PrismArch

Deliverable No D7.1

Project Communication Kit

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Abstract	The objective of this document is to define dissemination goals and guidelines that are to be followed by all partners. In this context, D7.1 presents the dissemination principles of PrismArch and defines specific targets. In addition, it presents planned dissemination materials (factsheet, presentation, flyer, etc.), events and venues, standardization activities, as well as the role of the PrismArch User Group.
Keywords	Communication, Dissemination

Copyright

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Deliverable history

History

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Executive Summary

Deliverable D7.1 has a double role. On the one hand, it presents the identity of the PrismArch project, including the project website, flyer, etc. On the other hand, it describes the dissemination activities foreseen by PrismArch. First it elaborates on the basic dissemination principles, including target audiences, key messages and timing of actions. The deliverable then describes the dissemination strategies focusing on events and products. This is followed by the dissemination materials for PrismArch, which include the project website, the communication kit (presentation, poster, and flyer), the factsheet, the press release and the newsletter. The dissemination plan then describes in detail scientific and commercial events targeted for participation, as well as scientific journals for article publication. Then, the deliverable lists the first participants of the User Group and describes their role in the project.

Abbreviations and Acronyms

AEC	Architecture, Engineering and Construction
AR	Augmented Reality
BIM	Building Information Modelling
CAD/CAM	Computer-Aided Design & Computer-Aided Manufacturing
CGI	Computer-Generated Imagery
DT	Digital Technologies
EBU	European Broadcasting Union
GIS	Geographic Information System
GMF	Global Media Forum
ICT	Information and communication technology
NDA	Non-Disclosure Agreements
NLP	Natural Language Processing
PUC	Pilot Use Cases
SME	Small and Medium-sized Enterprises
UG	User Group
VFX	Visual Effects
VR	Virtual Reality
WP	Work Package

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1. Introduction

1.1 Dissemination basic principles

1.1.1 Target audiences

In order for people to benefit from PrismArch, they must be reached by the new knowledge or results produced by the project. The project team will therefore identify the different individuals, groups, and organisations and their specific interests in the project developments, particularly with respect to a possible continuation of the research after the end of the project. This includes the need to inform and engage stakeholders. A stakeholder can be defined *as any group or individual who can affect, or be affected by the achievements of the research project - or can influence these results.* In addition, PrismArch knowledge and results will be shared and exchanged with the scientific community; with umbrella bodies such as [XR4ALL] and [Khronos]; and with other European projects such as the ICT-55 ones.

Establishing contact with relevant communities will allow the consortium to fully understand the challenges and impact that this technology could have. It is important to mention that some of these communities may not be directly related to the AEC industry, including, for instance, 3D modelling, VR design and development, and other fields of application for the ICT technologies introduced in PrismArch. By incorporating them in the PrismArch dissemination and exploitation process, project achievements are expected to reach beyond its domain of application. The table below (Table 1) lists the target groups and communities most relevant to PrismArch.

Table 1: Target groups and communities of PrismArch.

Communities	**Activities**
Architectural offices, architecture students, MEP and structural engineers and other creative industries that use CAD/CAE /BIM and advanced modelling software for architectural design and engineering.	The objectives of the project will be shared to both architectural design and engineering communities, who will be able to further disseminate PrismArch's main message, as well as use the platform to develop similar applications. In particular, demonstrations will take place as two architectural projects - usage scenarios, namely one for commercial and one for residential design. A demonstration workshop will be organized by ZHVR in London after the deployment of the first prototype (M14) and its results will be integrated into the next development cycles.
Software companies and the active community around solutions addressing	Since PrismArch will interconnect with the software tools that are currently used in the AEC industry, it is important to link with the companies developing these software packages and leverage

the AEC industry such as Revit, Rhino, Sofistik, etc.	their existing network of clients. In this respect, PrismArch will seek presence in major workshops around BIM, Revit, Rhino, etc.
Software companies and the active community around the leading graphic engines such as Unreal.	PrismArch will rely and contribute to the ecosystem of the most powerful graphic engines to offer high-quality photo-realistic graphics. It will seek presence in workshops and events organized by the active community.
3D designers and simulation engineers in fields other than AEC, such as industrial design, car and aerospace industry, etc).	Architectural design (ZHVR), structural engineering (AKT-II) and MEP (SWECO) partners in the consortium will use their communication channels that may extend beyond the AEC domain to disseminate the project results. Dissemination will take place in bilateral forms with counterpart design organizations.
Engagement with relevant initiatives like XR4ALL	The XR4All [XR4ALL] project is an H2020 program that has been funded with the objective to strengthen the European XR technology industry and to accelerate its growth. We plan to adopt the architecture suggested by XR4ALL and follow the released open calls so as to contribute to the evolving ecosystem.
Contribution to relevant standards like OpenXR by [Khronos]	OpenXR is a royalty-free, open standard that provides high-performance access to Augmented Reality (AR) and Virtual Reality (VR)—collectively known as XR—platforms and devices. It belongs to the Khronos community. Our goal is to follow the activities of this community and contribute with knowledge stemming from the domain of AEC.
Research communities on VR immersive technologies, computational architecture design, spatial cognition and multi-simulation in engineering.	The project's academic partners have an extensive network of contacts across the research and development community in Europe. They will leverage these relationships in order to raise awareness of the new concepts and approaches taken within PrismArch to encourage future application in research and development activities.
Investors	Meetings with investors will be sought as early as possible with two goals: 1) to create early exploitation opportunities through existing industrial partnerships or through connections with new entities willing to exploit the project results; 2) expose staff (especially young researchers and designers) to innovation dynamics, e.g., with training on pitching to investors and business plan creation.

1.1.2 Key messages

The project will define a clear message to be sent to the target audience. Therefore, an accurate identification of the target audience affects the way this key message will be formulated and expressed. It is in this regard necessary to think about the characteristics, needs and preferences of the person on the receiving end, their perception on the project and how to communicate this clearly in order to attract attention and curiosity in PrismArch.

Therefore, it is obvious that the expectation and interests of the aforementioned groups of the target audience vary significantly. For instance, while detailed technical results may be significant for the group of researchers, academics and developers, they certainly will not raise sufficient interest among the end users of PrismArch such as Architects and Engineers (MEP or Structural), unless the implications of these technical results are properly communicated. Similarly, while researchers, academics and developers may be interested in the general outcome of the PrismArch, their main interests are the techniques and modules behind the resulting PrismArch platform.

In conclusion, the background of the target group affects the way that the key message is expressed and the type of information that is of interest and that should be communicated. For this reason, the information presented to the several dissemination activities should be in line with the targeted audience of the specific event.

