QR Patrol Pro – A cost effective cloud-based platform for delivering the highest level of security, supervision and management for security companies utilizing Push-to-Talk and integrating Internet of Things technologies.

D10.3 Product website

Version: 2.0

Due: 31/12/2016

Completed: Month 4

Deliverable:	D10.3
Title:	Detailed technical report quality criteria
Work Package:	WP 10
Due:	M 6
Type:	PU
Main author:	Maria Roussou, Alexandros Tagkas
Reviewer:	Baggelis Lignos, Konstantinos Kalampokis, Maria Bourazani, Kostas Kostis, Kostas Vasileiou
Abstract:	Design and maintenance of a website to inform 3rd parties (partners, customers) about the activities of the project and the company.
Keywords:	Cloud, Requirements

Version	Date	Reason For Change	Editor
1	03/10/2016	Material Gathering	Alexandros Tagkas
2	18/10/2016	First Version	Alexandros Tagkas
3	21/10/2016	General Comments and Feedback	Baggelis Lignos
4	30/102016	Final Version	Alexandros Tagkas

Executive Summary

The wide acceptance and the establishment in the market of QR-Patrol, an online real time guard monitoring system tailormade for the physical security industry, as well as for companies and organizations that operate through lone-workers, paved the way for planning the development of its successor coming under the name of QR-Patrol PRO.

The application was considered groundbreaking by the EU and with high potential. As a result, the development and implementation of the new product has received a grant under Horizon 2020, that will ensure that all the necessary sources are available for the implementation and commercialization of it.

Part of the Agreement is the creation of a website dedicated to the project for dissemination purposes. Interested parties will be able to get informed about the project and the status of its implementation, as well as all the activities that take order to promote and advertise QR-Patrol PRO. Containing all the relevant information regarding deliverables, work-packages, news and current status in one place, can be used as an information point.

This document describes technologies and functionalities used in order to create the website http://www.qrpatrolpro-project.com as well as the content that has been decided to be included on the material shown. Reader will be in position to acquire knowledge on how the back-end is constructed having in hand a complementary material for the product website.

The first chapter reasons why the selection of a CMS was paramount for the creation of the website, presenting the benefits that come with this decision. With Drupal being the selected CMS to build upon the website, the rest of the chapter contains the advantages that this selection has to offer, the necessary requirements for the smooth implementation as well as the modules and plugins that have been selected for the development.

In order to demonstrate in an accurate way what is the current status of the project, the additions on the website shall be on-going. To ensure the continuous support of it, a number of roles have been identified responsible to keep the website up-to date. Roles incorporated as well as their respective access rights are presented on the second chapter.

Third chapter analyzes all the reasons that lead to the decision of incorporating google analytics on the website, ensuring that the marketing division has enough information available in order to decide if there shall be amendments on the structure or content that will result to an increasing number of visitors.

Finally, on the last chapter there is a demonstration of what content will be added on the website as well as how this will be organized by presenting the followed sitemap.

Table of Contents

2. Technology Used

2.1 Automated Content Management

The web site content must be managed dynamically throughout the lifespan of the project by non-technical department staff without extra training. To achieve that it was decided that the website will be developed, using a CMS. The CMS that was selected is Drupal, due to the familiarity that the organization has with it throughout an extensive use, on other projects. The staff involved will be in position to add, change and delete site content without manipulating any HTML or scripting code in an effective and efficient manner.

Figure 1: Content backend page of the QR-Patrol PRO project website

2.2 Drupal Advantages

Drupal is an advanced open source CMS system that offers plenty of functions. Drupal has great standard features that make it stand out from the competition, like easy content authoring, reliable performance, and excellent security.

Below are some of the advantages of why we choose this powerful system for QR-Patrol PRO project web site:

- **Variety of functions**
  Drupal includes lot of functionalities that can be applied to the project. These functions make it possible to create simple or advanced websites. Advanced menu management, polls management, graphics modification tool, user's management are some of these.

- **Graphics management**
  Drupal includes a big selection of themes that are available and can be edited and incorporated according to the needs of the project. Page function configurations allow the creation of simple or more complicated page formations.

- **Variety of content types**
  Drupal allows the creation and management of various content types, like: videos, photographs, user management, text, blogs and many others. Although it is not expected to make use of all the different types, having the options available can enhance creativity while keeping the site up-to date resulting in to a better representation of the project.

- **Advanced user's management**
  An administrator can create new user accounts and establish their permission rights. Users can be divided into groups and can be given assignments. Parts of the website can be managed and updated by specific groups of users depending on the assigned permissions allocated by the admin.

- **Page content management**
  With Drupal, it is possible to categorize content, paths as well as creating own lists. This structure makes it easy to manage, search and reuse the content.

- **Plugins**
  Drupal has thousands of plugins available. It is also an open source CMS that allows to create and use your own plugins. Due to the great size of available plugins, the possibilities of a necessary one being absent are reduced.

- **Support**
  Drupal has full documentation, discussion board, chat, and mailing list. There are plenty of ways to get direct information and assistance concerning management and modification.

- **SEO**
  Drupal has clean code, powerful modules and modern web publishing that make it a very SEO Friendly CMS. There are also a wide range of 3rd party SEO modules available in the case that there is a specific need that cannot be addressed fully of the existed ones.

2.3 Drupal Requirements

The version of Drupal that has been selected for developing the website of the project is specified as **Drupal 7.** We select the specific version rather than the newest version 8 because version 7 is more stable, has more contributed modules and more themes. In this section the minimum requirements necessary for the smooth implementation of that version are presented.

Disk space

A minimum installation requires 15 Megabytes. It is expected that only for the website due to the contributed modules and themes installed the size will be approximately 60Mb. The needs for the database, files uploaded by the users, media, backups and other files are also going to contribute on the final size of the file. It is estimated that the size of the QR-Patrol Pro project won't exceed 1 GB of disk space.

Web server

Among the possible options, when it comes to web servers, that offer PHP support are Apache, Nginx, Microsoft IIS. The majority of Drupal development and deployment is done on Apache, resulting to great community experience sharing and testing performed. For that reason, it has been decided to also implement the website of the project incorporating this option.

Database

- MySQL 5.0.15/MariaDB 5.1.44/Percona Server 5.1.70 or higher with PDO,
- PostgreSQL 8.3 or higher with PDO,
- SQLite 3.3.7 or higher
- Microsoft SQL Server and Oracle are supported by additional modules.

PHP

- Drupal 7: PHP 5.2.5 or higher (5.4 or higher recommended).

