

European Standardization Organizations

EMC Standardization and harmonization webinar

Opening and aim of the Webinar

Constant Kohler, CCMC, Acting Account Manager

Constant Kohler



Acting Account Manager
Electrotechnology
ckohler@cencenelec.eu

Objectives of the Webinar

Support the increase of EMC standards cited in the OJEU

Focus on processes, contents, requirements



Today's programme

00	14:00-14:05	Introduction & Practicalities	Wallis Raekelboom (CEN-CENELEC)
01	14:05-14:15	Opening of the webinar and aim of the session	Constant Kohler (CEN-CENELEC)
02	14:15-14:30	Agreement ESOs/EC for the purpose of harmonization	Federico Musso (European Commission)
03	14:30-14:45	Interaction between EC, EY, TCs - Process for successful harmonization	Frédéric Mlanao (CEN-CENELEC)
04	14:45-14:55	Specificities of EMCD – overview of requirements	Dorota Papiewska (European Commission)
05	14:55-15:15	Role of HAS Consultants	Ronald Storrs (HAS Consultant EMC)
	15:15-15:25	BREAK	
06	15:25-15:45	Standardization of EMC: role of CLC/TC 210	John Davies and Nyomee Hla-Shwe Tun (CLC/TC 210 Chair and Secretary)
07	15:45-15:55	Performance criteria	Stephen Colclough (CLC/TC 210/WG Convenor)
08	15:55-16:10	Industry view and contribution on standardisation for EMC	Sebastien Aout (Digitaleurope)
09	16:10-16:20	Horizontal support to TCs	Klaus Peter Bretz (CLC/TC 210/WG Convenor & CEN-CLC/BTWG 154-1 Convenor)
10	16:20-16:30	International standards for presumption of conformity?	Bettina Funk (IEC CISPR Chair)
11	16:30-16:45	Case study from TCs	Beatriz Novel (CLC/TC 205 and TC 23E Chair, CLC/TC 37A Secretary)
12	16:45-16:55	Feedback on programme and Q&A	All speakers
13	16:55-17:00	Conclusions and the way forward	Ingrid Soetaert (CEN-CENELEC)
14	17:00	Closing	Constant Kohler (CEN-CENELEC)

What is a harmonised standard (hEN)?



Harmonised Standards

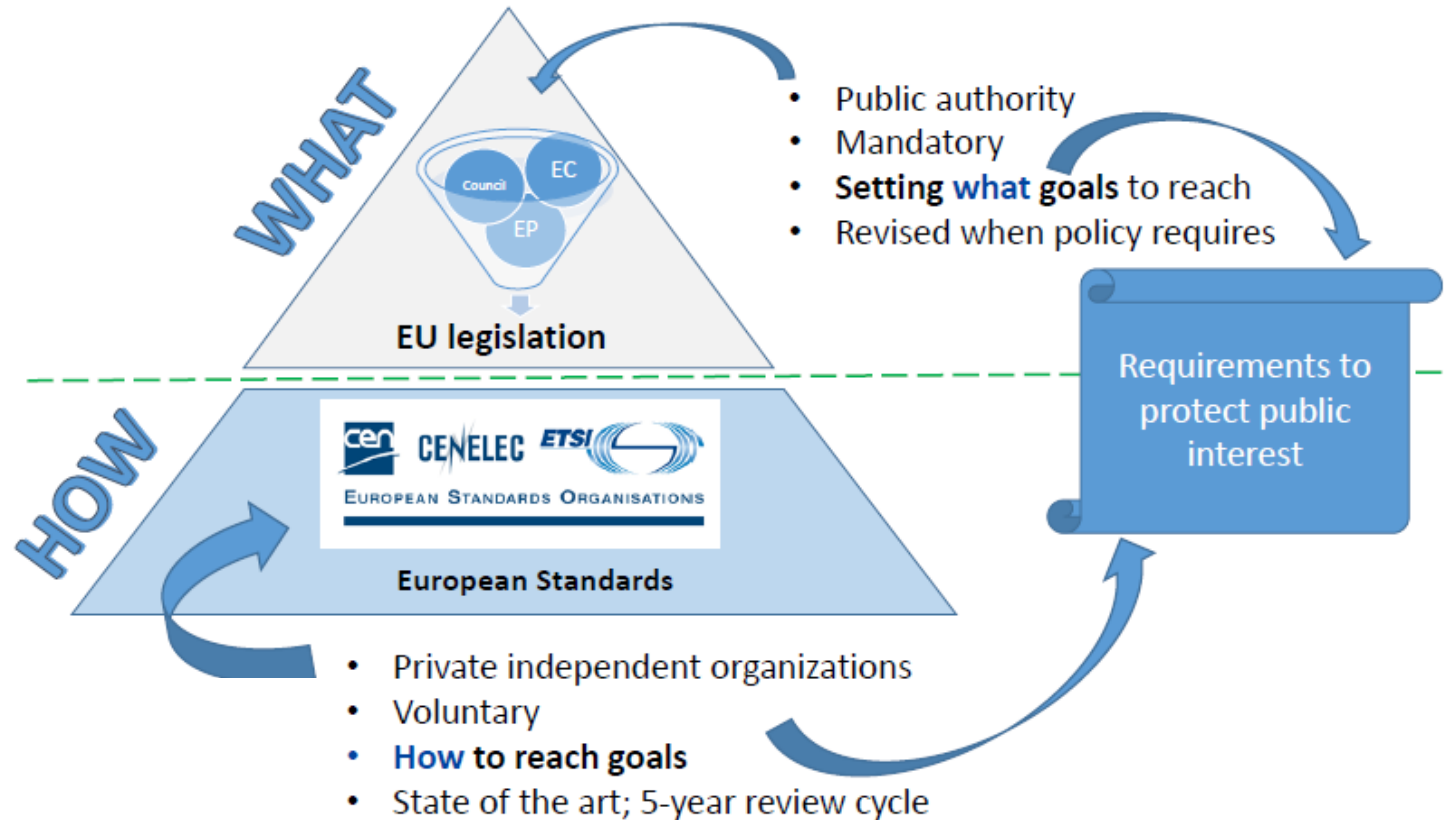
A harmonised standard is a European standard developed by a recognised European Standards Organisation: CEN, CENELEC, or ETSI. It is created following a request from the European Commission to one of these organisations. Manufacturers, other economic operators, or conformity assessment bodies can use harmonised standards to demonstrate that products, services, or processes comply with relevant EU legislation.

The references of harmonised standards must be published in the Official Journal of the European Union. The purpose of this website is to **provide access to the latest lists of references of harmonised standards** and other European standards published in the Official Journal of the European Union (OJEU).

References of harmonised standards and of other European standards published in the OJEU

** https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards_en*

Standards are developed in support of EU Legislation through the New Legislative Framework (New Approach)



The Electro-technological European Standardization System





STRATEGY

2030

CEN & CENELEC



The process and the roles for the OJEU-citation of harmonised standards

Federico Musso

CEN-CENELEC Webinar on EMC

4 May 2021

Regulation (EU) No 1025/2012 and James Elliott ruling of the EUCJ

- *Compliance of standards drafted by ESOs must be assessed by COM jointly with ESOs (Art. 10(5) of **Standardisation Regulation**) with the standardisation request (mandate)*
- *The **James Elliott judgment** of 27.10.2016: harmonised standards are considered a measure of EU law after citation in OJEU. Since their development is entrusted to private organisations (the ESOs), it follows that this assignment must be a “controlled delegation” in which the Commission plays a fundamental role => Articles 10(1), 10(5) and 10(6) of the Regulation must be fully applied.*

Previous system of consultants

- *Previously, assessment of conformity was delegated to ESOs: COM paid full cost of New Approach Consultants (NAC), but they were contracted and managed by CEN/CENELEC. NACs went beyond assessment tasks, participating to the drafting work in the TCs.*
- *After Elliott ruling, COM services started to verify and assess conformity of standards themselves and often disagreed with the assessments of NACs => significant amount of standards not cited in the OJEU.*

Introduction of the new system of HAS Consultants

- *To comply with its legal obligation as per Art. 10(5) of the Regulation, COM needed technical assistance => decision to discontinue NAC system and replace it with a new system, directly managed by COM.*
- *The system of Harmonised Standards (HAS) Consultants replaced the NACs on 01.04.2018. HAS Consultants to work closely with, and on behalf of, COM's sectoral Units.*
- *Assessment of documents to be done according to criteria set by COM, on the basis of initial standardisation requests and legislation.*

How the HAS Consultants system works

- *COM and consultants must keep distance from drafting and from consensus building process of ESOs, and must be clear of conflicts of interest.*
- *Results of assessments are not binding for COM.*
- *The horizontal Standardisation Unit in DG GROW coordinates the HAS Consultants work and provides guidance and periodical trainings on horizontal aspects, to ensure consistency.*
- *Coordination on sector-specific elements is provided by COM's sectoral Units, when necessary.*

Main guidance documents for HAS Consultants

- *GROW's Standardisation Unit has developed the Assessment Report template.*
- *Main guidance documents: European Vademecum, OJ-Checklist from 2016, CEN-CENELEC's Internal Regulations Part 3, sectoral checklists (when existing), other training material (presentations, etc.)*

Previous system of OJEU referencing

- *Lists of harmonised standards providing presumption of conformity with the essential requirements of a specific Directive/Regulation were published in the C series of the OJEU, already in the form of a consolidated list.*
- *New standards were included in the list, and those standards that were meant to be withdrawn were simply no longer included.*
- *The act used to publish references was a Commission Communication; decision was decentralised (taken at sectorial Unit level)*

Reasons for changing publication system

- *The main reason for the new system lies in the jurisprudence of the EUCJ on harmonised standards*
- *In particular, the James Elliott ruling and the Global Garden ruling were relevant:*
 - **James Elliott:** harmonised standards, though voluntary, are “by their nature measures implementing or applying an act of EU law” once referenced in the OJEU
 - **Global Garden:** important to have legal certainty when publishing and repealing references in the OJEU. To set starting and ending dates for the legal effect is exclusive competence of Commission

