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Abstract	This report presents the results of the requirements elicitation and the analysis activities of the ENhANCE project website (www.enhance-fcn.eu), hosted by TEI of Crete. In particular, this report describes the website in terms of functional and non-functional requirements.
Keywords	Requirement Analysis, Website, Dissemination

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1.   Executive summary

The ENhANCE project deals with Primary Health Care (PHC) innovation. Main aims of the project are to increase the specialization of nurses in PHC about Family and Community Nurse (FCN) skills, to foster the development of FCN curricula referring to a formalized EU profile based on WHO (World Health Organization) and EU politics recommendations, and to enhance the shift from the old PHC model to the new one.

ENhANCE has just completed the project website and social media sites requirement analysis phase. This phase of the project constitutes the Task 7.2 "Project website and social media sites", which is the second task of the Work Package (WP) 7 "Dissemination, exploitation and sustainability".

This document, with title "Requirement Analysis", is the output of the phase above depicted and represents the first project deliverable (D7.2.1). Furthermore, this document will feed the next steps of Task 7.2, devoted to the development of the project website and the adoption of social media sites to support project dissemination (D7.2.2 - ENhANCE website and social media sites of the project - initial version - and D7.2.3 - ENhANCE website and social media sites of the project - final version).

The main purpose of this document is to describe the system requirements of the ENhANCE project website (www.enhance-fcn.eu), hosted by TEI of Crete. In particular, this document contains a description of the project website and the social media sites that will be used for project communication and dissemination. The project website and the social media sites are both defined in term of goals and objectives. More in detail, the project website is described with regard to target users, design, look & feel, functional and non-functional requirements, and system modeling; social media sites are described with regard to target audience, channels and platforms, strategies, and integration with the project website.

The methodology adopted for the requirements elicitation and the analysis activities is based on a participatory approach and included interactions among developers and project's internal stakeholders. In particular, the requirement analysis is the result of conversations and interviews developers (TEI of Crete) had with all the ENhANCE project's partners during the kickoff meeting (17-19 January 2018, Genoa, Italy) and, after that, partners involved in Task 7.2 of WP 7, mainly CNR-ITD (as Project Coordinator) and EUROCARERS (as WP 7 Leader), through online meetings.

Overall, the requirements' list presented in this document has been drafted in the clearest and most exhaustive way possible, despite some aspects of the project website and – in particular – of the social media sites may still be vague at the beginning of the project. As a consequence, the related requirements might be defined more precisely later, to better inform the specification phase in the dedicated deliverables (D7.2.2 and D 7.2.3)

The main result of this requirement analysis work is the "**List of ENhANCE project website requirements**" (see Annex 1). Such list will guide the work of the developers in the following stages and provide the project with indicators to be used to measure progress toward goals.

Of course, there are still possibilities of further improvement/refinement, especially for those use cases which so far might have been only partially addressed by the project, and this will be done in the next months.

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2. Introduction

2.1 Brief introduction to the ENhANCE project

The ENhANCE project is co-funded by the Erasmus+ Programme of the EU on a 3-year basis, from January 2018, under Key Action "Cooperation for innovation and the exchange of good practices" - Action Type "Sector Skills Alliances in vocational education and training".

The project is about Primary Health Care (PHC) innovation. EU population ageing is a long-term trend, which began several decades ago, placing many challenges at EU and national level. To face these challenges, many WHO (World Health Organization) reports and EU recommendations underline the need of implementing new healthcare models centered on PHC, i.e. a first-contact, accessible, continued, comprehensive and coordinated care providing a gateway between the community and the health systems. They also identify the Family and Community Nurse (FCN) as a key-actor in the new PHC model.

The ENhANCE Project aims to target a specific existing mismatch between the skills currently offered by nurses working in PHC and those actually demanded by both public health care institutions and private service providers when applying innovative healthcare models centered on PHC. Most of the nurses currently working in the PHC are not specialized in FCN. Currently no standardized Professional Profile (PP) for FCN has been defined at EU level taking into account WHO and EU recommendations. Existing curricula for FCN are designed and delivered under local initiatives.

Starting from existing research evidence and results of ongoing EU Projects, ENhANCE has the goal to define a Professional Profile (PP) for FCN, as the EU benchmark for VET (Vocational Education and Training) of FCNs. The competence-based PP will be the baseline for the definition of an EU learning outcome-oriented modular VET Curriculum for FCN, targeting both formal and non-formal and informal learning.

The general EU Curriculum is expected to be designed in a flexible and modular way, able to guarantee its instantiation into national Curricula, considering local and contextual constraints and thanks to specific Guidelines specifically defined to support this process. Three national pilot Curricula will be designed and delivered in Italy, Greece and Finland to test the effectiveness of the EU Curriculum. ICT tools, Open Contents and detailed Guidelines targeting specifically VET trainers and teachers will be provided.

2.2 ENhANCE project partners

The Alliance (ENhANCE project partners) includes 13 partners, from 6 different EU countries representing VET providers in the field of Nursing, Regulatory Bodies for FCN training, Professional Associations and Public and Private Employers. More in detail, project partners are:

- VET providers (coordination of the national pilots):
  - UNIGE (IT)
  - UEF (FIN)
  - TEI of Thessaly (GR)
- Regulatory Bodies:
  - A.Li.Sa (IT)

- ENE (GR)
  - Umbrella organizations:
    - EASPD (BE)
    - EUROCARERS (BE)
  - Sector-specific experts:
    - CNR-ITD (innovative learning processes) (IT)
    - SI4LIFE (instructional design in the field of health) (IT)
    - TEI of Crete (health/nursing and informatics engineering) (GR)
    - FUTURE BALLOONS (c) (PT)
    - AWV/AFBB (EQF, ECVET and EQAVET) (DE)

2.3   Focus on Work Package 7

Work Package 7 (WP 7) is about dissemination, exploitation and sustainability of the project's results. WP 7 starts at month 1 and ends at month 36 of the project. EUROCARERS is the WP 7 Leader.

In particular, the main purposes of WP 7 are:

1. to raise awareness about the project's rationale and results among the relevant stakeholders,

2. to coordinate and carry out a number of targeted dissemination and outreach activities at EU and national level in order to ensure buy-in,

3. to promote the use of the outcomes of the project by the partners of the Alliance and other stakeholders (including its assessment),

4. to define appropriate activities and plan to guarantee the sustainability of the results and benefits achieved by the Alliance.

