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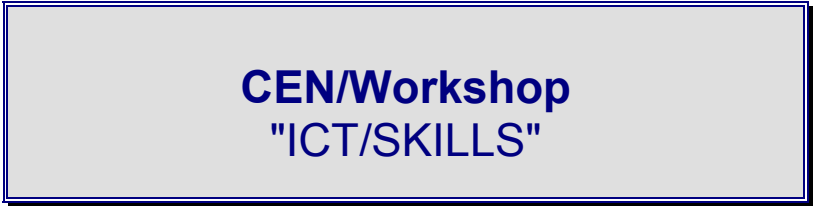
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Title: Call for experts:
eCompetence Framework in action

Source: Luc van den Berghe

Action: FYI

Distribution: Open

Association reconnue
d'utilité publique
Comité membre français
du CEN et de l'ISO
Siret 775 724 818 00015
Code NAF 751 E



European Committee for Standardization
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Europäisches Komitee für Normung

Brussels, 12 January 2009

CEN Workshop ICT-SKILLS European e-Competence Framework in Action

OPEN CALL FOR PROJECT TEAM EXPERTS

The “European e-Competence Framework in Action” project of the CEN Workshop on ICT-Skills has received EC/EFTA funding in the context of the 2008 ICT Standardization Work Programme. The project aims to develop and provide a complementary and interactive set of underpinning methods, solutions and tools that support the forthcoming European e-Competence Framework by further development, promotion, acceptance and maintenance.

Through this call for Project Team experts, CEN invites applications from experts who would like to work as a member of this Project Team. (Project Teams are, in CEN’s terminology, small teams of paid experts who execute specific tasks under the direction of a Workshop.) As described in the technical proposal, a Project Team composed of 1 project co-ordinator and 5 experts is required.

The Terms of Reference (ToR) of the Project Team are attached in **Annex I**. These ToR describe in more detail what is expected from this Project Team.

In **Annex II**, you will find attached the rules for the setting up and functioning of Project Teams in CEN. In line with these CEN general rules on the selection and appointment of the Project Team experts, the selection will be made by a selection panel whose composition for this Project Team will be

- Paolo Schgör, the Workshop Chair,
- Hubert Delafon, the Workshop vice-chair
- Luc Van den Berghe as representative of the CEN Secretary-General,
- and Philippe Magnabosco (AFNOR) who is the Workshop Secretary.

The reimbursement rate for accepted experts is 650 €/person day. Travel and lodging costs incurred in the context of this project are however not reimbursed. It is expected that a considerable part of the work can happen electronically.

Payments to Project Team experts are dependent on CEN having received the corresponding payments by the European Commission. In this particular case, the payment steps are: 20% upon signature, 30% at acceptance by EC of the Interim Report and the 50% remaining at the EC approval of the Final Report. Applicants have to know that the delay before CEN being in a position to issue the interim and final payment may be in the order of several months.

Interested candidate experts are kindly requested to send their **nominations by 9th February 2009, to Luc Van den Berghe**, Unit Manager at the CEN Innovation and Business Development Department (luc.vandenberghe@cen.eu), and **Philippe Magnabosco** (philippe.magnabosco@afnor.org), Workshop Secretary. Preferred method is by email, including



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a short Curriculum Vitae, and clarifying whether the application is to become project team leader or project expert.

Please note that companies can nominate their personnel, and also any individual may apply as a candidate expert (self-employed CONTRACTORS-EXPERTS: see **Annex III**).

We look forward to receiving your applications.

Yours sincerely,

Luc Van den Berghe,
Unit Manager
Innovation and Business Development



Terms of Reference for a Project Team on European e-Competence Framework in Action

The Project Team will report to the Workshop on ICT-Skills
(the “reference authority”)

Part I – Policy relevance and expected market impact

1. Objectives and deliverables

The prime objective of this proposal is to develop and provide a complementary and interactive set of underpinning methods, solutions and tools that support the forthcoming European e-Competence Framework by further development, promotion, acceptance and maintenance.

The proposal is made in the context of the “2008 ICT Standardisation Work Programme” where stakeholders are invited to further develop European standards in the field of ICT and e-business skills. It is based on the significant outcomes of the CWA 12345 “European e-Competence Framework”, elaborated by a large network of European ICT, HR and qualification stakeholders and experts and planned for autumn 2008.

To reach the prime objective described above, the supporting aims are:

1. **Maintenance of the European e-Competence Framework delivered in 2008** – In accordance with published framework experience and feedback:
 - a. Maintain and update dimension 2 and 3 competence descriptions
 - b. Identify further high value competences and add if required
2. **Further development of the European e-Competence Framework delivered in 2008** – The development of ‘Knowledge and skills’ associated with identified e-competences:
 - a. Determine and specify the way to relate knowledge and skills to the overall framework
 - b. Further elaboration and specification of framework dimension 4
3. **Promotion and increasing the acceptance of the European e-Competence Framework delivered in 2008 (Target group I: ICT industry, practitioners and managers, qualification and training)** – Identification of user focused approaches for print and online presentation of the framework and development of a technical solution:
 - a. Elaboration of a user focused framework navigation structure with easy guidance and pragmatic access to competences and skills descriptors
 - b. Development of a graphical design which can be used in reference material such as posters, documents and web pages



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- c. Development of a related online solution for implementation on appropriate websites

4. *Promotion and increasing the acceptance of the European e-Competence Framework delivered in 2008 (Target group II: Higher Education, science and research)* – Methodological documentation for scientific and/ or methodologically interested public

The development steps of the related deliverables and tools which are the subject of this proposal, are strongly related and mutually connected. The outcomes will ensure compatibility of the European e-Competence Framework with formal and non-formal ICT education and training, qualifications, certifications and essentially with the workplace competence requirements of ICT practitioners and managers.

