



# Standardization Toolbox

Enhance visibility and  
improve exploitation of  
project results



## CONTENT

Standardization Guide.....	4
Standardization Toolbox.....	6
Standardization requirements of projects.....	8
Characteristics of Tools.....	8
Impact of the tools regarding the respective requirement.....	9
Proposal for EN Standard.....	10
CWA – CEN-CENELEC Workshop Agreement.....	11
CEN TS - Technical Specification.....	12
CEN TR - Technical Report.....	13
Roadmap.....	14
Contribution to existing standards.....	15
TC-Mapping.....	16
Standardization Strategy.....	17
Research of Standards.....	18
Consultation of TCs.....	19
Literature Research.....	20
STAIR Platform.....	21
Liaison.....	22
Project Advisory Board.....	23
Standardization Workshop.....	24
Events.....	25
Characteristics of Tools.....	26



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# Welcome to the Standardization Toolbox

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This document is intended to support your projects by facilitating the inclusion of standardization.

Standards help projects to transfer results to the market and thus create demand and acceptance. Standardization facilitates market access because it is developed in cooperation with other market participants and supports that your solution quickly becomes the standard.

Depending on your needs, various standardization tools are available to help you disseminate your results in the shortest possible time and establish contact with other experts.

To improve the integration of standardization, this tool will help you to select the right tools to achieve your objectives.

Please note that the toolbox is not complete, but a selection of the most common tools. We recommend creating tailor-made solutions for your project by consulting your national standardization body or CCMC of CEN-CENELEC.

## WHO IS WHO?

### International level

→ International standardization organization such as ISO, IEC

### European level

→ European standardization organizations (ESOs) such as CEN, CENELEC, ETSI

### National level

→ National standardization bodies (NSBs) such as AFNOR, BSI, DIN, etc. are members of ESOs

→ Contribution starts on national level

→ Stakeholder interest is considered on international and European level through delegations

## WAYS TO CONTRIBUTE TO STANDARDS

### Industrial Companies

→ Propose new standards to your NSB

→ Comment on the draft of a standard

→ Participate at your local NSB

→ Through national trade associations

### Associations & Research Projects

→ Associations & research projects can participate directly via liaisons with standards committees

→ Propose new standards to your NSB

→ Comment on the draft of a standard

→ Initiate CWA at the local NSB

**Your national standards body will support you in finding the right path to your standard and give advice on the best way to participate in standardization.**

### HOW YOU CAN TAKE PART

Anyone can submit

Make comments

Comment on draft

Take part in discussions

### STEPS IN THE PROCESS

Proposal for standards work

Standards project

Draft standard

Standard

### WHAT HAPPENS IN THE STANDARDS COMMITTEE

Decision to accept

Draw up content

Discuss submitted comments

Incorporate results of discussions

Adopt final version

## RESULTS FROM PARTICIPATION

### Standardization documents

- EN standards
- Technical Reports
- Specifications or CWAs

### Benefits

- Represent your own interests
- Exchange information with other stakeholders
- Raise transferability, marketability and dissemination of innovations
- International market access
- Build a high level of customer trust

Selected standardization tools	+	-	Timeline
CWA – CEN-CENELEC Workshop Agreement	- Direct participation of anyone - Fast and flexible to develop - First step to an EN standard	- Not fully consensus based	≤ 1 year
Proposal for EN standard	- Proposal for normative document - Final standard widely accepted and applied	- Content of final standard out of hand of initiator - Can be rejected or stay unprocessed	≤ 1 year
Research of Standards	- Overview, information and knowledge - For monitoring purpose		≤ 0.5 years
STAIR Platform	- Fosters direct participation - Establishes a first and open working group	- High organizational efforts - Highly dependent on participant contribution	≥ 2 years
Liaison	- Alliance to TC or WG - Observation for information exchange		≥ 2 years
Standardization Workshop	- Create network - Discuss and identify standardization ideas		≤ 0.5 years

The choice on the way of participation and utilized instruments strongly depends on the individual case.

## Standardization Toolbox

		Cross-sectorial	Topic novelty	Standard	Dissemination & Exploitation	Sustainability of results	Networking	Interlinkage	Inhouse optimization
STANDARDIZATION DOCUMENTS	Proposal for EN Standard	+	0	+	+	++	0	+	0
	CWA – CEN-CENELEC Workshop Agreement	+	++	++	+	+	+	+	0
	CEN TS – Technical Specification	0	0	+	0	+	0	+	0
	CEN TR – Technical Report	0	0	+	+	+	0	0	0
	Roadmap	+	+	+	+	0	0	+	+
	Contribution to existing standards	+	0	0	0	++	0	+	+
RESEARCH	TC-Mapping	++	0	+	0	0	0	+	+
	Standardization Strategy	+	++	+	0	0	0	+	+
	Research of Standards	+	++	++	0	0	0	+	+
	Consultation of TCs	++	++	+	+	+	+	+	++
	Literature Research	0	+	0	0	0	+	0	+
CONNECTION	STAIR Platform	++	+	0	+	0	+	+	+
	Liaison	0	0	+	0	0	+	+	+
	Project Advisory Board	0	+	0	0	+	0	+	+
	Standardization Workshop	+	++	+	+	0	+	+	0
	Events	++	+	0	++	0	++	+	0