Commission Communication on Harmonised Standards

- *In its Communication on harmonised standards COM(2018) 764 of 22.11.2018, the Commission announced the review of its internal decision making process for publishing the references to harmonised standards in the OJEU.*
- *As of 1st December 2018, the publication of references to standards happens via Commission Implementing Decisions, adopted by written procedure by the College of Commissioners and published in the L series of the OJEU; the L series is used for legally binding acts (while the C series is used for information and communication).*
- *For legal legitimacy, the adoption of these Decisions is no longer decentralized within COM. All adopted Decisions are published in DG GROW's web-site, and are available in all languages.*

Publication Decisions under the new system

- *In the Decisions, there are different Annexes for publication, publication with restriction and withdrawal. In several sectors, only new standards (or withdrawn standards) are listed: no consolidated lists annexed to the Decisions (in some other sectors we are moving towards consolidated lists annexed to the Decisions)*
- *For publication Decisions which do not contain a consolidated list, DG GROW publishes summary lists on its web-site (https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards_en) after each publication*
- *To increase user-friendliness, the summary lists are provided in two formats, .pdf and .xls*

Overview of publication in the L series of the OJEU

- *In 2018: 1 publication Decision (1 new reference)*
- *In 2019: 15 publication Decisions (157 new references in total)*
- *In 2020: 19 publication Decisions (215 new references in total)*
- *In 2021 (so far): 9 publication Decisions (93 new references in total) – several more in the pipeline for adoption*

- *Overall speed of publication is steadily improving*

- *Backlog of pending standards almost cancelled in most sectors (e.g., for EMCD backlog is 0)*

Date of withdrawal of references to standards from the OJEU

- *The Global Garden ruling has confirmed that it is COM's exclusive competence to terminate the legal effect of harmonised standards by withdrawing the references from the OJEU*
- *In the new publication Decisions, a specific annex lists the withdrawn references and the respective withdrawal dates*
- *Date of withdrawal from the OJEU has nothing to do with the DoW set in the superseding standard => no automatic alignment between the two dates*
- *As a default date of withdrawal from OJEU, COM intends to use the 18 months transition period normally used for legislation - motivated exceptions (longer or shorter periods) are possible*

Thank you for your attention!

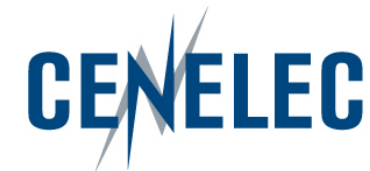
Questions?

Federico Musso

European Commission

DG GROW/H.3 (the Standards Policy Unit)

E-mail: Federico.MUSSO@ec.europa.eu



European Standardization Organizations

Interactions between EC, EY, and TCs – process for successful harmonization

Frédéric Mlanao - CCMC – Project Manager

Frédéric Mlanao



Project Manager
Electrotechnology
fmlanao@cencenelec.eu

Harmonized standards (hEN) are developed in the same way as any other EN in CEN and/or CENELEC – **but with additional considerations:**

❑ Mandatory for hEN:

All harmonized standards **shall** include an informative Annex ZZ (CENELEC)/ZA (CEN), demonstrating the relationship between the clauses of the standard and the regulatory requirements.

For standards developed under the Frankfurt Agreement, a normative Annex ZA ‘normative references’ shall be included as well.

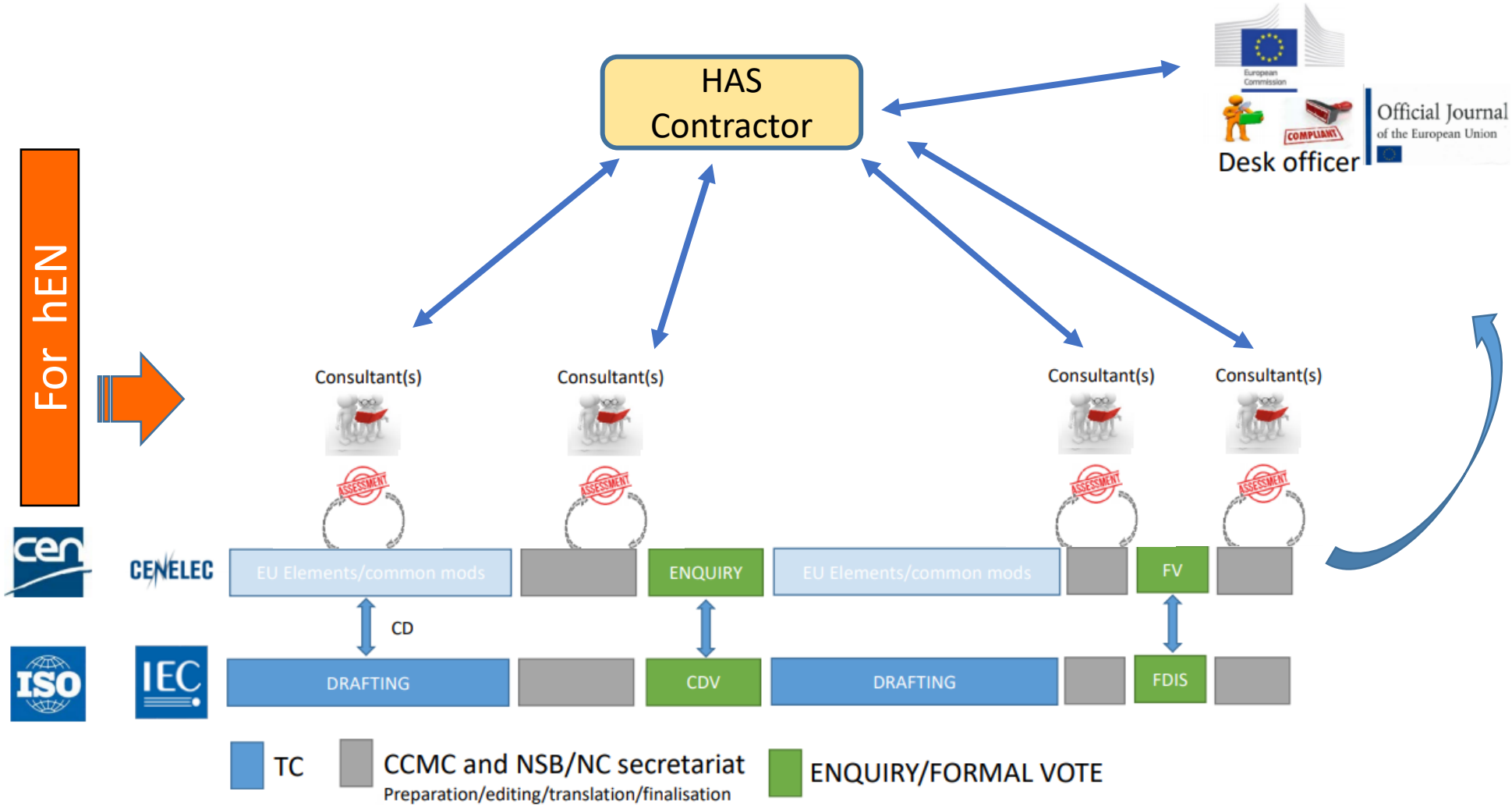
❑ Consultant assessments:

The HAS consultants assess the compliance of a standard with directive’s (and standardization request) requirements, via communicating with and delivering assessments to the TCs - they work on behalf of the EC.

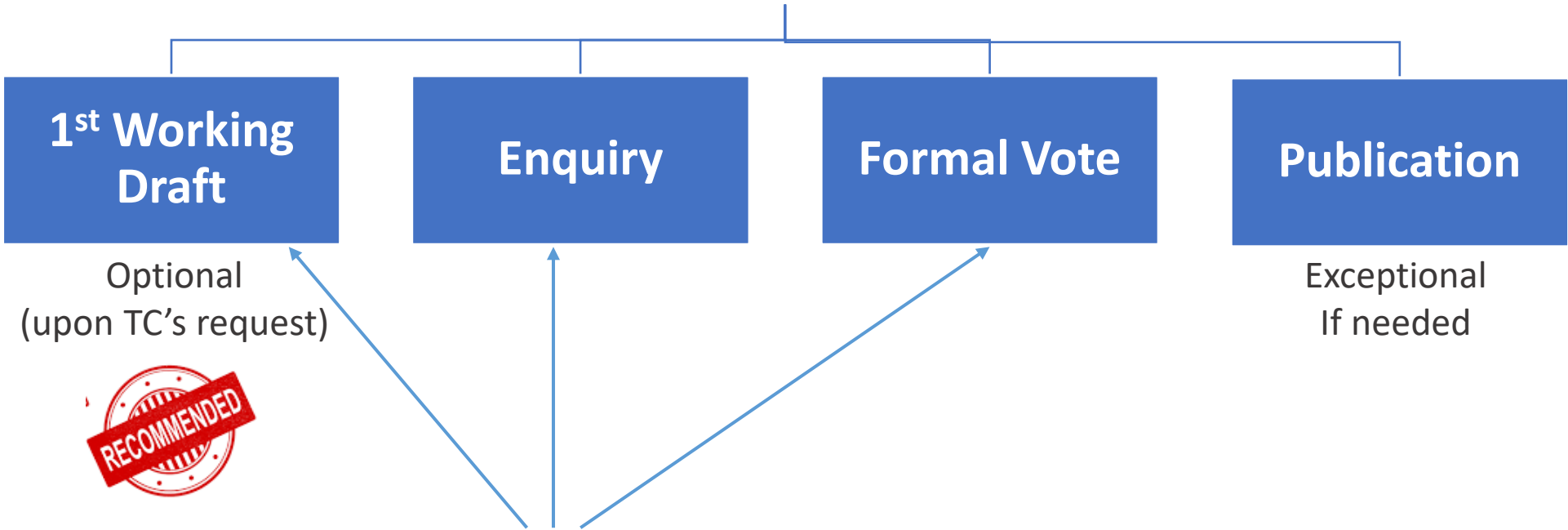


‘Compliant assessment’ on EN is needed to have the EN “offered” (by CEN-CENELEC) to the European Commission and then cited in the OJEU (European Commission decision)!

Standards development process



When can assessment be requested?

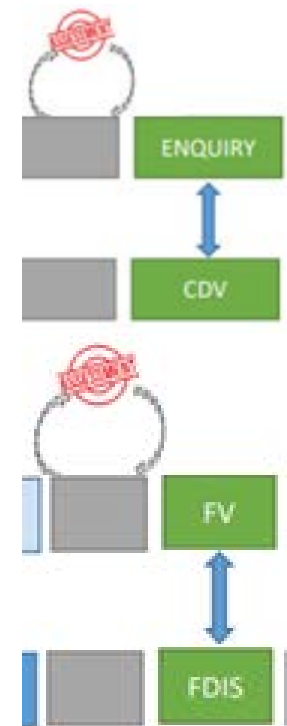


**At any of above stages assessment can be requested.
However, only 1 assessment per stage !**

Assessment request: EN IEC under FA

When the assessment should be requested by CCMC ?

