



Project Number: 693349

List of requirements for the platform

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History of changes

VERSION	DATE	CHANGE	REVIEWER(S)
1.0	24/02/2017	Initial version.	Paolo Prinetto, Josep Quer, Jordina Sánchez Amat
1.1	25/07/2017	Typos fixed; Adapted to the project's template.	Paolo Prinetto, Josep Quer, Jordina Sánchez Amat
1.2	15/11/2017	<p>Document partially revised w.r.t. its original structure. In particular, hereby follows the most important changes made:</p> <ul style="list-style-type: none"> • Added use case diagrams for the platform and its Suites; • List of requirements prioritized; • Content providers and End users have been categorized and better described. 	Pietro Braione, Mauro Pezzè, Josep Quer, Jordina Sánchez Amat

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1. Introduction

This deliverable report includes the results of the activities undertaken in WP3 *Digital Infrastructures*. The main objective of the WP3 is the development of the web platform that will host the contents to be produced by WP2 and WP4.

Specifically, this document is connected to task T3.1 *Requirements Analysis*, and contains the User Requirement Specifications for the SIGN-HUB web platform. The requirements as listed in the document are the results of the collections of the needs of individual stakeholders participating in the various tasks of WP2. The system requirements are developed as an abstract model of a system that should meet, to an acceptable degree, the needs of the stakeholders. The level of abstraction is such that this document contains information of what are the specific needs of the project partners but leave sufficient freedom to the developers on how to satisfy those needs.

To gather the user requirements, a step-by-step generation and validation procedure has been followed. The steps of the procedure are the following (Figure 1):

- *Information gathering*: all the users and stakeholders who may influence or be impacted by the SIGN-HUB web platform have been identified. This helped ensuring that the needs of all those involved are considered;
- *User need identification*: the identification of an initial set of user requirements has been started;
- *Envisioning and Evaluation*: once developed an initial set of user requirements, several surveys have been performed to obtain stakeholders' feedback about current habits, possible critical issues and further needs;
- *Requirement specification*: once feedback has been obtained, user requirements has been validated and refined.

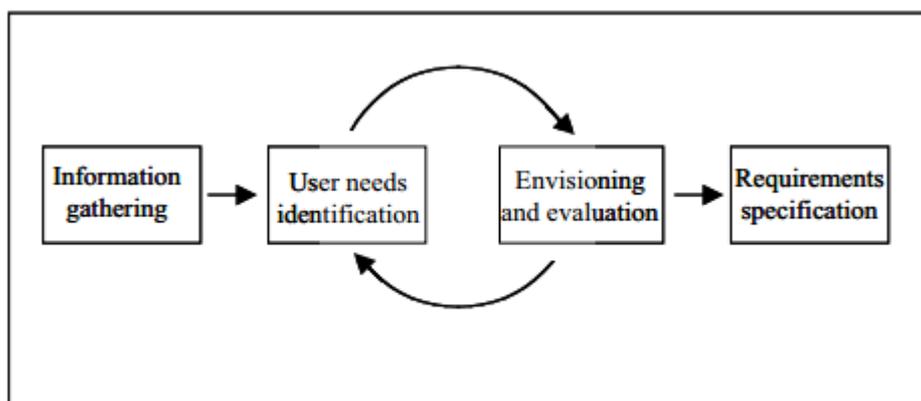


Figure 1: User requirement identification procedure

The structure of the deliverables follows the user requirements categorization and prioritization. The requirements have been classified according to the types of stakeholders involved and prioritized according to the relevance of the features of the platform to the project. The prioritization proposed for the requirements reflects the implementation and represents the backlog of our agile methodology.

2. Users

Stakeholder analysis identifies all the users and stakeholders who may influence or be impacted by the system. This helps ensuring that the needs of all those involved in the project are considered. If required, they will also test the system. User groups may include end users, providers, supervisors, installers, and maintainers. Stakeholder analysis identifies, for each user and stakeholder group, their main roles, responsibilities and task goals in relation to the system.

The users identified for the SIGN-HUB web platform are the following:

- *The Web platform administrator*: who handles user account registration, checks the status of a user's request and allows users to perform different tasks;
- *The content providers*: all the users that edit and upload content on the web platform, namely the Grammarians, Linguists, Ph.D. Students and MA Students involved in WP2 as well as their teachers and supervisors, Deaf researchers and participants. While acting as content providers (in WP2):
 - Grammarians and Linguists are actors who implement the digital content onto the online grammar tool which will be produced during the project; they coordinate teams to ensure the consistent use of methodology, terminology and annotation criteria;
 - Sign language teachers and their learners of sign languages, together with Grammarians and Linguists, will organize and supervise the research on the descriptions of the language that are available in the literature and the adaptation process of these descriptions for the online grammar platform;
 - Deaf and hearing Ph.D. and MA students, under the guidance of Grammarians and Linguists, will be doing research on existing descriptions of the languages represented in this project and writing them according to the framework and guidelines provided in the SignGram Blueprint and incorporating them into the online grammar tool;
 - Deaf researchers and participants will carry out data elicitation tasks and video recordings, will transcribe and annotate data, and will act as language consultants for the project for administrating features such as surveys and geolocalized interactive maps.
- *The end-users*: all the users that reach the platform and access the platform content created from the providers, including Grammarians, Linguists, Ph.D. Students and MA Students as well as their teachers and supervisors, Clinicians, Deaf people and hearing-impaired people. While acting as end-users:
 - Grammarians and Linguists are actors who do not necessarily have training in sign languages but want to know more about them. Any linguistic theory that does not consider sign languages is incomplete since it leaves the visual-gestural expression of the language faculty out of the picture;
 - Sign language teachers and their (deaf and hearing) students as well as learners of sign languages as second language will find a valid instrument in the online grammars that will be provided by SIGN-HUB;

- Clinicians and language pathology experts will have reliable linguistically informed tests to assess possible linguistic deficits in signers;
- Policy makers will have the possibility to produce informed policies in sign languages;
- A more general Deaf and hearing audience will also benefit from SIGN-HUB, since the documentaries based on the narratives of elderly signers will reveal aspects of the life of minorities and the impact of big historical events in communities that were at the margin of the hearing society.

3. Web Platform General Requirements

The General Requirements for the SIGN-HUB Web Platform address all the users, since all of them have to interact with the Platform (Figure 2).

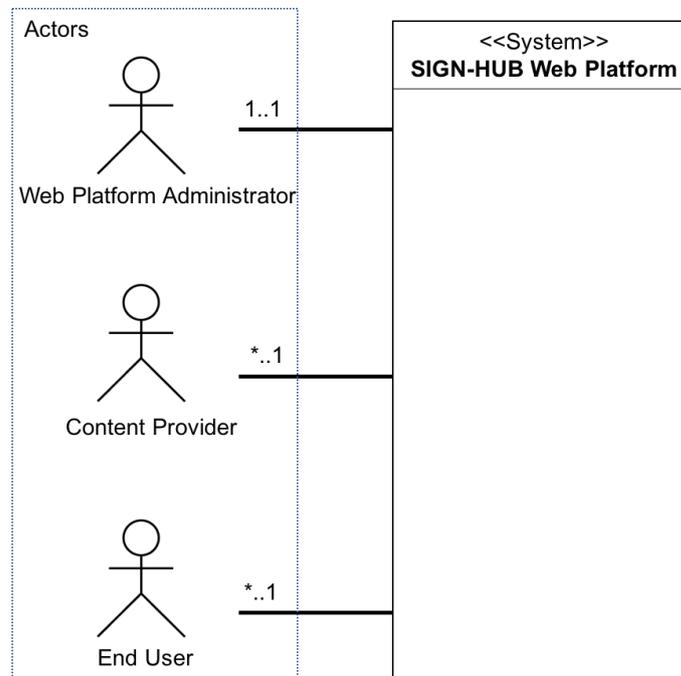


Figure 2: Actors for the Web Platform General Requirements

The Web Platform is composed of four software suites. A software suite is a product or tool with well-defined functional boundaries, although logical resources and database are shared. The four software suites composing the SIGN-HUB Web Platform are:

1. The SignGram Blueprint suite;
2. The Atlas of Sign Language suite;
3. The Test Administration suite for Sign Languages;
4. The Digital Archive of Old Signers' Linguistic and Cultural Heritage suite.

