

# Position Paper

## Code of Practice on Standardization for Researchers October 2022

### Background Information

CEN (European Committee for Standardization) and CENELEC (European Committee for Electrotechnical Standardization) warmly welcome the European Commission's draft "Code of Practice on Standardization for Researchers". CEN and CENELEC/BTWG 3 'STAIR' is the focal point within CEN and CENELEC for all matters related to integrating standardization with innovation and research. Members of the working group have directly contributed to this position paper.

As two of the three European Standards Organizations, [CEN](#) and [CENELEC](#) bring together 43 national Standards organizations representing 34 European countries. This interconnected network provides vast knowledge and expertise on the development of standardization to support European industry and the development of the European Single Market.

### Introduction

Research is paramount in the world of today and tomorrow: the ability to develop new technologies and have them quickly access the market determines the ability to influence the global economy. In this rapidly changing technological environment, standardization has a fundamental role to play. Standards and standardization are recognized as capable tools for supporting research and researchers, as standards allow to codify knowledge and make it accessible to a wide range of stakeholders, policymakers, and industry experts. This is even more reinforced by the February 2022 EU Strategy on Standardization, setting global standards in support of a resilient, green, and digital EU single market.

CEN and CENELEC therefore support the Commission's proposal of the Code of Practice on Standardization for Researchers & the recommendations laid out in therein, as these will bridge the current knowledge gap about standardization as a tool to valorise research outcomes.

## **Code of Practice: introduction**

CEN and CENELEC recommend the following additions and modifications to the introduction to the code of practice:

The opening paragraph should include that “Standards can also codify requirements from users and other stakeholders to guide research and technology development”, following the statement codifying technology requirements.

Paragraph five should also be expanded: “Innovation success depends on the interplay of various instruments, including – besides availability of finance – *an understanding of needs and requirements of users and other stakeholders . . .*”.

## **Section A: Recommendations at the level of universities and public research organizations**

### **A1. Develop a standardization policy, alongside or as part of an IP or R&I results valorisation policy**

CEN and CENELEC support the needs assessment proposed in the recommendation and the outlined approach: enquiring with research units about their exposure to standardization and liaising with their respective National Standardisation Bodies (NSBs).

#### Proposal:

Include that “the CEN and CENELEC system facilitates direct liaison with National Standards Bodies for Universities and HEIs”, to provide access to information and expertise on standardization to develop these policies.

### **A2. Consider standardization activities and outputs appropriately in the career development plans and research assessment exercises of researchers**

CEN and CENELEC fully agree with the need to incentivize standardization activities of university researchers and support the proposed recommendation of aligning standardization with career development options.

#### Proposal:

The university policy regarding standards and standardization should encourage researchers to contact the relevant National Standardization Bodies, in order to exploit the latest arrangements available to them in terms of showing evidence of their contributions to standardization.

### **A3. Provide for training and teaching on standardization**

CEN and CENELEC agree to the need to address the skills gap in training and lecturing

and supports the proposed recommendation to deliver targeted training to key staff and including standardization topics in appropriate business or technology programs.

Proposal:

CEN and CENELEC recommend that universities seek to establish connections with standardization activities including students' participation in standards-developing committees. [See the Luxembourg University Master in Technopreneurship (*MTECH*) or the ongoing collaboration between TU Berlin and DIN on standardization courses]

It is essential to build a fundamental understanding of the characteristics and relationships between research processes, innovation processes, and standardization processes and how they can reinforce each other to boost valorisation (see EN ISO 56002:2019 *Innovation management – Innovation management system - Guidance*).

#### **A4. Make technology transfer offices (TTO) fit for standardization**

CEN and CENELEC fully support the provision of sets of services in relation to standardization (via training or institutional empowerment) to academic TTOs.

Proposal:

In addition, CEN and CENELEC propose that TTOs also have the capacity to advise on appropriate standardization deliverables (e.g., EN-European Standards, CWA-pre-standards).

The Code of Practice should also make reference to CEN and CENELEC Guide 39 on [Technology Transfer](#), which includes information on topics such as: how standards can address innovation, paths to standardization, as well as patents and standards.

#### **A5. Establish links with relevant initiatives such as Putting Science into Standards**

CEN and CENELEC support the Code of Practice proposal encouraging researchers and universities to actively participate in key standardization events such as PSIS workshops.

