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| page 1 of 16 |

Terms of Reference - Specialist Task Force

STF BU (TC HF)

User-centred terminology for existing and upcoming ICT devices, services and applications

Summary information

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| Source | Technical Proposal SA/ETSI/ENTR/000/2016-03 |
| Funding | **Maximum budget: 185 938,5 €** |
| Time scale | 24 months duration |
| Work Item | DEG/HF-00138 “User-centred terminology for existing and upcoming devices and services” |

Part I – Policy relevance

# Policy relevance

The first of the areas for action in COM(2010) 636 (the "European Disability Strategy 2010-2020") is accessibility which it defines as meaning that:

"people with disabilities have access, on an equal basis with others, to the physical environment, transportation, information and communications technologies and systems (ICT), and other facilities and services."

Effective access to ICT will depend on the user being able to understand all of the features (such as the controls and capabilities) of the products and services that are required in order to operate it. In order to discover and understand these features, a user must first identify and recognize them. The names of these features will be a primary means by which a user can recognize and understand them.

If product and service features are poorly named, or if a familiar feature is named differently to the way that a user has previously encountered that feature, the user is likely to fail to recognize and understand it. If users fail to recognize and understand it, they are unlikely to be able to use it effectively. Learning to use ICT will always require a user to identify and then memorize the names of the various product features. This will always be a significant task for all users, but for older users and users with learning or intellectual disabilities this initial memorization task will be more challenging than for other users.

Having terms that have clear and well understood meanings will aid this initial memorization task. However, if the terms for features are different from product to product, users will need to learn that multiple terms refer to the same underlying feature and will need to understand which name is used on which product (or in the worst case in different parts of the same product). This additional complexity will disproportionally disadvantage those older users and users with learning or intellectual disabilities who have impaired memory and comprehension abilities.

The first of the “Proposed new standardisation actions” that is listed in the "(D.1) Standards developments section” of the "3.2.3. Accessibility and Web Accessibility of ICT products and services" topic in the "Rolling plan for ICT standardisation (2016)” exactly addresses the issues described above. It states that:

**Action1:** to produce a guide on user-centred terminology for all potential users in several EU languages, focusing on the benefits for those with learning and cognitive impairments.

It further goes on to say that:

"The preponderance of different names for the same ICT features and functions is confusing for all people, but this can be a significantly more important problem for older users or users with learning and cognitive disabilities. This has a negative impact on individual citizens and on the size of the ICT market. The development of a guide on user-centred terminology common and easy terminology in several EU languages for existing and upcoming devices and services would provide benefits for all potential users, but would greatly benefit older users and users with learning and cognitive impairments who are currently partly excluded from benefitting from the use of modern ICT."

An important tool to deliver the European Commission's accessibility strategy is the European standard EN 301 549 "Accessibility requirements suitable for public procurement of ICT products and services in Europe". This contains an important requirement (9.2.3.2 Consistent identification) that states that "Components that have the same functionality within a set of Web pages are identified consistently". In scenarios such as a set of Web pages that provide a user guide to a multi-supplier ICT system, it will be impossible to meet this requirement (and provide comprehensible user instructions) without major content re-writing unless the suppliers all use a consistent set of terms to describe the same functions.

Removing or reducing ICT terminology confusion would be beneficial for all and would remove a barrier to the effective usage of ICT for older users or users with learning and cognitive disabilities. The removal of this barrier would be one step towards meeting the aims of the UN Convention of the Rights of Persons with Disabilities (UNCRPD) and of any future European Accessibility Act with regard to these groups of ICT users.

This proposed action directly addresses all of the issues from the "Rolling plan for ICT standardisation (2016)”. Identifying the terminology to be used in the user interface of devices and services as well as of mobile and web applications, in internal documentations, in advertising and in user education materials such as user guides (including instructions on how to connect to the Internet) requires considerable efforts that do not translate into higher sales. A harmonised terminology of ICT user experience device and service features across device manufacturers and service providers reduces the need for each individual player to invest costs for defining terms, ensures a consistent terminology within each company while at the same time increasing interoperability (of particular importance for service providers whose customers use several different devices).

COM(2010) 245 "A Digital Agenda for Europe", section 2.2. "Interoperability and standards" states that:

"We need effective interoperability between IT products and services to build a truly digital society."

Whereas this talks exclusively about interoperation between technical systems, the ability of a person to be able to effectively interoperate with a range of different products and services is equally important and can only be achieved if people recognize and understand the terminology that describes the functionality of those products and services. Greater use of a standardized set of user terms among diverse products and services is one way to achieve this human-centred interoperability.

