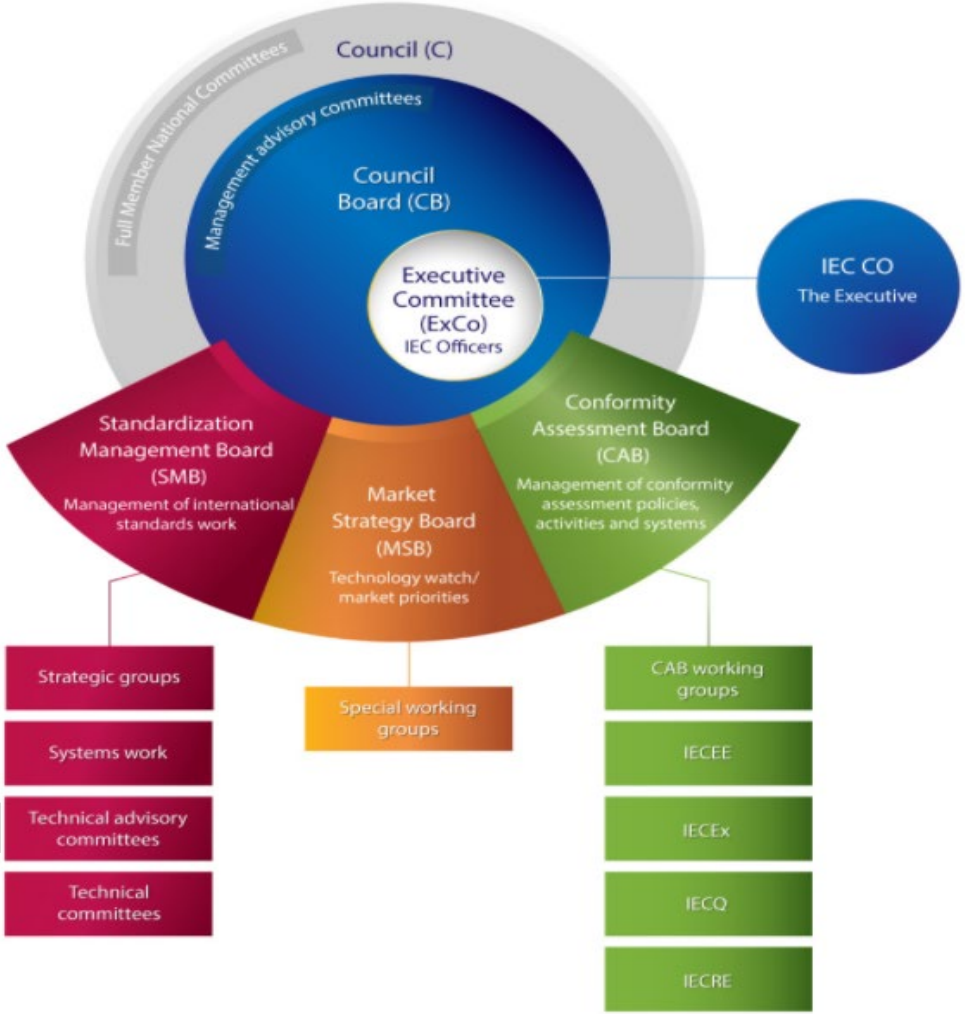
IEC ACEA, 2021

ACEA Advisory Committee on Environmental Aspects

IEC International Electrotechnical Commission

IEC and its Advisory Committees



Advisory Committees

Committee	Description
ACEA	Advisory Committee on Environmental Aspects
ACEC	Advisory Committee on Electromagnetic Compatibility
ACEE	Advisory Committee on Energy Efficiency
ACOS	Advisory Committee on Safety
ACSEC	Advisory Committee on Information security and data privacy
ACTAD	Advisory Committee on Electricity Transmission and Distribution

