

# Why Switzerland for drone companies

Advantages and regulations for international drone companies in Greater Zurich

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## Unrivaled expertise in robotics and microsystems

GREAT ZURICI

REA

Inspired by its watchmaking and innovation heritage, Switzerland has developed unique knowhow in precision mechanics, microelectronics, and robotics.

## World-class education and research hub

Among the best universities worldwide, the Swiss Federal Institutes of Technology Zurich (ETH), and the University of Zurich are at the forefront of R&D in flying robotics and unmanned systems. Renowned for their practical orientation, the Swiss Universities of Applied Sciences are especially strong in training engineers.

#### Close ties between research and industry

Collaboration between research and industry in Switzerland is strong and highly promoted. The National Center of Competence in Research (NCCR) for Robotics connects leading experts from universities and research institutes such as the Dalle Molle Institute for Artificial Intelligence Research with innovative companies and start-ups. Entrepreneurship is encouraged and

promotes the creation of successful spin-offs.

#### Ideal test environment

Innovations in drone technology can be tested right at your own doorstep in Switzerland: the outskirts of cities, dedicated innovation parks, or military and civilian airfields offer official test grounds for drones.

«Switzerland has established itself as one of the most advanced countries in the world for scaled drone delivery operations.»

Andreas Raptopoulos, Founder and CEO of Matternet





#### Leading talent pool of expert technologists

Switzerland and especially the Greater ZUrich Area attract the best talent from around the world thanks to its unparalleled quality of life and leading technology ecosystems. Tech companies such as Google, Meta, Disney, and Hewlett Packard Enterprise have chosen Greater Zurich as their R&D location because of the high availability of engineers and specialists.

#### Pioneering drone traffic management

In 2018, Swiss air navigation service provider Skyguide introduced Europe's first drone traffic control system. The U.S. and Switzerland announced in 2020 a joint effort to co-develop harmonized standards for the safe use and integration of unmanned aircraft into civilian airspace.

In 2023, the Swiss drone industry harmonized its legal framework with the EU to set safety standards for the manufacturing, certification, and operation of drones.

#### **Business-friendly regulations**

The Swiss regulatory authorities are innovation-friendly, progressive, and pragmatic, allowing fast and flexible adaptation to new technologies such as commercial beyond visual line of sight (BVLOS) authorizations. Further, companies get direct access to local authorities thanks to the decentralized government structure.

#### Matternet's sucess story in Switzerland: the future of delivery

The U.S. company <u>Matternet</u> is the leading developer of commercial drone delivery systems for urban and suburban environments. In 2017, Matternet became the first company in the world to be authorized for commercial BVLOS operations of drone logistics networks over cities in Switzerland and has since been running the world's longest urban drone delivery route in Zurich.

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Matternet runs the world's longest urban drone delivery route in Zurich



## Q&A with Oliver Evans, Head of Global Business Strategy at Matternet Inc

## Why did you choose Switzerland to expand your activities?

Switzerland was chosen for several compelling reasons: first and foremost, the Federal Office of Civil Aviation (FOCA) had taken (and maintains) a globally leading role in developing a robust regulatory frame for safe, beneficial drone operations. Ever since our first BVLOS flights in Switzerland in 2014, FOCA and Matternet have had a fruitful and exciting collaboration leading to a number of commercial global firsts, and the establishment of proven processes for the review and approval of such operations by the regulator.

Secondly, Switzerland is home to outstanding academic institutes like ETH Zurich and the University of Zurich, which lead the world in relevant fields like robotics, and we have collaborated extensively over the years.

Additionally, although Switzerland is a relatively small country, it has a number of unique attributes that are of immense value to a company like ours: it is home to an extraordinary number of companies that are global leaders in their respective industries: pharmaceuticals, banking, specialized engineering, etc. It has an excellent reputation for the robustness of its safety and quality culture, and thus successful implementation of services in Switzerland accelerates the adoption also across the world.

#### How do you see Matternet evolve in Switzerland in the future?

Matternet's services in Switzerland are undergoing a very significant transition, from serving individual customers in the healthcare industry on specified routes, to providing a network of routes serving the healthcare industry in a city. Essentially, we are creating a new layer of urban infrastructure which facilitates and improves services for an entire industry, as well as helping the city to address some of the most important planning issues: relieving congestion and improving safety of the street, as well as minimizing noise and emissions of traffic.

## How do U.S. (drone) companies benefit from the local ecosystem?

Achieving the above goals is an extraordinarily complex undertaking, involving close collaboration and creativity of a wide range of stakeholders. The size and sophistication of the Swiss market enables a dialogue and concertation towards practical goals which is peerless in the world.

#### How has Greater Zurich Area Ltd helped you in setting up your activities in Switzerland?

We cannot control and implement our program without reaching and engaging key decision-makers in a wide range of stakeholders from the world of politics and industry. Greater Zurich Area Ltd has helped opened many such channels of communication, as well as providing invaluable guidance and assistance as we opened our office and commenced operations.



## The sky's the limit: How Switzerland's liberal policies accelerate drone technology

Switzerland adheres to the same civil aviation regulations as the European Union, under a bilateral agreement on air transport that extends to the realm of drones as well. Switzerland makes best possible use of the flexibility of the EU regulations. The Federal Office of Civil Aviation (FOCA) actively supports and collaborates closely with the industry to facilitate drone operators' access to airspace. Their approach is not to reject requests but to seek solutions whenever possible.

Switzerland encourages and sets up numerous collaborations between authorities and industry to implement new technologies and systems such as UTM. As a result, Switzerland is often ahead of other regions when it comes to implementation. Commercial beyond visual line of sight (BVLOS) flight is relatively easier in Europe, including Switzerland, due to clear regulations compared to the United States. Additionally, the EU and Switzerland have a well-developed UTM strategy with U-space regulations. The FOCA is in the process of designating airspaces where certified service providers will offer mandatory UTM services. The FOCA maintains a close working relationship with the Federal Aviation Administration (FAA) through a Declaration of Intent, fostering numerous exchanges between the two authorities.

Internationally, the FOCA actively participates in various working groups of European Union Aviation Safety Agency (EASA) and International Civil Aviation Organization (ICAO), as well as joint activities and associations such as Joint Authorities for Rulemaking on Unmanned Systems (JARUS) and Global UTM Association (GUTMA). FOCA strives to promote Swiss solutions globally, drawing from practical experience gained during testing and implementing services and technologies, always in collaboration with the industry.

The goal is to achieve harmonized solutions that lower barriers for all airspace participants, making it easier for them to enter the market.

#### Written by Amanda Boekholt, MLaw Deputy Head of Section Legal Advisor and Project Stakeholder Manager

Federal Department of Environment, Transport, Energy and Communication DETEC Federal Office for Civil Aviation FOCA Aviation Policy and Strategy Division



#### Join the Silicon Valley of Robotics

You're in good company: Switzerland is home to over 50+ drone companies developing innovative technology for a variety of industries, including agriculture, construction, mapping, photography, security, and more.

## How we help

Greater Zurich Area Ltd is the economic promotion agency of the Greater Zurich region that offers tailor-made services to guide companies in their investment journey. - All free of charge.

Our services

- We provide technology and industry-specific insights
- We offer advice on setting up a company and legal structures
- We connect you to leading service providers and local authorities
- We help find office and lab space
- We help find research partners at globally leading universities and research institutes

## Let's get in touch

info@greaterzuricharea.com U.S. +1 646 586 5507

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