## Standardization requirements of projects

<b>Cross-sectorial</b>	High degree of interaction between sectors within the project
<b>Topic novelty</b>	High degree of novelty of the research topic
<b>Standard</b>	Preparatory work towards a standardization document as project output
<b>Dissemination &amp; Exploitation</b>	High range of distribution of information and usage of project results
<b>Sustainability of results</b>	Timescale of results being available and accurate
<b>Networking</b>	Extension of project network with new experts or further projects
<b>Interlinkage</b>	Increase of the participation in standardization
<b>Inhouse optimization</b>	Optimization of processes within standardization, a European or national standardization body

## Impact of the tools regarding the respective requirement

**0** Tool has a neutral impact on the requirement

**+** Tool has a positive impact on the requirement.

**++** Tool has a very positive impact on the requirement.  
The use of the tool is strongly recommended.

### Example

You are planning a project focusing on 'innovative topics' and you want a »standardization document« as result. You search for these two requirements and identify tools which have a good rating.

1. Choose requirements ↓ ↓

	Cross-sectorial	Topic novelty	Standard
2. Choose tools ←	+	0	+
	+	++	++
	0	0	+
	0	0	+
	+	+	+
	+	0	0

## Proposal for EN Standard

### What is it?

- A NWIP (New Work Item Proposal) is a proposal for a normative document
- It drafts possible content for an EN standard
- EN standards are widely accepted and applied
- A EN standard is established by a CEN Technical Body
- EN standards are adopted automatically by each of the 34 CEN-CENELEC member countries
- An EN standard is a “document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context”

### What is it good for?

- Long-time impact
- Dissemination of information and guidance
- Creation of applicable rules

### When should it be used?

- A Technical Committee (TC) is established in the relevant field
- Close cooperation with a TC is existing or easy to set-up
- Clear and tangible focus of standard identifiable

### Characteristics

<b>Time frame:</b>	≤ 1 year
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Medium
<b>Results lifetime:</b>	Long-term
<b>Controllability of results:</b>	Low

## CWA – CEN-CENELEC Workshop Agreement

### What is it?

- A CWA is a normative document that is developed and approved in a CEN Workshop
- It is open to the direct participation of anyone
- A CWA is fast and flexible to develop
- It is a first step to an EN standard
- A CWA brings no obligation to be adopted at national level

### What is it good for?

- Short time to market
- Creation of uniform rules
- Innovative solutions from research projects
- Dissemination of results
- Validation of acceptance in the market

### When should it be used?

- Project duration is short
- Clear project results are in sight
- Need for standardization emphasized
- No suitable TC exists yet

### Characteristics

<b>Time frame:</b>	≤ 1 year
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Low
<b>Results lifetime:</b>	Medium-term
<b>Controllability of results:</b>	High

## CEN TS - Technical Specification

### What is it?

- A CEN TS is a normative document which provides specifications in experimental circumstances and/or evolving technologies
- CEN TS are established by a CEN Technical Body
- It is periodically reviewed by a TC
- A CEN TS brings no obligation to be adopted at national level

### What is it good for?

- Various alternatives need to coexist for future harmonization
- Issues where missing consensus hinders development of an EN

### When should it be used?

- Cooperation with TC is existing or easy to set-up
- The TC agrees dealing with the document
- Handling mediocre controversial topics

### Characteristics

<b>Time frame:</b>	≤ 1.5 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	High
<b>Results lifetime:</b>	Long-term
<b>Controllability of results:</b>	Low

## CEN TR - Technical Report

### What is it?

- A CEN TR is an informative document providing information on the technical content of standardization work
- It is established by a CEN Technical Body
- A CEN TR brings no obligation to be adopted at national level

### What is it good for?

- Summarize the status quo and record knowledge
- Provision of additional information for CEN national members, the European Commission, the EFTA Secretariat, other governmental agencies or outside bodies

### When should it be used?

- Information on specific topic needs to be assembled for the standardization arena
- Synopsis of knowledge helpful

### Characteristics

<b>Time frame:</b>	≤ 1.5 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Low
<b>Results lifetime:</b>	Medium-term
<b>Controllability of results:</b>	Low