1.1.3 Timing of actions

It is important to decide on which different dissemination activities will be most relevant for each case during the lifecycle of the project. This means that the conveyed messages have to be aligned with these cases and circumstances. For example, it is better to build a strong awareness of the project at the start, while focusing on “selling” achievements towards the end of the project. It is also important to think about the communication timetable and requirements of the target audience. For instance, there are periods during the academic year, when it is difficult to reach academic staff (e.g. at the start of the term or during examinations), or it is easy to access companies during big exhibition events such as CES. It should be kept in mind that a message needs to reach the receivers several times (the average is at least three) before a reaction occurs. Therefore, the messages should be repeated several times, potentially through various channels and tools.

At this point of the project (3 months after the start of project activities), it is understandable that a general product of the PrismArch, even in an initial stage, is not yet developed. Therefore, the partners will promote the project by informing the potentially interested target audience regarding the vision, objectives, use-cases, modules implicated and the research areas of interest

that will be handled during the next months. These activities will be described in deliverable D7.2 which is a continuation of D7.1, and contains the detailed Dissemination and communication plan.

2. Dissemination and Communication activities

2.1 Dissemination activities

The main objective of our dissemination strategy will be to raise awareness about PrismArch activities and outcomes and disseminate information and knowledge about the numerous benefits that it has to offer in the AEC industry. In order to be effective and efficient, the dissemination strategy will be oriented towards the needs of the various audiences, using appropriate language and information levels, include various communication means (e.g., written text with illustrations, graphs & figures, electronic/web-based tools, presentations at workshops and conferences), and fully leverage on existing resources, relationships, and networks. More specifically, the PrismArch consortium will deploy an integrated dissemination strategy, including: a) **Scientific publications** of the main project outcomes, b) **Communication kit**, including factsheet, leaflet, poster and presentation template that will be disseminated in the events that PrismArch partners are going to participate, c) **Project website** providing access to project documents like public deliverables, reports, tutorials for end-users and target custom eras explaining how the platform can be used, promotion materials, project updates and contact information to support further dissemination and communication activities, d) **Active collaboration with industry associations, research groups and SMEs** that are active in the AEC domain as well as with key European associations for virtual reality and creative design, e) **Participation in high impact industrial events** and fairs, where stakeholders look for new software tools and technologies supporting the AEC industry. The activities and events planned by PrismArch are detailed in Table 2 and Table 3 (particularly regarding Dissemination), and include high impact events, such as MAB (International Media Architecture Biennale), WAF (World Architecture Festival), f) **Organization of targeted events**, addressing all players in the value chain (VR development industries, architectural offices, MEP and structural engineers, researchers from domains relevant to computational architecture design and cognition aspects of navigation in VR, and other interested parties).

In accordance with the dissemination and valorization strategy outlined above, the activities to be undertaken during the project will include participation in events and activities of great impact in the academic communities, as well as the architecture and VR design industries detailed in the following two tables.

Table 2: Conference and journal dissemination

WP-Tasks	Conferences and Journals
Cross-disciplinary, collaborative VR-aided design environment for architecture (WP1)	Conferences: Total Chaos, Architecture of The Future, Siggraph, Im-Arch: Immersive Architecture Conference, Fabricate, Design modelling symposium, Acadia, EcaadE, Advances in Architectural geometry, Smart Geometry, Digital Construction Week, Future Build Journals: Architectural Design, Nexus Network Journal - Architecture and Mathematics
Computational architecture design for automated content creation and design suggestions (WP2)	Conferences: IJCAISimAUD, eCAADe, ACADIA, CAAD Futures, CAADRIA, SiGraDi, AAG, SIGGRAPH, GDC (Game Developers Conference), IJCAI, Springer International Conference of Design, User Experience, and Usability Journals: Elsevier Design Studies, Springer Cognitive Processing,
Cognition aspects of collaborative VR-aided design environments (WP3)	Conferences: International Conference Spatial Cognition, International Conference on Spatial Information Theory (COSIT), Springer International Conference of Design, User Experience, and Usability Journals: International Journal of Architectural Computing, Design Studies, GAM Magazine, Log, Thresholds, Visual Informatics, IEEE Technology and Society Magazine, i-Perception, The Arts in Society: The International Journal of New Media, Technology and the Arts, Computers in Human Behavior, Architectural Design
Blending multi-simulations and BIM notations within a VR-aided design environment (WP4)	Conferences: Autodesk University, Siggraph, CES, MWC, Solidworks World, Augmented World Expo (AWE) Journals: ACM Transactions on Computer-Human Interaction, IEEE Transactions on Visualization and Computer Graphics, Cambridge Journal of Visualized Experiments, Elsevier Computers, environment and urban systems
System integration and development of the collaborative VR-aided design environment (WP5)	Conferences: Autodesk University, Siggraph, CES, MWC, Solidworks World, Augmented World Expo (AWE), ECAI, AAAI, EKAW, KR, IEEE CoMoRea, CIKM, SIGIR, ECIR, RecSys, WSDM, ICAT: International Conference on Arts and Technology

	Journals: Interactions, ACM Transactions on Computer Human Interaction, Advances in Human-Computer Interaction, AI, TKDE, TODS, TOIS, IJIR, Technology and Culture, Science as Culture,
Demonstrate and evaluate PrismArch in different architectural projects (WP6)	Events: IMM Cologne - the very first interior design show of the year; Material Xperience - the yearly materials event for architects and other creative professionals; Surface Design Show - event to find new and innovative surface solutions, materials and products; The Salone del Mobile is the global benchmark for the Home Furnishing Sector; ICFF contemporary design, luxury interiors and high-end furniture; MAB - the International Media Architecture Biennale; Orgatec - contributes to the interplay between work environment, processes and working culture; WAF - World Architecture Festival; BATIMAT - the international show in the building industry.

Table 3. Dissemination activities that PrismArch will involve.