About ACEA

IEC membership rule:
2/3 TCs and 1/3 NCs

- ACEA is the Advisory Committee on Environmental Aspects
- Considers the protection of the natural environment against detrimental impacts from electrotechnical products and systems excluding aspects such as EMC (covered by ACEC) and energy efficiency (covered by ACEE)
- Advises the SMB (Strategic Management Board) on environmental matters
- Helps to ensure that environmental protection aspects are taken into account in IEC publications
- Provides a forum for the discussion of aspects and issues related to the environment amongst IEC committees (TCs, SCs, SyCs)
- Writes Guides (not standards, which is the role of IEC committees)

NEW

- Confers horizontal functions related to the aspect environment to IEC committees in accordance with IEC Guide 108 Ed. 3

Members nominated by TCs

- ❑ TC 10
- ❑ TC 20
- ❑ TC 22
- ❑ TC 23
- ❑ TC 34
- ❑ TC 47
- ❑ TC 59
- ❑ TC 62
- ❑ TC 91
- ❑ TC 100
- ❑ TC 111
- ❑ TC 114
- ❑ TC 121

Members nominated by NCs

- ❑ NL (Chair)
- ❑ DE
- ❑ FR
- ❑ JP
- ❑ KR
- ❑ US

www.iec.ch/acea

ACEA role

- ACEA provides **advice** to standards writers on how to incorporate environmental matters in their publications
  - IEC Guide 109:2012, Environmental aspects – Inclusion in electrotechnical product standards (under revision)
- ACEA helps to **coordinate IEC work** on the environment to ensure consistency and avoid duplication or conflict in IEC publications
- ACEA supports **coordination between IEC committees, and with other Standards Development Organizations** such as ISO and ITU
- ACEA brings **awareness** of the SMB and IEC committees on new / upcoming topics within the aspect environment

ACEA activity areas

ACEA activities focus on aspects such as:

- environmentally conscious design (eco-design or ECD)
- environmental declaration
- substance management
- end-of-life treatment
- environmental labelling
- material efficiency
- circular economy

When to contact ACEA?

- When you wish that an environment horizontal function is assigned to your committee
  - to develop a horizontal publication within the aspect environment, a committee needs to be assigned an environment horizontal function by ACEA
- When you/your committee needs assistance integrating specific environmental matters in your publications
- When you need support in coordinating existing or initiating new activities or solving conflicts on matters related to environmental aspects within your committee, across IEC committees or between IEC and other SDO(s)

Example 1: Initiating joint work between IEC and ISO (e.g. ISO TC 207-IEC TC 111/JWG 16 Mat. Decl.)
Example 2: Development / harmonization of terminology (e.g. halogen content, circular economy)

ACEA work programme (2023)

- Technical and operational activities
  - Guides development and revision
  - Horizontal function assignment and review
  - Support on development of terminology (e.g. circular economy - IEC TC 1/JWG 2)
  - Educational activities (IEC academy webinars, workshops, etc.)
  - Outreach and communication (IEC eTech, blogs, IEC SBM Newsletters)
- Strategic activities
  - Support IEC committees to engage in activities with other SDOs, e.g. ISO/TC 207 (environment), ISO/TC 61 (plastics) and ISO/TC 323 (circular economy)
  - Exchange of information/collaboration with external organizations, e.g. ISO CCCC, ITU-T/SG5, CEN-CLC SABE, ECOS

3 new GUIDES under development and 1 GUIDE under revision

Securing the credibility of IEC publications containing environmentally relevant provisions

- Defines **anti-circumvention** & **real-life representativeness** in addition to repeatability, reproducibility, accuracy and cost

  → **reduces scope for greenwashing and thereby increases trust in IEC publications**
- Proposed to become a **normative reference** in the IEC Supplement
- Submission of CD to SMB scheduled Q1 2022

Guidelines for defining halogen content terminology in IEC publications

- Defines **harmonized terminology** to express **halogen content** in IEC publications