2.4 Modules and plugins

As it was mentioned above, a number of modules and plugins are going to be incorporated on the website to better enhance the representation of the QR-Patrol Pro project. A brief description of modules and plugins that we will be implement are presented here:

- **Search**

  The search module functionality enables site-wide keyword searching. The search module lets users search for specific content on the website. A visitor has the option to search for a specific user or for a particular word and term. When on the "content" tab of Search, visitor will be able to search for words appearing in the default rendering of node content on the site, which would include the default rendering of any CCK fields, Location fields, Taxonomy, etc., as well as comments.

- **DrupalExp Layer Slider**.

  The Layer Slider module is based on Slider Revolution Responsive jQuery plugin. The use of this module on the website will offer the possibility to build responsive and resizable slideshows. This means that the website will automatically adapt to the full size of the browser window. This functionality will allow visitors to access the website from various devices such as PCs, laptops, smartphones or tablets, in a way that makes the information shown, readable. Some features of Layer Slider module include: Touch enabled navigation, Keyboard navigation, Configurable slide animations and Multiple sliders per page.

- **Backup and Migrate**

  The Backup and Migrate module, allows the backup of the Drupal database and files or the migration of them to another environment. The module supports gzip, bzip and zip compression as well as automatic scheduled backups. With Backup and Migrate you can dump some or all of your database tables to a file, download or save to a file on the server or offsite and to restore from an uploaded or previously saved database dump. You can choose which tables and what data to backup and cache data is excluded by default.

- **Menu**

  The Menu module, allows administrators to customize the site navigation menu.

- **Webform**

  The Webform module allows the making of forms in Drupal. In the case that this is needed throughout the lifespan of the project, users may be informed by receiving an e-mail "receipt" for the successful participation on the survey. The offered functionality allows for a notification to be sent on the administrators too. Results can be exported into Excel or other spreadsheet applications. It also provides some basic statistics reviews.

- **Chaos tools**
  The Chaos tools module is a library of helpful tools by Merlin of Chaos. It contains a module called the Page Manager whose job is to manage pages. This suite is primarily a set of APIs and tools to improve the developer's experience.

- **Block**
  The Block module, controls the visual building of the blocks that the page is constructed with. Blocks are boxes of content rendered into an area, or region, of a web page. Blocks are made available most commonly by enabling modules. Once created, a Block can be modified to adjust its appearance, shape, size and position - or which Website pages it appears on.

- **Path**
  The Path module allows users to rename URLs.

- **PHP filter**
  The PHP filter module allows embedded PHP code/snippets to be evaluated. It adds the ability to include PHP code in posts. PHP is a general-purpose scripting language widely-used for web development.

- **Shortcut**

  The Shortcut module allows users to manage customizable lists of shortcut links.

- **Pathauto**
  The Pathauto module provides a mechanism for modules to automatically generate aliases for the content they manage.

- **Statistics**
  The Statistics module logs access statistics for site. The Statistics module shows you how often a given page is viewed, who viewed it, the previous page the user visited (referrer URL), and when it was viewed. These statistics are useful in determining how users are visiting and navigating on the website.

- **Taxonomy**
  The Taxonomy module enables the categorization of content. Taxonomy gives sites use of the organizational keywords known in other systems as categories, tags, or metadata. It allows to connect, relate and classify website's content. In Drupal, these terms are gathered within "vocabularies". The Taxonomy module allows you to create, manage and apply those vocabularies. Taxonomy is the practice of classifying content. It will come in handy for everything from menu and navigation schemes to view and display options.

- **Views**

  The Views module creates customized lists and queries from the database. Using the Views module, you can fetch content from the database of the site and present it to the user as lists, posts, galleries, tables, maps, graphs, menu items, blocks, reports, forum posts etc.

- **ViewsUI**

  Views UI is a submodule within Views, provides a graphical interface underneath which lies a powerful SQL query builder that can access virtually any information in your database and display it in any format.

Figure 2: Modules page of the QR-Patrol PRO project website

3. User Access and Management

One of the most basic features of administering user Web Site permissions is the creation of roles. The user module allows users to register, log in, and log out.

The user module supports user roles, which can be set up with fine-grained permissions allowing each role to do only what the administrator permits. Each user is assigned one or more roles. By default, there are three roles:

- Anonymous: a user who has not logged in
- Authenticated: a user who has signed up and been authorized
- Administrator: a signed in user who will be assigned site administrator permissions

Users can use their own name or handle and can fine tune some personal configuration settings through their individual my account page. Registered users need to be authenticated by supplying their username and password.

A visitor accessing the website is assigned a unique ID, the so-called session ID, which is stored in a cookie. For security's sake, the cookie does not contain personal information but acts as a key to retrieve the information stored on the server.

Figure 3: User Management page of the QR-Patrol PRO project website

4. GOOGLE ANALYTICS

To help monitor and analyze the usage of the website, it was registered with the Google Analytics online service, which allows reports to be created based on the website usage and access data, providing the site administration with helpful information on:

- ✓ How many users are visiting the site,
- ✓ Which pages, files and links are more popular,
- ✓ Search Engines or websites from which users come from,
- ✓ Geographical distribution of the visitors,
- ✓ Age and gender of the visitors,
- ✓ Browser and OS of the visitors,
- ✓ The time users are visiting and staying online at the site.
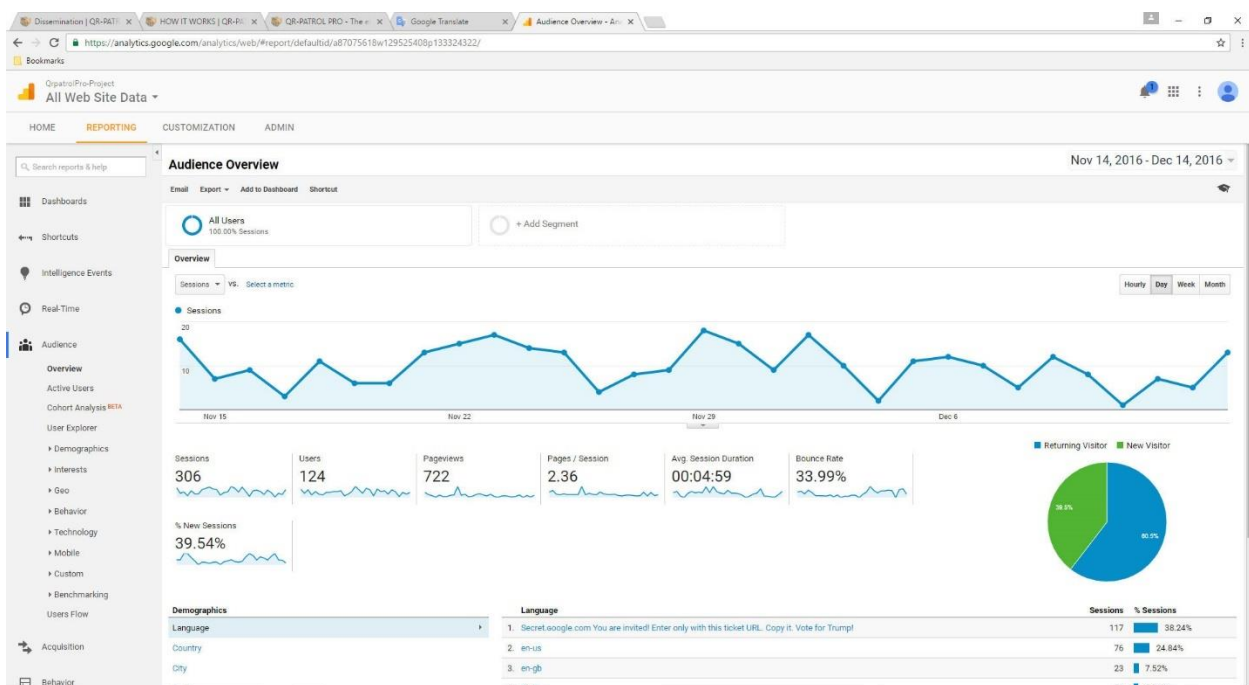
Figure 4: Google Analytics page of the QR-Patrol PRO project website

5. Website Language

We are using one language (English) on QR-Patrol PRO website.

6. WEB Site Contents

The QR-Patrol Pro project site consists of home page, three main pages (sections) and the contact form.

HOME PAGE

The home page currently serves the following functions:
- ✓ It presents the scope and objectives of the QR-Patrol PRO project in a short overview,
- ✓ It provides access to the other parts of the website (menu bar),
- ✓ A video about how QR-Patrol PRO works,
- ✓ It includes customers' logos, latest twitter feed and other respective links,
- ✓ It includes the EU Emblem and the respective acknowledgement text on the Contribution of the European Commission.
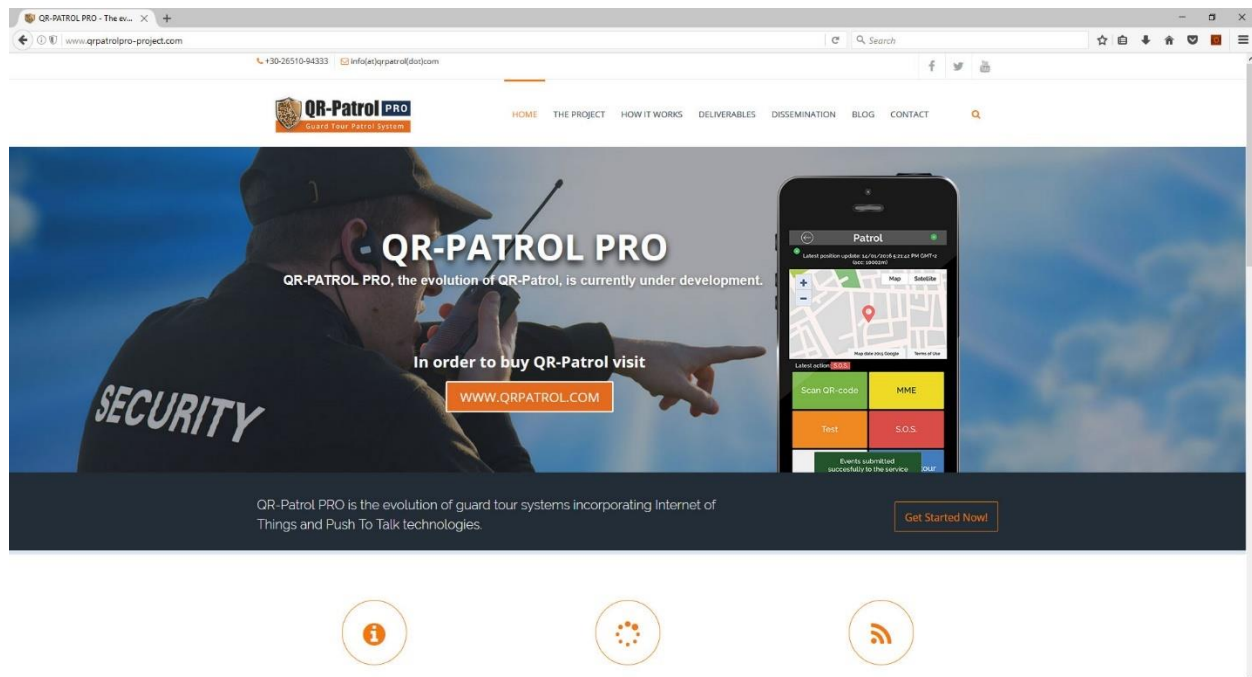
Figure 5: Home page of the QR-Patrol PRO project website
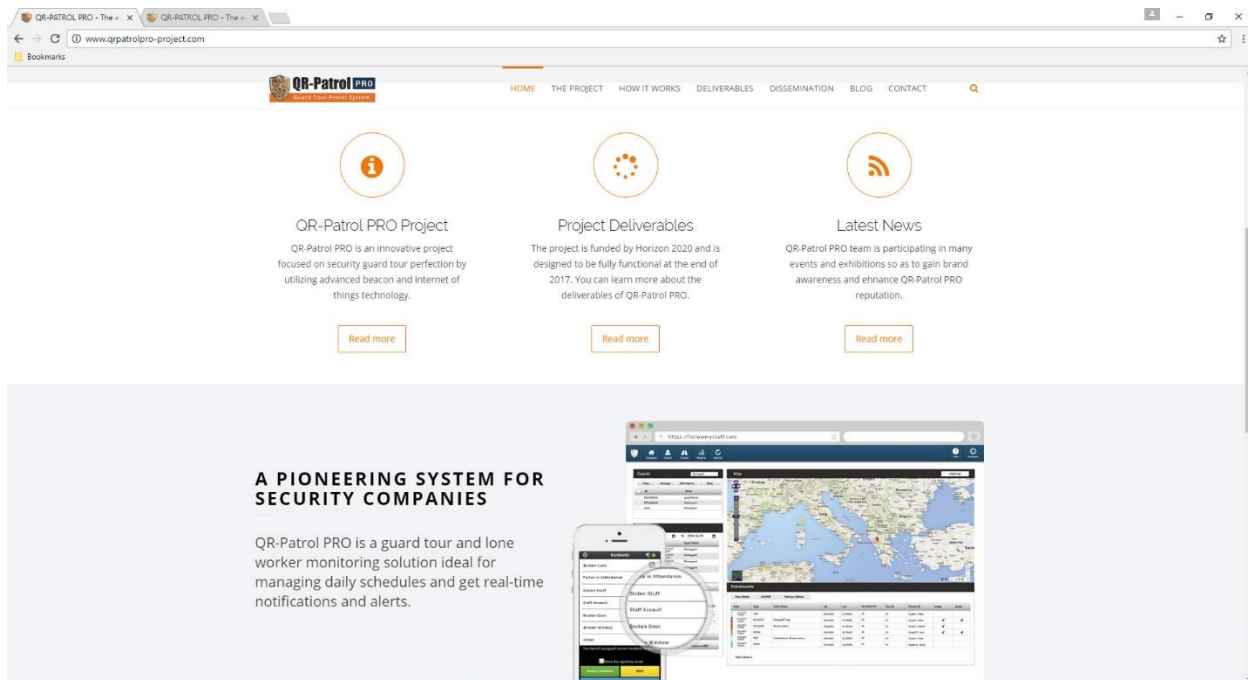
Figure 6: Home page of the QR-Patrol PRO project website
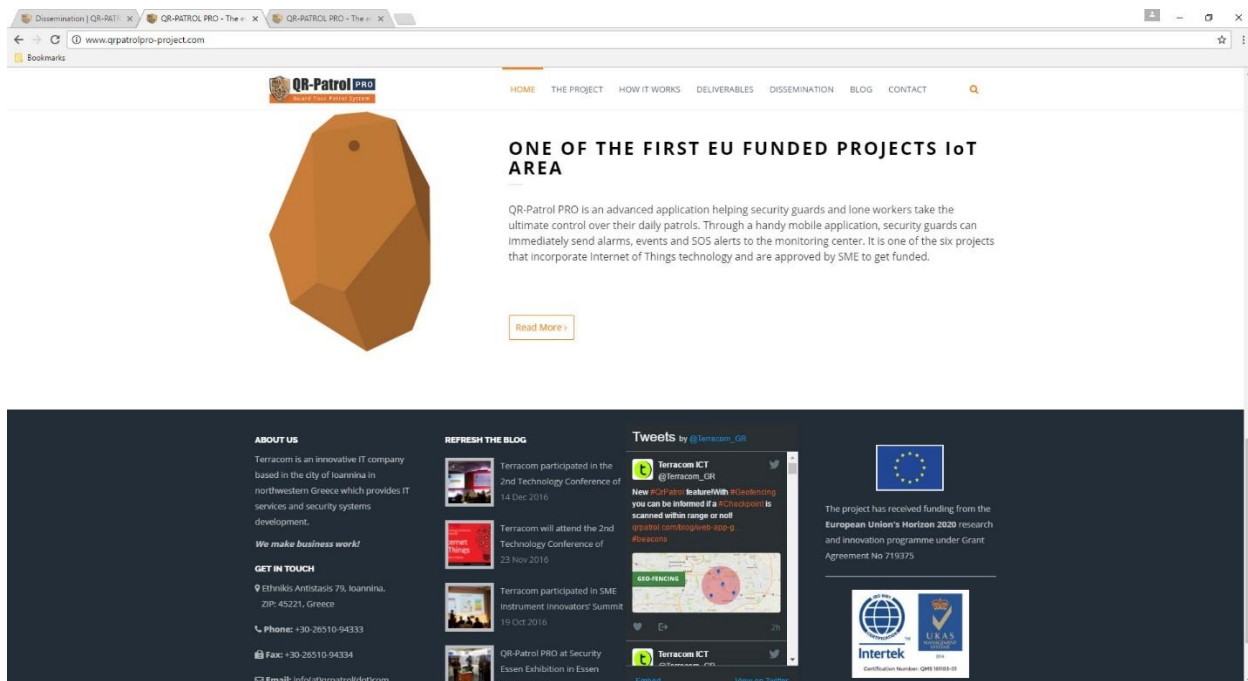
Figure 7: Home page of the QR-Patrol PRO project website