Partner	**Main dissemination activities**	**Target audience**
CERTH UOM	(i) Publications in high impact scientific journals and conferences in VR, Computational Architectural Aided Design (CAAD), modeling and simulation, (ii) contribution to the dissemination material content, (iii) participation in events and workshops related to BIM/CAD/CAE software, as well as related to the UNREAL and Unity3D graphic engines; (iv) demonstration to architectural and engineering partners as well as to potential clients.	Research Community, Industrial consumers of PrismArch results.
ZHVR	(i) Attain broad attention in the international press and publishing for substantial and precise representation of the project. (ii) Address different types of media requests (i.e. project publications, interviews or Q&As). (iii) On an external communications level, ZHVR closely accompanies major press events such as project openings, ground breaks, lectures or talks, while they unanimously work with client representative and their communication departments. (iv) Additionally, members of the Digital Technology Department attend and lecture at major conferences in their field to exchange and promote new processes and proven workflows.	Architecture community and industry

ETH	(i) publication in high impact scientific journals and conferences in Computer Human Interaction (CHI), UX/UI, Virtual Reality and Computer Aided Architectural Design as well as Spatial Cognition and Design Studies. (ii) integrating the PrismArch tool with ongoing collaboration with European and Asian architectural design studios through our Zurich- and Singapore-based research teams, (iii) presenting project outcomes at international academic venues and trade fairs	Architecture, Cognitive Science research community, CAAD, Design Studies
Mindesk	(i) Publications in high impact scientific journals and conferences in VR, (ii) demonstration to architectural and engineering partners as well as to potential clients, (iii) active presence in high-profile festivals and conferences, such as Autodesk University and Rhino user groups, (iv) dissemination through company's social and marketing channels, (v) dissemination through top Industrial Partners' social and marketing channels (i.e. HTC, Epic Games, Microsoft, McNeal).	Research Community, Architecture community and industry
AKT	(i) Demonstration at regularly hosted public lectures to industry partners and software user groups (ii) Public lectures and workshops at prestigious UK academic institution working on VR/AR/Interactive technologies, where members of AKT and SWECO either actively teach at, or are affiliated with (such as Design for Performance and Interaction at UCL), (iii) Active presence in high-profile festivals and conferences, such as the London Design Festival, the London Festival of Architecture, ACADIA, (iv) Dissemination through professionally curated social-media channels, (v) Application to high-profile and high-publicity projects.	Computational Design & Engineering community, Structural Engineering Consortiums, Game Developer Communities
SWECO		

2.2 Communication activities

In order to reach a large target audience and implement dissemination plans with maximal impact, PrismArch divides its communication activities into 3 discrete components: 1) internal 2) interpersonal and 3) mass media.

2.2.1 Internal Communications

Internal communications aim at project partners, so as to facilitate project management and ensure that the partners' work is aligned and progressing towards a common goal. Activities include:

(i) Internal Project Management Site. Google drive and Slack were selected as tools for the management of the project and for direct communication, respectively.

(ii) Monthly project team calls. Zoom was selected for conducting virtual meetings.

(iii) Quarterly project meetings. The Kick-off took place on 12-13th of November and the next Plenary meeting will be held virtually in March 2021.

2.2.2 Interpersonal communication

targets a smaller, highly pre-defined audience in order to acquire their input on project development. Activities will include:

2.2.2.1 User Group (UG)

The UG is composed by representatives of all key stakeholders including architects, engineers, wider design communities, software companies offering solutions for the AEC industry, XR communities and other potential customers and/or final users of PrismArch. 6 persons were informed, namely 2 Architects from ZH, 2 Structural Engineers from AKTII and 2 MEP Engineers from SWECO. Their names will be reported after they sign the consent form that will be available in April 2021 in Deliverable 8.1 Data Management Plan.

An electronic form within PrismArch site[1] allows experts in the fields of CAD, CAE, BIM to be registered for evaluating the results of PrismArch, providing their opinion or just receiving newsletter from PrismArch. The requested information from the participants are personal data such as name, affiliation, expertise as well as practical data such as whether they have a pair of VR glasses and which type of graphics card they use. In the end of the questionnaire, a consent form is provided according to GDPR.

UG participants will be informed on project developments and will be invited to participate in PrismArch discussions and events (e.g., plenary meetings, workshops, open days) and provide their feedback through concise and short questionnaires or templates. T7.3 will be responsible for communication with the UG as part of the activities related to networking and engagement with relevant initiatives.

[1] User group electronic application form: https://prismarch-h2020.eu/user-group/

2.2.2.2 Links with other relevant European projects

PrismArch will foster existing links and synergies and establish new ones with related projects through the end-users and technical partners who are already participating in such projects, making sure to coordinate PrismArch with their activities and exploit any useful outcomes. Particular emphasis will be placed on linking with the ecosystem created in the context of XR4All coordination and support action.

More specifically, PrismArch has been participating in the XR4ALL actions and has subscribed to its tools. Namely, Dimitrios Ververidis, the Technical Manager of PrismArch, is a member of XR4ALL community and became a member of the 7th slack group channel of XRALL that regards XR technologies in AEC industry (sig7-XR4AEC). Communication mails have been exchanged with the coordinator of the channel, who agreed to participate in PrismArch Advisory Board, and some messages have been sent to the channel to inform its members about the beginning of PrismArch. An activity was a discussion with the CEO of a startup company related to haptics, namely "TheMagos.com", that was funded in the first open call of XR4ALL.

2.2.2.3 Organization of a Demonstration workshop

A demonstration workshop will be realized by ZHVR in London after the deployment of the first prototype (M14) and its results will be integrated into the next development cycles. This workshop will demonstrate results from DUC1 & DUC2 demonstrators. The workshop will have the following objectives: (i) to present the lessons learned in PrismArch and illustrate its first results by demonstrations, (ii) to offer the interested parties the possibility to experiment with the PrismArch workbench in "hands-on" sessions, (iii) to provide a user forum for networking with professionals from related areas, (iv) to obtain feedback from the participants, and (v) to create a detailed document on lessons learned for the development of the future prototypes. The target group will be broader than the UG.

2.2.3 Media communication

Media communication will take place throughout the lifecycle of the project and aim to raise general awareness of the PrismArch project and its aims and objectives. To achieve this, we will utilise the aforementioned instruments, namely the dissemination toolkit and social media, the project website, publications etc., that were identified as integral parts of our dissemination strategy. Moreover, professional media coverage (e.g. in newspapers, magazines, etc.) of

PrismArch and its activities will be pursued via press releases and news alerts specially crafted to attract journalist interest. To make sure that the project will maximize audience reach and successfully disseminate technical and scientific results, we have identified a set of dissemination targets (Table 5) that will be utilized to monitor progress and intensify dissemination efforts if necessary, throughout the duration of the project.