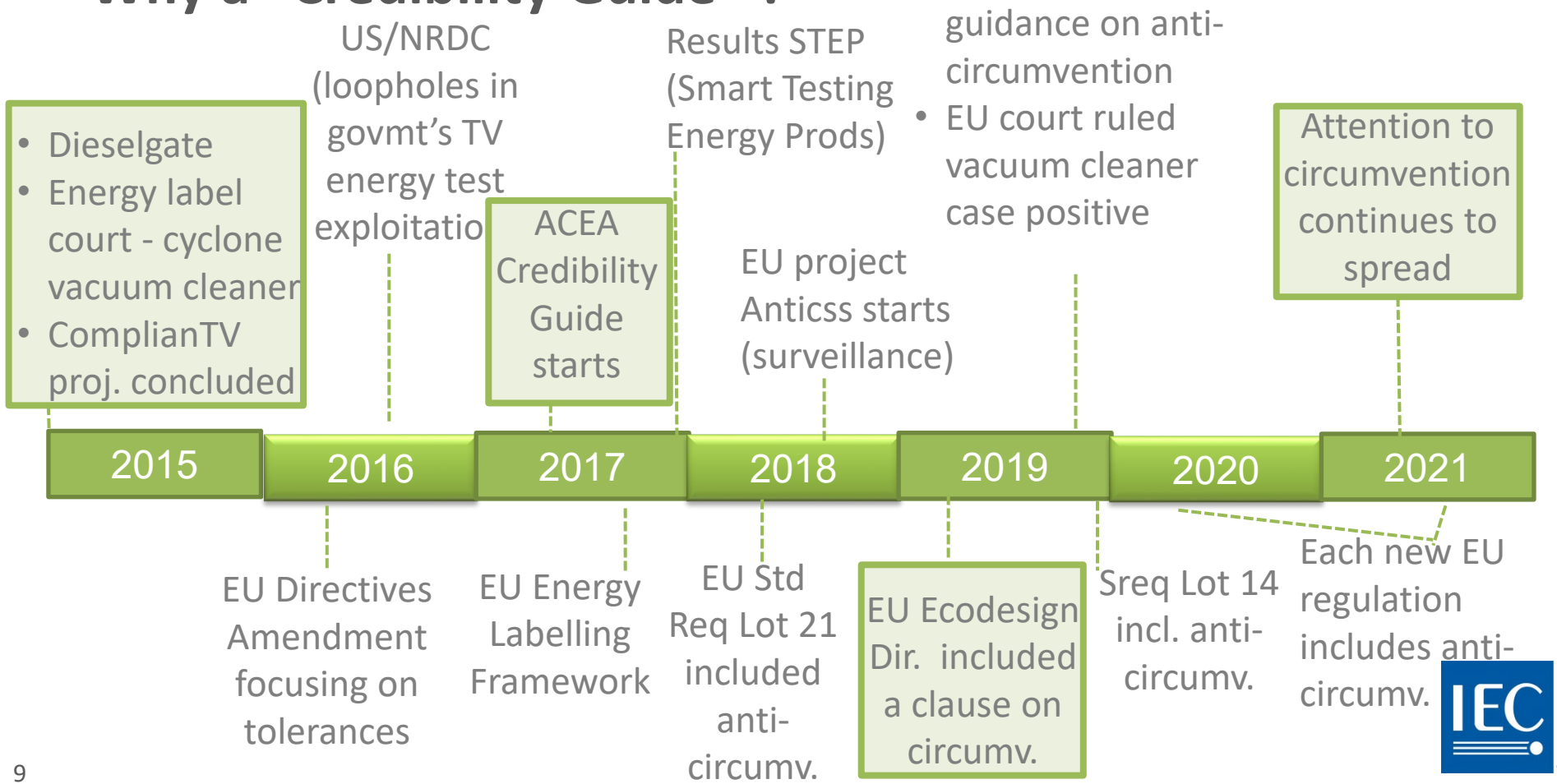
  → harmonizes the corpus of IEC publications and thereby increases the understanding by users of IEC publications
- Proposed to be a **Guide for voluntary use**
- Circulation of 3rd draft to relevant TCs in Q3 2021

IEC Guide 109:2012 under major revision

Assignment & management of horizontal functions within the aspect environment

- Describes **implementation of IEC Guide 108** by ACEA
- Proposed to become a **normative reference** in the IEC Supplement
- Draft under preparation and pilots with relevant committees ongoing
- Submission of CD to SMB expected in 2022
- Issues with interpretation of IEC Guide 108 Ed. 3, and inconsistencies identified

Why a “Credibility Guide” ?



