

Standards



Innovation

## Increase the Impact of your R&I Project by Integrating Standardization



Increase the **impact** of your projects and improve the market access of your innovations by using existing standards and developing new ones.

Enlarge your **network** of relevant stakeholders by participating in standardization communities.

Gain **recognition** of your work by including it in standards, which are publicly available and can be references to scientific publications.

# Standards benefit researchers and innovators



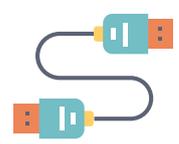
Standards ensure comparability, compatibility and interoperability. It is important to understand which standards are applicable to your intended aim and to apply them. If this is not applicable, then you can consider initiating the revision of an existing standard or the creation of a new one.



Standards build trust. They ensure that your results comply with agreed expectations and requirements of the market, generating confidence of users. Standards are common references for industry and stakeholders, as well as for the public administrations.



Standards can be referenced in regulation and public procurement.



The process of creating standards is based on openness, transparency and consensus between different stakeholders communities. It is a collaborative process leading to open innovation and cross-innovation, which brings an impact to a R&I project.



## Standards definition

Standards are agreed technical specifications of voluntary use, based on the consolidated results of science, technology and experience. They can cover units, terminologies, methodologies, test methods, best practices, materials, products, processes, services, management systems, etc.

Standards facilitate international trade by ensuring compatibility and interoperability of components, products and services. They bring benefits to businesses and consumers in terms of reducing costs, enhancing performance and improving safety. They also support the Sustainable Development Goals of the UN 2030 Agenda by implementing the sustainable use of resources and energy while protecting consumers, workers and the environment.

Most people are aware of standards for building materials, paper size (such as A4), optical media (such as DVD), mobile telephones (such as GSM) and connecting cables (such as USB and HDMI). But standards are everywhere. They make life easier, safer and healthier for businesses, consumers and for the society as a whole.

# Standards development



Standards are elaborated through a process of sharing knowledge and building consensus among technical experts from interested parties and other stakeholders - including big and small businesses, consumers, researchers, societal and environmental groups, and authorities.



The stakeholders join a technical body which can be permanent (Technical Committee) or temporary (CEN-CENELEC Workshop). These technical bodies are integrated in the structure of the recognized Standardization Organizations at three coordinated levels: national, European and international. These organizations provide the sustainable framework, the recognition and the common playing rules for the elaboration of reliable standards in all sectors.



The members of the European and International standardization organizations are the National Standardization Bodies and Technical Committees, present in every country. They will help you to find the right path to standards, engage in standardization processes and integrate all of this in your R&I projects and proposals.



For example, at the European level, **more than 400 Technical Committees with 200.000 technical experts develop standards** in many areas including bio-based products, construction, energy, environment, ICT, materials, nanotechnologies, security or services.

## How to include standardization in your R&I project or proposal

### What are your needs?

- Have a starting point for your project
- Ensure methodological robustness
- Improve the quality of your project's activities and outcomes
- Ensure broad applicability of your project results
- Increase the impact of your project
- Long term dissemination of your results
- Ensure market acceptance of your project results

### What can standardization contribute?

- Standards are state of the art for industrial and societal practices
- Ensure compatibility of your results with what is already on the market
- Comply with recognized test methods, health and safety requirements
- Give you access to discuss and promote your project outcomes with stakeholders and potential customers
- Disseminate your results to a relevant range of European or world-wide stakeholders
- Ensure that your project results are known and used by the market well beyond the duration of your project

### What should you include in your R&I project?

- A task related to screening of existing standards
- A standardization partner or subcontractor
- Task(s) aimed at contributing to new standards
- A standardization partner or subcontractor

## 1. Screen existing standards:

### What is it?

Identify existing standards which are relevant for your project.



Screening include standards from different national, European and international standardization organizations and other specification-setting organizations.

Collects also information on ongoing standardization initiatives and relevant Technical Committees.

### When should it be used?

All R&I projects can profit from this kind of information.



## 2. Contribute to new standards:

Standards are common playing rules for industry, societal actors, public administrations etc. Integrate results of your R&I activities in new standards is the way to enhance their impact beyond your consortium, gain visibility and increase their chances of successful exploitation.

There are several levels to perform this objective. They can be grouped as follows:

### Standardization planning

#### What is it?

Identify, analyze, discuss and elaborate a structured plan for future standardization development in a sector or topic.



#### How can it be done?

You can organize events for meeting stakeholders, discussing needs, checking willingness and obtaining conclusions, involving standardization organizations to get more relevance.

For a deeper level of development at a medium term, you can lead a CEN-CENELEC STAIR Platform, involving interested stakeholders.

As a result, you can elaborate a standardization roadmap, showing relevant Technical Committees and groups, further stakeholders and their participation as well as upcoming standardization projects, future fields of activities and concrete recommendations, priorities, etc. To be relevant, it should be elaborated in collaboration with the standardization organizations.

# Discover how Standardization tools can help you

### What is it good for?

Overview of the state of the art and existing practices, especially in industrial environment.



Apply existing knowledge to your project activities whenever it is possible, to save efforts and grant compatibility.

Identify standardization gaps to be revealed, standardization Technical Committees to be contacted and other initial information for your further standardization activities in projects.

### How can it be done?

Most information is available in search engines on the webpages of the different standardization organizations or through specific applications (e.g. Perinorm).



### What is it good for?

Raise awareness about standardization needs and opportunities discovered in your project.



