



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



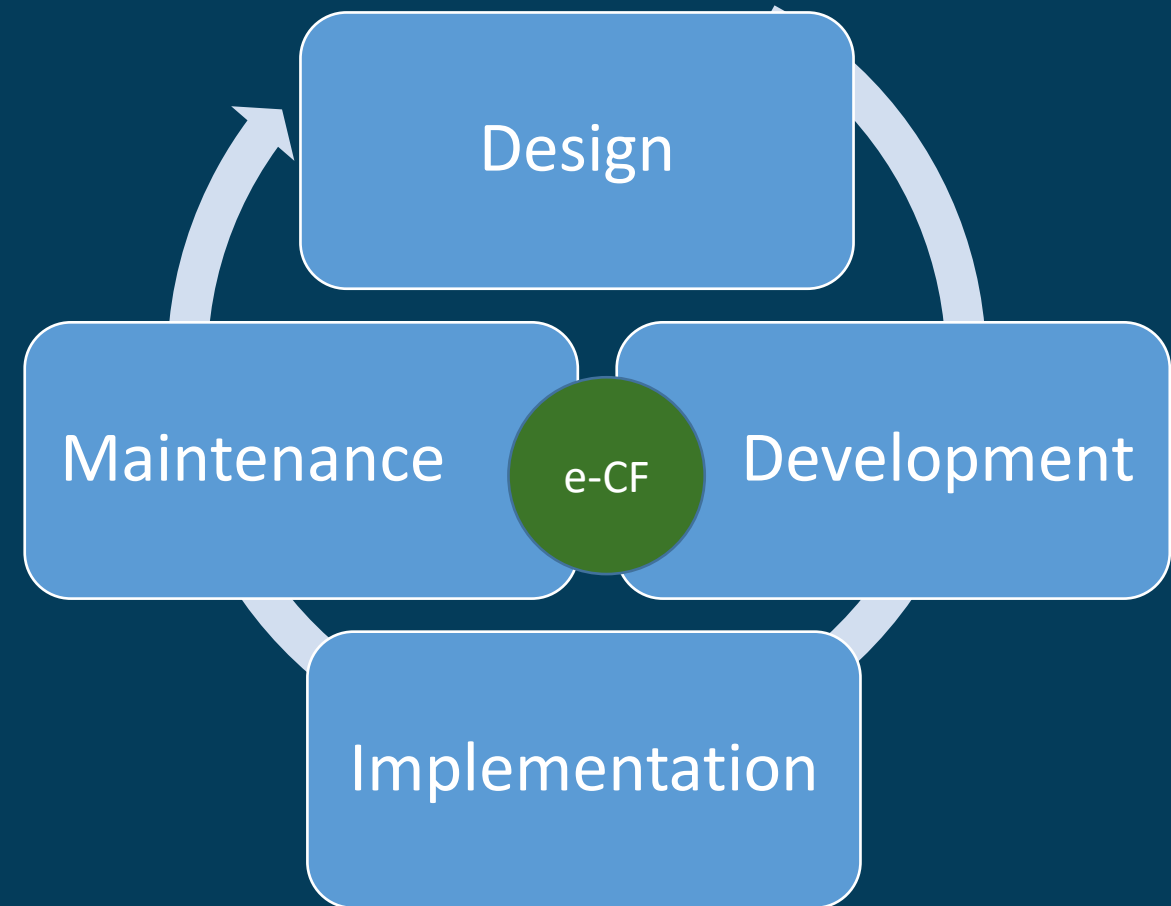
Quality and credibility



- 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



Learn, Achieve, Lead.