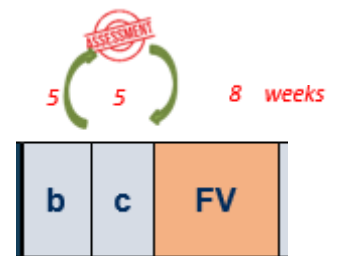
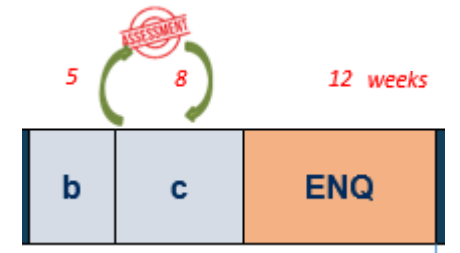
- ▶ CD : upon TC request
- ▶ // CDV : when CDV notification received (with standard text), CCMC asks EU elements to TC. Assessment requested before CDV/Enquiry starts.
- ▶ // FDIS : when FDIS notification received, CCMC asks EU elements to TC. Assessment requested before FDIS/Formal Vote starts.
- ▶ PUB : exceptional, in case of need



Assessment request: Homegrown EN

When the assessment should be requested by CCMC ?

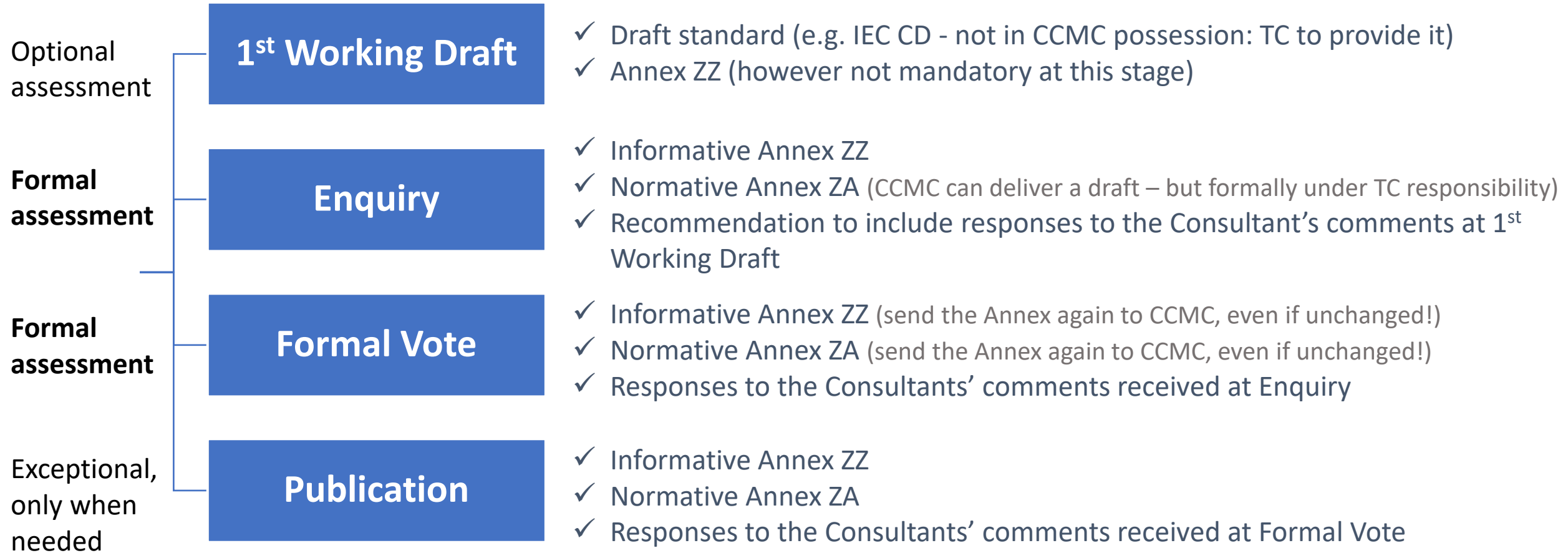
- ▶ FWD : upon TC request
- ▶ ENQ : assessment requested when translation starts.
- ▶ FV : assessment requested when translation starts. Report shall be available when FV starts. FV starts only if compliant assessment.



*

b= editing
c= translation

What TC needs to deliver to CCMC?

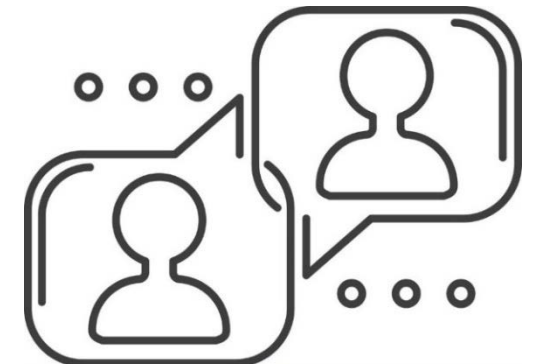


How to communicate with HAS consultant?

- ❑ The TC can contact directly the HAS consultant (via email):
 - ✓ once the assessment has been requested and before the assessment is delivered – dynamic interaction with the HAS consultant
 - ✓ after the assessment is delivered – to further discuss the assessment and prepare for the next step
 - ✓ Exception: for meetings with the duration > 4 hours, TC secretary or PM shall make the request using the link www.ey.com/be/HASmeetingrequests.



Always inform your CCMC PM!



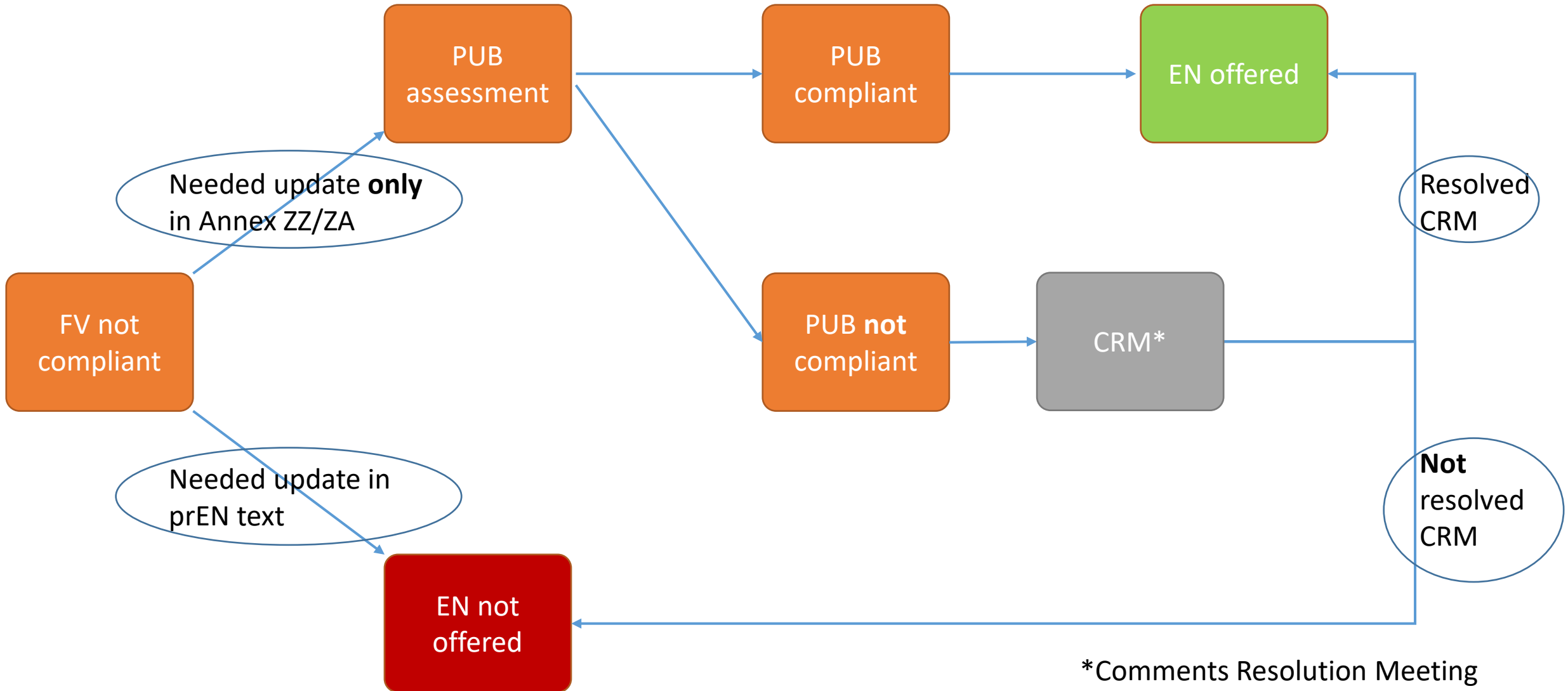
Key points!

Principles for a successful assessment

- Start the process as early as possible!**
i.e. with the assessment request of the first working draft: the consultant would flag compliance issues early in the process
- Systematically provide feedback!**
TC shall provide feedback by responding, in writing, to the HAS consultant's comments (column: observations from the secretariat)
- Communication is the key!**
 - ✓ Ensure communication flows between CEN and/or CLC/TC (interaction with the HAS consultants) and ISO and/or IEC/TC (writing the standard)
 - ✓ Ensure communication flows with HAS Consultant: After the submission of the assessment by CCMC, TCs are encouraged to engage with HAS consultants



Negative FV assessment (EN IEC)



*Comments Resolution Meeting

Thank you for your attention. Questions?

