

Smart Diaspora 2023

10 - 13 Aprilie 2023,
Timișoara

www.diaspora-stiintifica.ro

Eveniment aflat sub înaltul patronaj
al Președintelui României



EDUverse: Explorarea Ecosistemelor Imersive ca Inovație EdTech

EUt+VERSE

Campus VR pentru Universitatea Europeană de Tehnologie

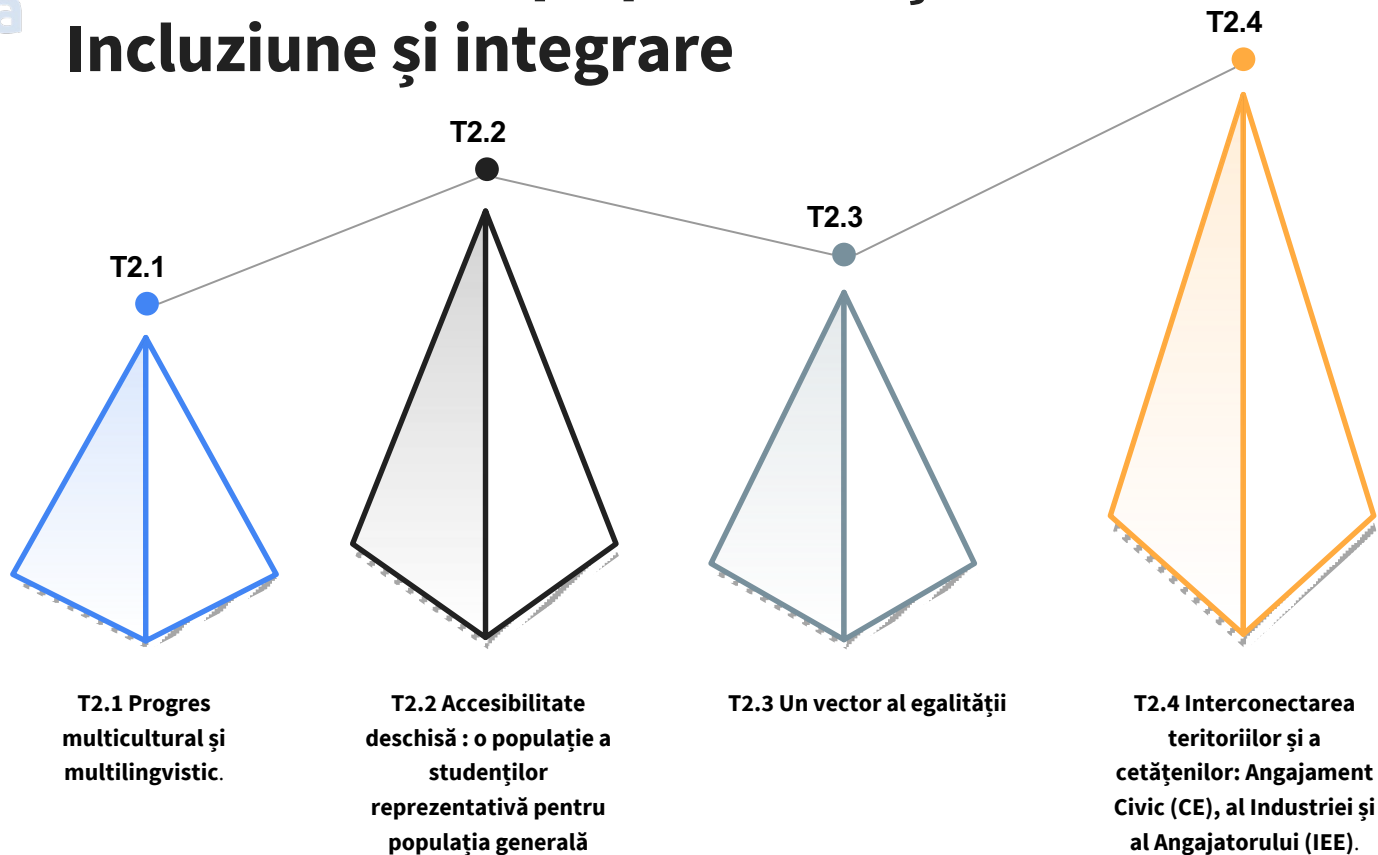
S.L. Dr. Ing. Aurelia Ciupe

**EUROPEAN
VALUES**

**EMPOWERING
TECHNOLOGY**

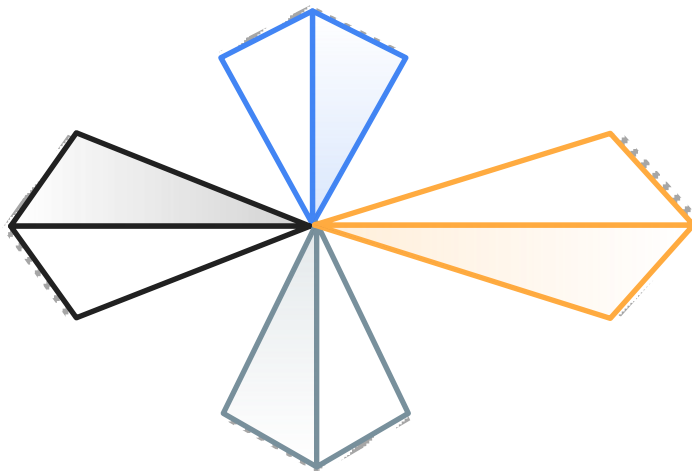


EUt+ WP2: Europa pentru toți: Incluziune și integrare



EUT+verse : Viziune Campus xR pentru EUT+

T2.1 Progres multicultural și multilingvistic



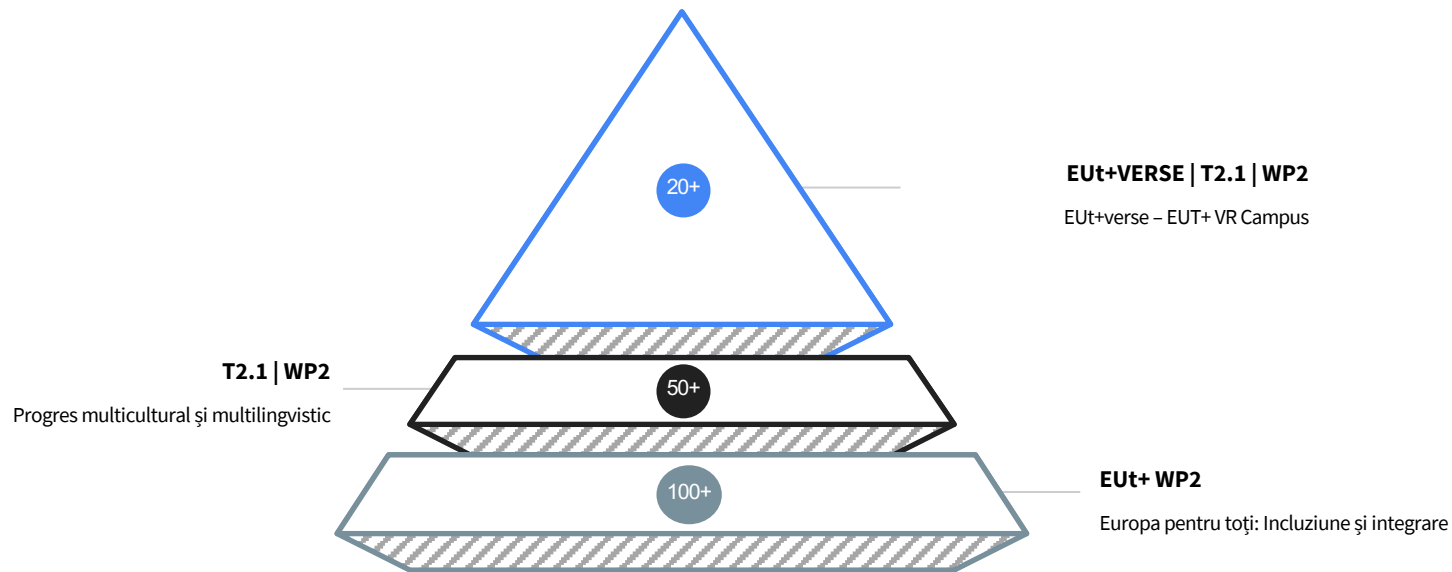
oferă o experiență
interactivă 3D pentru un
