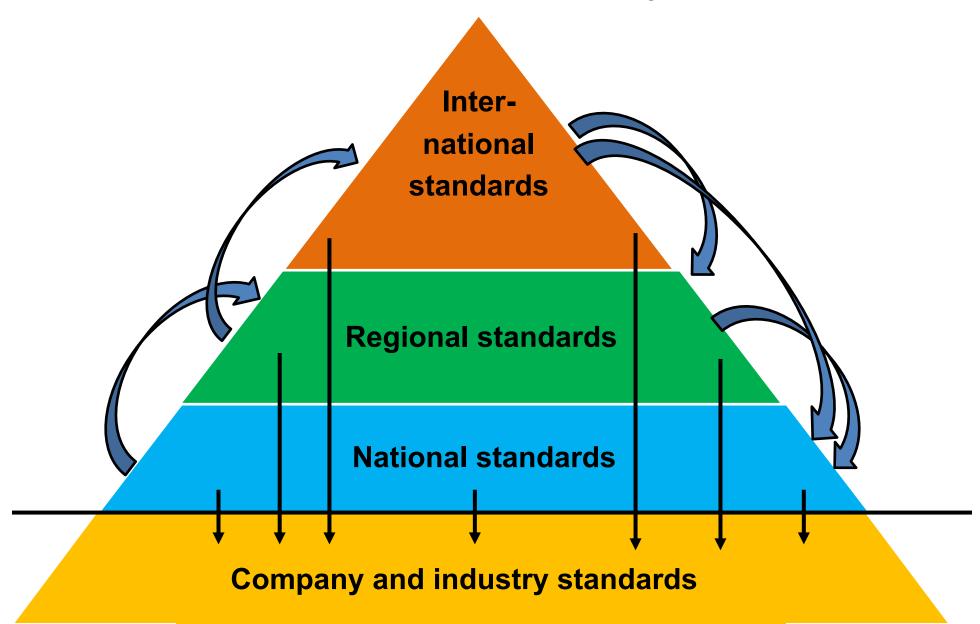
Technical regulations

However, Standards can become (part of) or support Technical regulations

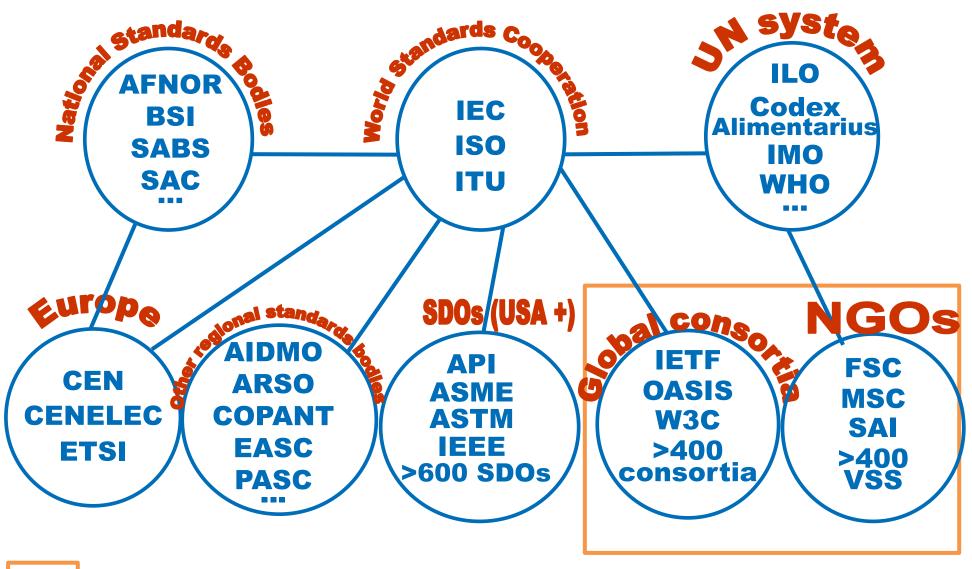




The "formal" standardization system

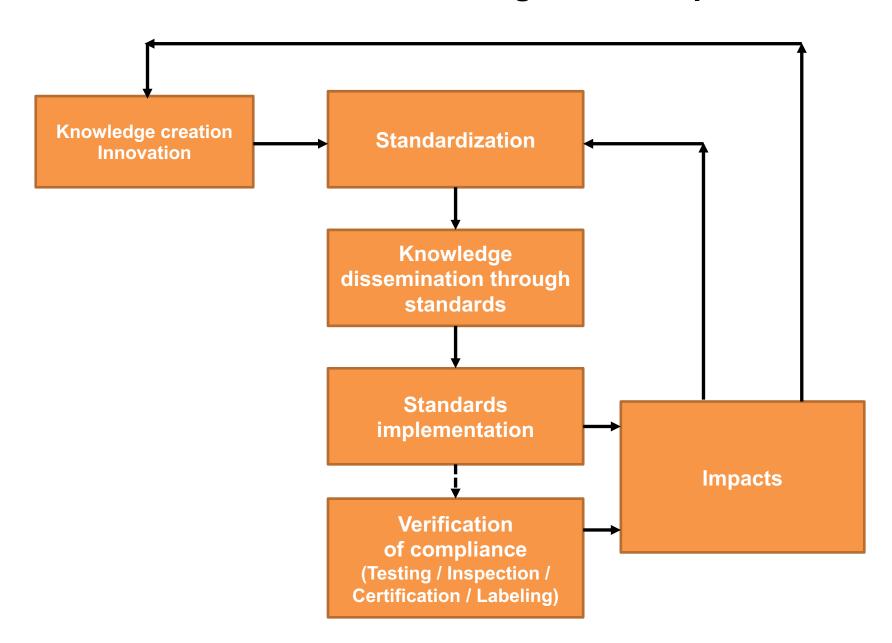


Standards organizations – a snapshot



= refers to organizations "outside" the formal system

Standards: Instruments to generate impacts



Plastics and standards – An overview

ISO (International Organization for Standardization)

CEN (European Committee for Standardization)

 ASTM International (formerly: American Society for Testing and Materials)

Plastics and standards: ISO

■ ISO/TC 61 *Plastics*

REFERENCE +	TITLE
ISO/TC 61/SC 1	Terminology
ISO/TC 61/SC 2	Mechanical behavior
ISO/TC 61/SC 4	Burning behaviour
ISO/TC 61/SC 5	Physical-chemical properties
ISO/TC 61/SC 6	Ageing, chemical and environmental resistance
ISO/TC 61/SC 9	Thermoplastic materials
ISO/TC 61/SC 10	Cellular plastics
ISO/TC 61/SC 11	Products
ISO/TC 61/SC 12	Thermosetting materials
ISO/TC 61/SC 13	Composites and reinforcement fibres
ISO/TC 61/SC 14	Environmental aspects
ISO/TC 61/WG 4 •	Plastics joining

Plastics and standards: ISO