Directly linked to the above mentioned objectives, under WP 7 we have three main tasks:

- Task 7.1 – Dissemination (M1-M36) [Leader: EUROCARERS]
- Task 7.2 - Project website and social media sites (M1-M36) [Leader: TEI of Crete]
- Task 7.3 – Exploitation and sustainability of project results (M1-M36) [Leader: EUROCARERS]

The present document is an output of Task 7.2; the elicitation of the requirements is an ongoing process, subject to revision at strategic moments in the project lifecycle. Furthermore, this document will nurture the next phases of Task 7.2, devoted to the development of the project website and the adoption of social media sites to support project dissemination (D7.2.2 - ENhANCE website and social media sites of the project - initial version - and D7.2.3 - ENhANCE website and social media sites of the project - final version). Therefore, this document presents a first version of the requirements, and this list of requirements might be defined more precisely later, to better inform the specification phase in the dedicated deliverables (D7.2.2 and D 7.2.3).

The final release of the requirements will be delivered at month 36 (D 7.2.3) and will keep track of the results, observations and notes of the final release of the ENhANCE project website and social media sites, as shown in Table 1.

Table 1: Task 7.2 deliverables: an overview

Deliverable	Month	Current status
D7.2.1 - Requirement analysis	2	*This document*
D7.2.2 - ENhANCE website and social media sites of the project - initial version	7	--
D7.2.3 - ENhANCE website and social media sites of the project - final version	36	--

2.4 Purpose and structure of this document

As already mentioned, this document is aimed at describing the system requirements of the ENhANCE project website (www.enhance-fcn.eu), hosted by TEI of Crete. Thus the document is structured as it follows:

- Section 3 presents a short synthesis of the overall methodology adopted for the Requirements Analysis (requirements elicitation and analysis activities);

- Section 4 describes the goals/scopes and the objectives of the project website and the social media sites that will be used for project communication and dissemination;

- Section 5 describes both the project website (described with regard to target users, design, look & feel, functional and non-functional requirements, and system modeling) and the social media sites (described with regard to target audience, channels and platforms, strategies, and integration with the project website);

- Section 6 presents a short discussion of the main results and the next steps.

3. Overall methodology for the Requirements Analysis

In this section, the overall methodology for the requirements elicitation and the analysis activities of the ENhANCE project website is briefly described.

The main result of this requirement analysis work is the "List of ENhANCE project website requirements" (see Annex 1). The aforementioned list will guide the work of the developers in the following stages, providing them with clear and specific guidelines for the implementation of the project website.

Moreover, the "List of ENhANCE project website requirements" will provide effective quantitative indicators to be used not only as monitoring and assessment tool for an iterative process of development and enhancement of the project website (Boehm, 1988; Boehm & Hansen, 2000), but as signs that help measuring project's progress and performance toward specific goals in disseminating and exploiting project results. Some examples of benchmark indicators and key performance indicators that will be set to help in improving performance of the project website are: updates, visits, consultations, cross referencing, unique website visitors, pages/session, top landing pages, top exit pages, ...

3.1 Requirement Analysis: preliminary stage

First of all, as a preliminary stage, dissemination contractual obligations related to the project website have been taken into consideration for the Requirement Analysis. In particular, we referred at page 6 of the Grant Agreement - Special conditions (GA-SC) - Article I.10.3 - Dissemination & Exploitation of results (a significant excerpt is reported in Table 2).

Table 2: GA-SC- Article I.10.3 - Dissemination & Exploitation of results

Beneficiary of grants under Erasmus+ Programme have the duty that work undertaken within the framework of this grant agreement and the results accruing from it receive sufficient visibility. The coordinator shall pay specific attention to the importance of dissemination, exploitation of results of the action and to their visibility at transnational level. In this respect, the coordinator must:

- *create and maintain (at least during the project lifetime) a website for the action. The website must be kept up-to-date with at least: a description of the project, the contact details of the coordinator, the list of beneficiaries, mention the EU's financial support with the relevant logo (see Article I.10.3), and access to all results, as and when they become available.*

3.2 Requirements elicitation and analysis activities

Any software development process goes through the phase of requirements engineering, which is the process of discovering, analyzing, documenting and validating the requirements of the system to be developed (IEEE, 2004). Usually, defining the user and system requirements implies to identify all the stakeholders (users, customers, developers, etc.), take into account all their needs and negotiate with them what the system will be able to offer (Wiegers, 1996).

Analysts can employ several methods and techniques to elicit the requirements from the users/customers. As matter of fact, often this is a collaborative and participatory process, envisaging a continue and intensive dialogue among the stakeholders. Such dialogue may be based on the development of 'scenarios' and/ or 'use cases' (as it happens in the agile methods - Beck et al., 2001), the use of focus groups, workshops,

interviews, questionnaires with the users/ customers, more ethnographic approaches based on the direct observation of the users' actions/needs, the study of the documentation of previous systems, etc. Therefore, defining the requirements may be a very complex process, encompassing the use of more than one method or technique (Sommerville & Sawyer, 1997). The outcome of this complex process of elicitation is a list of requirements, stating what the system will do (rather than how it will do this) (IEEE, 1998).

Within the ENhANCE project, the methodology adopted for the requirements elicitation and the analysis activities is based on a participatory approach and included interactions among developers and project's internal stakeholders and the development of scenarios (see 5.4.1) and use cases (see 5.4.2). In particular, the requirement analysis is the result of conversations and interviews developers (TEI of Crete) had with all the ENhANCE project's partners during the kickoff meeting (17-19 January 2018, Genoa, Italy) and, after that, partners involved in Task 7.2 of WP 7, mainly CNR-ITD (as Project Coordinator) and EUROCARERS (as WP 7 Leader), through online meetings.

The requirements elicitation and analysis activities process for the ENhANCE website project started from the identification and definition of different categories of end users (stakeholders) of the project website. Those end users have been identified as it follows:

- External public: "basic users" interested in reading the public content of the website. These users might have a general or a specific informative need in PHC or FCN and can be represented by (FCN) nurses, health/social workers, scholars, researchers, experts/teachers, …);

- Internal public: "special users" interested in creating, organizing, editing and publishing the content of the website. These users are basically represented by members of the Alliance with different roles (administrators, editors, …).

4. Project website and social media sites: scope and objectives

4.1 Scope of the project website

The ENhANCE project website will be developed with the main purpose of sharing the project scope, objectives, activities and results beyond the project's Alliance and therefore enabling a wider community to benefit from the project findings and tools.

As a fundamental dissemination and exploitation vehicle, the project website foresees to be dynamic and will fulfill more than a single role:

1. source of information on the project scope, activities, and outputs, and

2. transfer the project results by providing links to the project deliverables and related repositories.

4.1.1 Objectives and success criteria of the project website

Specific objectives of the project website have been identified, as it follows:

- To provide information about the project scope by describing the project objectives, methodology, activities, participating organisations and funding programme;

- To share the project tools and outputs by ensuring a wide and direct access to the project deliverables;

- To widely disseminate project-related events and news via the website news section and newsletter;

- To act as a contact point between the project participating organisations and the wider community via the contact form and social media channels.