Table 5: Dissemination targets

Tool	**Metric**	**Target**
PrismArch website	Number of ● site visits per month ● downloads per month ● track download numbers from MINDESK website	● 500 visits / month, 100 downloads / month, Google Analytics; ● 25% increase of site visits per year is expected.
PrismArch Demonstration Workshop	Number of ● participants (by target group)	● Target: 200 participants
Social Media	Number of ● groups joined ● active discussion forums ● views (Facebook, LinkedIn) ● tags and followers (Twitter)	● Target: 2 groups, 2 discussion forums (on Facebook, Twitter and LinkedIn), 1000 views, 500 tags and followers
Publications	Number of ● publications in technical, scientific and academic conferences and journals	● Target: at least 10 publications in peer-reviewed journals, conferences and other publications, in total from all partners combined
Market Focus Group	● Number of users ● Diversification	● At least 10 users ● At least 3 from each domain (Architects, Engineers, VR developers)
User Group	● Number of users ● Diversification	● At least 20 users ● Corresponding to focus groups expected to be involved in the use cases: architects, engineers, designers, VR experts

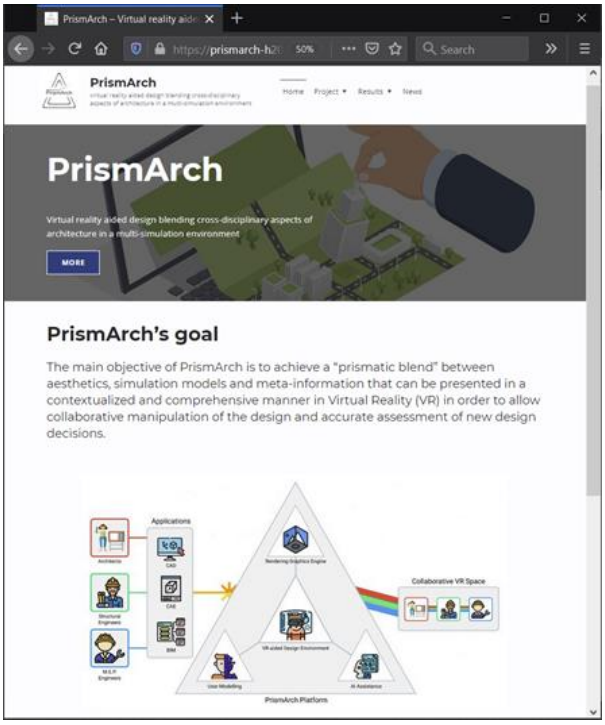
3. Project Communication Kit

The Project Communication Kit includes the following instruments:

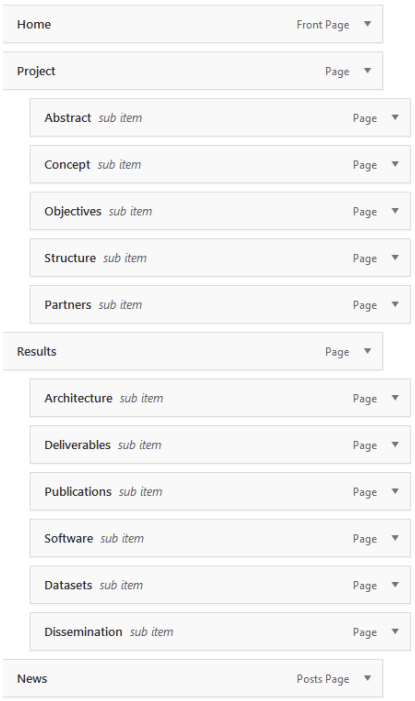
1. PrismArch Website and Blog
2. PrismArch Newsletter
3. PrismArch Poster
4. PrismArch Factsheet
5. PrismArch Social Accounts in Youtube and Twitter

3.1 Project website and newsletter

The website **http://prismarch-h2020.eu** (Figure 1) is the face of the PrismArch project to the world. It is operating as a central point of attraction for everyone interested in the work of the consortium towards the project's objectives.



(a)



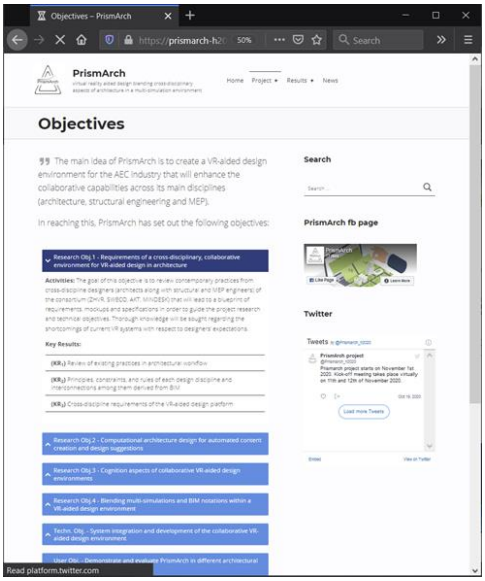
(b)

Figure 1: a) Home page of the PrismArch website; b) Website menu structure.

The website is divided into four main topics namely "Home page", "Project", "Results", "News" as presented in Figure 1b. "Project" is further divided into "Abstract", "Concept", "Objectives", "Structure", and "Partners". "Results" is divided into "Architecture", "Deliverables", "Publications", "Software", "Datasets" and "Dissemination".

The "Abstract" page as shown in Figure 2a, presents the summary of the project and its main objective. Each website page is divided into two columns where the left column shows the main content of the page whereas the right column shows the Project Social Media accounts' latest posts (i.e. those in Facebook and Twitter that will be described in Section 2.5). The Concept page

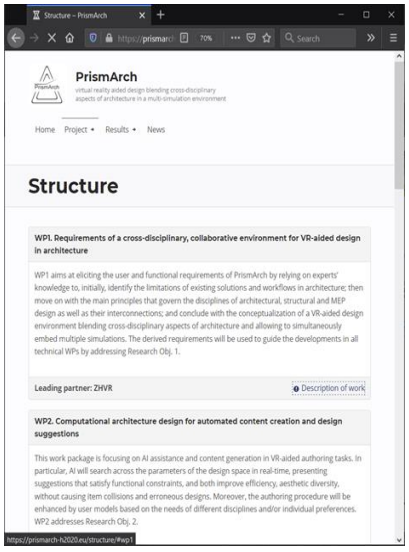
outlines the homonymous part from the description of work of the project. The page “Objectives” is presenting the partial objectives of the projects as shown in Figure 2b. It is an interactive page as each objective title can be clicked to show the objective description and key results.

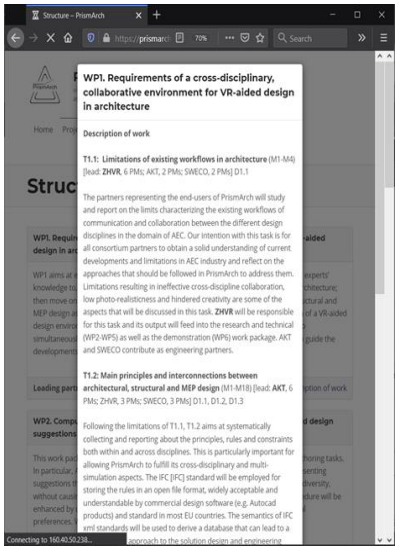


(a) (b)

Figure 2: a) “Abstract page” shows the summary and the main objective of the project; (b) “Objectives” page analyses the objectives of PrismArch.

