UNIVERSIDADE
BEIRA INTERIOR

UNIVERSITÉ
DE PAU ET DES
PAYS DE L'ADOUR

UNIVERSITÉ
SAVOIE
MONT BLANC

Universitatea de Vest
din Timișoara

UNIVERSITÀ
DEGLI STUDI
DI TORINO

Universidad
Zaragoza

Co-defining, developing and testing expected services

WP5, D5.1.1

UVT

European Commission

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UNIVERSITIES

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ABSTRACT

(English)

The overall objective of the Work Package 5 is to create an Inter-University Campus, digital and physical. On the Digital Realm, step by step, it is becoming **the unique entry-point for UNITA students, academic and administrative staffs, and for anybody interested in UNITA activities, resources produced, among others.** All specific developments realized and the re-used ones are **free and open-source** and the sharing of data will be done **natively compliant with General Data Protection Regulation (GDPR)**.

This document describes the process of **Co-defining, developing and testing expected services** from UNITA Virtual Campus. The main goal of this process is re-using and reintegrate existing open-source services and platforms.
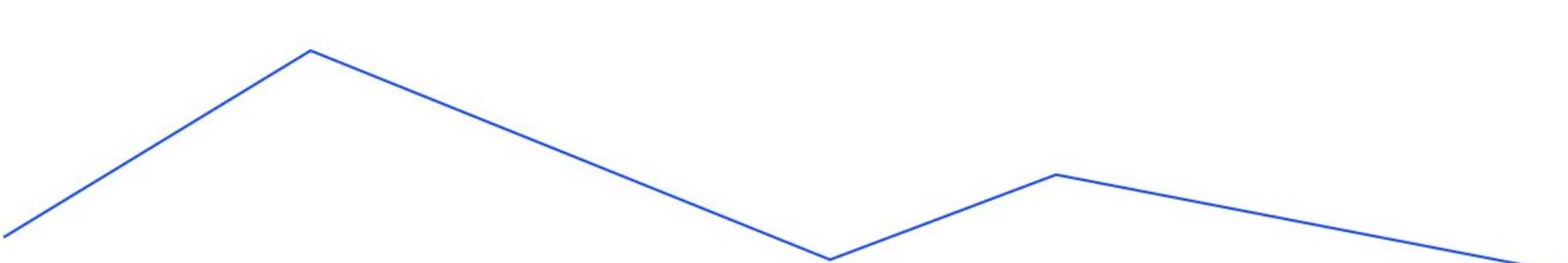
In order to build the list of expected services, the user groups consisting of students, academic staff and administrative staff worked together, by category of user, and gathered together their requirements and identified available services.

The identified services are grouped in the following categories and described in the present document:
- Information and Documentation
- Guidance (including mobility)
- Teaching and learning
- Alumnis
- Quality
- Monitoring
- Infrastructure services

(French)

L'objectif global du lot 5 est de créer un campus interuniversitaire, numérique et physique.

Sur le Web, il devient progressivement le point d'entrée unique pour les étudiants et personnels d'UNITA et pour toute personne intéressée par les activités d'UNITA, les ressources produites, etc. Tous les développements spécifiques réalisés et ceux qui sont réutilisés sont en open-source et le partage des données se fera en conformité avec les règles du RGPD.

Le présent document décrit le processus de co-définition, développement et test des services attendus dans le Campus virtuel UNITA.
Ce processus prévoit de réutiliser des services et des plates-formes "open source" existants.

Afin de construire la liste des services attendus, les groupes d'utilisateurs composés d'étudiants, de personnels académiques et administratifs ont travaillé ensemble, par catégorie d'utilisateurs, et ont rassemblé leurs exigences.

Les services identifiés sont regroupés dans les catégories suivantes et décrits dans le présent document :

- Information et documentation
- Aide à l'orientation (y compris pour la mobilité)
- Formation et apprentissage
- Alumnis
- Qualité
- Suivi des usages de la plateforme
- Services d'infrastructure
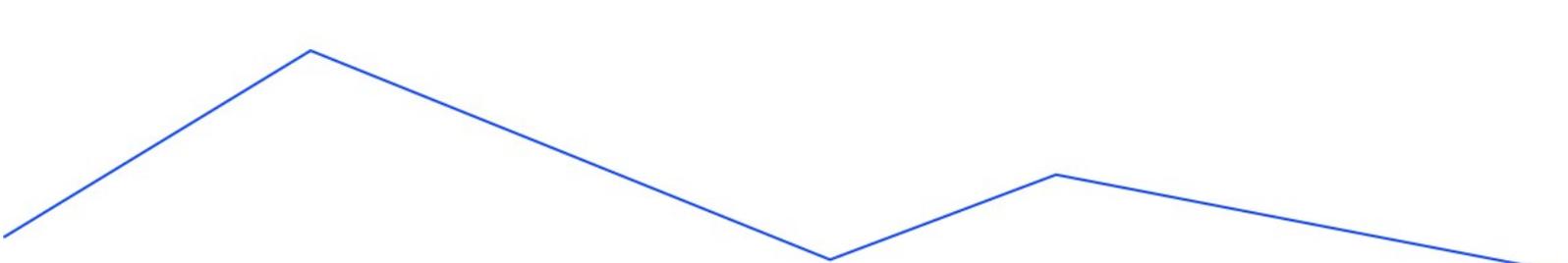
(Spanish)

El objetivo general del Work Package 5 (WP5) es crear un campus interuniversitario que ofrezca las dos visiones: digital y física. En la Web, paso a paso, se está definiendo una ventanilla única para los estudiantes de UNITA, el personal académico y administrativo, y para cualquier persona interesada en las actividades y recursos de UNITA. Todos los desarrollos se están realizando bajo una filosofía open-source, y el manejo de los datos personales y el intercambio de información se realiza conforme a la normativa establecida en el GDPR.

Este documento describe el proceso de definición, desarrollo y pruebas de los servicios del campus virtual de UNITA. El objetivo principal de este proceso es reutilizar las plataformas y los servicios de código abierto existentes. Para construir la lista de servicios y los requisitos que se necesitaban se realizó un trabajo conjunto entre estudiantes, personal académico y personal administrativo.

Los servicios identificados se agrupan en las siguientes categorías y se describirán en el presente documento:

- Información y documentación
- Orientación (incluida la movilidad)
- Enseñanza-aprendizaje
- Exalumnos (alumni)
- Calidad
- Supervisión
- Servicios de infraestructura

(Romanian)

Obiectivul general al Pachetului de Lucru 5 este crearea unui Campus Interuniversitar, digital și fizic. Pas cu pas, Internetul devine punctul unic de acces pentru studenții UNITA și pentru oricine este interesat de activitățile UNITA, resursele produse, etc. Toate dezvoltările specifice realizate precum și cele reutilizate sunt open-source, iar partajarea datelor se va face în conformitate cu GDPR.

