



Document	Interim evaluation report				
Milestone	M6.7	Deliverable	D17	Source	Project Manager
Distribution	European Commission				
Document history					
Version	Remarks				Date
0.1	Structure				25/08/2005
0.2	1 st draft				30/09/2005
1.0	Final version				06/10/2005

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1. Executive summary

The Cooperation Platform for Research and Standards (COPRAS) was initiated by the 3 European Standards Organizations (CEN, CENELEC and ETSI), together with the World Wide Web Consortium (W3C) and The Open Group as a horizontal project in FP6 IST Call 1. The project started its activities in February 2004 and aims to support IST research projects in FP6 in their interfacing with standards organizations.

The present report establishes a brief overview of the activities and methodological steps the project went through during the first half of its lifespan. Purpose of this is to hold the activities and the qualitative and quantitative aspects of the processes applied and (interim) results achieved against the objectives defined and targets set at the start of the project in order to assess whether COPRAS so far has managed to achieve its goals and, equally important, assess – as far as possible – the impact it managed to generate so far.

When assessing the activities in Work Packages 2, 3 and 4, encompassing the activities aiming to support projects in Calls 1 and 2, structuring their steps towards standardization of their output in Standardization Action Plans, it may be concluded that the targets initially defined have been reached. COPRAS succeeded in selecting 8-10% of research projects (the “COPRAS Programme”) in Calls 1 and 2, with which it has developed, and/or is developing Standardization Action Plans.

As most of these projects however started their activities towards execution of these Plans only a limited time ago, it is not yet possible to carry out complete quantitative and qualitative assessments of the number of contributions made to standardization, and neither has it yet been possible to have these contributions evaluated by the standards organizations they were submitted to. A complete assessment, also addressing an evaluation of the support COPRAS has provided to the projects it is currently working with, will therefore be included in the final evaluation report. This will also assess the benefits projects managed to obtain from participating in the processes.

An interim analysis however shows that, based on the results achieved so far, COPRAS partners remain confident that the overall target of submissions to standards bodies will be achieved by the end of the project. Also, as interactions with the target standards bodies so far have been positive overall, it is anticipated that the continuation of these processes will enable further qualitative assessments of both the project submissions and the responses by standards organizations.

In addition to working with selected projects in calls 1 and 2, COPRAS also developed a set of “Generic Guidelines for IST research projects interfacing with ICT standards organizations”, based on the experiences generated when going through the process steps in Work Packages 2, 3 and 4 and from working with the selected projects. These Guidelines, which have also been made available in brochure format, aim to support projects in FP6 IST Calls 4 and beyond, and were distributed via Commission Project Officers overseeing the Strategic Objectives in FP6 IST Calls 4 and 5.

Although it is too early to assess the impact of the Generic Guidelines, initial feedback, specifically from the respective Units in the Commission, has been very positive. Therefore COPRAS is confident the material it has produced will be used by projects in Calls 4 and 5, and will support them in their interfaces with standardization. Further assessment towards the end of COPRAS’ lifespan will however be necessary to determine this in more detail.

Although a complete evaluation of the interim results has not been possible, due to the fact that the major processes subject to such evaluations have only recently started, an assessment of the activities deployed by COPRAS, the processes and methodologies applied, and the results achieved, leads to an overall positive conclusion, both in a qualitative and quantitative sense. This provides a good basis for achieving the anticipated results in the second half of its lifespan as well.

Similar to evaluating its results, a full assessment of COPRAS’ impact will not be possible until the end of the project. However, taking into account the positive feedback from research projects, Commission Project Officers, standards organizations and other stakeholders so far, as well as the fact that awareness of the issues addressed by COPRAS has increased among the targeted constituencies, the COPRAS project partners are confident that the project will have a positive impact.

2. Project objectives

2.1 Background & objectives

It has been underlined many times that interfacing and cross-fertilization between standardization and research is not only essential to the success of both activities, but important to establish and secure Europe’s position with respect to ICT development. Standardization and research therefore should proceed in parallel as much as possible.

Within the ICT standardization environment however, several hundred different organizations and consortia operate on a world wide scale, making it relatively complicated for IST research projects – that have a limited lifespan – to find the right organization(s), and even more to start up and successfully finalize a specification or standardization process.