In section 2.2.2 "Promoting better use of standards", COM(2010) 245 talks of "selecting standards which can be implemented by all interested suppliers, allowing for more competition and reduced risk of lock-in" in the context of publicly procured ICT. If all suppliers adhered to a common set of terms for core functionality, lock-in due to user familiarity with proprietary terms for these functions would be eliminated or reduced.

In 2.6.1, "Digital literacy and skills", COM(2010) 245 states that:

"It is essential to educate European citizens to use ICT and digital media."

If all ICT and digital media use different terms for the same functions, the task of providing general digital literacy and skills will be greatly reduced as the knowledge and skills that were taught on the basis of one terminology set used by a certain range of ICT could not be directly applied to the use of ICT that utilises different terminology to describe the same functionality.

Being able to transfer the learning to different contexts would become increasingly dependent on the breadth and magnitude of the differences in terminology used between different ICT. COM(2010) 245 recognizes that low digital literacy and skills are particular problems for people aged 65 to 74 years old. It would be precisely this group that would find it particularly hard to understand how different terms used in different ICT were sometimes describing the same thing and at other times describing completely different functions. This would also be a significant problem for elderly people, who often are not familiar with novel device and service concepts and features and who are more easily confused by diverging terms for identical features (often in a foreign technical jargon), and, of course, for people with cognitive impairments, to whom ICT offers an excellent potential for increasing their quality of life and individual safety.

A higher level of interoperability, therefore, benefits manufacturers and service providers as well as end users who will be able to switch devices or services more easily, clearly understanding what they subscribe to and what to expect.

# Rationale

Work that included the topic of user-centred terminology was started by ETSI TC Human Factors in 2002 and EG 202 132 (“Guidelines for generic user interface elements for mobile terminals and services”), that recorded the terminology terms in English, was published in 2004. A new work item DEG/HF-00138 has been created in order to produce an ETSI Guide that extends the terminology work that was initiated in EG 201 132 to:

* bring the set of functions up-to-date with new features/services including mobile and web-based applications, as well the setting-up of and access to the Internet;
* extend the terminologies to include tables in more languages (the proposed set of languages are English, French, German, Italian and Spanish with more languages added later in a possible revision of the ETSI Guide);
* initiate the work within the framework of an STF with close co-operation with industry and other key players.

These tasks identified in the work item are those that are the subject of the proposed action.

The functions that should be covered are the basic ICT features, as described in text books and standards (e.g. call forwarding, storing options for mails and photos), and not the latest product-specific specialist features that are the hot new innovative marketing features of the latest models (e.g. Microsoft’s Cortana). The proposed work builds on previous ETSI deliverables (see clause 5.4).

Ongoing work on identifying how mobile technologies can benefit persons with cognitive impairments (under EC/EFTA Contract: SA/ETSI/ENTR/000/2014-10) will recommend that ICT terminology should be used in a consistent way. ICT suppliers will have difficulty following this guidance if they do not know what terminology they should be consistent with. By adopting the terminology produced by the proposed action, ICT suppliers will have a guaranteed way to know that they have done all that they can to minimise terminology confusion for persons with cognitive disabilities.

# Objective

Terminology deals with terms and their use (a term is a name for an object). In most cases, the terms used for everyday objects have developed over the centuries and are taught to children as some of the words that make up their mother tongue. Problems arise when new objects (e.g. new ICT services or device functionalities) are given names that are not self-explanatory or immediately understood. The situation gets worse when different manufacturers or service providers use different terms for identical functionalities. This hampers the detection and uptake of those features and functionalities and hinders an easy migration of users between terminals and services of different providers.

The aim of the proposed action is to formulate a set of language-specific terminologies for the basic ICT features commonly used across a range of ICT and to publish the recommended terminologies in the form of an ETSI Guide (EG). An ETSI Guide is preferred to a Standard due to the need to gain acceptance after experience with its application. Wide acceptance by relevant stakeholders may lead to a later transition into an ETSI Standard.

Simple dictionary-based translation of the terms used for ICT functions from one language to another will not produce optimum results and will, in some cases, lead to the use of terms that are confusing or ridiculous (the user instructions of some products produced in East Asia are a legendary example of how such dictionary translations can produce incomprehensible and sometimes comical results).

The proposed action would be carried out in two major ways:

1. desktop work using a range of available sources identified by the STF and provided through interaction with the reference group (e.g. manuals, standards, text books);
2. interaction with localised domain experts. The linguistic knowledge and skills of these localised domain experts will be used to assist the STF in building appropriate terms in each language for that language terminology set.