Acest document descrie procesul de co-definire, dezvoltare și testare a serviciilor prevăzute pentru Campusul Virtual UNITA. Scopul principal al acestui proces este reutilizarea serviciilor și platformelor open-source deja existente.

Pentru a alcătui lista de servicii prevăzute, grupurile de utilizatori formate din studenți, personal academic și personal administrativ au lucrat împreună, pe categorii de utilizatori, și și-au exprimat cerințele.
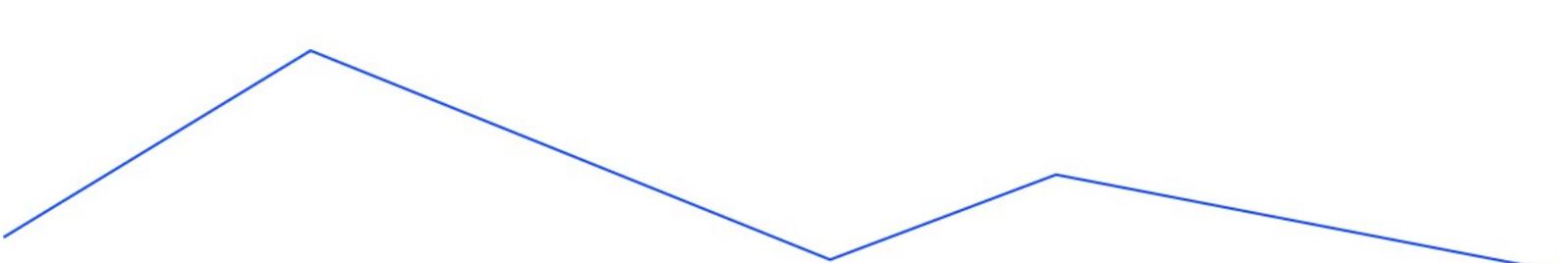
Serviciile identificate sunt grupate în următoarele categorii și sunt descrise în prezentul document:
- Informare și documentare
- Orientare (inclusiv mobilități)
- Predare și învățare
- Absolvenți
- Calitate
- Monitorizare
- Servicii de infrastructură

(Portuguese)

O objetivo global do Work Package 5 (WP5) é criar um Campus Interuniversitário, digital e físico. No Domínio do Digital, passo a passo, está a criar-se o único ponto de entrada para estudantes, docentes e administrativos da UNITA, assim como para qualquer pessoa interessada em atividades da UNITA, bem como nos recursos disponibilizados, entre outros. Todos os desenvolvimentos específicos, bem como os reutilizáveis, são gratuitos e código aberto e a partilha de dados será feita de acordo com a Regulamento Geral sobre Proteção de Dados (RGPD).
Este documento descreve o processo de Co-definição, Desenvolvimento e Teste dos serviços que se esperam para um Campus Virtual da UNITA. O principal objetivo deste processo é reutilizar e integrar serviços e plataformas gratuitas e de código aberto já existentes.
De forma a construir a lista de todos os serviços necessários, os grupos de utilizadores constituídos por estudantes, docentes e administrativos, trabalharam em conjunto, por categoria de utilizador, e elicitaram os seus requisitos e identificaram serviços disponíveis.
Os serviços identificados estão agrupados pelas categorias seguintes, presente documento:
- Informação e documentação;
- Orientação (incluindo mobilidade);
- Ensino e Aprendizagem;
- Alumnis;
- Qualidade;
- Monitorização;
- Serviços de Infraestruturas.

(Italian)

L'obiettivo generale del Work Package 5 è quello di creare un Campus Interuniversitario, sia digitale che fisico. Nel regno digitale, tale Campus sta gradualmente diventando l'unico punto di accesso per gli studenti UNITA, il personale accademico e amministrativo, e per chiunque sia interessato alle attività UNITA e alle risorse prodotte, per citarne alcune. Tutte le risorse realizzate o riutilizzate sono gratuite e open-source e la condivisione dei dati sarà effettuata nativamente in conformità con il Regolamento Generale sulla Protezione dei Dati (RGPD).
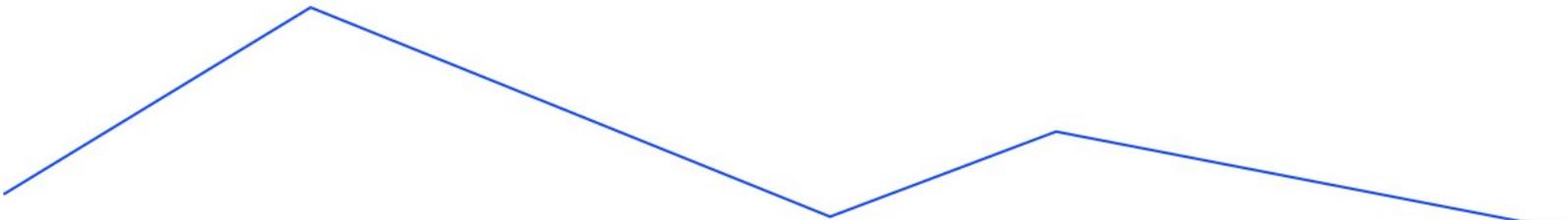
Questo documento descrive il processo di co-definizione, sviluppo e test dei servizi previsti dal Campus Virtuale UNITA. L'obiettivo principale è riutilizzare e reintegrare i servizi e le piattaforme open-source esistenti.

Per stilare la lista dei servizi previsti, i gruppi di utenti composti da studenti, personale accademico e personale amministrativo hanno lavorato insieme, divisi per categoria di utenti, al fine di individuare le loro esigenze e identificare i servizi disponibili.

Tali servizi sono raggruppati nelle seguenti categorie e descritti nel presente documento:

- Informazioni e documentazione
- Orientamento (compresa la mobilità)
- Insegnamento e apprendimento
- Alumni
- Qualità
- Monitoraggio
- Servizi infrastrutturali

Table of Content

INTRODUCTION

The process of co-building the UNITA Virtual Campus took place gradually and it took care of re-using existing open-source services and platforms. In accordance with the values promoted by UNITA, in particular the democratic participation in the life and governance of the university and the student-centred policy, groups of students, on a voluntary basis, were constituted in each partner university, piloted by a representative of the UNITA Student Assembly. In parallel, staff groups were also created including teachers and representatives of the main administrations of the universities. The estimated number of UNITA Virtual Campus visitors is 40.000.

