

## BUSINESS PLAN

CENELEC/TC or SC TC 215	Secretariat DE	Date 2023-03-31
----------------------------	-------------------	--------------------

**TC or SC title:** Electrotechnical aspects of telecommunication equipment

### A Background

#### A.1 General

TC 215 was established in 1991 to develop European Standards on information technology cabling design and installation, which address the specific European infrastructure situation and adequately reflect European cabling industries' market needs. Furthermore, TC 215 has been tasked to become CENELEC's technical link to the related activities of ETSI, to address electrotechnical needs of the telecommunications standardization activities, either by inclusion into existing CENELEC ENs or, in case these are lacking, by developing suitable CENELEC deliverables. In 2009, the scope was revised primarily in response to the urgent need to develop a holistic set of such European Standards in the field of data centres (availability, security and the enablement of energy efficiency with related reporting and benchmarking etc.).

#### A.2 Sustainable development goals

- |   |   |
|---|---|
| <input type="checkbox"/> <b>GOAL 1:</b> No Poverty                    | <input type="checkbox"/> <b>GOAL 10:</b> Reduced Inequality                   |
| <input type="checkbox"/> <b>GOAL 2:</b> Zero Hunger                   | x <b>GOAL 11:</b> Sustainable Cities and Communities                          |
| <input type="checkbox"/> <b>GOAL 3:</b> Good Health and Well-being    | <input type="checkbox"/> <b>GOAL 12:</b> Responsible Consumption & Production |
| <input type="checkbox"/> <b>GOAL 4:</b> Quality Education             | x <b>GOAL 13:</b> Climate Action  |
| <input type="checkbox"/> <b>GOAL 5:</b> Gender Equality               | <input type="checkbox"/> <b>GOAL 14:</b> Life Below Water                     |
| <input type="checkbox"/> <b>GOAL 6:</b> Clean Water and Sanitation    | <input type="checkbox"/> <b>GOAL 15:</b> Life on Land                         |
| <input type="checkbox"/> <b>GOAL 7:</b> Affordable and Clean Energy   | <input type="checkbox"/> <b>GOAL 16:</b> Peace, Justice Strong Institutions   |
| <input type="checkbox"/> <b>GOAL 8:</b> Decent Work & Economic Growth | <input type="checkbox"/> <b>GOAL 17:</b> Partnerships to achieve the Goals    |
| x <b>GOAL 9:</b> Industry, Innovation & Infrastructure                |   |

#### A.3 Management structure of the committee

TC 215 has organized its technical activities in three Working Groups:

WG 1 "Cabling design"

WG 2 "Cabling installation – Quality assurance and installation practices"

WG 3 "Facilities and infrastructures"

### B Business Environment

#### B.1 General

In the field of information and communication technology infrastructure, regional and sometimes even national differences do exist (e.g. in the context of power supply systems) which require the development of harmonized European Standards of adequate depth in details instead of international standards. The specific European legal environment in the ICT and energy efficiency areas can only be addressed in a timely manner by a competent European Technical Committee.

European Standards addressing ICT infrastructures are important for a large number of customers. Planners and installers, typically belonging to the SME type of companies, are one of the primary user groups of these ENs, which ensure that ICT systems and facilities are designed and installed in a reliable future-proof manner.

Both the ICT cabling and the data centre sectors are multi-billion Euro markets, which require the structure provided by European Norms that both reflect the state-of-the-art while safeguarding the technological strengths of innovative European industries, and also providing users with definite and assessment business benefits in a highly competitive international business environment.

## **B.2 Market demand**

The standards produced by TC 215 are used by a variety of customers including planners and installers of information technology cabling and of those facilities containing significant concentrations of information technology equipment (e.g. data centres), manufacturers of cabling systems and associated components as well as test houses and ICT-related service providers. Moreover, data centre operators and owners have requested European Norms covering operational aspects of data centres to address the needs of European data centre stakeholders; to this end, series EN 50600 is widely accepted by the market as the normative reference for the design and operation data centres as well as energy efficiency and environmental sustainability .

The ENs produced by TC 215 are widely used in the European market as the recognized state-of-the-art standards in their field of application. As such, they are widely used as a basis for contracts and could support future legislation in the field of energy efficiency of ICT systems (e.g. EU Standardization Requests M/462 and M/526 refer, see B.5).

In the field of IT cabling standards, North American industry specifications are promoted by US based vendors in Europe; however, these specifications do not properly reflect the European environment and market needs. Where applicable, the related international cabling standards of ISO/IEC JTC 1 are being technically synchronized with TC 215's ENs, however, differences reflecting specific European demands and infrastructures continue to remain.

## **B.3 Trends in technology**

ICT cabling infrastructure constitutes the backbone of the information society. Both commercial users, of all kinds, and private consumers are demanding real-time, high-speed, high-density resolution data and video transmission. To meet this growth in bandwidth and data rate, transmission data rates of 100 Gbit/s and above are currently being developed by experts in organizations such as IEEE. These new generations of transmission protocols will impact the IT cabling infrastructure. TC 215 will closely follow these developments and will update both its cabling design standards and cabling installation standards in due time. Quite recently, a huge interest for single-pair Ethernet solutions has emerged in various areas to support new trends such as sensor networks and the Internet of Things.

## **B.4 Market trends**

Recent years have seen a significant growth of data centres of all sizes in Europe. With the progress of digital transformation (i.e. trends such as cloud computing, and the Internet of Things), the importance of data centres continues to increase. The energy consumption required to operate data centres is predicted to grow in total numbers despite the efforts already undertaken to develop and implement innovative design principles and data centre management and operation strategies.