campus distribuit

elimină barierele interacțiunii
fizice prin interacțiune menită
să faciliteze mobilități virtuale

facilitează interacțiunea în scenarii
de învățare și acces interactiv la
resurse educaționale

promovează comunicare și
interacțiune cross/pluri-
culturală și incluzivă, bazată
pe principii EDI și UDL

EUT+verse

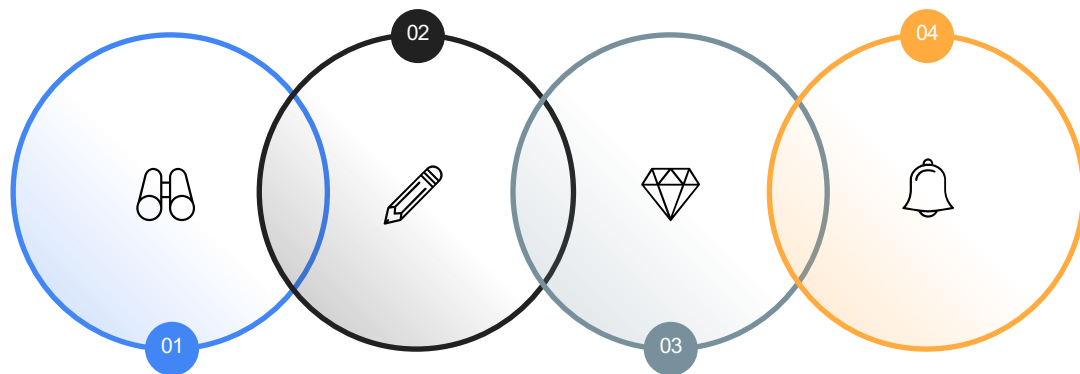


Specificații EUt+verse

SPECIFICAȚII

Scenarii utilizator |
Colectare, elicitare, estimare, priorizare

AGILE SCRUM | MoSKoW etc



DOCUMENT SPECIFICAȚII

DOCUMENT DE VIZIUNE

Poziționare produs și problematică | Sumar
capabilități |
Profilare utilizatori și actori |
Arhitectură high-level