The “European e-Competence Framework”, developed and established in the context of the CEN/ISSS Workshop on ICT Skills and supported by a large number of experts and stakeholders in ICT qualification development and HR management across Europe from 2006 – 2008, needs to be updated, maintained, made readily accessible and easily manageable. This will benefit a wide target group across Europe of ICT user and supply companies, the public sector, ICT practitioners, ICT managers, educational and social partners.

Addressing the aims described above, the following deliverables are planned:

1. The European e-Competence Framework – updated and maintained for version 2.0 to be published in May 2010
→ an updated framework with further validated and refined competence descriptions, including knowledge and skills components (also deliverable 2)
for CWA publication
2. The European e-Competence Framework – further developed in Dimension 4
→ The specification of Dimension 4: knowledge and skills as additional framework components
→ the linkages and connectivity with the overall framework to be established (integrated in deliverable 1)
→ specification of a set of knowledge and skills related to each e-Competence (this will not be exhaustive, but will provide guidance, orientation and inspiration)
for CWA publication
3. A daily user focused European e-Competence Framework promotion and acceptance Tool, consisting of
→ a user focused framework navigation structure with simple and pragmatic access to competences and skills descriptors
→ a graphical design in the form of a chart or schematic which can be used in reference material such as posters, documents and web pages. Use of consistent graphics and colour will provide a brand image to support marketing and promotion of the European e-Competence Framework.
→ Building on both, the graphical design and the navigation structure, an online solution will be developed and made available for implementation on appropriate websites (e.g. www.ecompetences.eu, forthcoming EU e-Skills and Career Portal)
for print and online implementation



4. A scientific public focused European e-Competence Framework methodological documentation
→ Underpinning methodological documentation of the framework outlining rationale for choices and decisions
for CWA publication

As described above, final deliverables will be documented and published in a CEN Workshop Agreement (CWA). Additionally, the user focused presentation e-Tool will be provided ready for online implementation onto an appropriate EU website.

The CWA planned for 2010 will build on the CWA planned for autumn 2008, by providing an updating and further development of the CWA 12345 agreement as well as new solutions, methods and tools for the Framework promotion and acceptance.

Summary of the outcomes/ deliverables planned:

- I.) The final CWA to be composed of:
 - A. The updated and further developed European e-Competence Framework version 2.0 (addressing deliverables 1 and 2)
 - B. A daily user-focused navigation structuring and graphical presentation of the Framework for print and online implementation (addressing deliverable 3)
 - C. A scientific public-focused methodological documentation of the framework underpinning definitions, choices and decisions (addressing deliverable 4)

A framework supporting e-navigation-tool as a technical solution for the most appropriate navigation method through the framework; to be implemented onto the European e-Skills and Career Portal and/ or www.ecompetences.eu (addressing deliverable 3)

The entire work will be backed and supported by a structured and sustainable communication procedure, taking into account the different target groups to be addressed for ensuring a multi-level working structure and a broad consensus process among the CEN/ISSS workshop plenary and further interested and relevant e-Skills stakeholders.

The deliverables of the project will be elaborated in close cooperation between all stakeholders involved, based on the first detailed analysis of problems and suggestions elaborated by the CEN nominated experts work, together with the expert working groups (EWG), the CEN/ISSS workshop Plenary and further interested stakeholders of the European e-Skills market.

Background note:

Initial development was based on the outcomes of a voluntary pilot pre phase activity carried out by framework stakeholders in 2006. This early work was founded on recommendations from the CEN workshop agreement N°15155 approved in February 2006 on “European ICT Skills Meta-Framework - State-of-the-Art Review, Clarification of the Realities, and Recommendations for Next Steps”.



The subsequent first consolidated version of the European e-Competence Framework was developed during 2007/ 2008 and is planned to be delivered to CEN workshop plenary for further discussion and approval in summer 2008. The related CWA 12345 is planned to be composed of

- The European e-Competence Framework v. 1.0 (First consolidated version):
The Framework is structured and provides content in 4 dimensions:
 - Dimension 1) 5 e-Competence areas derived from ICT business processes:
Plan – build – run – enable – manage
 - Dimension 2) reference ICT practitioner and manager competences for each area (34 in total): titles + generic descriptions
 - Dimension 3) level-specific reference amendments for each competence, on e-Competence levels 1-5, related to EQF 3-8
 - Dimension 4) knowledge and skills related to e-Competences, listed in some example

- User guidelines for the application of the European e-Competence Framework by the multistakeholder public

2. Rationale and policy relevance

2.1. Rationale and history

Discussions at the European e-Skills conference in September 2004 and at subsequent related conferences, workshops and meetings in 2005 established considerable interest and substantial support for the development of a European e-Competence Framework.

In parallel it became clear that the work of the CEN/ISSS Workshop on ICT Skills and its relevance to the current proposal of the European Commission for a European Qualifications Framework had generated significant interest from the ICT sector and IT professional labour market segment. At the high level, Budapest EQF-Consultation Conference in 2006 note was taken of the work done so far by the CEN/ISSS ICT Skills workshop and of the resulting progress made in this sector, which indicated a positive example for other economic or industry sectors (see Cedefop's virtual community on EQF).

The CWA 15515 on a European ICT-Skills Meta-Framework produced in 2005 offered a valuable description of current European activities in this area. It produced a detailed and pragmatic overview of existing approaches (in various Member States and in industry) and possible dimensions and purpose of an ICT skill Meta-Framework. The CWA 15515 also showed areas for continuing work by interested stakeholders in developing more generally usable frameworks and applying them.

Early in 2006, the framework stakeholders from AITTS (Germany), CIGREF (France) and SFIA (United Kingdom) met for a kick-off in Berlin, supported by representatives of large European companies, the European Commission and a research foundation.



During intensive follow-up, the group projected a programme of work towards a European e-Competence Framework under the umbrella of the CEN/ISSS workshop on ICT Skills. At the e-Skills Conference in 2006 in Thessaloniki, the initiative and early achievements were presented as a multistakeholder and European ICT sector driven effort.

