NEWSLETTER

SPECIAL EDITION

BORDER UAS

ISSUE 4

EDITORIAL

We are very pleased to introduce the project's **promotional video**.

The 3 minutes - long video, created by our consortium partner - **HIPERSFERA** - demonstrates how the **BorderUAS** solution will improve the difficult work of end-users.

Watch the video and be informed about:

► The current situation as to what is happening at the External Borders of EU.

► The BorderUAS Project overall– Objectives, Partners and the offered solution which aims to tackle the current challenges.

► A Reference to the pilots.

► Why BorderUAS stands out from other solutions.

In this new issue browse through the different events that the Partners have attended so far to promote **BorderUAS**, and read through all the new blogposts that have been created since our last newsletter.

EVENTS

MAY 22 - BORDERUAS ON TECNOSEC

READ ONLINE

Our Consortium partner Vicomtech (VICOM) hosted an exhibition stand at the Tecnosec, the main Spanish professional forum for police, intelligence and security technologies, which took place in Madrid on 11th and 12th May 2022. BorderUAS have been showcased as a part of the main Civil Security H2020 projects of Vicomtech.

Vicomtech held a general speech on the Civil Security H2020 projects forum, including information for BorderUAS, with a title: “Computer Vision, Advanced Interaction and IT for Security purposes” by David Ríos, Senior Security Expert of Vicomtech. Participants had also the opportunity to be informed for BorderUAS on VICOM’s exhibition stand through information leaflets and brochures regarding the project.

EVENTS

MAY 22 - EFFECTOR FRENCH TRIAL

READ ONLINE

The BorderUAS project was invited by SGMER, the coordinator of the EFFECTOR project, to attend the VIP day of the French Trial that was held on the 17th of May 2022 in the beautiful city of Toulon.

Representatives from KEMEA and VICOMTECH from the BorderUAS consortium were present and experienced a very well organized event with interesting presentations, demos and boat tours. The event attracted over 100 participants with various expertise such as security experts, Maritime Authorities, EC representatives , Policy Makers, Academia, Industry and LEAs from across Europe.

Due to this occasion the two Horizon2020 funded projects (BorderUAS and EFFECTOR) strengthened their already established synergy, giving the chance of these two projects' delegates to meet in person, exchange ideas and welcome further common activities. Peter Leskovksy, technical coordinator of the BorderUAS project talked with experts from EFFECTOR consortium, seeking insights on the EFFECTOR ontology and CISE functionality and potential.

This whole experience was also a good chance for BorderUAS consortium to get feedback and insights on how to organize a successful VIP event during its pilots which will be launched about this time next year.

Thank you EFFECTOR consortium and hopefully we will see some of you during our pilots as well.