PURPOSE AND SCOPE

This document describes the process of **Co-defining, developing and testing expected services** from UNITA Virtual Campus. The main goal of this process is re-using existing open-source services and platforms.

In order to build the list of expected services, the user groups consisting of students, academic staff and administrative staff worked together, by category of user, and gathered together their requirements.

Once the list of required services has reached its final form, the process of describing them started. This process began with the benchmarking of the existing services in each UNITA university. A creativity process was also launched to help them "think out of the box" and to define the really useful and sustainable services. Meetings by videoconference were organized regularly and simultaneously, connecting the user groups from all UNITA campuses.

The final outcome of the online meetings was a table in which services were divided into categories, as follows:

Communication and Collaboration	Wiki
	Forums
	News
	Personal and shared spaces
	Support for social network, communities
	Service Desk/ Helpdesk
	Ticketing
	Webconference
Information and Documentation	Existing course offer
	Access to libraries
	Document Management System (File

	Sharing System - applicable for large data/large communities)
Orientation (including mobility)	Cartography
	Database of the Success Paths
	Job/internship finding (including dating)
	Application for different mobility calls and process management: to announce them, offers, information, and it must include the process of submission, evaluation... and track all the process. including Virtual Mobility service
Teaching and learning	E-portfolio (Europass, Openbadges, …)
	Learning Management System (LMS)
	Study Guides management tool (Syllabus, curriculum, subjects, objectives, etc.);
	E-learning environment
	Academic files management tool (UNITA students' records);
	Academic tool for transfer of ECTS, grades, etc.;
	Register and compute progressive data (e.g. in order to generate individual academic pathway for students)
	Personal record of students
Alumnis	Database of Alumnis
Quality	Survey Management System
	Questionnaires and data collection
	Data integration - use of statistical packages to analyse quantitative data
	Tool for data review
Monitoring	Indicators' monitoring tools
Infrastructure services	Authentication
	Directory of users

The services were also given a level of priority from 1 to 5 (1-top priority, 5- lowest priority), a level of estimated workload from 1 to 5 (1-easiest, 5- hardest) and, at the same time, it was mentioned which work package requested which service. Other columns in the table represented the service's sponsor, comments (if necessary), short description of the service and agreed software/plugin.

Note: The services that have yet to be described will be taken into consideration on the second phase of the project.
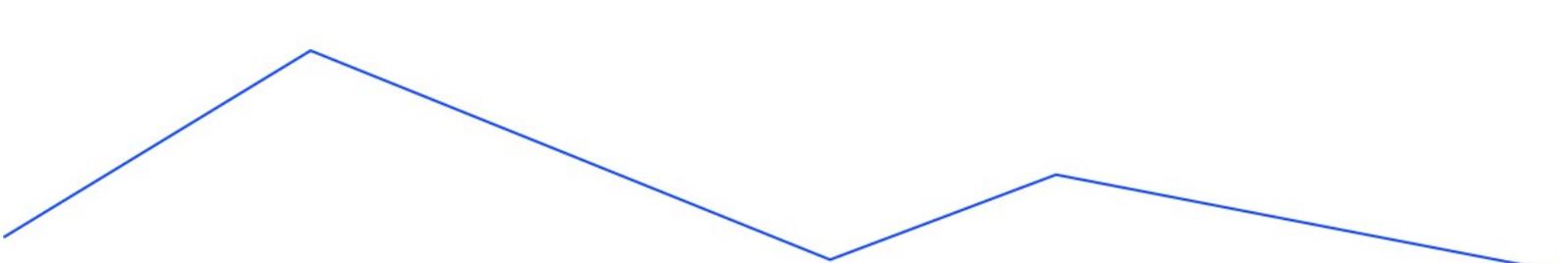
The services' description was completed incrementally, following an agile process as much as possible.

The report contains the functional and technical specifications of the services, including the description of the connectors to the existing information system when some of them require that. The new services developed are open source and are available for whoever wishes to re use them.
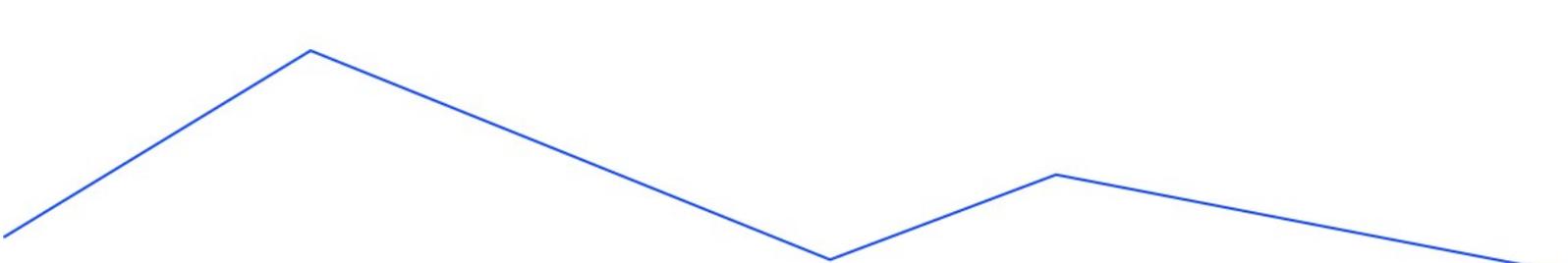
SERVICES DESCRIPTION

CATEGORY OF SERVICES: Communication and Collaboration

SERVICE NAME: Wiki or Collaborative Editor

THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP 5

SHORT DESCRIPTION OF THE SERVICE:

- support for wiki knowledge base
- collaborative
- open source (open to all educators to discuss, share and work together)
- safe (moderated - where we decide it to be)
- transparent under SSO
- ethical
- possibility to report inappropriate topics & updates
- option1: integration of Romance-language dictionnaries
- option2: integration of Romance-language translator while selecting a part of the text

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?

