



G3 WEB SKILLS PROFILES - VERSION 2.0

GENERATION 3 EUROPEAN ICT PROFESSIONAL PROFILES

Official specification of 30 June 2014

Current version: <http://www.skillprofiles.eu/stable/g3/en/v2/profiles/2014-06-30.pdf>

Previous version: <http://www.skillprofiles.eu/stable/g3/en/v1/profiles/2013-02-14.pdf>

Latest version: <http://www.skillprofiles.eu/stable/g3/en/web-skills-profiles-2.pdf>

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Refer to the [errata](#) for this document, which may contain normative corrections.

See also the [official translations](#).

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Recitals

IWA/HWG [IWAHWG-01] is the International Association of Web Professionals, or those who work - in any form - in activities related to the use of Web technologies. In addition to being active in Web standardisation within the W3C (World Wide Web Consortium) as the sole association of its category, the association is recognized by the CEN (European Committee for Standardisation) as the standardisation body for Web skills [CEN-06]. The IWA professional certification activities were surveyed in 2006 by the European Centre for the Development of Vocational Training (Cedefop) [CEDEFOP-01].

This purpose of this document, created by a working group of professionals from the sector, is to define the general third generation European ICT professional profiles that are primarily relevant to the Web sector, based on the document “European ICT Professional Profiles (CWA 16458:2012)” [CEN-07] and its documents on the “E-Competence Framework 3.0” (EC-F 3.0), [CEN-02] [CEN-03] [CEN-04] [CEN-05].

This legally binding document was developed by a task force of the **Web Skills Profiles Group**, established by the Italian section of the IWA/HWG in December 2006, a group in which more than 200 professionals participate, representing companies, institutions, and associations, with the objective of defining the **reference professional profiles for the Web**.

Status of this document

This document, the result of work by the members of the task force, was submitted to the Web Skills Profiles working group as well as to interested parties, and was approved by the group coordinator as the official version. This is a stable document that may be used as a reference or cited in other documents.

As the standards institution for Web skills [CEN-06], the purpose of the IWA/HWG is to raise awareness about publications such as this document in order to provide incentives to the largest possible number of people and to apply those documents to improve the quality of the skills used on the Net and of the World Wide Web in general.

The G3 Web Skills Profiles are supported by related, non-normative documents. Also while these documents do not have the formal status of the G3 Web Skills Profiles, they provide important information for the understanding and application of the specifications for identifying skills used on the Web.

Any potential comments may be sent to the coordinator of the working group, at info@skillprofiles.eu. Comments received concerning the G3 Web Skills Profiles will not modify this version of the document, but may be handled in the corrections or in future versions. Moreover, the working group cannot plan to provide formal responses to the comments.

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Introduction

In its European ICT Skills Meta-Framework, published in February 2006 [CEN-01], the CEN, European Committee for Standardisation, which contributes to achieving European Union objectives through its own technical standards, listed the IWA/HWG Association as the sole actual association in the world, at the time, able to provide certifications for training curricula for the Web sector and for skills used on the Net.

The IWA professional certification activities were surveyed in 2006 by the European Centre for the Development of Vocational Training (Cedefop) [CEDEFOP-01].

Thus, the IWA/HWG asked its Italian chapter, the IWA Italy Association, to define the Skills Profiles and related training curricula.

In December 2006, the Web Skills Profiles Group was launched and professionals and representatives of companies, associations, and Civil Service organisations immediately joined.

In July 2010, the Group published the first document, the first stable release, which defined 17 professional profiles [IWA-01]: Web Project Manager, Account, Market Research Analyst, User Experience Designer, Functional Analyst, DB Administrator, Search Engine Optimiser (SEO), Search Engine Marketer, Community Manager, Advertising Manager, Front-end Web Developer, Server Side Web Developer, Web Content Manager, Web Content Editor, Web Server Administrator, Creative Information Architect, and Digital Strategic Planner.

Following the release of CWA 16458 - CEN Workshop Agreement "European ICT Professional Profiles" [CEN-07], on 13 September 2012, the Web Skills Profiles Group published the first G3 Web Skills Profiles – Generation 3 European ICT Professional Profiles [IWA-02] document, which also contains the first profile dedicated to the position of Community Manager. On 4 December 2012, the document, G3 Web Skills Profiles Generation 3 European ICT Professional Profiles – The first profiles compliant with the European e-Competence Framework 2.0 [IWA-03], were published, containing the first 9 European ICT profiles compliant with the European e-Competence Framework 2.0.

