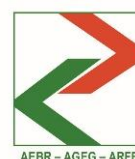




Main Office	AGEG c/o EUREGIO	Enscheder Str. 362	48599 Gronau (Germany)
Project Office	AEGBR c/o BISDN	Körnerstraße 7	10785 Berlin (Germany)
AEGBR Antenna in the EU	Office of Extremadura in Brussels	Av. De Cortenbergh 87-89	1000 Brussels (Belgium)
AEGBR Info Centre in the Balkans	Institute for International and CBC	Terazije 14/14	11000 Belgrade (Serbia)
AEGBR Info Centre in Ukraine	Univ. Simon Kuznets (KhNUE)	pr. Lenina, 9a	61001 Charkiw (Ukraine)



FINAL REPORT BY THE EXPERT

Advice case title: Cross-border Unpeopled Aerial Systems (UAS) for Research & Rescue

Full official name of the advised entity: NOI AG / spa and Carinthia University of Applied Sciences

Name of the expert contracted for the advice case: Dike Associazione Professionale (Dike Schindhelm)

Date: June 30th, 2025

Table of content:

- I. Executive summary
- II. Description of the obstacle with indication of the legal/administrative provisions causing the obstacle
- III. A roadmap towards possible solution(s)
- IV. An indication of the entities to be involved in the possible solution(s)
- V. A full list of all legal provisions relevant to the case
- VI. Other relevant aspects to this case if relevant
- VII. References and Appendix/Appendices if any

I. Executive Summary

We have been asked to assess the legal obstacles existing with particular regard to the management of cross-border emergency operations (search and rescue, or “SAR”) deploying Unmanned Aerial Systems (UAS, or “drones”) in the alpine area between Austria and Italy, but with a focus also generally on alpine or general cross-border situation between EU Member States, with particular regard to emergency situations, in which the drone may need to cross the national borders in order to save lives or the environment such as in cases of: search and rescue, medical emergencies, firefighting, earthquakes and other catastrophes, accidents, etc.

The EU Regulations on civil aviation (Reg. 1139/2018) and operations of unmanned aircraft (Reg. 945/2019 and 947/2019) do not provide a uniform EU legal framework in the field of emergency operations deploying UAS, whose regulation is left to the choice of each EU Member State, with the choice to either (i) adopt specific national rules for emergency operations (“opting-out”) or (ii) extend the application of existing EU Regulations also to emergency operations (“opting-in”).

In the following, we will describe the existing obstacles in the area of national laws, regulations and administrative procedures which apply locally in Italy and Austria, generate uncertainties that rescue organizations can hardly govern (whilst they have an intrinsic need to apply a uniform and clear set of rules), and therefore may lead them to refrain generally from conducting emergency operations beyond national borders.

II. Description of the obstacle with indication of the legal/administrative provisions causing the obstacle

The Applicant has submitted the following problem: “Mountainous regions are currently under high pressure and significant risk of extreme weather events triggering natural hazards and catastrophic events threatening local inhabitants as well as tourists in these areas. Mountain rescue organizations need to address these circumstances by being prepared to an increased demand for rescue operations in demanding environments. The deployment of new and innovative technologies in extreme environments, such as mountainous regions like Unmanned Aerial Systems (UAS, or “drones”) presents a significant opportunity to enhance search and rescue (SAR) operations and scientific research aimed at the development of novel mountain rescue technologies. However, the existing regulatory framework and administrative procedures for drone operations pose substantial obstacles to cross-border cooperation between Austria and Italy in this domain. Furthermore, SAR are time-critical and need immediate action. The goal is to enable cross-border drone operations between Italy and Austria for SAR purposes and the supportive research & development activities by harmonizing the regulatory framework and administrative procedures.”

The Applicant illustrates a series of legal obstacles/differing regulatory framework together with differences in equipment standards.

In addition, we believe that language barriers must not be underestimated, since they can be a real obstacle for SAR personnel engaged on the respective borders.

The legal obstacles to be analysed and possibly solved (which is the subject of this report) concern cases in which a rescue organization/entity/operator providing **public service** in one EU Member State (in our case: in Austria or Italy) engages in an emergency operation that involves crossing the national borders or may involve such crossing of borders, which is not always predictable in advance.

In more detail, the legal obstacles, as described by the Applicant, can be broken down into:

- (a) rules determining the **legal framework applicable to the UAS emergency operations** in the respective other EU-country, which can become an obstacle to cross-border emergency actions if the operator is forced to comply with legal flight rules of a country with which it is not familiar;
- (b) administrative rules for **authorization of UAS emergency operations**, which can become an obstacle to such urgent cross-border actions if the rescue organization is forced to apply for administrative prior authorizations (and deal with the institutions) of a country with which it is not familiar;
- (c) rules for **liability for damages and insurance**, which impact on both the UAS-Pilot and the UAS-Operator/rescue organization, can become an obstacle to cross-border employment if the pilot and the operator are forced to comply with the liability and insurance rules of a country with which it is not familiar;

The underlying principle is that the existing rules have been conceived for cases where emergency actions are generally performed within the rescue organization's country and only exceptionally in a cross-border situation, whereas in the last years the need to perform such actions also in a neighbouring country has increased.