YES NO

EXAMPLES OF OSS:

- Moodle Wiki
- Opensource SocialNetwork
- MoodleNet
- Only Office
- EtherPad

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):
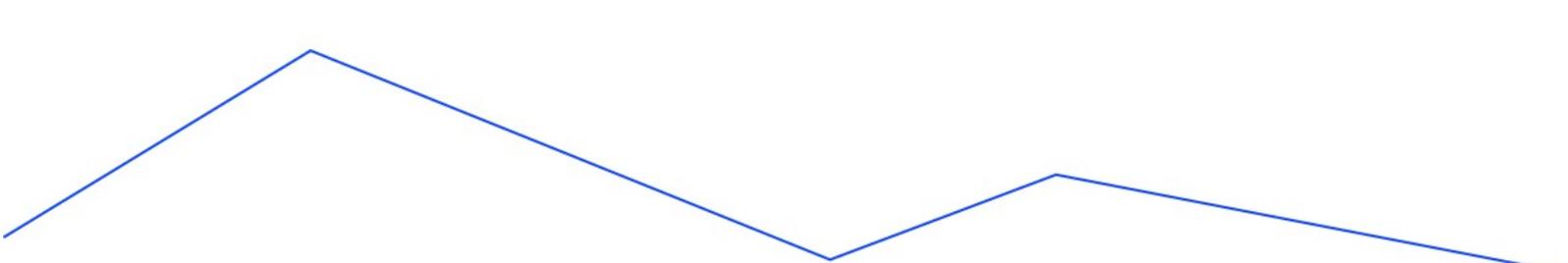
- https://unita.humhub.com/dashboard
- https://www.opensource-socialnetwork.org/demo
- https://moodle.net/discover

SCENARIOS:

1.

Joshua is working as a University lecturer in UNITO, Mela is a teacher from UBI, both are specialist in Computer Science.

They decided to share a course for beginners: "Discover Computer Science" (following a COIL model for collaboration).

To support this collaboration and to make it more efficient, Mela connects herself in the Unita Portal using her UBI credentials. She creates a dedicated group in which she invites Joshua as a contributor. She initiates a shared document and start to write a proposal of a synopsis of the course.

Joshua receives an invitation to join this new group and connects to it, using his UNITO credentials.

In the shared workspace, he can see the shared document, then he goes through and modifies it.

N.B.: In Unita, each member has to be able to speak and write in their own language. The collaborative editor/wiki offers dictionnaries in Romance-languages and allows to translate a selection of the text

2.

Joshua is working as a University lecturer in UNITO, Mela is a teacher from UBI, both are specialist in Computer Science.

They have co-designed a course for beginners: "Discover Computer Science".

Students from UBI and from UNITO are attending this course: in presential when the teacher for their university is teaching, at distance otherwise.

During the first lecture, the teachers ask the student to create pairs composed of one student from UNITO and one from UBI. Those pairs choose a practical subject: they have to work together to produce a solution (a software) to this subject and to write together a unique report.

To support the collaborative work, the teachers ask the students to create a workspace by group and to use the wiki/collaborative editor to produce their report.

3.

The Task force of WP5 creates a dedicated workspace in which they initiates several collaborative documents:

- One for describing the framework of the collaborative Portal;
- One for each service to be integrated in this Portal.

SERVICE NAME: Hub of Success services
THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP2

SHORT DESCRIPTION OF THE SERVICE:

- Flexible to generate customized learning paths based on students options
- User friendly

SCENARIO: (continued from Database of the Success Paths)

1. (HoS acts through digital tools with students)

Bernard is a French counsellor (Hub of Success, from Pau). He has been contacted by Clara through a digital service. Bernard is able to answer to Clara's doubt, documents request (demanded certificates, detailed syllabus, contact email of a teacher, ...), questions related to the mobility preparation.

Bernard can check Clara's *Personal and Professional Plan (PPP)*.

After Clara's confirmation about her mobility project to Pau, Bernard can inform the relevant UPPA's services (International, Faculty, Student life office, Inclusion offices).

Bernard also contributes to a frequently-asked-questions web page devoted to student counselling.

2. (HoS monitors students feedback)

Dionatas is a Portuguese counsellor (Hob of Success, from UBI). He knows Clara.

When she is almost finishing her master degree, composed by international semesters, Dionatas would like to have a feedback from Clara's experience, through an anonymous questionnaire. This feedback is needed in order to identify successful study paths. But as Dionatas knows lot of students who study abroad, he needs an automatic generated process of feedback collect, that he can monitor.

RGPD ?

3. (HoS can update the matrix of study path)

When a study path is identified as successful, it can be labelled as a *successful study path*.

4. (HoS fosters/supports the use of Unita Europass)

Emilio belongs to the HoS office of UNITO. He is helping lot of Italian students in building their international study path, some of them including Unita micro-credentials. Emilio promotes the use of the *Unita Europass* by the students (storing their micro-credentials, show their inter-cultural skills, ...). Thus, Emilio needs to access *Unita Europass*.
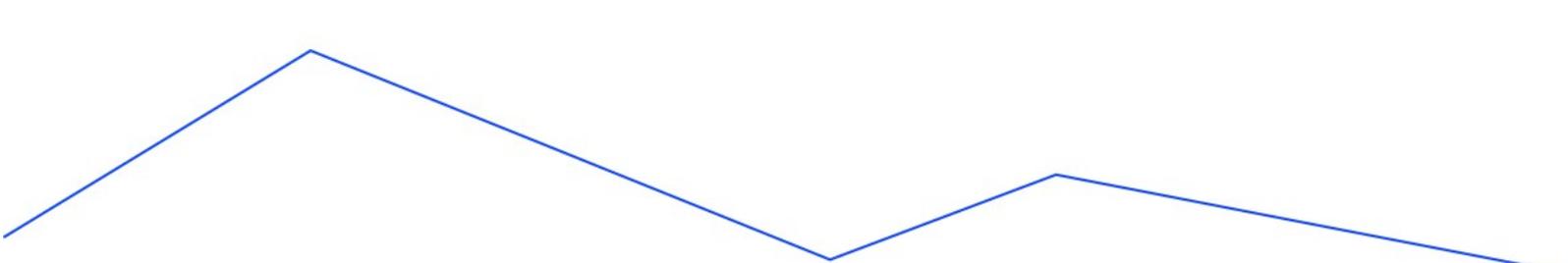
SERVICE NAME: Forum

THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP 5 WP7

SHORT DESCRIPTION OF THE SERVICE:

- topic knowledge base
- collaborative
- open source (open to all educators to discuss, share and work together)
- safe (moderated - where we decide it to be)
- transparent under SSO
- ethical
- possibility to report inappropriate topics & updates

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?

YES NO

EXAMPLES OF OSS:

- Moodle Forums
- MoodleNet
- Flarum

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):

- https://unita.humhub.com/dashboard
- https://moodle.net/discover
- https://flarum.org

SCENARIOS:

1.