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Frédéric Mlanao



CEN-CENELEC Webinar on EMC Specificities of EMC standards

Dorota Papiewska – EMCD Desk Officer

DG GROW.H2



Dorota Papiewska



EMC Desk Officer

European Commission

DG GROW

Machinery & Equipment –
Unit H2

Dorota.PAPIEWSKA@ec.europa.eu

Points covered by this presentation

- ▶ Let us make a recall of the points the EMC standards should contain...
- ▶ Current status of EMC standards citation
- ▶ Feedback on the EMC Evaluation

Points the standards should contain

Some important points in the checklist of the HAS Consultant for assessments:

- ▶ The standardisation request which provides the basis for the standard is referred to in the foreword (M552).
- ▶ Those parts of the standard related to the essential requirements of the EMC Directive are clearly identified in the ZZ annex (in accordance with the agreed template).
- ▶ The normative references are dated and up-to-date
- ▶ The Scope is clearly defined giving precise limits to the products covered.
- ▶ No statistical methods are described or referred to in this standard to evaluate products to be placed on the market (e.g. "80/80 rules").
- ▶ There are no non-specific requirements, i.e. undefined or manufacturer defined limits, test levels, measurement methods or performance criteria.
- ▶ And other Technical requirements...
More detailed aspects to be explained by the HAS Consultant.

Citation of EMC harmonized standards (1)

- ▶ Standards are officially (Ms Santiago) offered for publication by CCMC to the Commission.
- ▶ Standards offered should have received a positive assessment beforehand (at a final stage FV or PUB stage).
- ▶ CCMC should have download the corresponding version in the Commission's database. Allowing desk officer to have the whole standard: EN (cover with annexes) and the corpus (IEC, CISPR...) with its amendments or corrigenda.
- ▶ If the standard was not previously submitted by CCMC for an assessment, or had received a negative assessment, the Commission has to request a « final assessment » which can take no more than 5 weeks (time allowed for the HAS Consultant).

Citation of EMC harmonized standards (2)

- ▶ Number of references submitted in 2020: 18
- ▶ Number of those references published: 10 (in 2020) + 3 (in 2021)
- ▶ Number of those standards which beforehand had passed through the E&Y procedure and had already a positive assessment before submission: 0
- ▶ No standards offered for publication on November 2020
- ▶ No standards offered for publication on January 2021
- ▶ Two standards pre-notified in April 2021 for an official submission in May (?)

EMCD Evaluation -Time Schedule

- ▶ Currently the study is at the draft final report stage, under review by Commission services.
- ▶ Q2: Drafting the Commission's staff working document (SWD) of the Evaluation.
- ▶ Q3: SWD submitted for comments from the other services.
- ▶ Q4: Adoption of the SWD towards the end of the year.

Thank you



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CEN-CENELEC Webinar on EMC

Ron Storrs



HAS consultant for the EMCD



Ron Storrs
HAS Consultant for EMCD

Role of the HAS consultants

- The primary role of the HAS consultant is to assess the legal suitability of a harmonised standard that is offered for citation in the OJ.
- The assessment is not confined to the Annex ZA and Annex ZZ.

Revision of a standard

- If a standard is revised, the assessment must cover not only the revised parts but also the complete standard being revised.
- A revision of a standard is essentially a new version of the standard and will result in a new standard superseding (and not only amending) the previous version; so, a full assessment must always be carried out in this case.

Amendment to a standard not in the OJ

- If a standard is being amended that is not already in the OJ, the assessment must cover the amendment and the complete standard being amended.
- However, if the standard being amended was previously assessed, then it should be sufficient to verify that the amendment correctly solves all the issues flagged in the standard's previous assessment.

Amendment to a standard in the OJ

- If a standard being amended is already in the OJ, the assessment should cover only the amendment.
- The assessment will focus on the amendment and the assessment result will be based only on the evaluation of the amendment.
- The HAS consultant will clearly flag any deficiencies in the standard in the comment form for the TC, to encourage the TC to use the opportunity provided by the amendment to address them.
- These comments will also be important for the Commission, who will then decide whether to cite the amendment in the OJ or not and whether to maintain the standard in the OJ or withdraw it

For all amendments or revisions

- The Annex ZA and Annex ZZ in the new EN should always be updated to deal with known problems.
- It is expected that the TCs use every opportunity they have (be it a revision or an amendment) to improve the legal quality of existing standards.
- The TC cannot be complacent and take the attitude that once a standard has been cited in the OJ, they no longer have to care about known problems.
- The Commission has the legal power to autonomously withdraw standards from the OJ even if a new version is not offered by the ESOs.

Some important items from the EMCD checklist...

OK	NOK	Technical – Sector Specific – Sufficient coverage of E.R/S.O. intended to be covered
<input type="checkbox"/>	<input type="checkbox"/>	Harmonised generic EMC standards together with state of the art and more comprehensive standards, e.g. EN 55032 and EN 55035 (<i>which deal with all types of ports except exotic variants</i>) have been used to establish an appropriate reference for assessment.
<input type="checkbox"/>	<input type="checkbox"/>	Older versions of harmonised product standards for the same equipment and current harmonised product standards for similar types of equipment have been used to establish another appropriate reference for the assessment.
<input type="checkbox"/>	<input type="checkbox"/>	The emission requirements, if relevant, are equivalent to or more appropriate than those in the reference standards for assessment.
<input type="checkbox"/>	<input type="checkbox"/>	The immunity requirements, if relevant, including performance criteria, are equivalent to or more appropriate than those in the reference standards.
<input type="checkbox"/>	<input type="checkbox"/>	The requirements are compatible with good EMC engineering practice, state of the art EMC expertise or appropriate reference standards.
<input type="checkbox"/>	<input type="checkbox"/>	No statistical methods are described or referred to in this standard to evaluate products to be placed on the market.
<input type="checkbox"/>	<input type="checkbox"/>	There are no non-specific requirements, i.e. undefined or manufacturer defined limits, test levels, measurement methods or performance criteria.

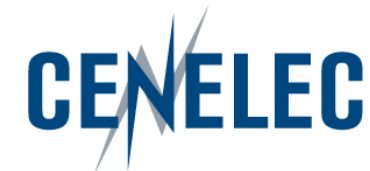
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Coffee Break

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European Standardization Organizations

CEN-CENELEC Webinar on EMC 'Role of CLC/TC 210 EMC'

John Davies (Chair of CLC/TC 210)

Nyomee Hla-Shwe Tun (Secretary to CLC/TC 210)

What is EMC

- ▶ Electromagnetic Compatibility, also known as EMC, is the interaction of electrical and electronic equipment with its electromagnetic environment, and with other equipment.
- ▶ All electronic devices have the potential to emit electromagnetic fields. With the proliferation of electronic devices into everyday life - TVs, washing machines, electronic ignitions, traffic lights, mobile phones, ATMs, anti-theft tags, to name but a few - there is therefore a huge potential for devices to interfere with each other.
- ▶ The multiplication of electronic devices in our everyday life and their interactions complicate the electromagnetic environment.
- ▶ The need for convergence in electronics across the board leads to the development of electromagnetic compatibility (EMC) standards.



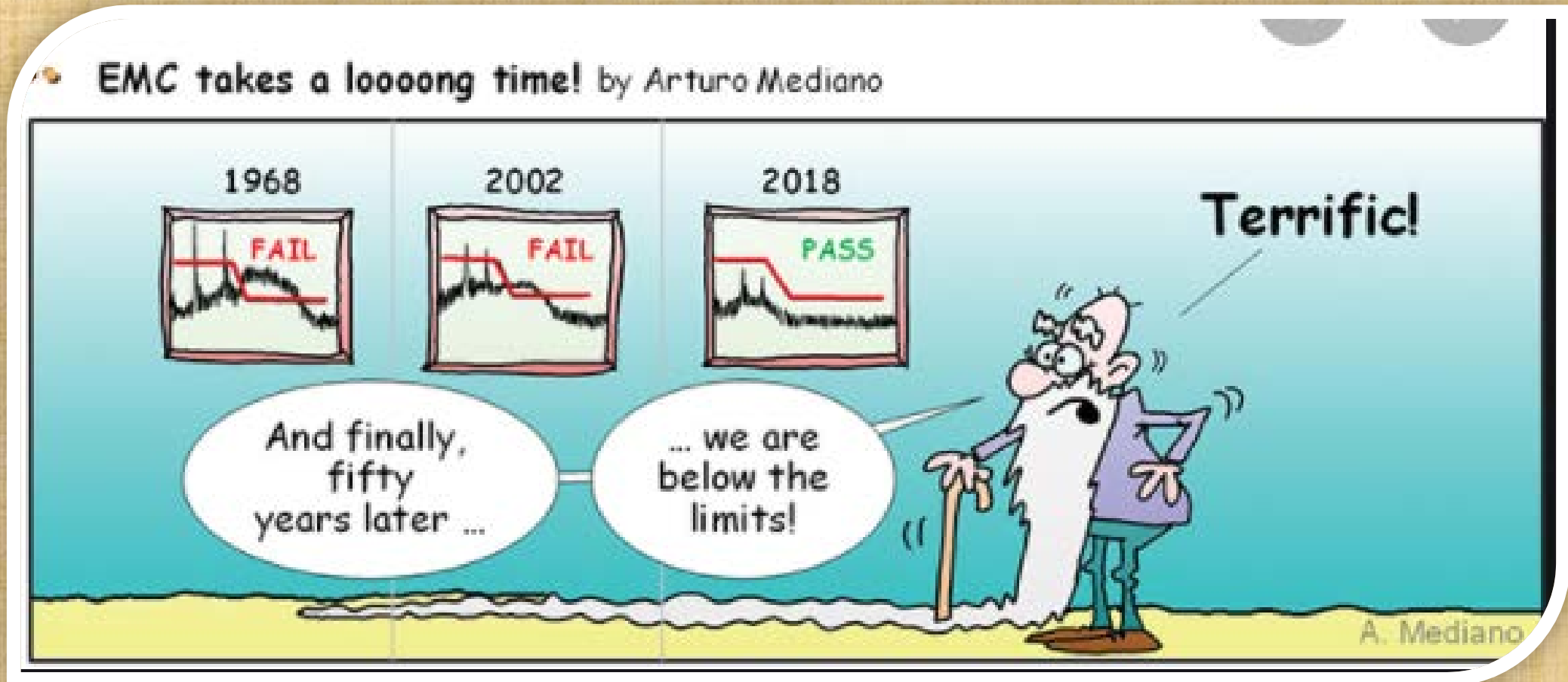
Role of CLC/TC 210 EMC

- ▶ Horizontal Committee.
- ▶ Shared membership with CISPR & IEC.
- ▶ Works closely with EC, CCMC and relevant Stakeholders.
- ▶ Produces benchmark EMC standards which are used by Products Committees.
- ▶ Develops CEN-CENELEC Guide(s).
- ▶ Be an instigator in exploring options in order to support the European harmonisation and regulation while adopting the International Standards originated from IEC and CISPR.