Although the Applicant's description of the obstacle focuses on the existing differences in the area of national laws, regulations and administrative procedures, **in our opinion the main obstacle depends on the fact that emergency and SAR operations are a public service performed by public authorities and that, for this reason, the EU legislator decided not to interfere or limit the possibility for Member States to lay down their own national rules.**

In particular, the concerned rules are the following:

a. EU Regulations

The EU legal framework for the operation of drones includes the following Regulations which generally apply to all civil drone operations, in all EU Member States:

- **Reg. 1139/2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency (EASA)**; this Regulation governs the aeronautical field in general and aims to ensure a high level of safety and environmental protection in European civil aviation by setting out uniform safety

standards and defining the areas of competence between the EASA and the Member States.

- **Delegated Reg. 945/2019 on unmanned aircraft systems** which sets out the design requirements, technical functions and tools a drone shall have.
- **Implementing Reg. 947/2019 on the rules and procedures for the operation of unmanned aircraft** which defines the three categories of missions, which are Open, Specific and Certified depending on the lower or higher risk level, the operational requirements of the missions in the Open and Specific categories, the licenses of pilots and remote crew.

These Regulations, however, do not necessarily apply to emergency UAS operations, since they are normally carried out in the public interest and in hazardous circumstances under the control and responsibility of a Member State, by or on behalf of a body vested with the powers of public authority.

Therefore, according to Art. 2.3, Reg. 2018/1139 missions conducted in the public interest, including SAR, firefighting or similar services are excluded from the scope of the¹, and **Member States have the following option**:

- adopt **national rules** for such emergency operations (**opt-out choice**), or
- use **EU Regulations** according to Whereas no. 10 which allows Member States to apply Reg. 2018/1139 also to emergency operations instead of a national law (**opt-in choice**)².

Whatever the Member State's choice is, it is required to ensure that such operations are carried out in accordance with the safety objectives of Reg. 2018/1139 (art. 2.3).

In respect of **SAR operations**, although Member States are free to adopt the EU Regulation or a national law, we point out that **Reg. 947/2019**

¹ Art. 2.3 Reg. 1139/2019 [...] 3. *This Regulation shall not apply to:*

(a) aircraft, and their engines, propellers, parts, non-installed equipment and equipment to control aircraft remotely, while carrying out military, customs, police, search and rescue, firefighting, border control, coastguard or similar activities or services under the control and responsibility of a Member State, undertaken in the public interest by or on behalf of a body vested with the powers of a public authority, and the personnel and organisations involved in the activities and services performed by those aircraft; [...]

As regards point (a), Member States shall ensure that activities and services performed by the aircraft referred to in that point are carried out with due regard to the safety objectives of this Regulation. Member States shall also ensure that, where appropriate, those aircraft are safely separated from other aircraft.

² Whereas no. 10, Reg. 1139/2019 - 10. *Where Member States consider it preferable, in particular with a view to achieving safety, interoperability or efficiency gains, to apply, instead of their national law, this Regulation to aircraft carrying out military, customs, police, search and rescue, firefighting, border control and coastguard or similar activities and services undertaken in the public interest, they should be allowed to do so. Member States making use of this possibility should cooperate with the Agency, in particular by providing all the information necessary for confirming that the aircraft and activities concerned comply with the relevant provisions of this Regulation.*

provides that **remote UAS pilots/operators cannot fly an UAS in an emergency area unless they have permission to do so by the emergency/rescue authority**, according to Annex, par. UAS.OPEN.060 and par. UAS.SPECIFIC.060³. In our opinion this rule should be construed as applicable in any case since it is a clear expression of the security objectives aimed at by Reg. 2018/1139 and a key principle to bear in mind to elaborate practical solutions in cross-border emergency operations.

In addition, **cross-border operations** are specifically addressed to by Art. 13 Reg. 947/2019⁴ providing that for a “Specific” operation intended to take place partially or entirely in a Member State other than that of registration, even if it has already been authorized in the State of registration, **the operator must file a prior application with the authority of the foreign Member State and may only start the operation upon confirmation, which shall be provided by the intended State’s national authority without undue delay**. If the Specific operation is subject to declaration under Art. 5.5, a copy thereof must be submitted to the intended State’s authority. In our opinion, this preliminary requirement for carrying out cross-border operations is an obstacle per se, irrespective of whether EU or national law applies in the intended foreign Member State.

b. Austria’s opt-in choice:

Austria has chosen to “opt-in” into the existing European legal framework, instead of applying specific national rules to public exercise of drone operations in the areas of interest for the purposes of the present analysis, so, in other words, no specific national rules apply to the operation of drones

3 Reg. 947/2019, Annex, par. UAS.OPEN.060: (3) *During the flight, remote pilots and UAS operators shall not fly close to or inside areas where an emergency response effort is ongoing unless they have permission to do so from the responsible emergency response services.*

4 Article 13 Cross-border operations or operations outside the state of registration

1. *When an UAS operator intends to conduct an operation in the ‘specific’ category for which an operational authorisation has already been granted in accordance with Article 12, and which is intended to take place partially or entirely in the airspace of a Member State other than the Member State of registration, the UAS operator shall provide the competent authority of the Member State of intended operation with an application including the following information:*

(a) *a copy of the operational authorisation granted to the UAS operator in accordance with Article 12; and*

(b) *the location(s) of the intended operation including the updated mitigation measures, if needed, to address those risks identified under Article 11(2)(b) which are specific to the local airspace, terrain and population characteristics and the climatic conditions.*

2. *Upon receipt of the application set out in paragraph 1, the competent authority of the Member State of intended operation shall assess it without undue delay and provide the competent authority of the Member State of registration and the UAS operator with a confirmation that the updated mitigation measures referred to in point (b) of paragraph 1 are satisfactory for the operation at the intended location. Upon receipt of that confirmation, the UAS operator may start the intended operation and the Member State of registration shall record the updated mitigation measures that the UAS operator has to apply in the operational authorisation issued in accordance with Article 12.*

3. *When an UAS operator intends to conduct an operation in the ‘specific’ category for which a declaration has been made in accordance with paragraph 5 of Article 5, and which is intended to take place partially or entirely in the airspace of a Member State other than the Member State of registration, the UAS operator shall provide the competent authority of the Member State of the intended operation with a copy of the declaration submitted to the Member State of registration, as well as a copy of the confirmation of receipt and completeness.*

in such situations.