## Roadmap

### What is it?

- It is an informative document with normative character outlining the status quo of standardization in a specific area
- It features an extensive analysis of a topic regarding standardization
- It is a notification about the status quo, relevant committees and groups of the standardization arena, further stakeholders and their participation as well as upcoming standardization projects, future fields of activities and concrete recommendations
- A Roadmap is developed by an NSB
- Similar to Standardization Strategy but more comprehensive

### What is it good for?

- Information about standardization in specific area
- Gathering of partner results
- Structure of standardization activities
- Plan of future path in standardization
- Listing standardization documents and committees

### When should it be used?

- Cataloguing of standardization needs
- Handling broad area of interest
- Structure, organization and contact persons of specific field of action
- Relatively new topic which already is partially covered by standardization

### Characteristics

<b>Time frame:</b>	≤ 2 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Medium
<b>Results lifetime:</b>	Medium
<b>Controllability of results:</b>	High

## Contribution to existing standards

### What is it?

- It is a proposal for changes to existing standards
- Changes are identified by industry
- Proposals are submitted to the respective TC

### What is it good for?

- Adjusting inaccurate or hindering standards
- Facilitation of Innovations
- Correction of misunderstanding
- Clarify circumstances
- Connection with the responsible TCs

### When should it be used?

- Existing standards that is inaccurate
- Standards hindering innovation
- Standards contradict each other

### Characteristics

<b>Time frame:</b>	≤1 year (for proposal)
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Medium
<b>Results lifetime:</b>	Long-term
<b>Controllability of results:</b>	Medium



## TC-Mapping

### What is it?

- An illustration of relevant Technical Committees (TCs) for one or several sectors
- A mapping shows the status quo of the participation in standardization
- It gives an insight into of the importance of standardization for different sectors

### What is it good for?

- Overview on relevant TCs
- Comparison of sectors
- Revelation of interconnection between sectors
- Visualization of further potential
- Optimization of cooperation

### When should it be used?

- Multiple sectors or organizations are in the project
- Overview of synergies between sectors needed
- Access to and interest in the topic

### Characteristics

<b>Time frame:</b>	≤ 1 year
<b>Efforts &amp; Resources:</b>	High
<b>Preparation time:</b>	High
<b>Results lifetime:</b>	Medium-term
<b>Controllability of results:</b>	High

## Standardization Strategy

### What is it?

- It is an informative document summarizing standardization proposals in a specific area
- It is a notification about future fields of activities and upcoming standardization projects by stating concrete recommendations
- A strategy is developed by an NSB
- It has a focus on innovative and upcoming topics
- Comparable to a Roadmap but less extensive

### What is it good for?

- Gathering of partner results
- Structuring of standardization activities and measures
- Plan of future path in standardization

### When should it be used?

- Cataloguing of standardization needs required
- Innovative topics that lack concrete standardization recommendations
- Concrete recommendations required for the period after the project

### Characteristics

<b>Time frame:</b>	≤ 1 year
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Low
<b>Results lifetime:</b>	Low
<b>Controllability of results:</b>	High

## Research of Standards

### What is it?

- The result of such research is a list of existing standards for a selected field
- The research comprises standards from different NSBs, ESOs, ISOs and further standardization organizations
- It collects ongoing standardization activities and lists relevant Technical Bodies

### What is it good for?

- Overview about existing standards
- Align standardization proposals with existing standards
- Information and knowledge about current standardization

### When should it be used?

- Introduction into standardization needed
- Creation of standardization documents planned
- Potential identification of standardization blanks needed
- Relevant standards needs to be identified and monitored

### Characteristics

<b>Time frame:</b>	≤ 0.5 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Low
<b>Results lifetime:</b>	Medium-term
<b>Controllability of results:</b>	High

## Consultation of TCs

### What is it?

- A direct communication between the project manager of a certain Technical Committee (TC) or its national mirror group in the first step.
- An exchange of information between the project and the TC.
- Such consultation is a way to establish contact between projects and TCs
- It includes a comprehensive identification on relevant TCs and lists Technical Bodies and contact persons

### What is it good for?

- Establish contact to TC and further experts
- Learn about ongoing activities and existing results
- Yields information of possibilities to contribute to standardization
- Evaluation of further standardization needs
- Identification of responsibilities when several TCs exist

### When should it be used?

- Creation of standardization documents planned
- Standardization proposals are planned to be submitted to a TC
- Contact persons need to be identified
- Future cooperation envisaged

### Characteristics

<b>Time frame:</b>	≤ 0.5 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Low
<b>Results lifetime:</b>	Long-term
<b>Controllability of results:</b>	Medium