Why do we need CLC/TC 210?

- ▶ For the very same reason



SCOPE

of CLC/TC 210

- ▶ CLC/TC 210 'Electromagnetic compatibility' deals with a wide range of product families, generic and basic EMC standards.
- ▶ Some of these are initiated and developed within the European Technical Committee CLC/TC 210 itself, however the majority result from its cooperation with IEC/TC 77 'Electromagnetic compatibility' and with the International Special Committee on Radio Interference (CISPR).
- ▶ TC 210 works on the alignment with European legal requirements for the Electromagnetic Compatibility (2014/30/EU) and in smaller scale with its corresponding Radio Equipment (2014/53/EU) Directives Standardization Requests (respectively M/552 and M/536).
- ▶ These efforts seek the highest alignment possible with IEC & CISPR work.
- ▶ To ensure a coherent and comprehensive scheme regarding EMC matters, CLC/TC 210 offers guidance and liaison to other CLC TCs as well as closely cooperates with CEN and ETSI.

As the horizontal committee ...

- ▶ Many other CEN and CENELEC Technical Committees reference to our Generic and Product Family Standards such as EN 55011, EN 55014, EN 55015, EN 55032 or EN 55035.
- ▶ Or other Product Family Standards such as EN 61000-3-2, EN 61000-3-3.
- ▶ Or the Basic Standards EN 61000-4 series.
- ▶ Being a Committee in the forefront, we realise once our Standards are blocked, or failed to qualify for Harmonisation, all the other Technical Committees' standards which reference to ours will also be blocked/failed to qualify for Harmonisation.
- ▶ Develops homegrown standards such as for PLT.

BS EN 55011:2016+A11:2020
Incorporating corrigendum October 2017



BSI Standards Publication

Industrial, scientific and medical equipment -
Radio-frequency disturbance characteristics
- Limits and methods of measurement

That means CLC/TC 210 usually has to find a way to resolve horizontal issues too

- ▶ How can we overcome this paralysis issue?
- ▶ Not only helping our own industry, CLC/TC 210 also provides guidance and assistance to others CEN and CENELEC Technical Committees when it comes to EMC matters.
- ▶ The word 'harmonisation' makes all sense as we have to be in harmony in way of thinking, action plan and the achievable results.
- ▶ Always in communication and collaboration with all stakeholders involved in the process of harmonisation.



The Findings

- ▶ CLC/TC 210 has carried out the 'Analysis' on EMC Assessments and their outcomes.
- ▶ There were many critical issues identified.
- ▶ Some of these critical issues are 'easy to fix'.
- ▶ Uneven assessments with associated problems.

COMMON ISSUES
ANALYSIS of EMC NEGATIVE ASSESSMENTS
 (by John Davies – Chair of CLC/TC 210 for facts gathering exercise)

Forward

I have no mandate to produce this analysis and initially considered it would be for my sole benefit, in gaining understanding 'where we are' and what was needed to be considered for TC210 standards .

However now, I have for the moment completed the task I set myself, I see a benefit of wider circulation

Introduction

The purpose of this document is to

highlight the extent and diversity of issues which result in negative EMS HAS assessments

kill the myth that if we sort out the 80/80 rule and performance assessment criteria issues, all will be well

The following analysis has been derived from extractions out of HAS consultants assessments

IT is not an exhaustive/comprehensive list of all problems.

It is a first pass of the issues encountered by more than 3 standards ie "common issues"

The examples from standards of where these issues occur is **NOT** comprehensive but intended to give an idea of the context of the issue.

DO NOT TAKE THE VIEW THAT IF MY STANDARD IS NOT GIVEN AS AN EXAMPLE THEN "I HAVE NO PROBLEM"

TC210/SEC1196/DS (COMMON ISSUES - ANALYSIS OF EMC NEGATIVE ASSESSMENT

TC210/Sec1196/DS (Common Issues - Analysis of EMC Negative Assessments by John Davies, Chair of CLC/TC 210 for facts gathering exercise)

The Findings

The findings can be split into following categories:

- ▶ # Administratives
- ▶ # Technical but can be dealt with editorial clarification
- ▶ # Technical with changes to the technical requirements
- ▶ # Process

Findings (Administratives):

Foreword

- ▶ needs reference to standardization request

Scope

Annex ZZ

- ▶ Annex ZZ template not using latest
- ▶ Annex ZZ references incorrect

Annex ZA

- ▶ Undated References
- ▶ Out of date and or incorrect references

Findings (Technical but can be dealt with editorial clarification):

TECHNICAL/REQUIREMENTS

- Manufacturer
- Reference to other unacceptable standards
- Reference to 61000 3-3 and 3-2
- Calculation or Simulation extrapolating test results
- Challenging the performance criteria
- Care in referencing basic standard
- Degree of interpretation to the users

Findings (Technical with changes to the technical requirements)

TECHNICAL/REQUIREMENTS

- Manufacturer
- Reference to statistical methods
- Reference to 61000 3-3 and 3-2
- In-Situ Testing
- Challenging the performance criteria
- Challenging the test requirements
- Degree of interpretation to the users

Findings (Process)



- Consistent approach is necessary.
- Consistent approach can be achieved by use of established practice – i.e. use of sectorial checklist.

Our proposed way forward

HAS Consultant EMCD assessment checklist COMPLEMENT TO ASSESSMENT FORM

Date: [] [] [] []

Stat: HAS Consultant EMCD assessment checklist COMPLEMENT TO ASSESSMENT FORM

TC Date: [] [] [] []

Star: [] [] [] [] [] [] [] []

Title: Status of the WI

Dir (EU)

TC HAS Consultant EMCD assessment checklist COMPLEMENT TO ASSESSMENT FORM

Date: [] [] [] []

Star: [] [] [] [] [] [] [] []

Title: Status of the WI

Dir (EU)

Indicative	<input type="checkbox"/>	Ess. vote	<input type="checkbox"/>	FV	<input type="checkbox"/>	Approved	<input type="checkbox"/>	Ratified	<input type="checkbox"/>	Published	<input type="checkbox"/>
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TC

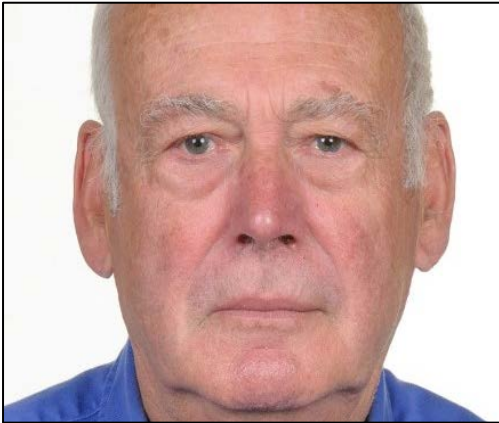
Standard number		Work Item Project ID	
Title		Amdt or Rev	
Directive or Regulation (EU or EC)¹	EMCD (2014/30/EU)	Standardisation Request	M/552

MODIFIED VERSION FOR USE BY TCs

TC	HAS OK	HAS NOK		Remarks
			Vademecum part III – clause 2.8	
			General	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The standardisation request which provides the basis for the standard is referred to in the foreword.	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Those parts of the standard related to the essential requirements of the EMC Directive are clearly identified in the ZZ annex.	

- ▶ Introduction of using the pre-assessment TC sectorial checklist template (use at CLC level)
- ▶ Encourage the use of appropriate section of the pre-assessment TC sectorial checklist template during the development of CDVs to ensure the quality (use at IEC level)
- ▶ Encourage IEC TCs to structure their documents by separating the requirements into different requirements sections – e.g. one section for Safety, one section for EMC and one section for Radio
- ▶ Requests all parties involved to consistently use the required check-list(s)
- ▶ To identify common modification as required
- ▶ To organise regular liaison between EC and CLC/TC210

Thank you for listening!



John Davies

(email: john@conformance-services.com)



Nyomee Hla-Shwe Tun

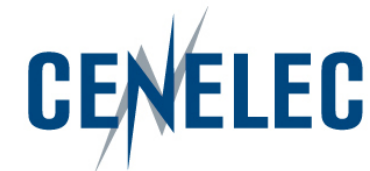
(email: Nyomee.hla-shwetun@bsigroup.com)

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European Standardization Organizations

CEN-CENELEC Webinar on EMC Performance Criteria

Stephen Colclough – Convenor TC/210 WG 16

The issue

- **Performance Criteria defined in generic immunity standards were not acceptable to the Commission for standards to be cited in the EU OJ for the EMC Directive.**
 - The rationale for the Commission's position is that general performance criteria, such as those used in the generic standards, results in "delegating to the manufacturer" the definition of criteria. This could potentially lead to differing interpretations between different manufacturers of similar products.
 - TC210 WG16 formed to work on proposals for alternative text for the performance criteria.

Example

- **Criterion A – typically applied for radiated and conducted RF tests.**

EN 61000-6-1:2019

A functional description and a definition of the equipment under test's (EUT) specific performance criteria, during or as a consequence of immunity testing, shall be provided by the manufacturer and noted in the test report. They shall be consistent with one of the following general criteria for each test as specified in Table 1 to Table 4:

Performance Criteria A: The EUT shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. If the performance level is not specified by the manufacturer, this may be derived from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.

Example

- **Criterion A – typically applied for radiated and conducted RF tests.**

WG 16 Proposal

A functional description and a definition of the specific performance criteria of the equipment under test (EUT), identifying acceptable degradation from normal performance during or as a consequence of immunity testing, shall be provided in the equipment's test specification and noted in the test report. Acceptable degradation is a deviation of performance of the equipment that a reasonable user accepts, when used as intended.

NOTE 1: Generally, the acceptable degradation of performance can be determined from an understanding of the purpose of the equipment (e.g. from its functional description, documentation or common specifications for that type of equipment).

The EUT's specific performance criteria shall be consistent with the following general criteria for each test as specified in Table 1 to Table 4:

Performance criterion A:

During and after the immunity test, the equipment shall;

- continue to operate and to remain controllable as intended within the identified acceptable degradation from normal performance,
- not unintentionally change its operating state,
- not unintentionally change any critical stored data.