As shown in Table 3, some examples of criteria for measuring the project website's success have been preliminary identified in terms of "means of verification", while "threshold" setting a benchmark for the project website's performance will be carefully defined in the next steps.

Table 3: ENhANCE project website's success criteria

Success criteria	Means of verification	Threshold
Website Go-Live Date	Date	--
Look Professional	Feedback from the Stakeholders	--
Website traffic	Number of visitors	--
Share Information/Knowledge	Number of downloads (publications, presentations, reports, etc.) Links clicks Signs up to the project newsletters Number of shared content	--
Answer Questions	Number of enquiries and replies (via contact forms, social media, etc.)	--
Update Material	Number of site updates (by quarter)	--

4.2   Scope of the project's social media sites strategy

The main purpose of communicating on social media platforms is to facilitate an open dialogue between the project and the audience beyond the project's Alliance. An effective social media strategy will enable us to share our knowledge, champion and empower the stakeholders and widen our reach. The social media strategy is intended to be adaptable to the project outputs and will be strictly linked to the dissemination and exploitation plans.

In particular, the project's social media sites strategy will be defined more precisely at a later stage of the WP 7, to better inform the specification phase in the dedicated deliverables (D7.1.1 – Dissemination plan and D7.3.1 – Exploitation and sustainability plan, both to be realesed at month 3 of the project).

4.2.1   Objectives of the project's social media sites strategy

Specific objectives of the project's social media sites strategy have been identified, as it follows:

- To raise awareness about the project's rationale and results among a wider audience;

- To share the project content with a wider audience than the website and drag traffic back to the project website;

- To engage people and disseminate call to action;

- To create a multiplier effect by inviting people to share and comment the project's content.

Specific criteria for measuring the project's social media sites strategy's success will be later identified and presented in the dedicated deliverables (D7.1.1 – Dissemination plan and D7.3.1 – Exploitation and sustainability plan, both to be released at month 3 of the project).

4.3   Project website and social media sites: roles and activities

As a principle, all stakeholders will be invited to share the content published on the website with their social media communities.

EUROCARERS – as WP 7 Leader - will periodically reach out to the project participating partners to highlight that sharing the content to a wider audience is key to the success of the project. The "dissemination monitoring tool" developed in the Dissemination Plan (D7.1.1) will allow the continuous collection of materials.

5. Proposed system

5.1 Project website

In line with what defined in the preliminary stage of the Requirement Analysis, the ENhANCE project website will present the project and support dissemination activities. Project's presentation would contain all information regarding both project's proposal and running. Such info could be project's description, presentation of the partners, announcements, upcoming events, news, agendas, and reports.

For supporting dissemination activities, the website will be enriched with adequate tools, depending on dissemination strategies planned in project's context. Multiple languages will be supported and multi-device accessibility as well.

Main purposes of the project websites in terms of dissemination, exploitation and sustainability of the project are:

- to raise awareness about the project's rationale and results;

- to promote the outcomes of the project;

- to contribute to project's dissemination.

5.1.1 Target users

In line with what defined by means of the requirements elicitation and the analysis activities process for the ENhANCE website project, the website will be open to "basic users" (external public). Its content will be available to any user having a general or a specific information need with regard to the ENhANCE project itself or in PHC or FCN: (FCN) nurses, health/social workers, scholars, researchers, experts/teachers, policy makers, associations, regulatory bodies,

Specific user accounts for "special users" (internal public, such as site administrator and authorized editors/publishers) will be made available.

5.1.2 Design (navigation flow)

5.1.2.1 Functional and logical structure of the website

The web site will contain all information regarding both project's proposal and running. Furthermore the site will support any dissemination activities. Basic components of the pages of the website are:

- Top layer (header)

    o Banner with project's logo and acronym, full project title, language selection box and searching box. Optionally: login box

- Menu layer

    o The main navigation bar presenting the main content categories and with drop down lists for selecting subcategories.

- Main body

    o Image <optional>

    o Presentation of the selected content (article, video, report, etc.)

- o Side bars filled with informative material such as news, calendar, and agenda, etc. or prompting for polls or send comments (optionals).
  - Bottom layer (footer)
    - o Quick access links, policies, copyrights, contact info. Optionally: login box.

Sample of a typical page is represented in Figure 1.

Figure 1: Sample page
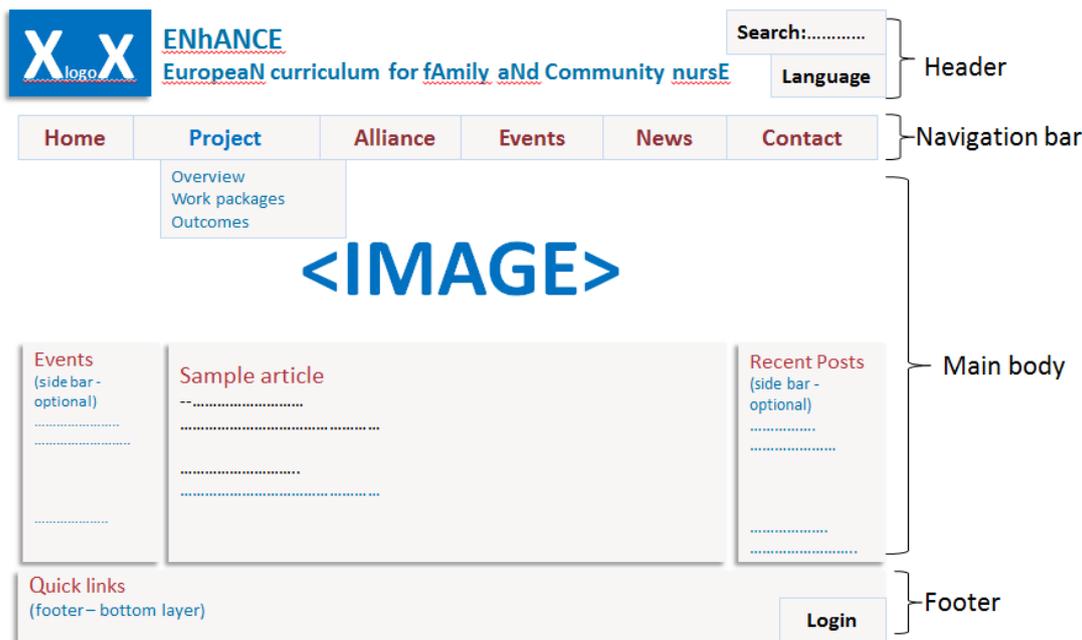
Logical structure is represented in Figure 2.