Proposal:

CEN and CENELEC also recommend including the benefits of the PSIS workshop:

- an improved connection between researchers, industry experts and standardizers, such as agreeing sponsorship with industry
- The opportunity to understand and link with the resulting standardization activities in these areas.

## **A6. Develop an indicator and evaluation system**

CEN and CENELEC support the benefits of establishing indicator and evaluation systems that track the valorisation of research results & developing necessary KPI to advance these systems.

### Proposal:

Include that CEN and CENELEC and their National Members (NSBs and NCs) are open to collaborate and discuss with Universities and TTOs about the best ways to define standardization-related indicators.

## **Section B: Recommendations at the project level**

### **B1. Assess carefully whether and where standards and/or standardization are really needed in the research project**

CEN and CENELEC agree with the points listed and support the recommendation.

### Proposal:

CEN and CENELEC recommend researchers and/or research project consortia liaise with the network of CEN and CENELEC's National Members (NSBs and NCs) to support the drafting of a standardization gap analyses, in order to consider the relevance of standards and standardization in the project.

### **B2. In case of collaborative project, create a common understanding, as well as a common strategic position in the consortium, on standardization and standardization issues**

CEN and CENELEC fully support the noted points. For standardization to be properly integrated into a research project, the consortia should have or attain knowledge of formal standardization processes and agree on a common strategic position regarding planned standardization activities.

### Proposal:

Researchers are invited to establish contact with CEN and CENELEC and their network of 43 national members (NSBs and NCSs) to understand the range of standardization and pre-standardization deliverables available to them, such as EN Standards, CEN and CENELEC Workshop Agreements (CWA), Technical Specifications (TS) or Technical Reports (TR), among others, and to strengthen the links with national members. Researchers are also invited to complete liaison agreements with CEN and CENELEC Technical Committees.

### **B3. Make standards a tangible component in the proposal and project**

For standardization to be a successful activity of research projects, tangible budgets and time resources must be allocated, therefore CEN and CENELEC support recommendation B3.

#### **B4. In case of collaborative project, involve partners with standardization experience in the team, with good access to the standardization community**

CEN and CENELEC fully support and welcome the proposed recommendation of including partners with standardization experience in the project consortium.

Proposal:

Representatives from CEN and CENELEC national members (NSBs and NCs) or Technical Committees (TC) can provide invaluable insight to project consortia on developing their standards-related goals. CEN and CENELEC national members (NSBs and NCs) are active in research projects, particularly Horizon Europe (e.g., [HSBooster](#)) and should be contacted for Standards training.

#### **B5. Invest in and cater for stakeholder management throughout the project**

CEN and CENELEC support the intention that research projects are aligned with stakeholders involved in standardization.

Proposal:

CEN and CENELEC recommend that the opening statement “*Large proportion of standardization activities translate in practice into **stakeholder management***” be further explained in the context of research projects addressing standardization, recognizing that it is a collaborative activity with other relevant stakeholders to result in achievement of consensus.

Researchers and research consortia can utilize established CEN and CENELEC’s [partnerships](#) and liaisons to support their projects. This recommendation should note the opportunity for researchers to gain access to these groups via the CEN and CENELEC network.

#### **B6. Be realistic about outputs, outcomes, and impacts – consider appropriate key performance indicators**

CEN and CENELEC support the intention of the recommendations made, as development of a completely new standard is often not feasible in research projects. Contributing to standardization or establishing a string of research projects, as suggested in the recommendation will create more tangible results and is supported by CEN and CENELEC.

Proposal:

However, we recommend the simplification of Bullet 1 to clarify the expected approach to be adopted by researchers or research projects.

#### **B7. Strive for combined qualitative and quantitative performance reporting for evaluations and monitoring**

CEN and CENELEC support the proposed approach of combined qualitative and

quantitative reporting on indicators for assessing valorisation performance and support the definition of such indicators & collection of necessary data.

However, we recommend reviewing the current wording in order to clarify.

Proposal:

Researchers are invited to establish contact with CEN and CENELEC and their network of 43 national members (NSBs and NCs) to best achieve both qualitative and quantitative outcomes to their projects & the deliverables available to them, such as CEN and CENELEC Workshop Agreements (CWA), Technical Specifications (TS) or Technical Reports (TR).

**B8. Take standardization issues into account in IP management and strategy (and vice versa)**

CEN and CENELEC note the recommendation and the need to consider IP issues in conjunction with standardization when defining a commercialisation strategy.