The “Structure” webpage as shown in Figure 4a presents the Work Packages (WP) of the project such as their title and description. When the “Description of Work” button is pressed, then a more detailed description of the WP is shown as that in Figure 4b, containing the corresponding WP subtasks, the Person Months of each partner per task, the duration of the task, and the corresponding deliverables.

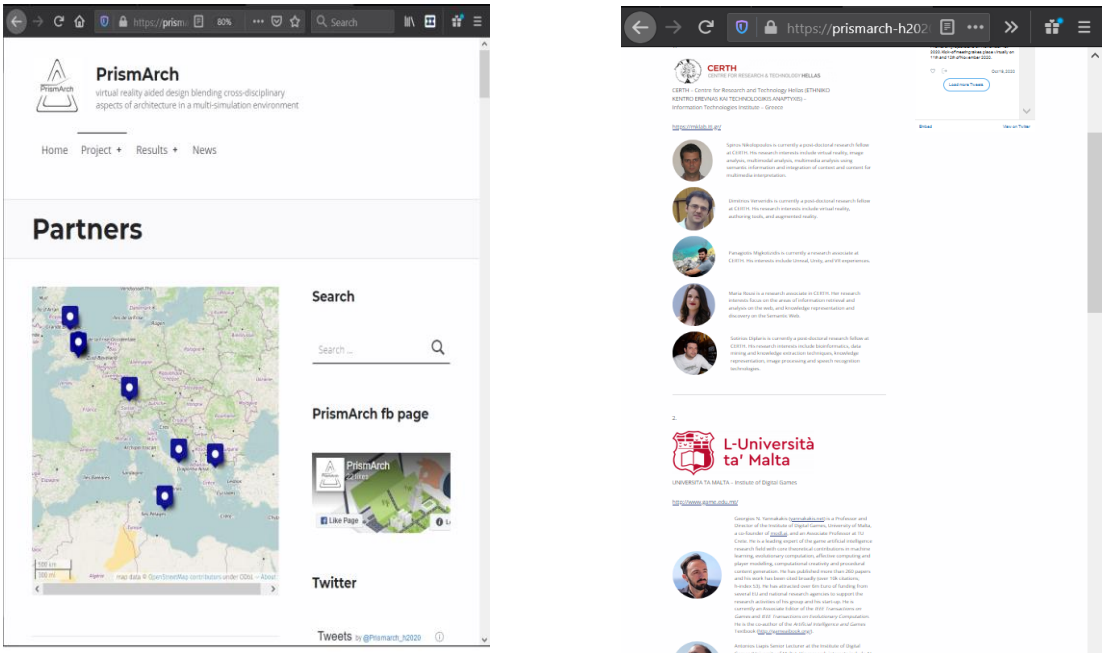




(a) (b)

Figure 3: (a) “Structure” webpage presents the WPs of the project; (b) By clicking on “Description of work” more details about the WP are shown.

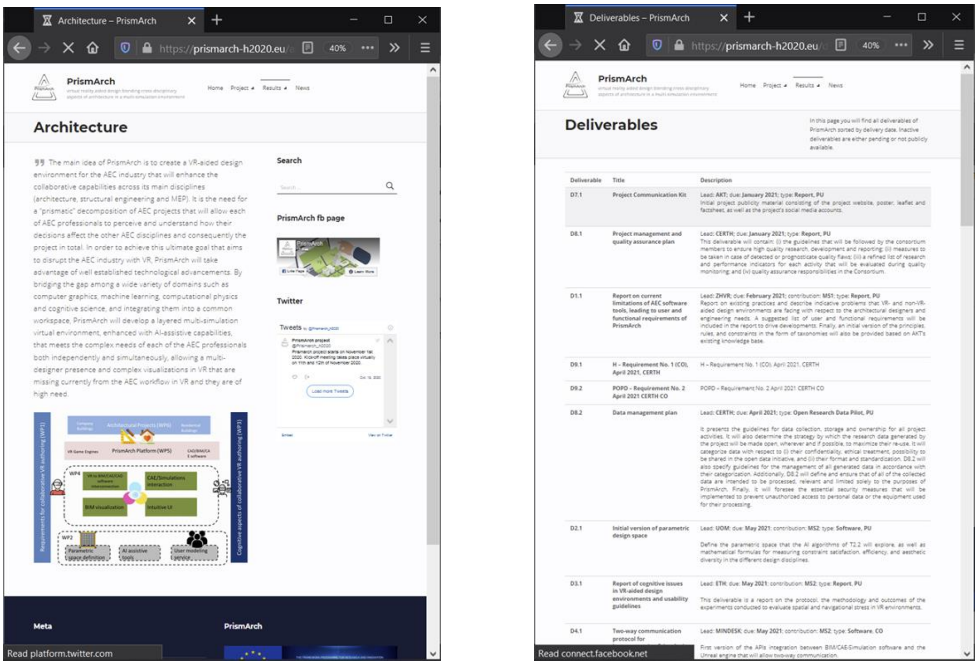
The last page in this menu category is named as “Partners” and presents the synthesis of the consortium structured as in Figure 4. In detail, the upper part presents in an OpenStreetMap [1], the location of each Partner (Figure 4a). Afterwards several sections follow where the logo of the partner and its members are shown (Figure 4b).



(a) (b)

Figure 4: “Partners” page presents a) a map with the location of the Partners; and b) the synthesis of the PrismArch consortium.

The menu item “Results'' presents the outcomes of PrismArch. The first item is the Architecture of the project that relates the WPs as shown in Figure 5a. The second page of the “Results” menu is the “Deliverables” page that presents the list of the 33 deliverables of the project in a table with three columns as shown in Figure 5b. Each column indicates individual deliverable characteristics, such as number, the name, and a detailed description with the leading partner as well as the date to be delivered.



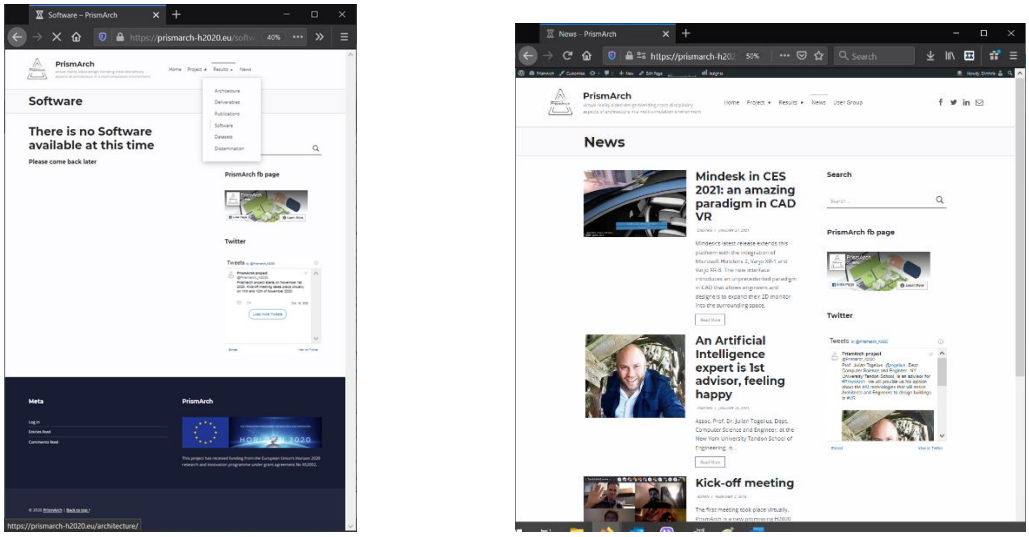
(a) (b)

Figure 5: The first two menu items under “Results” are: a) the “Architecture” page presenting the relationships across WPs; and b) the “Deliverables” page which presents the deliverables of the project.