ANALIZA PIEȚEI

Selecția candidaților |
Discuții posibili furnizori de soluție |
Mapare furnizori de soluții

RUP

EUT+VERSE SPECS

ianuarie – februarie 2022

Analiza pieței: furnizori soluții XR,
la nivel EU

septembrie - decembrie 2021

Analiza, elicitarea și prioritizarea
specificațiilor EUT+verse

mai – septembrie 2021

Definirea specificațiilor EUT+verse

aprilie 2021

30+ studii de caz și prototipuri
parteneri AR/VR/xR/MR pentru
medii educaționale și patrimoniu
cultural





EUROPEAN
UNIVERSITY OF
TECHNOLOGY



EUT+VERSE VR
SAMPLE USER STORIES

EUT general world design

US46.As a student, with a visual disability, I would like to be able to access the virtual campus and have a voice over to guide me, and also to can adapting the volume to my needs and the speed of expression.

Audio communication

(Audio) communication

And to promote professional networking

(Audio) communication

US47.As a user (student, teacher, admin) I would like to be able to express myself in:1. voice2. writing through a local chat3. writing in a private chat with another individual user or group4. writing on objects in the environment

(Audio) communication

US48.As a user (student, teacher, admin) I would like to be able to communicate in voice with others in a private group voice chat.(anonymous)

(Audio) communication

US49. As a student, with a visual disability, I would like to be able to access the virtual campus and have a voice over to guide me, and also to can adapting the volume to my needs and the speed of expression.

EUT+ 3D Campus representation

University 3D campus representation

US50.As a student I want to access the Campus floor plan, so that I can navigate to a particular room

Multi-user synchronization and network communication

Multi-user synchronization and network communication

US51.As a user I would like to be able to join a group and receive/send private msgs from/to group participants.

User profile information

User profile information

US52. As a user, I want the platform to adhere to the GDPR rules and have the platform Privacy Policy clearly accessible.

User profile information

US53.As a user, I don't want my personal details to be retained by the platform.

EUT & Campus reception - information about the university, leaflets

EUT & Campus reception - information about the university, leaflets

Information classified by themes, such as courses, languages, leisure, subjects, chats, etc.

Requires reworking – AURELIA COPE

Proposed reworking: US54.As a user I want easy access to courses and activities offered in the platform, either via a dedicated url or in the platform itself. – SUSANNA NICCHI

EUT & Campus reception - information about the university, leaflets

Accessibility (helping users transitioning into and out of VR.

Having a waiting room type of system to prepare them going into VR and getting out of it)

US22. As a person with visual disability I want to be able to get audio cues and directions while using the XR platform

seems very similar to card in "Integration with the general EUT database / administration system" – GREGGISAURANT

Accessibility (helping users transitioning into and out of VR.

Having a waiting room type of system to prepare them going into VR and getting out of it)

US24.As a service worker, or a professor in the university community, I would like to be more inclusive and be able to serve anyone who needs it, thus providing me with the necessary tools to provide the appropriate service to those people.

Accessibility (helping users transitioning into and out of VR.

Having a waiting room type of system to prepare them going into VR and getting out of it)

US25.As a person with hearing disability I want to have transcription of what people are saying in a meeting

Meeting rooms - created by teachers

Meeting rooms - created by teachers

US26.As a teacher I want to be able to customise the 'room' I'm using depending on my needs (for meetings, classes, experiences)

Meeting rooms - created by teachers

US27. As a teacher I want to have a room to discuss issues such as students courses or pedagogy with other teachers from other campus"

Meeting rooms - created by teachers

US28.As a student I want to have access a meeting room, so that I can have a private talk with another colleague

Meeting rooms - created by students

US29. As a student I want to have access a meeting room, so that I can have a private talk with another colleague

Meeting rooms - created by students

US30.As a user (student/teacher) I can book a meeting room.

Meeting rooms - created by students

US31. As a student society, we would like to propose an event to our EUT+ fellow students and therefore have some control over the settings of the room we need for our event

Movement

MOVEMENT

US32. As a user (teacher, stud, admin) I want to be able to teleport to other spaces within the environment.

MOVEMENT

US33. As a user (teacher, student, admin) I want to have easy movement around the environment, whether I am accessing it via desktop/portable device or via HMD. The learning curve should not be steep.

