European e-Competence Framework 3.0
A common European framework for ICT Professionals in all industry sectors

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The ICT Profession in Europe

• Focus on maturing the IT profession
• Short term aim for a fully professionalised sector (2025?)
  • Committed to a relevant body of knowledge
  • Standardised competences
  • Continuous professional development
  • Clear code of ethics
• Progress already
  • e-CF is now a European standard (EN 16234-1, April 2016)
  • Work to establish standardised BoK, education and certification, and a code of professional ethics underway
  • Standardised set of 30 ICT professional role profiles
  • Fully incorporated into EC ICT Rolling Plan for ICT Standardisation
European e-Competence Framework

- CEN WS ICT Skills – CWA - e-CF
  - V2.0 2010
  - V3.0 2014
  - V4.0 2019
  - EN 16234-1 – the standard

- One of four pillars

- Additional development and contextualisation
  - European ICT Professional Role Profiles CWA V2.0 May 2018
Quality and credibility

• e-CF development and maintenance context
• Main principles of the framework
• From a European agreement to a European Standard (EN 16234-1)
• Complementary: European ICT Professional Role Profiles
• Framework and role profiles in ICT business and HR
  • A common European language to manage talent
• e-CF future evolutions and contribution opportunities
Stakeholder involvement

- Commitment from ICT industry, training, HE, research and policy makers
- Initiated by CEN ICT Skills Workshop, now under CEN TC 428
- 200+ contributors from various ICT sectors
- Key component of the long term e-skills agenda (e-skills for the 21st Century) of the EU
  - European Commission
  - Council of Ministers
  - Digital Skills and Jobs Coalition
- Version 3.0 (EN) indicates framework maturity, added value from implementation practice
EU shared definition of competence

A demonstrated ability to apply knowledge, skills and attitudes for achieving observable results

Framework in 4 dimensions
Dim 1: 5 e-CF areas
Dim 2: 40 competences
Dim 3: 5 e-CF levels
Dim 4: knowledge and skills examples

Learn, Achieve, Lead.
### Four dimensions of a competence

<table>
<thead>
<tr>
<th>Dimension 1</th>
<th>A. PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Comp. area</td>
<td></td>
</tr>
</tbody>
</table>

#### A.2. Service Level Management
- Defines, validates and makes applicable service level agreements (SLAs) and underpinning contracts for services offered. Negotiates service performance levels taking into account the needs and capacity of stakeholders and business.

<table>
<thead>
<tr>
<th>Dimension 2</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Competence: Title + generic description</td>
<td>–</td>
<td>–</td>
<td>Ensures the content of the SLA.</td>
<td>Negotiates revision of SLAs, in accordance with the overall objectives. Ensures the achievement of planned results.</td>
<td>–</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension 3</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimension 4</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge examples</td>
<td>K1 SLA documentation</td>
<td>K2 how to compare and interpret management data</td>
<td>K3 the elements forming the metrics of service level agreements</td>
<td>K4 how service delivery infrastructures work</td>
<td>K5 impact of service level non-compliance on business performance</td>
</tr>
<tr>
<td>Knows/aware of/ familiar with</td>
<td>K6 ICT security standards</td>
<td>K7 ICT quality standards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills examples</td>
<td>S1 analyse service provision records</td>
<td>S2 evaluate service provision against SLA</td>
<td>S3 negotiate realistic service level targets</td>
<td>S4 use relevant quality management techniques</td>
<td>S5 anticipate and mitigate against potential service disruptions</td>
</tr>
</tbody>
</table>
Time for a standard

• e-CF V 3.0 CWA  (CEN Workshop Agreement) 2014
• 2012 national standard in Italy and The Netherlands
• 2013 EU standard desired by member states
• TC 428 established, 2014
• European Norm (EN) „e-Competence Framework“ EN 16234-1 published in 2016
Current e-CF user references
EU ICT Professional Role Profiles

- Based on e-CF V 3.0
- Using an agreed template
- Building blocks to cater for specific contexts
- e-CF competences and deliverables are key components of profile descriptions
- Embedded in EU skills agenda (ICT Professionalism, ESCO, DIGIFRAME, etc.)