Figure 2: Logical structure of the site
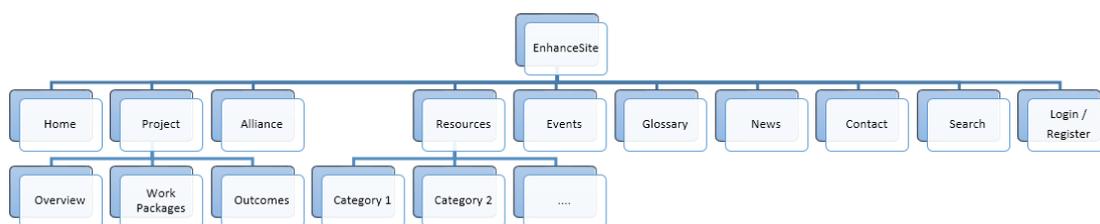
5.1.2.2   *Main sections and pages*

The main content sections are summarized as it follows:

- Project description
  - o Overview
  - o Work packages
  - o Outcomes
- Alliance
  - o Presentation of each partner

- Outcomes
    - The deliverables of each task
    - Reports
- Resources (related to the project)
    - Category 1
    - Category 2
    - …..
- Events
    - Upcoming events concerning the project
- Glossary
- News
    - Announcements concerning news relative to the project
- Contact
- Search
- Login / Register

Agendas and polls will be managed as independent components filling out mainly the side divisions of the pages. Additionally, tools for developing project's newsletters will be provided by the website.

5.1.3 Look & Feel (visual identity, communication strategy)

The *Look & Feel* of the ENhANCE project website will be coherent with the overall visual identity of the project and its communication strategy, which will be defined and presented in the dedicated deliverables (D7.1.1 – Dissemination plan and D7.3.1 – Exploitation and sustainability plan).

Three main elements of the overall project's visual identity will be exploited for the project website design:

- Project Logo(s). The different elements that represent the scope of the project will be portrayed (or hinted) in the logo: nursing / training / community / family / integrated healthcare / curriculum / profile. In terms of usability, the logo will work in its colours and black and white versions.
- Style (visual elements). The style of the logo will be visually appealing and easily recognizable. The stakeholders will feel at ease when using it. A variety of formats and visual identity guidelines will be developed and shared with the stakeholders.
- Slogan(s). A slogan will be developed in order to explain what ENhANCE means and will be used as a by-line when the logo is used. This slogan will be short, explain what the project is about and easily understood by people coming across the project for the first time. The different elements that represent the scope of the project will be portrayed (or hinted) in the slogan or by-line: nurses / training / profile / healthcare system.

5.2 Functional requirements of the project website

5.2.1 Content management policy

The content policy shall ensure and clearly explain roles and responsibilities of all parties involved in online content management. Best practices in content management and usability principles shall be established and adopted. Furthermore, content management policy shall outline processes for web content review, maintenance and development.

Information appearing on the website shall be compliant with the policies defined in project's context and EU legislation. The web content shall be approved by the project Editorial Board (EB), prior to being published on the project website; consequently the authors shall submit their content to the EB for reviewing and approval. Details about the procedure can be found in the Alliance Agreement. Uploading the content in specific areas of the site is the responsibility the web-users who are authorized to manage (insert, update, delete, sort) the content in these specific areas.

As for open access policy and Intellectual Property Rights issues, website content shall be compliant with the related articles of Grant Agreement and the Alliance Agreement.

5.2.2 User access / Login policy

The objective of the policy is to define the user access management control measures for the ENhANCE project website and the information - operations where it would apply. This policy seeks to further ensure that it protects the privacy, security and confidentiality. The main objective of the policy is to provide best practices on User Access Management controls and procedures making use of user groups and permissions accesses menus.

The aim of policy is to ensure that the website conforms to standard user access management controls in such a way that it achieves a balance between ensuring legislative compliance, best practice controls, service efficiency and that risks associated to the management of user access are mitigated.

5.3 Non-functional requirements of the project website

5.3.1 Usability

Web usability is the ease of use of a website. Some broad goals of usability are the presentation of information and choices in a clear and concise way, a lack of ambiguity and the placement of important items in appropriate areas. It deals with issues concerning visitor's interaction, layouts, navigation and how the content is sorted.

Usability in relation to accessible should conform to the following:

- all devices,
- elderly,
- special needs – disabilities,
- eye diseases, eye problems and eye conditions,
- enough and NOT too much information on each page,
- information should be easy to be found using search,
- contact and other services should be always available.

5.3.2 Accessibility

Web accessibility refers to the inclusive practice of removing barriers that prevent interaction with, or access to websites, by people with disabilities. When sites are correctly designed, developed and edited, all users have equal access to information and functionality. So modern web-based practices and well-tested libraries should be exploited, enabling multi-device accessibility for all the web environments.

With respect to "Web Content Accessibility Guidelines" (WCAG - https://www.w3.org/WAI/intro/wcag) of World Wide Web Consortium (W3C), and according to EU principles on accessibility (https://europa.eu/european-union/abouteuropa/accessibility_en) the website should be able to conform to the following basic guidelines:

- Provide equivalent alternatives to auditory and visual content.
- Don't rely on colour alone.
- Use mark-up and style sheets, and do so properly.
- Clarify natural language usage.
- Create tables that transform gracefully.
- Ensure that pages featuring new technologies transform gracefully.
- Ensure user control of time sensitive content changes.
- Ensure direct accessibility of embedded user interfaces.
- Design for device independence.
- User interim solutions.
- Use W3C technologies and guidelines.
- Provide context and orientation information.
- Provide clear navigation mechanisms.
- Ensure that documents are clear and simple.

Another interpretation of accessibility is the ability to locate and access the content hosted on the website. This means that the content files should be identifiable and locatable when needed.

5.3.3 Performance (Reliability, Supportability, Scalability)

Website's services should run on a dedicated server, supported by a high-availability system. The server should be part of a Virtual Machine (VM) infrastructure with high availability capabilities.

Site reliability can be further challenging in order to determine whether a website is credible. More specifically the following should be considered:

- author – information on the internet related to the author is an indication of a credible site,
- dates – the date of any research information is important and this means that content should be followed by its publishing date,
- transparency – all available content information should be published,
- domain – URL content (name) and TLD as well as SSL certification are very important and critical for the most of the SEO mechanisms,

- hosting - the site should be hosted at robust servers under the supervision of a legal organization with 24/7 supportability,

- implementation – development through a well-known CMS platform using a bootstrap compatible design theme with respect to mobile first friendly interface supporting scalability,

- writing style – site developing with respect to the users - visitors with special needs.