In March 2007, a team of CEN nominated experts was established (Grant agreement for an action SA/CEN/ENTR/000/2006-37, funded by the European Commission, DG Enterprise and Industry) which started concrete work towards the framework. They were backed by the CEN/ISSS workshop plenary and supported by further interested and experienced HR and ICT representatives from European ICT stakeholders and Industry (both vendors and users), social partners, national ICT framework stakeholders, as well as ICT higher education, qualification and research.

The significant outcome of the work programme “Towards a European e-Competence Framework” according to the grant agreement for an action SA/CEN/ENTR/000/2006-37 is the European e-Competence Framework itself, providing for the first time Europe-wide agreed ICT practitioner and manager competences which can be used, understood and applied by all stakeholders involved across Europe.

2.2. Policy relevance

Building on this significant outcome, there is now the need to

- update, further develop and maintain the European e-Competence Framework
- promote and increase acceptance among ICT user and supply companies, the public sector, ICT practitioners and managers, political, educational and social partners.

This proposal is situated in the context of the 2008 ICT Standardisation work programme published by the European Commission where the need of further developing European standards in the field of ICT is especially emphasized (p. 15).

The European e-Competence Framework development is furthermore supported by the European Commission and the Council of Ministers ([Commission's Communication of 07.09.2007](#) and [Competitiveness Council Conclusions of 23.11.2007 on e-skills](#)).

Further relevant policy publications:

- Towards a long-term e-Skills Strategy in Europe: 30 March 2007
- CEN/WS ICT N003 2007-02-21
- eEurope 2005: e-Learning.
- European e-Skills 2006 Conference Declaration
- [e-Skills in Europe: Towards 2010 and Beyond](#): Synthesis report of the European e-Skills Forum presented at the European e-Skills Conference on 20-21 September 2004 in Thessalonica. [A Declaration](#) was adopted recognising that the way forward is through multi-stakeholder partnerships.
- [European e-Skills Summit Declaration](#): October 2002.

3. Market impact expected

It is essential to gaining Europe-wide acceptance that the e-Competence Framework is maintained, updated and promoted. The vision for a wide range of user focused approaches and



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services is based upon a reference framework of ICT competences that can be used and understood by ICT user and supply companies, the public sector, educational and social partners across Europe. The European e-Competence Framework meets this need and provides an international tool for:

- **ICT Practitioners and ICT Managers**, with clear guidelines for their competence development
- **HR Managers**, enabling the anticipation and planning of competence requirements
- **Education and Training**, enabling effective planning and design of ICT curricula

The framework facilitates links between national structures. It also provides a set of Europe wide ICT core competences which can be deployed without reference to national structures and is therefore of particular relevance to European member states without access to a national ICT competence structure.

The European e-Competence Framework structure associates competence with ICT work processes providing employers with a familiar reference point. In addition the European e-Competence Framework establishes reference linkage to the European Qualifications Framework ([EQF](#)) providing a European basis for benchmarking educational programmes aligned to effective personnel planning and development.

4. Stakeholders engagement

From the outset, the CEN Workshop community and the stakeholders who initiated the European e-Competence Framework development process in 2006 were aware that the creation and maintenance of an endorsed European Framework required the involvement of a wide group of interested parties and experts. This was proven during the pilot pre-phase carried out by stakeholders in 2006 as described in 2.1. and further extended during the work towards the first consolidated version of the Framework in 2007 and 2008. The key success factor in project initiation was the involvement of multiple countries, companies and stakeholders, and it remains central to future planning.

This proposal recognises the proven necessity to broaden engagement of European ICT sector players and stakeholders from business, politics and education and will embrace this approach as part of the working philosophy and strategy. At the political level it is important to gain the support of larger European multistakeholder partners.

In line with the proposal stated objectives (Section 1) the expert working group (EWG) will complement CEN stakeholders and CEN nominated experts engagement by adding the capability to address the following requirements.

- HR and IT management know-how from the European ICT industry
- Framework presentation know-how and framework user experience
- ICT qualification know-how coming from the public and the private sector

Part II- Execution of the work

1. Working method/approach

As described in Section I, the proposal is based on the outcomes of the CEN work 2007/2009 “Towards a European e-Competence Framework” published in CWA 12345. Its work programme is also linked to the ongoing outcomes of relevant European projects related to e-Skills, e.g. the Leonardo project ICT Lane carried out in 2006-2008 and the CEN projects 2008-2009 on Interoperability of European e-Career Services and e-Skills Certification. Close cooperation with the work towards a European e-Skills and Career Portal is also envisaged.

The work proposed aims to develop and provide a complementary and interactive set of underpinning methods, solutions and tools that support the European e-Competence Framework established in 2006 – 2008 in its further development, promotion, acceptance and maintenance.

The four issues the proposal concentrates on are strongly related and mutually connected; however each requires distinct working methods, approaches and expertise focuses as shown in the following table.

Issue	Methodology/ approach	Responsible	Cooperation needed/ resources involved	Publication of results
1. Update and maintain the European e-Competence Framework - Update (where needed) competence descriptions - Identify new meaningful competences and add more if required	<ul style="list-style-type: none"> collect and analyse feedback on the Framework published in 2008 expert meetings circulate the framework among further groups of stakeholders <ul style="list-style-type: none"> - identification of focus groups - online questionnaire - interviews 	<i>expert team</i>	<ul style="list-style-type: none"> CEN expert team EWG as experienced in phase 1 (EWG e-C) CEN WS plenary Interested stakeholders for larger feedback 	CWA: “European e-Competence Framework – Phase 2”
2. Further development of the Framework: Specification of Dimension 4 – Knowledge and skills	<ul style="list-style-type: none"> Interviews and focus groups with reference qualifications providers Expert meetings, focus on HE, VET, qualification and 	<i>expert team</i>	<ul style="list-style-type: none"> CEN expert team CEN WS plenary EWG with focus on qualification and certification providers 	CWA