The “Credibility Guide” *(new under development)*

Guide to securing the credibility of IEC publications with environmentally relevant provisions

- The Guide explores the concepts of real-life representativeness and anti-circumvention in addition to classic measurement principles (such as reproducibility, repeatability, and accuracy), and cost
- Environmentally relevant provisions are provisions that address environmental issues (or impacts); these impacts can be direct or indirect

IEC Academy webinar on Securing the credibility of IEC publications

www.iec.ch/academy/past-webinars (09-2020)

Halogen content terminology Guide *(new under development)*

The terms and definitions related to halogen content in IEC standards and other publications differ

This is very confusing for users of IEC standards and other publications, and also opens the door for greenwashing

Halogen content terminology Guide *(new under development)*

different terms (non-halogenated, halogen-free, zero-halogen, etc.) are often used to express the same or similar halogen content

Table 1: Currently used halogen terminology in standards and legislation

Term	Application	F	Cl	Br	I	Total	Thresholds (% by mass)
Non-halogenated	Printed Circuit Boards base materials		X	X		X	0.09 Cl and Br 0.15 Total Cl+Br
	Safety for polymeric materials as industrial laminates, ... wound tubing, vulcanized fibre etc.		X	X		X	0.09 Cl and Br 0.15 Total Cl+Br
	Combustible materials	X	X	X		X	0.09 F, Cl, and Br 0.15 Total F+Cl+Br
Non-Halogen	Cables wires and flexible cords	X	X	X	X		0.1 F, 0.2 Br, Cl and I
Non-bromine Non-chlorine	Combustible Materials		X	X		X	0.09 Cl and Br 0.15 Total Cl+Br
Halogen-free	Power Cables	X	X	X			0.1 F, 0.5 Br and Cl
	Charging Cables	X	X	X			0.1 F, 0.5 Br and Cl
	Ships and offshore Installation Cables	X	X	X			0.1 F, 0.5 Br and Cl
	Cable Materials	X	X	X	X		≤ 0.1 F, Cl, Br and I
	... incl. insulating and jacketing materials and other cable components (e.g. tapes, fillers, threads, pigments, etc.)	X	X	X	X		≤ 0.1 F, Cl, Br and I
	Cable management systems	X	X	X	X	X	≤ 0.15 Cl and Br, ≤ 0.3 F and I, ≤ 0.4 Total Br+Cl+F+I
Low Smoke Halogen-free	Sheathed Cables	X	X	X			0.1 F, 0.5 Br and Cl
	Flexible Cables	X	X	X			0.1 F, 0.5 Br and Cl
	Navy Shipboard Cables	X	X	X	X		0.2 Halogen content
Zero-halogen	internal wiring of high-reliability electrical and electronic equipment						0.2 halogen content
	Wind Turbine Cables						components have < 0.2 halogen content
Low Smoke Zero-halogen	Communication CATV Cables						Not specified
	Transmission cables						Not specified

same term refers to different halogen elements

same term used to express different thresholds for the halogens

Guide 109 *(under major revision)*

Guide 109:2012, Environmental aspects – Inclusion in electrotechnical product standards

Proposed to become a normative reference in the IEC Supplement

Topics to be included:

- circular economy
- climate change
- marine / solar / wind
- risk management
- etc.

Contents of Guide 109 revision

1. Basic knowledge
   - Environmental impacts
     - ✓ climate change, resource depletion
     - ✓ health and environmental hazards
     - ✓ biodiversity/ecosystem loss
   - Environmental aspects causing impacts
     - ✓ resource conservation/efficiency and circularity
     - ✓ hazardous materials/chemicals
     - ✓ pollution (emissions, releases), including noise & vibration
   - Consideration of environmental aspects in real life
     - ✓ life cycle of a product (in and out processes)
     - ✓ environmental management in an organization (ISO 14000 series)
     - ✓ complex system (smart cities, system of systems)
     - ✓ new technologies such as renewable energy sources
     - ✓ items taken from ACEA Guide 108 implementation
   - Relevance to SDGs
2. Guidance to standards writers on addressing environmental issues in their documents
   - strategies (resource conservation, energy efficiency, pollution prevention, waste minimization, etc.)
   - “dos and don’ts” (avoid specifying xxx, avoid hampering innovation, etc.)
   - steps or process to check relevant horizontal publications to avoid duplication and inconsistency
3. Provide standards writers with reference documents, esp. horizontal publications, with which it is necessary to conform
   - categories (aligned with IEC Guide 108 implementation)
   - relevant horizontal publications (chemical, ECD, waste management, etc.)