On 14 February 2013 the document G3 Web Skills Profiles 1.0 [IWA-04] that contains the first stable version of 21 professions standardised according to the CEN directives on Generation 3 (G3) European ICT Profiles and the terms for their use, was published.

The activity of IWA / HWG has also been reported within the European e-Competence Framework 3.0 in the example of application of the model within professional associations [CEN-05] as the first example of the application of E-CF the definition of the third generation profiles.

This document contains the stable version of professional profiles standardised according to the CEN CWA 16458 [CEN-07], empowered by European e-Competence Framework 3.0 [CEN-02] directives on Generation 3 (G3) European ICT Profiles and the terms for their use.

Scope of application

The purpose of this document is to support the proper identification of the skills listed as "professional profiles for the Web" from the players working on the market in the ICT skills sector. In particular, they are directed to:

- **ICT managers**, offering organisational templates for responsibilities, duties, skills, and controls among the various players (ICT and other);
- **ICT professionals and managers**, to define job descriptions, individual training plans, and areas for development;

- **Human Resources (HR) managers**, to forecast and plan skills requirements;
- **Instructional and training managers**, to effectively plan and design ICT studies programs;
- **Students**, to facilitate finding information and career orientation;
- **Market research and strategy managers**, to use a shared language for forecasting long-term Web skills and labour requirements;
- **Purchasing Department managers**, providing shared definitions of effective technical specifications for national and international invitations to tender;
- **Anyone else** needing an established and accepted reference for Web skills profiles for their profession, company, or organisation.

In short, the combination of profiles and skills allows individuals, companies, or Countries with different cultures to face the subject of developing professional Web skills with a familiar perspective that is compliant with a standard format recognised by everyone.

Structure

The people and organisations that use the G3 Web Skills Profiles may be highly diverse, comprising legislators, standards institutions, companies, professionals, teachers, and students. To meet the various needs of this heterogeneous audience, the content is structured to comprise the Web skills profiles and supporting documents for specific activities using the G3 Web Skills Profiles.

The Web skills profiles are identified by an unambiguous code and are structured in reference to paragraph 4.2 of the CWA CEN document, “European ICT Professional Profiles” [CWA-01] updated upon European e-Competence Framework 3.0 [CEN-06].

- **Profile Title.** Name - including the identification code - of the Web skill profile according to the unambiguous international catalogue from the IWA/HWG.
- **Summary statement.** Lists the primary purpose of the profile. The purpose is to give all stakeholders and users a brief, concise description of the specified Web skill profile, written in a form understandable by ICT professionals, managers, and Human Resources staff.
- **Mission.** Describes the basic assignment of the profile. The purpose is to specify the working role defined in the Web Skill Profile.
- **Deliverables.** Describes the documents produced by the job description as accountable (guarantee), responsible (support), and contributor (contribution).
- **Main tasks.** Provides a list of typical tasks carried out by the profile. A task is an action undertaken to achieve a result in a broadly defined context and contributing to the definition of the profile.
- **E-CF competences.** Provides a list of the skills necessary (taken from the e-CF references) to carry out the assignment. A skill is the outcome of the previous definition of the Profile and helps to differentiate profiles.
- **Skills / knowledge.** A list of abilities and knowledge necessary for the definition of the profile, subdivided into technical, informatics, and strengthening (improving abilities for the profile).
- **Key Performance Indicators (KPIs).** Based on KPI (Key Performance Indicators), the area of application of the KPI is a more generic indicator, consistent with the grade level of the overall profile. It applies for adding depth to the assignment.

- **Qualification / Certifications.** These are the recommended, but not essential, qualifications and certifications for carrying out the activities in the profile. However, these qualifications and certifications may be used for developing knowledge of specific skills within the profile. This section is for informational purposes.
- **Attitudes (non ICT).** A list of aptitudes supporting the abilities and knowledge, subdivided into interpersonal/organizational and linguistic. This section reports references to the QCER [CE-01], which promotes the understanding of specific language certifications. This section is for informational purposes.
- **Relationships / Reporting line.** A list of Web skills profiles and not with whom the profile discusses (relationships) or reports (reporting lines). This section is for informational purposes.