NEW - Feedback on learning/cultural experience (anonymous)



Τεχνολογικό
Πανεπιστήμιο
Κύπρου



h_da
HOCHSCHULE DARMSTADT
UNIVERSITY OF APPLIED SCIENCES



COMUNICARE | ACCESSIBILITARE | VR WORLD | EDUCATION SPACE

EUT+ XR BACKLOG									
USER STORIES									
Tours (360 or other) about the actual university	Multi-user open spaces	Integration with the general EUT database / administration system	Exchange cultural information	SAFETY	COMMUNICATION	ACCESS	Meeting rooms - created by teachers	Movement	
+	+	+	+	+	+	+	+	+	
<p>Tours (360 or other) about the actual university</p> <p>US1. The virtual tour could also be in VR (e.g. UPTC VR tour). As a student, I can explore the campus of my choice and ask questions to different departments</p> <p>★★★★★ (10) Rate 0 4</p> <p>✚ Add comment</p> <p>✚ Aurelia Cuipe 2y</p> <p>✚ Susanna Nocchi 2y</p> <p>✚ @Aurelia. Would you like proposals for rewriting it in the comments?</p> <p>✚ @detteglaudent 2y</p> <p>Part 1 seems to feature in next card.</p> <p>✚ @detteglaudent 2y</p> <p>Part 2 seems to feature in the Communication section, especially if the tours considered here are 360 tours</p> <p>✚ Add comment</p>	<p>Multi-user open spaces</p> <p>US5. As a student I would like to talk or interact to students from different campus'</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Customization Application - design custom spaces, custom events for experience rooms</p> <p>A separate customisation application which allows a user to design custom spaces and experiences. This can range from defining the placement, rules, objects, interactions, results for a quest game in the XR platform open world space to defining a new meeting room with specific environment design, objects interactions, etc. for a cultural event or a more specialized class like an interactive laboratory exercise.</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Open world experiences (i.e. treasure hunt, quests)</p> <p>US4. As a teacher I would like to be allowed to customise the environment so as to create quests.</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p>	<p>Integration with the general EUT database / administration system</p> <p>US6. As a user I want to be able to determine which part of my information is publicly visible</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Integration with the general EUT database / administration system</p> <p>The data about registered users (students / teachers) should be accessed from the main EUT administration system. In this way we avoid handling user registration and doubling user data already existing in the EUT administration system.</p> <p>★★★★★ (10) Rate 0 2</p> <p>✚ Aurelia Cuipe 2y</p> <p>✚ Susanna Nocchi 2y</p> <p>✚ See various.</p> <p>✚ Add comment</p> <p>Integration with the general EUT database / administration system</p> <p>US6. As a user I want to be able to see publicly available university related information about other users</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Integration with the general EUT database /</p>	<p>Exchange cultural information</p> <p>US11. As a student, I want to be able to 'live' and learn the cultural aspects of the university I am visiting, so that the language has a context.</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Exchange cultural information</p> <p>US12. As a user, I might be interested in improving and rating my intercultural competence. It might be of interest to include some resources in this area</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p>	<p>SAFETY</p> <p>US13. As an external person, I would also like to access the virtual content of the campuses and that my privacy won't be compromised.</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>SAFETY</p> <p>US14. As a user, I want to be reminded of some precautionary steps as I enter the virtual reality space e.g. I should not immerse myself in the space for more than X minutes/hours, I should be made aware of a code of behaviour, I should know what to do if anything unusual happens</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>SAFETY</p> <p>US15. As a student, I want to:</p> <ol style="list-style-type: none"> 1. Feel safe in the environment I am visiting and interacting in. 2. Be able to activate a 'safe space' if needed (see safe bubble in AltSpaceVR) <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>User identification, Access restriction, Guest visitors</p> <p>Different users must have different authorization levels (user rights), i.e. access to resources, meeting rooms etc. For example guest visitors should only have access to public spaces and open classes.</p>	<p>COMMUNICATION</p> <p>And to promote professional networking</p> <p>★★★★★ (10) Rate 0 2</p> <p>✚ Susanna Nocchi 2y</p> <p>US18. Should I be mentioned as: As a user I would like to be able to join and participate in professional network community? (if that's what I meant)</p> <p>✚ Add comment</p> <p>Anonymous 2y</p> <p>I agree with Susanna, hard to understand what exactly is meant here</p> <p>✚ Add comment</p>	<p>ACCESS</p> <p>US19. As a student with a disability (e.g. motion sickness) or restricted Internet access, I would like to have alternative means of accessing events or information available on the platform</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Accessibility (helping users transitioning into and out of VR. Having a waiting room type of system to prepare them going into VR and getting out of it)</p> <p>US20. As a user, I would like to be able to receive realtime translation to what other people are saying in a language of my choosing (from a list of available languages)</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>ACCESSIBILITY (helping users transitioning into and out of VR. Having a waiting room type of system to prepare them going into VR and getting out of it)</p> <p>Universal Design of course in XR Virtual world. Creating all kinds of virtual spaces as accessible and real as possible within the framework of the UQ, although in reality there are failures, in that virtual world it is fully accessible, and to be able to learn from those possible mistakes.</p> <p>★★★★★ (10) Rate 0 0</p>	<p>Meeting rooms - created by teachers</p> <p>US24. As a teacher I want to be able to customise the room I'm using depending on my needs (for meetings, classes, experiences)</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Meeting rooms - created by teachers</p> <p>US27. As a teacher I want to have a room to discuss issues such as student issues or pedagogy with other teachers from other campus'</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Meeting rooms - created by teachers</p> <p>US28. As a student I want to have access a meeting room, so that I can have a private talk with another colleague</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Meeting rooms - created by students</p> <p>US29. As a student I want to have access a meeting room, so that I can have a private talk with another colleague</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>Meeting rooms - created by students</p>	<p>MOVEMENT</p> <p>US32. As a user (teacher, stud, admin) I want to be able to teleport to other spaces within the environment.</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p> <p>MOVEMENT</p> <p>US33. As a user (teacher, student, admin) I want to have easy movement around the environment, whether I am accessing it via desktop/portable device or via HMD. The learning curve should not be steep.</p> <p>★★★★★ (10) Rate 0 0</p> <p>✚ Add comment</p>	