These software suites and modules have the following purposes:

1. The SignGram Blueprint suite will be used to create, manage, analyze, and study digital grammars of 6 sign languages, produced with a new online grammar writing tool that follows the guidelines established by the COST SignGram Action IS1006;
2. The Atlas of Sign Language suite will be used to display an interactive digital atlas of linguistic structures of Sign Languages: we will build a web interface that will allow to display the content of the online grammars in an "atlas format". Among the many features that will be implemented, unlimited feature search, searchable examples (i.e. the search results may include videos and pictures) will be provided. The search engine will include search request in texts or icons (i.e. in the case of handshapes). Interactive maps will display the results of the search. Finally, an easy way to implement features by importing and reusing content created for online grammars will be designed;
3. The Test Administration Suite for Sign Languages will be used to create, manage, and take online sign language assessment tools that are thought for both education

and clinical intervention: we will build reliable tests in forms of surveys to diagnose language pathology (i.e., to build clinical tests for special populations of signers) and to assess knowledge and confidence levels acquired on Sign Languages by non-native signers;

4. The Digital Archive of Old Signers' Linguistic and Cultural Heritage suite will be used to collect, make available online, and stream digital video content from the first digital archive of life narratives by elderly signers, subtitled and partially annotated for linguistic properties; so we will thus preserve and disseminate the linguistic uses as well as the cultural heritage and historical memories of elderly deaf people in Europe interface where linguistic productions of older generations can be streamed both on computers and mobile devices.

Additional modules concern the Front-end Interfaces to the Web Platform, both for the administrator and the other users, the Security module, the Multimedia module (both for data producing and consuming), and the Geolocalization module.

The users interact with the software suites as in Figure 3 (dashed lines represent "import" relationships).

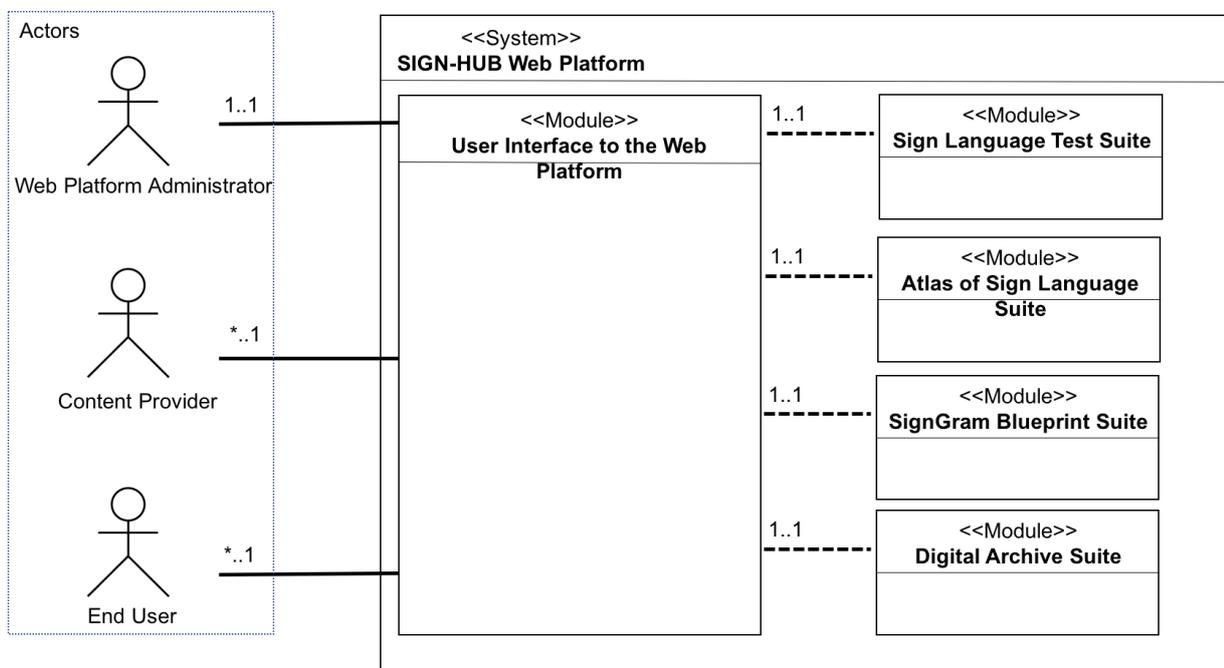


Figure 3: Actors and Software Suites

The General Requirements for the SIGN-HUB Web Platform cover instead the requirements for the user interface acting as a single point of entrance for the end users to the four software suites discussed above. They concern the following aspects:

- *Sitemap and Navigation*: these requirements define the web platform structure. In some cases, the requirements include the sections and content categories of the platform, otherwise should contain a sample wireframe of the home page and of the general template of an internal page;
- *Styling*: these requirements suggest to developers what should be the look and the broad styling of the web platform;
- *Security*: these requirements concern what will be in place to make sure the website is secure to use for visitors, and thus ensure the safe management of several profiles and their access rights and avoid that the site is hacked;

- *Accessibility*: these requirements concern in which way the use of the platform will be ensured for people with special need;
- *Speed*: these requirements concern the performance for upload/download contents.

An additional requirement concerns the support for the web platform of content in multiple languages. Surely, on the one hand, grammars will be available both in English and in the verbal language spoken in the same country (e.g., the grammar for the Italian Sign Language will be available both in English and in Italian). On the other hand, labels for any of the functionalities in the web platform will be always accompanied by figurative and explanatory icons, therefore their translations is not seen as strictly needed in this phase of the project.

Throughout this document, requirements are listed in 3-columns tables containing:

1. The unique identifier of the requirement;
2. The priority given in our implementation (the lower the number, the more important is the requirement for the project);
3. The description of the requirement.

Table 1: Web Platform General Requirements

PLT-RQ-GNL-1.	4	<i>[sitemap and navigation]</i> The web platform layout should be logical and intuitive to use, providing an easy access to the main sections of the platform.
PLT-RQ-GNL-2.	3	<p><i>[sitemap and navigation]</i> The home page of the web platform will contain:</p> <ul style="list-style-type: none"> • The project logo; • A global navigation bar: <ul style="list-style-type: none"> ○ Home ○ SignGram Blueprint ○ Atlas of Sign Language Structures ○ Sign Language Assessment ○ Digital Archive of Old Signers ○ Publications ○ Login • The footer: <ul style="list-style-type: none"> ○ About ○ Contacts ○ Support ○ Connect ○ FAQs • A floating video player.
PLT-RQ-GNL-3.	7	<i>[styling]</i> The web platform should feature modern and user-friendly interface.
PLT-RQ-GNL-4.	5	<i>[styling]</i> The web platform style should incorporate the project logo and the acknowledgement sentence of the