Supporting documents

The G3 Web Skills Profiles were designed to meet the requirements necessary for a stable technical standard to serve as a reference for Web professions. Other documents, defined as supporting, are based on this document and have other important objectives, such as the ability to be updated to describe how the G3 Web Skills Profiles might be applied with changes to the Web. Provided for informational purposes, the supporting documents include:

- [Training syllabus preparation](#) (*G3 Web Skills Syllabus*). A brief guide for understanding and applying the G3 Web Skills Profiles in developing educational programs and completion certificates, or for creating educational materials and learning assessment conventions.

Web Skill Profiles

This section is normative. The following Web skills profiles have been identified and described in the related sheets, and are normative. These profiles are not intended to be an exhaustive list of all professions working in the Web sector: the purpose of this document is to begin to define an unambiguous catalogue of references, with continual updates using the same working procedures used for the first draft of the profiles listed below.

Profile WSP-G3-001. Web Community Manager

Professional position in the digital Marketing & Communication sector that manages virtual communities on the Web.

- [Profile sheet WSP-G3-001. Web Community Manager](#)

Profile WSP-G3-002. Web Project Manager

Professional position that handles the daily management of activities associated with a Web project. He or she is the project director and must ensure the achievement of the project objectives while maximizing operating results, economic results, and customer satisfaction.

- [Profile sheet WSP-G3-002. Web Project Manager](#)

Profile WSP-G3-003. Web Account Manager

Professional position responsible for managing prospective (potential) and/or loyal customers for a Web-oriented organization, and monitoring customer satisfaction.

- [Profile sheet WSP-G3-003. Web Account Manager](#)

Profile WSP-G3-004. User Experience Designer

Professional position responsible for the visual design and the interaction between the user and system throughout the entire life cycle of the system, from definition and identification of requirements to production of the final design document.

- [Profile sheet WSP-G3-004. User Experience Designer](#)

Profile WSP-G3-005. Web Business Analyst

Professional position that analyses the customer's business requirements to enable the development team to produce appropriate Web solutions.

- [Profile sheet WSP-G3-005. Web Business Analyst](#)

Profile WSP-G3-006. Web DB Administrator

Professional position with the duty of carrying out and maintaining the operability of the databases used or managed by the organization as part of its Web-related activities, managing the processes and accurately and comprehensively documenting those within his or her area of expertise.

- [Profile sheet WSP-G3-006. Web DB Administrator](#)

Profile WSP-G3-007. Search Engine Expert

Professional position responsible for achieving the best return on investment (ROI) in light of visibility in search engines and related services by managing and supporting the development of Web services and digital marketing.

- [Profile sheet WSP-G3-007. Search Engine Expert](#)

Profile WSP-G3-008. Web Advertising Manager

Professional position that plans and coordinates the entire promotion process, from the conception and preparation of Web advertising campaigns to the sale of products and/or services related to advertising activities, analyzing the costs and benefits of promotional activities.

- [Profile sheet WSP-G3-008. Web Advertising Manager](#)

Profile WSP-G3-009. Frontend Web Developer

Professional position that creates and/or codes Web-based interfaces in accordance with customer requirements.

- [Profile sheet WSP-G3-009. Frontend Web Developer](#)

Profile WSP-G3-010. Server Side Web Developer

Professional position that creates the Web applications necessary for the proper functioning of the content on the Web.

- [Profile sheet WSP-G3-010. Server Side Web Developer](#)

Profile WSP-G3-011. Web Content Specialist

Professional position between the Digital Communication and Marketing sectors. He or she manages content for a Website.

- [Profile sheet WSP-G3-011. Web Content Specialist](#)

Profile WSP-G3-012. Web Server Administrator

Professional position that administers the components of the ICT system to meet Web service requirements.

- [Profile sheet WSP-G3-012. Web Server Administrator](#)

Profile WSP-G3-013. Information Architect

Professional position primarily concerned with identifying and representing the structure of the information and functional components of a domain for the purposes of promoting traceability, functionality, and usability, adopting a user-centered design approach.

- [Profile sheet WSP-G3-013. Information Architect](#)

Profile WSP-G3-014. Digital Strategic Planner

Professional position that supports the management of an organization in making strategic choices related to presence and activity on the Net and on the Web.

- [Profile sheet WSP-G3-014. Digital Strategic Planner](#)

Profile WSP-G3-015. Web Accessibility Expert

Professional position that supports the development of Web services to guarantee that the finished product complies with Web accessibility specifications.

