Stimulating the Use of EO and Satellite Positioning in the Ukrainian Relief Effort

The EUSpace4Ukraine platform focuses on satellite data-based applications that help to deliver medical and food supplies, support evacuation efforts and also help refugees find their way in other EU countries. The platform has been initiated by the European Union Agency for the Space Programme.

By fostering the development of competitive Earth observation (EO) applications, the EU Agency for the Space Programme (EUSPA) – which has its head office in Prague, Czech Republic – contributes to stimulate innovation-based growth in the European economy. At the same time, the agency aims to contribute to the safety of EU citizens and the security of the member states. In April 2022, EUSPA worked together with the European Commission to create the EUSpace4Ukraine platform. The platform is aimed at matching developers of EO and navigation apps with NGOs and other 'helpers' in war-torn Ukraine. The applications can incorporate satellite data from any distributor and are publicly available online.

Rodrigo da Costa, executive director of EUSPA, comments: "We want to mobilize the EU space innovation community to provide technological solutions that can enhance humanitarian support for the Ukrainian people. Eight colleagues with knowledge of space technologies are working, part-time, on the EUSpace4Ukraine task force." The multidisciplinary team is currently spending most of its time communicating with interested parties to better understand their needs and explain the platform's processes and activities. As of mid-June, the platform listed projects from 27 organizations: 17 application developers and 10 user organizations and data providers. A hackathon event was organized in early July to attract new participants and further encourage the development of new applications using data from the EU Space Programme.

Application Spectrum

Rather than being aimed at helping the Ukrainian army or assisting the prosecution of war crimes, the EUSpace4Ukraine initiative is focused on 'humanitarian support'. This covers a wide range of uses: from supporting NGOs delivering medical goods using drones, to practical solutions that help people fleeing the war to integrate into life in EU countries. "Earth observation data might also contribute to analysing the effects of the war in Ukraine, such as evaluating distribution routes, assessing the post-event damage or supporting agriculture and forestry," adds Da Costa. "Some of the solutions listed under the EUSpace4Ukraine initiative can provide Copernicus data as well as processing and dissemination capabilities that can help in updating base maps. That is a challenging task, particularly in areas that face dramatic changes in infrastructure and land cover as a result of the bombing."

The humanitarian support also extends beyond the Ukrainian borders and could involve 'normal' GIS applications. "For example, mobile applications that help people integrate in a new country utilize maps showing important points of interest such as medical facilities, schools and addresses for local support," he explains.

According to the EUSPA executive director, there are some challenges that must be permanently addressed: "Thanks to testimonials of refugees and NGOs operating at the borders, we have identified several challenges and areas of need. Potentially helpful solutions to address these include (1) applications for safe, timely and accurate navigation for population migration, (2) the provision of online platforms for the coordination of public/private helpers, (3) applications to help the understanding and inventorying of damage in Ukraine territories, and (4) safety and rescue solutions."

More Info

https://www.euspa.europa.eu/euspace4ukraine

EUSpace4Ukraine is not aimed at goals like helping the Ukrainian army or assisting the prosecution of war crimes. The scope of this initiative is humanitarian support.