e-CF V 3.0



e-CF Level	related to EQF Level
e-5	8
e-4	7
e-3	6
e-2	4 and 5
e-1	3

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

Dimension 1	Dimension 2	Dimension 3				
5 e-competence areas (A - E)	40 e-competences Identified	e-competence proficiency levels e-1 to e-5 (related to EQF levels 3-8)				
		e-CF levels Identified for each competence				
		e-1	e-2	e-3	e-4	e-5
A. PLAN	A.1. IS and Business Strategy Alignment					
	A.2. Service Level Management					
	A.3. Business Plan Development					
	A.4. Product/ Service Planning					
	A.5. Architecture Design					
	A.6. Application Design					
	A.7. Technology Trend Monitoring					
	A.8. Sustainable Development					
	A.9. Innovating					
B. BUILD	B.1. Application Development					
	B.2. Component Integration					
	B.3. Testing					
	B.4. Solution Deployment					
	B.5. Documentation Production					
	B.6. Systems Engineering					
C. RUN	C.1. User Support					
	C.2. Change Support					
	C.3. Service Delivery					
	C.4. Problem Management					
D. ENABLE	D.1. Information Security Strategy Development					
	D.2. ICT Quality Strategy Development					
	D.3. Education and Training Provision					
	D.4. Purchasing					
	D.5. Sales Proposal Development					
	D.6. Channel Management					
	D.7. Sales Management					
	D.8. Contract Management					
	D.9. Personnel Development					
	D.10. Information and Knowledge Management					
	D.11. Needs Identification					
	D.12. Digital Marketing					
E. MANAGE	E.1. Forecast Development					
	E.2. Project and Portfolio Management					
	E.3. Risk Management					
	E.4. Relationship Management					
	E.5. Process Improvement					
	E.6. ICT Quality Management					
	E.7. Business Change Management					
	E.8. Information Security Management					
	E.9. IS Governance					

Four dimensions of a competence

Dimension 1 e-Comp. area	A. PLAN				
Dimension 2 e-Competence: Title + generic description	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.				
Dimension 3 e-Competence proficiency levels e-1 to e-5, related to EQF levels 3 to 8	Level 1	Level 2	Level 3	Level 4	Level 5
	–	–	Ensures the content of the SLA.	Negotiates revision of SLAs, in accordance with the overall objectives. Ensures the achievement of planned results.	–
Dimension 4 Knowledge examples <i>Knows/aware of/ familiar with</i>	K1 SLA documentation K2 how to compare and interpret management data K3 the elements forming the metrics of service level agreements K4 how service delivery infrastructures work K5 impact of service level non-compliance on business performance K6 ICT security standards K7 ICT quality standards				
Skills examples <i>Is able to</i>	S1 analyse service provision records S2 evaluate service provision against SLA S3 negotiate realistic service level targets S4 use relevant quality management techniques S5 anticipate and mitigate against potential service disruptions				



