

# Drone Expert

## Establishment of a National Qualification Network for the Holistic Education of Drone Experts in Austria

**Gernot Paulus** FH Kärnten, SIENA (Spatial Informatics for Environmental Applications)

Villach, am 26.3.2026, Cleared for TakeOff

# Brief overview of the consortium partners

## • Scientific Partners



- FH Kärnten - gemeinnützige GmbH – Research Department SIENA (Lead Partner)
- FH JOANNEUM GmbH
- FH Kufstein Tirol Bildungs GmbH

## • Participating Organizations



- **Private Companies:** Immotech-DroneTech GmbH; KNG-Kärnten Netz GmbH; Verfahren Umwelt Management GmbH; twins GmbH
- **Public Administration:** Regional Government of Carinthia; Regional Government of Upper Austria
- **Public Safety:** Bezirksfeuerwehrverband Kufstein



## Project Objectives

- As part of the TakeOff Exploration project “**DronePilot**”, a holistic and comprehensive educational **framework** for drone experts was developed.
- Successful **setup** and **pilot operation** of the **national qualification network** for **advanced drone expert education**.
- **Cohort of trained professionals** with **enhanced competencies** in specialized UAS topics relevant to **public, public safety** and **private sector needs**.
- **Strengthened cross-institutional network** enabling ongoing **knowledge exchange** and **collaboration**.
- **Not a goal:** Replacement of current and existing training programmes

Project start 1.2.2026

Duration 20 month (till 30.9.2027)

# Work Plan/Schedule/Implementation

## • 6 Work Packages

- AP1 Projektmanagement
- AP2 Educational Organization
- AP3 Content Development
- AP4 Implementation of Courses
- AP5 Critical Reflection
- AP6 Miscellaneous – Dissemination

## • Content

- 8 Knowledge Areas - 100 Course Units – approx. 30 Participants
- 4 Course Moduls á 3 days (Villach, AIRlabs Test site, Kufstein, Graz)
- Start: September 2026

#	Knowledge area	Geplanter Inhalt
1	Rechtliche Grundlagen	Air Traffic and Drone-Specific Regulations; Data Privacy Regulations; Domain-Specific Laws
2	Grundlagen von Drohnenoperationen	Terminologie; Technische Grundlagen; Drohnenoperationen & Human Factor; Physikalische Grundlagen Flug und Flugmaneuver; Command & Control; Meteorologische Grundlagen
3	Drohnenoperationsplanung	Anforderungsanalyse; Risikobewertung; Flugplanung
4	Drohnenoperationsdurchführung	Funkkommunikation; Notfallprozeduren; Praktische Flugtraining
5	Management von Drohnenoperationen	Grundlagen von UTM & U-Space; Risikomanagement und Reaktion auf Notfälle; Qualitätssicherung und Leistungsmonitoring; Grundlagen Schwarmtechnologie
6	Sensorik	Photo & Video; Thermal & Multispektralsensoren; LiDAR;
7	Datenauswertung und Qualitätssicherung	Einführung in Geographische Informationssysteme; Digitale Bildverarbeitung; Analyse von Logdaten
8	Kommunikation	Konfliktmanagement; Präsentationstechniken

## Planned Utilization

- Evidence-based refinement of curriculum and delivery methods through critical reflection with all partners, participants, and instructors.
- A long-term exploitation and continuation strategy, including pathways for scaling, certification/credentialing options, and integration with industry and academic partners.
- The participating academic institutions will make these education programs available to other organizations via a new joint training platform. These activities will be administered through continuing education centers and offered at cost. Developing a sustainable business model is necessary for this purpose.
- In this context, the certification of the training programs is particularly important.

## Contact



### Prof. Dr. Gernot Paulus

**FH Kärnten - Engineering & IT - Forschungsdepartment SIENA**

Europastraße 4, A-9524 Villach

Email: [g.paulus@fh-kaernten.at](mailto:g.paulus@fh-kaernten.at)



### Prof. Dr. Holger Friehmelt

**FH Joanneum GmbH - Aviation**

Alte Poststraße 149, A-8020 Graz

Email: [holger.friehmelt@fh-joanneum.at](mailto:holger.friehmelt@fh-joanneum.at)



### Prof. PD Dr. Mario Döller

**FH Kufstein Tirol BildungsgmbH – FH Rektor & Drone Engineering**

Andreas Hofer-Straße 7, A-6330 Kufstein

Email: [Mario.Doeller@fh-kufstein.ac.at](mailto:Mario.Doeller@fh-kufstein.ac.at)