 ISO/TC 61/SC 14 Environmental aspects of plastics

REFERENCE +	TITLE
ISO/TC 61/SC 14/WG 1 •	Terminology, classifications and general guidance
ISO/TC 61/SC 14/WG 2 6	Biodegradability
ISO/TC 61/SC 14/WG 3 6	Biobased plastics
ISO/TC 61/SC 14/WG 4 6	Characterization of plastics leaked into the environment (including microplastics) and quality control criteria of respective methods
ISO/TC 61/SC 14/WG 5 6	Mechanical and chemical recycling

Plastics and standards: CEN

CEN/TC 249 Plastics

CEN/TC 249/WG 11	Plastics recycling
CEN/TC 249/WG 13	Wood Plastics Composites (WPC)
CEN/TC 249/WG 16	Welding of thermoplastics
CEN/TC 249/WG 19	Light exposure
CEN/TC 249/WG 2	Plastics warning devices for underground cables and pipelines
CEN/TC 249/WG 21	Profiles for windows and doors
CEN/TC 249/WG 22	Wallcovering panels for building applications
CEN/TC 249/WG 24	Environmental aspects
CEN/TC 249/WG 25	Static thermoplastic tanks for above ground storage of fuel
CEN/TC 249/WG 4	Decorative laminated sheets based on thermosetting resins
CEN/TC 249/WG 5	Thermoplastic profiles for building applications
CEN/TC 249/WG 7	Thermoplastic films for use in agriculture
CEN/TC 249/WG 9	Bio-based and biodegradable plastics