		project.
PLT-RQ-GNL-5.	6	<i>[styling]</i> The web platform style should incorporate the EU logo.
PLT-RQ-GNL-6.	8	<i>[styling]</i> The web platform should be optimized for a 1024 x 768 screen resolution.
PLT-RQ-GNL-7.	9	<i>[speed]</i> The web platform should offer a sufficient loading speed by both local and international users
PLT-RQ-GNL-8.	10	<i>[speed]</i> The website should feature upscaling/downscaling of video resolution.
PLT-RQ-GNL-9.	1	The web platform should be compatible with the following browsers: <ul style="list-style-type: none"> • Microsoft Internet Explorer; • Firefox; • Safari; • Chrome.
PLT-RQ-GNL-10.	2	<i>[accessibility]</i> The web platform should provide content accessible to deaf people and hearing-impaired people, in compliance with the <i>Web Content Accessibility Guidelines 2.0, level AAA</i> .
PLT-RQ-GNL-11.	11	<i>[security - Injection]</i> The web platform should not allow injection flaws (e.g SQL, and LDAP injection occur when untrusted data is sent to an interpreter as part of a command or query) keeping untrusted data separate from commands and queries.
PLT-RQ-GNL-12.	12	<i>[security - Broken Authentication and Session Management]</i> The web platform should implement functions related to authentication and session management to avoid attackers to compromise passwords, keys, or session tokens, or to exploit other implementation flaws to assume other users' identities.
PLT-RQ-GNL-13.	13	<i>[security - Cross-Site Scripting (XSS)]</i> The web platform should not allow Cross-Site Scripting XSS (e.g., attackers can execute scripts in the victim's browser which can hijack user sessions, deface web sites, or redirect the user to malicious sites) keeping untrusted data separate from active browser content.
PLT-RQ-GNL-14.	14	<i>[security - Insecure Direct Object References]</i> The web platform should not allow Insecure Direct Object References to avoid attackers to manipulate these references to access unauthorized data.

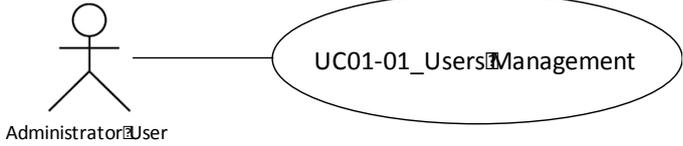
PLT-RQ-GNL-15.	15	<i>[security - Security Misconfiguration]</i> Secure settings should be defined, implemented, and maintained for the platform, frameworks, application server, web server and database server.
PLT-RQ-GNL-16.	16	<i>[security - Sensitive Data Exposure]</i> The web platform should properly protect sensitive data (for example by using safe cryptography) to avoid identity theft.
PLT-RQ-GNL-17.	17	<i>[security - Missing Function Level Access Control]</i> The web platform should provide a consistent and easy to analyze authorization module that is invoked from all privileged functions.
PLT-RQ-GNL-18.	18	<i>[security - Cross-Site Request Forgery (CSRF)]</i> The web platform should not allow Cross-Site Request Forgery (CSRF) attacks (e.g. attacks that force a logged-on victim's browser to send a forged HTTP request to a vulnerable web application)
PLT-RQ-GNL-19.	19	<i>[security - Using Components with known vulnerabilities]</i> The web platform should not use components such as libraries, frameworks, and other software modules with known vulnerabilities.
PLT-RQ-GNL-20.	20	<i>[security - Invalidated redirects and forwards]</i> The web platform should redirect and forward users to other pages and websites using a proper validation.
PLT-RQ-GNL-21.	21	The web platform should allow the integration with an external repository providing services for long-term data preservation and data accessibility (e.g., video streaming, document download, retrieval of metadata), also in terms of findability (i.e., compatibility between search tools).

4. User Requirements

a. Administrator Requirements

The Administrator User interacts with the software suites as in the following use case.

UC01-01_Users' Management

	MAIN ACTOR	Administrator
	BEFORE	User not registered to the SIGN-HUB Web Platform
	TRIGGER	New user registration request
	AFTER	User registered to the SIGN-HUB Web Platform or registration request declined
DESCRIPTION	<p>The aim of this use case is to define the interaction of the Administrator User with the SIGN-HUB Web Platform to validate a registration request of a new user to the same Web Platform.</p> <p>Step 1: The Administrator User logs in to the Web Platform and opens the Administrator Dashboard.</p> <p>Step 2: The Administrator User checks the list of pending account registration and the information provided by the new user.</p> <p>Step 3: The Administrator User either approves the registration request and maps the new user to an authorization profile or rejects it.</p>	

The Administrator Requirements will concern the following aspects:

- *Access Rights and Profiling*: these requirements are useful to define how to handle user account registration, how to check the status of a user's request and to allow users to perform different tasks.
- *Visitor tracking and reporting*: these requirements are useful to define the reporting needs of the web platform and list the Key Performance Indicators that administrators need.

Table 2: Web Platform Administrator requirements

PLT-RQ-ADM-1.	1	The web platform should provide an Administrator Dashboard.
PLT-RQ-ADM-2.	2	The Administrator Dashboard should feature a user-friendly interface.
PLT-RQ-ADM-3.	3	The web platform should allow Administrator to accept/decline user account registrations through the Dashboard.
PLT-RQ-ADM-4.	6	The web platform should return to the Dashboard the list of confirmed/denied/pending account registrations.
PLT-RQ-ADM-5.	4	The web platform should allow Administrator to check, through the Dashboard, the status of a user's request.
PLT-RQ-ADM-6.	7	The web platform should allow Administrator to define, through the Dashboard, multiple authorization profiles with different sets of permissions.
PLT-RQ-ADM-7.	5	The web platform should allow Administrator to associate, through the Dashboard, a user with a specific authorization profile.
PLT-RQ-ADM-8.	9	The web platform should provide for the integration to Google Analytics and/or equivalent free website statistics module for visitor tracking.
PLT-RQ-ADM-9.	8	The web platform should allow Administrator to view on the Dashboard the following users' information: Username, Email, Organization, Date of registration request, Date of registration confirmation.

b. Content Provider Requirements

In this section, the requirements derived from the analysis of content provider needs and desiderata are defined. The content provider requirements are organized in several subsections. Each subsection corresponds with one of WP2 tasks, which in turn corresponds to specific Suites and modules of the SIGN-HUB web platform.

The Content Provider Requirements concern the following aspects:

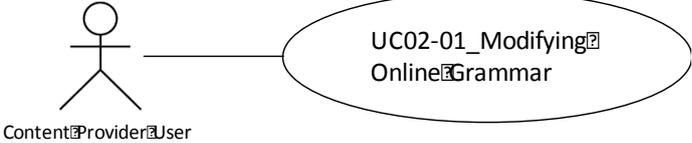
- *Editing and Updates:* these requirements are useful to define the process for adding new content, making editorial changes and validating the uploaded content. Moreover, to clearly state how many providers should update and edit content and how computer literate are them;
- *Editor Interface:* these requirements are useful to define the features of the editor environment and everything required allowing editors to easily accomplish their task.

i. The SignGram Blueprint Suite

The requirements for this Section are connected to Task 2.1, namely the implementation of the SignGram Blueprint in individual language specific grammars. After receiving preliminary information on basic requirements, a survey composed of a mix of 'closed' questions with fixed responses and 'open' questions has been constructed. The purpose of the survey was to collect information on possible functionalities that grammar writers may need to implement specific sign language grammars onto the platform. The survey has been submitted to WP leaders, WP task leaders, selection of WP task members on the 29-06-2016, and a total of 11 answers has been collected by mid august. The report with the answers from the respondents has been analyzed to derive the content provider requirements.

The Content Provider Users interact with the software suite for the SignGram Blueprint as in the following use case, which covers all the possible edits on the information structure of grammars.