Building up networks of your project with interested stakeholders in different environments (research, industry, users, administrations, etc.).

Link with other projects and approaches.

### When should it be used?

When there are no previous standardization activities in an innovative topic, or they are heavily scattered.



A need or opportunity has been identified.



## Influence ongoing standardization

### What is it?

Take the opportunity of ongoing standardization works relevant for your project, to integrate some of your results in them.



Ongoing works can be for new standards or for the modification of existing ones.

### When should it be used?

When an existing Technical Committee is developing new standardization works related to your project results.



In a time frame that can be compatible with your project and post-project interests.

## Proposal and elaboration of new standards

### What is it?

Directly engage standardization organizations to lead the elaboration of new standards which support your project results.



Standardization depends on the consensus with stakeholders external to the project, so you must be conscious of the need to agree and the possibility of having different results than expected, or even no results.

### When should it be used?

When no ongoing standardization works exist.



When extended impact is required, especially where different sectors and stakeholders can benefit from it.

### What is it good for?

Increase long-term impact of the project.



Set basis for future innovation.

Use the fastest-track options available in the standardization system.

### What is it good for?

Gain visibility, applicability and long-term impact of your project results.



Use the momentum of existing works instead of starting new ones.

Opportunity to network with all participating experts.

Get first-hand information on standards development.

Overcome or clarify any potential technical barrier or gap.

### How can it be done?

You can contact the Technical Committee and provide some informed suggestions, recommendations or proposals. It is simple, but real influence is not guaranteed.



You can join the Technical Committee works by participating as an expert through your National Standardization Body. You will represent your organization (not directly your project), and you will have full voting rights.

You can ask for a Project Liaison, your project will be then represented as an entity, giving it more visibility, and can fully contribute but without voting rights.

### How can it be done?

You can propose the creation of a CEN-CENELEC Workshop to develop a CWA (CEN-CENELEC Workshop Agreement). This is the fastest kind of standard as it is elaborated in an ad hoc group, especially well-suited for results of R&I, that can be the first step for a future EN or ISO standard.



You can propose in a Technical Committee the elaboration of a Technical Specification. This is a kind of standard similar to CWA, providing specifications in experimental circumstances and/or evolving technologies, but elaborated in a Technical Committee, and can take a bit more of time as it depends on the rhythm of work of the Committee.

Another option in a Technical Committee is a Technical Report, informative standard summarizing the status quo and recording available knowledge, without stating requirements.

### 3. A standardization partner or subcontractor

#### What is it?

Specific partner can be recruited for taking care of the above standardization activities in the projects.



#### What is it good for?

Complement the consortium with expertise and knowledge about standardization procedures.



#### When should it be used?

When there is a lack of knowledge and expertise in the standardization environment and there is the intention to perform related activities.



Provide visibility and reliability to the standardization activities included in the project.

When you plan to develop new standards, there is a need for the support of a standardization body which manages the activities and carries out the secretariat duties.

#### How can it be done?

The best suited stakeholder to perform this kind of activities is a National Standardization Body, member of the European and international organizations, which can guide you through all activities explained above and support your decision taking. They also perform the secretariat roles in new standardization proposals.



A National Standardization Body can be either a partner in your consortium or can be subcontracted to perform the same activities. There are pros and cons for each modality and you may discuss with them the best solution for your project.

## Ready to get started?

Get in touch with your local standardization partner. Learn how your local partner can best support your R&I project through standardization.



# A success story that inspires

Seven European cities are making urban life a little less risky - building up their resilience to disasters and hazards.

Let's face it, city life can be dangerous. The ever-present risk of parking tickets aside, there are very serious and more high-level dangers to deal with; hazards and disasters such as riots, floods, communication outages, critical infrastructure failures but also more abstract ones such as poverty or uncontrolled immigration.



## Working together

Seven European cities set out to find resilience tools and guidelines that help cities to resist, absorb, adapt to and recover once things go south. They partnered with four universities, ICLEI - a global network of local and regional governments committed to sustainable urban development – and the German standards organization DIN to form a research consortium that initiated a project under the Framework Programme Horizon 2020, the largest research funding programme from the European Commission.

## Best practices

In workshops, interviews and literature studies the consortium gathered insights and experiences from authorities, planning entities and policy institutions. The common goal: define best practices that are valuable to all European cities. Not the easiest task, because the inherent differences between cities, from infrastructure to social dynamics means that there's not one single "correct" approach.

## Defining new standards

The standardization activities within the project helped make the research results accessible to a wider audience, connecting similar city resilience related initiatives and external parties. Some of the tools developed in the process ended up being new standards themselves.

## Road to change

There's little doubt that cities need to grow more resilient, facing growing threats such as climate change and shifting social dynamics. Local change, fostered by mature resilient cities, is a great way to make certain we're ready to face the challenges of an uncertain future. Standards will help policy makers, researchers and citizens find a common road to change.

## What are resilient cities?

Resilient cities combine digital technologies, smart decision-making processes and state-of-the-art infrastructure solutions to protect their citizens. Resilience, in this context, means a capacity to deal with not just the shocks, such as earthquakes, fires, floods, etc., but also the stresses that weaken the fabric of a city daily, such as unemployment, an overtaxed infrastructure or violence. There's no sure fire way to become a resilient city, but the standards produced in this project give valuable pointers and ways to assess the resilience of your city.



# Get in touch with your standardization partner



[www.standardsplusinnovation.eu](http://www.standardsplusinnovation.eu)

An initiative by European  
standards organisations

With the financial  
support of