Plastics and standards: CEN

CEN/TC 411 Bio-based products

CEN/TC 411 Subcommittees and Working Groups		
Working group	Title	
CEN/TC 411/WG 1	Terminology	
CEN/TC 411/WG 3	Bio-based content	
CEN/TC 411/WG 4	Sustainability criteria, life cycle analysis and related issues	
CEN/TC 411/WG 5	Certification and declaration tools	

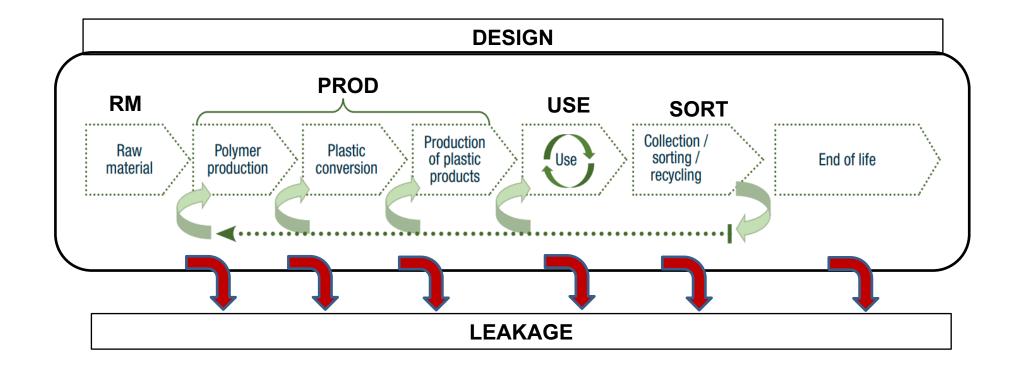
Plastics and standards: ASTM International

ASTM D20 Plastics, D20.95 Recycled plastics and D20.96
 Environmentally degradable plastics and Biobased products

```
D20.09 Specimen Preparation
D20.10 Mechanical Properties
D20.13 Statistical Methods
D20.15 Thermoplastic Materials
D20.16 Thermosetting Materials
D20.18 Reinforced Thermosetting Plastics
D20.19 Film, Sheeting, and Molded Products
D20.20 Plastic Lumber
D20,22 Cellular Materials - Plastics and Elastomers
D20.23 Reinforced Thermosetting Resin Piping Systems and Chemical Equipment
D20.24 Plastic Building Products
D20.30 Thermal Properties
D20.40 Optical Properties
D20.50 Durability of Plastics
D20.61 US TAG ISO/TC-61 on Plastics
D20.70 Analytical Methods
D20.90 Executive
D20.92 Terminology
D20.93 Advisory
D20.95 Recycled Plastics
```

D20.96 Environmentally Degradable Plastics and Biobased Products

A holistic view: The plastics value chain



Source: Adapted from UNEP, Technical University of Denmark (2018), *Mapping of plastics value chain and plastics losses to the environment*, p. 10, available at: https://wedocs.unep.org/handle/20.500.11822/26745

Some recommendations for standardization & standards

- Standards should be developed with a systemic, whole value chain approach that considers re-use and end-of-life aspects
- Mappings should be undertaken to identify any equivalence between standards developed by different standards bodies
- Taxonomies of plastics and of their quality-levels are needed
- Material passports for plastics and their embedded substances (material transparency)
- Reduction in the use of different types of plastics
- Simple and clear labelling systems
- Plastics leakage into the environment throughout the value chain

Upscaling the impacts of standards

- Standards are voluntary instruments, so their uptake is mainly voluntary
- In order to scale up the impacts of standards to combat the plastics pollution, they need to be part of national and international policies, that include
 - Clear and measurable policy objectives
 - Regulatory measures
 - Incentive systems
 - Financial support
 - Training and educational programmes

Thank you!