THE PROJECT

The Project page currently serves the following functions:
- ✓ A detailed description of what is QR-Patrol PRO,
- ✓ A short text about advanced beacon technology and how QR-Patrol PRO takes advantage of their full potential,
- ✓ A short text about Wearable technology and Man Down Functionality,
- ✓ A short text about Push To Talk technology and how PTT improves work communication,
- ✓ A short text about IoT technology and how QR-Patrol PRO takes advantage of their full potential.
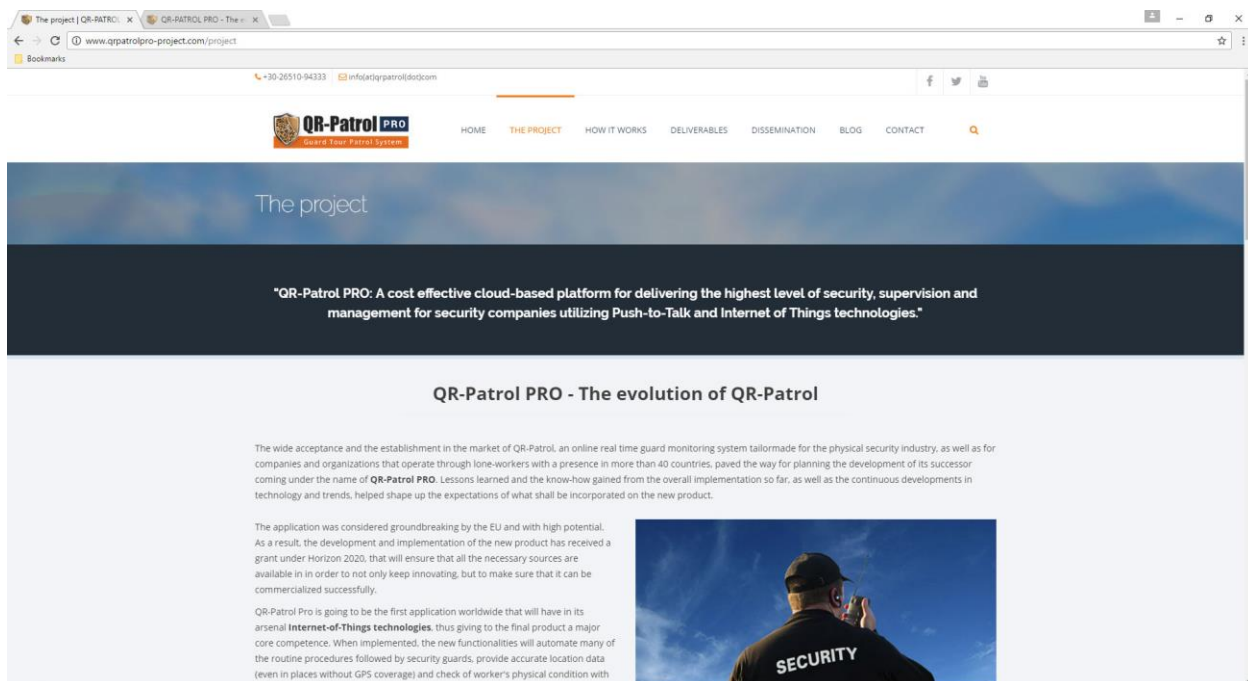
Figure 8: The Project page of the QR-Patrol PRO project website
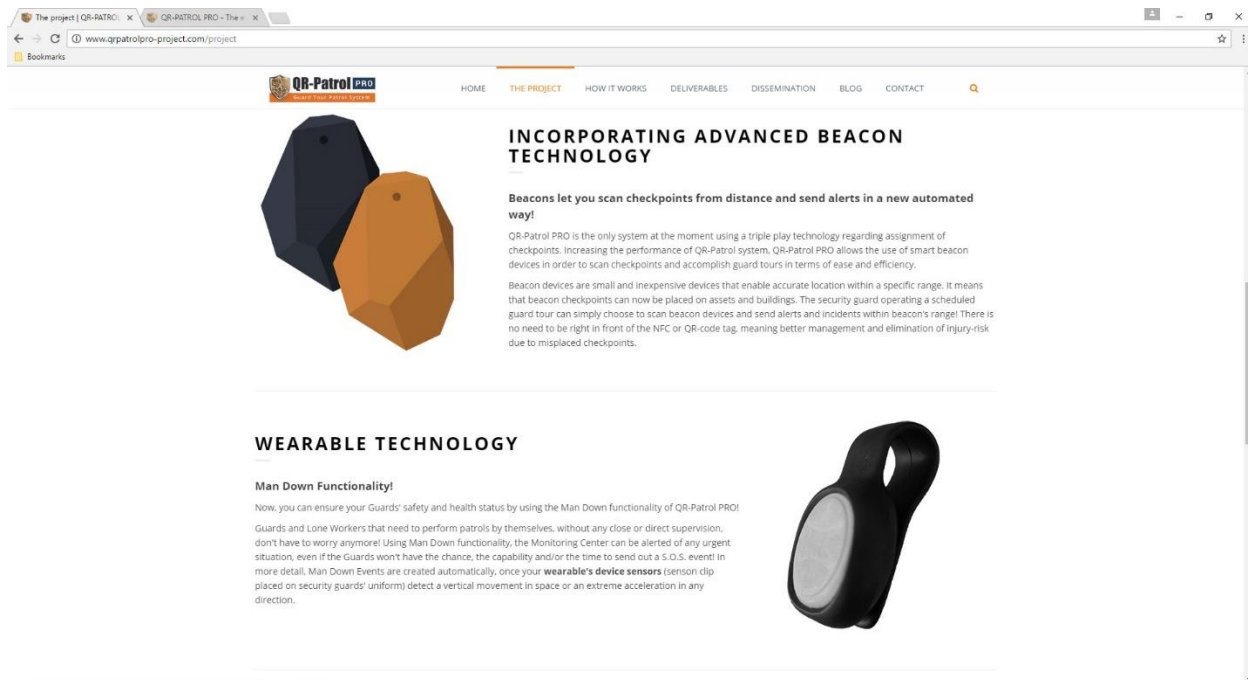
Figure 9: The Project page of the QR-Patrol PRO project website
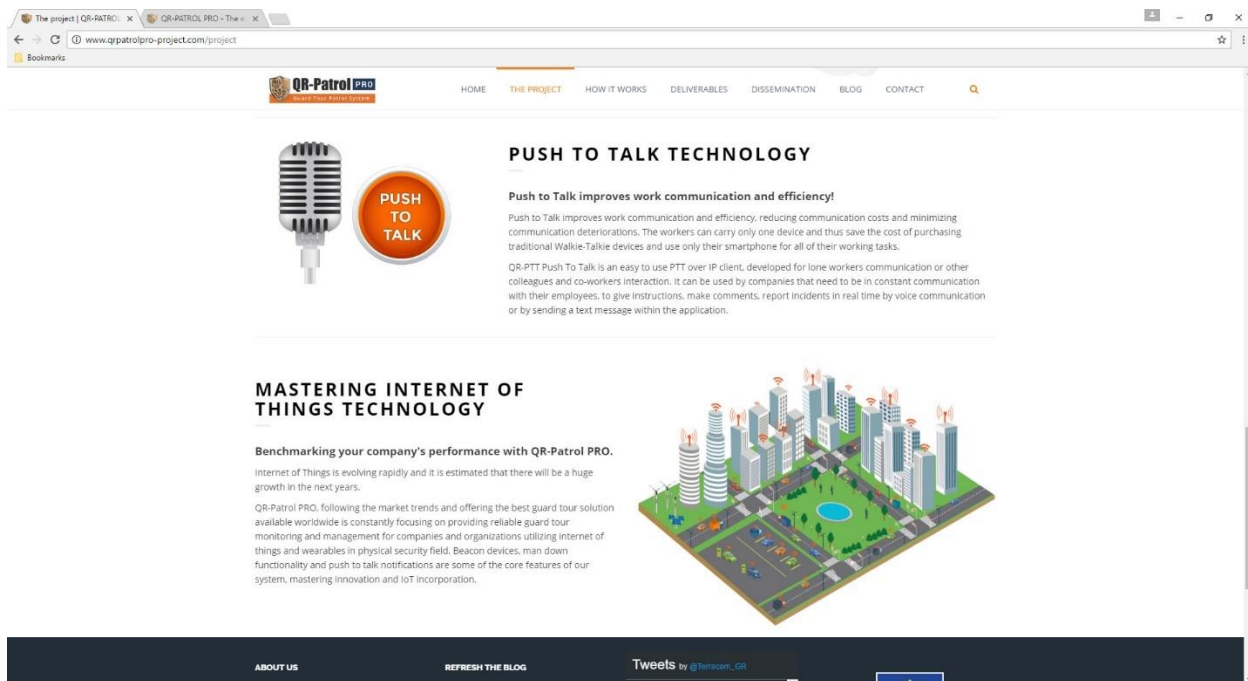
Figure 10: The Project page of the QR-Patrol PRO project website