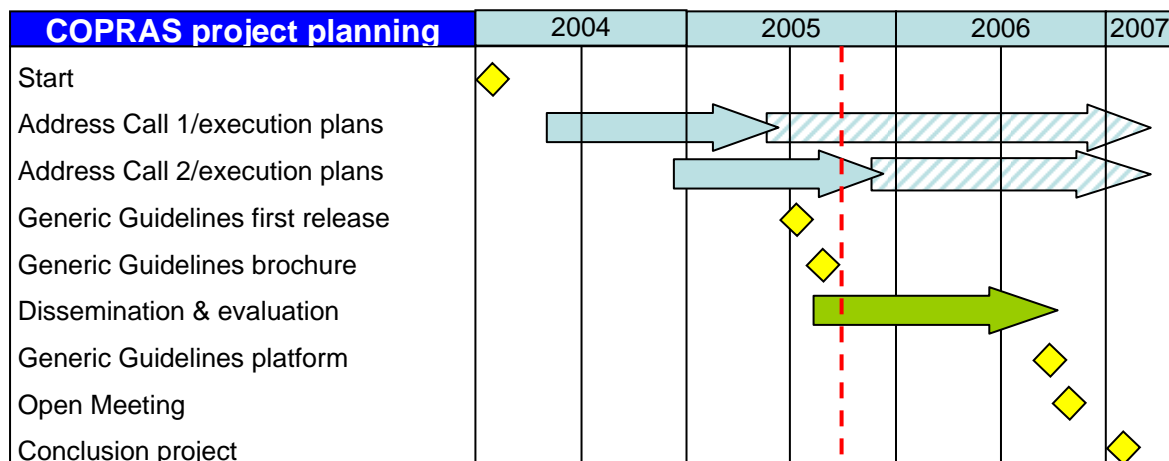
COPRAS therefore has been established as a horizontal action across FP6 to address these issues, to install a Programme helping projects in Calls 1 and 2 in their interfacing with standards organizations, and to prepare the tools that will assist projects in Call 4 and onward embedding the interface to standardization already into their initial project proposals, or into the work plans that they will set out with.

2.2 Methodology & expected results

In order to achieve the objectives as described, COPRAS has applied the following main methodological principles:

- A number of steps, aiming to select those projects in Calls 1 and 2 that were expected to benefit most from interfacing with standardization, were defined, grouped, and distributed over Work Packages 2 (information gathering), 3 (information analysis, project selection & reverse mapping) and 4 (development of standardization paths).
- For the group of selected projects (the “COPRAS Programme”) COPRAS is developing Standardization Action Plans that will systematically define projects’ steps towards standardization, as well as COPRAS’ activities supporting these.
- The process of working with the projects in Calls 1 and 2 is generating a large amount of information with respect to the ‘critical’ aspects of cooperation between research and standardization; this is being used to develop an initial set of Generic Guidelines for IST research projects interfacing with ICT standards organizations.
- The results that will be achieved by the projects working in the COPRAS Programme, as well as the feedback from those working with the Generic Guideline,s will be used to install a future platform supporting the interfacing process between IST research and standardization, and paving the way for FP7.

The following picture provides an overview of the timing of the main processes encompassing these principles, and showing the current status of the project in the course of the processes.



From a quantitative perspective, COPRAS aim, as defined in the early stages of the project, was to obtain standards-related information from at least 50% of the projects in Calls 1 and 2, in order to be able to analyse projects and select between 8-10% of all projects in these Calls for closer cooperation. In addition, COPRAS sought to obtain sufficient information to develop an initial set of Generic Guidelines for IST projects in Calls 4 and beyond, for their interfacing with ICT standards organizations.

Qualitative targets focused on the ability of the methodological instruments in obtaining useful feedback from projects, that could be applied to establish fruitful interfacing between standards organizations and research projects, as well as to develop a complete and comprehensive set of initial Guidelines.

The following section provides a more detailed overview of the processes in Work Packages 2, 3, 4 and 5, and describes and evaluates the (interim) results achieved.

3. Results of activities during the first 18 months

The following sections provide a short overview of the sequential steps COPRAS has been carrying out to achieve its prime goal for its activities in Work Packages 2, 3 and 4, i.e. the development of Standardization Action Plans with at least 8% of the projects in 18 out of 22 Strategic Objectives in FP6 IST Calls 1 and 2.

Following this, section 3.2 provides a high level overview of the results COPRAS so far has managed to achieve with the projects it has selected in Call 1, through the execution of Standardization Action Plans, taking into account that many of the projects started their activities towards these plans only a few months ago, at the end of spring 2005.

The third section of this chapter provides an assessment of the role the promotional activities carried out towards the IST research community have played in achieving the results as described, and – more importantly – how these results have also lead to the development of a first version of Generic Guidelines for projects (notably in FP6 IST Call 4 and beyond).

Finally, an overview and assessment of the dissemination activities related to these Generic Guidelines is contained in this chapter; it should however be mentioned that the overall effect of the Generic Guidelines cannot be assessed until the final Evaluation Report (deliverable D28).

3.1 Work Package 2 & 3: building the COPRAS programme

Work Packages 2 and 3 focused on the analysis and selection of projects that could be included in the COPRAS Programme (i.e. the group of projects in Calls 1 and 2 that COPRAS envisaged developing Standardization Action Plans with). Target here was to arrange this cooperation with at least 8% of the projects in the 18 out of 22 Strategic Objectives in FP6 IST Calls 1 and 2 that were actually surveyed and addressed.