Mapare furnizor soluții xR

01

Potențiali furnizori

Selecție a 33 posibili furnizori xR din 100+ furnizori candidați, în baza portofoliilor VR/xR/MR

02

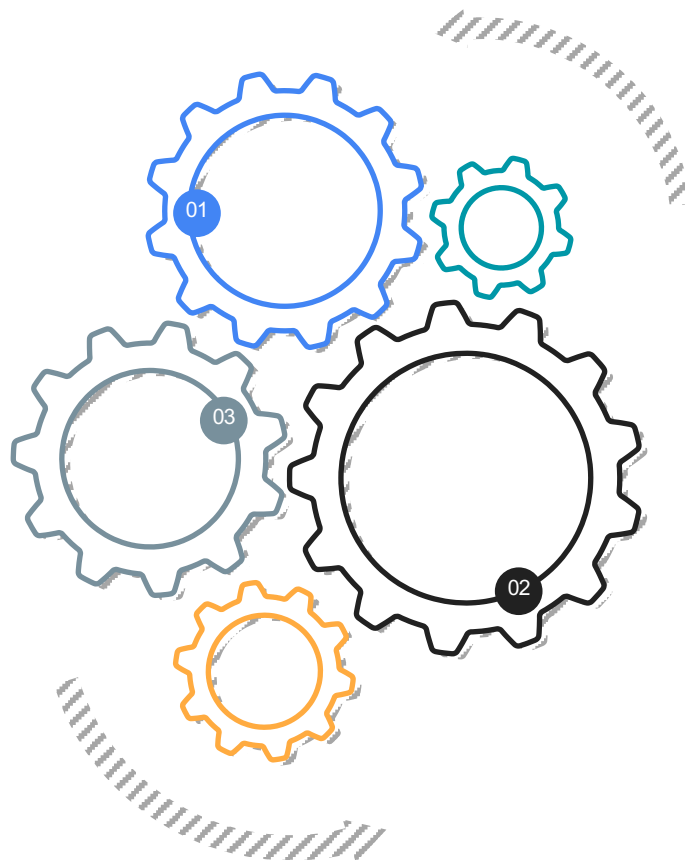
Discuții furnizori (Discovery calls)

13 posibili furnizori de soluție cu HQ în 9 state UE

03

Mapare furnizori soluții

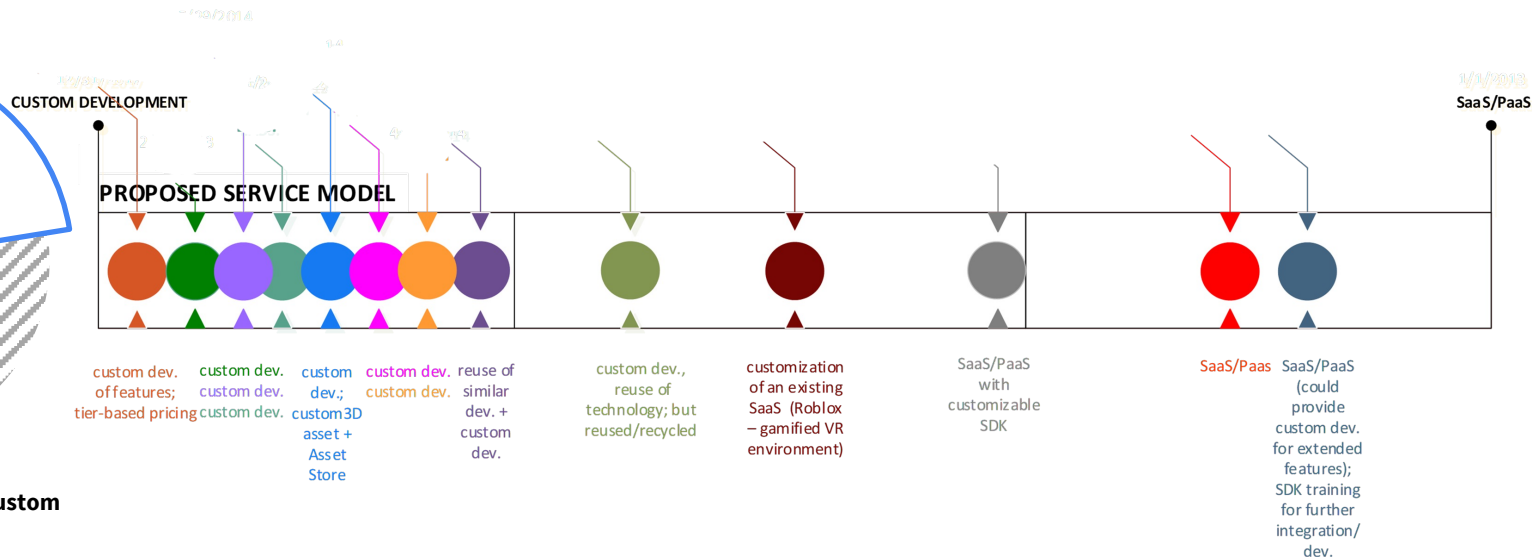
5 criterii: model serviciu | soluție propusă | maturitate pe piață | inovație | estimări cost