HOW IT WORKS

The HOW IT WORKS page currently serves the following functions:
- ✓ General description on the possibilities of the web application,
- ✓ General description on the possibilities of the mobile application,
- ✓ A video about how QR-Patrol PRO works,
- ✓ Customers' logos.
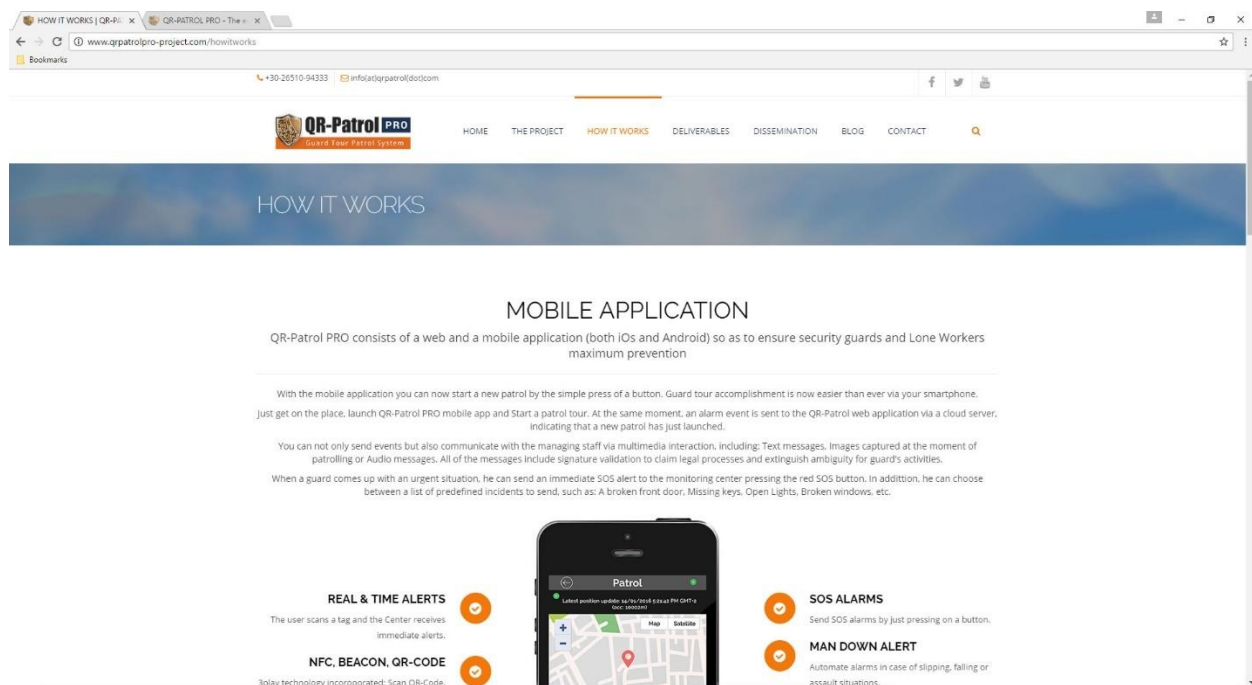
Figure 11: The How it Works page of the QR-Patrol PRO project website
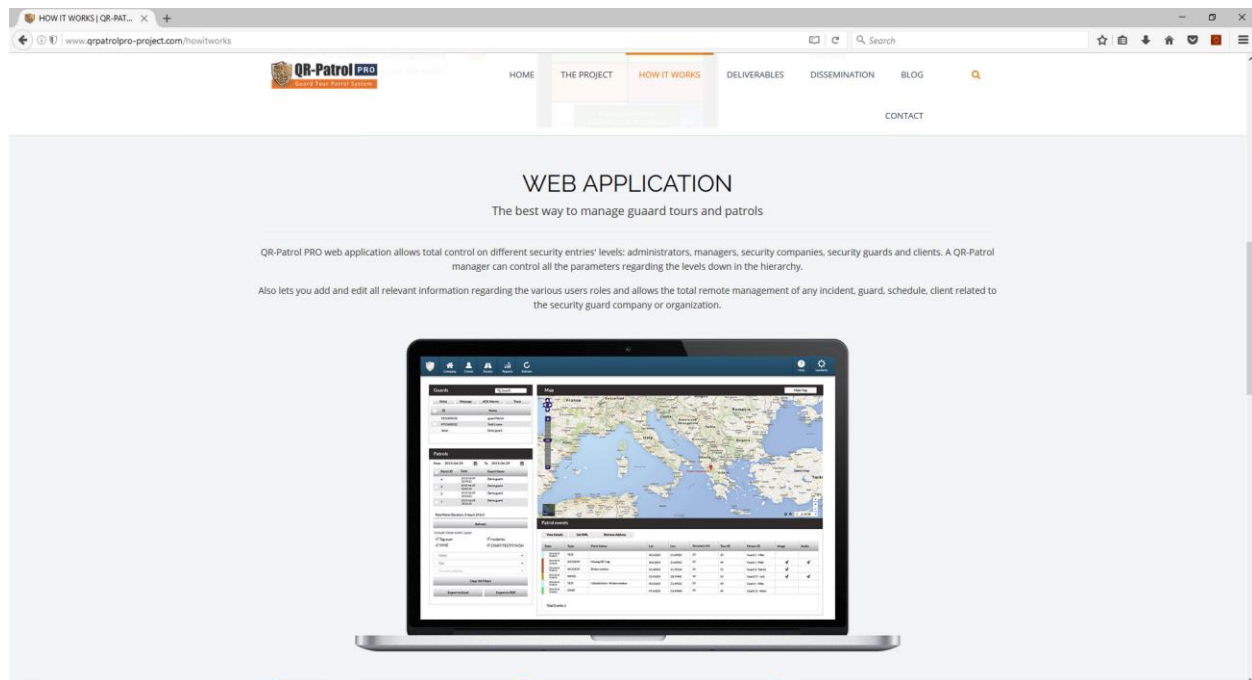
Figure 12: The How it Works page of the QR-Patrol PRO project website
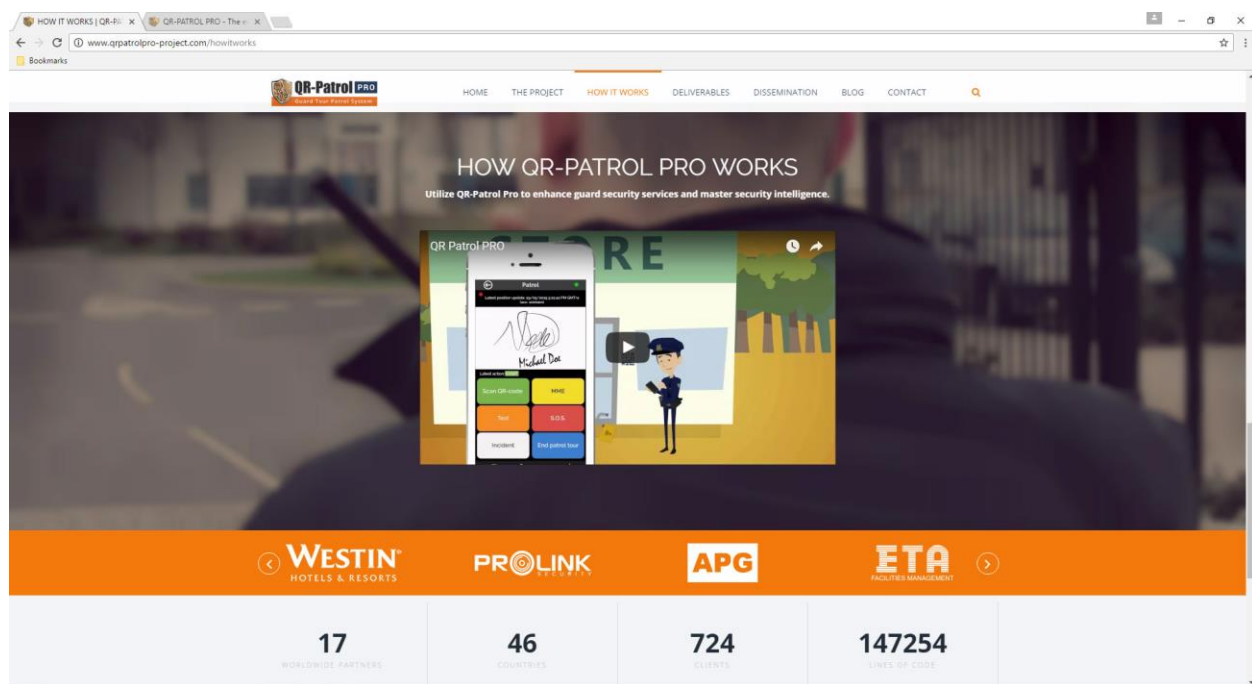
Figure 13: The How it Works page of the QR-Patrol PRO project website