Commission response to proposal

Requirement

- **Harmonised standards for immunity should help designing and manufacturing the equipment, providing the level of immunity to be expected without unacceptable degradation.**
- **Presumption of conformity must be based on objective and verifiable criteria.**

Problems

- **The proposal does not define which would be the unacceptable degradation and the desired level of immunity in a specific intended use.**
- **The wording appears to delegate this task to the manufacturer.**
- **The concept of “acceptable degradation” leaves room to significant interpretation and is subject to the reasonable user’s assessment, which is subjective. Therefore it cannot legally generate a presumption of conformity with requirements.**
- **Generic standards inherently are not acceptable as they will never define the specific performance requirements for undefined products.**

DIGITALEUROPE



**Industry view and
contribution on
standardisation for EMC**

Sébastien AOUT



Senior EMC engineer
Convenor of CLC TC210 WG13
Member of Digital Europe PCMA Group



[linkedin.com/in/sebastienaout/](https://www.linkedin.com/in/sebastienaout/)



sebastien.aout@sony.com



<https://www.digitaleurope.org/>

Agenda

▶▶ View of the industry on the current situation

- European standards versus State-of-the-Art
- Consequence on industry

▶▶ Opinion on current blocking point

- Deviations to international standards
- Role of the manufacturer in EMC assessment and harmonized standards

▶▶ Going forward

1

View of the industry on the current situation

European Standards vs State of the art



IEC standards
are state-of-art



≈80% EN IEC-based
standards are
Up-to-date vs IEC



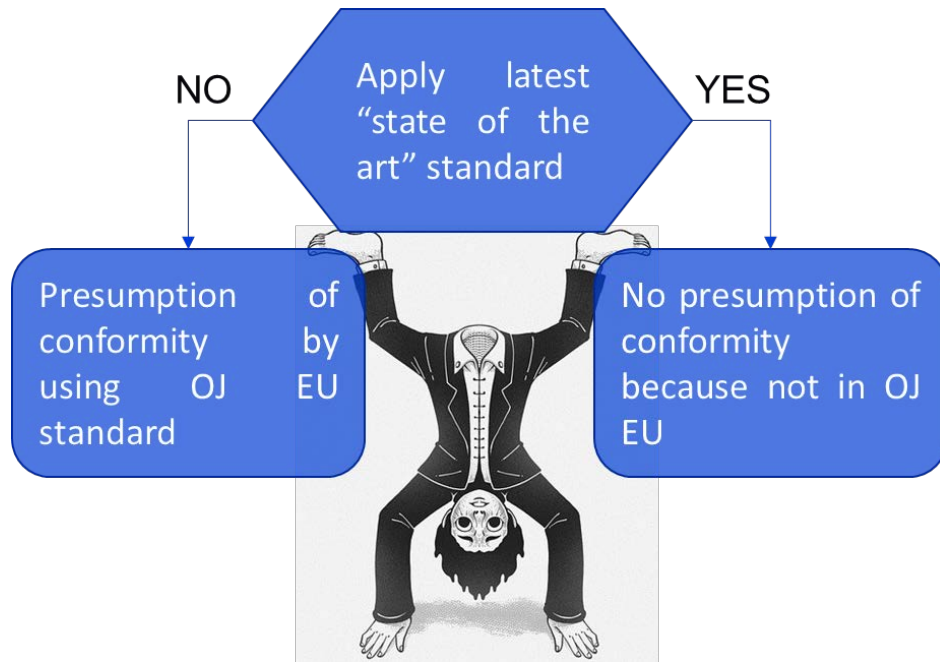
EMC-D:
<10% up-to-date
vs IEC
≈30% up-to-date
vs EN IEC-based

RE-D art 3.1b:
1 standard



The harmonized standard in the OJ EU doesn't reflect the state of the art anymore !

Consequence on industry

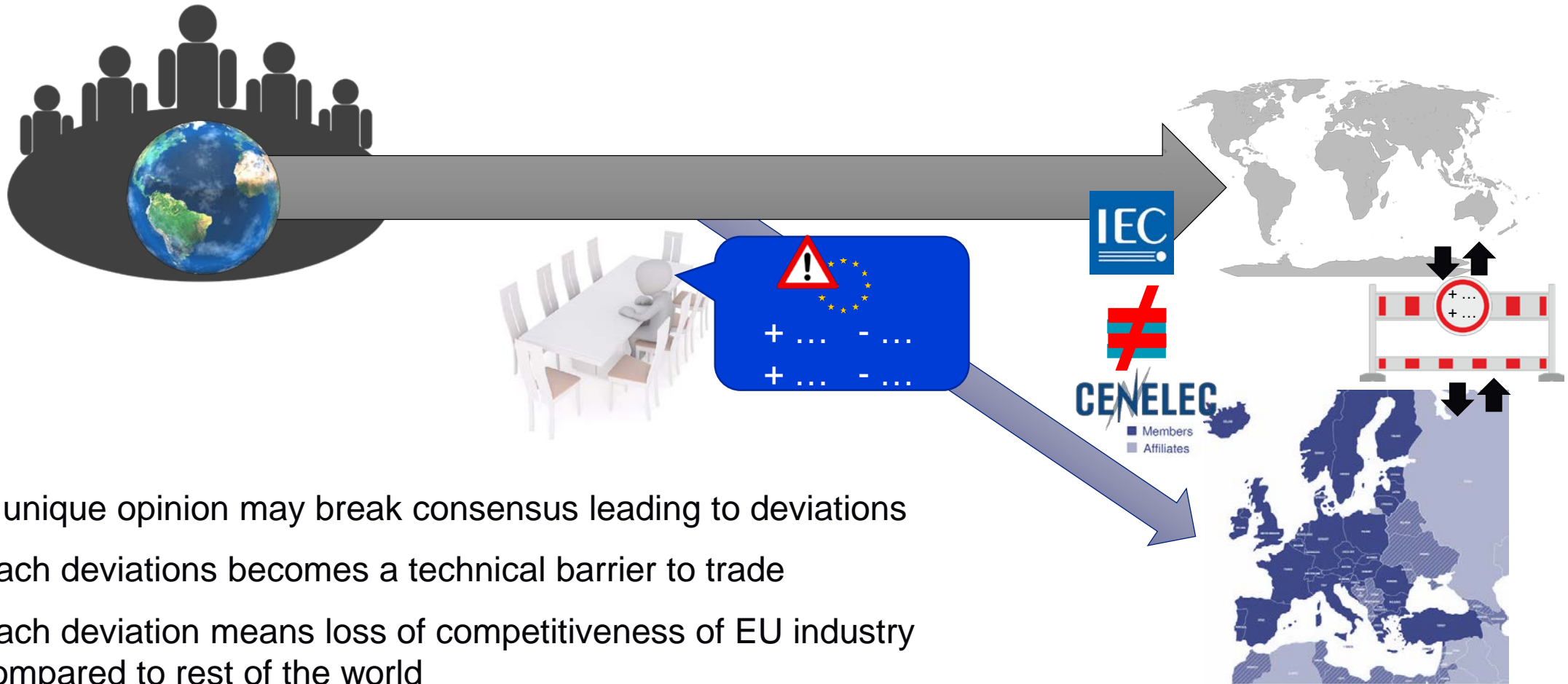


- ▶▶ **Legal uncertainty** when using the latest standard which is not referenced in the OJEU
- ▶▶ **Lack of transparency** about real status of the standard
- ▶▶ **Inconsistent date of withdrawal** between CENELEC and OJEU, and directives

2

Opinion on current blocking points

Avoid deviations from international standards

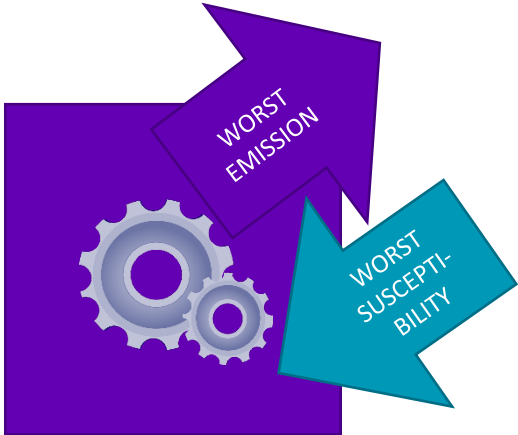


- ▶▶ A unique opinion may break consensus leading to deviations
- ▶▶ Each deviations becomes a technical barrier to trade
- ▶▶ Each deviation means loss of competitiveness of EU industry compared to rest of the world

