



Illustrative Case Study (G)

European e-Competence Framework (e-CF)

in a certification environment

ABOUT THE e-CF. The European e-Competence Framework (e-CF) provides a reference of 36 competences as required and applied at the Information and Communication Technology (ICT) workplace, using a common language for competences, skills and capability levels that can be understood across Europe. As the first sector-specific implementation of the European Qualifications Framework (EQF), the e-CF was designed and developed for application by ICT service, user and supply companies, for managers and human resource (HR) departments, and for education institutions and training bodies, and other organizations in public and private sectors.

The framework was developed under the umbrella of the CEN ICT Skills Workshop through a process of close cooperation between ICT business and human resource (HR) experts, stakeholders and policy institutions from many different countries and at the EU level. Published by CEN for the first time in 2008 and followed by a further enhanced version 2.0 in 2010, the framework brings benefits to a growing community of users throughout Europe and overseas.

To support e-CF application within multiple environments, a series of illustrative case studies provide examples, benefits and hints of how to make best use of the e-CF.

The following case study illuminates the e-CF application from the perspective of an ICT certification supplier.

Key perspectives

- Matching certification supply to market needs
- Increasing transparency in the European e-skills certification landscape

Summary

There are many complexities to be faced by ICT professionals or their managers when identifying appropriate training, education and certification programs. To address this challenge and to support professionals in making informed decisions, online tools have been developed, using the e-CF as the core interpreter. The objective of such tools is to enable users to determine certifications or training programs that support personal continuous professional development.

As an example, EXIN have created a self-assessment tool that computes and displays optimal training paths to achieve certification based upon current qualification and competence. This on-line tool enables ICT Professionals or students to identify certifications that support their future competence development requirements.

e-CF Value

Tools that provide education and training guidance require a suitable underpinning structure on which to anchor certifications and training programs and support navigation through the plethora of training opportunities that exist. The e-CF has become the framework of choice for recent tools as it represents a European recognized competence structure incorporating the skills and knowledge components inherently incorporated within certification programs supplied by a range of certification suppliers such as APMG, Cisco, Microsoft, The Open Group etc.

Challenges encountered

In a sample case, from EXIN, it was recognized from commencement that relating certification-learning outcomes to the e-CF would require a detailed mapping exercise. Furthermore, it was appreciated that it is too simplistic to assume that the components of a certification program will always completely match the competences articulated within the e-CF. A unique methodology was developed to address this issue – see below for the solution under ‘method adopted’.

Benefits highlighted

By deploying the e-CF as an engine to drive appropriate certification identification, on-line tool developers are able to provide a consistent perspective of e-skills industry based training and certification supply across Europe. By relating e-skills certifications to the e-CF, a new competence transparency can be created that informs students, professionals, managers and training providers.

The method adopted

To address the challenge of potentially unreliable mapping between the e-CF and certification programs, EXIN chose a three layer mapping criteria. Congruence between the e-CF and certification elements is identified using three labels; 1) Generally, 2) Partially, or 3) Superficially. By using these refined criteria a more accurate picture is created of the relationship between competence elements and certification program content. The schematic below provides an example of the mapping process in action.

Title	TOGAF9			
Provider	Open Group			
Web source	http://www3.opengroup.org/certifications/togaf9-program			
Description	The TOGAF certificate provides validation that in addition to knowledge and comprehension, the candidate is able to analyze and apply knowledge of TOGAF			
Target Group	Enterprise architects			
Corresponding ICT profiles	ENTERPRISE ARCHITECT SYSTEMS ARCHITECT			
Prerequisites	Accredited training			
Main subject(s)	<p>apply Architecture Development Method (ADM) phases for an enterprise architecture</p> <p>apply Architecture Governance in development of an enterprise architecture</p> <p>apply the TOGAF Architecture Content Framework</p> <p>apply the concept of building blocks</p> <p>apply the Stakeholder Management Technique</p> <p>apply the TOGAF Content Metamodel</p> <p>apply TOGAF recommended techniques when developing an enterprise architecture</p> <p>apply the Technical Reference Model</p> <p>the Integrated Infrastructure Reference Model</p> <p>the content of the key deliverables of the ADM Cycle</p> <p>partitioning of an enterprise architecture</p> <p>purpose of the Architecture Repository</p> <p>apply iteration and different levels of architecture</p> <p>adapt the ADM for security</p> <p>SOA as a style of architecture</p> <p>the role of architecture maturity models</p> <p>purpose of the Architecture Skills Framework and how to apply within an organization</p>			
Competence covered with this certificate			Competence from the ICT Profiles	
e-CF competence	Level	G/P/S	ENTERPRISE ARCHITECT	SYSTEMS ARCHITECT
A.1 IS and Business Strategy Alignment	4	P	4	
A.3 Business Plan Development			3	
A.5 Architecture Design	3	G	4	4
A.7 Technology Watching	4	S	5	4

B.1 Design and Development	4	P		4
B.2 Systems Integration				4
D.10 Information and Knowledge Management	3	P		
E.2 Project and Portfolio Management	3	P		
E.7 Business Change Management	3	P	4	

Expansion to other examples

The above demonstrates how the e-CF can be deployed to reflect multiple ICT certification content in a shared European language and thus to increase transparency in the ICT certification landscape.

In this case a prototype of an online tool exists, the e-Skills Landscape Service <http://www.eskillslandscape.eu>.

The tool maps approximately 50 current e-Skills certifications from ICT vendor industry systematically against the e-CF. This was one of the results of the European project Quality labels for training fostering e-skills for competitiveness and innovation, which was carried out by Empirica and EXIN on behalf of the European Commission, DG Enterprise and Industry. Relevant European market stakeholders are currently exploring together how to ensure the tool's operational availability in a long-term.

References

- A family of 23 Typical European ICT Professional Profiles has been established and details are available on the e-CF website, follow this link, <http://www.ecompetences.eu/2165,ICT+Professional+Profiles.html>