5.3.4 Integration with other (project) technological infrastructures

Apart from the project website, a number of digital environments will be delivered in the framework of the project (in particular, under the WP 4). These are:

- Open Online Tool. An environment to support FCN's case study and best practice sharing. The tool will be at the heart of the learning activities proposed (by teachers) to nurses during the pilots (W4, T4.1). Users: nurses (publishing, editing, reading, organizing, and sharing): teachers (reading, organizing).

- A digital learning environment. A Virtual Learning Environment (VLE-LMS) to support the pilots for teachers' training (W4, T4.2). Users: teachers; tutors.

- A digital repository. For storing Open Educational Resources (OER) – open contents (lesson plans included) - used within and produced during the e-learning path for teachers and trainers in the field of nursing (W4, T4.2). Users: Nurses (searching, organizing); teachers (publishing).

The project website should be linked with the aforementioned digital environments, although they all should be able to work independently from each other.

5.3.5 Integration with social media sites

The website should also be linked to the project's social media sites. In order to do that, all the pages and the content published on the project website should be accompanied by a set of "social media share buttons" allowing the reader to instantly share the content of their interest to their social media followers.

5.3.6 Domain

The project website's domain is: www.enhance-fcn.eu.

It was registered on 21 February 21 2018 by CNR-ITD and can be renewed at zero cost annually, as long as necessary for the project. Details about the sustainability of the project website, and the ENhANCE project more in general, will be provided in D7.3.1 - Exploitation and sustainability plan.

The following are the main information about the project website's domain:

- WHO IS DATA:
    - Domain name: enhance-fcn.eu
    - Status: In Use
    - Registered: 21 Feb 2018
    - Expiry date: 21 Feb 2019
    - Last update: 21 Feb 2018

- ▪ REGISTRAR

    - ▪ Organisation: Consortium GARR

    - ▪ Website: www.garr.it

- ▪ NAME SERVERS

    - ▪ nameserver.cnr.it

For further details about the project website's domain registration, see: https://whois.eurid.eu/en/?domain=enhance-fcn.eu.

5.3.7 Implementation

Implementation should be done according to the specifications with respect to the Requirement Analysis (appearance, design elements, functionality, usability, users' authorization policy, etc.) and it should be based on one of the well-known open source content-management framework. Depending on Requirements Analysis, one of the following commonly used CMS framework should be chosen:

- ▪ Drupal (https://www.drupal.org).

- ▪ Joomla (https://www.joomla.org).

- ▪ WordPress (https://wordpress.org).

5.3.8 Interface

User interface (UI) is all about helping the user to accomplish a given task as simply and efficiently as possible. With non-intimidating design and structure, the web-environment should provide advanced searching and navigation facilities for accessing the resources. The look, the feel and the navigation are undeniably important. Content should be intuitive to the point of being invisible. If a user gets lost, or can't work, the UI has failed. Main objectives of a good UI are:

- ▪ Know your audience.

- ▪ Keep things simple and consistent.

- ▪ Implementing a visual hierarchy.

- ▪ Good use of typography.

- ▪ Proper usage of colours and contrast.

- ▪ Consideration of feedback messages.

- ▪ Simplified forms.

5.3.9 Contents

The project website should support the creation and utilization of content types (articles, multimedia files, RSS feeds, events, links, etc.) for storing project's content. Most known file extensions should be supported (e.g. pdf, docx, odt, pptx, jpg, png, avi etc.).

The project website should support a multi-language user interface (English by default).

All contents should be properly described with metadata schemas, according to international standards, offering that way opportunities for being crawled and indexed

by search engines, finding the appropriate materials, and allowing collaboration and interoperability with other related infrastructures, such as institutional repositories, Open Educational Resources (OER) and community portals.

A glossary including and presenting project related terms should be implemented as a specific section of the project website.

5.3.10 Management / Updating

Maintenance and updates of the content should be carried out by selected authorized users with specific accessing permissions to selected contents areas.

Technical maintenance and software updates should be done by the administration user.

An email account for supporting helpdesk should be known to all registered users.

5.3.11 Webmetrics / Statistics / Reporting

There are various tools for webmetrics that generates advanced web, streaming, ftp or mail server statistics, graphically or not. Also in every well-established CMS framework there is a variety of free and real time plugins that are able to provide statistics, such as the number of online users.

Website developers should select the most appropriate for the project website, after discussing with the WP 7 Leader on the quality and the depth the analytics needed.

5.3.12 Legal

The identity of the project shall be clearly displayed on the website, as well as contact details (electronically or not).

The "terms of use" and "privacy" policies shall be published on the website.

Since the project website must clearly acknowledge the EU's Union support, 1) the EU Disclaimer clearly acknowledging the EU's support and 2) the Erasmus+ logo and mention *"Co-funded by the Erasmus+ Programme of the European Union"* shall be displayed on the project website.

A website should notify whether it collects personal data relating to visitors of the website. The project website should not collect personal information neither use cookies.

The means to support granting intellectual properties should be provided. Intellectual property rights should be applied to all the contents for safeguarding creators.

5.3.13 Security

The content of the server/VMs as well as of the project website shall be on regular backup schedule.

Hardware abstraction provided by Virtualization Technologies shall ensure that the backup system images can be restored on different hardware.

The server hosting the website should be protected by a firewall. A firewall is a network security system that monitors and controls incoming and outgoing network traffic based on predetermined security rules.

The Operating System of the server or the hosting VM as well as the services (web) provided should be fully updated/patched.

The selected CMS framework for developing the website should also be fully and continuously updated/patched.

The website should be protected by SSL with a trusted certificate for confidentiality (user logins/sensitive information). SSL (Secure Sockets Layer) is a standard security protocol for establishing encrypted links between a web server and a browser in an online communication. The usage of SSL technology ensures that all data transmitted between the web server and browser remains encrypted.

Role based access control on the website (administrator/editor-user/public) should be guaranteed.

5.4 Project website – System model

5.4.1 Scenarios – user interfaces and screen mock-ups

Unregistered user, visitor.

An unregistered user reads specific content areas when accessing the project website. As soon as the user enters (as Figure 3: Public user interface shows), she/he is able to read the latest information (on the left and centred part of the site) submitted by authorized users. Clicking on "*more*" he can access the complete information. On the upper side, a navigation bar (menu) exists and, on the right side bar, various mechanisms can provide important information and operations.