Joshua is working as a University lecturer in UNITO. He has been using Moodle for around five years now, and he has already created course content and would like to work collaboratively with members of the wider Moodle community. He found some interesting news about the difficulties encountered by students in the period of online learning (https://news.stanford.edu/2021/02/23/four-causes-zoom-fatigue-solutions/). Because he believes that this news is relevant to all certain teachers, Joshua decides to share this news, with the following options:

- share to all the people from his contact list;

- share as a private message to certain groups to which he belongs or to certain persons he has in the contact list;

- share to certain clusters of people, grouped by interests (e.g. education, psychology, etc.) - with the mention that individual interests must be kept alive for each user;

After the news is posted, Joshua wants to see some statistics on how people perceive this news, which is why it would be nice to have a dashboard with the reactions of friends or the general public.

2.

Mela is a teacher from Portugal who is new to online teaching. She is really busy and she needs to get up-to-speed as quickly as possible. It's not long before her new classes start, and she can't seem to find the resources and answers she needs for the questions she's got about setting up courses online.

From her personal preferences menu, she selects that she is interested in *online courses*, so she will now receive in her news stream relevant articles regarding this topic as well.

At the same time, from the same menu, the preferences regarding the news are grouped and displayed so that Mela can select as easily as possible what types of news she is interested in.

At the same time, based on its activity, the platform can suggest, in the settings menu, various topics that could arouse interest for her.

She chooses to access the NEWS service and browse through the relevant information provided by the community. In addition, she even finds news about how to best interact with students when teaching online, how to grow their interest and how to keep them focused. After a while, she decides to write a post herself about tips and tricks regarding online teaching, including all the ups and downs she has encountered since teaching online, in order to help other like-minded teachers from around the world.

3.

Maria is a student from Spain, who is going to enrol to university very soon. She is still deciding what is her favourite topic that she want to address in her future and which university is the best for her. She heard about the UNITA consortium and she visits the online portal.

After browsing the pages of UNITA portal, she would like to ask questions to UNITA students, to understand more details about her future choice. She would like to address peers, in order to get a more relevant answer, from a student like her.

She access the forum section. After reading some posts, she decides to open a thread herself. It is very easy, she does not need to register an account to open a thread, even if it is preferable. Adding her email, she receive a notification when othe users answer her question. Form the email notification, she is allowed to answer again those who replied to her.

4.

Julie is a student from France, she is enrolled at Université Savoie Mont Blanc. She has always been interested in having a professional experience abroad and, since her university is part of UNITA consortium, she thinks she can find good opportunities from the partner universities.

She browses the UNITA portal, visit the job placement section, but she also sees a dedicated section about job opportunities inside the forum. Some open announcement are advertised and she is happy to read more about them. She also finds some threads about experiences of job opportunities found with UNITA. The comments are very favourable and enthusiastic, she is now more convinced in her idea. She subscribe to the thread about job opportunities in order to keep up to date with the advertisement of new opportunities.

5.

Irina is a student from UVT. She is having some issues in her study path, struggling with some courses and the related bureaucracy. The Questions and Answer section of UNITA does not give satisfactory explanation on what to do. She search on Google solutions for her problems and bump into the discussion forum of UNITA students. Some students had the same problem as her! She carefully read the different answers to the main thread and find that theoptimal answer is the one which was already marked as best answer by other users.

SERVICE NAME: News
THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP 5
SHORT DESCRIPTION OF THE SERVICE:
- collaborative
- open source (open to all educators to discuss, share and work together)
- transparent
- ethical

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?
YES NO
EXAMPLES OF OSS:
- Moodlenet
- SocialWall

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):
- https://unita.humhub.com/dashboard
- https://moodle.net/discover
- https://moodle.org/plugins/format_socialwall

SCENARIOS:

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SERVICE NAME: HelpDesk / Ticketing

THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP 5

SHORT DESCRIPTION OF THE SERVICE:

- open source (open to all educators to discuss, share and work together)

- transparent under SSO

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?
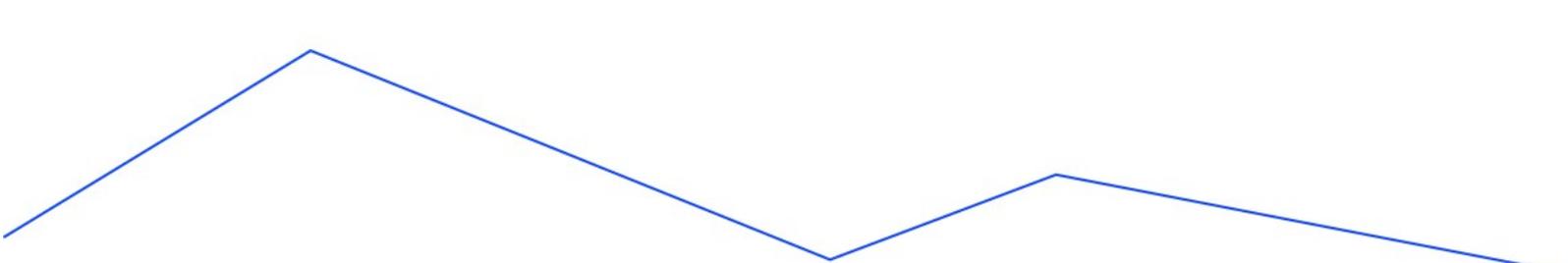
YES NO

EXAMPLES OF OSS:

- GLPI

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):

- Inscription (GLPI Network Public) (glpi-network.cloud)

SCENARIOS:

1.

Pedro is a student in Zaragoza. After logging in to the collaborative platform, he wants to use the Turin Moodle. Unfortunately his account does not allow him. However, the description of the service tells him that he can use it with the account of its home establishment via EduGain.

He is then invited to file a request for assistance.

Automatically he is redirected to a form (pre-filled) so that he completes the description of the problem he is encountering.

A notification is sent to the Turin moodle support team for support.

2.

Enzo is a support worker for the Turin Moodle. After Pedro's request is submitted he is notified. Enzo logs into the support platform and learns about Pedro's problem. He can then process the request using the existing procedures for the Turin Moodle support. Enzo is then offered solutions to his Turin Moodle connection problem.

CATEGORY OF SERVICES: Internships, careers and alumni

SERVICE NAME: Database of Alumnis

THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP5

SHORT DESCRIPTION OF THE SERVICE:

- **Alumni data management —** collection of key data about alumni, such as contact information, career history, membership status. This data can enable more effective outreach efforts and can help alumni relations staff determine who to contact and when.

- **Job boards and online forums** — Alumni should be able to use these forums to post opportunities or request help from other alumni in the same field and build their professional networks, including through integrations with social media platforms.

- **Social media integrations** — the platform shold support integrations with social media platforms like Facebook and LinkedIn. Especially for the most recent graduating students, social media platforms are indispensable ways of getting in touch. These tools can also gather data from social networks to help keep alumni databases up-to-date.

