



## **UNEXMIN DELIVERABLE D8.2**

# **FINAL PROJECT WEBSITE**

### **Summary:**

This document serves the purpose of providing a general presentation of the UNEXMIN website, describing all its content, elements, design and functionalities. The final project website has detailed information about the project's objectives, concept and approach, partners, work packages, dissemination material and all other important project related content.




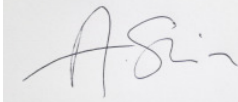
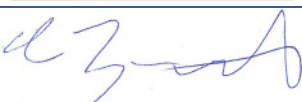
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# **1. Executive summary**

This document provides a general view of the final UNEXMIN Project Website, describing all its important elements such as formatting, design and functionalities. This is D8.2 from UNEXMIN, due in Month 6 (August). It comes after D8.1 which was the document for the first Project Website, which focused mainly on a project overview.

The final Project Website compiles detailed information about the project's objectives, concept and approach, partners, work packages, dissemination material, links to project's related social media and also to all important project related material.

All website elements and other related content referred to in this document can be subject to updates and/or modifications according to new information/results/ideas that might be gathered/earned through the project lifetime and that could improve interaction between the project consortium and the website visitors and stakeholders.

## **2. Components of UNEXMIN final website**

### **2.1 – Front end elements**

#### **a) The navigation structure**

The navigation structure is the order of the pages, the collection of what links to what. The main menu is located in the top of the webpage and is shown in all pages, within a static header. It provides access to important information related to relevant parts of the project, through many pages and subpages: overall information about the project (The Project page), partners (Partners page), to the news feed (News page) and a contact form (Contact us page).

#### **b) The page layout**

The main navigation menu is situated in the centre in a horizontal layout. The overall look for the pages displayed on the website can be described consisting of an image plus some text. A footer is displayed in every page where it shows “Recent News”, followed by “Upcoming Events” related to raw materials and robotics and a way to subscribe to the UNEXMIN newsletter. On the home page there are also four call-for-action buttons below an image slider that link to important page locations within the website.

#### **c) Logo**

The overall image for UNEXMIN has been defined in the project stylebook and then applied to the website. The website tries to reflect all the items on such report, including colours, images and design. In this specific case, the silver logo was adopted and the design elements were built and adapted around it (e.g. darker overall image).

### **d) Images**

The images used in the website are either owned by LPRC or provided by project partners, so no improper use of images is being done. All the images try to reflect to replicate the main themes of the UNEXMIN project: raw materials, robotics, geology, innovation, technology, etc.

### **e) Contents**

The information provided on the website is clearly separated by topic and in easily readable chunks of text (either by plain text or bullet points). It is optimized to be read on all types of screens and is search friendly.

## **2.2 – Back end elements**

### **a) Content management system**

The UNEXMIN website has been set up based on Wordpress Content Management System (CMS). This platform is easy to use, being intuitive for people with minor knowledge in coding (html, php, etc.) and can be easily updated and/or modified. All type of material (posts, pages, and other documents and elements) can be created, reviewed and published on the dashboard of Wordpress in a convenient and easy way.

### **b) Site search**

The website search box is located on the top right corner of the main static navigation menu and it can be easily identified by a magnifying glass icon. It can be easily accessed and used for searching purposes on pages or posts within the website.

### **c) Contact forms**

A contact form is available on the “Contact us” page. It can be easily filled to send a message, which will be received by LPRC and forwarded to anyone within the project consortium, if needed. This contact form requires a name, email, subject and message. It also has a CAPTCHA code for security/spamming measures.

### **d) Newsletter registration**

Registering for the UNEXMIN newsletter is very easy, as this element is available on the website footer and it only needs a name and an email for registration. The UNEXMIN newsletter builder being currently used has capacity for 2000 subscribers. This newsletter is intended to deliver content about UNEXMIN and important information on upcoming events related mainly to raw materials and robotics.

### **e) Downloadable material**

All important project related material can be downloaded – public deliverables and other content - on the page “Downloads”, which is located on The Project > More

information > Downloads. There are no prerequisites to download the files and they are totally free.

## 2.3 – Other elements

### a) Domain name

The domain name for UNEXMIN's website is: <http://www.unexmin.eu>. However, other domains (unexmin.com, unexmin.org, unexmin.net) have also been purchased and they all link to the main UNEXMIN's domain name.