- [Profile sheet WSP-G3-015. Web Accessibility Expert](#)

Profile WSP-G3-016. Web Security Expert

Professional position that analyses the reference IT context, evaluates, and proposes a suitable security policy to match corporate policies and the specific context. He or she is responsible for periodically verifying the security of the system and for conducting appropriate tests (e.g. Penetration Test). Additionally, he or she is in charge of education and awareness about security topics.

- [Profile sheet WSP-G3-016. Web Security Expert](#)

Profile WSP-G3-017. Mobile Application Developer

Professional position that creates/codes application solutions for mobile peripherals and writes application specifications for mobile peripherals in accordance with customer requirements.

- [Profile sheet WSP-G3-017. Mobile Application Developer](#)

Profile WSP-G3-018. E-commerce Specialist

Professional position with expertise in standards, technologies, and activities related to electronic commerce.

- [Profile sheet WSP-G3-018. E-commerce Specialist](#)

Profile WSP-G3-019. Online Store Manager

Professional position responsible for the "statement of profit and loss for the online shop", selection, merchandising activities, and in-store promotions.

- [Profile sheet WSP-G3-019. Online Store Manager](#)

Profile WSP-G3-020. Reputation Manager

Professional position that analyses, manages, and influences the representation of anyone (organization or individual) present on the Net and on the Web.

- [Profile sheet WSP-G3-020. Reputation Manager](#)

Profile WSP-G3-021. Knowledge Manager

Professional position that promotes activities related to the management and communication of corporate knowledge, identifying procedures, instruments, processes, and practices finalized to promote the development of intellectual capital through sharing.

- [Profile sheet WSP-G3-021. Knowledge Manager](#)

Profile WSP-G3-022. Augmented Reality Expert

Professional position responsible for augmented reality systems design and implementation. He or she projects and realizes augmented reality experiences from visual design interface to interaction design between a user and the system, through the whole life cycle of the system.

- [Profile sheet WSP-G3-022. Augmented Reality Expert](#)

Profile WSP-G3-023. E-Learning Specialist

Professional position that processes and teaching methods on the Net. He or she coordinates and develops training courses in distance mode, blended, rapid, mobile and ubiquitous learning.

- [Profile sheet WSP-G3-023. E-Learning Specialist](#)

Profile WSP-G3-024. Data Scientist

Professional position that owns the collection, analysis, processing, interpretation, dissemination and display of organization quantitative or quantifiable data for analytical, predictive or strategic purpose.

- [Profile sheet WSP-G3-024. Data Scientist](#)

Conformance

This section is normative.

This section lists the requirements for conformance with the G3 Web Skills Profiles. Additionally, it provides information on how to formulate conformance declarations, which, however, are optional.

Conformance requirements

To be compliant with the G3 Web Skills Profiles, a profile must meet all of the following requirements:

1. **Profile identification.** The title of the profile must be clearly indicated according to the official codification, with the WSP-G3 prefix, using the identification number of the reference profile.
2. **Identification of the summary definition and assignment.** In order to ensure the ability to identify the profile, the text present in the selected profile sheet in the "summary statement" and "mission" sections must be reported completely.
3. **Identification of normative documents.** A text (printed documentation) and/or hypertext (on the Web or in digital documents) reference to this document must be included.

Conformance Claims (optional)

Compliance is solely in reference to the specific profile. In all cases, it is possible to create a declaration of compliance for a single profile, a series of profiles, or other related profiles.

Required components of a conformance claim

Conformance claims are not required. Users may comply with the G3 Web Skills Profiles without being required to explicitly state this. However, when provided, the conformance claim must include the following information:

1. Date of the claim;
2. Name of this document, version and URI, "G3 Web Skills Profiles version 2.0 of 30 June 2014 - <http://www.skillprofiles.eu/stable/g3/en/2014-06-30.pdf>";
3. Name of the profile and/or profiles covered by the claim.

Note: If a conformance logo is used, it shall represent a conformance claim and must be accompanied by the required elements listed above.

Professional certification

This section is normative.

Professional certification is not required to develop the Web profession, but with the purpose of enabling the professional - with the identified requirements - to gain recognition on the ICT market and of the reality that acknowledges the value of professional certification in both the educational and working environments.