Role of the manufacturer in EMC assessment within harmonised standards



MANUFACTURER'S DECISION*



MANUFACTURER'S RESPONSIBILITY**

MAY BE HARMONISED



MUST BE HARMONISED FOR CITATION

* as designer of the product
** According to EMC-D Art. 18 and Annex II.2

3

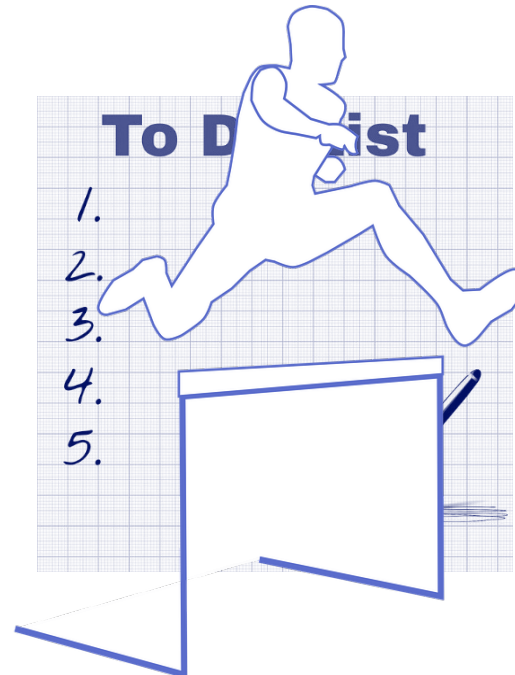
Going forward

Going forward

1 Closer Communication



2 Register Obstacles

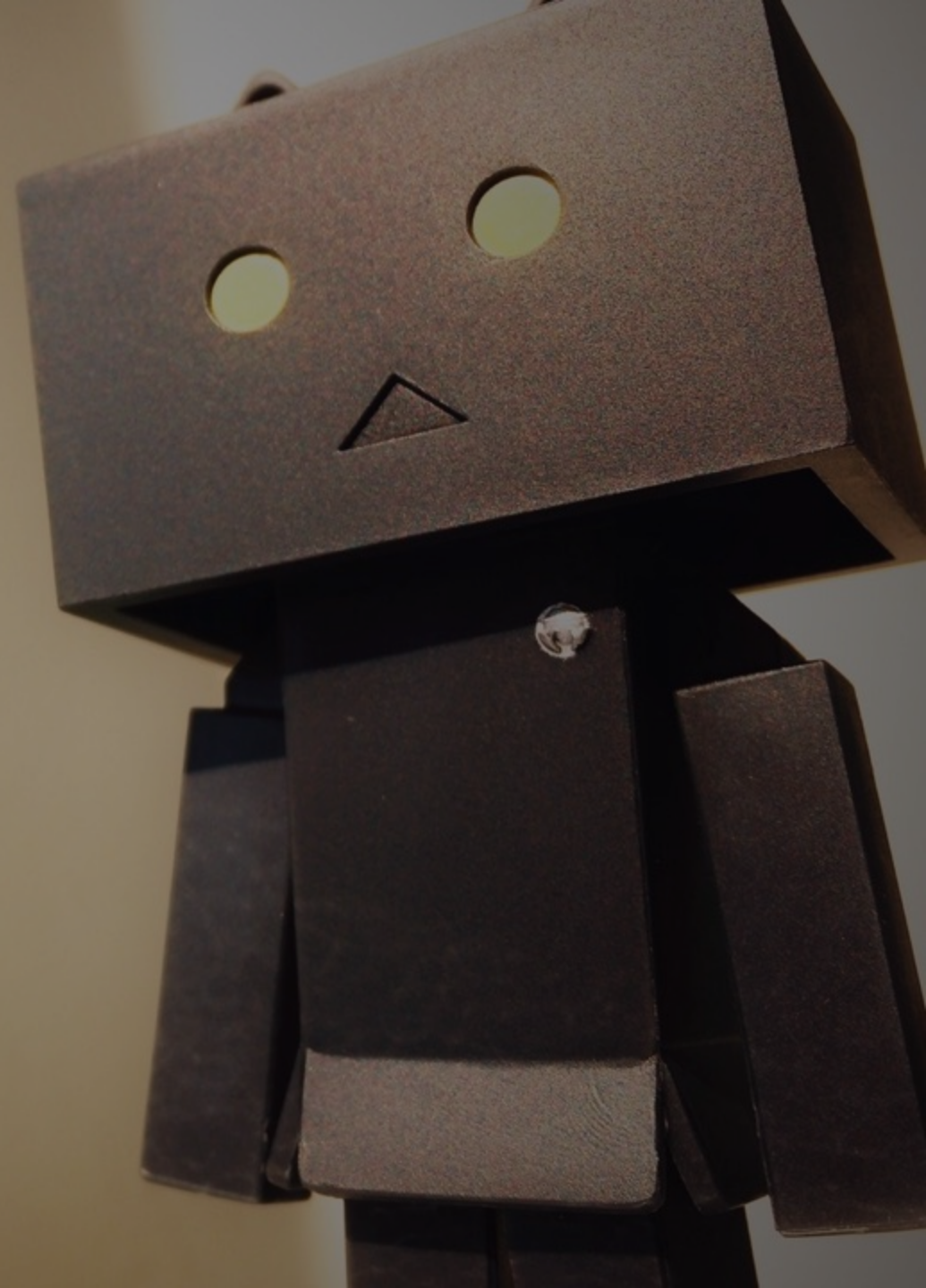


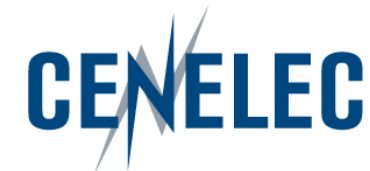
3 EU com. back in Global Consensus



**Thank you for
your time!**

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European Standardization Organizations

CEN-CENELEC Webinar on EMC Horizontal support to TCs

Klaus-Peter Bretz, Convenor CLC/TC 210/WG 14

Introduction CLC/TC 210/WG 14

- ▶ Working Group: CENELEC/TC 210/WG 14
- ▶ Title: Formulation of relevant parts required in CLC/TC 210 publications for the citation under Directives
- ▶ Responsibility/Tasks:
 - ▶ • Preparation of Annexes ZA/ZZ for standards in the field of CLC/TC 210
 - ▶ • Assistance for other TCs/SC for preparation of Annexes ZZ
 - ▶ • Revision of CENELEC Guides 24 & 25 Merging to new CENELEC Guide XY



Annex ZZ for harmonized standards



- ▶ The existence of a valid Annex ZZ is mandatory for harmonized standards offered for listing in the OJEU
- ▶ Annexes ZZ shall be in accordance with the relevant rules
- ▶ Annexes ZZ shall identify the clauses/sub-clauses of the harmonized standard that correspond to essential requirements of the European Directive aimed to be covered
- ▶ If more than one European Directive is aimed to be covered Annex ZZ should be sub-divided into several Annexes ZA, ZB ...
- ▶ Annex ZZ is informative (does not change the content of the standard)
- ▶ Annex ZZ can be included in the EN or published as separate Amendment (after the publication of the EN)

Structure of Annex ZZ

▶ Annex ZZ includes:


- Title which indicates the European Directive aimed to be covered
- Text which indicates:
 - ▶ Standardization request of the European Commission (EC) valid for the standard
 - ▶ European Directive aimed to be covered
 - ▶ An information that the standard when listed in the OJEU confers a presumption of conformity with the relevant essential requirements of the Directive
 - ▶ Table which indicates the relevant clauses/sub-clauses and contains additional information if necessary (see next slide)
 - ▶ Warning notes concerning: the validity of the presumption of conformity given by the standard that other European Directives can apply to the product tested according to the standard

Annex ZZ table

Table ZZ – Correspondence between this European standard and the Essential Requirements set out in Directive xxxx/yy/EU [xxxx OJ Lyy]

Essential requirements of Directive xxxx/yy/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
<p>Indication (depending on Directive)</p> <p>Example</p> <p>Directive 2014/30/EU aimed to be covered:</p> <p>Annex I. 1(a) (electromagnetic disturbance) and/or Annex I. 1(b) (electromagnetic immunity)</p>		

Solution of problems via Annex ZZ

- ▶ The remarks/notes column in the table enables additional information e.g. concerning clauses/sub-clauses that shall not be applied for the purpose of presumption of conformity with the essential requirement(s) of the Directive
- ▶ Example: Concerns of the European Commission related to:
 - Requirements/information in electromagnetic emission standards concern the statistical assessment of mass-produced equipment (e.g. so-called 80 % / 80 % rule)
- ▶ Relevant exclusion rules described in the remarks/notes column can help in order to come to a citation of the standard in the OJEU (examples: Annexes ZZ to EN 55011, EN 55014-1)
- ▶ However, Annex ZZ provides a short term solution and shall be checked for consistency with the content of the main body of the standard if latter one was revised or amended
This can lead to a new, modified Annex ZZ for the new or amended edition of the standard 

Future CENELEC Guide XY

- ▶ New CENELEC Guide XY in preparation
- ▶ Title: Guide to the drafting and use of harmonized and non-harmonized EMC standards
- ▶ Scope and purpose: Establishment of useful guidelines for the preparation and use of standards in the field of electromagnetic compatibility (EMC) in general and in particular for the implementation of the EMC Directive and the Radio Equipment Directive (RED). This Guide is intended to be used by Technical Committees
 - To give advice on the preparation of dedicated Product and Product Family Standards
 - To give advice on the application of EMC Standards
 - Certification aspects are not covered by this Guide
- ▶ New CENELEC Guide XY merges the existing CENELEC Guides 24 & 25 and updates the content

Content of new CENELEC Guide XY



Content

Introduction

1 Scope

2 References

3 Terms and definitions

4 Types of EMC publications (e.g. Generic, Basic, Product and Product Family Standards)

5 Electromagnetic phenomena to be considered in EMC standards

5.1 Electromagnetic emission / 5.2 Electromagnetic immunity

6 Further aspects for the drafting of EMC standards

7 Preparation of harmonised standards for citation in the OJEU

8 Application to typical equipment

Annexes e.g. to: Low frequency emission requirements – state of standardization, multifunction equipment, radio enabled equipment, Annex ZZ



Klaus-Peter Bretz

mail: klaus-peter.bretz@vde.com

www.cencenelec.eu

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International standards for presumption of conformity?

Bettina Funk
CISPR Chair

Webinar on EMC
May 4th 2021
online



International
Electrotechnical
Commission

Bettina Funk - bettina.funk@elstandard.se



- **CISPR Chair**
- **Member of ACEC**
- **Swedish Alternate Member in the IEC SMB**
- **ETSI Board member**

International standards vs. presumption of conformity?

- The members of the European national standardisation organisations (that are the basis for ISO/IEC and CEN/CENELEC) prioritise international EMC standards developed in CISPR and the IEC, because they open up the global market for European stakeholders.
- Harmonised ENs that deviate from those are a second best choice.
- That means, that the European NSOs need to work for international standards that fulfil the EC requirements to get the best solution.

International standards FOR presumption of conformity

List of requirements from the EC (as of today) is to a large part covered by the IEC/CENELEC drafting rules, e.g.

- clear and concise requirements,
- clear structure,
- completeness,
- correct normative references, ...

But the drafting rules are not always applied by the international technical committees.

Changing requirements from the EC are problematic during the standardisation process.

International standards FOR presumption of conformity

- To get presumption of conformity for a specific directive, a European Annex is necessary that links the content of the standard to the requirements of the directives.
- This annex may be used for short-term corrections (e.g. when requirements changed during the process), but not for long-term purposes.
- EC requirements that are unacceptable to the international community automatically lead to European deviations and therefore prolong the process – should be assessed carefully.

Standardisation requests

- **The global perspective is important when the standardisation requests are drafted, because the standardisation system is global and ESOs work under global rules (consensus, transparency, ...)**
- **Open mind approach (embrace the understanding that some requests may not be feasible – ESOs work under the above mentioned global rules)**
- **Open discussion with ESOs during the drafting is important**
- **Flexibility is needed when it comes to details (timing, names of standards, how many parts, ...)**

RED

Europe is the only region that defines products that include radio as “radio products”.