The main aviation authority in Austria is the Supreme Civil Aviation Authority (Oberste Zivilluftfahrtbehörde, OZB). Additionally, and with specific competencies for drone operations, Austro Control GmbH⁵ is the Austrian air navigation service provider charged with aviation safety and air traffic control and with the management of the UAS portal Dronespace.at.

Emergency and search and rescue operations in the alpine area in Austria are a public service mainly performed (among others) by the following organizations:

- The Austrian Mountain Rescue Service (Österreichische Bergrettungsdienst, ÖBRD)
- The Fire Service (Freiwillige Feuerwehren, FF) which is largely organized as local volunteer fire departments.

This having been said, foreign emergency organizations deploying UAS in SAR operations in Austria must comply with Reg. 947/2019, including:

- (i) the **prohibition** under Annex, par. UAS.OPEN.060 / UAS.SPECIFIC.060, **to fly in an emergency area unless authorized** by the emergency authority in charge;
- (ii) prior **special authorization for cross-border Specific operations** under Art. 13 Reg. 947/2019;
- (iii) the duty to comply with the other preliminary requirements/procedures set forth therein:
 - For Open category operations no prior authorization by the competent authority nor a declaration by the drone operator is required;
 - For Specific category operations prior authorization by the competent authority according to Art. 12, or a declaration to be submitted by the UAS operator in the circumstances referred to in Art. 5.5.

In general, the other main obligations are to **register** the drone pilot on the dedicated registration portal Dronespace and the obligation to ensure **insurance** coverage in the amount of at least 750,000 SDR (special drawing rights), and validity of the insurance for Austria.

c. Italy's opt-out choice: ENAC Reg. UAS IT 2021

In Italy, the civil aviation is governed by the Navigation Code (Codice della Navigazione, "CN") and "ENAC" (Ente Nazionale Aviazione Civile)⁶ is the supervisory authority, responsible for aviation regulation, control and certification activities.

After the European regulations came into force, ENAC issued the ENAC

⁵ <https://www.austrocontrol.at/>

⁶ <https://www.enac.gov.it>

Reg. UAS-IT ed. 01 of 4 January 2021⁷. Notwithstanding some doubts raised by the Applicant⁸ this regulation largely complies with the EU Regulations, which are specifically recalled therein. Indeed, under Art. 2 the purpose of Reg. UAS-IT is to:

(i) complete the legal framework for UAS operations falling under Reg. 2019/947 where it refers to national provisions⁹ (civil operations out of the scope of this report),

(ii) define the legal framework applicable to private or State UAS conducting missions in the public interest under Art. 2.3.a, Reg. 2018/1139, to the extent that they are not regulated by other special Italian provisions issued by the competent State Administrations (see Art. 2-3 Reg. UAS-IT)¹⁰. Reg. 2019/947 requirements apply to certain category SAR operations also under Reg. UAS-IT (see below).

Emergency and search and rescue operations in the alpine area in Italy are a public service mainly performed (among others) by the following organizations who provide a public service and are regulated by special laws:

- the National Alpine Rescue Corps (Corpo Nazionale Soccorso Alpino e Speleologico, CNSAS) of the Italian Alpine Club (CAI) ¹¹; in the Bolzano province alpine rescue is operated by the Bergrettung Südtirol.
- the Fire Brigade (Corpo Nazionale dei Vigili del Fuoco, VVF) belonging to the Department of Fire, Public Rescue and Civil

⁷ <https://www.enac.gov.it/la-normativa/normativa-enac/regolamenti/regolamenti-ad-hoc/regolamento-uas-it/>

⁸ See the Applicant's. Description of the obstacle, pag. 2: “*Italy: Adopts a national authorization system for these specific missions, making the Regulation 2018/1139 and the subordinate legal acts Implementing Regulation 2019/947 and Delegated Regulation 2019/945 not applicable to SAR UAS operations and UAS operations conducted in public interest*”

⁹ Given that “normal” civil UAS operations in Italy are regulated by Reg. 2019/947, we will not examine the legal framework for normal UAS flights. A guidance in English to the requirements before flying an UAS in Italy can be found at: <https://www.enac.gov.it/en/safety-security#UAS-drones> .

¹⁰ For instance: The decree of the Ministry of the Interior 13.06.2022 regulates the use of drones by state police forces and provides that “*The special operating procedures for the use of UAS ... are defined, also depending on the risk of the operations, according to a technical-operational protocol adopted by the Chief of Police ... with ENAC, which regulates their use also in emergency situations, in agreement with the General Commands of the Carabinieri and the Guardia di Finanza, ...*” (Art. 4). It is stipulated that these UAS must be registered in the registers of the Ministry of Defence, the Police Forces, or ENAC (Art. 5) and that air traffic with a pilot on board always has priority (Art. 9). To the best of our knowledge, the Civil Defence does not have its own regulations and must therefore comply with the Reg. UAS-IT Reg.