UC02-01_Modifying Online Grammar

 <p>Content Provider User</p> <p>UC02-01_Modifying Online Grammar</p>	<p>MAIN ACTOR</p>	<p>Content Provider</p>
	<p>BEFORE</p>	<p>Online grammar of a Sign Language not present or out-of-date in the SIGN-HUB Web Platform</p>
	<p>TRIGGER</p>	<p>New grammar of a Sign Language ready to be uploaded to the SIGN-HUB Web Platform</p>
	<p>AFTER</p>	<p>Online grammar of a Sign Language present or up-to-date in the SIGN-HUB Web Platform</p>
<p>DESCRIPTION</p>	<p>The aim of this use case is to define the interaction of the Content Provider Users with the SIGN-HUB Web Platform and the SignGram Blueprint Suite to create and update online grammar of a Sign Language.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the SignGram Blueprint Suite.</p> <p>Step 2: The Content Provider User's authorization profile is automatically checked by the SignGram Blueprint Suite for authorizing the Content Provider User to post and edit content.</p>	

	<p>Step 3: The Content Provider User can, if authorized, create new parts/chapters/section of the grammar of a specific sign language or revise (delete, change, reorder, link) existing ones.</p> <p>Step 4: The Content Provider User can, if authorized, create new texts for the grammar of a specific sign language or revise (delete, change, link) existing ones through the rich text editor of the SignGram Blueprint Suite.</p> <p>Step 5: The Content Provider User can, if authorized, upload new multimedia files (e.g., image, audio, video, annotation, and table files) for the grammar of a specific sign language or revise existing ones (delete or change) through the rich text editor of the SignGram Blueprint Suite, as long as they respect the constraints defined in D3.11.</p> <p>Step 6: The Content Provider User can, if authorized, preview his/her changes, finalize them, and download a PDF export of the grammar of the sign language of interest.</p>
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Table 3: Content Provider Requirements for the SignGram Blueprint Suite

SGI-RQ-CPR-1.	26	The SignGram Blueprint Suite should manage several profiles that may upload content and their access rights to enter contents on the Suite.
SGI-RQ-CPR-2.	25	<p>The SignGram Blueprint Suite should provide the following types of supporting materials to help content provider (with low familiarity on how platform works and with no editorial skills) to upload content:</p> <ul style="list-style-type: none"> • Manual of use in text format (pdf); • Short training videos; • Tool tips; • Tutorial on how to upload material.
SGI-RQ-CPR-3.	1	The SignGram Blueprint Suite should allow new parts/chapters/section to be added in the grammar of a specific sign language.
SGI-RQ-CPR-4.	2	The SignGram Blueprint Suite should feature a step-by-step validation procedure involving several granted users, with the purpose to check and validate the inserting, change and reorganization of parts/chapters/section of the grammar of a specific sign language.
SGI-RQ-CPR-5.	3	The SignGram Blueprint Suite should show in the public Table of Content of the specific grammar, messages saying if some part of the ToC has been changed/reorganized.

SGI-RQ-CPR-6.	4	The SignGram Blueprint Suite should provide an easy to use rich-text content editor.
SGI-RQ-CPR-7.	5	The SignGram Blueprint Suite should implement a template inside the rich-text content editor.
SGI-RQ-CPR-8.	6	<p>The Rich-text content editor should allow the content provider to transfer text and tables on the platform in the following ways:</p> <ul style="list-style-type: none"> • copy, choose what format (text, title, example, bullet list, etc.) and paste; • copy, paste, choose what format (text, title, example, bullet list, etc.).
SGI-RQ-CPR-9.	7	The Rich-text content editor should preserve the basic formatting (boldface, italics, small caps etc., when content providers transfer text and tables on the platform.
SGI-RQ-CPR-10.	8	The Rich-text content editor should cancel gross formatting and superimpose the template formatting, when content providers transfer text and tables on the platform.
SGI-RQ-CPR-11.	9	The Rich-text content editor should allow the content provider to insert bold text.
SGI-RQ-CPR-12.	10	The Rich-text content editor should allow the content provider to insert italic text.
SGI-RQ-CPR-13.	11	The Rich-text content editor should allow the content provider to insert text in small caps font.
SGI-RQ-CPR-14.	12	The Rich-text content editor should allow the content provider to apply strikethrough formatting to text.
SGI-RQ-CPR-15.	13	The Rich-text content editor should allow the content provider to change text to uppercase/lowercase.
SGI-RQ-CPR-16.	14	The Rich-text content editor should provide an American English spell checker.
SGI-RQ-CPR-17.	15	The Rich-text content editor should allow the content provider to insert hyperlink.
SGI-RQ-CPR-18.	16	The Rich-text content editor should allow the content provider to insert cross-references.

SGI-RQ-CPR-19.	17	The Rich-text content editor should provide horizontal and vertical rulers to align text.
SGI-RQ-CPR-20.	18	The Rich-text content editor should allow the content provider to underline the text.
SGI-RQ-CPR-21.	19	The Rich-text content editor should allow the content provider to change colors and fonts.
SGI-RQ-CPR-22.	20	The Rich-text content editor should allow the content provider to embed images.
SGI-RQ-CPR-23.	21	The Rich-text content editor should allow the content provider to insert a special character/symbol into the text.
SGI-RQ-CPR-24.	22	The Rich-text content editor should allow the content provider to reverse changes made by using the Undo and Redo buttons (or by using standard keyboard shortcuts).
SGI-RQ-CPR-25.	23	The Rich-text content editor should allow the content provider to align selected text to the right, center, or left.
SGI-RQ-CPR-26.	24	The Rich-text content editor should allow the content provider to turn selected lines of text into a bulleted list.
SGI-RQ-CPR-27.	28	The SignGram Blueprint Suite should allow the content provider to embed videos.
SGI-RQ-CPR-28.	27	The SignGram Blueprint Suite should allow the content provider to embed audio files.
SGI-RQ-CPR-29.	30	The SignGram Blueprint Suite should allow the content provider to embed annotation files (e.g., ELAN files).
SGI-RQ-CPR-30.	31	The SignGram Blueprint Suite should provide non-conflicting (incremental numeric order) rules to attribute labels to any uploaded file and keep track of the original filename.
SGI-RQ-CPR-31.	32	The SignGram Blueprint Suite should allow the content provider to embed tables.
SGI-RQ-CPR-32.	33	The SignGram Blueprint Suite should provide a preview of the text.
SGI-RQ-CPR-33.	35	The SignGram Blueprint Suite should provide a

		PDF converter.
SGI-RQ-CPR-34.	34	The SignGram Blueprint Suite should feature a quick regular automatic save on the platform.
SGI-RQ-CPR-35.	36	The SignGram Blueprint Suite should allow content providers to download what has been written on the platform in Word or PDF format, saving active hyperlinks to the text of the grammar.
SGI-RQ-CPR-36.	29	The SignGram Blueprint should allow the content provider to upload the video file formats defined in the deliverable <i>D3.11 Standards and protocols for visual materials</i> .
SGI-RQ-CPR-37.	37	The SignGram Blueprint suite should allow the content provider to write down the name of the authors of the parts/chapters/section.
SGI-RQ-CPR-38.	38	The SignGram Blueprint suite should allow the content provider to write down the bibliography of the chapter (via a drop-down/scroll down menu, with optional subdivisions)
SGI-RQ-CPR-39.	39	The SignGram BP suit should allow the content provider to add hyperlinks to the Blueprint sections.
SGI-RQ-CPR-40.	40	The SignGram Blueprint suit should allow the content provider to link terms mentioned in the text to the glossary.

ii. The Atlas of Sign Language Suite

The requirements for this Section are those connected to Task 2.2, implementation of the Sign Language Atlas. After receiving preliminary information on basic requirements, a survey composed of a mix of 'closed' questions with fixed responses and 'open' questions has been constructed. The survey tailored on Sign Language Atlas issues, envisioning the functionalities required from the perspective of a content provider who wants to collect information for each sign language by using dedicated questionnaires and populate the Atlas database by uploading the answers. The survey has been submitted to WP leaders, WP task leaders, selection of WP task members on the 08-07-2016, and a total of 8 answers has been collected by mid august. The report with the answers from the respondents has been analyzed to derive the content provider requirements.

The Content Provider Users interact with the software suite for the Atlas of Sign Language as in the following use case. In particular, since the Atlas will include the description of many European and non-European sign languages that are not described in the grammars of Task T2.1, questionnaires will have to be created with a selection of features described in the SignGram Blueprint to collect and elicit information for sign languages for which a descriptive grammar is not available yet. This information in particular relates to chapters, references, and features of the Sign Languages as for the SignGram Blueprint.