Proposal:

Include a reference to the CEN and CENELEC [Guide 8 on Standardization and intellectual property rights](#) aims to set clear policy on respecting the universal approach between standardization and IPR. The CEN and CENELEC guide should be taken into consideration for this recommendation.

**B9. Ensure sustainability beyond the running time of the project**

CEN and CENELEC understand the challenges this recommendation seeks to tackle and fully supports the proposed text.

Proposal:

CEN and CENELEC fully support the advice relating to engaging industry stakeholders. The same advice to engage with the standardization communities (NSBs and NCs, Civil Society and policy makers) should be included.

Projects should avoid initiating standardization procedures late in the project lifetime. CEN and CENELEC suggest the recommendation note that researchers and research consortia should liaise at an early stage with a national member (NSBs and NCs) from the CEN and CENELEC network to explore available options and ensure sustainability beyond the running time of the project.

**B10. Address standardization within sector platforms, project clusters or other joint fora**

CEN and CENELEC, understanding the limitations of research projects, support the recommendation of projects consolidating their findings and inputs with other projects, and joining fora to valorise standardization as a powerful tool to achieve their goals.

Proposal:

Established CEN and CENELEC [partnerships](#) and liaisons with established sector fora, representative organizations and institutional stakeholders can support this measure. The recommendation should suggest researchers can gain access to these groups through the European standardization network.

## **Section C: Recommendations at the policy and stakeholders level**

### **C1. The European Commission shall promote standardization as means of knowledge valorisation through the collaboration with standard development organizations, university associations as well as associations of technology transfer offices**

CEN and CENELEC approve the proposed recommendation.

Promotion of standardization in Europe and closer cooperation between the European Commission and CEN and CENELEC's Members (NSBs and NCs) is central to CEN and CENELEC's work in Europe. The renewal of the [cooperation agreement](#) between the Joint Research Centre (JRC) and CEN and CENELEC affirms this code of practice recommendation.

See EN ISO 56002:2019 *Innovation management — Innovation management system – Guidance* and EN ISO 56005:2020 *Innovation management — Tools and methods for intellectual property management — Guidance* for further information.

### **C2. SDOs should further develop their service portfolios for R&I actors and examine new ways to align their activities with R&I**

CEN and CENELEC support the proposed recommendation.

CEN and CENELEC understand the importance of their role in achieving this recommendation and have put in place collectively with our national members (NSBs and NCs) several measures in this regard. We are actively seeking additional opportunities to integrate research and standardization activities.

### **C3. The European Commission should examine the needs of startups and small and medium-sized enterprises in EU funded R&I projects in relation to standards and standardization**

CEN and CENELEC fully support the recommendation addressing an important new stakeholder group, for whom support measures should be developed.

CEN and CENELEC observes a need for awareness raising of the benefits of standardization for start-ups and SMEs among private funders by the European Commission. This would promote the valorisation of standardization efforts made.

CEN and CENELEC has previously made a range of [resources](#) available to support SMEs to help develop standards. The [success story of Bitmovin](#), a multimedia technology company that was established as a research spin-off at Klagenfurt University, shows how standards can be used as a vehicle to promote new technology development.

**C4. The European Commission and standard development organizations should raise awareness across Member States and national support structures in relation to the role of standardization in R&I valorisation**

CEN and CENELEC fully support the recommendations.



## ABOUT CEN AND CENELEC

CEN (European Committee for Standardization) and CENELEC (European Committee for Electrotechnical Standardization) are recognised by the European Union (EU) and the European Free Trade Association (EFTA) as European Standardization Organizations responsible for developing standards at European level, as per European Regulation 1025/2012. The members are the National Standards Bodies (CEN) and National Electrotechnical Committees (CENELEC) from 34 European countries. European Standards (ENs) and other standardization deliverables are adopted by CEN and CENELEC, are accepted and recognized in all of these countries. These standards contribute to enhancing safety, improving quality, facilitating cross-border trade and strengthening of the European Single Market. They are developed through a process of collaboration among experts nominated by business and industry, research institutions, consumer and environmental organizations, trade unions and other societal stakeholders. CEN and CENELEC work to promote the international alignment of standards in the framework of technical cooperation agreements with ISO (International Organization for Standardization) and the IEC (International Electrotechnical Commission).