¹¹ Mountain rescue is regulated by Law No. 74 of 21 March 2001, which recognises the social solidarity value and public utility function of the CNSAS and establishes that the CNSAS, as an operational structure of the National Civil Protection Service, participates in disaster relief, cooperating with civil protection structures in its technical and institutional competences.

Defence of the Ministry of the Interior¹².

Given the limited scope of this report, we will not examine the laws regulating CNAS or VVF, their special powers and intervention procedures in emergency operations which may even derogate from Reg. UAS-IT as per Art. 2-3 mentioned above. But one thing we believe can be taken for granted, namely that these laws do not apply to foreign emergency organizations.

According to certain CN provisions¹³, in our opinion UAS operated by foreign emergency organizations can be considered as private aircraft.

This having been said, in our understanding, foreign emergency organizations deploying UAS in Italy must comply with:

- (i) the **prohibition** under Reg. 947/2019, Annex, par. UAS.OPEN.060 / UAS.SPECIFIC.060, **to fly in an emergency area unless authorized** by the emergency authority in charge
- (ii) prior **special authorization for cross-border Specific operations** under Art. 13 Reg. 947/2019;
- (iii) **Section II, Part B of Reg. UAS-IT, Artt 9-17**, concerning the rules for the use of drones in emergency situations falling under Art. 2.3.a, Reg. 2018/1139.

Preliminary requirements/procedures to be accomplished with under Artt. 9-17 Reg. UAS-IT vary depending on the operation category:

- For SAR Open category operations registration on the dedicated section of **D-Flight** portal and QR labelling of the UAS are required (Art. 9);
- For SAR Open operations or Specific with a SAIL lower than V, compliance with the requirements under Reg. 2019/947 is necessary (Art. 10);
- For SAR Specific operations subject to declaration, compliance with the requirements under Reg. 2019/947 is necessary; the prior declaration (whose positive outcome must be prior to start the mission) must be filed on D-Flight; ENAC or EASA standard scenarios apply (Art. 11);
- For SAR operations with a SAIL higher than V, enrolment of the drone on the ENAC UAS Register is required (Art. 12) and airworthiness must be assessed by a UAS Flight Permit (to be

¹² Several laws regulate the organization and functions of the Vigili del Fuoco; see at: <https://www.vigilfuoco.it/riferimenti-normativi-organizzazione-e-attivita>

¹³ Art. 743, § 2 CN: 2. *Aircraft are also considered to be remotely piloted aircraft [...].*

Art. 744, § 1-2 CN: 1. *State aircraft are military aircraft and those, owned by the State, used in institutional services of the State Police Force, the Customs, the National Fire Brigade, the Civil Protection Department or in other State service.* 2. *All other aircraft are considered private [...].*

Art. 794, §1 CN: 1 *Foreign aircraft, with the exception of military, customs and police aircraft, may fly over national territory on condition of reciprocity or when this is established by Community legislation or international conventions, without prejudice to ENAC's right to issue temporary authorisations [...].*

applied with ENAC, valid for three years) showing that the risk level of the intended operation is acceptable (Art. 13).

- For BVLOS SAR operations according to Art. 9.5 ENAC Circular ATM-09 a NOTAM must be issued at least 7 days before.

Third-party liability, apart from the insurance requirements, is regulated by art. 965 and ff. provisions of the CN¹⁴ and the international rules adopted by the Italian Republic, which are only of marginal importance¹⁵. In any case, Art. 971 CN¹⁶ limits the compensation for damages to the sums provided for by EU law as the minimum insurance cover.

Insurance coverage for third-party liability is mandatory for drones in Italy under Art. 27 Reg. UAS-IT and must be adequate for the purpose and with ceilings not lower than the minimum parameters referred to in Reg. EU 785/2004.

Notwithstanding some doubts raised by the Applicant¹⁷, we assume that this

¹⁴ Art. 965 - *Operator's liability for damage to third parties on the surface*.

[I]. *The liability of the operator for damage caused by the aircraft to persons and property on the surface is governed by the international regulations in force in the Republic, which also apply to damage caused on the national territory by aircraft registered in Italy.*

[II]. *The same rules shall also apply to State aircraft and aircraft treated as such, referred to in Articles 744 and 746.*

¹⁵ „The Rome Conventions of 1933 and 1952, as well as the Protocols of 1938 and 1978, Despite unification efforts, the respective applicable national law is not only decisive in domestic conflicts but also in many cross-border cases.

Many countries have developed bodies of legislation dealing with air transportation that regulate liability for surface damages. The corresponding liability systems, as well as their scopes of application, vary considerably. For example, while Belgium, as a ratifying state of the Rome Convention of 1952, transposed these rules into its national law, liability for surface damages in the Netherlands falls under the general rules on tortious liability. In contrast, Germany and a large number of other states provide for strict liability. The liability limits can also vary considerably. The United Kingdom, Finland and Switzerland, for example, do not limit liability whereas Germany and Italy set limits that are determined by the weight of the aircraft”

Giovanna Montanaro, Air Transportation (Third-Party Liability)

[https://max-eup2012.mpipriv.de/index.php/Air_Transportation_\(Third-Party_Liability\)#:~:text=The%20first%20efforts%20to%20standardize,Third%20Parties%20on%20the%20Surface\).](https://max-eup2012.mpipriv.de/index.php/Air_Transportation_(Third-Party_Liability)#:~:text=The%20first%20efforts%20to%20standardize,Third%20Parties%20on%20the%20Surface).)