### b) Statistics

Statistics related to the website are being monitored since April and will be continuously monitored throughout all the project's lifetime. Such statistics include information on who is visiting, for how much time, from where and which pages were visited.

## 3. Structure and content

### a) Main menu composition:

Home – The Project – Partners – News – Contact us (Figure 1)

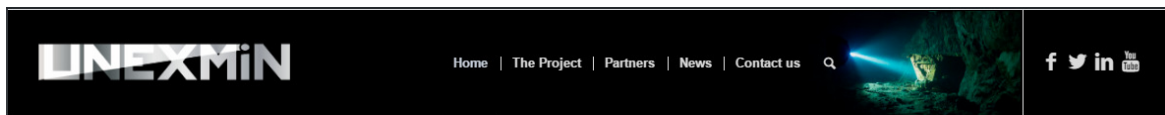


Figure 1: Header displayed on UNEXMIN website

### b) Other elements:

Header (Figure 1): Logo - Search box – UNEXMIN's social media icons

Footer (Figure 2): Recent News – Upcoming events – UNEXMIN Newsletter

Socket (Figure 2): Disclaimer concerning European Union's standards, EU flag and copyright mention



Figure 2: Footer and socket displayed on UNEXMIN website

## c) Content of each page

### • Home

The homepage of UNEXMIN's website is a page that is intended to attract the attention of the visitor, making him/her spend time on the website. It has a slider which shows pictures related to the main topics in UNEXMIN with catch phrases and four call-for-action buttons that take the user directly to other important pages of the website: The project; News; Collaborate with us! and Contact us.

### • The Project and sub-pages (Project overview; Objectives; Expected Impacts; Technological challenges; Test sites; More information)

The sub-pages found under the main page, "The Project", which is not directly accessible, provide an overview of important concepts of the project, including its objectives, expected impacts and developments.

### • More information and sub-pages (Downloads, Collaborate with us!, FAQ)

This section refers to all the information that is related to the project, but that does not fit under a specific category under any other defined page. It contains the Downloads section, information and contacts for cooperation with the UNEXMIN project consortium and a quick FAQ (Frequently Asked Questions) that summarizes the most important information from the website in Question - Answer representation.

### • Partners

This section contains a list of all the project consortium partners and EFG Linked Third Parties and information related to their institutions – logo with link to respective website, name, contact person and corresponding email address within UNEXMIN consortium, plus a small summary of the institution. All these elements are provided by the consortium partners.



### • News

The news page is the most dynamic part of the website. It shows the most recent news published on the website (from newest to oldest). Each news item can be individually read, shared within social networks and commented upon. A categories and a tag clouds are provided (in a sidebar) and also a related posts function in the end of each post, so that cycling through news within the same interested topic is easily done.

### • Contact us

This page contains an easy-to-fill contact form that can be used to leave a message about anything related to UNEXMIN. This message will be received by WP8 leader, LPRC (person: Luís Lopes). A CAPTCHA is being used to prevent spamming e-mails and thus gives more security.

## 4. Technical details

### a) Domain

The domain used for UNEXMIN was registered by the WP8 leader, LPRC. The project domain is valid from 05/02/2016, day when it was registered, and must be renewed on a yearly basis. Other commonly used extensions, including ‘unexmin’-.com, .org. and .net were also purchased to ensure that all the necessary traffic is directed to the UNEXMIN project.

### b) Server

The server is on a machine that has the following technical features:

- Operating System: Ubuntu Linux 14.04 LTS x64
- Web server: Apache2 (2.4.7)
- MySQL server version: 5.5
- PHP 5.5.9
- CPU AMD Opteron 3280 8-Core
- 16Gb ECC protected RAM
- 2x 2TB RAID1 HDD

### c) Software

Wordpress 4.5.3 is currently being used and will be updated when new releases are available.

### d) Security

- Strictly limited php functions;
- Open basedir restriction;

- QoS and DDOS protection;
- Doubly password protected admin section;
- Automatic WordPress updates;
- Wordfence;
- Email Encoder – ProtectEmailAddress;

#### **e) Disk usage and bandwidth**

The web server being used has a total capacity of 2Tb of disk space and 11Mbit of internet bandwidth that can perfectly handle all kinds of content that will be uploaded and downloaded from the website. Contents expected on the website include publications (in .pdf format) and photos, for example.

