

Horizon 2020- Marie Skłodowska Curie Individual Fellowship

PROFILE FORM

Organization Name	INVOLI SA 	
Organization Type	<input type="checkbox"/> University <input type="checkbox"/> Public Research Centre <input type="checkbox"/> Large Scale Enterprise <input checked="" type="checkbox"/> Small and Medium Scale Enterprise	<input type="checkbox"/> Public Body <input type="checkbox"/> International NGO <input type="checkbox"/> National NGO
Research Fields	<input type="checkbox"/> Chemistry CHE <input type="checkbox"/> Social and Human Sciences SOC <input type="checkbox"/> Economic Sciences ECO <input checked="" type="checkbox"/> Information Science and Engineering ENG <input type="checkbox"/> Environment and Geosciences ENV <input type="checkbox"/> Life Sciences LIF <input type="checkbox"/> Mathematics MAT <input type="checkbox"/> Physics PHY	<u>Sub-Fields / Keywords:</u> Aviation, Drone, Signal Processing, Electronics
Short Description of the Organization	INVOLI is a Swiss-based company that aims at safely integrating drones into the air traffic. It is the leading provider of low-altitude air traffic data unavailable otherwise, gathered through its own network of on-the-ground receivers. Those receivers (patent pending) include state-of-the-art technologies, such as space-technologies, 5G compatibility, computer vision, advanced algorithms such as multilateration, etc.	
Previous Related Projects / Research Experience	<p>H2020 ICT-19 European project 5G!DRONES (2019) The 5G!Drones project aims to trial several UAV use cases that cover eMBB, uRLLC and mMTC 5G services, and validate 5G KPIs which apply to support such challenging use cases, and to enhance them with powerful features. Indeed, 5G!Drones will drive the UAV verticals and 5G networks to a win-win position, on the one hand by showing that 5G is able to guarantee UAV vertical KPIs, and on the other hand by demonstrating that 5G can support challenging use cases that put pressure on network resources, such as low-latency and ultra-reliable communications, massive number of connections and high bandwidth requirements. INVOLI is one of the twenty partners of the consortium.</p> <p>Innosuisse Research project, in partnership with CV-Lab (EPFL) and FLARM (2019) Today our system is able to detect only “collaborative air traffic” (air traffic which has a functional transponder on board). INVOLI just started a project with the CVLab from the Lausanne School of Engineering (EPFL) to develop a camera system to be added to our device. The project will use artificial intelligence and cameras to allow the tracking of multiple air traffic, including non-cooperative ones, such as drones.</p> <p>H2020 SESAR “GOF U-space” (2019) The Finnish-Estonian "Gulf of Finland" project is very large U-space demonstration under operated under SESAR funding. It aims to establish a pre-operational flight information management system (FIMS) with an architecture capable of integrating existing commercial-off-the-shelf UTM components. The capabilities of the FIMS have been demonstrated in different live cases representing the most typical visual line of sight (VLOS) and beyond visual line of sight (BVLOS) missions, the most important one being, the BVLOS flight of a drone connecting Helsinki and Tallinn for a total of 90 km. INVOLI has been invited to provide air traffic data in the region as third-party provider.</p>	
Short Description of the Project idea (if foreseeable)	This project aims at creating the new air traffic management system of tomorrow, integrating any type of flying objects and allowing them to safely share the same airspace. Creating such a complete picture of the air traffic represents the first step towards the full digitalization of the sky.	

	<p>More precisely, this project aims at developing both the hardware and underlying software necessary for ultra-high precision synchronization of signals using GPS time stamp.</p> <p><i>Competencies:</i> Signal processing, electronics, algorithmic, design-modelling-control-optimization, embedded systems.</p>
Related Call	H2020-MSCA (Individual Fellowship)
Contact Person	Mélanie Guittet
Position in the Organization	Co-Founder & CBDO
Tel	+41 79 845 64 81
Email	melanie.guittet@involi.com
Deadline	20.08.2020
Other requirements	<p>Experienced Researcher (in possession of a doctoral degree or have at least four years of full-time equivalent research experience).</p> <p>Fluent in English, French and German are a plus.</p>