3.1.1 Gathering of information

The aim of the information gathering process, encompassed by Work Package 2, was to obtain – at the earliest possible stage, i.e. as quickly as possible after the start of projects' activities – information on the standards-related activities projects planned to deploy and – more importantly – on the relevance processes deployed and/or deliverables produced by IST research projects could have for ongoing – or even for yet to be initiated – standardization processes.

This was done to ensure all projects that either envisaged producing standards-related output themselves or – based on the areas and issues they were addressing – could eventually generate input that might be relevant to ongoing standardization processes, although not primarily identified of pursued by projects in this way, were sufficiently identified so they could be invited for closer cooperation with COPRAS.

To achieve this objective, COPRAS addressed 164 projects in Call 1 and 107 projects in Call 2 (i.e. almost 95%) and analyzed their individual projects' web sites as well as the information that was provided on the CORDIS web pages. Moreover, a questionnaire inquiring into the specific stan-

dards related aspects of their activities, distributed among all of these projects, generated a response rate of more than 50%, and established the basis for the COPRAS activities in Work Package 3.

When assessing the effectiveness of the approach taken, both qualitative and quantitative aspects should be considered; moreover, the usefulness of the results both for the immediately following process steps (i.e. the primary objectives), as well as for the project as a whole (i.e. the secondary objectives) should be taken into account.

- **Quantitative aspects of the results achieved:** although many projects did not have a clear perspective on their standardization aspects or deliverables already at an early point in time, the very high response rates, together with a ‘cross-check’ using the information gathered through projects’ web sites and their information on the cordis-pages established a high level of certainty that the vast majority of projects for which interfacing with standards bodies should be considered, actually had been identified through the methodology applied. This is underlined by the fact that only two of the projects (EUAIN and HYCON) that now establish the COPRAS Programme originally had not been selected as a result of the information gathering process.

In addition to providing the basis for the selection of projects for the COPRAS Programme, the information gathering process, and more specifically, the information retrieved through the questionnaires also provided a lot of insight in some of the problems projects were confronted with when trying to interface with standards bodies, such as:

- Not having Work Packages or resources allocated to standardization activity
- Addressing too many standards bodies
- Not being aware of recent activity in standards organizations
- Not being aware of cooperation possibilities with other projects (e.g. outside the project’s own Strategic Objective)

This information has proven to be very valuable as input to the interim version of the “Generic Guidelines for IST research projects interfacing with ICT standards organizations” (deliverable D15). Specifically the large quantity of information gathered allowed COPRAS to separate the ‘incidental’ issues from the ‘structural’ deficits of the current environment.

- **Qualitative aspects of the results achieved:** in order to address these aspects, an assessment is necessary, as far as the direct usefulness of the results are concerned, defining whether the information gathering procedure, and more specifically the questionnaire, did in fact point out the standardization issues that eventually were addressed in the Standardization Action Plans. This is indicated in the table below.

Projects (Call 1)	Issues raised in questionnaire	Main focus in Standardization Action Plan
eLearning cluster	<ul style="list-style-type: none"> • enhance and extend the existing standards • GRID as an enabling technology to create Virtual Organizations for eLearning • Testing based conformance regime to assure interoperability 	Identification and development of revisions to the IMS specification
NAVSHIP cluster	<ul style="list-style-type: none"> • Management of resources across networks and guaranteed end-to-end quality • UPnP interfaces • Device Taxonomies • Personalized services 	Integrated system for end-to-end Quality of Service management
		Development of additional profiles for the UPnP specification
		Semantic interoperability
BROADWAN	<ul style="list-style-type: none"> • Next generation wireless access • Solutions for fixed and nomadic users 	Support of Fixed/Nomadic systems and harmonization with 802.16e
		Testing standards for HiperMAN, in collaboration with WiMAX
GANDALF	<ul style="list-style-type: none"> • Modifications for using the same signal for wireless and 	Contributions on the extension of the wire-line EuroDOCSIS standard to a