ACEA Guide on the implementation of IEC Guide 108

(new under development)

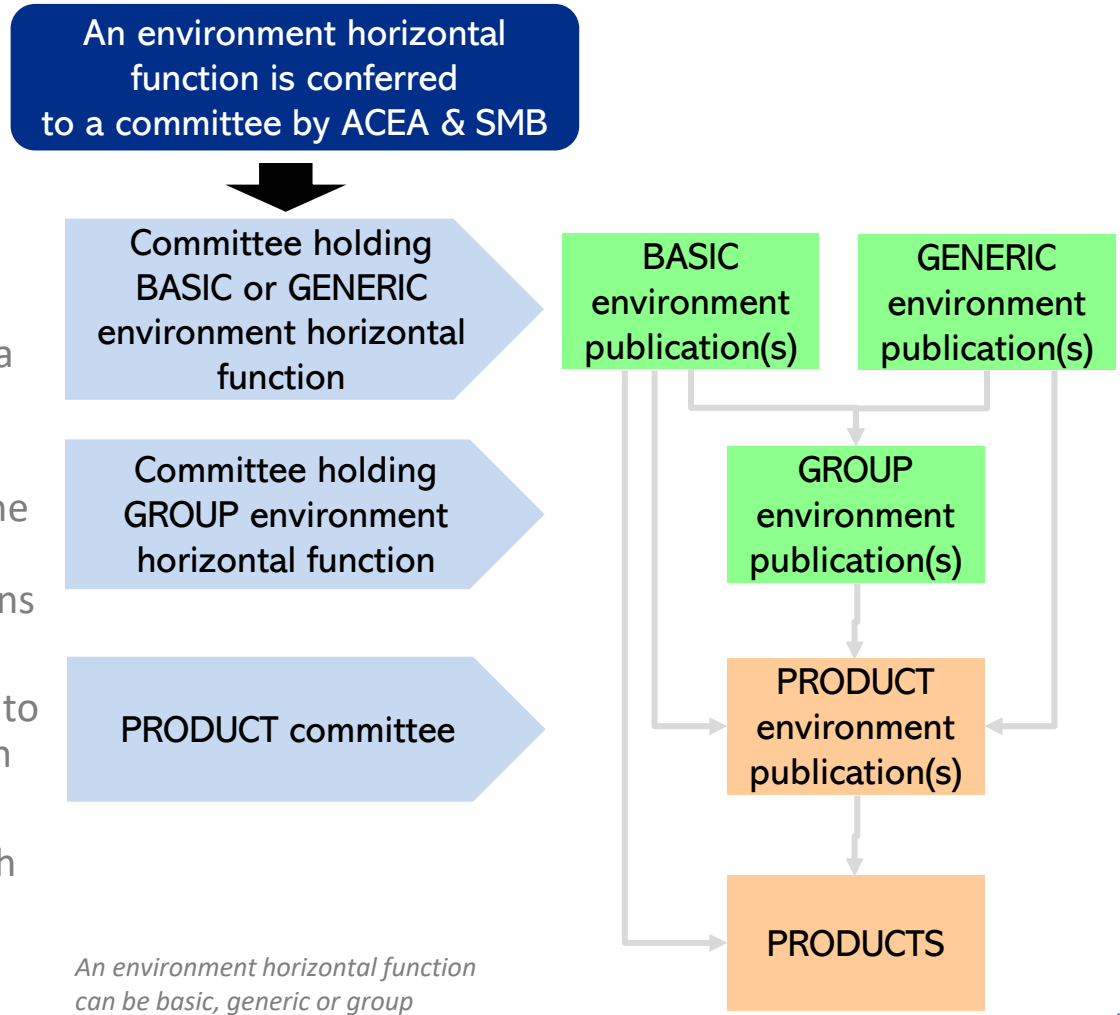
ACEA is preparing a Guide on the implementation of IEC Guide 108 Ed.3 covering the assignment and management of horizontal functions and horizontal publications within the aspect environment