¹⁶ Article 971 - *Limits of Aggregate Damages*.

[I]. *The aggregate indemnity payable by an operator liable under Articles 965 to 967 shall be limited to the sums provided for by Community law as the minimum insurance cover for third party liability per accident for each aircraft.*

¹⁷ See the Applicant's. Description of the obstacle, pag. 2 “3. *Liability and insurance discrepancies: Austria requires SAR drone operators to have liability insurance compliant with EU regulations, whereas Italy might operate under national exemptions. This mismatch could complicate the allocation of responsibility and risk coverage in joint missions*”. Although it is not clear to us which exemptions the Applicant refers to on the Italian side, we assume that they refer to the Navigation Code, which, on the one hand provide for the mandatory insurance (Art. 798 CN), but on the other hand does not apply to military aircraft, customs aircraft, State Police Forces and National Fire Brigade aircraft (Art. 748 CN), as well as aircraft used by public or private entities for activities aimed at the protection of national security (Art. 744).

A deeper analysis would fall out of our task, but by way of example, based on circular EM 14/2016 on the “use of mini and micro remotely piloted aircraft systems” (available online at: <https://www.conapo.it/archive/2017/STAFFCADIP.REGISTRO%20UFFICIALE.2017.0015191.pdf>),

provision is mandatory for all drones and applies regardless of the kind of operation they are used for, including SAR operations, since art. 27 is inserted in SECTION IV General provisions for UAS of Reg. UAS-IT. Of course, foreign policies must extend coverage for use in Italy as well (but the case is actually similar to car insurance) and it is important to inquire with the insurer that the policy also complies with aviation navigation in Italy and the requirements under Art. 1015 CN.

In this framework, while we understand that the preliminary requirements set by Reg. UAS-IT differ to some extent from those under Reg. 2019/947 and may constitute a cross-border obstacle as raised by the Applicant, since urgency in SAR operations is not compatible with the duty to comply with foreign procedures, **the insurance requirements seem substantially equivalent and not an actual cross-border issue**. In other words, insurance, may it be mandatory or not, is always a good precautionary measure to put in place and it should be sufficient to prudentially adapt it to the rules of the neighbouring country (a check that does not have to be repeated again for each new operation).

Concerning the different legal framework of third-party liability, we understand that it may generate uncertainties, but as long and until each Member State has a different legal system, certain discrepancies cannot be eliminated, but can be managed through the collection and exchange of information and mitigated, e.g. through adequate insurance coverage.

III. A roadmap towards possible solution(s)

Any solution to address the emergency organizations' concern and their goal to possibly simplify the requirements and procedures to engage UAS in cross-border SAR actions and to simplify cooperation with the organizations of the neighbouring country, must take into account the principle that, as of today, the EU legislator has reserved to the Member States the right to regulate public services dedicated to the protection of national security that are operated by public authorities, without interfering with their functions and powers.

This obstacle, as such, is not easy to overcome, unless the single Member States (or at least those who have chosen the "opt-out") decline their public authority to some extent or rather decide to strengthen their cooperation on a bilateral basis or at a central EU level.

In addition, as a matter of fact, rules of law, particularly those intended to regulate practical activities, normally follow, but do not precede, practical experience and technology improvements.

the Ministry of the Interior, Department of Fire, Public Rescue and Civil Defence, Central Directorate for Emergency and Technical Rescue, ruled that the Department of Fire is in charge of stipulating the insurance and no UAS are allowed to fly without it (Art. 17). Similarly, the Club Alpino Italiano has entered a third-party liability insurance that covers what is not covered by the Aviation policies entered into by the Carrier (available at: https://www.cai.it/wp-content/uploads/2024/04/Polizza-RC_2024.pdf) and the rescue operations and interventions, including the use of aircraft equipped for such interventions or the operation of drones.

These documents lead us to believe that insurance coverage is anyway necessary for UAS SAR operations in Italy pursuant to Art. 27 Reg. UAS-IT.

Concerning Italy, the fact that it opted-out, does not mean that Reg. 2019/947 does not apply at all to UAS SAR operations; to the contrary, as illustrated above, the use of drones in emergency operations in Italy must also comply with some rules set out in Reg. 2019/947 (see Art. 10, 11 UAS-IT) which are all expressly referred to in Reg. UAS-IT and with the general security objectives of Reg. 2018/1139.

This means, first of all, that Annex UAS.OPEN.060 and UAS.SPEC.060 to Reg. 2019/947 applies both in Austria and in Italy and, therefore, **remote UAS pilots/operators who intend to fly in an emergency area must always obtain authorisation from the Operations Manager in charge of the emergency response** and always respect the operational limits provided for the category within which the Pilot, Operator and UAS can operate, i.e. OPEN or SPECIFIC.

In our opinion, this rule lays down the central role of the authority that is in charge of the emergency action and the need to collaborate with it and, at the same time, offers an input to develop solutions to overcome obstacles in cross-border SAR operations.

The use of drones is one way, among others (e.g. use of helicopters, ambulances, ecc.), to deal with emergencies and therefore we believe that solutions for cross-border use of drones must start from collaborative projects for cross-border emergency operations with a view to first acquiring specific experience, then concluding collaboration agreements either locally or between Member States and, finally, adjusting the regulatory framework based on the acquired experience.