- **Event management** — the platform should be able to manage events like reunions, regional meet-ups, and campus gatherings, from sending out invitations for the event to processing registrations and payments online.

- **Notifications** — the service should provide the tools needed to allow alumni offices to send messages to specific groups of alumni, based on characteristics like graduation year, career path, or geographic location. Communication features similar to those found in email marketing softwares allow alumni offices to track the performance of different messages and better understand how alumni are engaging with their
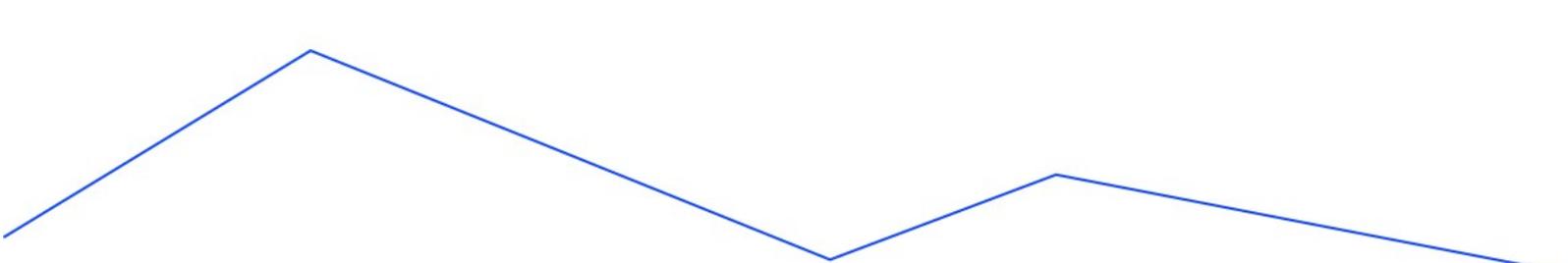
communications.

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?

YES NO

EXAMPLES OF OSS:

- none identified that could cover all the requirements identified

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):

- https://www.almabase.com/products/online-alumni-community
- https://graduway.com/products/alumni-relations/

SCENARIOS:

1.

One of the challenges of the UVT alumni relations office is to be able to communicate with them segmented, at the level of promotion per study program.

In order to do this, Astrid (alumni office coordinator) had a template in which she completed all the university promotions, uploaded them to the platform and now, upon registration, any UVT graduate can select their promotion and study program followed.

As alumni register and the database becomes more populated, Astrid can communicate effectively and targeted with alumni (e.g. selecting a particular promotion, or selecting certain study programs to send specific messages to them).

2.

Mela is a teacher from Portugal who is new to online teaching. She is really busy and she needs to get up-to-speed as quickly as possible. It's not long before her new classes start, and she can't seem to find the resources and answers she needs for the questions she's got about setting up courses online.

From her personal preferences menu, she selects that she is interested in online courses, so she will now receive in her news stream relevant articles regarding this topic as well.

At the same time, from the same menu, the preferences regarding the news are grouped and displayed so that Mela can select as easily as possible what types of news she is interested in.

At the same time, based on its activity, the platform can suggest, in the settings menu, various topics that could arouse interest for her.

She chooses to access the NEWS service and browse through the relevant information provided by the community. In addition, she even finds news about how to best interact with students when teaching online, how to grow their interest and how to keep them focused. After a while, she decides to write a post herself about tips and tricks regarding online

teaching, including all the ups and downs she has encountered since teaching online, in order to help other like-minded teachers from around the world.

CATEGORY OF SERVICES: Quality

SERVICE NAME: Data integration
THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP2
SHORT DESCRIPTION OF THE SERVICE:

Objective: Use data from multiple sources, aggregating it in a meaningful manner to generate valuable and usable information to help solve problems and gain new insights (match and correlate data from different tables);

1st Phase: Extract data from External Applications, Data Services, Unstructured Files and Cloud Applications;
2nd Phase: Transform, consolidate and integrate data;
3rd Phase: Load data into a database target or repository;
4th Phase: Process and generate outputs.

Characteristics:
- Private;
- Secure;
- Easy to work with;
- Additional features: graph and diagrams construction.

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?
    YES   NO

EXAMPLES OF OSS:
- Moodle
- LimeSurvey
- TAOtesting
- SAS University Edition
- GNU PSPP
- Python

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):
- https://www.gnu.org/software/pspp/?utm_source=PredictiveAnalyticsToday&utm_medium=Review&utm_campaign=PAT

- https://www.predictiveanalyticstoday.com/free-sas-software-higher-education-sas-university-edition/
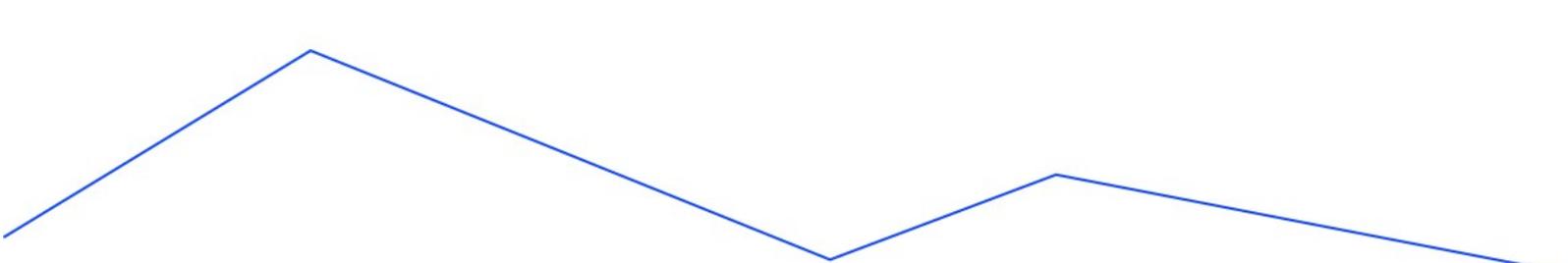
SCENARIO:

Viviane is a French student and wants to do her training at UNITA, in the area of Renewable Energies. As she wants to take the course, not only in France but also in Portugal, Spain and Italy, she went to the Université Savoie Mont Blanc support office to ask for help in building her Hub of Success path. The employee, in charge of this service, talks to Viviane in order to understand what her ideas are. For example:

- Do only want to do one semester in each country outside France? Which country do you want to do more than a semester in?

- Do you have difficulty in English? Do you speak any language of the countries you intend to go to?

- Do you already have a preference in the order of construction of your path?