Issue	Methodology/ approach	Responsible	Cooperation needed/ resources involved	Publication of results
	<p>certification providers, to establish knowledge and skills requirements</p> <ul style="list-style-type: none"> • Determine the best user friendly way to relate knowledge and skills to the overall framework • create amended framework and display on www.ecompetences.eu • gain feedback and respond 		<p>(EWG e-Q)</p> <ul style="list-style-type: none"> • Interested stakeholders for larger feedback 	
<p>3. Promotion and increasing acceptance of the European e-Competence Framework (I – daily users): - Identify user-focused approaches for the framework presentation and navigation and - Develop technical solution</p>	<ul style="list-style-type: none"> • investigate 'best of breed' graphical interfaces used by other frameworks • determine most appropriate navigation method • specify interface requirements • build interface onto existing website, e.g. www.ecompetences.eu and/or European e-Skills and Career Portal or further appropriate website when identified) • create collateral for user support • gain feedback and respond 	<p><i>expert team</i></p>	<ul style="list-style-type: none"> • CEN expert team • CEN WS plenary • Interested stakeholders for larger feedback 	<ul style="list-style-type: none"> • user focused framework navigation structure with easy access to e-CF elements • a graphical design providing a brand image • building on both, a technical solution for online implementation



Issue	Methodology/ approach	Responsible	Cooperation needed/ resources involved	Publication of results
<p>4. Promotion and increasing acceptance of the European e-Competence Framework (II – HE, science and research): - Methodological documentation for scientific and/ or methodologically interested public</p>	<ul style="list-style-type: none"> Critically analysis development work conducted to date explain rationale for development, structure and content from an academic perspective collate feedback from consultation exercises and incorporate results 	<p>methodological leader, expert team</p>	<ul style="list-style-type: none"> CEN expert team CEN WS plenary Interested stakeholders for larger feedback 	<p>CWA + further publication projected</p>

4.1. Rationale, working approaches and steps to be taken

Maintenance of the European e-Competence Framework delivered in 2008 (competences and their descriptions in dimension 2 and 3)

The European e-Competence Framework consists of:

- 5 e-Competence areas derived from ICT business processes: Plan – build – run – enable – manage (Dimension 1)
- Reference competences for each area, 34 in total: titles + generic descriptions (Dimension 2)
- Level-specific reference amendments for each competence, on e-Competence levels 1-5, related to EQF 3-8 (Dimension 3)
- Optional indication of knowledge and skills related to e-Competences, listed in some examples (Dimension 4)

A	Dimension 2	Dimension 3	E
Dimension 1 e-Competence Area	Competences per area: Title + generic description	Level-specific amendments for each competence (e-Comp levels 1-5, related to EQF levels 3-8)	Dimension 4 Skills and Knowledge re competences (optio indications, if any)
A. PLAN			
all KOs except microelectronics	<p>A.1. Arrange the functional and process organisation of the ICT systems and ICT services in phase with the business processes of the company</p> <p>Articulates business ambitions in a long term perspective and formalizes the enterprise architecture model in line with the companies ICT policy. Makes strategic ICT policy decisions for the company (ERP, CRM, Groupware, Network etc.). Plans subsequent ICT needs in terms of applications and infrastructure. Plans ICT projects (includes software applications and infrastructure) to be established. Assures that new ICT projects are consistent with existing applications and infrastructure.</p>	<p>Levels 1,2,3,4 – not applicable</p> <p>Level 5 – Reaches a consensus for long term and innovative solutions built with the top level managers of the company.</p>	<p>A.1.1. analyse business process architectures</p> <p>A.1.2. model business process architectures (strategic level)</p> <p>A.1.3. determine requirements for processes related to ICT basis</p> <p>A.1.4. identify, analyse and define user/customer needs</p> <p>A.1.6. define the telecom infrastru</p> <p>A.1.5</p> <p>A.1.4</p>
Business Applications	<p>A.2. Define Service level Agreements</p> <p>Defines, validates, record, control and makes applicable the different level agreement according to the different services et services contracts. Understand the needs of the customer to find the best way to negotiate the services performance levels, according to 'les moyens et la capacité de production et de contrôle du producteur de services'. Defines and makes applicable the Service Level Agreements and underpinning contracts for the offered services. Negotiates on service performance levels taking into account the needs of customers and business.</p>	<p>Levels 1,2 – not applicable</p> <p>Level 3 – identifies level agreements with respect of quality services and services contracts. Negotiates and finally draws up Service Level Agreements and underpinning contracts taking into account the needs of customers and business.</p> <p>Level 4 – Evaluates how Service Level Agreements meet business objectives and customer needs and decides on improvements.</p> <p>Level 5 – Influences enterprise strategy with respect to Service Level Agreements in order to achieve forecasted results.</p>	<p>A.2.1.</p>
	<p>A.3. Develop the Business Plan</p> <p>Defines and describes qualitative and quantitative aspects on a mid or longterm level of the new business/system solution/idea, describes new idea, possible target groups and market environment, defines and describes chances and risks, plan needed and return on investment</p>	<p>Levels 1, 2 – not applicable</p> <p>Level 3 – Supports the analysis of market environment etc.</p> <p>Level 4 – Leads the creation or review of an information systems strategy which meets the requirements of the business. Identifies the business benefits of alternative strategies. Develops enterprise-wide information architecture and processes which ensure that the strategic application of technology is embedded in the management</p>	<p>A.3.1. design solutions</p> <p>A.3.2. define budget</p> <p>A.3.3. choose security rules - stan</p> <p>A.3.4. define quality standards as</p> <p>A.3.5. define KPIs and procedures</p>



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Figure 1: European e-Competence Framework – Extract of the First consolidated version Phase 1

The aim of this work stream is to update where needed the 34 e-competence descriptions identified and described in Phase 1 and to identify, in the light of experience from early adopters, any new competences (related to dimension 2 + 3 of the framework as shown in the table) which should be added.