IEC Guide 108, Guidelines for ensuring the coherence of IEC publications – Horizontal functions, horizontal publications and their application

(IEC Guide to which it is necessary to conform within IEC)

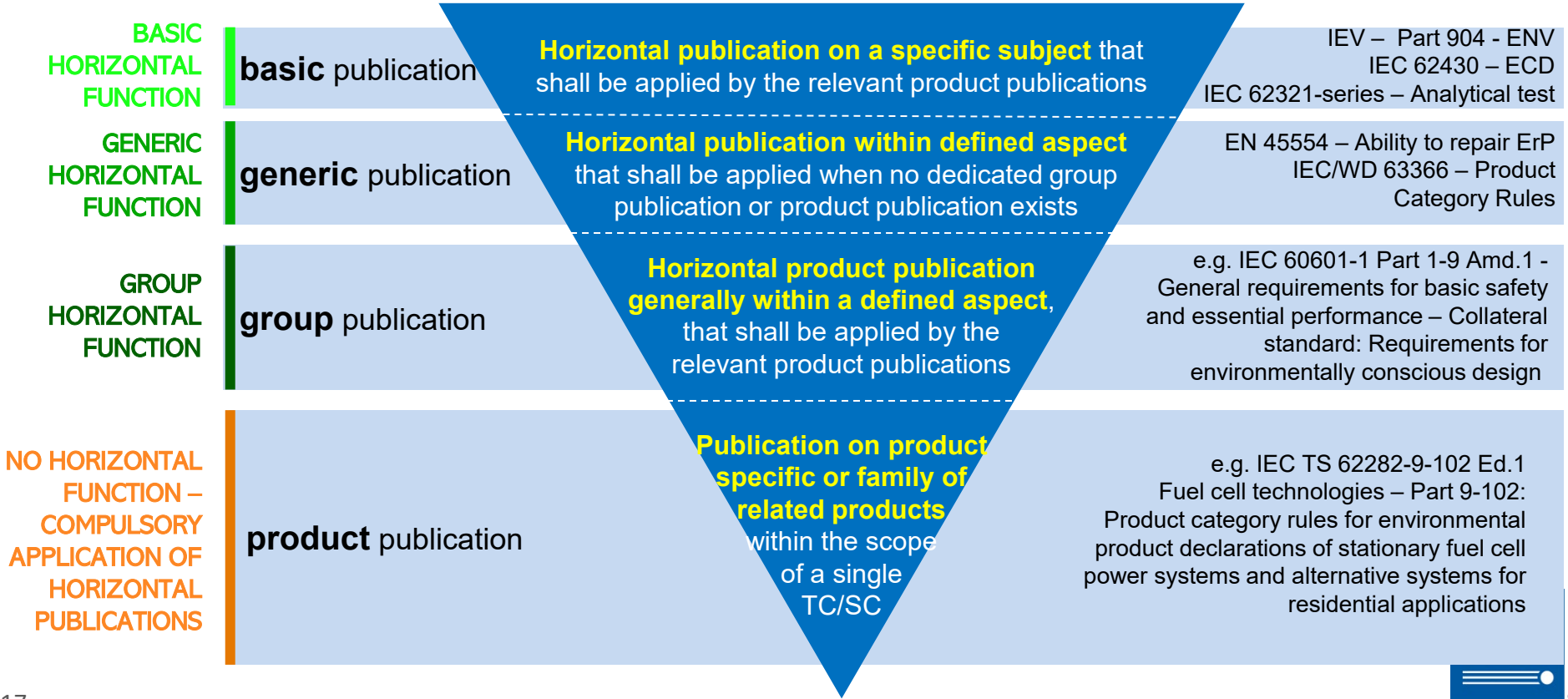
Implementing IEC Guide 108 Ed. 3

- Committees that want to develop a horizontal publication SHALL apply for a horizontal function with the relevant Advisory Committee
- Advisory Committees SHALL manage the assignment of horizontal functions and the application of horizontal publications
- Committees to which a horizontal function has been granted are allowed to prepare horizontal publication(s) within that horizontal function
- Product committees SHALL comply with any relevant horizontal publications when they prepare product specific publications