Contact:

reinhard.weissinger@yahoo.com



Geneva Beat Plastic Pollution Dialogues | Plastics and Standards

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Q&A







Karen RAUBENHEIMER

Lecturer, Australian National Centre for Ocean Resources and Security (ANCORS), University of Wollongong











Standards and a new global agreement

THE NORDIC REPORT

Dr Karen Raubenheimer | ANCORS | University of Wollongong | Australia <u>kraubenh@uow.edu.au</u> Geneva Beat Plastic Pollution Dialogues | Plastics and Standards | 28 January 2021



Global standards to achieve four strategic goals

Elimination of problematic, avoidable

products

2

Sustainable **management** of all products

3

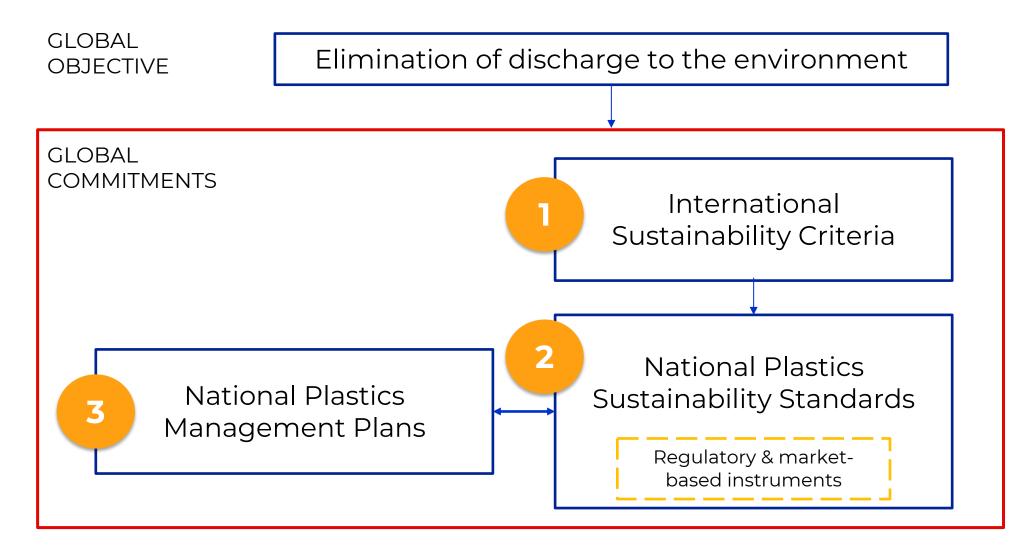
Sustainable waste management

4

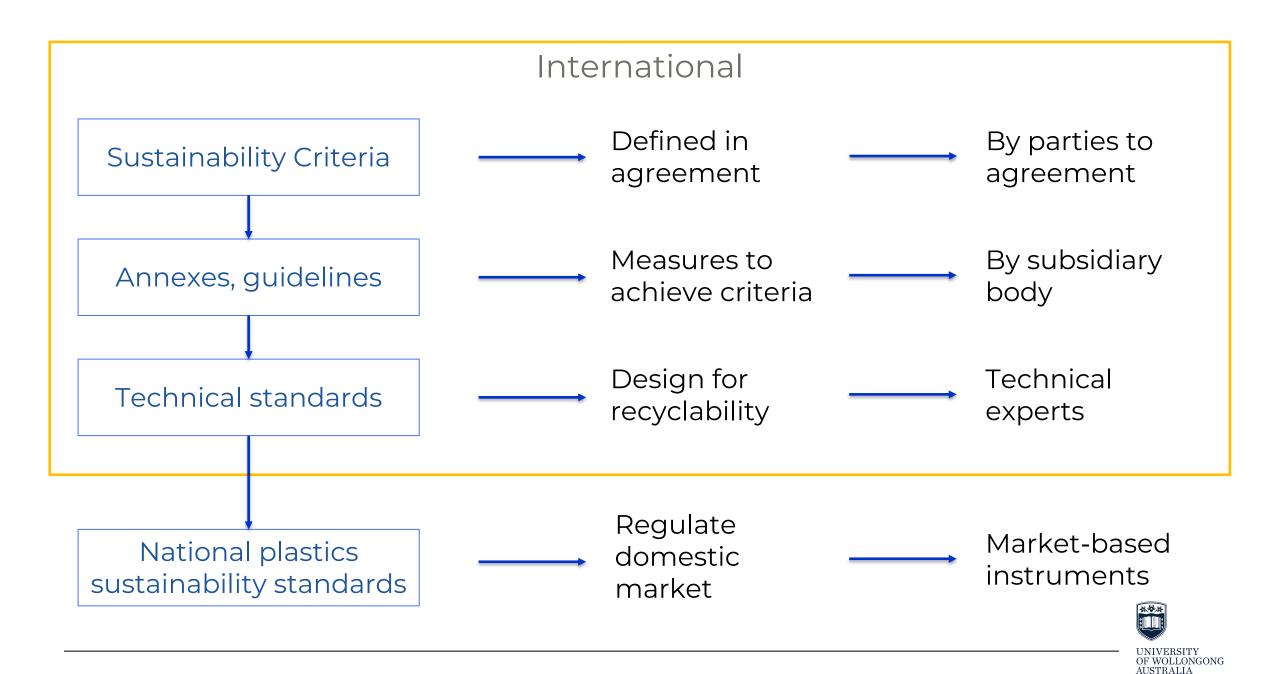
Chemical hazard reduction

www.nordicreport2020.com















Thank you

www.nordicreport2020.com





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Feng WANG

Coordinator, Circularity and Waste, Consumption and Production Unit, United Nations Environment Programme





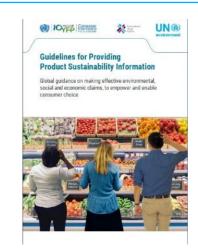


Plastics Standards Towards a Pollution Free Planet

Feng Wang Consumption and Production Unit, Economy Division

UNEP's work on standards, eco-labels and consumer information

- Review of global, regional and national policies, standards, labels, claims
- Guidance and policy support on national policy and standards
- Guidelines for Providing Product Sustainability Information
- Assessment of eco-labelling schemes on Environment Footprint, Chemicals of Concern, Climate Change, Biodiversity etc.
- Compilation of case studies and best practices
- Knowledge sharing and capacity development











Roles of standards on reducing plastic pollution

- Material and product: characteristics and composition (quality, safety, health, hazardous content, recyclability, reusability, composability, biodegradability...)
- Labelling and claims
- Recycled plastics
- Treatment processes: quality of technologies and facilities

Pros

- Influence product design, production, consumption and market creation