In more detail, we believe that the elaboration of possible solutions to the mentioned obstacles requires a rather **mid or long-term approach** aimed at:

- (i) fostering **bilateral or multilateral cooperation programmes and agreements between national authorities** of neighbouring countries facing daily emergency;
- (ii) **improving/adjusting national law in order to simplify and accelerate administrative procedures in cross-border UAS SAR operations** or implement dedicated rules to allow more flexible use of drones in emergency operations adapting them to actual needs;
- (iii) further developing the current EU legal framework by introducing to the widest extent possible a uniform set of rules for cooperation procedures and tools to facilitate and speed up the authorization process for UAS operators/pilots who need to cross national borders in emergency actions in Europe.

It is clear that this approach will take time, since the burden is upon the competent institutions of the Member States and the European Union to elaborate suitable solutions. Unfortunately, given that the area of UAS flights/aviation and emergency/SAR operations is strictly regulated for obvious security reasons and public interest, we hardly can suggest short-term solutions to overcome the identified obstacles.

The competent institutions of the Member States and the European Union have already acknowledged the phenomenon of cross-border emergency

and SAR actions and related obstacles and are aware of the need to create a cooperation network and a comprehensive uniform legal framework applicable in all the EU and possibly also EFTA. As shown below, recent developments and cross-border projects show the willingness of the national institutions and EU to address the issue and overcome obstacles in the area of emergency and SAR cross border actions in general.

We remind that proposed solutions should also envisage to overcome language barriers, which may be a significant obstacle for the personnel engaged “in the field”.

(i) Bilateral or multilateral cooperation between national authorities of neighbouring countries

Member States must deal with several issues in border regions in different sectors. As indicated above, this is acknowledged also by the EU which, through its Interreg Programme, promotes and finances cooperation between different regions or Member States, and in some cases also with third countries, to address common challenges and promote harmonious and sustainable solutions.

Some Interreg programmes are already underway in the area of cross-border emergency operations, including UAS SAR operations.

Interreg Italy-Austria - Development of drones and of use cases in mountain rescue

The purpose of this project, which we understand is supported by the Applicant, aims to develop the use of semi-autonomous drones for rescue operations in extreme environments, particularly in the mountains. To this end, the partnership will explore and develop aerial rescue using drones with an innovative, user-centred approach. Finally, the implementation of a drone living lab will facilitate advanced forms of cooperation between stakeholders from neighbouring regions. As far as we understand, this projects is connected to the Cooperation Agreement of December 1, 2020 between Mountain Rescue Organizations from Tirol, South Tirol and Belluno for the development of innovative solutions in mountain SAR missions and leverages the activities of the START Living Lab in the field of technology research and development.

The general willingness to collaborate between Italy and Austria is also shown by the current **Interreg VI-A Italy-Austria 2021-2027**¹⁸ whose priorities include the **Reduction of Cross-Border Barriers: through this priority, the program supports governance solutions to overcome cross-border obstacles to cooperation, especially of a legal and administrative nature.**

Interreg Germany-Netherland – EMERGENCY DRONE PROJECT¹⁹

The purpose of this project is to develop new innovative technologies for the use of drones in case of a disaster, rather than solve regulatory differences, but as indicated by the Applicant, differences in equipment standards is also

¹⁸ <https://interreg.net/en/interreg-italy-austria-2021-2027/>

<https://europa.provinz.bz.it/it/interreg-italia-austria>

¹⁹ <https://deutschland-nederland.eu/en/projects/emergency-drone/>

an obstacle in cross-border emergency operations and technical solutions are necessary to enable data exchange and communication between UAS operated by the rescue organizations of the neighbouring countries.

The D-NL Interreg project is developing and testing innovative, customized applications so that UAS can effectively and quickly be deployed in an emergency case, with user-friendly and clear settings and radio transmission technology / mobile and WiFi network to overcome the collapse of communications infrastructure, which is often a problem during an emergency situation. A special process is also used to develop the interaction of several drones in drone swarms. This all is continuously tested and trained to also develop practical experience.

Interreg Italy-Switzerland – GESTISCO – GESTione E Coordinamento Delle Emergenze E Delle Catastrofi Senza Confini (Management and Coordination of Emergencies and Catastrophes Without Borders)²⁰

The purpose of this project is to strengthen cross-border cooperation in emergency management and make support and mutual aid between institutions effective. The partner institutions have different organisations, uneven and not always shared information, independent operational procedures and non-integrated tools. The objective is to build a shared common knowledge framework of rules, risks (natural hazards), resources and to build up a cross-border operative team, providing targeted training and integrating the result into local emergency plans.

Interreg Italy-France – ALCOTRA²¹

The purpose of this project is to develop a prototype virtual reality platform for the training of Civil Protection operators, associated with a system of data collection from the territory and communication with the population, in order to increase the effectiveness of risk prevention and emergency management at cross-border level and to improve the training and education of Civil Protection operators in Italy and France.

Interreg Bavaria-Czechia – Ambulance without borders ²²

The purpose of this project is harmonizing and digitizing emergency rescue services between the two regions to ensure that people receive timely and efficient care regardless of nationality and which side of the border they are on, through drafting the relevant legislation, developing software solutions (app) to streamline communication, coordination and resource allocation (coordination center), standardization of procedures, protocols and equipment, cross-border exercises, internship of personnel and seminars.