An environment horizontal function can be basic, generic or group

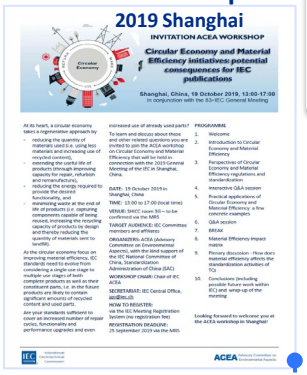
IEC publications categories - Hierarchy



Circular economy activities

IEC committees SURVEY [AC/28/2018]: "Circular Economy and Material Efficiency are known terms, but their concepts are not clear. Information and education needed"

CE & ME Workshop



Integrating Circular Economy into IEC SDG work

IEC Academy Webinar ACEA - Circular Economy and Material Efficiency

Presentation/Video @ www.iec.ch/academy/

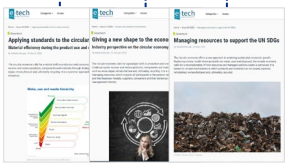
ACEA supported creation of **TC 1/JWG 2 to develop CE & ME terminology for IEV** [AC/27/2020]

IEC GM 2020 - Workshop for Industrializing Countries WIC – 2020

TC 1/JWG 2 development CE & ME terminology for IEV

2018 | 2019 | 2020 | 2021

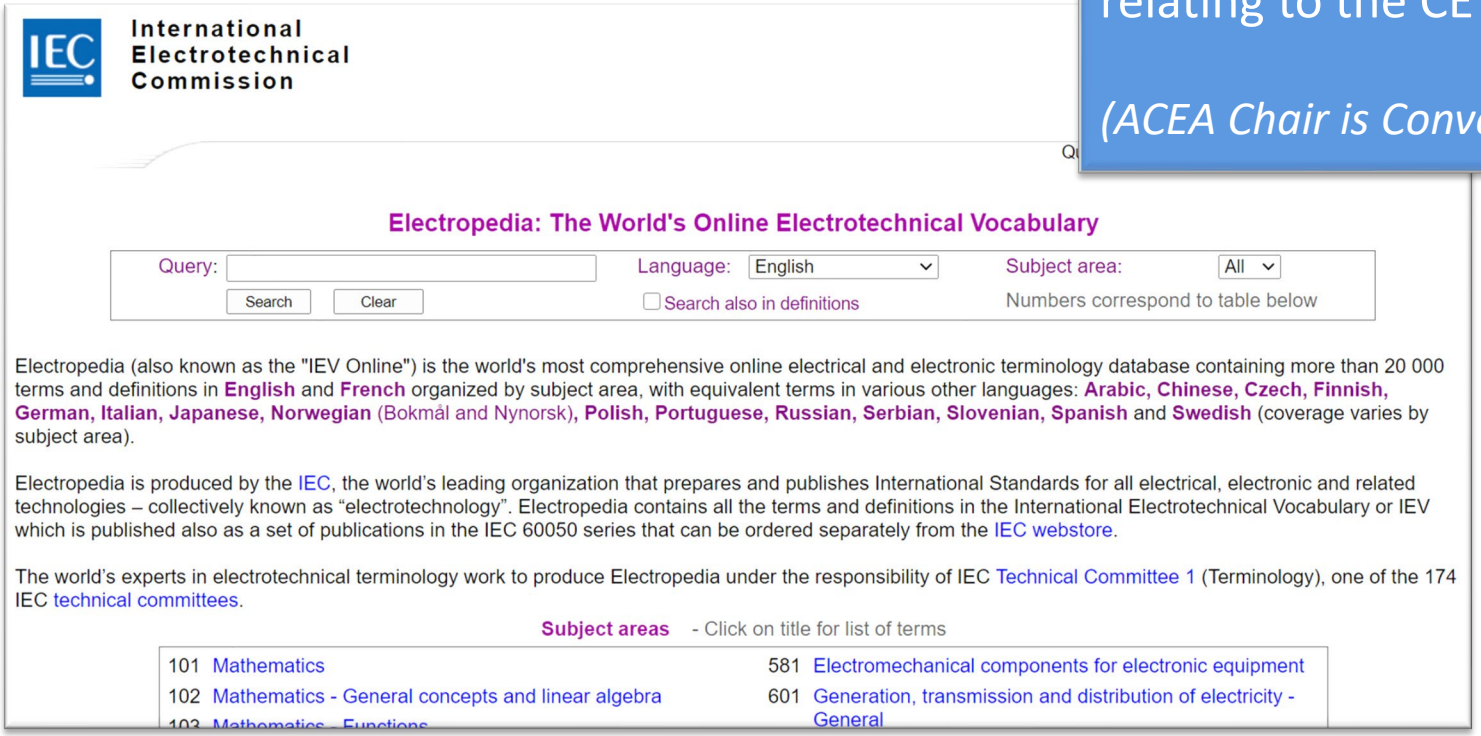
9 articles in IEC e-tech, 1 SMB Newsletter and 15 blogs and videos