## **5. Content update and maintenance**

LPRC is leader of WP8 – “Dissemination, technology transfer and exploitation” and the responsible consortium partner for updating the website content (mainly the news section) regularly, while collaborating with the project coordinator and the other partners.

Project related news are going to be published at least once each two weeks, upcoming events on a monthly basis and project related material available for download (brochures, logos, public deliverables) whenever they are ready.

During the first phase of the project, the website will function as a vehicle for disseminating project related basic information – a general overview of it, in order to reach all the stakeholder groups and make UNEXMIN project noticeable between them.

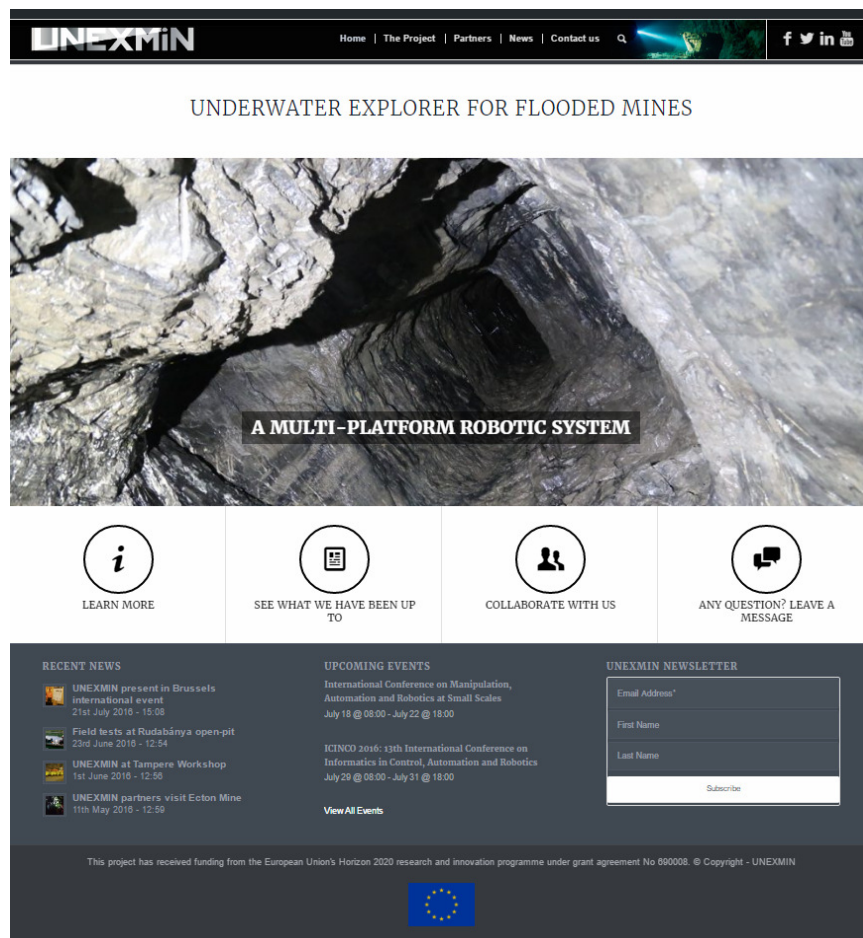
When the first results are available (from year 2 onwards) the website will direct its dissemination purposes to show such results to the interested bodies, trying to get awareness and collaboration from parties outside the scope of project consortium members and institutions.