In order to help her, he has a computer platform where he can put the information he collects from Viviane, and which will present, according to the data entered, what possibilities are best suited to the student's needs. For example:

Viviane only intends to spend the second semester of the second year in Portugal: by placing this indication, only the disciplines that Portugal offers that are semiannual and that work at that time will appear.

Viviane does not understand Spanish but she understands English well: when entering this information, the disciplines that Spain offers in English will be indicated.

In this way, it will be possible to help Viviane in choosing the most appropriate path for her.

CATEGORY OF SERVICES: Orientation

SERVICE NAME: Jobs and internships finding

THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP5, WP6

SHORT DESCRIPTION OF THE SERVICE:

- This service will facilitate the entry of young people into the world of work, guiding the professional choices of students and recent graduates, favoring the first contacts with companies and assisting companies and public bodies in the search and selection of students and recent graduates.

IS THERE ANY OPEN SOURCE SOFTWARE SOLUTION IDENTIFIED FOR THIS SERVICE?

YES NO

EXAMPLES OF OSS:

- none identified that could cover all the requirements identified

EXEMPLES OF USAGE OF THE SERVICE (Video links, presentations online – links):

- https://www.unito.it/servizi/lo-studio/job-placement

- https://graduway.com/products/alumni-relations/

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SERVICE NAME: Database of the Success Paths
THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP2
SHORT DESCRIPTION OF THE SERVICE:

- Flexible to generate customized learning paths based on students options
- User friendly
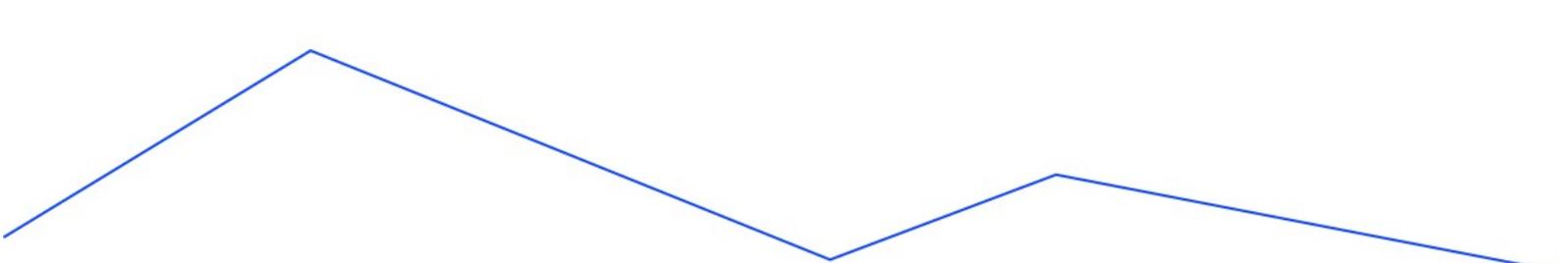
SCENARIOS: from the students' use/point of view

1:

Andrei is a student at West University of Timişoara (WUT) and he was always interested in topics such as renewable energies on a larger scale. Luckily, he has the chance to pursue his passion by following a master program in renewable energies within the UNITA alliance.

By accessing the *database of the success paths*, study paths is more appropriate: study path = existing and relevant cursus; success paths = among the study paths, whose that have been experienced with a positive feedback. Andrei can view his study options within UNITA and based on some criterias (e.g. no. of universities which are offering this program, no. of universities selected by Andrei etc) he can have his own learning path generated by the platform. Andrei can generate relevant study path, because the tool is very easy to use and there are not too much options that may make the search confusing.

2.

Clara is a 3rd year undergraduate student at the Faculty of Arts and Letters of University of Beira Interior (UBI) and she is searching for a master program in circular economy, from an european perspective.

Clara finds out that UBI is offering this program only through UNITA alliance so she is accessing the *database of the success paths* in order to find out whether she can study in France as well because she always wanted to visit and learn the language.

Fortunately, she has the possibility to study for one semester at UPPA and for another one at USMB, both universities located in France.

With the help of the database, she is generating her own learning path and checking for the next steps in order to enroll in the program.

SCENARIO: from the counselor use/point of view (Hub of Success - HoS)

3. (HoS has more options in the use of the data base)

Cristina is a UVT-Unita counselor for student orientation, also known as being part of Hub of Success. She has been contacted, physically, by Andrei for helping him in finding what are the relevant study paths from more specific information. Cristina can ask these specific information to Andrei, because she knows what are the meta-information of the database:

-a study path can be designed from a set of competencies (Andrei wants to work in a consulting office related to renewable energy, thus the related competencies can be identified, but he also wants an international experience: some non scientific competencies must be taken into account)

-Cristina can also propose some alternatives to Andrei: e.g. if Andrei invests in inter-comprehension courses, he could access more/different courses, offered by other universities; this can be applied also because some of these courses are given in a "virtual mobility" framework. Even if the number of ECTS is not completely reached for a degree, Cristina can identify some relevant micro-credentials for Andrei, that can complete the amount of ECTS to get the degree.
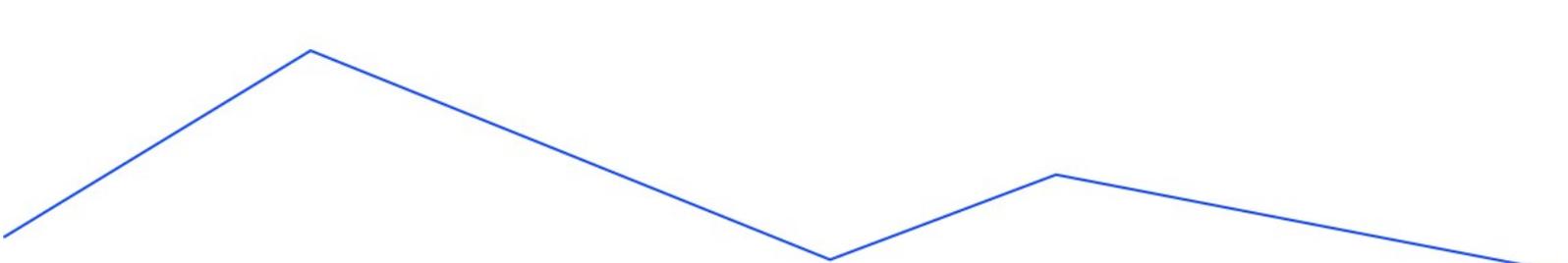
These alternatives can be reached because Cristina knows the different existing strategies to a linear study path.