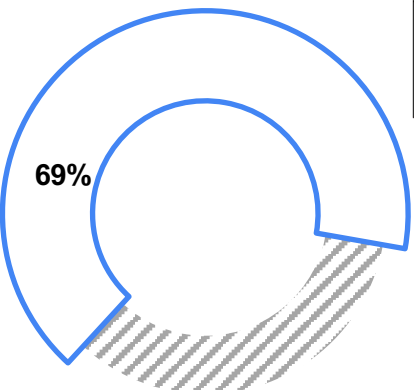
Mapare furnizori xR: Model serviciu

61%

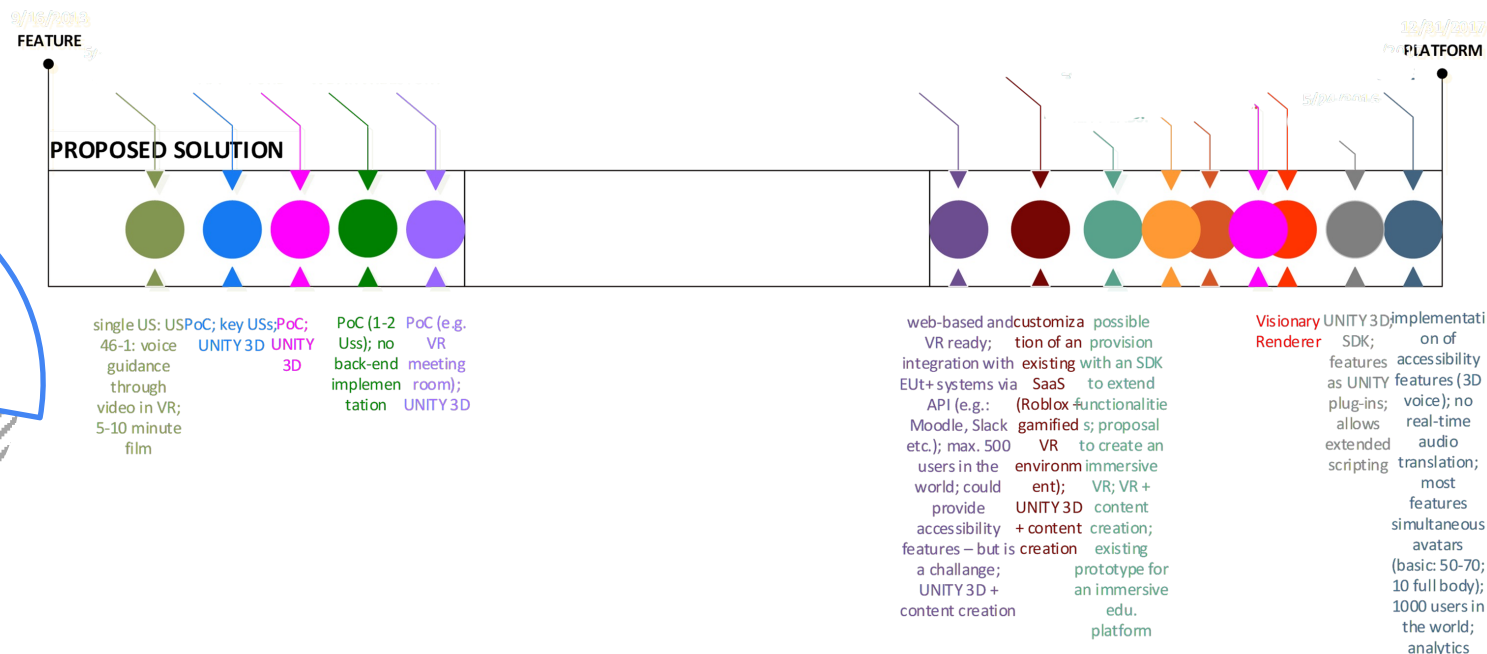
Model soluție: dezvoltare custom



Mapare furnizori xR: Tip de soluție

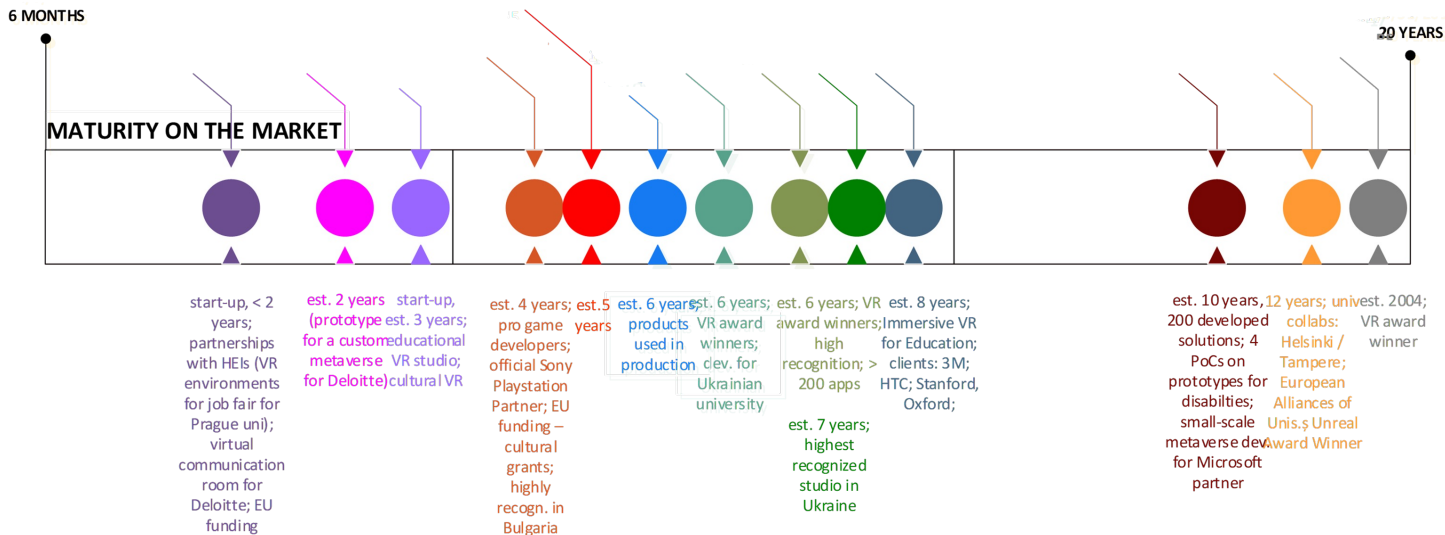


Tip soluție: platformă



Mapare furnizori xR: Maturitatea pe piață

14

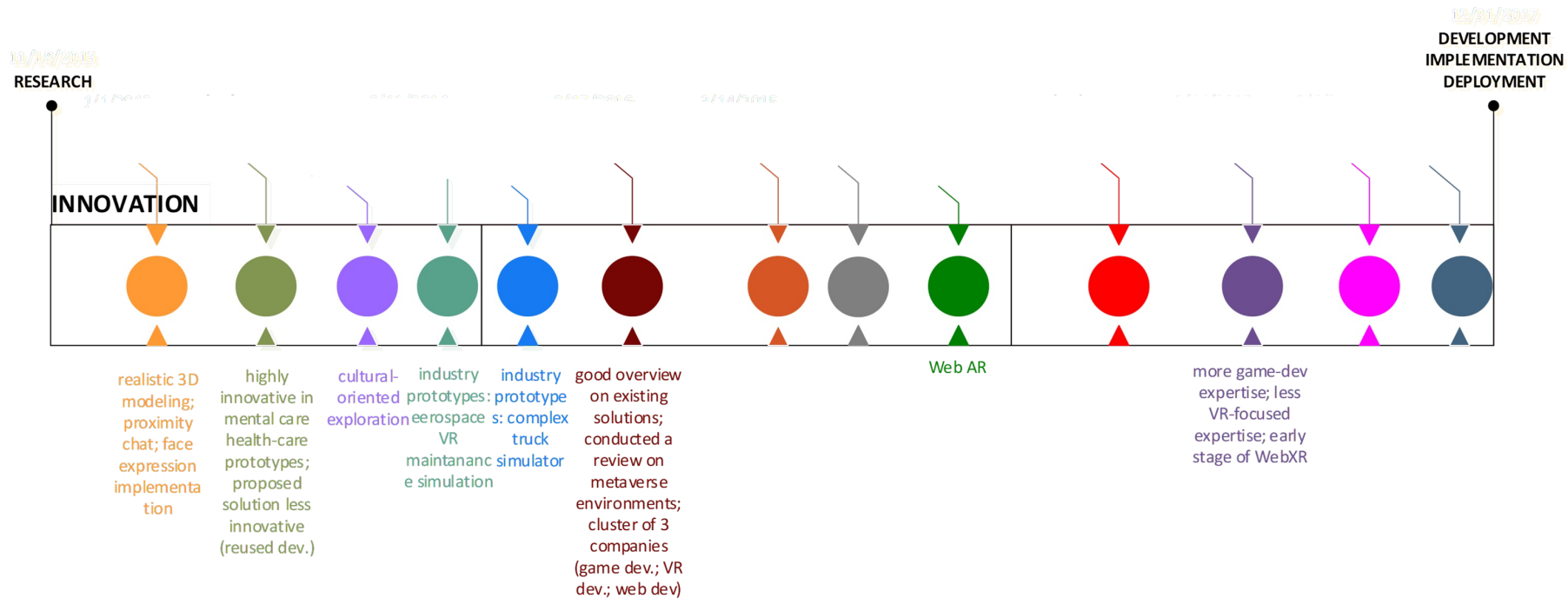


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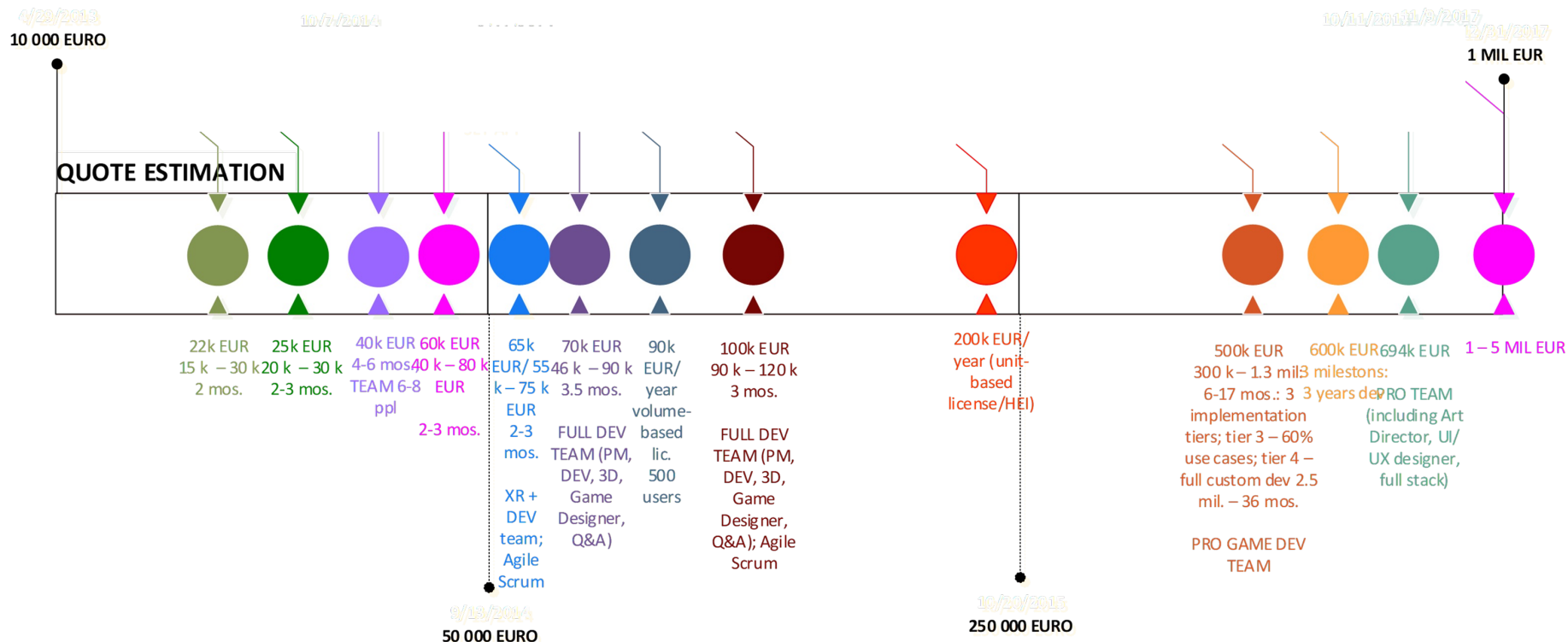