Principles for professional certification

The professional certification for the G3 Web Skills Profiles is defined as "IWA Certified Web Professional" (IWA CWP) followed by the complete name of the skill profile and is subject to a series of requirements for attaining and maintaining it. To define the requirements for professional certification, IWA/HWG relied upon four basic principles:

- a. Knowledge
- b. Professionalism
- c. Experience
- d. Continuing education

Principles a. and b. are primarily for attaining "IWA CWP" certification while principles c. and d. are additional requirements necessary for maintaining skills and the related certification.

Professional certification is different from knowledge certification in that it establishes a series of additional commitments set out in technical standards, by standards institutions and national standards for professional certification and from professional associations.

Requirements for professional certification

In order to be able to obtain the title of "IWA CWP" certified professional for the specific skill identified in the chapter "Web Skills Profiles", the applicant must meet all of the following requirements:

- a. **Demonstration of passing certification exams ("knowledge" principle).** The requirement demands that the user show proof of having successfully passed evaluation exams through a certification body with an organisation compliant with the principles in the standard ISO/IEC 17024: 2012 [ISO/IEC-01];
- b. **Registration as an IWA Member ("professionalism" principle).** The requirement demands that the user be registered as an ordinary member of the IWA/HWG ("IWA Member" qualification), which is to say that the user has paid the association membership dues, adheres to the terms for participation in the association, and complies with its codes of conduct;
- c. **Demonstration of experience in the sector ("experience" principle).** The requirement demands that the user show proof to the IWA/HWG of experience of at least two calendar years in the area of expertise in the professional profile for which he or she is seeking certification.

Duration and maintenance of professional certification

The IWA Certified Web Professional (IWA CWP) certification lasts for 3 (three) years from the date of issue by the IWA/HWG.

The professional certification will be terminated if the event "IWA Member" status is lost for failure to pay renewal dues, resignation by the member, and/or disciplinary measures.

The validity of the professional certification may be extended by an additional 3 (three) years if all of the following conditions are met:

- 1) **Demonstration of renewal of the certification exam passage ("knowledge" principle).** The requirement demands that the user show proof of having successfully passed evaluation exams through a certification body with an organisation compliant with the principles in the standard ISO/IEC 17024: 2012 [ISO/IEC-01];
- 2) **Registration as an IWA Member ("professionalism" principle).** The requirement demands that the user be registered as an ordinary member of the IWA/HWG ("IWA Member" qualification), which is to say that the user has paid the association membership dues, adheres to the terms for participation in the association, and accepts its codes of conduct;
- 3) **Demonstration of experience in the sector ("experience" principle).** The requirement demands that the user show proof to the IWA/HWG of experience of at least two calendar years in the area of expertise in the professional profile for which he or she is seeking certification renewal.
- 4) **Demonstration of continuing education ("continuing education" principle).** The requirement demands that the user show the IWA/HWG proof of at least 30 hours of continuing education over the 3 years through educational and instructional activities recognized by the IWA/HWG as valid for maintaining professional certification.

Appendices

Appendix A. Glossary

Demonstration of experience

Documentation, provided in the form of self-certification and/or third party certification, attesting to the experience gained by the user in the sector in which he or she has obtained certification. For self-certification, the activities carried out must be clearly identifiable in order to enable the IWA/HWG to evaluate them.

Conformance

Meeting all requirements for a given standard, guideline, or specification.

Informational (informative)

for the purposes of information and not required for compliance.

Note: The content required for compliance is referred to as "normative".

normative

Required for obtaining compliance.

Note: Content listed as "informative" or "non-normative" is never necessary for compliance.

Appendix B. Acknowledgments

We would like to thank the active participants on the task force, composed of volunteers from the Web Skills Profiles working group, who contributed to the creation of this document: Ernesto Belisario, Giuseppe Bernardo, Barbara Bonaventura, Ugo Bonelli, Stefano Bussolon, Andrea Boscaro, Matteo Brunati, Fabrizio Caccavello, Massimo Canducci, Alessio Cartocci, Pietro Paolo Caselli, Roberto Castaldo, Michele Ciani, Eleonora Cipolletta, Antonella Coppotelli, Luca Corsato, Stefano Epifani, Elisabetta De Grimani, Manuel Fae, Vito Grippa, Luca Mascaro, Diego La Monica, Massimiliano Navacchia, Paolo Negri, Simone Onofri, Jacopo Pasquini, Pasquale Popolizio, Luigi Rossini, Dario Salvelli, Roberto Scano, Giancarlo Sciascia, Francesca Sensini, Claudio Simeone, Claudia Spagnuolo, Alessandro Sportelli, Maurizio Teli, Valentina Tolomelli, Marianna Tramontano, Piersergio Trapani, Roberto Travagliante, Walter Vannini, Manuela Vecchio.