DELIVERABLES

Deliverables section includes the list of all the deliverables of QR-Patrol PRO project, providing also information for each of the deliverables.
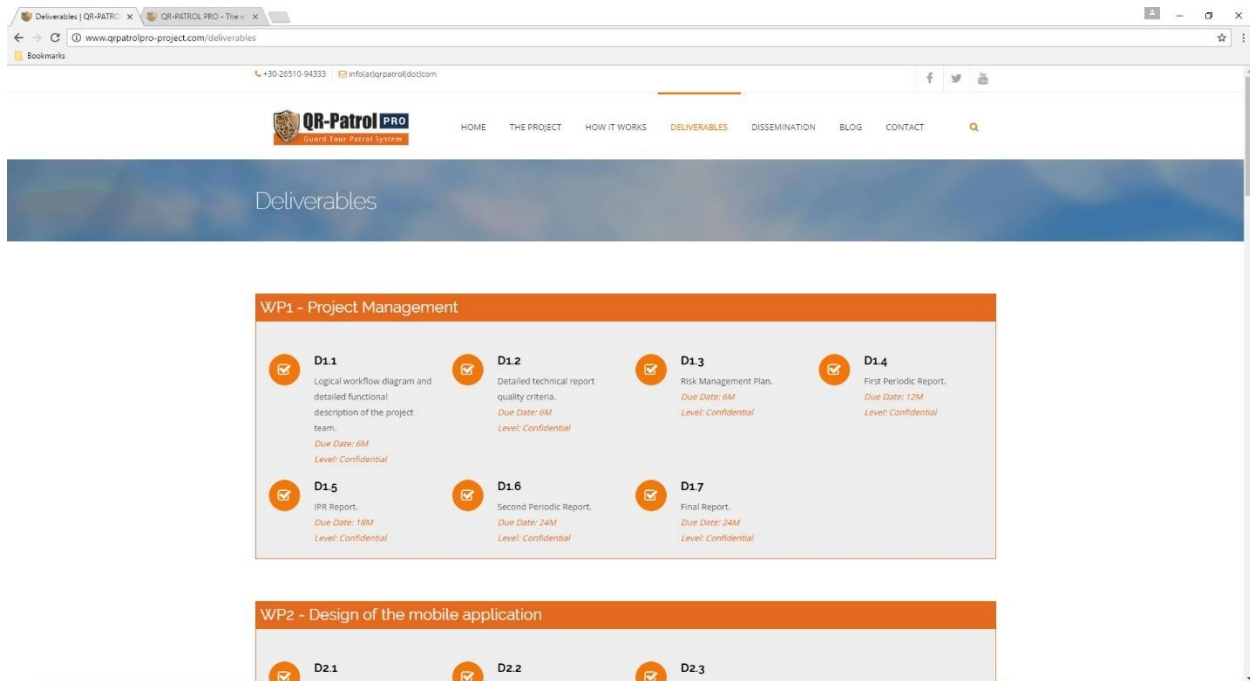
Figure 14: Deliverables page of the QR-Patrol PRO project website