Figure 3: Public user interface
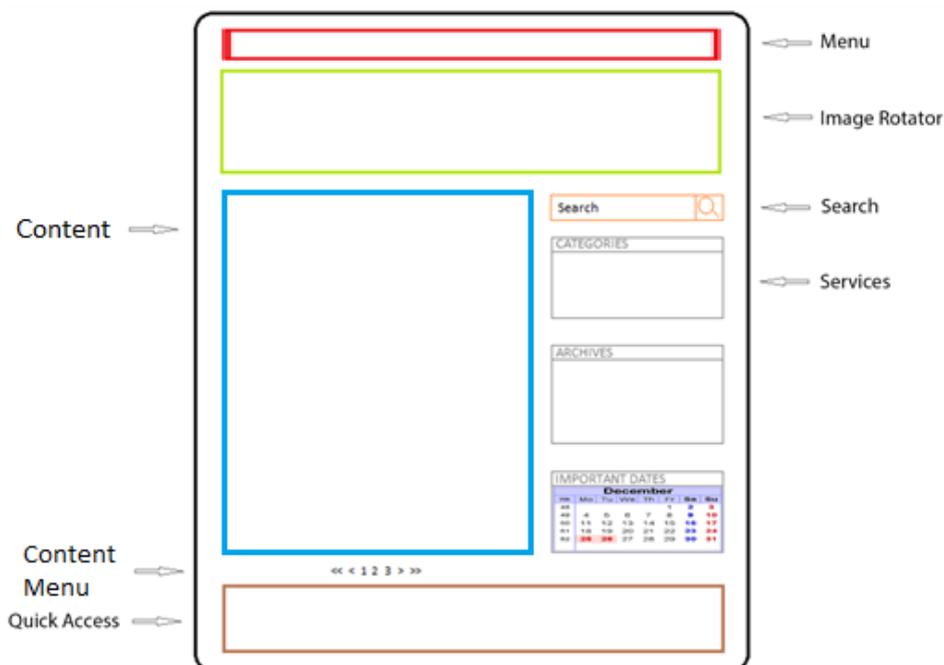
Authorized user.

As Figure 4: Authorized user interface shows, an authorized user can access a specific interface to moderate content management that belongs to restricted areas. Content management concerns reading, adding, deleting and updating content after login process. On the upper side, the available operations concerning her/his account becomes available. On the left side, an accessing menu to all content management services will be available. On the page centred area, all content information are revealed.

Figure 4: Authorized user interface
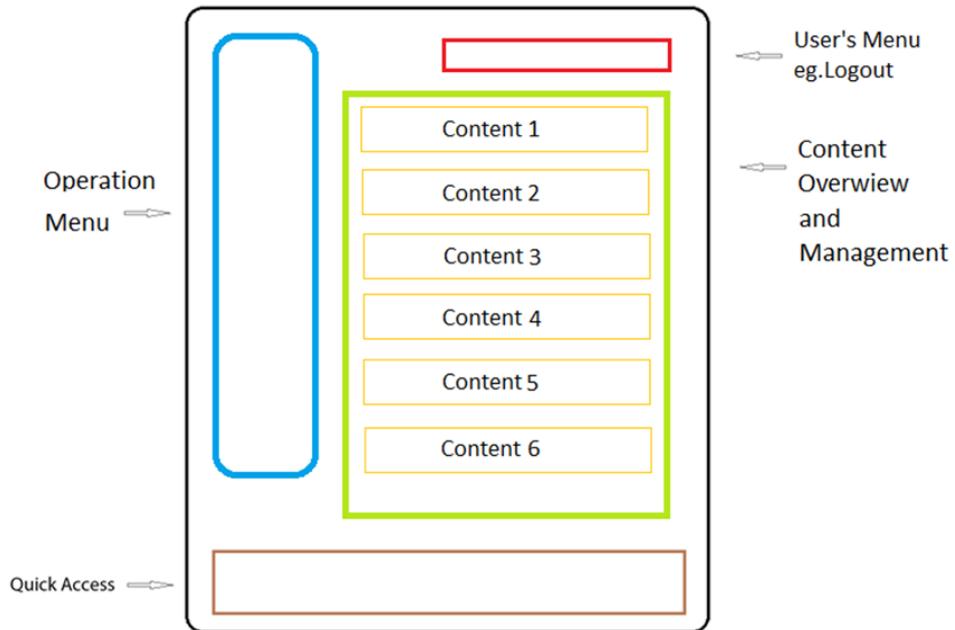
Admin user.

As Figure 5: Admin user interface shows, an administrator user can access a specific interface to moderate content management and perform technical procedures. On the upper side, the available operations concerning this account will be available. On the left side, an accessing menu to all content management services will be available. On the page centred area, all content information will be revealed.

Figure 5: Admin user interface
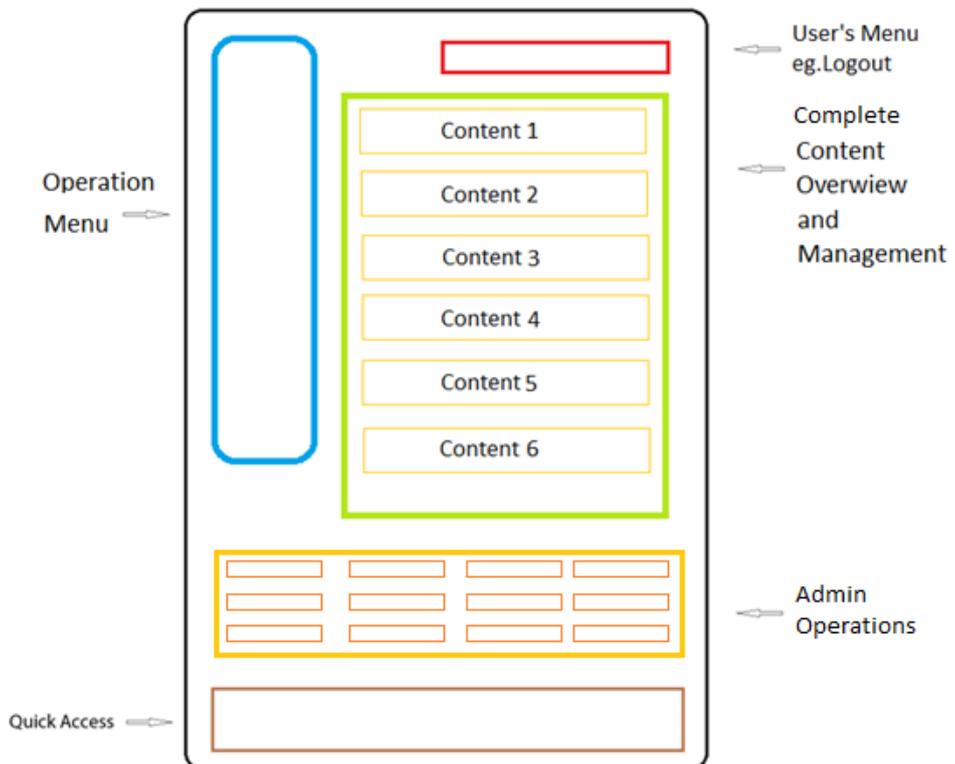
5.4.2 Use case model