The fourth, fifth, and sixth page under the “Results” menu are named as “Software”, “Datasets”, and “Dissemination” which indicate the respective outputs of the project. In Figure 6a, we present the “Software” page which in this initial phase of the project is empty. Finally, the last menu item is “News” as shown in Figure 6b that presents the newsletters blog of the project.

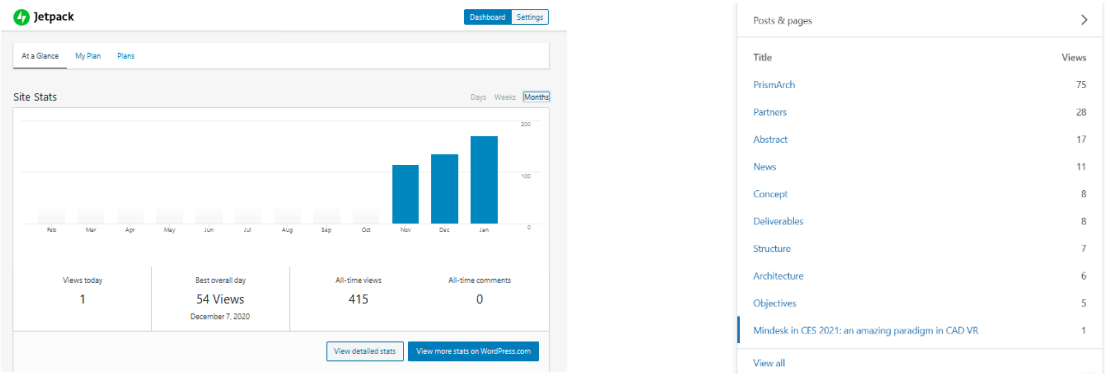
As regards technology details, the WordPress open-source platform was used in order to build up the website. It is hosted in CERTH premises in order to avoid extra costs in external hosting providers. Its domain name “PrismArch-project.eu” was rented for 5 years.

As regards monitoring the website traffic, the Jetpack plugin is installed which provides visits per day, month, year as well as the pages that were mostly visited as shown in Figure 7a and Figure 7b, respectively. For the first 3 months, 12 November 2020 until 20 January 2021, the project had around 415 visits.



(a) (b)

Figure 6: a) Software page of the project lists the open-source software delivered by the project; b) The "News" page is the blog of the whole site with the newsletters released.



(a) (b)

Figure 7: The monitoring of the project website traffic is achieved through Jetpack for WordPress that indicates a) statistics of visits for November, December, and January; and b) regarding visits per web page.

3.2 Social media presence

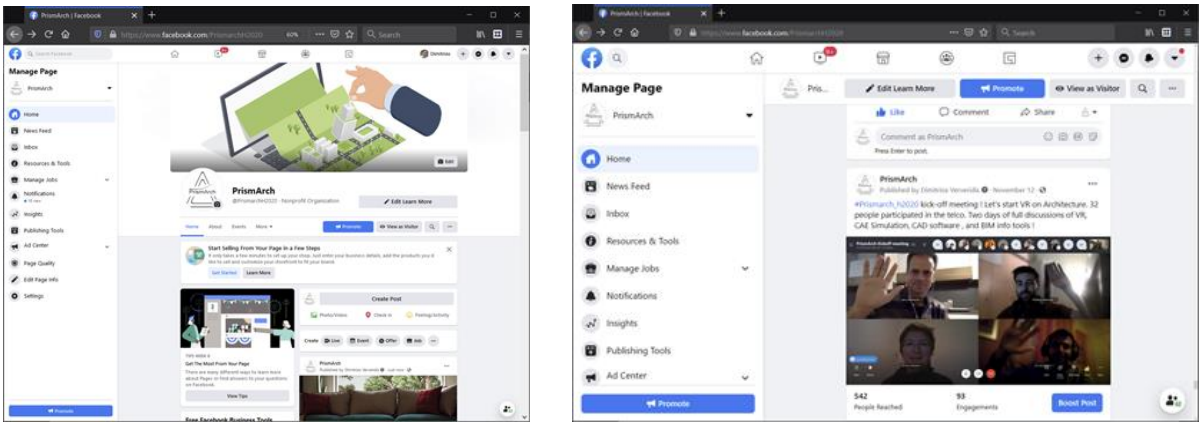
The social media presence is essential for reaching out to wide audiences. Among all social media, Facebook, LinkedIn and Twitter were selected as they are the most important for such kind of information. The links are provided in the following:

Facebook: https://www.facebook.com/PrismarchH2020

Twitter: https://twitter.com/Prismarch_h2020

LinkedIn: https://www.linkedin.com/company/prismarch

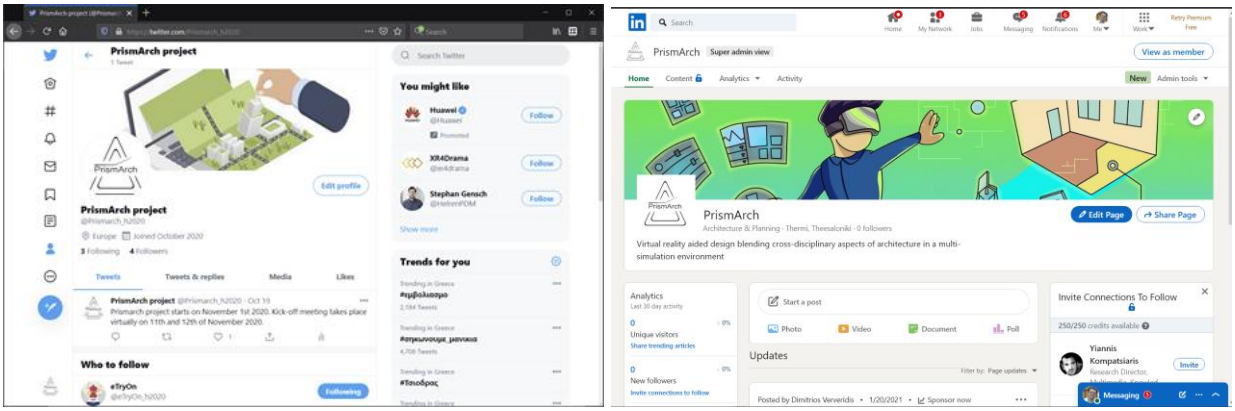
These pages were created and populated with posts related to PrismArch in order to maximize the dissemination of the project results. The introduction of the Facebook page is shown in Figure 8a, and one of the first posts is shown in Figure 8b.