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



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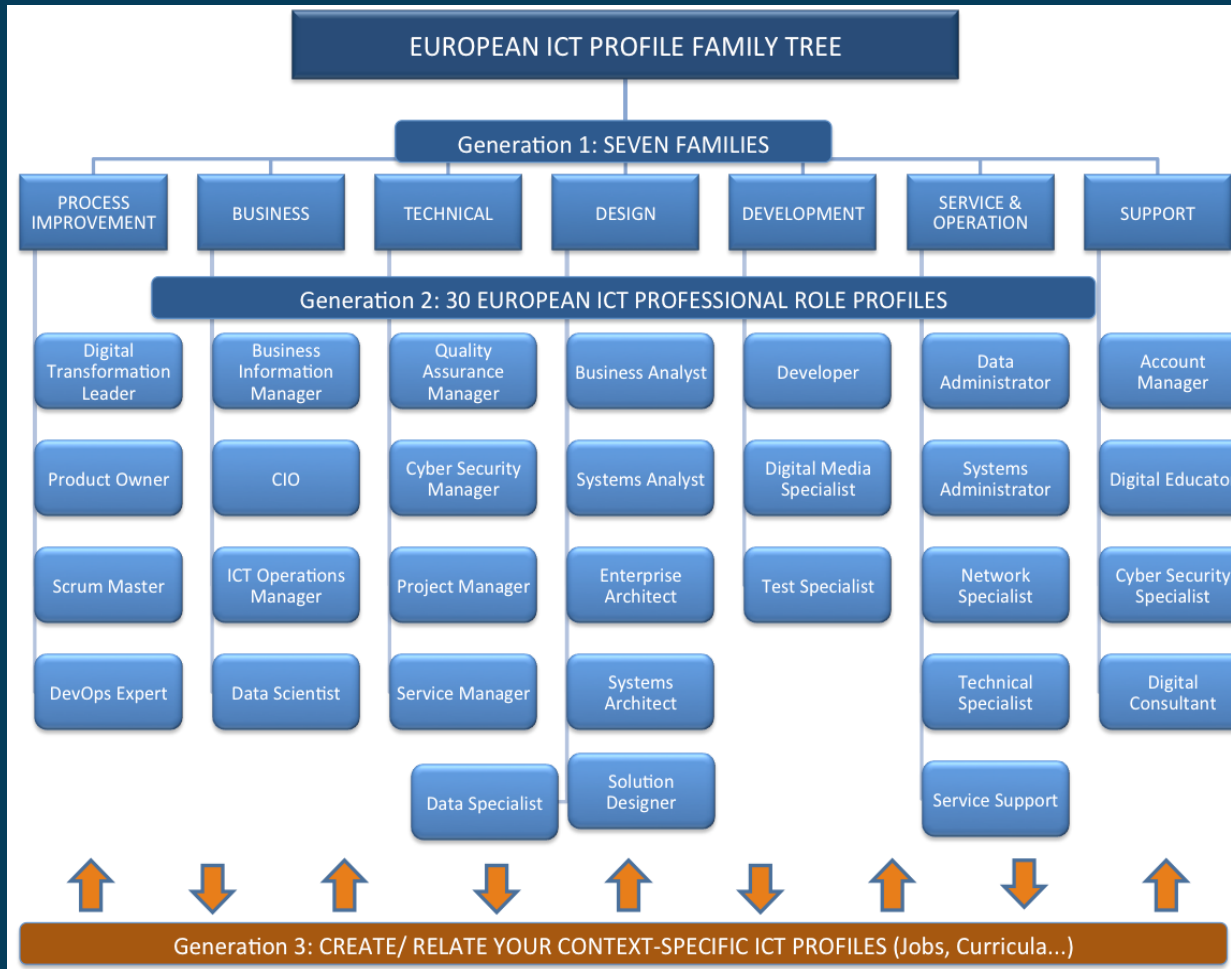


EU ICT Professional Role Profiles

- 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.)

Profile title	DIGITAL TRANSFORMATION LEADER ROLE (25)		
Summary statement	Provides leadership for the implementation of the digital transformation strategy of the organisation.		
Mission	Drive cultural change and build digital capability to deliver innovative business models and processes.		
Deliverables	Accountable	Responsible	Contributor
	<ul style="list-style-type: none"> Digital Transformation Roadmap 	<ul style="list-style-type: none"> Digital Transformation Strategy 	<ul style="list-style-type: none"> New Technology Integration Proposal
Main task/s	<ul style="list-style-type: none"> Shape and deliver a digital strategy Develop awareness and education to improve digital capability Demonstrate the benefits of digital transformation implementation Advise and support on a 'digital by design' approach Lead cultural change required to facilitate digital strategy Lead and mobilise key organisation influencers to implement digital transformation 		
e-competences (from e-CF)	A.3. Business Plan Development		Level 5
	A.5 Architecture Design		Level 5
	A.9. Innovating		Level 5
	E.7. Business Change Management		Level 5
	E.9. Governance		Level 5
KPI area	Successful strategy implementation		

“Family Tree” structure



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



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

References: Rolling Plan for ICT Standardization 2015 - 18, Horizon 2020 ACTION 3, New Skills Agenda For Europe (2016), Skills for Key Enabling Technologies in Europe (2016)

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.
 - "Development and Implementation of a European Framework for IT Professionalism, 2017.
- 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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