<table>
<thead>
<tr>
<th>Profile title</th>
<th>DIGITAL TRANSFORMATION LEADER ROLE</th>
<th>(25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary statement</td>
<td>Provides leadership for the implementation of the digital transformation strategy of the organisation.</td>
<td></td>
</tr>
<tr>
<td>Mission</td>
<td>Drive cultural change and build digital capability to deliver innovative business models and processes.</td>
<td></td>
</tr>
<tr>
<td>Deliverables</td>
<td>Accountable</td>
<td>Responsible</td>
</tr>
<tr>
<td>e-competences (from e-CF)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main task/s</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Learn, Achieve, Lead.
“Family Tree” structure

- Little consensus on job role definition
- Provides generic role profiles for customisation to specific context

Learn, Achieve, Lead.
From theory to practice...

• Champions developed tools for implementation
• Irish example, CareerPlus
  • Practical tool to enable professionals to plan their careers and Continuous Professional Development
  • Utilises e-CF standard and role profiles for competence assessment, education planning and career progression
  • Premise is that CPD should be tracked, reflected upon and planned (mandatory?)
  • CPD should develop relevant competence to meet organisation needs
The rest of the story

- Competence is only one pillar of professionalism
- EC/CEN intend to develop standards around all four pillars
- TC 428 central to this
- CEN/BT WG 217 approved projects to further this standardisation work
Technical Committee 428

- Responsible for standardisation related to maturing the ICT Profession
- EN 16234-1 (e-CF) maintenance and evolution
- Interaction with different Frameworks
- Curriculum guidance
- Professional Role Profiles
- Guidance for the assessment against EN 16234 (e-CF)
- Body of Knowledge (BoK)
- Development of education/certification model for e-CF
- Developing a sustainable code of ethics
Work about to start

1. **Competence**
   1. Updating e-CF EN 16234-1: User guide, Methodology, Case studies

2. **Education, Certification**
   1. ICT, e-leadership and innovation Curriculum guidelines
   2. e-Competence performance indicators and common metrics

3. **Professional Ethics**
   1. Ethics framework in support of ICT Professionals across Europe.

4. **Foundational Body of Knowledge**
European e-Curriculum Guidelines

• Curriculum for High-Tech and e-Leadership Skills, and ICT Professionalism
• Value propositions - education & training, industry bodies and professional associations
• Guidelines based on market requirements and e-CF
• Stakeholder involvement and consultation in development
• Sustainability - European governance

e-Competence performance indicators and common metrics”

• Recognise, assess and validate candidate’s e-competences
• Irrespective of how acquired
• Link EN 16234-1 to ICT training and certification
• Builds on previous considerations on Quality Labels, and e-Leadership in TC 428
• Special consideration of experiential acquisition of e-competences (non-formal, informal learning)
• Results published as a Technical Report (TR).
Professional Code of Ethics

• Provide a practical application of an ethics framework for ICT Professionals across Europe.

• Context - Enabling the implementation of the European Commission’s e-skills strategy
  • “e- Skills and IT professionalism: Fostering the IT profession in Europe”, May 2012.

• Crystalize ‘ICT Professional Ethics” into a manageable structure delivered as a Technical Report (TS) “European Professional Ethics Framework for ICT (EU IT E)”
Body of Knowledge

• A fundamental pillar of a mature ICT Profession
• BoK proposal on hold since 2016, TC 428 to tackle it
• Valuable early work, studies (IVI, CEPIS, Cap Gemini, Ernest & Young) available
• Multi-stakeholder agreement, expert exchange for broad EU-wide applicability and acceptance
• Consistent with EN 16234-1 (e-CF), ICT Profiles, Digiframe, ESCO, EDISON, ISO/IEC Security, etc.)
e-CF website www.ecompetences.eu

- e-CF basic information and EN 16234-1 sales points
- Background information
- Best practise
- e-CF Profiling tool
- Hosted by CEPIS and ITPE

ICT Profiles section: www.ecompetences.eu/ict-profiles-update/
Get Involved!

• National Standards Body
  • Form TC 428 Mirror Committee
  • Get nomination as NB delegate
  • Formulate work plan

• Join IT Professionalism Europe (ITPE)
  • Professional network
  • Keep in touch with TC 428 developments
  • Contribute your priorities for IT professionalism
  • Hear about calls for experts and create outputs
Thank you

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