The results of the proposed action will cover terminologies in five major European languages (English, French, German, Italian, and Spanish). Subsequent versions may cover further European languages. The approach of starting with a limited number of large languages and widening the range of languages covered has previously been successfully employed for ES 202 130, on character repertoires and keypad assignments and for ES 202 076, for spoken command vocabularies. The subsequent work on additional language terminologies will either be based on voluntary contributions, or on a future ETSI STF.

As well as the linguistic support provided by the language-specific domain-experts, the STF will be further supported by means of a “Reference Group” (an approach that has proved useful in previous standardization actions including industry and others such as representatives of organisations for people with cognitive impairments using contacts available from the activity of STF 488). Within this reference group, there should be at least one representative for each language covered.

The intention of the proposed action is to converge on a set of terms that are commonly supported in a wide range of ICT contexts and systems. In doing this, the number of cases will be minimized in which suppliers or operators will need to change their current terminology.

The ideal situation would be for all of the key ICT market players to agree a common set of ICT functions and to also agree that they are prepared to endorse and then use the terms identified in the proposed action. Given the market dominance of the major software platform providers, they may not be willing to change all of the terms that they currently use in order to conform to the proposed ETSI Guide (EG). In order to maximize the impact of the proposed action the aim will be to work towards a hierarchy of actions related to the terminology used by ICT suppliers. In order of preference, the desired outcomes are that the supplier will either:

* change all of the terminology used across their entire portfolio to align with the terminology in the EG;
* change most of the terminology used across their entire portfolio to align with the terminology in the EG but persist with using alternative terms to describe some functions for which a standard term exists with the EG (e.g. because the supplier believes that their user-base would be confused by a change in the terms used to describe important and commonly used functions);
* to agree to change some terms used in their product portfolio and identify how the other functions map to the functions used in the EG. Although this would result in the use of terms that differ from those identified in the EG, it would allow operators that offer these devices to their customers to produce user documentation that can clarify the meaning of the functions to its users, potentially identifying the two alternative descriptions for the same function.

During 2002 to 2004, mobile telephone equipment providers and mobile operators who were closely involved in the development of the EG 202 132 guide on “Guidelines for generic user interface elements for mobile terminals and services” were very happy to support the second option regarding those aspects of the user interface of their products and services that were defined in the guide.

It is hoped that the key ICT market players today would also understand that the second option gives them a very good overall outcome. It allows them to preserve those few aspects of terminology that they feel are most important to their customers whilst attracting new customers by making it easier for them to migrate to their products without having to re-learn a whole set of new names for familiar features.

# Market impact

When earlier work in the area of terminology was commenced the ICT marketplace, and the telecommunications market in particular, was very different to what it is today. At that time the market was dominated by a small number of major handset manufacturers, each with their own proprietary user interfaces. Mobile operators offered handsets from these manufacturers and the experience that they provided to their customers was significantly impacted by the terminology used within the handset and its accompanying user documentation.

The current marketplace has now changed so that mobile operators offer products from a much larger range of device manufacturers. However, the core functionality of these various devices is determined by the capabilities of the underlying software platforms and there are now a very small number of dominant platform providers.

Many widely used ICT applications relied upon by end-users, are developed by developers working within a wide range of large and small software development companies. The availability of a set of multi-language terminologies for the basic commonly used ICT features will be a highly valuable resource for these application developers in order to help them make their applications more usable and more readily accepted by users familiar with the common terms. In particular, manufacturers and service providers save resources otherwise to be invested in (a) selecting terms and implement them in prototypes, (b) usability testing and, depending on the results, re-designing the interface based on different terms, (c) updating user guides and other reference materials issued to end users, ensuring a consistent terminology, and (d) providing a clearer and easy-to-understand marketing message. In addition, they reduce the risk of market failure of products that don’t meet user acceptance due to misunderstandings from the user side.

The multiple language terminologies will also enable them to more easily offer their applications in a range of different languages as many of the terms that they need to use will already be provided for them. The ready availability of these terms in a range of languages will significantly reduce the time and costs incurred in localizing their applications to those languages.

Those organizations that supply ICT to users (whether they be commercial mobile service operators or companies supplying devices to their users) wish to have the freedom to offer a wide range of applications and devices to their users and to allow those users to easily operate these applications devices without having to learn a set of unfamiliar terms to describe functions that they were previously able to use.

This action will make it very much easier for organizations that provide ICT to users to acquire that ICT from a range of suppliers without risking users becoming confused because of the diversity of terminology used on products from different suppliers.

This action would also allow organizations that offer ICT from multiple suppliers to offer user documentation that requires the minimum of adaptation to take account of the subset of functions that do not conform to the terminology specified by the EG. This should significantly reduce costs where an organization wishes to support a diverse range of ICT from multiple suppliers.