	wire line transmission	wireless scenario in the millimeter-wave and microwave band
SIMPLICITY	<ul style="list-style-type: none"> Service personalization, service portability, service adaptability, user profile definition and handling, etc. 	Embedding better User Profiling possibilities across different mobile services in the 3GPP basic architecture
ARTEMIS	<ul style="list-style-type: none"> Interoperable layer for directory services, format translation and content transmission for health care standards (i.e. semantically enriched Web services) 	Submission of proposals relating to Semantic Web Service-based P2P Infrastructures for Interoperability of Medical Information Systems to OASIS and CEN
SATINE	<ul style="list-style-type: none"> Semantic-based interoperability framework for exploiting Web service platforms in conjunction with P2P networks in the tourism industry 	Semantically enriched Web services based eBusiness interoperability platform for eTourism
SECOQC	<ul style="list-style-type: none"> Protocols for communication within networks using quantum key distribution methods 	Installation of a CEN Workshop on quantum cryptography
SIMILAR	<ul style="list-style-type: none"> Open reusable multimodal interfaces modules most likely for Medical applications 	Bring UsiXML & CDIL to the starting work on rich content (web applications) in W3C
TALK	<ul style="list-style-type: none"> Contributions to existing standards for annotation of multimodal dialogues 	Hold a Workshop to gather a community defining formats for dialog formats and annotations and for advancing standardization beyond VoiceXML

The results in the table show a good match between the standardization areas projects eventually decided to address, and the issues they pointed out in the questionnaire, although many targets clearly have been narrowed down. Also, one or two projects or clusters clearly abandoned certain objectives, changed their course, or are pursuing these other objectives outside of their cooperation with COPRAS and/or other projects. All in all the results of the analysis suggests that the methodology applied in the information gathering process enabled COPRAS to identify virtually all the relevant standardization issues at an early point in time.

The results of the information gathering process also suggest that certain aspects (e.g. elements from the questionnaire) could possibly be used further on in the process, e.g. when transforming the Generic Guidelines (see section 3.3.2) into an interactive platform. These possibilities will have to be further looked into during the second half of the project's lifespan.

3.1.2 Information analysis, selection of projects & reverse mapping

Tasks in Work Package 3 covered the analysis of the information gathering report, the definition and application of project selection criteria, the organization of the kick off meeting and the 'reverse mapping' of standards bodies' main areas of activity with the issues addressed by IST projects in Calls 1 and 2.

The main aim of the information analysis and project selection process was to define which projects would benefit most from participating in the COPRAS Programme (and hence from developing a Standardization Action Plan), and which projects would not need any support from COPRAS at all (e.g. because they are not concerned with standardization issues). In this respect, target was to define a minimum of 14 and a maximum of 18 selected projects and to use a qualitative rather than a quantitative approach when developing and applying selection criteria.

In this respect, it was also recognized, before starting the process, that COPRAS, as well as research projects and other relevant stakeholders, would benefit from a transparent selection process, in order to avoid projects seeking to interface with standards bodies being unaware how to position themselves in order to be taken on board by the COPRAS Programme.

When defining criteria and project selection policy, it was decided to focus primarily on those criteria that had a clear link to the questionnaire used in the information gathering process (also see section 3.1.1 above). Therefore, the following issues were duly considered:

- projects' availability of resources to work on standardization issues;
- the actual or perceived need for support from COPRAS to assist the project in defining their interfacing with standardization, and;
- projects' willingness to participate in the COPRAS Programme.

When reviewing all issues and considerations, it was decided the following primary and secondary criteria should be applied when analyzing the results of the information gathering process and making the initial selection of projects for the COPRAS Community and Programme:

1) Primary criteria:

- a) Is the issue addressed by a project relevant to the activities of one of the consortium partners or one of the ICTSB members?
- b) Is the issue addressed by a project relevant to the activities of a standards body outside the ICTSB?
- c) Has the project a clear view of the standardization activities they seek to deploy?
- d) Is the standards body a project would interface with sufficiently experienced in the particular domain and are they capable of seeing the standardization paths projects have identified for themselves?

2) Secondary criteria:

- a) Does a project have resources available for standardization activities?
- b) Is a project's timing (in terms of its capabilities of defining a Standardization Action Plan) align with COPRAS' timing?
- c) Are standards bodies, a project seeks to interface with, already pre-identified or not?

The basis for selecting projects was established by the results of the Information analysis process. This part of the process categorized the response from projects, using their response to the thematically oriented questions. This indicated both the standardization areas and aspects that were most frequently addressed by projects, as well as the possibilities to cluster projects, either in the same, or in different Strategic Objective, in order to benefit from each others resources. In addition, while using projects' response to the generic questions, their requirements for support could be identified.

By combining the two approaches, a list of tier 1 projects (those that addressed the areas most commonly mentioned and were expected to benefit most from COPRAS' support) and tier 2 projects (those that either addressed the lesser common areas or were less likely to benefit from COPRAS' support) were identified. Both tier 1 and tier 2 projects were invited to the kick-off meetings.

During the Call 1 selection process, the analysis of in total 92 projects was reviewed. Ultimately, 25 tier 1 projects and 15 tier 2 projects were selected in call 1, while 26 tier 1 projects and 5 tier 2 projects were selected in Call 2. When taking into account tier 1 projects only, this means 18% of all projects in both Calls were actually selected and invited to the kick-off meetings, and 25% when taking into account tier 2 projects as well. This provided a good basis for discussions in the two kick-off meetings to reach the target of 8% of projects to develop Standardization Action Plans with.