Maturitate furnizor pe piață:

5 – 8 ani

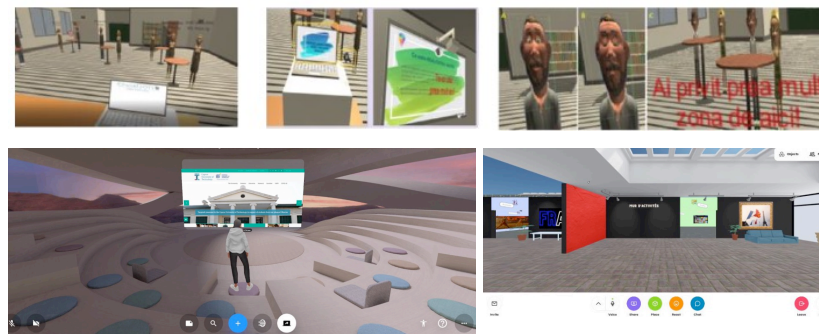
Mapare furnizori xR: Inovație



Mapare furnizori xR: Quota



- **EUT+ verse : Reinforcing a pan-European immersive EdTech ecosystem for innovation and digital breakthroughs**
(DIGITAL-2022-SKILLS-02-INNOVATE-EDU)
- Immersive Learning Research Network 2022:
EUT+verse Demo Huddle
- A. Ciupe, S. Munteanu, A. Parmaxi, A. Nicolaou, O. Gabaudan, S. Nocchi, A. Schalk, B. Orza, C. Campian, C. Maraciuc, "**From Speaking Skills to Virtual Mobilities: Challenges of VR Technologies in Communication, From the European University of Technology**", 2023 IEEE Global Engineering Education Conference
- VR pilots in education in each HEI: mobilități virtuale, acces resurse educaționale, EFL, comunicare în medii VR



MULTUMESC

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