In addition, harmonised terms will support existing and emerging eServices for older and/or disabled users and citizens. This will help them to enhance e-Inclusion by increasing the range of people who are able to effectively utilise solutions by understanding and recognising the meaning of offered features and services and developing realistic expectations about the outcome of the use of those features.

Part II - Execution of the work

# Working method/approach

## Specialist Task Force (STF)

ETSI will perform this work with the support of an ETSI STF, reporting the milestones to the ETSI Human Factors Technical Committee (TC HF), according to the planned TC HF meeting agenda (to be planned in more detail) and additional dates agreed by the HF chairman. TC HF will take an active role in steering and contributing to this work.

The technical content will be developed through consultation with stakeholders, workshops, and desk-based research.

In the context of this proposal relevant stakeholders to be consulted are:

* Equipment manufacturers and service providers. They are expected to implement the resulting terminologies in their products and services (see section 7 for further details).
* A selection of companies that have in the past been successfully involved in HF STF work, as well as the current market leaders. Those include Samsung, T-Mobile, Vodafone, Telenor, Apple, Google and others (directly, or through a subsidiary such as, for example, Motorola Mobility to Google).
* Organisations representing consumers (ANEC), disabled and/or elderly users (EAO, EDF),
* Public authorities, industry organizations.
* Additionally, the STF will also invite players that haven’t been involved so far in HF STF work and that address the markets covered by the selected languages.

In particular, the STF will:

* co-ordinate all activities of the STF team, the co-operation partners and the stakeholders to ensure the creation of high-quality terminologies that are accepted and taken up by the various commercial stakeholders;
* co-ordinate work sessions with the members of TC HF in order to present (interim) results and to collect and accommodate their input;
* update the list of terms from EG 202 132 to include terms for current and forthcoming device and service features;
* identify academic and/or commercial co-operation partners who cover the target languages English, French, German, Italian and Spanish;
* develop with the co-operation partners a methodology for collecting terms for each of the concepts covered (e.g. from technical standards and handbooks from device manufacturers and service providers);
* develop with the co-operation partners a methodology for selecting proposed terms for inclusion in the EG;
* create the EG with recommended terms in five languages and recommendations on terminology management for user education;
* conduct workshops and other dissemination activities with relevant stakeholders in order to seek guidance and input and ensure the uptake of the recommended terms (see task 4 in section 7 of this proposal).

## Other interested actors

Co-ordination with various stakeholders, including user representatives as well as standards organizations (ISO/IEC CEN/Cenelec, ITU) and possibly other international projects will be necessary to achieve the best outcome of this work.

Stakeholders will be encouraged to provide comments on the EG, either as members of a “Reference Group”, at meetings and events or by e-mails. The Reference Group is a selected number of company representatives and other identified stakeholders with know how in the area of user interface design and localization. Their input and advice needs to be complemented by the input from other stakeholders (user group representatives, etc.) The Reference Group will be set up in the initial phases of the project for a first consulting activity prior to Milestone A in the work plan below.

Drafts of the EG will be made publicly available at the STF portal page at a number of stages throughout its development when agreed by TC HF.

## Expertise required (qualification, mix of skills, etc.)

The STF work will be performed by service providers with the mix of competence required to achieve the proposed action. It is recommended that the work is shared between different providers, to ensure the necessary diversity of competence (indicatively up to 4 contractors). The STF Leader will be nominated from one of the service providers, which will be responsible for the consolidation of the documentation, coordination the STF activities and the provision of the required progress reports to TC HF and of the Interim and Final Reports to EC/EFTA.

Applicants must provide the following mix of expertise:

* For the STF leadership, a proven record of standards project delivery, strong knowledge of project management, report writing, consensus building, presentation skills,
* Human Factors experience in working with intelligent communications networks, ICT user interfaces, accessibility of fixed-network and mobile communication;
* Specific expertise in the area of user experience design, technologies and innovations;
* Specific expertise in the area of current and forthcoming ICT technologies and eServices;
* Specific expertise in the area of Design for All (requirements of elderly and/or disabled people and technical solutions for addressing those);
* Specific expertise in linguistic and/or foreign-languages skills and experience;
* Experience of working in the international environment.

## Previous ETSI work

This proposed action will build on a number of other results from TC HF and, furthermore, relevant input is expected from other standardisation institutions such as ISO and the ITU-T. Of the ETSI TC HF work, the following will be used:

**ETSI EG 202 132: “**Human Factors (HF); User Interfaces; Guidelines for generic user interface elements for mobile terminals and services” took the study results in **ETSI TR 102 125** and created a list of harmonized user interface components for 2G device, service and application interfaces. The list of proposed terms (English language only) is an important starting point for the proposed action.