The kick-off meetings (and kick-off pre-and post-meetings), organized in September/October 2004 (for projects in Call 1) and May-September 2005 (for projects in Call 2) established the last step in selecting projects for the COPRAS Programme. Their purpose was to discuss the details of standardization objectives with individual or clustered projects, as well as to define whether or not COPRAS could support the process towards standardization of projects' deliverables. These discussions eventually lead to 26 projects (9% of all projects in FP6 IST Calls 1 and 2) being included

in the COPRAS Programme.¹ A complete breakdown of the process leading towards the establishment of the Programme is presented in the table below.²

Projects	Total	Addressed	Responding	Selected & invited	Attending	Cooperating towards Standardization Action Plans
Call 1	176	164	92	40	28	16
	100%	93%	52%	23%	16%	9%
Call 2	111	107	55	31	10	10
	100%	96%	50%	28%	9%	9%
Total	287	271	147	71	38	26
	100%	94%	51%	25%	13%	9%

When reviewing the steps in the process, the methods applied appear to have been adequate to achieve the intended results. The analysis process, followed by the application of selection criteria and the clustering of projects, generated the envisaged quantitative results by identifying a sufficiently large number of projects that could benefit from interfacing with standards bodies. This was, reasonably equally spread over the different Strategic Objectives in Calls 1 and 2, and also over the different instruments (i.e. STREPS, NoEs, IPs, etc.). Moreover, results have been good from a qualitative point of view as well: the discussions with projects in the two kick-off meetings, as well as in the pre-meetings, provided sufficient basis for elaborating the cooperation between COPRAS and a sufficient number of individual or clustered projects in calls 1 & 2, in Standardization Action Plans.

As a result of the first project review, COPRAS decided to develop an additional deliverable on "Reverse Mapping" as a part of its activities in WP3. The aim of this deliverable, D18, was to identify how IST research projects address the topics that are relevant for the different existing standards bodies and groups, highlighting possible gaps and bodies not addressed at all or insufficiently covered.

The analysis provided is based on reviewing project information publicly available (in particular related to the stated objectives of each project), as well as on reviewing the answers to the questionnaires that were sent out to and received from projects in FP6 Calls 1 and 2. For the standards bodies a similar analysis of public information available on their web sites was performed, focusing on the ICTSB members. This means the report covers the European standardization organizations and their areas of interest. It should be mentioned however that many of the projects interface directly with organizations operating on a worldwide level, such as ITU, IETF, IEEE, ISO/IEC, UPnP or OSGi; these may therefore not particularly need COPRAS assistance.

The Reverse Mapping report covers both the quantitative and the qualitative aspects, matching the number of main standardization areas across the European standardization landscape with the frequency these areas are addressed by the IST projects in Calls 1 and 2, while also assessing the qualitative aspects of the way the issues are taken into account by the projects.

The results of the Reverse Mapping report generally indicate a good overlap between the main standardization areas and the way these areas are addressed in a qualitative and quantitative way by the research projects in Calls 1 and 2. This is however less the case with those standardization topics that can be found on the periphery of the standardization landscape.

3.2 Work Package 4: development of standardization paths

3.2.1 Work Package objectives and starting point

This work package was launched in association with the kick-off meeting amongst the selected IST Call 1 projects in month 8 of the project. The overall objective for this work package is to develop an appropriate Standards Action Plan for each of the selected projects in order to carry forward

¹ It should be taken into account that for Call 2 this number had not yet been finally determined by the time this report was submitted; therefore the number of projects COPRAS will be developing Standardization Action Plans with may still slightly increase or decrease; it is however unlikely that the number of project COPRAS eventually will be working with ends up outside the targeted 8-10% margins.

² The grey are in the table represents preliminary figures (see also the previous footnote)

their standards-related deliverables into the standards process, and to provide specific assistance where needed. The work plan specifically quantifies the high-level objective to be achieved in this Work Package by the end of the project as being at least six contributions of standardization work introduced into the processes of the relevant as the formal and/or informal standardization bodies. This will be achieved as a combination of collaborative actions with IST Call 1 and Call 2 projects.

The work plan is progressing according to schedule and has to date established the Standardization Action Plans for the selected IST Call 1 projects, and is in the process of developing Standardization Action Plans for selected projects from IST Call 2. The first set of IST Call 1 projects that will have results that are appropriate for submission to standardization bodies are anticipated for 2006, so it is not yet possible to quantify the overall success achieved for this Work Package. However, some intermediate measures and milestones have been achieved and quantified, which provide substantial assurance that the project will ultimately meet and most likely exceed the high-level objective for the Work Package. These intermediate measurements are described below.