The main steps planned are:

- collect and analyse feedback on the European e-Competence Framework published in 2008
- CEN expert team meetings, expert working group (EWG) meetings, CEN technical sessions, CEN workshop plenaries
- circulate the framework among further groups of stakeholders
 - identification of focus groups
 - online questionnaire
 - interviews
- update descriptions and add new competences where needed
- collect and integrate final feedback on version “European e-Competence Framework in action” v.2. to be published in 2010

Feedback received on the first version of the framework, published in 2008, will inform the work plan. Additional feedback will be gathered by identifying and building relevant focus groups and by conducting an online questionnaire. Further input will be sought through stakeholder interviews.

The initial technical work will be carried out by the CEN nominated expert team supported by the larger expert working group (Focus: ICT and HR management know-how from ICT Industry) and be monitored, further discussed and improved by the CEN Workshop plenary.

Further development of the European e-Competence Framework: The development of ‘Knowledge and skills’ associated with identified competence

In presenting the forthcoming e-Competence Framework to interested stakeholders, it became clear that there is a significant interest in a specification of dimension 4 of the Framework (knowledge and skills). This dimension would support linkage between on the job ICT competence requirements (Industry and Public Sector) and educational products developed by higher education, vocational training and qualification providers across Europe.

Accordingly, for each e-competence detailed in the Framework, a set of “core” knowledge and skills will be identified with the support of qualification and training providers and developers (both public and private).

As competences can be defined as “knowledge and skills put into action”, the knowledge and skills elements are a necessary ingredients for developing and enhancing competence and they can provide substance for designing and developing ICT qualifications.

Just as e-competences are defined systematical and coherently in dimension 2+3 of the European e-Competence Framework, also knowledge and skills will be defined systematically in dimension 4, by expressing them in learning outcome terminology in line with the EQF. In line with the aim of the European e-Competence Framework to promote European ICT labour force development and competitiveness, the knowledge and skills dimension will not claim to be exhaustive but will provide pragmatic support to employers and educationalists. The articulation of knowledge and skills will provide flexible guidance for training institutions: It will enable them to design educational offerings to meet employer requirements and to position their qualifications in a transparent and competitive way on the European e-skills market.

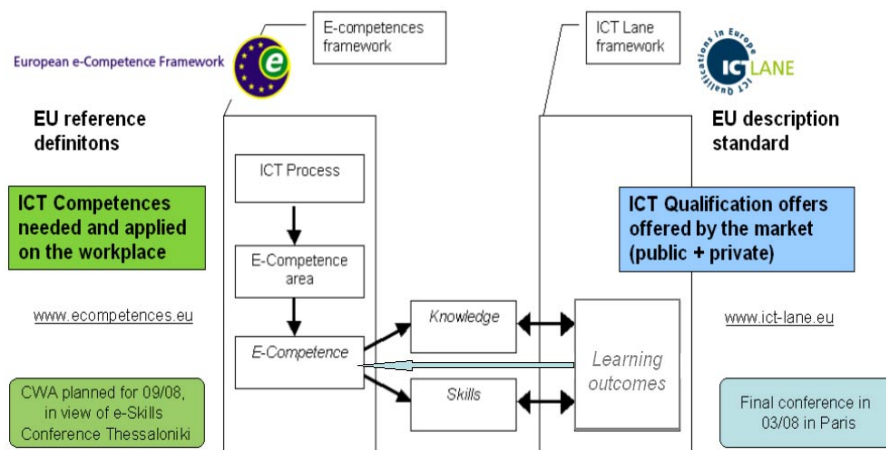


Figure 2: The relationships of e-Competences with ICT qualification contents by specifying the dimension 4 of the European e-Competence Framework (source: www.ict-lane.eu)

The main steps planned are:

- Interviews and focus groups with reference qualifications providers
- Expert meetings, focus on HE, VET, qualification and certification providers, to establish knowledge and skills requirements
- Determine the best user friendly way to relate knowledge and skills to the overall framework
- create amended framework and display on www.ecompetences.eu
- gain feedback and respond

The application of the European e-Competence Framework will become a new dimension by the inclusion of a knowledge and skills element. It will enrich the capability to bridge between ICT competence demand (industry and public sector) and e-Skills training supply by applying a common language which is both “competence” and “learning outcome” oriented.

The initial technical work will be carried out by the CEN nominated expert team supported by a larger expert working group (Focus: ICT qualification and training from public and private sector) and be monitored, further discussed and improved by the CEN Workshop plenary.

Promotion and acceptance of the European e-Competence Framework – Target group I (ICT industry, managers and practitioners, qualification and training): Identification of user focused approaches for the framework presentation and development of a technical solution

The European e-Competence Framework is intended to provide a simple and pragmatic reference point for users ranging from ICT professionals to employer managers, through to education providers. However, at first sight, the initial spreadsheet containing the skill descriptor layout could be daunting for new users. To facilitate real world application of the e-Competence Framework it is necessary to supply an intuitive graphical interface enabling simple access and navigation to the framework’s detailed content.

The initial structure of the European e-Competence Framework associates competence with ICT business processes “plan – build – run – enable – manage”. This business-driven perspective provides employers with a familiar reference point. However, application by employers and other stakeholders requires a simple, logical and innovative form of presentation in support of wide take up.

The e-CF version 1.0 model provides a credible structure. If it is to be high of value to employers and other stakeholders, there is a need to develop a more attractive, eye catching framework navigation and design structure. This requires the development of a technical solution deploying graphical representation suitable for paper and web viewing.



Figure 3: user focused framework navigation structure - an example (copyright owned by 'The Management Standards Centre')

The above model is a typical best of breed graphical representation of a competence framework designed for general management competencies. It is provided to illustrate the opportunity and requirement to bring competence models to life through innovative graphical design.



