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# **Revista Española de Innovación, Calidad e Ingeniería del Software (REICIS)**

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## **CEPIS and e-Competence Development in Europe**

**Frank Mockler**

Programme Development Manager, ECDL Foundation

### **Introduction**

The Council of European Professional Informatics Societies (CEPIS: [www.cepis.org](http://www.cepis.org)) is the European network of informatics professionals, which brings together 36 national informatics associations drawn from 33 countries across greater Europe. Among the many aims of CEPIS is competence development among ICT practitioners, and it has engaged in a range of activities to support this. This brief article sets out some of these key actions and brings them together in the context of a wider, crucial need for Europe to possess the correct competences among its IT professionals now and in the future.

A particularly important recent development has been the emergence of a reference framework of ICT competences – the European e-Competence Framework (e-CF: [www.ecompetences.eu](http://www.ecompetences.eu)). This framework is an output of the CEN (European Committee for Standardization) Workshop on ICT Skills, which brings together industry, academic, and public policy stakeholders – including CEPIS – to specify pre-standards in the area of e-Skills. The e-CF is made up of 36 ICT competences<sup>6</sup> that can be used as a reference point for such activities such as competence planning for organizations, education and training, and policy makers.

### **Practical implementation**

CEPIS, during 2010 and 2011, carried out one of the first practical implementations of the e-CF as a tool for measuring competence through the CEPIS Professional e-

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<sup>6</sup> [http://www.ecompetences.eu/site/objects/download/5983\\_EUeCF2.0framework.pdf](http://www.ecompetences.eu/site/objects/download/5983_EUeCF2.0framework.pdf)

Competence Survey<sup>7</sup>. The purpose of this research was to produce an up-to-date snapshot of the actual e-competences of IT professionals across Europe today, using profiles recognised by the labour market and analysing them based on the competences set out in the e-CF. Survey participants, who were IT professionals from greater Europe, provided information through an online self-assessment tool on a range of topics including gender, age, e-competences, educational background, current career profile, and proficiency level in each of the five e-CF areas (Plan, Build, Run, Enable, Manage). The survey responses were then used to create a European report<sup>8</sup> as well as a total of 10 country-level reports.

A range of findings emerged, such as:

- The young talent that Europe needs is lacking
- Continuous professional development among practitioners is crucial
- Career paths linked to education and training are required
- The gender imbalance in the professional must be addressed
- The e-CF works effectively as a practical tool for categorizing and defining e-competences.

The survey has proven to be of considerable use in painting a picture of the ICT professional across Europe and in individual countries. It is constructive at a policy level in that it gives an indication of the e-competence levels of the profession, but it also gave direct feedback to approximately 2,000 ICT professionals in 28 countries on where their current competence levels were against possible career paths that could develop. A more detailed, follow-up survey, incorporating the new CEN ICT Professional Profiles<sup>9</sup>, is planned for 2012/2013.

## **EUCIP**

The e-CF has also provided a context and important reference point for EUCIP<sup>10</sup>, a professional certification and competency development scheme operated by some CEPIS members. EUCIP consists of three different components: EUCIP Core, an introductory-level three-part ICT professional certification; EUCIP IT Administrator, a multi-module certification focused on the skills required by an IT administrator; and

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<sup>7</sup> <http://www.cepis.org/index.jsp?p=940&n=2406>

<sup>8</sup> [http://www.cepis.org/media/CEPISProfCompetencePanEuReport\\_FINAL\\_10.10.20111.pdf](http://www.cepis.org/media/CEPISProfCompetencePanEuReport_FINAL_10.10.20111.pdf)

<sup>9</sup> [ftp://ftp.cen.eu/CEN/Sectors/List/ICT/Workshops/EU\\_ICT\\_Professional\\_Profiles\\_DRAFT\\_CWA.pdf](ftp://ftp.cen.eu/CEN/Sectors/List/ICT/Workshops/EU_ICT_Professional_Profiles_DRAFT_CWA.pdf)

<sup>10</sup> <http://www.cepis.org/eucip>

EUCIP Professional, a professional certification based around one of 21 different job profiles. Version 3<sup>11</sup> of EUCIP Professional includes specific cross-references to the e-CF Competences, and over time there will be greater integration of e-CF into the structure and content of this programme.

These inter-related activities (surveying and describing the current state of the profession, adopting a shared framework of competences that practitioners must have) are part of a broader need to nurture and develop the ICT profession in Europe. This is a vision that is articulated clearly by the 2012 eSkills and ICT Professionalism study<sup>12</sup>, which was carried out by CEPIS and IVI<sup>13</sup> on behalf of the European Commission. This project has done the ground-work for the development of a framework for the ICT Profession as a whole and, specifically, for the creation of a European training programme for ICT managers.

All these initiatives are not merely academic exercises. They strive to build concrete answers to real-world challenges, such as:

- How do I know what skills and knowledge I will need to develop my career?
- What e-competences do my employees need to ensure my organization can both survive and thrive in difficult economic circumstances?
- What education and professional development interventions must my institution develop or adopt to ensure that my courses are relevant and that my students are well prepared for the workforce?

CEPIS is focused on supporting the computer societies of Europe as they attempt to provide coherent, practical answers to questions such as these, which are crucial not just to their members, but to industry, academia, policy-makers, and society in general. Europe needs to have the right people in the right positions to drive growth through the appropriate and innovative use of technology. Through initiatives like these, CEPIS has taken a central role in ensuring that this happen.

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<sup>11</sup> [http://www.cepis.org/media/EUCIP\\_Version\\_31.pdf](http://www.cepis.org/media/EUCIP_Version_31.pdf)

<sup>12</sup> [http://www.ictprof.eu/documents/Brochure\\_Fostering\\_the\\_ICT\\_Profession\\_in\\_Europe.pdf](http://www.ictprof.eu/documents/Brochure_Fostering_the_ICT_Profession_in_Europe.pdf)

<sup>13</sup> <http://www.ivi.ie/>

### Author biography



*Frank Mockler is Programme Development Manager at ECDL Foundation, the certifying authority of the leading international computer skills certification programme – ECDL / ICDL. In addition to managing the maintenance and development of end-user and IT professional certification programmes, such as EUCIP, Frank is involved in researching and advocating for the promotion of e-skills and e-competence as a necessary component of individual and organisational development. He represents ECDL Foundation on the CEN (the European Committee for Standardisation) Workshop on ICT Skills. Prior to joining ECDL Foundation in 2005, Frank spent 11 years in the e-learning and electronic publishing industry working in roles relating to quality, instructional design, and content/curriculum development. He holds a Bachelor's degree in Political Science from Trinity College Dublin and a Master's degree in Political Behaviour from the University of Essex.*