3.2.2 Quantitative analysis

The first milestone for this Work Package was to obtain inputs from the IST Call 1 projects identified from the work in *Work Package 3 – Information Analysis and Project Selection*. This has been achieved through collaboration between the COPRAS partners and the selected IST Call 1 projects both during the Kick-off meeting and further follow-on meetings. The result has been the development of 10 Standardization Action Plans in collaboration with 16 projects from IST Call 1. These 10 Standardization Action Plans include 2 that are for clusters of projects. A further 8 Standardization Action Plans are also in development for selected projects from IST Call 2.

The following are specific quantitative measures identified for work package 4 and an assessment of the results achieved to date:

Measure	Assessment
Number of IST projects assisted	16
Number of IST project partners assisted	291
Ratio of developed action plans to selected projects	100%
Number of new standards specifications targeted	19
Number of standards bodies targeted in action plans	10
Ratio of international standards bodies of total targeted	70%
Number of new standards body formations recommended	3

Based on the above measures the project partners remain confident that overall target of submissions to standards bodies will be achieved by the end of the project.

3.2.3 Qualitative Analysis

The IST Call 1 projects have not yet progressed their research development to the point of making formal specification proposals to the targeted standards bodies. A qualitative analysis of these actions will be provided in the subsequent deliverable D28 - Final Evaluation report. However, the project has noted a set of qualitative indicators related to the work to date within the project. These are the following:

- The project continues to be contacted by additional IST projects from Call 1 seeking advice and guidance regarding standardization.
- The project has been asked by IST Call 4 projects to provide guidance in structuring standardization tasks during the negotiation phase of their project.
- Several projects have been invited to introduce their work at meetings of the standards bodies.
- Coordination of new standards specification across IST projects is occurring within the two clusters of IST Call 1 projects.

- European Commission project officers from other IST strategic objectives participated in the kick-off meeting for Call 2 projects and have encouraged projects to collaborate with COPRAS.

Overall the project interactions with the target standards bodies have been positive. The COPRAS partners anticipate that as the research and development work progresses further within the IST Call 1 projects, increased interactions will lead to further qualitative assessments of both the project submissions and the responses by the target standards bodies.

3.3 Work package 5: dissemination activities

The dissemination activities COPRAS deployed so far can be separated in two main categories:

- those activities that were aimed at supporting COPRAS' efforts to achieve its targeted results in Work Packages 2, 3 and 4 (i.e. inclusion of 8-10% of projects surveyed in Calls 1 and 2 into the COPRAS Programme), and;
- those activities that were aimed at disseminating the first release of COPRAS' "Generic Guidelines for IST research projects interfacing with ICT standards organizations" to projects and project consortia in FP6 Calls 4 and 5, to Commission Project Officers and to the standardization community.

The following sections provide a short overview of the effectiveness of these activities towards the objectives of the project, and also elaborate on some of the dissemination action that – as a consequence of the result achieved so far – will be deployed during the second half of COPRAS' life-span.

3.3.1 Activities towards projects in FP6 IST calls 1 & 2

During the first half of the project's lifespan, most of COPRAS' promotional activities, many of which were already listed in the Activity report over the first year (deliverable D10), were aimed at the IST project community in Calls 1 and 2. Main purpose of these activities was to increase participation of these projects to the subsequent process steps in Work Packages 2, 3 and 4 that were deployed to install the COPRAS Programme.

These activities, as well as the strategy to focus primarily on the main constituency (i.e. the IST research community) have contributed considerably to the success of the project so far, and helped to generate a high response rate for the questionnaire, and good participation in the COPRAS Programme. Specifically the following measures have contributed to this result:

- presentations of COPRAS' objectives at concertation meetings, cluster events, workshops and similar occasions;
- the project's presence at the IST2004 exhibition and the organization of a networking session at this event;
- the COPRAS web site that receives an average of 4000 hits on a monthly basis;

The many positive feedbacks COPRAS received in response to the first release of its "Generic Guidelines for IST research projects interfacing with ICT standards organizations" underline that these continuous promotional activities have clearly created increased awareness among the project's main constituencies of the issues COPRAS set out to address. Consequently, the activities have also established a good basis for the dissemination of one of the project's main deliverables, i.e. the interim Generic material (deliverable D15), described in the next section.

3.3.2 Development of Generic Guidelines for projects in FP6 IST calls 4 & 5

Based on – among others – the results from the activities towards and cooperation with projects in Calls 1 and 2, COPRAS developed its first version of a set of Generic Guidelines for ICT projects seeking to interface with ICT standards organizations in July 2005. This document, aimed at projects and project consortia in FP6 Calls 4 and 5, as well as at Commission Project Officers and project reviewers, is accompanied by a specific brochure to promote the dissemination and usage of the Generic Guidelines among future projects.