Article 3.2 vs. Article 3.1b of the RED when it comes to emissions – need to reference ETSI standards (which can be problematic on a global basis).



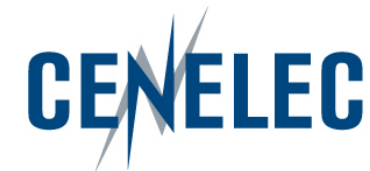
Thank you!

**Bettina Funk
CISPR Chair**

**Webinar on EMC
May, 4th 2021
online**



**International
Electrotechnical
Commission**



European Standardization Organizations

CEN-CENELEC Webinar on EMC Case Study

Beatriz Novel, CLC/TC 205 Chair, CLC/TC 23E Chair,
CLC/TC 37A Secretary

Beatriz Novel



CLC/TC 23E and TC 205 Chair,
TC 37A Secretary.

beatriz.novel@afme.es

- ▶ TC 205 'Home and building electronic systems'
 - ▶ Responsible for 2 standard series
 - ▶ Only 4 standards concerned by harmonisation
 - ▶ EN 63044-3 (LVD, main standard cited, negative assessment for A1)
 - ▶ EN 63044-5-1 (EMCD, decoupled and published due to negative assessment)
 - ▶ EN 63044-5-2 (EMCD, decoupled and published due to negative assessment)
 - ▶ EN 63044-5-3 (EMCD, decoupled and published due to negative assessment)
- ▶ TC 23E 'Protection devices'
 - ▶ Responsible for more than 20 standards. Main issue with first editions.
 - ▶ HD 62640:2015 not cited
 - ▶ EN 62752:2016 not cited (A1:2020 only cited under LVD. Decoupled from EMCD due to negative assessment)
 - ▶ Pr EN IEC 63052 (parallel to IEC 63052:2019) (Oral agreement after negative assessment at formal vote on EMCD. EC requests for a final assessment)

► Communication

- Some comments relate technical content of the standard and are due to misinterpretations
- Formal non compliances (lack of documentation, format of the annexes) that could easily be solved through a quick contact with TC officers result in negative assessments
- Difficulties to get feedback from consultants, particularly on late phases (assessment after formal vote, close the loop)

▶ Inhomogeneous approach

- ▶ TCs get new comments on different phases of the document, sometimes due to assessment from different consultants but even when assessed by the same consultant.
- ▶ TCs get different comments on the same subject from consultants from different directives

▶ Unclear procedures

- ▶ New issues keep arising, that turn positive assessments into negative at late phases of the standard development
- ▶ Procedures are not clear and are not well known by TCs

Recommendations for TCs

- ▶ Ask for preliminary assessment at CD stage
- ▶ Exchange with HAS consultants as much as possible during the assessment process (this is not more possible according to recent communication)
- ▶ Involve asap corresponding IEC convenor in the discussion of the comments, to get advise on the resolution and take comments relevant to IEC into account

- ▶ Make sure that templates for Annexes ZZ and ZA in BOSS are always updated and align with EU request.
- ▶ Check that all documentation is attached and in the adequate format (annexes ZA and ZZ, document for vote, supporting documents) before submitting it to the HAS consultant (maybe providing a check list to TCs?).
- ▶ Provide adequate training and supporting documentations to TC officers and convenors.

- ▶ Exchange with TC officers and convenors as much as possible during the assessment process, to improve understanding of the standard and to ask for missing Annexes ZA and ZZ (this seems not more possible according to recent communication)
- ▶ Ask for missing documents (referenced documents, IEC documents, etc) to CEN/CLC CCMC.
- ▶ Assign all assessments of a standard (an even a family of standards) and its revisions/amendments to the same HAS consultant. If needed, exchange with the HAS consultant in charge of the same document under a different Directive.
- ▶ Better highlight critical comments from non critical in the assessments.

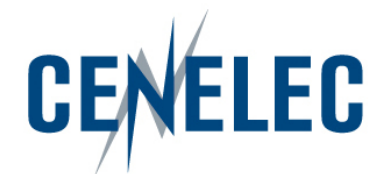
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beatriz.novel@afme.es

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Feedback and Q&A



European Standardization Organizations

CEN-CENELEC Webinar on EMC Conclusions and way forward

Ingrid Soetaert

Electrotechnology – Project Manager

Ingrid Soetaert



Project Manager
Electrotechnology
isoetaert@cencenelec.eu

Conclusions:

- ▶ EC has final decision on citation in OJEU

- ▶ Stages for assessment
 - ❑ First working draft / CD → Recommended!
 - ❑ Enquiry / CDV → formal assessment
 - ❑ Formal Vote / FDIS → formal assessment
 - ❑ (Publication → exceptional, only if needed)

TO BE FILLED IN IN CASE THIS IS A 1 st WORKING DOCUMENT:	
<input type="checkbox"/>	document is to be submitted to HAS Consultant for indicative assessment



Use the pre-assessment TC template



Verify your standards against the checklists

Assessment report under service contract SI2.770800 ¹	
Date of the report	XX/XX/20XX
Nature of the report	<input type="checkbox"/> Initial report <input type="checkbox"/> Reviewed report after the initial report was challenged by ESO
Internal reference	Indicate the reference of the work order from EY
Assessed document <small>standard reference and full title including date or version of the document</small>	
ESO work item reference	
Main objective and purpose of the assessed document, including its relation to other standards within the 'harmonised context' <small>describe briefly to set the context under which the assessment was carried out</small>	
Relevant normative references partly or fully verified and assessed <small>give actual dated reference numbers of those standards checked or assessed as part of this assessment</small>	
Nature of the assessed document	New project / Revision of Harmonised standard or a standard that was cited under GPSD / Revision of a standard that was not cited If the draft amends a standard that was cited or non-cited under the relevant Union legislation, please provide information on this, in particular when Lack of Compliance is based on this situation
ESO technical body	Reference of the Technical Body

HAS Consultant EMCD assessment checklist		COMPLEMENT TO ASSESSMENT FORM				
Date:						
Status of the WI	<input type="checkbox"/> Indicative	<input type="checkbox"/> Eng-vote	<input type="checkbox"/> FV	<input type="checkbox"/> Approved	<input type="checkbox"/> Ratified	<input type="checkbox"/> Published
TC						
Standard number			Work Item Project ID			
Title			Amdt or Rev			
Directive or Regulation (EU or EC) ¹	EMCD (2014/30/EU)		Standardisation Request	M/552		
MODIFIED VERSION FOR USE BY TCs						
TC	HAS OK	HAS NOK	Vademecum part III – clause 2.8			Remarks
			General			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	The standardisation request which provides the basis for the standard is referred to in the foreword.			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Those parts of the standard related to the essential requirements of the EMC Directive are clearly identified in the ZZ annex.			

Some specifics

- ▶ For EMCD and RED: no need to date normative references in the main body of the standard but in Annex ZA
- ▶ statistical methods: new sentence in Annex ZA: “EN 550XX:201X as amended by A11:202X”
- ▶ Performance criteria have to be defined in the product standards

- ▶ Global standards before European common modifications
- ▶ Encourage introduction of changes at IEC
- ▶ Failing the IEC, consider to produce common modifications as interim solution

Communication is essential

- ▶ exchange with HAS Consultants as early and as much as possible during the assessment process
- ▶ Involve asap corresponding IEC convenor in the discussion of the comments
- ▶ Consultants to highlight critical comments from non-critical in the assessment
- ▶ Systematic feedback
- ▶ Need for transparency of the process (incl. notifications)
- ▶ Improve the consistency of the assessment (for all directives)

Future initiatives

- ▶ New CENELEC webinar on the use of normative references (Annex ZA) in June
- ▶ Experts meeting TC 210, EC, Consultants will be scheduled for further discussion on how to solve issues

Questions? Suggestions? Need help?



ASK YOUR PROJECT MANAGER

Useful links: CENELEC



- ▶ European Commission EMC Directive website, with links to the OJEU:
https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/electromagnetic-compatibility_en
- ▶ EMCD Annex ZZ: https://boss.cenelec.eu/media/o2fjawbz/annexzz_emcd_e.doc
- ▶ EMCD Annex ZZ, generic text for reference to EN 55011:
https://boss.cenelec.eu/media/0izfl0nm/annexzz_emcd_e_text_ref_en55011.docx
- ▶ EMCD Annex ZZ, generic text for reference to EN 55014-1:
https://boss.cenelec.eu/media/y50dro3m/annexzz_emcd_e_text_ref_en55014.docx
- ▶ EMCD Annex ZZ, generic text for reference to EN 55015:
https://boss.cenelec.eu/media/0izfl0nm/annexzz_emcd_e_text_ref_en55011.docx
- ▶ EMCD Annex ZZ, generic text for reference to EN 55032:
https://boss.cenelec.eu/media/5oujfuuo/annexzz_emcd_e_text_ref_en55032.docx
- ▶ Transmission notice:
https://boss.cenelec.eu/media/CEN/formtemp/transmission_notice.doc

Useful links: CEN



- ▶ European Commission EMC Directive website, with links to the OJEU: https://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/electromagnetic-compatibility_en
- ▶ EMCD Annex ZA: https://boss.cen.eu/media/CEN/formtemp/annexza_emcd_e.doc
- ▶ EMCD Annex ZA, generic text for reference to EN 55011: https://boss.cen.eu/media/CEN/formtemp/annexza_emcd_e_text_ref_en55011.docx
- ▶ EMCD Annex ZA, generic text for reference to EN 55014-1: https://boss.cen.eu/media/CEN/formtemp/annexza_emcd_e_text_ref_en55014.docx
- ▶ EMCD Annex ZA, generic text for reference to EN 55015: https://boss.cen.eu/media/CEN/formtemp/annexza_emcd_e_text_ref_en55015.docx
- ▶ EMCD Annex ZA, generic text for reference to EN 55032: https://boss.cen.eu/media/CEN/formtemp/annexza_emcd_e_text_ref_en55032.docx
- ▶ Transmission notice: https://boss.cen.eu/media/330j5xpy/transmission_notice.doc

Thank you for joining us today!

Please send all your remaining questions to isoetaert@cencenelec.eu

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