Appendix C. References

[CC-01]	<p>Creative Commons <i>Attribuzione - Condividi allo stesso modo 4.0 Internazionale (CC BY-SA 4.0)</i> http://creativecommons.org/licenses/by-sa/4.0/deed</p>
[CE-01]	<p>Council of Europe <i>Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR) (January 2002)</i> http://www.coe.int/t/dg4/linguistic/CADRE_EN.asp</p>
[CEDEFOP-01]	<p>European Centre for the Development of Vocational Training (Cedefop) <i>ICT skills certification in Europe - ISBN 92-896-0434-4 (2006)</i> http://www.cedefop.europa.eu/etv/Upload/Information_resources/Bookshop/431/6013_en.pdf</p>
[CEN-01]	<p>CEN (European Committee for Standardization) <i>CWA 15515 - European ICT Skills Meta-Framework - State-of-the-Art review, clarification of the realities, and recommendations for next steps (February 2006)</i> ftp://ftp.cenorm.be/PUBLIC/CWAs/e-Europe/ICT-Skill/CWA15515-00-2006-Feb.pdf</p>
[CEN-02]	<p>CEN (European Committee for Standardization) <i>CWA 16234:2014 Part 1. European e-Competence Framework 3.0. A common European Framework for ICT Professionals in all industry sectors (March 2014)</i> http://ecompetences.eu/wp-content/uploads/2014/02/European-e-Competence-Framework-3.0_CEN_CWA_16234-1_2014.pdf</p>
[CEN-03]	<p>CEN (European Committee for Standardization) <i>CWA 16234:2014 Part 2. User guide for the application of the European e-Competence Framework 3.0 (March 2014)</i> http://ecompetences.eu/wp-content/uploads/2014/02/User-guide-for-the-application-of-the-e-CF-3.0_CEN_CWA_16234-2_2014.pdf</p>
[CEN-04]	<p>CEN (European Committee for Standardization) <i>CWA 16234:2014 Part 3. Building the e-CF – a combination of sound methodology and expert contribution. Methodology documentation (March 2014)</i> http://www.ecompetences.eu/wp-content/uploads/2014/02/Methodology_documentation_e-CF_3.0_CEN_CWA_16234-3_2014.pdf</p>
[CEN-05]	<p>CEN (European Committee for Standardization) <i>CWA 16234:2014 Part 4. Case Studies for the application of the e-CF (March 2014)</i> http://www.ecompetences.eu/wp-content/uploads/2014/02/Case_studies_e-CF_3.0_CEN_CWA_16234-4_2014.pdf</p>
[CEN-06]	<p>CEN (European Committee for Standardization) <i>ICT Standards Consortia – IWA (April 2012)</i> http://www.cen.eu/cen/Sectors/Sectors/ISSS/Consortia/Pages/default.aspx#i</p>
[CEN-07]	<p>CEN (European Committee for Standardization) <i>CWA 16458:2012 European ICT Professional Profiles updated by e -CF version 3.0 competences (March 2014)</i> http://relaunch.ecompetences.eu/wp-content/uploads/2013/12/EU_ICT_Professional_Profiles_CWA_updated_by_e_CF_3.0.pdf</p>
[ISOIEC-01]	<p>ISO/IEC <i>ISO/IEC 17024:2012. Conformity assessment -- General requirements for bodies operating certification of persons (July 2012)</i> http://www.iso.org/iso/catalogue_detail?csnumber=52993</p>
[IWA-01]	<p>IWA (International Webmasters Association) <i>IWA Italy Web Skill Profiles – Web professional profiles stable release ver. 1.0 (July 2010)</i> http://www.skillprofiles.eu/stable/profili_professionali_web_stable.pdf</p>

[IWA-02]	IWA (International Webmasters Association) <i>G3 Web Skills Profiles Generation 3 European ICT Professional Profiles - Documento introduttivo e profilo Community Manager - Versione 1.0 (September 2012)</i> http://www.skillprofiles.eu/stable/g3/2012-09-13.pdf
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