**ETSI TR 102 125:** “Human Factors (HF); Potential harmonized UI elements for mobile terminals and services” identified potential areas for harmonization efforts in mobile user interfaces. The areas identified in this report were further developed in **ETSI EG 202 132** and the technical report provides clear guidance for the identification of relevant technical areas to be considered in the proposed action.

**ETSI EG 202 416: “**Human Factors (HF); User Interfaces; Setup procedure design guidelines for mobile terminals and services” and **ETSI EG 202 417** “Human Factors (HF); User education guidelines for mobile terminals and services” dealt with educational and setup aspects of user interfaces to mobile devices, services and applications and provide important groundwork for the proposed action.

**ETSI EG 202 417:** “Human Factors (HF); User Interfaces; User education guidelines for mobile terminals and eService” provides a conceptual framework for instructing users about the operation of telecommunications terminals and services. This conceptual framework will be taken into account when deciding how to organise and present the terms that result from the proposed action.

**ETSI TR 102 972:** “Human Factors (HF); User Interfaces; Generic user interface elements for 3G/UMTS mobile devices, services and applications” deals with extending the work done in EG 202 132 towards 3 G devices, mobile services and applications. This extended list of proposed terms will form the initial basis for the terms to be considered in the proposed action.

# Performance indicators

Co-ordination and co-operation will be done with the stakeholders (see section 4). A Reference Group of stakeholders will be established for more intensive feedback and co-operation. Those stakeholders will include device manufacturers, service providers, application developers, and accessibility experts. STF communications and promotion to these stakeholders will be done by different means such as:

* Presentations to various groups or stakeholders;
* Provision of information on the STF Web page to stakeholders about STF activities, and the availability of the most current drafts for comments;
* e-mails to group of stakeholders, often before and after stakeholder events;
* At least one workshop with the Reference Group and other stakeholders.

As required by any specific agreement, ETSI will provide information in relation to the above that will act as performance indicators against this activity in the following cases:

Effectiveness and efficiency:

The proposed action will be effective if it is able to provide the developers, manufacturers and suppliers of ICT products and services with a set of recommended terms for existing and forthcoming features thereby saving them resources for developing and maintaining their own sets of terms and ensuring knowledge transfer of new customers (see Clause 4 on the potential benefits of harmonised terminologies for manufacturers and service providers).

Proposed benchmarks

* The availability on schedule of a published list in five languages of recommended terms for terminal and services features (core contents of the EG);
* In order to demonstrate that Industry accepts that the recommended terms are useful and that they would be applicable to a wide range of existing and future technological developments, it will be necessary to show that:
  + at least one significant supplier of a range of ICT products and/or services or a global service provider indicates its agreement to change most of the terminology used across their entire portfolio to align with the terminology in the EG but persist with using alternative terms to describe some functions for which a standard term exists in the EG, e.g. because the supplier believes that their user-base would be confused by a change in the terms used to describe important and commonly used functions;
  + at least one organization that supplies diverse ICT solutions to users states that it supports the proposed EG as a means that they could use to organize the terminology to be used in user documentation;
* 90% of the tasks and other milestone related schedules should be met on time;
* Four draft versions of the document announced and promoted to TC HF and other stakeholders.

Stakeholder engagement:

An analysis will be given of the balance of the stakeholder representation in the activity and the number of liaison activities performed (especially at the international level). The stakeholders that will be of most relevance to this activity are ICT manufacturers and service providers.

As is done already in some ongoing STFs, a “Stakeholder Issue Register” in a form that all comments received (and from who/which organisation) on the drafts as they progress will be recorded along with whether or not a comment or proposal was agreed, how they were implemented into the deliverables and reasons and justifications for potential rejections. This will allow information on the level of involvement, as well as a picture from which sectors the involvement came, to be provided (e.g. individual members of organisations representing disabled and/or elderly users (EAO, EDF), public authorities, industry organizations, consumers (ANEC), network operators, etc.).

The effectiveness of this stakeholder engagement will also be measured by the participation of these bodies in meetings with those carrying out the proposed work and in the satisfaction with the approach taken to progress the work (e.g. measured through interviews, surveys or questionnaires).