## Literature Research

### What is it?

- Such research is a collection of existing reports, strategy papers, roadmaps and further documents linked to standardization
- It helps building a basis of existing information
- It includes an analysis of the collected information

### What is it good for?

- Gather existing results, reports, etc.
- Avoid duplication of work
- Foundation for future activities

### When should it be used?

- Groundwork available from further standardization groups
- Build on existing structures
- Classification of project in existing standardization landscape

### Characteristics

<b>Time frame:</b>	≤ 1 year
<b>Efforts &amp; Resources:</b>	High
<b>Preparation time:</b>	Medium
<b>Results lifetime:</b>	Medium
<b>Controllability of results:</b>	High

## STAIR Platform

### What is it?

- STAIR platform is connecting Standards, Innovation and Research
- It fosters direct participation of stakeholders
- It is open to everyone with an interest, subject to registration
- Mixture of physical meetings with electronic exchanges

### What is it good for?

- Identification and discussion of standardization needs and opportunities
- Clarification of the role of standardization for innovative areas
- Establishment of first working group
- Direct communication to CEN

### When should it be used?

- Pre-normative work
- Recommendations for future action
- Direct and regular exchange between industry, standardization and innovators
- Focus on specific topic

### Characteristics

<b>Time frame:</b>	≥ 2 years
<b>Efforts &amp; Resources:</b>	High
<b>Preparation time:</b>	High
<b>Results lifetime:</b>	Long-term
<b>Controllability of results:</b>	Medium

## Liaison

### What is it?

- A liaison is an alliance between an organization or project and a TC
- It allows a representative of a research project to participate in the TC or WG meetings of the TC
- Organisations have an observer status

### What is it good for?

- Direct participation in the TC
- Ensuring synergies between the project and standardization work
- Information exchange between project and TC
- Organizations, such as associations are up-to-date

### When should it be used?

- TC existing with link to project
- Recommended in combination with development of NWIP
- Developed CWA as proposal for an EN standard
- Project eligible for creation of liaison
- Results of TC are influencing project research

### Characteristics

<b>Time frame:</b>	≥ 2 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	High
<b>Results lifetime:</b>	Long-term
<b>Controllability of results:</b>	Low

## Project Advisory Board

### What is it?

- Expert from standardization participating in the advisory board of research projects
- Participation preferably by chairpersons of TCs or secretaries but also members on the technical board of standardization bodies
- Cooperation and advise during project meetings

### What is it good for?

- Advice about standardization in research projects
- Ensuring synergies between the project and standardization work
- Information exchange between project and TC

### When should it be used?

- TC existing with link to project
- Results of TC are influencing project research and vice versa
- Project has an advisory board
- Expert identified prior to the project begin

### Characteristics

<b>Time frame:</b>	≥ 2 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Medium
<b>Results lifetime:</b>	Medium
<b>Controllability of results:</b>	Low

## Standardization Workshop

### What is it?

- A workshop is a face-to-face meeting to discuss standardization ideas
- It is open to everyone with an interest
- It has a focus on a specific topic

### What is it good for?

- Creation of networks among workshop participants
- Exchange of experience within project and beyond
- Identify standardization potential

### When should it be used?

- Identification of standardization needs
- Development of standardization ideas and proposals
- Early stage of the project

### Characteristics

<b>Time frame:</b>	≤ 0.5 years
<b>Efforts &amp; Resources:</b>	Medium
<b>Preparation time:</b>	Medium
<b>Results lifetime:</b>	Medium-term
<b>Controllability of results:</b>	High

## Events

### What is it?

- The organization of events, conferences or similar (e.g. HARMONI Summit 2019)
- It is a meeting of stakeholders with interest in a specific topic
- It is enhancing networking between standardization and industry
- It builds basis for cooperation regarding future activities

### What is it good for?

- Inform about standardization
- Connecting people with standardization
- Building up networks
- Link projects and similar approaches among themselves
- Dissemination about project results

### When should it be used?

- Exchange and discussion with further groups and projects
- Arrangement and steering of multiple stakeholders
- Pursuit of joint approach and cooperation
- Input from experts for the project

### Characteristics

<b>Time frame:</b>	≥ 1 years
<b>Efforts &amp; Resources:</b>	High
<b>Preparation time:</b>	High
<b>Results lifetime:</b>	Short-term
<b>Controllability of results:</b>	Low

## Characteristics of Tools

<b>Time frame</b>	Time needed from start of activities until end when results are available
<b>Efforts &amp; Resources</b>	Needed workforce to realize satisfying results
<b>Preparation time</b>	Time needed before being able to start the work
<b>Results lifetime</b>	Time needed from start of activities until end when results are available
<b>Controllability of results</b>	Degree of influenceability by the idea provider / initiator

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