Figure 15: Deliverables page of the QR-Patrol PRO project website

DISSEMINATION

This section contains information on Dissemination Activities

Figure 16: Dissemination page of the QR-Patrol PRO project website

BLOG

The Blog section lists all the posts and articles that are made public associated with columns showing the date of publishing. The visitor can sort the news list by clicking the month published. Every post is a link to a subpage, where more detailed information is presented.
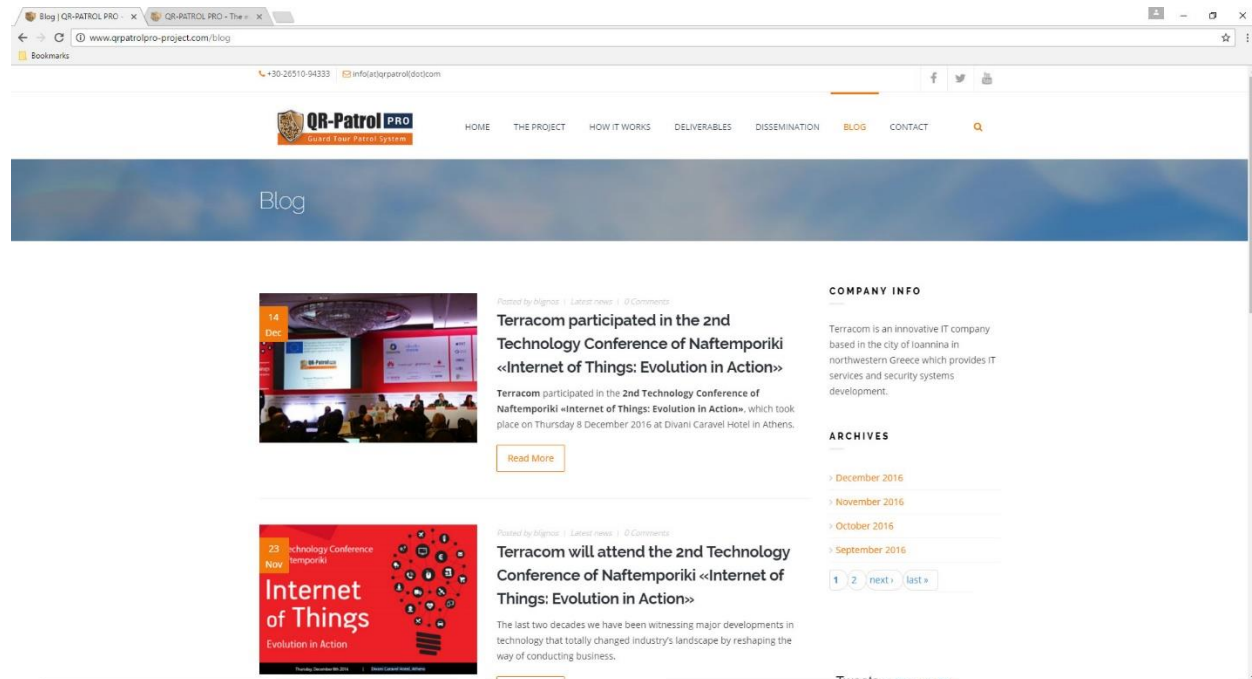

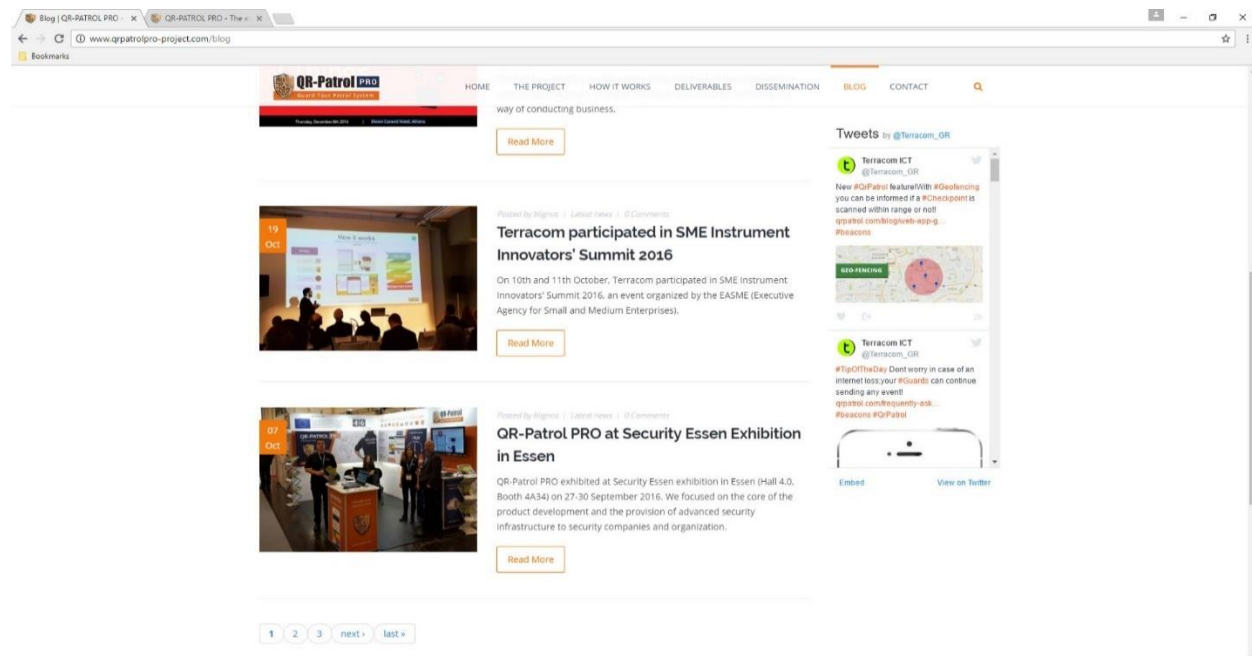**Figure 17: Blog page of the QR-Patrol PRO project website**

Figure 18: Blog page of the QR-Patrol PRO project website

CONTACT

The Contact page contains the contact form and gives other contact information, such as telephone number, fax number etc, of the Project Manager. The purpose of this page is to give the opportunity to interested parties to contact and inquire about further information or propose possible future collaborations.

Figure 19: The Contact page of the QR-Patrol PRO project website

Below is the sitemap of QR-Patrol PRO project website:

HOME

THE PROJECT

- **QR-Patrol PRO - The evolution of QR-Patrol**
- **Incorporating Advanced Beacon Technology**
- **Wearable Technology**
- **Push To Talk Technology**
- **Mastering Internet Of Things Technology**

HOW IT WORKS

- **Moblie Application**
- **Web Application**
- **How QR-Patrol PRO Works**

DELIVERABLES

- **WP1 - Project Management**
- **WP2 - Design of the mobile application**
- **WP3 - Design of the cloud application**
- **WP4 - Design of web services**
- **WP5 - Design and Development of Incident of Incident Management Subsystem**
- **WP6 - Design of Reporting System**
- **WP7 - Design and Development of API**
- **WP8 - Implementation and completion of the main system and subsystems**
- **WP9 - Review and revision**
- **WP10 - Dissemination of results**
- **WP11 - Ethics Requirement**

DISSEMINATION

BLOG

CONTACT