The main steps are planned are:

- investigate 'best of breed' graphical interfaces used by other frameworks
- determine most appropriate navigation method
- specify interface requirements
- build interface onto existing website, e.g. www.ecompetences.eu and/or European e-Skills and Career Portal (or further appropriate website when identified)
- create collateral for user support
- gain feedback and respond

The deliverable will be a graphical design in the form of a chart or schematic which can be used in reference material such as posters, documents and web pages to provide an easy navigational method to find relevant skill descriptors. In addition the use of consistent graphics and colour will provide a brand image to support marketing and promotion of the European e-Competence framework. To determine the most appropriate navigation method, 'best of breed' graphical interfaces used by other competence frameworks will be investigated, analysed and used to formulate a design specification. Once the interface requirements are identified, a related online solution will be developed which can be built onto the existing website www.ecompetences.eu and/or another appropriate website, e.g. the forthcoming European e-Skills and Career Portal. Creating additional collateral for user support will make it easier for framework adopters to deploy it and provide added value in their environment.

Promotion and acceptance of the European e-Competence Framework – Target group II (Higher Education, science and research): Methodological documentation to provide the underpinning rationale for the emergence, content and structure of the European e-Competence Framework

An essential consideration within the framework development philosophy was to consistently strive for an end product which was readily usable by employers, this demanded that it was consistently constructed taking into account sound methodological choices and decisions. These pragmatic and methodological driven approaches were documented in the multistakeholder public addressed interim report "Towards a European e-Competence Framework" (2007).

Fruitful exchanges and further discussions with stakeholders from science and research showed a high interest and need to receive further methodologically founded documentation. This requirement will be addressed by the development of methodological documentation addressing the entire project and will obviously support increasing acceptance of the tool provided between the higher education and research community.

Methodological work conducted to establish the European e-Competence Framework will be critically analyzed and the rationale for development, structure and content of the European e-Competence Framework, including the collated feedback and incorporated results from consultation exercises will be explained from an academic perspective. The methodological documentation will be published in the CWA and then be available for further publication by an appropriate European institution /body e.g. the European Commission.



4.2. The CEN consensus process

The CEN/ISSS ICT-Skills Workshop offers a neutral consensus platform for any party with an interest in working towards a European e-Competence Framework. Consensus reached is documented in the Workshop's deliverables, called CEN Workshop Agreements (CWAs).

The results and recommendations of the project represent consensus among a large range of stakeholders (ICT sector, industry, academia, training organisations, unions, associations), who will be invited

- to participate in the CEN Workshop on the subject
 - by attending CEN Workshop plenary meetings
 - by attending CEN Workshop technical sessions
- or to comment virtually on work in progress.

Many of the stakeholders are aware of the CEN initiative and have actively participated in the work from 2006 to 2008, similar meetings are planned for the work programme proposed. Participants and stakeholders, with the backing of their organisations, are already investing time and efforts and cover their own travel and accommodation costs.

Intensive work and high quality experts are required to study, survey and bringing together existing approaches and current ICT business trends. Additionally a multilevel work structure has to be maintained incorporating experts and stakeholders across Europe. For this reason use will be made of small teams of paid experts, who will be appointed following an open call for nominations launched by CEN/ISSS; these experts will deliver in line with the ICT-Skills Workshop's steer and comments.

5. Timeframe and working program

The timetable below assumes a signature of the Grant during December 2008, enabling the start of the work from 1 January onwards.

Task	Issues/ activities	scheduling	milestones/ deliverables
0	<ul style="list-style-type: none"> Call for Experts and selection of the Project Team experts 	01/09 – 02/09	<ul style="list-style-type: none"> Communication of selection process to the EC
1	<ul style="list-style-type: none"> Establish the project team Elaborate and agree on detailed project plan 	03/09 – 04/09	<ul style="list-style-type: none"> Overview project team, responsibilities and task assignments Detailed project plan
2	<ul style="list-style-type: none"> <u>Establish and maintain the broader working structures</u> needed especially for <ul style="list-style-type: none"> - Task 3 (EWG focus on e-Competences) - Task 4 (EWG focus on qualification) Organise and carry out stakeholder meetings and consensus process 	04/09 – 04/10	<ul style="list-style-type: none"> Overview working structures and expert resources involved Stakeholders meeting structure and events in the course of the project
3	<ul style="list-style-type: none"> <u>Update the European e-Competence Framework (eCF)</u> Update its competences defined Identify and describe important new competences (<i>if so</i>) 	04/09 – 06/10	<ul style="list-style-type: none"> European e-Competence Framework v.2.0 to be published in 2010
4	<ul style="list-style-type: none"> <u>Promotion and increasing acceptance of the European e-Competence Framework (I):</u> Identify user-focused approaches for the framework navigation and presentation develop a technical solution for online implementation 	06/09 – 12/09 12/09 – 03/10	<ul style="list-style-type: none"> user-focused framework navigation method with easy and pragmatic access to framework elements a graphical design using consistent graphics and colours, providing a brand image to support marketing and promotion a related technical online solution for implementation on appropriate websites
5	<ul style="list-style-type: none"> First documentation of outcomes in the draft interim report <u>Editing and readjusting the interim report according to feedback received</u> 	09/09 – 10/09	<ul style="list-style-type: none"> Interim report
M1	<ul style="list-style-type: none"> Delivery of the interim report to the EC 	11/09	<ul style="list-style-type: none"> Delivery of the interim report
6	<ul style="list-style-type: none"> <u>Further development of the European e-Competence Framework:</u> Specify and exemplify knowledge and skills (dimension 4) 	05/09 – 02/10	<ul style="list-style-type: none"> Specification of dimension 4 (knowledge and skills) connected to the reference e-competences as part of the European e-Competence Framework in Action – v. 2.0 (s. Task 3)
7	<ul style="list-style-type: none"> <u>Promotion and increasing acceptance of the European e-Competence Framework (II):</u> Methodological documenting of the Framework development – Draft Consolidation according to feedback received 	09/09 – 12/09 01/10 – 03/10	<ul style="list-style-type: none"> Methodological documentation to satisfy scientific and/ or methodologically interested user needs