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These Guidelines encompass a systematic step-by-step approach for IST projects that want to determine whether it would be beneficial or recommendable to interface with standards bodies and, if so, how this should be embedded in a project's structure and work plan, and how the right standards organizations to interface with can be found and approached.

As the success of efforts toward standards bodies to a considerable extent depends on projects embedding standardization activities at an early point in time (i.e. preferably before the start of the project) into their structure and work plan, COPRAS has given high priority to distributing the Guidelines to those projects in FP6 that had not yet started their activities, by the time the Guidelines were produced, i.e. projects in Calls 4 and 5.

- **Activities towards the European Commission:** after the completion of the Generic Guidelines the following 17 Units within DG INFSO were approached for support in disseminating the material and/or the accompanying brochure to projects in calls 4 and 5:

Unit	Overseeing Strategic Objective(s):	Call
D1	Broadband for all	4
	Mobile and wireless systems and platforms beyond 3G	4
D2	Networked audio-visual systems and home platforms	4
D3	Software and services	5
D4	Towards a global dependability and security framework	4
D5	ICT for networked businesses	5
E1	Multimodal interfaces	5
E2	Semantic-based knowledge and content systems	4
E3	Technology-enhanced learning	4
	Access to and preservation of cultural and scientific resources	5
E5	Cognitive systems	4
F2	Advanced Grid Technologies, Systems and Services	5
F3	Research networking testbeds	5
F4	Collaborative Working Environments	5
G3	Embedded systems	5
G4	eSafety - Co-operative Systems for Road Transport	4
G5	ICT for Environmental Risk Management	5
H1	Integrated biomedical information for better health	4
H3	eInclusion	5

Responses from representatives from the various Units have overall been very positive. So far, of the 17 Units addressed:

- 10 Units will distribute, through the Project Officers, the Generic Guidelines to the projects in calls 4 and/or 5;
- 3 Units will pass on, either physically or electronically the brochure and/or the Generic Guidelines to those projects that Project Officers feel it could be relevant to;
- 9 Units will include (or consider including) a link to the electronic version of the Generic Material on the COPRAS web site on their respective CORDIS web pages;
- 1 Unit decided to include an article on the availability of the Generic Guidelines as well as the URL to the electronic version on www.copras.org in the Unit's newsletter;
- 1 Unit decided not to distribute the Generic Material or the brochure as the projects it is overseeing do not feel the need to interface with standards organizations.

When evaluating the figures above it should be understood that, for procedural reasons, not all Units may be in a position to provide projects or project consortia the material COPRAS has developed, before projects are submitting their proposals, or before they come in for project negotiations.

In order to put more emphasis on the importance and usage on the Generic Guidelines, COPRAS will therefore make an effort to present the material at concertation meetings or similar events organized within specific Strategic Objectives. In this respect it should however be understood that in only few of the areas these events are still organized, so the effect of COPRAS presenting its Guidelines may eventually also be limited to these domains.

Although the effects from the Generic Guidelines on improved interfacing between IST research projects in calls 4 and/or 5 and ICT standards organizations cannot yet be estimated, the positive response and cooperation from the respective Units is expected to provide a good basis for an assessment at a later point in time (i.e. in deliverable D24).

- **Activities towards the standardization community:** in addition to disseminating the Generic Guidelines among IST projects, the COPRAS consortium partners will distribute the accompanying brochure in their regular contacts with members and industry. Also, the following actions will be deployed to broaden the dissemination of the material:
 - Links to the Generic Guidelines and the brochure will be installed on the web sites of the COPRAS consortium partners;
 - The ICTSB members will be invited to install a link to the Generic Guidelines and the brochure on their web sites as well;
 - Brochures on the Generic Guidelines will be sent to other ICTSB members to be distributed by them or to be put on display;
 - COPRAS will continue its existing efforts presenting its results and the importance of the Generic Guidelines at meetings and other events related to standardization.
- **Activities towards projects in Calls 1 and 2:** the Generic Guidelines are to a considerable extent based on the results of the cooperation and interaction between COPRAS and IST projects in Calls 1 and 2. Therefore the material COPRAS has developed was also distributed among these projects, together with a request to provide comments that could improve subsequent versions of the Generic Guidelines. Moreover, many (IP or NoE) projects and/or projects' consortium partners that are active in Calls 1 or 2, may also be active in Calls 4 or 5.

The main subsequent activity towards the Generic Guidelines will be its further development, and transformation of the current 'static' document into an interactive platform that will provide users (i.e. projects, project consortia, projects reviewers, Commission Project Officers, etc.) more specific, detailed and better facilities related to the process of interfacing between research and standardization.