We encourage similar projects with the participation of the aviation

²⁰ <https://www.interreg-italiasvizzera.eu/wps/portal/site/interreg-italia-svizzera/DettaglioRedazionale/progetti-2014-2020/gestisco>

²¹ [PRODIGE \(Proteggere i cittadini, Difendere le infrastrutture, Gestire i grandi eventi\) | Alcotra 2021 - 2027](#)

²² https://ec.europa.eu/regional_policy/whats-new/newsroom/04-01-2025-ambulance-without-borders-cross-border-harmonisation-and-digitalisation-of-emergency-rescue-between-bavaria-and-czechia_en

authorities, like ENAC and OZB/Austro Control in the area of UAS emergency operation and the signing of a bi- or multilateral agreement between local rescue organizations or EU Member States to consolidate the results achieved in the framework of the projects and foster amendments to the regulatory framework at a later stage.

(ii) Simplification of national law and procedures / dedicated flexible rules for cross-border UAS SAR operations

The Italian experience currently shows that rules can be amended after a “testing period” and that the legislative authorities are ready to take into account the experience acquired by the interested stakeholders.

On December 2024, ENAC published the draft of the new Reg. UAS-IT (“Draft UAS-IT”) that will replace the current 2021 edition and invited all operators to submit comments by Feb. 28, 2025. The publication of the final new Reg. UAS-it is expected shortly.

In general terms, the Draft UAS-it remains aligned with the EU regulations, but specifies some of its provisions, updating them to the improved commercial and technological framework, showing an effort towards harmonisation with the EU context.

Concerning the rules for the use of drones in emergency situations falling under Art. 2.3.a, Reg. 2018/1139, Open-category operations and Specific operations with a SAIL lower than V remain subject to the requirements set by Reg. EU 2019/947 as before and Specific operations with a SAIL higher than V still require a flight permit by ENAC.

Nevertheless, Part C of the Draft UAS-it includes some interesting innovations in respect of Section II, Part B of current Reg. UAS-IT²³.

Namely, the provision under Art. 11 of current Reg. UAS-IT concerning operations subject to prior declaration under Reg. EU 2019/947 which currently need to be positively declared/authorized through the D-Flight portal prior to commencing the flight, has been changed.

A new provision has been inserted in the Draft UAS-IT, which in our understanding is clearly aimed at fostering cooperation between ENAC and the authorities in charge of the emergency operations.

Under new Art. 10 of Draft UAS-IT, emergency operations are authorised based on appropriate technical-operative protocols agreed between the Competent Administrations and ENAC and carried out in compliance with National Standard Scenarios agreed by Permanent

23 Other innovations concern:

- the obligation to enter in advance on the d-flight portal the flight planning (DOP) for all operations in a specific category, including those conducted under standard scenarios (Art. 27);
- the prohibition to overfly assemblies equal to Art. 793 CN (Art. 31.3);
- operators must assess the privacy impact of their operations and take measures to comply with GDPR (Art. 33);
- the existing insurance system is maintained but fines are better defined: for drones up to 25 kg, violations will fall under Art. 1174 CN (fines from € 1.032 to 6.197); for drones weighing more, Art. 1234 CN will apply (fines from € 50.000 to 100.000); seizure and confiscation of the drone apply in both cases.

Technical Panels composed by ENAC and the concerned Organisations who are also in charge of preparing operational procedures and keep them up-to date²⁴. Under Art. 13 the Open category operations and those carried out within the framework of a national standard scenario referred to in Article 10 no longer need to be authorised in advance by ENAC (the others do)²⁵.

We believe that the establishment of these Panels (similarly to what already exists between ENAC and the Police forces, see footnote 6 above) opens new scenarios for cooperation and opportunities for the interested rescue organizations to discuss with ENAC about the existing obstacles and to contribute at the elaboration of agreed protocols (Art. 10), including flexible but safe solution to their concern. Such agreed protocols could also envisage that local agreements are reached between the regional border rescue organizations and special cooperation procedures are implemented locally between them.

We wish that the Applicant and the parties involved in the Interreg Italy-Austria project mentioned above (Development of drones and of use cases in mountain rescue), may play a significant role in this near future context.

In our opinion, the legal basis for any such protocol/agreement aimed at simplifying the process, should be the rule set by Annex UAS.OPEN.060 and UAS.SPEC.060 to Reg. 2019/947 according to which **remote UAS pilots/operators who intend to fly in an emergency area must always obtain authorisation from the Operations Manager in charge of the emergency response.**

As already said, we believe that this rule focuses on the central role of the organization in charge of the emergency/rescues service and thus, for instance, the parties could draw up a simplified protocol providing that the Italian border rescue organisations cooperate and exchange information with their Austrian colleagues, so that in the event of a call for reinforcements from the Italian side or in case the foreign organisation needs to continue a SAR action beyond its borders into Italy, the **Italian organisation may be delegated by ENAC to authorise the foreign UAS or, alternatively, allow that the authorisation for the foreign UAS be submitted**

²⁴ Part C - Provisions for UAS operations falling under the provisions of Regulation (EU) No. 2018/1139 Article 2 paragraph 3(a)

Article 10 General provisions - 1. The operations governed by this section shall be classified, according to the level of risk and by analogy with Regulation 2019/947, into three categories: open, specific and certified.

2. Operations falling under the provisions of Article 2.3(a) of Regulation (EU) 2018/1139 are authorised on the basis of appropriate technical-operative protocols agreed between the Competent Administrations and ENAC.