UC02-02_Creating or Modifying Online Questionnaire

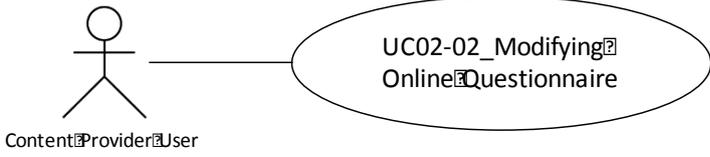
	MAIN ACTOR	Content Provider
	BEFORE	Online questionnaire not present or out-of-date in the SIGN-HUB Web Platform
	TRIGGER	New questionnaire or questions ready to be uploaded to the SIGN-HUB Web Platform
	AFTER	Online questionnaire present or up-to-date in the SIGN-HUB Web Platform
DESCRIPTION	<p>The aim of this use case is to define the interaction of the Content Provider Users with the SIGN-HUB Web Platform and the Atlas of Sign Language Suite to create and update online grammar of a Sign Language.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the Atlas of Sign Language Suite.</p> <p>Step 2: The Content Provider User's authorization profile is automatically checked by the Atlas of Sign Language Suite for authorizing the Content Provider User to post and edit content.</p> <p>Step 3: The Content Provider User can, if authorized, upload new questions or revise (delete or change) existing ones.</p> <p>Step 4: The Content Provider User can, if authorized, upload new answers or revise (delete or change) existing ones.</p> <p>Step 5: The Content Provider User can, if authorized, upload new multimedia files to the Atlas DB (e.g., glosses, image, audio, video, annotation, and table files) and link them to specific questions or answers, or revise existing ones (delete or change), as long as they respect the constraints defined in D3.11.</p> <p>Step 6: The Content Provider User can, if authorized, create a new questionnaire from questions.</p>	

Table 4: Content Provider Requirements for the Atlas of Sign Language

ASL-RQ-CPR-1.	13	The Atlas of Sign Language Suite should manage several profiles that may upload content and their access rights to enter contents on the Suite.
ASL-RQ-CPR-2.	12	The Atlas of Sign Language Suite should provide the following types of supporting materials to help content provider with middle-high computer skills (such as database management and spreadsheet applications) to

		<p>upload and administrate questions and to populate the Atlas DB:</p> <ul style="list-style-type: none"> • Manual of use in text format (pdf); • Short training videos; • Tool tips; • Tutorial on how to upload material.
ASL-RQ-CPR-3.	1	The Atlas of Sign Language Suite should allow the content provider to upload questions and create a questionnaire from the set of questions.
ASL-RQ-CPR-4.	2	The Atlas of Sign Language Suite should allow the content provider to submit and administrate the questionnaire.
ASL-RQ-CPR-5.	10	The Atlas of Sign Language Suite should feature a step-by-step validation procedure involving several users with different grant, with the purpose to check and validate the ATLAS database population.
ASL-RQ-CPR-6.	11	The Atlas of Sign Language Suite should provide a semiautomatic procedure that allows content provider to upload in the Atlas DB only validated questions.
ASL-RQ-CPR-7.	3	The Atlas of Sign Language Suite should allow the content provider to manage and upload in the Atlas DB multiple-choice answers.
ASL-RQ-CPR-8.	4	The Atlas of Sign Language Suite should allow the content provider to manage and upload in the Atlas DB open answers.
ASL-RQ-CPR-9.	5	The Atlas of Sign Language Suite should allow the content provider to manage and upload in the Atlas DB answers containing multimedia files with examples, relative glosses in txt and ELAN annotation files.
ASL-RQ-CPR-10.	6	<p>The Atlas of Sign Language Database should provide the following structure for the table of the answers:</p> <ul style="list-style-type: none"> • Each line corresponds to a question of the questionnaire(s), • Each Column corresponds to a language and • Each cell contains the answer to the

		question for the specific language.
ASL-RQ-CPR-11.	7	The Atlas of Sign Language Database should envisage that each cell of the table of the answers should be associated with a video or picture example, relative glosses, and ELAN annotation file.
ASL-RQ-CPR-12.	8	The Atlas of Sign Language Suite should allow content provider to insert dedicated text to introduce set of questions/answers.
ASL-RQ-CPR-13.	14	The Atlas of Sign Language should allow the content provider to use the SignGram Blueprint contents.
ASL-RQ-CPR-14.	15	The Atlas of Sign Language should allow the content provider to georeference the SignGram Blueprint contents.
ASL-RQ-CPR-15.	9	The Atlas of Sign Language should allow the content provider to upload the list of features.
ASL-RQ-CPR-16.	16	The Atlas of Sign Language should allow the content provider to provide the authorship and the bibliography.

iii. The Test Administration Suite for Sign Languages

The requirements for this Section are those connected to Task 2.3, namely those to implement the Test Administration Suite for Sign Languages. After receiving preliminary information on basic requirements, a survey has been constructed to gather the relevant information. The survey was composed of a mix of 'closed' questions with fixed responses and 'open' questions. The survey envisioned the functionalities required from the perspective of a content provider who wants to build experiments by using dedicated questionnaires, therefore record and manage the elicited responses from different kind of stimuli. The survey has been submitted to WP leaders, WP task leaders, selection of WP task members on the 08-07-2016, and a total of 11 answers has been collected by mid august. The report with the answers from the respondents has been analyzed to derive the content provider requirements.

The Content Provider Users interact with the software suite for the Sign Language Assessment as in the following use case. This Software Suites will be used specifically to create, manage, administrate, and record assessment tests, which will be no automatically evaluated. The surveys needed to assess knowledge on Sign Languages differ from the questionnaires needed to create the Linguistic Atlas since the tool for the surveys will be further developed to address, even off-line, broader research questions than those related to linguistics (as foreseen for deliverable D3.11).

UC02-03_Creating Assessment Test

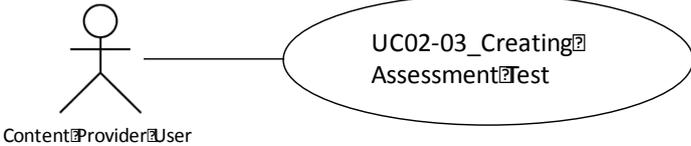
	<p>MAIN ACTOR</p>	<p>Content Provider</p>
	<p>BEFORE</p>	<p>Assessment test not present or out-of-date in the SIGN-HUB Web Platform</p>
	<p>TRIGGER</p>	<p>New Assessment test or questions ready to be uploaded to the SIGN-HUB Web Platform</p>
	<p>AFTER</p>	<p>Assessment test present or up-to-date in the SIGN-HUB Web Platform</p>
<p>DESCRIPTION</p>	<p>The aim of this use case is to define the interaction of the Content Provider Users with the SIGN-HUB Web Platform and the Test Administration Suite for Sign Languages to create and update test for assessing the skills on a sign language.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the Test Administration Suite for Sign Languages.</p> <p>Step 2: The Content Provider User's authorization profile is automatically checked by the Test Administration Suite for Sign Languages for authorizing the Content Provider User to post and edit content.</p> <p>Step 3: The Content Provider User can, if authorized, upload new questions or revise (delete, change, or reorder even by setting a random order) existing ones, even working off-line (questions are synchronized when he/she returns on-line) and via a Tablet.</p> <p>Step 4: The Content Provider User can, if authorized, see a preview of the Assessment test.</p> <p>Step 5: The Content Provider User can, if authorized, export and print the questions.</p> <p>Step 6: The Content Provider User can, if authorized, use (collect or embed into questions) multimedia files uploaded through suites different than the Assessment one.</p> <p>Step 7: The Content Provider User can, if authorized, create a new questionnaire from questions.</p> <p>Step 8: The Content Provider User can, if authorized, export data collected through spreadsheets.</p>	