- Ensure fair competition, reduce inconsistent specifications and communication

Cons

- Unharmonized terminology
- Many different standards exist
- Variation of standards not visible to consumers
- Disconnection with real-life scenarios
- Lack of public access to information



Actions for the future

- Harmonize definition, terminology and criteria
- Align standards at national, regional and global levels
- Provide reliable sustainability information and assessment to support standard development
- Embed actual conditions and real-life scenarios in standard development, and differentiate per sector or context
- Create better synergies between standards and consumer information (ecolabels and claims etc.)
- Match the work of standards with enforcement mechanism (compliances, verification, certification, inspection, audit etc.), market buy-in, consumer behavior, reuse, and state-of-the-art treatment





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Anja VON DER ROPP

Senior Program Coordinator, Climate Change and Food Security, World Intellectual Property Organization







WIPO GREEN

An online platform for technology exchange that contributes to the accelerated adaptation, adoption and deployment of green technology solutions

WIPO GREEN connects those seeking environmentally sustainable solutions with technology and service providers

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www.wipo.int/green

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Intellectual Property Organization





Carolyn DEERE BIRKBECK
Senior Researcher, Global Governance
Centre, The Graduate Institute
(moderator)





Geneva Beat Plastic Pollution Dialogues

Sessions

- Opening Session: Plastics and Waste | 26 November 2020 | 9:00-10:00 CET
- Plastics, Climate and Air Pollution | 10 December 2020 | 14:00-15:00 CET
- Plastics and Human Rights | 14 January 2021 | 14:00-15:00 CET
- Plastics and Health | 21 January 2021 | 14:00-15:00 CET
- Plastics and Standards | 28 January 2021 | 14:00-15:00 CET
- Plastics and Trade | 4 February 2021 | 14:00-15:00 CET
- Plastics in the Life Cycle/SCP | 11 February 2021 | 14:00-15:00 CET
- High-Level Dialogue on Plastic Governance

