3. In order to prepare and keep up-to-date the operational procedures for use, ENAC establishes Permanent Technical Tables composed of representatives of ENAC and of the Organisations concerned.

4. The operations falling under the provisions of art.2.3(a) of Regulation (EU) 2018/1139 are carried out in compliance with National Standard Scenarios agreed in the Permanent Technical Tables referred to in the previous paragraph.

²⁵ Article 13 Operations subject to authorisation - 1. With the exception of operations in the 'open' category or carried out within the framework of a national standard scenario referred to in Article 10, they shall be authorised in advance by ENAC.

by the Italian organisation on behalf of the foreign one, in order to facilitate communications with ENAC that might otherwise be long and difficult for the foreign organisation.

(iii) Introduction of uniform EU cooperation procedures and tools to facilitate and accelerate the authorization process

The experience gathered through the projects developed at a regional bilateral level could be extended/repeated at a general EU level, with the participation of EASA. The involvement of the EU in financing regional project shows the interest of the EU to address the issue and to overcome the obstacles described by the Applicant.

In many other areas, the EU has already effectively implemented regulations to handle cross-border issues, also through the implementation of uniform procedures and information-sharing systems regarding the different national regulations.

Right in the area of SAR operations, the European Border and Coast Guard Agency, also known as **Frontex** is a EU cooperation programme that may inspire similar solutions for SAR operations in the Alpine area.

Although its primary role is to support EU Member States in managing their external borders, Frontex also coordinates joint operations, such as search and rescue missions engaging airplanes, boats and drones for both surveillance and rescue activities. Migrants' journeys across the sea are made under very unsafe conditions and it is crucial to spot people in distress at sea before it is too late and establish an early warning mechanism. When a boat in need of assistance is detected, Frontex immediately alerts all neighbouring national maritime **Rescue Coordination Centres** (there are four RCCs in the Mediterranean: Italy, Malta and Tunisia) to potentially speed up the rescue operation and improve the coordination, in line with international maritime law. This system is conceived to make sure that there is always a maritime RCC responsible for any rescue operation. Once a Frontex plane detects a boat in distress, it remains in the area until rescue arrives and remains in contact with the RCC to update them on the boat's location, its condition, estimated number of persons aboard, any navigation and communication equipment, along with the weather and sea conditions in the area. The RCC dispatches boats that are either the closest to the scene or best equipped to do the job. Throughout the rescue operation, the coordinating rescue centre stays in constant contact with boats and aircraft involved.

Also, in the area of judicial proceedings we are better acquainted with, operators can avail themselves of the European Justice portal – **E-Justice**²⁶ where it is possible to retrieve all information on EU legislation and a number of information on national legislation as well, specifically concerning subjects that have a cross-border relevance.

At the operational level, we cite Reg. 2020/1784 on the service in the Member States of judicial and extrajudicial documents in civil or commercial matters, that has been conceived to overcome the obstacles caused by the

²⁶ https://e-justice.europa.eu/home_it

fact that each Member State has different rules and procedures for effecting service and different judicial bodies who are only competent for service within national border. A uniform procedure has been established to enable the judicial bodies of the different Member States to communicate and cooperate with each other to serve documents from one country to another, using standard forms that can be filled in online on E-Justice portal.

In principle, also in the area of aviation rules for the use of SAR UAS in border/mountain regions, it is possible to set up rules, procedures, web-portals and coordination centres, which, to our knowledge currently do not exist, to share information on the national regulations in force in each Member State and a digitalised system to enable rapid communication and authorisation between regional or national rescue organisations and the aviation authorities involved in the management of emergency situations.

We believe that similar solutions are in line with the provisions of Art. 74 Reg. 2018/1139 to ensure effective cooperation between EASA and the national competent authorities.



In the end, to solve the obstacles outlined by the Applicant, in our opinion, it is desirable that the EU institutions and the Member States pursue the objective of fostering cooperation and developing useful tools to enhance communication and rapid response in emergency situations.

Working at eventually amending current regulatory EU framework towards a better harmonization of the procedures and tools is also a possible pathway.

IV. An indication of the entities to be involved in the possible solution(s)

The entities that could be involved in the possible solutions are:

- The alpine rescue organization such as the Italian CNAS and the Austrian ÖBRD;
- The respective fire departments such as the Italian VVF and the Austrian FF;
- The aviation authorities, ENAC for Italy, OZB and AUSTRO CONTROL for Austria, EASA for the EU;
- The EU Commission

V. List of Legal provisions relevant to the case

- Reg. 1139/2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency (EASA)
- Delegated Reg. 945/2019 on unmanned aircraft systems
- Implementing Reg. 947/2019 on the rules and procedures for the operation of unmanned aircraft
- Reg. UAS-IT ed. 01 of 4 January 2021
- Draft Reg. UAS-IT of 23 December 2024
- Italian Navigation Code / Codice della Navigazione

VI. Other relevant aspects

None

VII. References/Appendix

See documents and links mentioned in the footnotes and the following appendixes:

- Annex 1: Reg. UAS-IT ed. 01 of 4 January 2021 in Italian language with English translation made merely for information purposes
- Annex 2: Draft Reg. UAS-IT of 23 December 2024 in Italian language with English translation made merely for information purposes

RA/Avv. Florian Buenger, LL.M.

A stylized, handwritten signature in black ink, appearing to read 'Florian Buenger'.

Avv. Federica Borso

A handwritten signature in black ink, appearing to read 'Federica Borso'.