## **6. Conclusions**

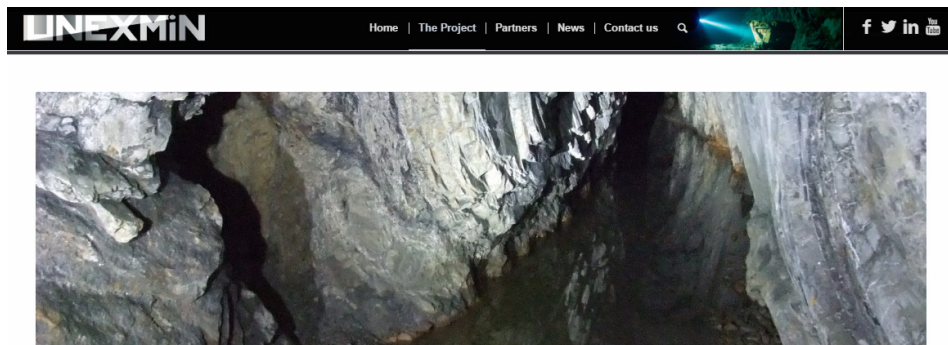
UNEXMIN’s webpage is the main channel for dissemination and communication purposes, as stated in the Dissemination and Communication Plan.

The website provides all the basic and most important information related to the project and will be updated with news, results and promotional material whenever one of these items becomes available or is updated. Social media (Facebook, Twitter, LinkedIn, YouTube) will be used as conductors of traffic towards the website.

## Annex 1 – UNEXMIN website overall view



Annex figure 1: Home page



### Developing science and technology

UNEXMIN is an EU-funded project that develops a novel robotic system for the autonomous exploration and mapping of Europe's flooded mines. The Robotic Explorer (UX-1) will use non-invasive methods for autonomous 3D mine mapping for gathering valuable geological and mineralogical information. This will open new exploration scenarios so that strategic decisions on the re-opening of Europe's abandoned mines could be supported by actualised data that cannot be obtained by any other ways.

The Multi-robot Platform will represent a new technology line that is made possible by recent developments in autonomy research that allows the development of a completely new class of mine explorer service robots, capable of operating without remote control. Such robots do not exist nowadays; UX-1 will be the first of its kind. Research challenges are related to miniaturisation and adaptation of deep sea robotic technology to this new application environment and to the interpretation of geoscientific data.

Work is ongoing with component validation and simulations to understand the behavior of technology components and instruments to the application environment. This will then be followed by the construction of the first Prototype. Post processing and data analysis tools will be developed in parallel, and pre-operational trials are launched in real life conditions. In the final stage of the project extensive pilots will take place during which UX-1 will be iteratively improved after each trial session, which will be increasingly demanding. The final, most ambitious demonstration will take place in the UK with the resurveying of the entire flooded section of the Ecton mine (UK) that nobody has seen for over 150 years. This final pilot will demonstrate the Platform's scalability from small missions to the largest ones by increasing the number of deployed autonomous drones, and supporting multi-robot cooperation in confined 3D spaces with realtime sensor and data fusion for reliable navigation and communications.

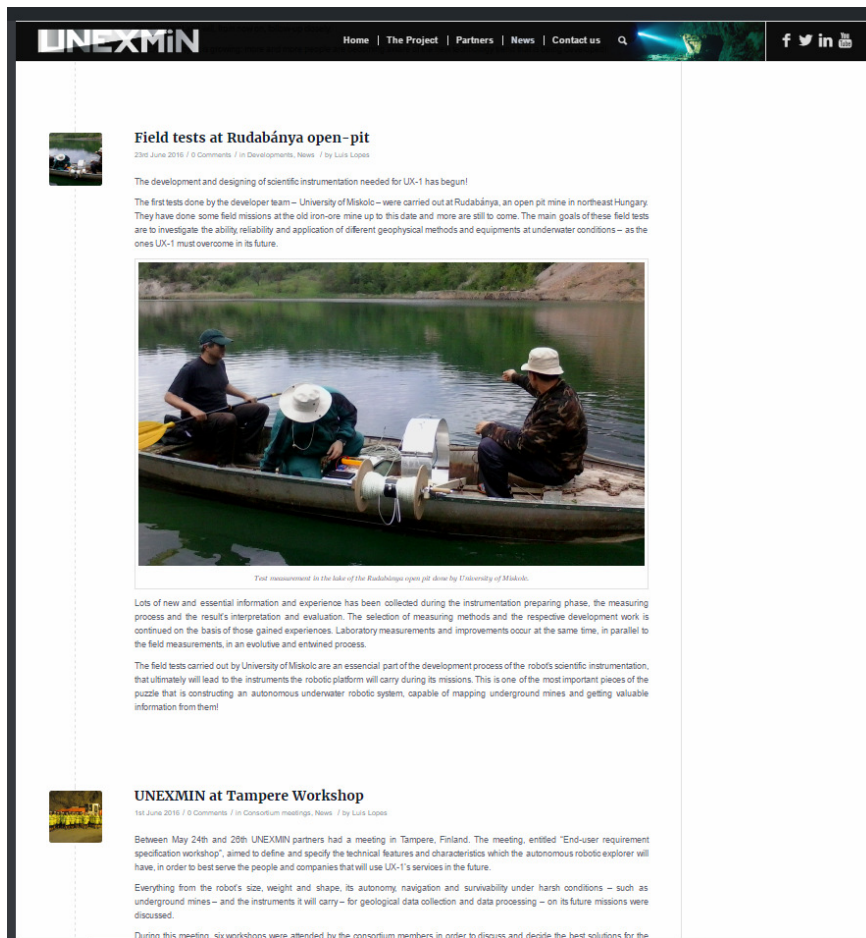
Project details:

- **Project starting date:** 1 February 2016
- **Duration:** 45 months
- **Budget:** 4,862, 865 EUR

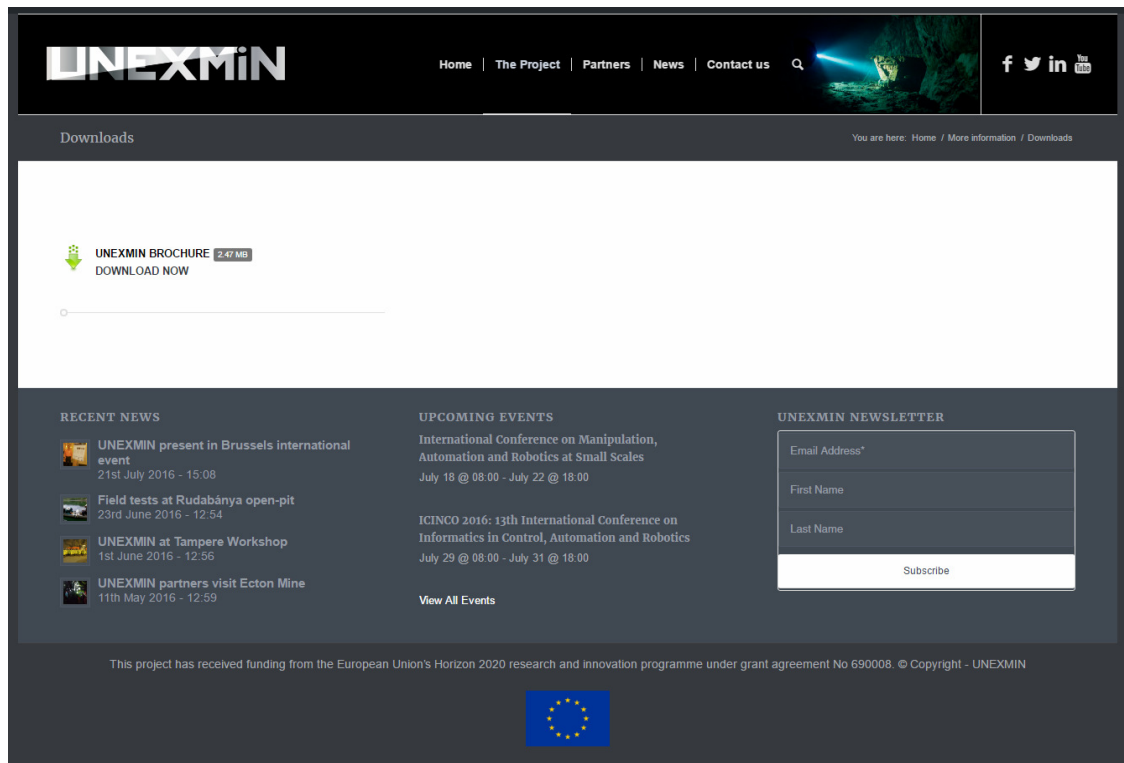
Annex figure 2: Subpage “Project overview” under the page “The project”



Annex figure 3: “Partners” page



Annex figure 4: “News” page with blog posts



Annex figure 5: Sub-subpage “Downloads” under the sub-page “More information”

Annex figure 6: Contact form on “Contact us” page