Table 5: Content Provider Requirements for the Sign Language Assessment

<p>SLA-RQ-CPR-1.</p>	<p>33</p>	<p>The Test Administration Suite for Sign Languages should manage several profiles that may upload content and their access rights to enter contents on the Suite.</p>
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SLA-RQ-CPR-2.	32	<p>The Test Administration Suite for Sign Languages should provide the following types of supporting materials to help content provider with middle-high computer skills and expertise in survey design to upload and administrate questionnaires:</p> <ul style="list-style-type: none"> • Manual of use in text format (.pdf); • Short training videos; • Tool tips; • Tutorial on how to upload material.
SLA-RQ-CPR-3.	1	The Test Administration Suite for Sign Languages should allow the content provider to upload the stimuli.
SLA-RQ-CPR-4.	2	The Test Administration Suite for Sign Languages should allow the content provider to assess the questionnaire.
SLA-RQ-CPR-5.	3	The Test Administration Suite for Sign Languages should allow the content provider to export the data in spreadsheet form.
SLA-RQ-CPR-6.	34	The Test Administration Suite for Sign Languages should allow the content provider to administer the questionnaire off-line, record the answers and update the platform once back to Internet.
SLA-RQ-CPR-7.	4	The Test Administration Suite for Sign Languages should provide the self-paced assessment functionality.
SLA-RQ-CPR-8.	5	The Test Administration Suite for Sign Languages should allow the content provider to perform the administration of the questionnaire via Tablet.
SLA-RQ-CPR-9.	6	The Test Administration Suite for Sign Languages should record, where needed, reaction times to various stimuli.
SLA-RQ-CPR-10.	7	The Test Administration Suite for Sign Languages should provide non-conflicting (incremental numeric order) rules to attribute labels to any uploaded file for each stimulus (e.g. videos with sign language sentences) and keep track of the original filename.
SLA-RQ-CPR-11.	8	The Test Administration Suite for Sign Lan-

		guages should provide a preview of the entire questionnaire (while adding the questions) and of single questions.
SLA-RQ-CPR-12.	9	The Test Administration Suite for Sign Languages should provide to the test administrator a mailing list of contacts and keep track of who did experiment, preserving the privacy. Data will be stored according to security measures described in Section 4.2 of deliverable D1.5.
SLA-RQ-CPR-13.	10	The Test Administration Suite for Sign Languages should provide a Survey Editor.
SLA-RQ-CPR-14.	11	The Survey Editor should allow Content provider to create and edit individual questions and blocks.
SLA-RQ-CPR-15.	12	The Survey Editor should allow Content provider to randomize the order of presentation within and across blocks.
SLA-RQ-CPR-16.	13	The Survey Editor should allow Content provider to set fonts, colors and headers of questions and answers.
SLA-RQ-CPR-17.	14	The Survey Editor should allow Content provider to edit multiple choice questions.
SLA-RQ-CPR-18.	15	The Survey Editor should allow Content provider to edit open-ended questions.
SLA-RQ-CPR-19.	16	The Survey Editor should allow Content provider to edit close-ended (yes/no) questions.
SLA-RQ-CPR-20.	17	The Survey Editor should allow Content provider to edit rank-order scale questions.
SLA-RQ-CPR-21.	18	The Survey Editor should allow Content provider to edit slider questions type.
SLA-RQ-CPR-22.	19	The Survey Editor should allow Content provider to edit questions containing images.
SLA-RQ-CPR-23.	20	The Survey Editor should allow Content provider to edit questions containing videos.
SLA-RQ-CPR-24.	21	The Test Administration Suite for Sign Languages should allow content provider to

		have a print out of all the questions and answers in csv, rtf and pdf format.
SLA-RQ-CPR-25.	22	The Test Administration Suite for Sign Languages should feature a mouse-tracking technique to analyze responses.
SLA-RQ-CPR-26.	23	The Test Administration Suite for Sign Languages should allow content provider to upload the text and video answers, collected without using the assessment tool.
SLA-RQ-CPR-27.	24	The Test Administration Suite for Sign Languages should allow content provider to collect touch screen answers and hand-box.
SLA-RQ-CPR-28.	25	The Test Administration Suite for Sign Languages should provide a spreadsheet view of the data collected in the surveys.
SLA-RQ-CPR-29.	26	<p>The Test Administration Suite for Sign Languages should allow content provider to export the data collected in a csv file format, having the following structure:</p> <ul style="list-style-type: none"> • Each line corresponds to a data point (an answer to a stimulus); • One column encodes the subjects' ID number (random subject factor); • One column encodes the direct answer (dependent variable); • One column encodes the reaction time (dependent variable); • One column encodes other possible implicit measures (dependent variable); • Several columns encode each of the subjects' metadata (age, gender, fluency, family composition, age of acquisition, etc.); • Several columns encode each of the stimulus' metadata (question, video-filename, possible, other independent variables, item code for random item factor, etc.); • Several columns encode each of the experiment metadata (date of administration, duration of the entire experiment, count of missing answers, whether the experiment has

		been concluded or not, etc.).
SLA-RQ-CPR-30.	27	The Test Administration Suite for Sign Languages should allow each content provider to create new surveys, without requesting further permission.
SLA-RQ-CPR-31.	28	The Test Administration Suite for Sign Languages should allow each content provider to create additional surveys, once requested and obtained permission from the designated validators.
SLA-RQ-CPR-32.	29	The Test Administration Suite for Sign Languages should allow each content provider to browse the survey template.
SLA-RQ-CPR-33.	30	The Test Administration Suite for Sign Languages should allow each content provider to browse closed questionnaire of other providers, once the experiment is finished and made available from the relative owners.
SLA-RQ-CPR-34.	31	The Test Administration Suite for Sign Languages should allow each content provider to use videos from other surveys, once requested and received authorization from the relative owners.

iv. The Digital Archive of Old Signers' Linguistic and Cultural Heritage Suite

The requirements for this Section are those connected to Task 2.4, developing the Digital Archive of Old Signers' Linguistic and Cultural Heritage. After receiving preliminary information on basic requirements, a survey composed of a mix of 'closed' questions with fixed responses and 'open' questions has been constructed. The survey has been built on The Digital Archive issues, envisioning the functionalities required from the perspective of a content provider who wants to upload and manage various types of media content, such as text, images, videos and audio files collected in the interviews. The survey has been submitted to WP leaders, WP task leaders, selection of WP task members on the 08-07-2016, and a total of 5 answers has been collected by mid august. The report with the answers from the respondents has been analyzed to derive the content provider requirements.

The Content Provider Users interact with the software suite for the Digital Archive of Old Signers' Linguistic and Cultural Heritage as in the following use case.