**Figure 6: Restricted user – use case diagram**

USE CASE DIAGRAM:
Restricted User
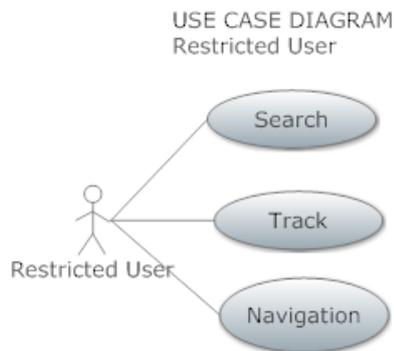
Figure 7: Authorized user – use case diagram

USE CASE DIAGRAM:
Authorized User
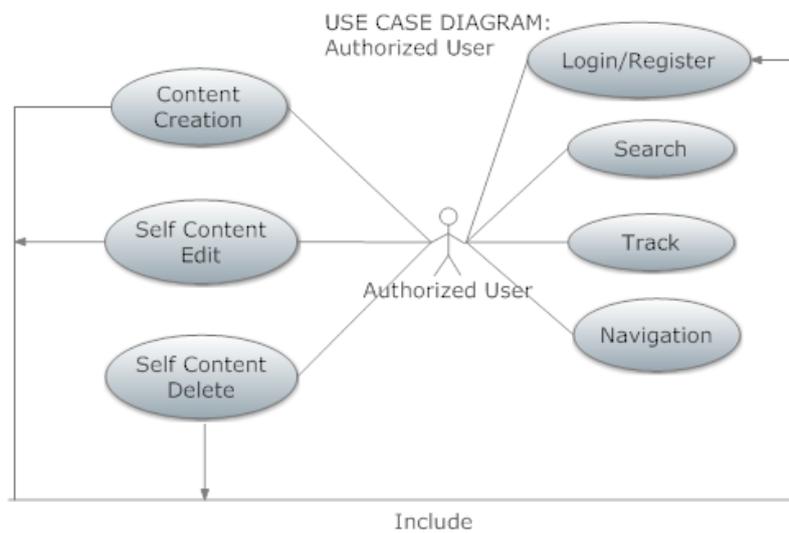
Figure 8: Admin user – use case diagram

USE CASE DIAGRAM:
Administrator User
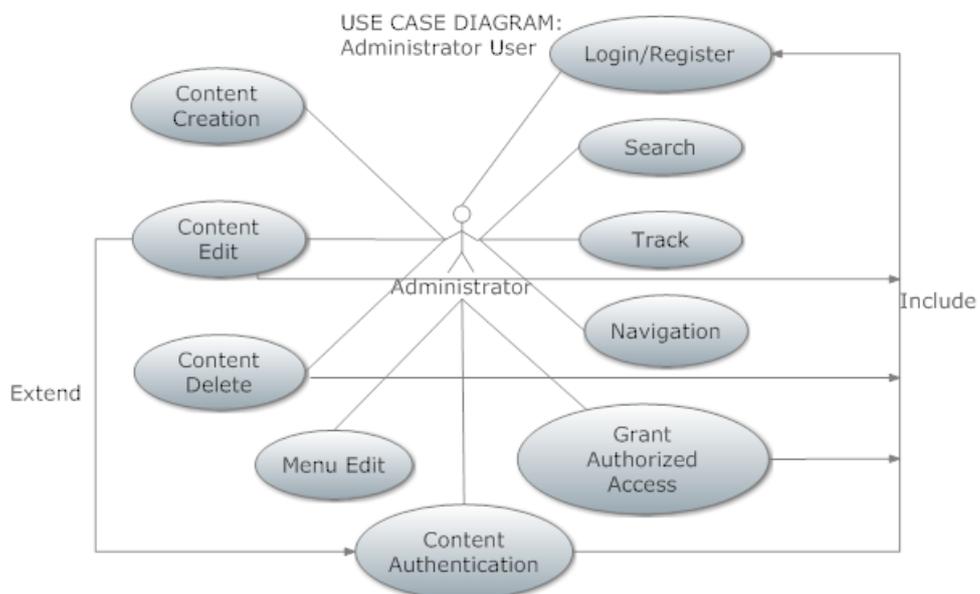
5.5 Social media sites

As already stated in section 4.2 of this document, the project's social media sites strategy will be defined more precisely at a later stage of the WP 7, to better inform the specification phase in the dedicated deliverables (D7.1.1 – Dissemination plan and D7.3.1 – Exploitation and sustainability plan, both to be released at month 3 of the project).

For the purpose of this document, social media sites are only introduced with regard to target audience, channels and platforms, strategies, and integration with the project website.

5.5.1 Target audience

The social media strategy will be developed in line with the key messages targeting the different audiences to be identified in the Dissemination Plan (D7.1.1). In order to contribute to the effective use of the social media tools the "online social behaviour" of the target audiences (will be assessed and taken into consideration).

5.5.2 Channels/platforms

We do not recommend the creation of a dedicated Facebook page for the project. The rationale is that we would have to build up a community of followers from scratch and to duplicate, and adapt, the content from the website.

We recommend constantly inviting all the stakeholders to share the content of the website through their personal (and professional) social networks. This way, the project will benefit from the multiplier effect created by the combination of all the stakeholders' networks.

5.5.3 Strategies/tactics

Once shared on the social media platforms, the project will be unified and gathered with a set of specific hashtags. The hashtags are indexed by the social network and become searchable/discoverable by other users. Once someone clicks on that hashtag, they will be brought to a page that aggregates all of the posts with the same hashtags, in real-time.

We will develop set of unique and specific hashtags and will pro-actively invite the stakeholders to systematically use them.

5.5.4 Social media content strategy

We will use the content published on the website. The people sharing this content will be encouraged to express their views on the specific items and to open discussion with their networks.

5.5.5 Integration with project website

All the pages and the content published on the project website will be accompanied by a set of "social media share buttons" which will allow the reader to instantly share the content of their interest to their social media followers (see 5.3.5).

6. Conclusions and future work

In this document, we have described how the initial requirements of the ENhANCE project website were defined. The process was iterative and participatory, and envisaged the involvement of a number of stakeholders.

As result of this process, we have presented the "List of ENhANCE project website requirements" (see Annex 1). Such list will guide the work of the developers in the following stages and provide the project with indicators to be used to measure progress toward goals. Those indicators will be defined in terms of benchmark indicators – with relative thresholds where applicable – in the next specification phases.