(a) (b)

Figure 8: (a) Facebook page of PrismArch project; (b) One of the first posts of the project was a screenshot from the kick-off virtual meeting of the project on November 12th

The introduction page of the Twitter account is shown in Figure 9a and the introduction for the Linkedin page is shown in Figure 9b.



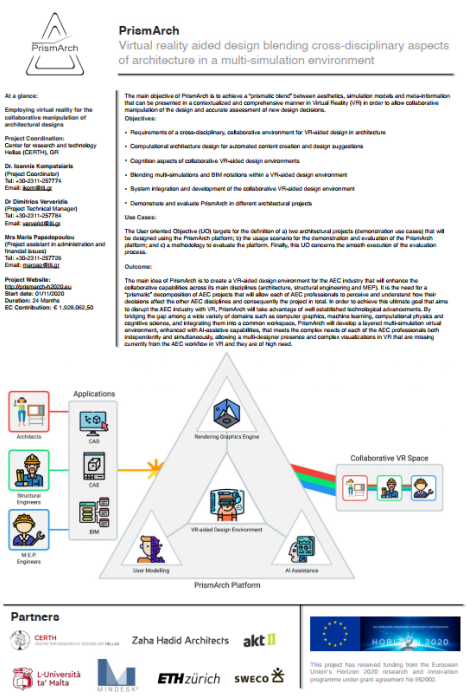
(a) (b)

Figure 9: a) Twitter account of PrismArch; b) LinkedIn page of PrismArch;

The Facebook, Twitter, and LinkedIn accounts will be constantly monitored in order to assess the impact of the project.

3.3 Factsheet and Poster

The PrismArch project "Communication Kit" is finalized with a) a Fact Sheet (Figure 10a) and b) a poster (Figure 10b). This will aid dissemination activities and ensure a consistent communication of the project concept, objectives and results. This material will be distributed to all public events (conferences, workshops, exhibitions, etc.), where PrismArch partners participate. During the lifetime of the project, the Factsheet and the Post will be constantly updated (at least twice). The first version will disseminate the objectives, the concept and the vision of PrismArch. When project results, outcomes and findings become available, they will be included in a subsequent version. More detailed views of the first version of Fact Sheet and the Post are available in Appendixes A.1 and A.2 respectively.



(a) PrismArch Factsheet

(b) PrismArch Poster

Figure 10: PrismArch dissemination material.

4. SUMMARY

In this deliverable we described the "Project Communication Kit" of PrismArch and provided updates regarding the dissemination activities during the first three months of the project. A next version of this deliverable (D7.2) is expected on M7 (May) and it will provide the dissemination

plan and the strategies to follow for maximizing the visibility and the impact of the project as well as the initial results of the dissemination and communication strategy.

A. Appendix

PrismArch Fact Sheet and Post are depicted below in great detail. They can be found on the [PrismArch website] under “Results” -> “Dissemination”.

References

[PrismArch Website] Official PrismArch website, URL: https://prismarch-h2020.eu

[XR4AL] EU CSA Project for standards and collaboration in XR technologies, https://xr4all.eu/

[Khronos] Khronos royalty-free open standards for 3D graphics, Virtual and Augmented Reality, Parallel Computing, Machine Learning, and Vision Processing, https://www.khronos.org/

A.1. PrismArch Factsheet

PrismArch

Virtual reality aided design blending cross-disciplinary aspects of architecture in a multi-simulation environment

At a glance:

Employing virtual reality for the collaborative manipulation of architectural designs

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Project Website:
http://prismarch-h2020.eu
Start date: 01/11/2020
Duration: 24 Months
EC Contribution: € 1.928.062,50

The main objective of PrismArch is to achieve a "prismatic blend" between aesthetics, simulation models and meta-information that can be presented in a contextualized and comprehensive manner in Virtual Reality (VR) in order to allow collaborative manipulation of the design and accurate assessment of new design decisions.

Objectives:

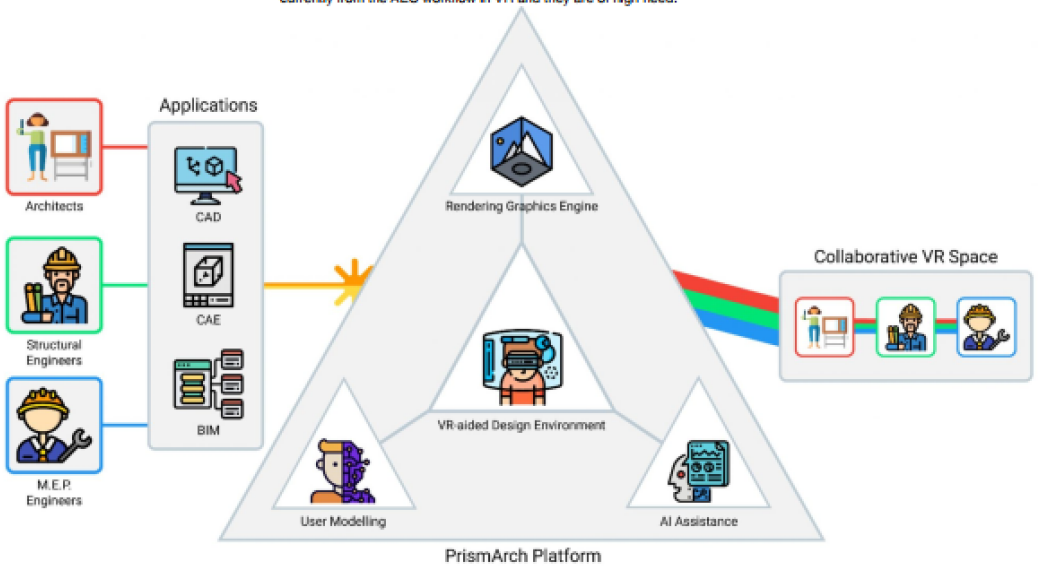
- Requirements of a cross-disciplinary, collaborative environment for VR-aided design in architecture
- Computational architecture design for automated content creation and design suggestions
- Cognition aspects of collaborative VR-aided design environments
- Blending multi-simulations and BIM notations within a VR-aided design environment
- System integration and development of the collaborative VR-aided design environment
- Demonstrate and evaluate PrismArch in different architectural projects

Use Cases:

The User oriented Objective (UO) targets for the definition of a) two architectural projects (demonstration use cases) that will be designed using the PrismArch platform; b) the usage scenario for the demonstration and evaluation of the PrismArch platform; and c) a methodology to evaluate the platform. Finally, this UO concerns the smooth execution of the evaluation process.