SERVICE NAME: Virtual Mobility services
THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP6
SHORT DESCRIPTION OF THE SERVICE:
- Flexible to generate customized survey/questionnaire, information/data collect created by any Unita university
- The target public can be teachers, students, administrative staff, or even non academic professional
- All the answers, collected information, are stored dynamically along a period into a unique document
- A selected part of this document can be consulted as a catalog, from any person belonging to the target public
- This document can be analyzed/filtered/treated by any Unita working group

SCENARIOS:

1.

Ana is a Portuguese teacher. She receives a CEI about contributing in the offer of VM courses. She wants to know more about VM courses, thus she consults the related web page :

- with the description of what Unita WM courses are (conditions, process steps, ...)

- a frequently-asked-question section, maintained by some Unita members (WP6),

-the current catalog of VM courses.

She agrees in being involved, thus she fills in the VM form (course title, semester, ...).

Right after she can verify that her course has been added to the VM catalog.

Some time later, she wants to add some more information related to the VM course she proposed.

2.

Boris is Romanian teacher. He wants to contribute massively to the VM catalog, by proposing 5 courses. He can fill in the form for all the courses he wants to propose at once.

3.

Carina is an Italian teacher. She knows well the Unita VM course system. She has proposed some courses in the VM catalog 2021, Autumn semester, and she agrees in proposing some of these courses from for the next Autumn VM call. Thus, thanks to an option "automatic inclusion for next Autumn session" selected during the first form filling, her selected courses are included automatically to the next new Autumn VM catalog 2022, without having to fill in the form again for these courses. Thus she will only receive a message, during the call period preparing the Autumn VM catalog 2022, that some of her courses are automatically added. Of course, she can remove any courses from the catalog.
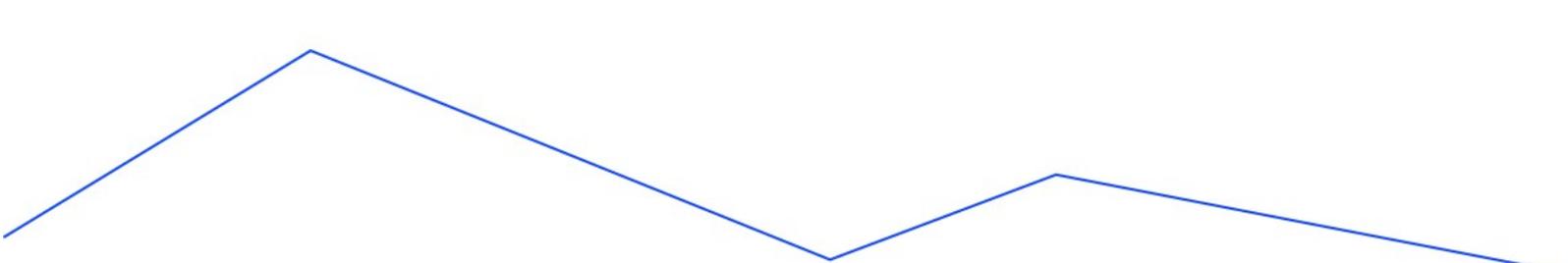
4.

David is a French student interested in attended some courses using VM. He can consult the catalog using some filters (field, key-words, language, ECTS, ...). He decides to follow some of these courses. Thus he can pick up/download from the catalog all the information he needs to propose his VM to his pedagogical referent.

5.

Emilio is a Spanish administrative agent, probably of the international office of his Department. He wants to indicate, in the VM catalog, the selected Spanish students to a Romanian VM course in the History Faculty; he has also to indicate a student complementary list, because the number of places of a VM course is restricted. He has to do this with all his Spanish student affiliated to his Department. He waits for the validation of the selected students, by the Romanian international office of History Faculty. No students can access the field corresponding to the process of selection/validation.

6.

Franca is a Romanian agent working at international office of the History Faculty.

She receives all the selected students from abroad, for all the Romanian courses indicated in the VM catalog. After having accomplished the validation phase, she can count the number of incoming and outgoing Romanian students using the VM system, even those who are not associated to the History Faculty. She can also look at the number of incoming/outgoing students of any university of the alliance.

CATEGORY OF SERVICES: Information and Documentation

SERVICE NAME: Academic tool (files management, UNITA students' records, ECTS transfer, grades, personal record of students, register and compute progressive data to generate individual academic pathway for students)

THE WORK PACKAGE THAT REQUESTED THIS SERVICE: WP2

SHORT DESCRIPTION OF THE SERVICE:

- User friendly
- Safe & private
- Open for UNITA's students
- It can be accessed only through a customized password
- It contains the records of the student (ECTS transfer, grades)
- The students can access anytime the following resources: disciplines that they are following and the syllabus, the package of the optional disciplines / subjects that they can choose to study, learning outcomes and competencies acquired through the study program, they can download different types of certificates etc.)
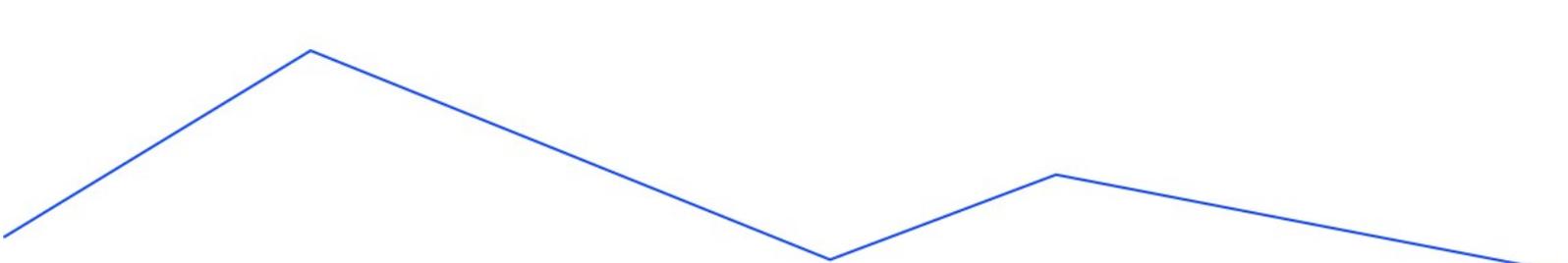
SCENARIOS:

1:

Janine from France is enrolled in a cultural heritage program within the UNITA alliance, and she is currently studying in Spain.

She must prepare an application for a job in France and one of the requested documents is related to her professional and transversal competencies. With the help of this tool, Janine can easily generate a matrix of her learning outcomes and competencies and share it with her future employer.

2.

David from Spain is studying Renewable energies at WUT for one year and starting with the 2nd semester, he wants to add more disciplines/subjects to his learning journey.

Through this tool, he has the option to view and choose what he wants to study from the package of optional disciplines/subjects.