Overall, the requirements' list presented in this document has been drafted in the clearest and most exhaustive way possible, despite some aspects of the project website may still be vague at the beginning of the project. Therefore, the related requirements might be defined more precisely later, to better inform the specification phase in the dedicated deliverables (D7.2.2 and D 7.2.3)

Of course, there are still possibilities of further improvement/refinement, especially for those use cases, which so far might have been only partially addressed by the project, and this will be done in the next months. As a matter of fact, in a project like ENhANCE, the requirement refinement for the project website is necessarily a continuous process, which needs to remain open to development and test.

Thus, this document will feed the next steps of Task 7.2, devoted to the development of the project website and the adoption of social media sites to support project dissemination (D7.2.2 and D7.2.3). In particular, in D7.2.3 final considerations about the overall requirement definition process will be drawn.

7.   Table of Acronyms

Acronym	Meaning
CMS	Content Management System
D	Deliverable
DOCX	Microsoft Office Word 2003 XML Format
EB	Editorial Board
ECVET	European Credit System for Vocational Education and Training
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualifications Framework
EU	European Union
FCN	Family and Community Nurse
GA-SC	Grant Agreement - Special conditions
JPEG/JPG	Joint Photographic Experts Group
LCMS	Learning Content Management System
LMS	Learning Management System
ODT	Open Document Text
OER	Open Educational Resources
PDF	Portable Document Format
PHC	Primary Health Care
PNG	Portable Network Graphics
PPTX	Microsoft Power Point 2007 XML Format
RSS	Rich Site Summary
SEO	Searching Engine Optimization
SSL	Secure Socket Layer
TLD	Top-Level Domain
UI	User Interface
URL	Uniform Resource Locator
VLE	Virtual Learning Environment
VM	Virtual Machine
W3C	World Wide Web Consortium
WCAG	Web Content Accessibility Guidelines
WHO	World Health Organization
WP	Work Package

8.   References

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9. Annex 1. List of ENHANCE project website requirements

Requirement Priority	
M	**Mandatory requirement**: this feature shall be built into the final version of the project website.
D	**Desirable requirement**: this feature should be built into the final version of the project website unless the cost is too high.

No.	Requirement	Priority
1.0	**Content management policy**	
1.01	The project website shall support the creation and modification of user roles, content and approval permissions.	M
1.02	The project website shall support processes for web content planning and scheduling, creation, drafting, reviewing and editing, publishing, updating, archiving, and deleting.	M
1.03	The project website shall support the tracking of the actions by users who are authorized to manage (insert, update, delete, sort) the content in specific areas.	M
2.0	**User access/login policy**	
2.01	The project website shall implement user access management control measures in order to guarantee privacy protection, security and confidentiality.	M
3.0	**Usability, accessibility, web interface**	
3.01	The project website should be easy-to-use and provide an intuitive graphical user interface.	D
3.02	The project website should have one unified system for search, with all fields searchable [information should be easy to be found using search].	D
3.03	The project website should provide contact and other services always available.	D
3.04	The project website should be compliant with the Web Content Accessibility Guidelines (WCAG) 2.0 and the EU principles on accessibility.	D
4.0	**Performance (Reliability, Supportability, Scalability)**	
4.01	The project website should run on a dedicated server, part of a Virtual Machine (VM) infrastructure, supported by a high-availability system.	D
4.02	Each content published on the project website should be clearly followed by the indication of its author and its publishing date.	D
4.03	The project website should be hosted at robust servers under the supervision of a legal organization with 24/7 supportability.	D
4.04	The project website should be developed through a well-known CMS platform using a bootstrap compatible design theme with respect to mobile first friendly interface supporting scalability.	D
5.0	**Integration with other (project) technological infrastructures and with social media sites**	
5.01	The project website should be linked with the other (project) technological infrastructures, although they all should be able to work independently from each other.	D

5.02	Each content page of the project website should be equipped with a set of "social media share buttons" allowing the reader to instantly share the content of their interest to their social media followers.	D
6.0	**Domain**	
6.01	The project website's domain shall be chosen also considering aspects related to the SEO mechanisms.	M
6.02	The project website's domain shall be renewed annually, as long as necessary for the project.	M
7.0	**Implementation**	
7.01	The implementation of project website should be based on one of the well-known open source content management framework.	D
8.0	**Content**	
8.01	The project website should support the creation and utilization of content types. The current set of content types that are created and utilized, in different languages (see 8.03), and must be supported, includes: articles, multimedia files, RSS feeds, events, links, etc.	D
8.02	Most known file extensions should be supported (e.g. pdf, docx, odt, pptx, jpg, png, avi etc.).	D
8.03	The project website should support a multi-language user interface and multi-lingual capabilities.	D
8.04	The project website should provide functionality such that language is automatically selected based on the user logged in.	D
8.05	Each page/content of the project website should be properly described with metadata schemas, according to international standards.	D
8.06	A glossary including and presenting project related terms should be implemented as a specific section of the project website.	D
9.0	**Management, updating**	
9.01	Maintenance and update of the content should be carried out by selected authorized users, with specific accessing permissions to selected content areas.	D
9.02	Technical maintenance and software update should be done by the administration user.	D
9.03	An email account for supporting helpdesk should be known to all registered users.	D
10.0	**Webmetrics, statistics, reporting**	
10.01	The most appropriate tools should be selected based on the quality and the depth the analytics needed.	D
11.0	**Legal**	
11.01	The identity of the project website shall be clearly displayed on the project website.	M
11.02	Contact details (electronically or not) shall be displayed.	M
11.03	The "terms of use" and "privacy" policies shall be published on the project website.	M
11.04	The project website shall clearly display 1) the EU Disclaimer clearly acknowledging the EU's support and 2) the Erasmus+ logo and mention "Co-funded by the Erasmus+ Programme of the European Union"	M

11.05	The project website should not collect personal information neither use cookies.	D
11.06	The means to support granting intellectual properties should be provided. Intellectual property rights should be applied to all the contents for safeguarding creators.	D
12.0	**Security**	
12.01	Content of the server/VMs as well as of the project website shall be on regular backup schedule.	M
12.02	Hardware abstraction provided by Virtualization Technologies shall ensure that the backup system images can be restored on different hardware.	M
12.03	The server hosting the website should be protected by a firewall.	D
12.04	The Operating System of the server or the hosting VM as well as the services (web) provided should be fully updated/patched.	D
12.05	The selected CMS framework for developing the website should be fully and continuously updated/patched.	D
12.06	The website should be protected by SSL with a trusted certificate for confidentiality (user logins/sensitive information).	D
12.07	Role based access control on the website (administrator/editor-user/public) should be guaranteed.	D