8	<ul style="list-style-type: none"> Documentation of final outcomes in the draft final report <u>Editing the final report according to feedback received</u> 	03/10 – 06/10	<p>1) CWA, consisting of</p> <ul style="list-style-type: none"> updated and maintained European e-Competence Framework – v. 2.0, including <ul style="list-style-type: none"> - a user focused framework navigation structure - updated and where needed newly added competences and related descriptions in dimension 2 + 3 - specification of dimension 4 (knowledge and skills) Methodological documentation of the European e-Competence Framework outlining rationale for choices and decisions <p>2) Online solution developed according to CWA outcomes for implementation in appropriate EU website (e.g. EU e-Skills and Career Portal and/ or www.ecompetences.eu)</p>
M2	<ul style="list-style-type: none"> Delivery of final report to the European Commission 	07/10	<ul style="list-style-type: none"> Delivery of the Final Report

	2009												2010						
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7
T0 – Call for experts and selection PT experts	■	■																	
T1 – agree detailed project plan			■	■															
T2 – operation of working groups				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
T3 – updates to the eCF				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
T4 – framework navigation and presentation methods					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
T5 – preparing/agreeing interim report									■	■	■								
Delivery Interim Report												M1							
T6 – Specify Dimension 4 of eCF					■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
T7 – Methodological documentation									■	■	■	■	■	■	■	■	■	■	■
T8 – preparing/agreeing final CWA															■	■	■	■	■
Delivery Final Report																			M2



Key Performance Indicators

1. KPIs related to service efficacy
 - number of companies and countries involved
 - in the framework enhancement (testing and further consolidation) and
 - interested in going on using it also after the testing phase
 - number of positive feedbacks on accessibility, usability, functionalities planned

2. KPIs concerning the model
 - simplicity: definitions, vocabulary, levels, linkages to EQF
 - transparency:
 - number of stakeholders able to identify themselves with the model proposed
 - number of national/local frameworks that can to be related to the model proposed
 - ranges of application: number of contexts and objectives met by the model proposed

3. KPIs concerning stakeholders' feedback in terms of validation and acceptance of the ongoing work and its results
 - critical feedback from CEN Workshop members (2-3 meetings per year), integration of useful comments in the ongoing work
 - feedback from stakeholders and companies: regular review and on-road test of the ongoing results, supported by specific questionnaires
 - acceptance of the final results by the CEN Workshop community (documented in a CWA)



Part III – Budget estimation

Specification of budget required	Subtotal 1	Subtotal 2
340 man days (in total), 650 €/ man day, allocated as following: <ul style="list-style-type: none">• 5 experts (aprox. 30 – 65 days per expert) + 1 project coordinator responsible for project coordination and communication (90 days)• Breakdown of expert days per task see next table• The detailed expert day allocation will be established according to expertise and task assignments during step 1 of the project.		<u>221.000 €</u>
Subcontracting for technical development costs: <ul style="list-style-type: none">• building a consultation area on www.ecompetences.eu (s. Issue 1)• creating an online questionnaire for gathering feedback (s. Issue 1)• Developing a user focused interface for online implementation, according to functional specifications delivered by the CEN expert team (s. Issue 2) 10 expert days• design of project accompanying materials (as pdf's)	3.000 € 3.000 € 6.500 €	<u>15.500 €</u>
Travel budget for external experts	5.500 €	<u>5.500 €</u>
TOTAL estimated costs		242.000 €



Breakdown of CEN nominated expert days per task

Task	Issues/ activities	Estimation expert days <i>(each expert should be involved in each task, with increasing responsibility and engagement according to overall distribution of competences in the project programme)</i>
1	<ul style="list-style-type: none"> • Establish the project team • Project detailed work programme • Elaborate and agree on detailed project plan 	10
2	<ul style="list-style-type: none"> • Establish and maintain the broader working structures needed, especially for <ul style="list-style-type: none"> - Task 3 (EWG e-C focus on e-Competences) - Task 6 (EWG e-Q focus on ICT qualification) • Organise, prepare input, carry out, contribute and/ or participate in stakeholder meetings and CEN consensus process on multiple levels • Multistakeholder interaction and communication 	90
3	<ul style="list-style-type: none"> • Refine the competences defined in Phase 1 • Identify and describe important missing competences <i>(where needed)</i> 	70
4	<ul style="list-style-type: none"> • Identify user-focused approaches for the framework navigation and presentation • develop functional specifications for a technical solution for online implementation 	25
5	<ul style="list-style-type: none"> • First documentation of outcomes in the draft interim report • Editing and readjusting the interim report according to feedback received 	20
6	<ul style="list-style-type: none"> • Specify and exemplify knowledge and skills (dimension 4) 	65
7	<ul style="list-style-type: none"> • Methodological documenting of the entire undertaking – Draft • Consolidation according to feedback received 	30
8	<ul style="list-style-type: none"> • Documentation of final outcomes in the draft final report • Editing the final report according to feedback received 	30
Total		340



Annex II

Rules for the establishment and functioning of a Project Team in the CEN Workshops

1. The concept of a Project Team (PT)

Project Teams are a light working structure, bringing together for a specified period of time a limited number of technical experts to complete specified tasks.

2. Types of work assigned to a PT

A Project Team may be created for each of the following purposes:

- to prepare a draft programme of work on behalf of a Workshop or Workshop Project, developing standardization/specification requirements;
- to provide support to a Workshop or Workshop Project on (a) specific and delimited task(s);
- to carry out a study or investigation and to produce a Report with recommendations to the Workshop or Workshop Project;
- to prepare the first drafts of CWAs for Workshop consideration and approval;
- to carry out editing of documents;
- to investigate and implement under the direction of the Workshop or Workshop Project prototype and pilot implementations of standards/specifications;
- to prepare and carry out specific implementations under the direction of the Workshop or Workshop Project (for example through the creation of a Web site, or a register of objects or codes, where CEN/ISSS is required to provide a service to the standardization community).

3. Proposal for a PT

Proposals to establish Project Teams may be made by an existing or proposed Workshop, or Workshop Project, or by registered Workshop participants. The proposal submitted shall include the proposed Terms of Reference of the PT, including Technical Proposals where available, and the expected deliverables with corresponding target dates, as well as the required resources.