Terminology on circular economy (CE) including material efficiency (ME)

IEC TC 1/JWG 2 created to undertake the development of an IEV part on terminology relating to the CE and ME

(ACEA Chair is Convenor)



International Electrotechnical Commission

Electropedia: The World's Online Electrotechnical Vocabulary

Query: | Language: English | Subject area: All

Search | Clear | Search also in definitions | Numbers correspond to table below

Electropedia (also known as the "IEV Online") is the world's most comprehensive online electrical and electronic terminology database containing more than 20 000 terms and definitions in **English** and **French** organized by subject area, with equivalent terms in various other languages: **Arabic, Chinese, Czech, Finnish, German, Italian, Japanese, Norwegian** (Bokmål and Nynorsk), **Polish, Portuguese, Russian, Serbian, Slovenian, Spanish** and **Swedish** (coverage varies by subject area).

Electropedia is produced by the IEC, the world's leading organization that prepares and publishes International Standards for all electrical, electronic and related technologies – collectively known as "electrotechnology". Electropedia contains all the terms and definitions in the International Electrotechnical Vocabulary or IEV which is published also as a set of publications in the IEC 60050 series that can be ordered separately from the IEC webstore.

The world's experts in electrotechnical terminology work to produce Electropedia under the responsibility of IEC Technical Committee 1 (Terminology), one of the 174 IEC technical committees.

Subject areas - Click on title for list of terms

101 Mathematics	581 Electromechanical components for electronic equipment
102 Mathematics - General concepts and linear algebra	601 Generation, transmission and distribution of electricity - General
103 Mathematics - Functions	

Membership

- ACEA members are from
  - IEC TCs, SCs, SyCs that include in their activities and publications aspects associated with the environment in the sense as described in slide 3 of this presentation
  - NCs interested in aspects related to the environment
- Want to know more about ACEA?
  - TCs, SCs, SyCs or NCs who want to know more are welcome to request attendance as guest at an ACEA meeting
  - Please contact the ACEA Chair and/or Secretary for more information

Want to become a member of ACEA?

- TCs, SCs, SyCs:
  - P-member decision to nominate a representative
  - Send the decision, name of representative and his/her CV to the ACEA secretariat (see www.iec.ch/acea > Structure > Officers)
  - ACEA secretariat organizes approval by the SMB
- NCs:
  - NC proposal to nominate an NC representative
  - Send motivation letter, name of representative and his/her CV to the ACEA secretariat (see www.iec.ch/acea > Structure > Officers)
  - ACEA secretariat organizes approval by the SMB

For more information see:
www.iec.ch/acea

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