

## >>> Benefits of Standardization

Standards and standardization processes have several different purposes. While on one hand they aim to stimulate economic progress by establishing compatibility and interoperability, they may also improve the safety and health of citizens. Consequently, the three main groups benefiting from standardization are industry, consumers and governments.

### Benefits for research projects

In addition, standardization is also beneficial to research projects, as it supports the dissemination of results, widens the exploitation potential of output, and provides access to external expertise. Moreover, developing new standards can help to build a competitive advantage and provide project partners with higher international recognition.

### Benefits to your project's partners

Not only projects themselves but also individual consortium partners will find that they can benefit directly from participating in standardization activity, although each in its own specific way.



Industrial companies may for example be able to influence future product development while SME companies gain access to technical resources and networking opportunities.

Universities and research institutes may be able to develop new opportunities for cooperative research and raise the profile and reputation of scholars, while public authorities may stimulate economic development in their specific regions.

As benefits to your project as well as to your project's consortium partners can be considerable, it is advisable to assess these possibilities at an early point in time, thus maximizing their impact.



## About the Partners



### European Committee for Standardization

Based in Brussels, the European Committee for Standardization (CEN) is responsible for standardization in areas other than the electrotechnical and telecommunications fields. In the fast-moving domain of information and communications technologies, CEN has created the Information Society Standardization System (CEN/ISSS). In addition to the traditional CEN Technical Committees, this makes use of open Workshops, which are standards committees created whenever there is an identified need for consensus.



### European Committee for Electrotechnical Standardization

Based in Brussels, the European Committee for Electrotechnical Standardization (CENELEC) is officially responsible for standardization in the electrical and electrotechnical fields. Its members have been working together in the interests of European harmonization since the 1950s, creating both voluntary and Harmonized Standards which have helped to shape the European Internal Market. CENELEC works with 35,000 technical experts from 28 European countries.



### European Telecommunications Standards Institute

Based in Sophia Antipolis (France), the European Telecommunications Standards Institute (ETSI) is officially responsible for standardization in telecommunications, broadcasting and certain aspects of information technology within Europe. As such, it also plays a major role in global standardization. ETSI's membership unites all the key players in the telecommunications arena from around the world.



### World Wide Web Consortium

W3C was created to lead the Web to its full potential by developing common protocols that promote its evolution and ensure its interoperability. It is an international industry consortium jointly run by the MIT Computer Science and Artificial Intelligence Laboratory (CSAIL) in the USA, the European Research Consortium for Informatics and Mathematics (ERCIM) in France and Keio University in Japan. To date, nearly 400 organizations are Members of the Consortium.



### The Open Group

Is a vendor-neutral and technology-neutral consortium, whose vision of **Boundaryless Information Flow™** will enable access to integrated information within and between enterprises based on open standards and global interoperability. Its role is to capture, understand and address current and emerging requirements, establish policies; to facilitate interoperability, develop consensus, and evolve and integrate specifications and open source technologies; to offer a comprehensive set of services to enhance the operational efficiency of consortia; and to operate the industry's premier certification service.



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With the Support of the EU Commission, Information Society Technologies, IST



## The Bridge Between IST Research and Standardization



## Standardization and Research <<<

As Europe is progressing towards an Information Society, the challenge for standardization addressing technological development, and the need for IST research synchronizing with standardization activity increase every day.

For many research projects interfacing with standardization processes is a true challenge as they have great difficulty finding their way through a maze of standardization bodies and processes, or planning work packages and resources dedicated to standards related activities.

The Cooperation Platform for Research and Standards (COPRAS), an initiative of the 3 European standards bodies CEN, CENELEC and ETSI, together with the World Wide Web Consortium and The Open Group, supported by the EC FP6 IST program, aims to address this.

COPRAS has developed a set of guidelines helping projects building their standardization activities already into their initial project proposals, allowing them to exploit their research results to their maximum potential.

The guidelines, of which this brochure only provides a quick overview, can be found at [www.copras.org](http://www.copras.org). They will demonstrate the benefits of standardization for your project and help determining whether or not your project should plan to interface with standardization. Also, they will provide you with an overview of the most common processes in standardization and will assist you selecting the standards organization that best matches your project's requirements.



## Should My project Interface with Standards Bodies?



Not all IST projects that eventually include standardization activities start with a specific objective of proposing a new industry standard, and there are no simple rules for determining whether your project should include plans to interface with standards bodies.

### Analyzing your work packages' output

Determining if your project should cooperate with standards bodies can best be done by analyzing your project's work packages' output. If this for example relies on an existing standard, if it is going to be used as a basis for commercial companies to develop new products or services, or if the output is intended

to encourage other organizations to create compatible technologies, it is likely that some interactions with standards bodies should be planned within the project.