The originators shall also indicate the priority accorded to the request, due justification why a Project Team approach has to be used and the corresponding funding. Proposals shall be approved by (where appropriate) the Workshop Project participants, and by the Workshop Plenary.

4. Terms of Reference of a PT

The proposal for a PT shall provide the necessary information to enable a good understanding of the expected task(s) and the corresponding outcome.

Proposals must at least contain the following sections :

- 1) Title of the Project Team to be established
- 2) Subject and Scope
- 3) Justification of a PT
- 4) Reference authority (Workshop in charge of the follow-up of action)
- 5) General context/Background/Environment
- 6) Work plan, including duration and target dates



- 7) Manpower (in man-days or man-months)
- 8) Characteristics of the expertise required and criteria for selection of candidates
- 9) Expected deliverable(s).

If relevant, and according to the type of work assignment, the Terms of Reference should also provide information about reference specifications and documents, and connected working bodies.

A Workshop Plenary may decide to open calls for Technical Proposals to its members, if there is a need to establish the detailed workplan for the Project; such calls, to be made by the Workshop Secretariat and posted on the CEN Web Pages, may be concurrent with the call for the Project Team's establishment. Technical Proposals may be made by companies or individuals. Selection of Technical Proposals shall be made by a Selection Panel as specified in section 5, and the selection approved by the Workshop Plenary. Approved Technical Proposals shall be included in the Project Team's Terms of Reference.

5. Approval and establishment of a PT

Calls for applications to become members of a PT shall be made by the Workshop Secretariat, and notified to the CEN Member bodies and to registered Workshop participants, with a minimum time limit of one month. Applications to become members of a Project Team shall be made only by individuals. Where a Project Team requires only an editing task, it may comprise only one individual.

A Selection Panel established by the Workshop shall make the selection of the best-qualified candidates for Project Team membership according to the criteria laid down in the call for candidates. The membership of the Panel shall include, the Chairman and Secretary of the Workshop (if they are not themselves candidates), the Project Manager of any relevant Workshop Project (if he/she is not a candidate) and a representative of the CEN Secretary-General.

One or more specialists who have a good knowledge of the subject concerned and its industrial and standardization environment may assist the Selection Panel. These specialists shall not be candidates for the PT or involved with the submission of competitive Technical Proposals.

The Selection Panel shall ensure the composition of the Project Team is balanced, having regard to the required expertise in the subject matter and the different interest groups present in the Workshop.

The Selection Panel shall inform the Workshop of the composition of the Project Team. Workshop participants with specific objections to the inclusion of one or more of the selected individuals shall notify the Chairman of the Selection Panel, with their grounds for objection. The Selection Panel shall consider any objections and notify the Workshop Plenary of the outcome of their consideration.

Contracts will only be signed with companies, in principle not with individuals. These companies bear total legal liability for the expert(s) from their companies and for the good execution of the work contracted.

One signatory of the contract shall be the Secretary-General, or the responsible person of the CEN member holding the Workshop Secretariat, the other signatory shall be the relevant management level of the organisation providing the expert.

Workshop Chairmen and Project Managers who become experts in a PT shall not chair those parts of the meeting discussing the PT's progress and deliverables. Workshop Secretariat officials who become experts in a PT shall resign from their duties until the PT completes its tasks.

6. Management of a PT

Supervision of the PT work lies within the responsibility of the CEN Secretary General, delegated to the Secretariat of the Workshop, which shall be responsible for the administrative procedure and payment of the PT experts.



European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

The Workshop Plenary shall be responsible for monitoring the PT, and for the technical approval of its results. PTs not preparing a formal document for approval, but which have been responsible for other tasks, shall prepare a report on their activities for the Workshop's acceptance. The PT shall in any case be disbanded when its tasks are completed.

After consulting the CEN Secretary-General, CEN or the CEN member holding a Workshop Secretariat may terminate a contract if there is evidence that a PT expert is not fulfilling his/her contractual requirements or his/her performance is deficient. In general, any problems arising should be resolved with the organization providing the expert before a contract is cancelled.

7. Rules for financing of a Project Team

The Project Team members shall produce an invoice for each payment to be made by the CEN/CS. The CEN/CS commits itself to make the payments as rapidly as possible. However it can only make the payments after it has received the payment from the sponsoring body (e.g. CEC, EFTA Secretariat, private interest groups, etc.).



CONTRACTOR-EXPERT - extract from General Terms and Conditions of the contract between CEN and a Project Team expert

Article 1/1/-A - Employee status for the EXPERT (Applicable to CONTRACTORS designating an Employee to participate in a Project Team)

The CONTRACTOR and CEN agree that the EXPERT shall be and remain an employee of the CONTRACTOR until the termination for whatever reason of the EXPERT's contract of employment with the CONTRACTOR, and shall not be deemed to be an employee of CEN.

The CONTRACTOR will continue to fulfil all legal obligations of an employer (e.g. social service contributions and charges, medical insurance contributions, fiscal charges and similar charges which are to be borne by any employer).

In addition, the CONTRACTOR shall ensure that adequate provision is made, whether by insurance or otherwise, to compensate for any injury or illness suffered by him/her in the course of the execution of the present contract.

The EXPERT shall perform his/her obligations under this contract without any bound of subordination to CEN and shall therefore not be subject to the dispositions of the Belgian law of 3 July 1978 relative to employment contracts.

Article 1/1-B - Self-Employed Status

(Applicable to self-employed CONTRACTORS EXPERTS)

The CONTRACTOR EXPERT and CEN agree that the CONTRACTOR shall remain a self-employed person and shall not be deemed to be an employee of CEN.

The CONTRACTOR EXPERT certifies that he/she is covered by a social security scheme in that capacity, and that he/she has taken adequate provision to cover his/her professional liability, and to cover him/her against the risk of injury or illness suffered by him/her in the course of the execution of the present contract.

The CONTRACTOR EXPERT shall perform his/her obligations under this contract without any bound of subordination to CEN, and shall therefore not be subject to the dispositions of the law of 3 July 1978 relative to employment contracts.