EVENTS

BORDERUAS AT USEC BILBAO CONGRESS

READ ONLINE

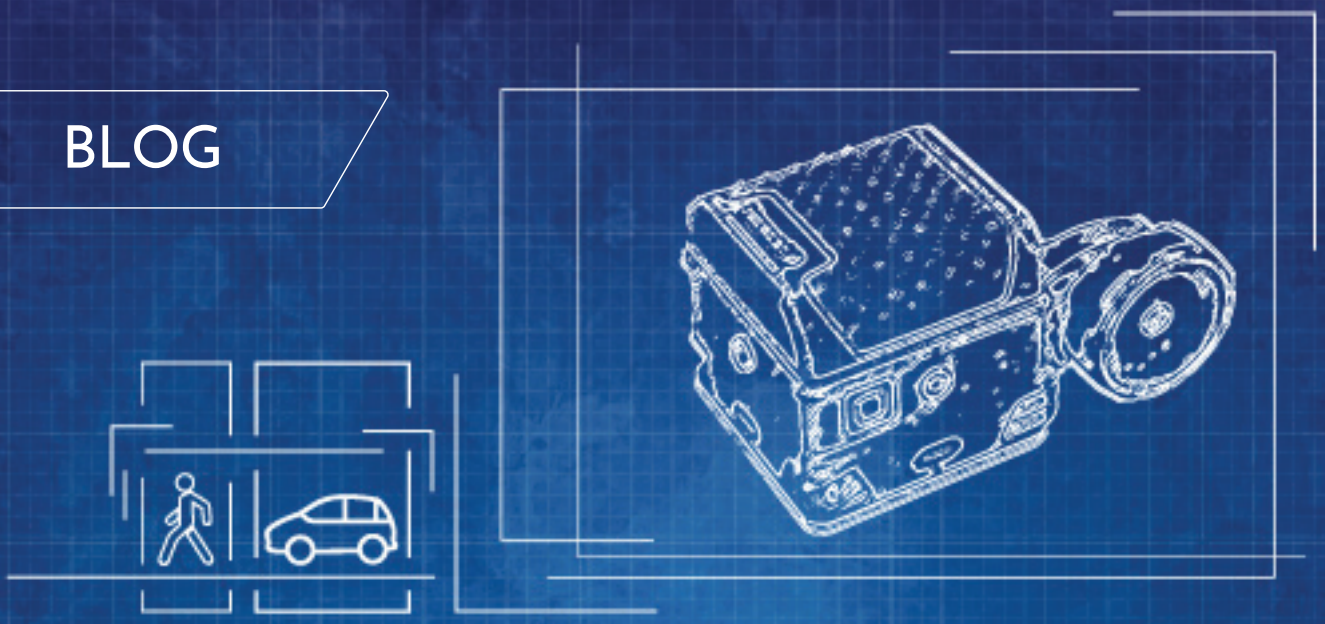
USEC Bilbao Congress in Security, Emergency Response and Mobility was held on May 25 and 26, in Bilbao, Spain. USEC Congress is an innovative congress and exhibition event where professionals, policy makers and industry from the Security, Emergency Response and Mobility sectors have shared an exhibition space and technical/policy event.

The Congress held 7 round tables, 7 cross-cutting round tables, 10 conferences and 14 technical-operational talks. Furthermore, it provided a large exhibition area for industry suppliers of products and services of the three main sectors.

This has facilitated an opportunity for congress participants and technical staff from the different administrations to find out about the latest trends and developments in the market. Vicomtech's Department of Transportation and Security held a stand in the exhibition space and took part in different roundtables in the Mobility field.

In the stand, information about the BorderUAS project and other EU funded projects in the Security and emergency response fields was disseminated. Specifically, Vicomtech's developments in intelligent video analytics for security were showcased.

BLOG



THE USE OF STEPPED-FREQUENCY CONTINUOUS WAVE (SFCW) RADARS TO DETECT MOVING PEOPLE AND VEHICLES

A stepped frequency continuous wave (SFCW) consists of N equidistant discrete frequencies within a given bandwidth B. So the frequency graph vs. time will consist of a step diagram, where each frequency is a continuous wave. Figure 1-(a) and (b) show the stepped frequency diagram and the corresponding continuous waves, respectively. A color-coded notation is used to indicate the discrete frequencies from the lower frequency fStart to the higher one fStop. Frequency is changed from pulse to pulse in uniform frequency steps over a burst of frequencies around the central frequency f0. Figure 1-(c) shows how the sum of the signal reflected by the target at the different frequencies allows to determine the range position of the target.

The SFCW is a radar technology that uses the frequency diversity to detect a target based on its answer to the microwave signals for each discrete frequency. The range resolution of a target is inversely proportional to the bandwidth while the maximum unambiguous range distance within which targets can be located depends on the number of frequency steps. For instance, a SFCW radar using 2000 frequency steps within a bandwidth of 200 MHz provides a maximum detectable range area of 1.5 km with a range resolution of 75 cm.

Read here the full article

If you are interested in our progress and developments, stay tuned through our various dissemination channels and the frequent blogposts that are available through our **website**.

CONTACT

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