### When to consider standardization

Similar to research projects, standardization is a process that begins at the concept stage of a proposal, and involves a sequence of actions to achieve a specific result. Consequently, there are several important milestones within a project lifespan where standardization should be considered, including:

- \* The preparation of your project proposal.
- \* The start of the contract and the project's activities.
- \* The specification of requirements and designs of the technologies that will be developed.
- \* The moment when results are available for submission to standards bodies.
- \* The termination of the project contract.

In general, the chances that a project's resources are used more effectively and the likelihood that objectives for standardization are met, are larger when planning for and actions towards standardization occur earlier within a project's lifespan.

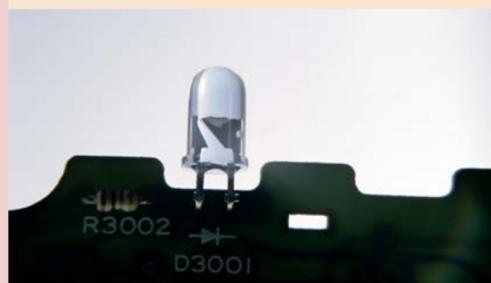


## Planning your Interfacing with Standardization

Once you have decided your project should interface with standards bodies, it becomes important to embed standardization activities in your project's work plan, as progressing deliverables through standardization can be a time-consuming activity. Processes may take up to 3 or 4 years and it is recommended to plan interfacing with standards organizations at the beginning of your project's activities.

### Becoming a member of a standards organization

To participate in standardization processes either the partners or the project itself must become a member or participant in the target standards body, and there are pros and cons to each type of membership with regard to achieving consensus for research results becoming standards.



While membership as a project makes it easier to share standards information amongst partners, additional effort may have to be put into establishing common positions in advance of voting in the standards body. Individual membership on the other hand allows partners to express their own views rather than the project's consensus position but their individual opinions or positions may carry less weight than a project position.

### Planning resources

If one of your project's main results is intended to become an industry standard, then a separate work package for addressing standardization is recommended. This may for example encompass the preparation of a formal submission, the building of a constituency, or the creation of awareness.

Projects are however many times completed before consensus is reached on project results becoming industry standards. While there are several ways to continue standardization work also beyond your project's lifespan, e.g. through one of your consortium partners, starting early is the best guarantee that substantial progress is made before your project is completed, and that its standardization goals will be achieved.

## Standardization Processes

Processes followed by standards bodies are not always identical and often reflect a historically developed consensus between its members. This has to be taken into account when providing input to standardization. However, despite the differences between organizations, most processes reflect a number of 'basic sequential steps that together characterize a 'typical standardization process':



### Formal standards and consortia specifications

Following the same basic steps may still lead to different types of results. Formal standardization processes include a public consensus process and lead to formal standards. There is strong pressure on market players to apply them as they are 'de jure' standards. Considerable time (up to 4 years) may however be needed for completing the full process.

Specifications from other forums or industry consortia are based on consensus among an organization's members and do not have a formal character. They are recommendations and require less time to produce (1-3 years), but when widely accepted they can become 'de facto' standards.

### Choosing the right organization

Choosing an organization does not automatically imply choosing a process. Formal standards bodies also provide informal standards such as Technical Specifications or Workshop Agreements, while industry consortia sometimes pass their output through formal standards bodies, providing it with a more formal character.

As the choice of organization and processes will however influence the results your project achieves from its cooperation with standards bodies, it should determine the nature of its deliverables at an early point in time, and establish contacts with organizations that are able to provide the required processes.



## Selecting Standards Bodies

When selecting standards bodies to interface with, the criteria your project applies should take into account the circumstances and background of your project and your project partners. In addition, the intended nature and purpose of the actual standardization deliverables you're pursuing should play a role in the selection process.

### Some guidelines

Although your project's specific circumstances will determine the relevance of criteria applied, some generic aspects you should consider include:

- \* Does the thematic scope of the targeted organization match your project's deliverables.
- \* Is your project able to synchronize its work plan with the agenda of the targeted standards organization.
- \* What is the geographic scope of the impact your project is pursuing for its standardization deliverables.
- \* Are the procedures and confidentiality policies of targeted standards bodies acceptable to your project and its partners.
- \* Are membership rules of targeted organizations acceptable to your project or do you have members among your consortium partners.



### Can't find the right organization?

Despite the large number of ICT standards bodies there is no guarantee your project will be able to find an organization to pass its output through, for example when the proposed technology is too advanced to build a constituency of market players around it.

In these situations your project may focus on standards bodies providing 'incubator' facilities, allowing contributors of advanced concepts to ramp up their work inside a standardization environment towards the level of maturity required for initiating a formal processes.