Proposed benchmarks

* Representatives of all of the categories of stakeholders outlined above being actively involved in discussing and reviewing the work being undertaken – as evidenced by the “Stakeholder Issue Register” database. A minimum of two stakeholder consultation meetings (at least one of which should be a face-to-face meeting) is envisaged, one at the beginning of the project to ensure stakeholder buy in, and one as a review meeting collecting comments on a first stable draft. Stakeholders are expected to comment on the inventory of terms covered by the EG as well as on individual terms specified in the various target languages.
* 6 meetings outside of ETSI Human Factors attended for requirements and input collection from various sources.
* At least one workshop with the Reference Group and other stakeholders.

Dissemination of results:

Information will be provided that records the number of actions performed to disseminate the output and efforts to further raise the awareness of the activity. Information on the efforts to downstream this work prior to publication will be provided.

Proposed benchmarks

* 3 contributions made to appropriate standards bodies identifying the issues identified by the STF.
* Dissemination of at least two draft terminology proposals to industry experts for comment (in line with the project timeline).
* At least one press release on the work, detailing the achievement of important results and milestones.

Impact:

Efforts will be made to provide information on the satisfaction of the stakeholders with the work activity. This also includes comments received during the progress of the work, as indicated above. Comments on the impact of the final draft will not be possible as the STF will be closed at approximately the same time as the final deliverable is published.

Proposed benchmarks

* Confirmation from the principle stakeholders that the STF has taken an appropriate approach to the work at the stage of early drafting, prior to achieving Milestone A of the work plan below

# Work plan, milestones and deliverables

## Deliverable

The STF will develop an **ETSI Guide (EG)** as their main deliverable that will contain the terminology in five languages of telecommunications device and service functions:

* DEG/HF-00138 “User-centred terminology for existing and upcoming devices and services”

The deliverable will be an ETSI Guide that will take the terminology list that was contained in EG 202 132 as a starting point and will develop the terminology to include relevant terms for upcoming device and service features and will extend the list to include the five most important EU and EFTA languages (English, French, German, Italian, and Spanish). The scope of the EG will be limited to general and generic terms and will not, in any way, prevent manufacturers and service operators from introducing specific and/or proprietary terms for special or unique features that they wish to offer.

The structure of the deliverable will reflect the following issues addressed by the proposed work:

* + **Analysis;** Review and update of the terminology list included in EG 202 132 to reflect present and upcoming service and device features, including a description of the methodology used for selecting the features covered by the EG.
  + **Definition of concepts and terms;** this section of the EG will define and explain all concepts covered by the document in order to reduce ambiguities.
  + **List of terms;** this main corpus of the document will list the recommended terminologies in the five languages covered. This part of the work will be conducted in close co-operation with linguistic and/or domain experts who are native speakers of one of the languages covered. Each STF member will be responsible for the development of the terms in up to two languages.
  + **Terminology management;** this final section will give guidance on processes and tools for ensuring a consistent terminology throughout the supply and value chain of a device manufacturer or service provider in order to comply with the EG and to facilitate the uptake of the company’s products and services by the end users.

The EG will be published 24 months after the start of the action.

The following reports will be submitted to the EC/EFTA:

* Interim report will be submitted at the latest 15 months after the date of signature.
* Final report will be submitted at the latest 24 months after the date of signature.

## 

## Work plan

ETSI will perform this work by the creation of an ETSI STF reporting the milestones to the ETSI Human Factors Technical Committee (TC HF) according to the planned TC HF meeting agenda (to be planned in more detail) and additional dates agreed by the TC HF chairman. The technical content will be developed through consultation, workshops, studies and desk-based research. Stakeholders will be encouraged to provide comments and input to the ETSI deliverables, either at various meetings and events or by e-mails. The draft ETSI deliverables will be made publicly available at the ETSI STF portal page at key stages of their development.

The following tasks are expected and estimated (more precise content and resources assigned will be specified when the STF is established). The STF work will include the following ten tasks:

Task 1: Establish the STF team, 2 months after the date of action grant signature (S + 2).

Task 2: Start-up activities, (S + 3 to S + 5)

Task 3: Research and analysis will continue until the final drafts have been approved by ETSI TC HF (Task 9) (S + 3 to S + 20).

Task 4: Consultation and dissemination activities will continue until the final drafts have been approved by ETSI TC HF (Task 9) (S + 4 to S + 20).

Task 5: Table of contents and scope of EG (S + 4 to S + 6).

Task 6: Initial draft of EG (S + 7 to S + 10).

Task 7: Interim Report to EC/EFTA, (S + 15).

Task 8: Workshop and stable drafts (S + 11 to S + 16).

Task 9: Final drafts to be submitted to TC HF (S + 20).

Task 10 Membership Vote for ETSI EG, its adoption and publication. Conclusions and Final Report to EC/EFTA (S + 24).