UC02-04_Managing Interview

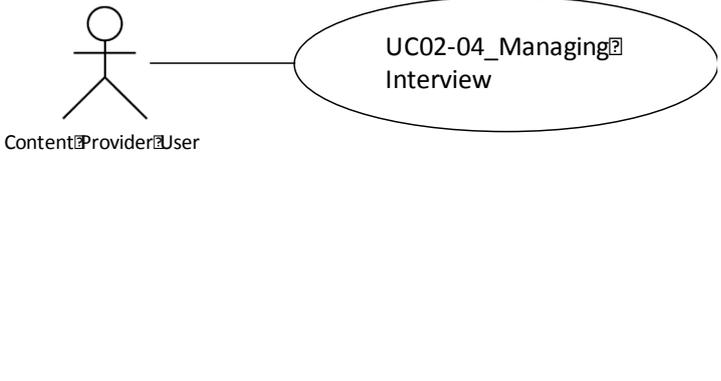
	MAIN ACTOR	Content Provider
	BEFORE	Interview not present in the SIGN-HUB Web Platform
	TRIGGER	New multimedia files about interview ready to be uploaded to the SIGN-HUB Web Platform
	AFTER	Interview not present SIGN-HUB Web Platform
DESCRIPTION	<p>The aim of this use case is to define the interaction of the Content Provider Users with the SIGN-HUB Web Platform and the Digital Archive of Old Signers' Linguistic and Cultural Heritage Suite to manage the interviews constituting the archive and forming the cultural heritage.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the Digital Archive of Old Signers' Linguistic and Cultural Heritage Suite.</p> <p>Step 2: The Content Provider User's authorization profile is automatically checked by the Test Administration Suite for Sign Languages for authorizing the Content Provider User to post and edit content.</p> <p>Step 3: The Content Provider User can, if authorized, upload new multimedia files (e.g., glosses, image, audio, and video) and link them to specific interviews, as long as they respect the constraints defined in D3.11</p> <p>Step 4: The Content Provider User can, if authorized, access the Digital Archive or even just a subset of the interviews constituting it.</p>	

Table 6: Content Provider Requirements for the Digital Archive

AOS-RQ-CPR-1.	13	The Old Signers Digital Archive Suite should manage several profiles that may upload content and their access rights to enter contents on the Suite.
AOS-RQ-CPR-2.	12	<p>The Old Signers Digital Archive Suite should provide the following types of supporting materials to help content provider with middle-high computer skills to upload and manage contents:</p> <ul style="list-style-type: none"> • Manual of use in text format (.pdf); • Short training videos; • Tool tips; • Tutorial on how to upload material.

AOS-RQ-CPR-3.	6	The Old Signers Digital Archive Suite should allow the content provider to upload the video file formats defined in the deliverable <i>D3.11 Standards and protocols for visual materials</i> .
AOS-RQ-CPR-4.	1	The Old Signers Digital Archive Suite should allow content provider to upload image files.
AOS-RQ-CPR-5.	2	The Old Signers Digital Archive Suite should allow content provider to upload audio files.
AOS-RQ-CPR-6.	7	The Old Signers Digital Archive Suite should allow content provider to upload subtitling files.
AOS-RQ-CPR-7.	3	The Old Signers Digital Archive Suite should allow content provider to upload links to other websites.
AOS-RQ-CPR-8.	4	The Old Signers Digital Archive Suite should allow content provider to upload text.
AOS-RQ-CPR-9.	5	The Old Signers Digital Archive Suite should provide an easy to use rich-text content editor.
AOS-RQ-CPR-10.	8	The Old Signers Digital Archive Suite should provide accessibility to the documentaries and the single parts/interviews which it is composed.
AOS-RQ-CPR-11.	9	The Old Signers Digital Archive Suite should allow to search across the videos.
AOS-RQ-CPR-12.	10	The Old Signers Digital Archive Suite should allow the extension of the Digital Archive Suite to other languages, providing new dedicated pages for these languages.
AOS-RQ-CPR-13.	11	The Old Signers Digital Archive Suite should provide a repository for a scanned version of the consent form for interviews.

c. End User Requirements

In this section user requirements derived from the exploitation of end-users' wishes are defined. In this case, the purpose is to define how the platform should look like from the perspective of the final users that reach the platform and access the platform content created from the providers.

As for the content provider requirements, also end user requirements are organized in several subsections. Each subsection corresponds with one task of WP2, which corresponds with each suite of SIGN-HUB web platform.

The End User Requirements are useful to clearly state what the visitors should be able to do and to see on the platform and to specify what kind of user interactions the platform should feature (e.g. contacts, events, press releases, image gallery, videos, FAQ, user comments, forum, blog, wiki etc.).

i. The SignGram Blueprint Suite

The End Users interact with the software suite for the SignGram Blueprint as in the following use case.

UC03-01_Exploring Online Grammar

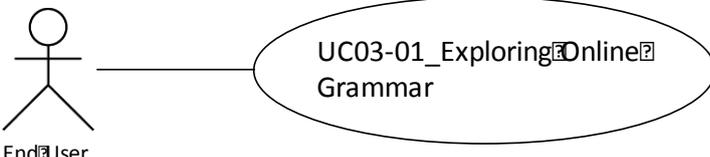
 <p>UML Use Case diagram showing an actor 'End User' connected to a use case 'UC03-01_Exploring Online Grammar'.</p>	MAIN ACTOR	End User
	BEFORE	Online grammar of a Sign Language not known
	TRIGGER	Willing to know the grammar of a Sign Language
	AFTER	Online grammar of a Sign Language known
DESCRIPTION	<p>The aim of this use case is to define the interaction of the End Users with the SIGN-HUB Web Platform and the SignGram Blueprint Suite to explore online grammar of a Sign Language.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the SignGram Blueprint Suite.</p> <p>Step 2: The End User can explore the online grammar as well as the single parts constituting its blueprint through an intuitive search facility.</p>	

Table 7: End User Requirements for the SignGram Blueprint

SGI-RQ-USR-1.	4	The SignGram Blueprint Suite should be easy to use by users with basic computer literacy.
SGI-RQ-USR-2.	3	The SignGram Blueprint Suite main page should provide a brief description of the Suite (e.g., help tool).
SGI-RQ-USR-3.	2	The SignGram Blueprint Suite main page should provide a simple guide (text and video guide) on how to use the Suite.
SGI-RQ-USR-4.	1	The SignGram Blueprint Suite should allow the end user to search across the blueprint parts, chapters and sections for any of the features identified by the SignGram Blueprint Checklist.

ii. The Atlas of Sign Language Suite

The End Users interact with the software suite for the Atlas of Sign Language as in the following use case.

UC03-02_ Exploring Atlas

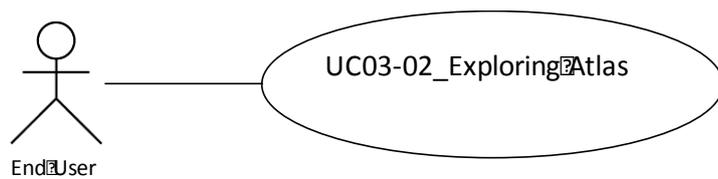
 <p>End User</p>	MAIN ACTOR	End User
	BEFORE	Features of a Sign Language not known
	TRIGGER	Willing to know features of a Sign Language
	AFTER	Features of a Sign Language known
DESCRIPTION	<p>The aim of this use case is to define the interaction of the End Users with the SIGN-HUB Web Platform and the Atlas of Sign Language Suite to explore online grammar of a Sign Language.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the Atlas of Sign Language Suite.</p> <p>Step 2: The End User can explore the map of georeferenced Sign Languages as well as a single Sign Language, through an intuitive search facility that searches for Language, Feature, Geographical Area, Chapter, and Reference.</p>	

Table 8: End User Requirements for the Atlas of Sign Language

ASL-RQ-USR-1.	23	The Atlas of Sign Language should be easy to use by users with basic computer literacy.
ASL-RQ-USR-2.	22	The Atlas of Sign Language should support content in multiple languages, including sign languages.
ASL-RQ-USR-3.	20	The Atlas of Sign Language main page should provide a brief description of the Atlas.
ASL-RQ-USR-4.	21	The Atlas of Sign Language main page should provide a simple guide on how to use the Atlas.
ASL-RQ-USR-5.	1	The Atlas of Sign Language should allow the user to browse and search for features through the item "Features" in the Atlas navigation bar by typing, even partially, the item to be found.
ASL-RQ-USR-6.	2	The Atlas of Sign Language should allow the user to browse and search for languages through the item "Languages" in the Atlas navigation bar by typing, even partially, the item to be found.
ASL-RQ-USR-7.	3	The Atlas of Sign Language should allow the user to browse and search for chapters through the item "Chapters" in the Atlas navigation bar by typing, even partially, the item to be found.
ASL-RQ-USR-8.	4	The Atlas of Sign Language should allow the user to browse and search for references through the item "References" in the Atlas navigation bar by typing, even partially, the item to be found.
ASL-RQ-USR-9.	5	The Atlas of Sign Language should allow the search for "Features" by inserting the name of feature.
ASL-RQ-USR-10.	6	The Atlas of Sign Language should allow the search for "Features" by inserting the identification code of feature.
ASL-RQ-USR-11.	7	The Atlas of Sign Language should provide a filtering system useful to limit the