The demand for high-speed broadband deployment by millions of private users in Europe as well as in the various business environments leads to a continuous growth of transmission volumes, an increase of data transfer rates and - in specialized businesses such as the financial sector - with minimal network response times (latency). As a consequence, data transfer rates within data centres will continue to evolve to 100 Gbit/s and beyond. This results in new components used in ICT networks and tightened quality requirements related to their design, installation, operation and maintenance.

In this context, customers and suppliers of all kinds require widely accepted, consensus-based ENs as a basis for improving their performance and for securing their business success.

## **B.5 Ecological environment**

TC 215's standardization work in the field ICT cabling design and installation (including access to mobile networks) and in the field of data centres contributes to EU Standardization Request M/462 "Standardization mandate in the field of ICT to enable efficient energy use in fixed and mobile information and communication networks" and substantiates the EU Code of Conduct for Data Centres and, as such, addresses an area with political focus. Moreover, TC 215 contributed to EU Standardization Request M/526 "Standardization request in support of the implementation of the EU Strategy on Adaptation to Climate Change" with standards from the EN 50600 series.

## **B.6 Involvement of societal stakeholders**

Societal stakeholders such as consumers (ANEC) or the European Environmental Citizens' Organisation for Standardization (ECOS) have presently not indicated interest in active participation in TC 215's work.

## **B.7 Involvement of SMEs**

The EN 50174 series on planning and installation practices of information (and communication) technology cabling are vital to all installers. Apart from a relatively small number of larger companies, cabling installer companies are typically small and micro enterprises (e.g., in Germany there are more than 30 000 such SMEs), usually serving a very restricted local market. While experts from these installer companies are participating in this standardization activity, National Committees should encourage more involvement of installers in the national mirror committees to foster their input and to promote the benefits of applying European IT cabling installation Standards EN 50174. Also, in the field of data centre design, many companies are of the typical size of SMEs; these are usually highly specialized experts which need to rely on state-of-the-art ENs in order to manage the huge complexity of the relevant facilities. While experts from such companies are participating both in TC 215 and at national levels, National Committees are encouraged to check whether they can further improve expert involvement from this sector.

## **C System approach aspects**

TC 215 is a system committee. Consequently, intensive and close collaboration has been established with all relevant product committees as well as other technical committees both internal to CENELEC and in CEN and ETSI. The following overview summarizes the currently active liaisons.

Product committees:

CLC/TC 46X, CLC/SC 46XA, CLC/SC 46XC, CLC/TC 86A, CLC/TC 86BXA, CLC/TC 213

System committees and others:

CLC/TC 64, CLC/TC 65X, CLC/TC 205, CLC/TC 209

Liaison/co-operation with CEN and ETSI committees:

CEN/TC 294, ETSI/TC ATTM, ETSI/TC EE

Moreover, TC 215 is actively engaged in relevant coordination and management bodies, such as the CEN/CENELEC/ETSI Coordination Group Green Data Centres and the CEN/CENELEC/ETSI Coordination Group for Standardization Request M/462.

## **D Objectives and strategies (3 to 5 years)**

D.1 To revise the full set of European Standards in the field of design of facilities and infrastructures for data centres, which were developed in response to EU Standardization Request M/462, see section B.5. The strategy to achieve this is the already established close cooperation with the management and coordination bodies outlined in Section C. In particular, to further develop the data maturity model for energy management and environmental sustainability, which has been introduced with CLC/TS 50600-5-1, into an EN and to develop ENs for Key Performance Indicators in support of the EU Green Deal.

D.2 To develop ENs on the deployment of fibre optic broadband cabling networks to deliver high speed internet (> 50 Mbit/s) to the private customer at attractive prices. Close cooperation with ETSI will ensure that the required cabling system standardization needs are identified and addressed in due time.

D.3 To keep the existing EN 50173 series on generic cabling design up-to-date and expand the generic approach to other areas as applicable, taking into account upcoming new standards for super fast LAN transmission standards (100 Gbit/s and above) as well as the need for single-pair Ethernet cabling expressed by e.g. the industrial automation area. To achieve this, TC 215 will closely monitor the development of pertinent data transmission protocols by e.g. IEEE to determine any necessary cabling specification requirements.

D.4 To maintain the existing EN 50174 series on the planning and installation of information and communication cabling as well as the ENs for the measurement of installed cabling and equipotential bonding and earthing.

D.5 To maintain EN 50310 with respect to feedback from the users and prepare updates (amendment and/or full revision) as appropriate.

D.6 To adopt documents of ISO/IEC JTC 1/SC 25 and of ISO/IEC JTC 1/SC 39 on a case by case basis to complement the set of European standardization deliverables.

## **E Action plan**

E.1 To revise EN 50600-3-1 by the end of 2024.

E.2 To revise CLC/TS 50600-5-1 by the end of 2023.

- E.3 To develop a specification (EN or TS) on KPIs for resilience for data centre infrastructures by the end of 2024.
- E.4 To finalize the revision of EN 50700 (currently at enquiry stage) by 2023-09-01.
- E.5 To include single pair cabling specifications into series EN 50173.
- E.6 To develop amendments to or revisions of EN 50174-1, -2 and -3.
- E.7 To develop an Amendment to or revision of EN 50310.
- E.8 To revise EN 50600-1, EN 50600-2-2 and EN 50600-2-3.
- E.9 To prepare an EN on measurement of installed optical fibre cabling.

## **F Digital transformation aspects**

TC 215 circulates all documents via the collaboration platform, was a pilot in the submission interface development, and regularly uses the CIV platform.

## **G Useful links to CENELEC web site**

TC home page giving access to Membership, TC/SC Officers, Scope, Publications, Work programme [password-protected area].

Thomas H. Wegmann