4. Impact & feedback analysis

As mentioned earlier in this report, a complete analysis of feedback from the relevant constituencies COPRAS aims to address, and an elaborative assessment of the project's impact will not be possible until the execution of the Standardization Action Plans has been completed, and the Generic Guidelines have actually been used by research projects. This will not be possible until COPRAS reaches the end of its lifespan, late 2006, and it is producing the final Evaluation Report (deliverable D28). The following sections however aim to give an impression of the feedback received so far from three groups of stakeholders.

4.1 IST project community

COPRAS has presented its objectives and results to many different segments of the IST research community and has received overall a positive response to its initiative, specifically because the issues it had identified were well recognized. As a result, the selected projects were overall enthusiastic with respect to setting up cooperation with COPRAS. Moreover, the development of a set of Generic Guidelines for IST projects seeking to interface with standardization was welcomed, as it may support to solve at least part of these issues.

Despite the initial positive response, additional issues were however raised as well, that have not (yet) been addressed by COPRAS, some of which are:

- There are currently no generic tools or mechanisms available to determine whether there are standards and/or standards organizations available or active in the specific area an IST research project is addressing

- Although the ‘standardization gap’ between the end of a project’s lifespan and the availability of its output as standards can be shortened by COPRAS, it will not disappear completely and additional means will remain necessary to bridge this gap
- Additional ways of identifying requirements from standards organizations to IST research at an early point in time could greatly improve the standardization-potential of research output.

The positive response from the project community is regarded as a good basis for COPRAS to achieve the impact it set out to generate. This could possibly be improved by addressing some of the additional issues raised by projects. It will have to be addressed to which extent this is possible.

4.2 Commission Project Officers

Feedback from several Units in DG INFSO and from many Project Officers has been very positive. COPRAS was invited several times to present its objectives and results at events organized for specific Strategic Objectives; also the vast majority of Units in DG INFSO overseeing the Strategic Objectives in Calls 4 and 5 have been very supportive in distributing the Generic Guidelines and accompanying brochure to projects and/or project consortia in these Calls.

Although a more detailed assessment will be necessary to confirm this, COPRAS believes that its intensive promotional strategy towards individual Strategic Objectives and hence also towards Commission Project Officers, has influenced cooperation with the Commission positively, and has also created more awareness of the importance of the link between IST research and standardization among these Project Officers.

4.3 Standards community

Although the standards community has not been as much involved in COPRAS’ promotional strategy during the first half of its lifespan as the research community, positive response was received, for example from several ICTSB coordination groups such as the SHSSG³ and the DATSCG⁴, as well as from several Workshops, Forums or Technical Committees within the COPRAS consortium partners. In several cases this has also led to intensified interaction between (groups of) research projects and standards bodies (i.e. beyond the scope of their cooperation with COPRAS).

The main feedback from the standards community is however expected to focus on the quality and quantity of the input received from research projects and the overall cooperation with these projects. Although it will not be able to address these issues until the end of the project, COPRAS has good faith, taking into account the initial positive response and the first experience with respect to the execution of the Standardization Action Plans, that it will be able to retrieve the feedback it needs.

5 Conclusions & recommendations

When mapping the quantitative and qualitative results COPRAS has managed to achieve so far against the targets it set at the start of the project, it can be concluded that it has been able to achieve the goals it has set for the first half of its lifespan. This has also been the result of an intensive promotional strategy that managed to generate more attention among a number of COPRAS’ constituencies, for issues concerning interfacing between standardization and research.

The good results of the first half of the project’s lifespan provide COPRAS with a good starting position to achieve the goals for the second half as well. Nevertheless, there are a number of aspects that will still have to be evaluated, and should be addressed towards the end of the project, when the necessary results will be available:

- A quantitative assessment of the number of contributions made to a standardization-related activity in Europe or elsewhere, and of a number of such contributions taken into account by the standards groups concerned.

³ Smart House Standards Steering Group

⁴ Design for All & Assistive Technologies Standardization Co-ordination Group

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- A qualitative assessment by standards groups of the input made to their processes, assessing the quality of the input from the COPRAS Programme projects;
- A qualitative assessment by the projects that cooperated with COPRAS of the benefits achieved from their links with the standards process.

During the course of the second half of the project, COPRAS will have to define (and if necessary develop) the tools and mechanisms to perform these analysis.

In addition, there are a number of additional issues that could be addressed by COPRAS during the second half of its lifespan, possibly as a part of transforming its Generic Guidelines for IST research projects interfacing with ICT standards organizations into an (interactive) platform, or possibly as part of other activities. Amongst these are:

- Better means for research projects to identify the right standards and standards bodies;
- Better means of closing the ‘standardization gap’ at the end of a project’s lifespan;
- Better means of synchronizing standards organizations requirements with research projects’ standardization objectives.

Options for addressing these issues during the second half of the COPRAS’ project will have to be further addressed.