Outcome:

The main idea of PrismArch is to create a VR-aided design environment for the AEC industry that will enhance the collaborative capabilities across its main disciplines (architecture, structural engineering and MEP). It is the need for a "prismatic" decomposition of AEC projects that will allow each of AEC professionals to perceive and understand how their decisions affect the other AEC disciplines and consequently the project in total. In order to achieve this ultimate goal that aims to disrupt the AEC industry with VR, PrismArch will take advantage of well established technological advancements. By bridging the gap among a wide variety of domains such as computer graphics, machine learning, computational physics and cognitive science, and integrating them into a common workspace, PrismArch will develop a layered multi-simulation virtual environment, enhanced with AI-assistive capabilities, that meets the complex needs of each of the AEC professionals both independently and simultaneously, allowing a multi-designer presence and complex visualizations in VR that are missing currently from the AEC workflow in VR and they are of high need.



Partners

CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS
Zaha Hadid Architects
akt II
L-Università ta' Malta
MINDESK
ETH zürich
SWECO

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 952002.

A.2. PrismArch Poster

PrismArch

Virtual reality aided design blending cross-disciplinary aspects of architecture in a multi-simulation environment

Motivation:

The design process in architectural projects is characterized by high complexity which stems from the problem of "parallel worlds" (a term used to describe the fact that several disciplines -architects and a variety of engineers- coexist in an architectural project with distinct requirements and role). However, it is only the "intersection", by means of close collaboration, of these "parallel worlds" that can bring an architectural project to fruition. This "parallel world" aspect creates the necessity for an interdisciplinary tool capable to address the unique requirements of each discipline both individually and simultaneously, where all authors will be able to work on the same architectural project and perceive it in their own, different way that best suits their needs. This fact, dictates a necessity for "prismatic decomposition" of the architectural project into components that meet the needs of individual disciplines. Similarly, there is also a need for "prismatic composition", where individual designs, created separately, can be merged to form a unified architectural project.

Goal:

PrismArch aims to create a VR-aided design environment that will be able to host both architects and engineers towards a common goal, the effective realization of an architectural project. PrismArch will enhance the overall decision making process through an action and reaction paradigm. The dynamic collaboration that the PrismArch aims to offer, will allow designers to iteratively co-decide, preview and evaluate the result of their decisions towards a joint optimal solution. Through advanced VR-aided design environment, superimposed with physical and functional characteristics, the designers will be able to experience in-real time not only how their decisions affect their own discipline but also the other disciplines and consequently the overall architectural project.

Scientific Objectives:

- Requirements of a cross-disciplinary, collaborative environment for VR-aided design in architecture
- Computational architecture design for automated content creation and design suggestions
- Cognition aspects of collaborative VR-aided design environments
- Blending multi-simulations and BIM notations within a VR-aided design environment
- System integration and development of the collaborative VR-aided design environment
- Demonstrate and evaluate PrismArch in different architectural projects

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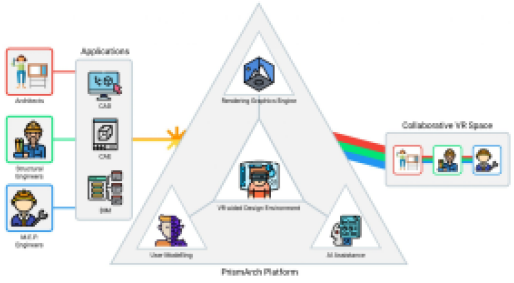


WP1. Requirements of a cross-disciplinary, collaborative environment for VR-aided design in architecture
WP1 aims at eliciting the user and functional requirements of PrismArch by relying on experts' knowledge to, initially, identify the limitations of existing solutions and workflows in architecture; then move on with the main principles that govern the disciplines of architectural, structural and MEP design as well as their interconnections; and conclude with the conceptualization of a VR-aided design environment.

WP2. Computational architecture design for automated content creation and design suggestions
WP2 is focusing on AI assistance and content generation in VR-aided authoring tasks. In particular, AI will search across the parameters of the design space in real-time, presenting suggestions that satisfy functional constraints, and both improve efficiency and aesthetic diversity.

WP3. Cognition aspects of collaborative VR-aided design environments
The objective of this WP is to conduct behavioural experiments in VR on designers and engineers in order to measure the cognitive, spatial, and navigational stress induced, as well as the ability to author, take decisions, and being productive in the VR environment.

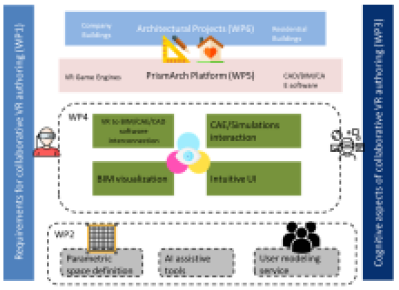
WP4. Blending multi-simulations and BIM notations within a VR-aided design environment
The objectives of this WP are to establish the seamless integration of BIM notations and CAE-Simulations within the VR-aided design environment. More specifically, WP4 will work out the details of establishing a high-speed two-way communication between the high-quality graphic engines (i.e. Unreal or Unity) and existing software packages handling BIM information and CAE-generated simulations.

WP5. System integration and development of the collaborative VR-aided design environment
The aim of WP5 is to integrate the PrismArch components into an overall platform, validate its proper functioning and fine-tune it for running the demonstrators.

WP6. Demonstrate and evaluate PrismArch in different architectural projects
WP6 aims to design and implement the demonstrations of the PrismArch platform in specified architectural projects. A methodology will be developed to design and execute two demonstrators concerning the design of company and residential buildings.

WP7. Dissemination, exploitation and innovation management
The objective of WP7 is to ensure that the technologies developed in the context of PrismArch enjoy the necessary level of dissemination, are exploited by the consortium partners and are sustainable beyond the end of the project.

WP8. Project Management and Coordination
The goal of WP8 is to plan and undertake all necessary activities for the project's effective coordination, to ensure the achievement of the project objectives on time, within budget and with a high degree of success.



Partners

CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS · Zaha Hadid Architects · akt II · L-Università ta' Malta · MINDESK · ETH zürich · SWECO

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