		<p>search field for “Features” to the following category:</p> <ul style="list-style-type: none"> • Phonology; • Morphology; • Lexicon.
ASL-RQ-USR-12.	8	The Atlas of Sign Language should allow the search for chapters by inserting the name of chapters.
ASL-RQ-USR-13.	9	<p>The Atlas of Sign Language should provide a filtering system useful to limit the search field for “Chapters” to the following category:</p> <ul style="list-style-type: none"> • Phonology; • Morphology; • Lexicon.
ASL-RQ-USR-14.	10	The Atlas of Sign Language should allow the search for “Languages” by inserting the name of language.
ASL-RQ-USR-15.	11	The Atlas of Sign Language should allow the search for “Languages” by inserting the genus of language.
ASL-RQ-USR-16.	12	The Atlas of Sign Language should allow the search for “Languages” by inserting the country.
ASL-RQ-USR-17.	13	The Atlas of Sign Language should allow the search for “Languages” by inserting the family of language.
ASL-RQ-USR-18.	14	The Atlas of Sign Language should allow the search for “Languages” by inserting the latitude and longitude.
ASL-RQ-USR-19.	15	<p>The Atlas of Sign Language should provide a filtering system useful to limit the search field for “Languages” to the following macroareas:</p> <ul style="list-style-type: none"> • Africa; • Australia; • Eurasia; • North America; • Papunesia; • South America.

ASL-RQ-USR-20.	16	The Atlas of Sign Language should allow the search for "References" by inserting the Title.
ASL-RQ-USR-21.	17	The Atlas of Sign Language should allow the search for "References" by inserting the Author.
ASL-RQ-USR-22.	18	The Atlas of Sign Language should allow the search for "References" by inserting the Year of publication.
ASL-RQ-USR-23.	19	The Atlas of Sign Language should allow the user to limit the search field for "References" by the following categories: <ul style="list-style-type: none"> • Article; • Book; • Manual; • Conference.
ASL-RQ-USR-24.	24	The Atlas of Sign Language should provide high resolution maps for individual countries.
ASL-RQ-USR-25.	25	The Atlas of Sign Language should allow an easy navigation among the countries.
ASL-RQ-USR-26.	26	The Atlas of Sign Language should enable the user to zoom-in and zoom-out on the maps.
ASL-RQ-USR-27.	27	The Atlas of Sign Language should show the features values on a georeferenced map according to a predefined legend.
ASL-RQ-USR-28.	28	The Atlas of Sign Language should allow the user to show or hide the labels related to feature values on the map.
ASL-RQ-USR-29.	29	The Atlas of Sign Language should allow the user to choose the icon size for features values.
ASL-RQ-USR-30.	30	The Atlas of Sign Language should show the feature values box on the map itself.

iii. The Test Administration Suite for Sign Languages

The End Users interact with the software suite for the Test Administration Suite for Sign Languages as in the following use case.

UC03-03_Taking Assessment Test

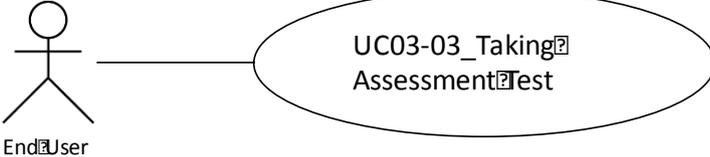
 <p>End User</p>	MAIN ACTOR	End User
	BEFORE	Skills on a Sign Language not assessed
	TRIGGER	Willing to assess skills on a Sign Language
	AFTER	Skills on a Sign Language assessed
DESCRIPTION	<p>The aim of this use case is to define the interaction of the End Users with the SIGN-HUB Web Platform and the Atlas of Sign Language Suite to explore the Assessment Tests created in the Web Platform.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the Tools for Test Administration Suite for Sign Languages.</p> <p>Step 2: The End User can select a test and take it, answering to the questions as they are presented to him/her, resorting to the text editor and to the multimedia streaming capabilities of his/her browser for seeing multimedia files.</p>	

Table 9: End User Requirements for the Sign Language Assessment

SLA-RQ-USR-1.	2	The Tools for Test Administration Suite for Sign Languages should be easy to use by users with basic computer literacy.
SLA-RQ-USR-2.	3	The Tools for Test Administration Suite for Sign Languages should support content in multiple languages.
SLA-RQ-USR-3.	1	The Tools for Test Administration Suite for Sign Languages should provide an easy to use rich-text editor.
SLA-RQ-USR-4.	4	The Tools for Test Administration Suite for Sign Languages main page should provide a brief description of the Suite (e.g., a help page).

iv. The Digital Archive of Old Signers' Linguistic and Cultural Heritage

The End Users interact with the software suite for the Tools for Digital Archive of Old Signers' Linguistic and Cultural Heritage as in the following use case.

UC03-04_Exploring interviews

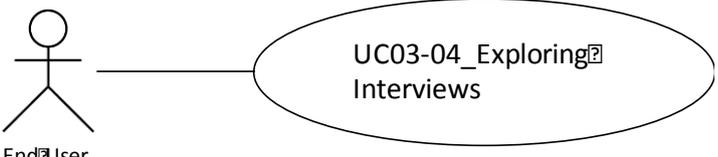
	MAIN ACTOR	End User
	BEFORE	Skills on a Sign Language not assessed
	TRIGGER	Willing to assess skills on a Sign Language
	AFTER	Skills on a Sign Language assessed
DESCRIPTION	<p>The aim of this use case is to define the interaction of the End Users with the SIGN-HUB Web Platform and the Tools for Digital Archive of Old Signers' Linguistic and Cultural Heritage Suite to explore interviews constituting the Digital Archive.</p> <p>Step 1: The Content Provider User logs in to the Web Platform and opens the tools for Digital Archive of Old Signers' Linguistic and Cultural Heritage Suite.</p> <p>Step 2: The End User can select an Archive and see it and its constituting interviews.</p> <p>Step 3: The End User can select any of the interview in the Archive to see its video on-line resorting to the multimedia streaming capabilities of his/her browser for seeing multimedia files.</p>	

Table 10: End User Requirements for the Digital Archive

AOS-RQ-USR-1.	2	The Digital Archive of Old Signers Suite should be easy to use by users with basic computer literacy.
AOS-RQ-USR-2.	3	The Digital Archive of Old Signers Suite should support content in multiple languages.
AOS-RQ-USR-3.	4	The Digital Archive of Old Signers Suite main page should provide a brief description of the Suite (e.g., a help page).
AOS-RQ-USR-4.	5	The Digital Archive of Old Signers Suite main page should provide a simple guide (text and video guide) on how to use the Suite.
AOS-RQ-USR-5.	1	The Digital Archive of Old Signers Suite should allow end user to browse across the archives and the videos it

		has granted access to (some sensitive data maybe cannot be published in open access and would be available only at restricted access).
AOS-RQ-USR-6.	6	The Digital Archive of Old Signers Suite should allow end user to browse across only metadata that are useful for scientific purposes.

5. Conclusion

The Deliverable 3.1 focused on User Requirement Specifications for the SIGN HUB web platform. Each tool composing the web platform has been carefully analyzed accounting for two different software perspectives: the software interface required to data entry (i.e., data provider) and the software interface required to display information to the end user (i.e., data consumer). In this activity, SIGN-HUB members (leaders, task managers, and members of Working Package WP2) have been involved to collect their needs to refine the requirements of SIGN-HUB software platform.