Task 11: Coordination with the responsible Technical Body

The following table illustrates the expected tasks. The milestones (MS) are tentative as they depend upon future decisions about the scheduling of the TC HF meetings, to which these milestones will be reported.

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|  | **Month** | | | | | | | | | | | | | | | | | | | | | | | |
| **Task** | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 1. Establish STF team |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2. Start-up activities |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3.Research,  analysis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4.Consultation,  dissemination |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5.Table of contents, scope |  |  |  |  | MS  A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 6.Initial draft |  |  |  |  |  |  |  |  | MS B |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 7. Interim Report to EC/EFTA |  |  |  |  |  |  |  |  |  |  |  |  |  | MS D |  |  |  |  |  |  |  |  |  |
| 8.Workshop, stable drafts |  |  |  |  |  |  |  |  |  |  |  |  |  |  | MS  F |  |  |  |  |  |  |  |  |
| 9.Final drafts |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | MS  G |  |  |  |  |
| 10.Conclusions, Published EG & Final Report to EC/EFTA |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | MS  I |
| Task 11: Coordination with TB |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Further details on the proposed tasks are provided below:

Task 1: Establish the STF project

The required technical expertise will be recruited following the ETSI procedures to participate in the STF and the allocation of resources and tasks will be agreed.

Task 2: Start-up activities

The work of the STF will be initiated at the first STF meeting, along with the development and agreement of a plan to provide the delivery required from this STF by this proposal. Relevant input such as available standards, recommendations, published research and reports on ongoing studies and relevant stakeholders will be identified. A publicly available web page will be created and published via the ETSI Portal. The web page will provide information on the STF’s goals, the team, contact information, time plan and further details of the work, together with the work plan covering milestones. The draft ETSI deliverables will be available for comments and input, at the STF website.

Task 3: Research and analysis (Continuous)

The latest version of the ETSI deliverable will be reviewed and approved at each milestone presented at the meetings of TC HF, the ETSI Committee steering the work, and input from the Committee on changes required to the general approach and the draft document will be collected. The proposed action will be carried out in two major ways: (a) desktop work using a range of available sources identified by the STF and provided through interaction with the Reference Group (e.g. manuals, standards, text books); (b) interaction with localised domain experts. These domain experts comprise translators for user guides, usability experts from different countries as well as user interface designers who are fluent in one or more of the languages addressed. The linguistic knowledge and skills of these localised domain experts will be used to assist the STF in selecting appropriate terms in each language for that language terminology set. In addition to the linguistic support provided by the language specific domain experts, the STF will be further supported by means of a Reference Group. Within this Reference Group, there should be at least one representative for each language covered.

The draft EG will require extensive analysis and consultation with language and domain experts throughout the runtime of the project. For this purpose, the exchange with public stakeholders (ANEC, EDF, etc.) and commercial stakeholders (device manufacturers and service providers) is of particular importance. It is foreseen that this phase will continue until the very late phases of the work and measures will be taken to ensure that late-incoming information will still be considered and, if relevant, included.

To achieve the results of this task up to three European travels per language addressed are planned, i.e. a maximum of 15 travels within Europe. It is planned to have as many of the meetings with outside experts as possible as internet-based meetings to reduce travel time and cost.

Task 4: Consultation and dissemination activities (Continuous)

Contacts and consultation with identified stakeholders will be important from early stages of the work as well as dissemination activities in later stages in order to ensure the best possible take up of the results. A Reference Group will be created with those stakeholders willing to get involved in a more detailed fashion. Views and requirements from various stakeholders such as user representatives (in particular those representing disabled users), manufacturers, service providers and national regulatory representatives will be collected. A contact list will be created and maintained so that interested parties can register their willingness to receive newsletters that report the progress of the work, give notification of events and highlight when new drafts are available for input and comment. Comments and input from stakeholders will be collected either face-to-face at various meetings and events or by e-mail. As dissemination activities in later stages of the work will be important in order to ensure excellent take-up of the results, the STF experts will be encouraged to present the results at relevant meetings and conferences. Details on the exact structure of the stakeholder group can be found in section 5.1 above.

Co-ordination and co-operation will be done with the stakeholders (see section 4). A Reference Group of stakeholders will be established for more intensive feedback and co-operation. Those stakeholders will include device manufacturers, service providers, application developers, and accessibility experts. STF communications and promotion to these stakeholders will be done by different means such as:

* Presentations to various groups or stakeholders;
* Provision of information on the STF Web page to stakeholders about STF activities, and the availability of the most current drafts for comments;
* e-mails to group of stakeholders, often before and after stakeholder events;
* At least one workshop with the Reference Group and other stakeholders.

In order to ensure the uptake of the solutions identified or developed during the course of this work the following activities are planned:

* One Workshop with representatives of user groups to raise awareness about the solutions proposed.
* Presentations to identified manufacturers of ICT devices and service providers to raise awareness and lobby for implementation activities through these companies.
* Presentation at relevant workshops and conferences (e.g. Mobile HCI, local HCI conferences in countries using the languages addressed) to discuss and improve the solutions developed.
* The development and carrying out of at least one survey/questionnaire to obtain opinions/views from stakeholders on the development/content of the Guide once the draft is stable.

In addition, stakeholders including the proposal evaluation committee will be invited to review the results of the analysis phase and to provide feedback for the remaining work phases. A workshop will be conducted for this purpose.

The effectiveness of this stakeholder engagement will be measured by the participation of these bodies in meetings with those carrying out the proposed work and in the satisfaction with the approach taken to progress the work (e.g. through interviews, surveys or questionnaires). Results of these evaluations will influence the ingoing activities within this Task 4.

For workshop and dissemination activities a number of European travels (up to 10) are planned.

Task 5: Prepare table of contents and scope

The STF will develop the first versions of the ETSI EG, which will contain a table of contents and scope. These will be reviewed and approved by ETSI TC HF.

At the end of Task 6 the stakeholder reference group must be clearly identified and the “Stakeholder Issue Register” must be defined and installed.

In a first workshop the approach will be presented to relevant stakeholders and confirmation from these stakeholders that the STF has taken an appropriate approach to the work at the stage of early drafting will be sought prior to Milestone A.

Task 6: Initial draft deliverable

An initial draft of the ETSI EG will be developed in this phase of the STF. This draft will contain a list of term concepts covered by the scope of the EG and draft terms in the five languages covered. The deliverables will be reviewed and approved by ETSI TC HF.

Task 7: Interim Report to EC/EFTA

An Interim Report to EC/EFTA on the progress and status of the work will be developed for submission to the EC/EFTA. This activity report will also provide the latest available draft of the ETSI EG, as well as information about the resource usage. The contents of the Interim Report must be coordinated with the responsible Technical Committee and the ETSI administration. One travel to a TC meeting will be required for this.

Task 8: Workshops and stable draft

At least two consultation and consensus workshops with stakeholders will be held with the main purpose of receiving comments about the general approach taken, the results of the analysis phase, and contents of the draft document. The first workshop will be held as soon as the initial draft is available. The second workshop will be held shortly before the stable draft is due for delivery. The location of these workshops is dependent on the availability of adequate meeting rooms at ETSI or some centrally located university or other standardization institute. Possibly members of the stakeholder group may be able to willing to host one or both workshops on their premises.

The deliverable will be updated according to the input from the workshops. The stable draft deliverable will be presented to the ETSI TC HF.

For two workshops travel of at least two experts per workshop is planned.

Task 9: Final draft deliverable

The draft will be developed with a number of draft versions which will be made publicly available on the STF website. This will allow stakeholders to provide their comments and input. After a number of iterations of the drafts, the STF will prepare the final draft version of the deliverable. The deliverable will be reviewed and approved by ETSI TC HF before being submitted for adoption via the ETSI Membership Vote process. This process will then last for 60 days and on adoption the ETSI Guide will be published.

Task 10: Conclusions and Final Reporting to EC/EFTA

The final draft deliverable will be submitted to TC HF for approval. Updates resulting from any comments received in this approval process will be made before sending the draft to the ETSI Secretariat for publication. The STF will also prepare the Final Report to EC/EFTA. The final publication version of the ETSI deliverable will be provided together with the Final Report and the necessary elements such as performance indicators and information about resources spent and costs.

Task 11: Coordination with the responsible Technical Body

The STF leader will represent the STF at all Technical Body meetings and present the results of the STF for TB approval during the duration of the STF. Overall, 6 TB meetings will be held during the project.

Travel to 6 HF meetings for one person is anticipated.

Part III: Financial part

# Financial provisions in the EC/EFTA contract

## Total action costs

The total action cost estimated for this action amounts to 185 938,5 € based on the lump sum of 630,30 € per unit and the requirement for 295 units to carry out the actions described. EFTA is to provide a 5% co-financing (9 296,92 €) and hence the EC contribution (95%) will be 176 641,58 €.

# Document history

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| --- | --- | --- | --- | --- |
|  | **Date** | **Author** | **Status** | **Comments** |
| 1.0 | 26-July-2017 | ETSI Secretariat | EC/EFTA & ETSI Board Approved |  |
| 1.1 | 27-July-2017 | ETSI Secretariat | EC/EFTA & ETSI Board Approved | Clean version for CfE |