

11. Hungary

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1. AIR LAW APPLICABLE TO UNMANNED AIRCRAFT SYSTEMS IN HUNGARY

Hungarian legislation on civil autonomous aircraft¹ is governed by European Union (EU)-level regulations and national laws, including acts, government decrees, and ministerial decrees. Except for the State Drones Decree,² all new rules and provisions regulating unmanned aircraft systems (UAS) have been introduced into already existing legislation. Apart from these binding laws, there are some non-binding recommendations and guidelines covering drone usage in Hungary.

The EU legislation on (Hungarian) UAS currently in force is the following:

- EASA Basic Regulation:³ Section VII of the ‘new’ EASA Basic Regulation covers the general rules regarding UAS and authorizes the EU Commission to adopt delegated acts and implementing acts, specifying the applicable

¹ There are numerous titles used by different jurisdictions for ‘drones’, such as ‘Unmanned Aerial Vehicle’ (UAV), ‘Unmanned Aircraft’ (UA), ‘Remotely Piloted Vehicle’ (RPV), ‘Remotely Piloted Aircraft System’ (RPAS). See *Unmanned Aircraft Systems (UAS)*, ICAO Circular 328-AN/190 (2011); Ambrus, István: *Digitalizáció és büntetőjog [Digitalisation and Criminal Law]*, Wolters Kluwer, Budapest (2021). Since both EU and Hungarian legislation uses the terms ‘Unmanned Aircraft’ (UA) and ‘Unmanned Aircraft System’ (UAS), these will be used interchangeable with ‘drone’, unless otherwise specified.

² Government Decree 38/2021 (2 February) on the flight of unmanned state aircraft [38/2021. (II. 2.) Korm. rendelet a pilóta nélküli állami légi járművek repüléséről].

³ Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of

rules. Article 3 of the EASA Basic Regulation defines some of the most important notions related to UAS.⁴

- Commission Delegated Regulation 2019/945:⁵ The Commission's Delegated Regulation handles UAS from the perspective of design and manufacture,⁶ market regulation, product quality, product liability, and conformity assessment.⁷
- Commission Implementing Regulation 2019/947:⁸ The Implementing Regulation concerns the technical details of operating UAS, including the requirements for the remote pilot and the specific categories of UAS operations.

The main Hungarian legal instruments covering UAS are the following:

- Aviation Act of 1995:⁹ The Hungarian Aviation Act is the fundamental instrument governing aircraft, air traffic, air operations, and the legal status of personnel and facilities involved in aviation. With the adoption of the Drone Act¹⁰ on 16 December 2020, the Aviation Act was amended, which

the European Parliament and of the Council and Council Regulation (EEC) No 3922/91, *Official Journal of the European Union*, L 212, 1–122.

⁴ See e.g. Article 3(30) for 'unmanned aircraft' or Article 3(31) for 'remote pilot'.

⁵ Commission Delegated Regulation (EU) 2019/945 of 12 March 2019 on unmanned aircraft systems and on third-country operators of unmanned aircraft systems, *Official Journal of the European Union*, L 152, 1–40.

⁶ Commission Delegated Regulation 2019/945, Article 1.

⁷ Hegyes, Péter: 'A pilóta nélküli légijárművek üzemeltetésének jogszabályi keretei' ['Legislative Framework of the Operation of Unmanned Aircraft']. *Acta Universitatis Szegediensis: acta juridica et politica*, 10(2), (2020) 72; Miskolczi Bodnár, Péter: 'A pilóta nélküli légijármű-rendszerek biztonságos használatának jogi kérdései' ['Legal Issues of the Safe Usage of Unmanned Aircraft Systems'] in: Homicskó, Árpád Olivér (ed.): *Modern technológiák a jog egyes részterületein [Modern Technologies in Certain Areas of the Law]*, KRE Állam- és Jogtudományi Kar, Budapest (2021), 217–254. 235.

⁸ Commission Implementing Regulation (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft, *Official Journal of the European Union*, L 152, 45–71.

⁹ Act XCVII of 1995 on aviation [1995. évi XCVII. törvény a légiközlekedésről].

¹⁰ Act CLXXIX of 2020 on amending certain acts relating to the operation of unmanned aircraft [2020. évi CLXXIX. törvény a pilóta nélküli légijárművek üzemelésével összefüggő egyes törvények módosításáról].

introduced detailed rules on UAS. According to the statement of reasons,¹¹ the Drone Act's main purpose was to fulfill the obligation of harmonizing Commission Implementing Regulation 2019/947 with Hungarian law.¹² Apart from some sections,¹³ the amendments entered into force on 1 January 2021.

- Implementing Decree of the Aviation Act (1995):¹⁴ Even though this decree is responsible for implementing the rules laid down in the Aviation Act, it only concerns UAS indirectly by rendering some general provisions applicable to drones as well, such as the administrative authority procedures, certain examination responsibilities and the contents of the certificate of airworthiness. The decree entered into force on 1 July 1996.
- Airspace Decree of 1998:¹⁵ This decree covers the activities for which Hungarian airspace may be occupied and lays down the procedure for requiring a so called 'ad hoc airspace', which is the airspace also required for drone operations. The specific UAS provisions entered into force on 10 February 2021, in accordance with Section 28 of the Drone Decree.¹⁶
- Airspace Designation Decree (2007):¹⁷ This decree – adopted jointly by the Minister of Economy and Transport, the Minister of Defence and the Minister of Environment and Water in 2006 – sets out the types of airspace above the area of Hungary: airspace for aviation, temporary reserved airspace/area, reserved airspace, dangerous airspace, and prohibited airspace;

¹¹ In conformity with Section 18(1) of Act CXXX of 2010 on law-making, the lawmakers preparing legislation must attach a statement of reasons to the draft law 'to describe the social, economic, professional reasons and aims underpinning the need to regulate'.

¹² Statement of Reasons for Act CLXXIX of 2020 on amending certain acts relating to the operation of unmanned aircraft [Indokolás a pilóta nélküli légi járművek üzemelésével összefüggő egyes törvények módosításáról szóló 2020. évi CLXXIX. törvényhez].

¹³ Drone Act, Section 23(2)–(3).

¹⁴ Government Decree 141/1995 (30 November) on the implementation of Act XCIV of 1995 on aviation [141/1995. (XI. 30.) Korm. rendelet a légi közlekedésről szóló 1995. évi XCIV. törvény végrehajtásáról].

¹⁵ Government Decree 4/1998 (16 January) on the use of Hungarian Airspace [4/1998. (I. 16.) Korm. rendelet a magyar légtér igénybevételéről].

¹⁶ Government Decree 39/2021 (2 February) on amending certain Government Decrees relating to aviation [39/2021 (II. 2.) Korm. rendelet egyes légiközlekedési tárgyú kormányrendeletek módosításáról].

¹⁷ Joint MET-MD-MEW Decree 26/2007 (1 March) on the designation of Hungarian airspace for aviation [6/2007. (III. 1.) GKM-HM-KvVM együttes rendelet a magyar légtér légiközlekedés céljára történő kijelöléséről].

each area has its own general rules on how it can be used for aviation.¹⁸ The relevancy of this decree is that it also contains the list of the ‘No Drone Zones’ in Hungary, wherein the operation of UA is prohibited.¹⁹

- Liability Insurance Decree of 2001:²⁰ This decree prescribes mandatory liability insurance for operating public airports, performing air traffic control duties and carrying out aviation activities. With the Drone Decree, the mandatory insurance also applies to certain categories of UAS. These rules entered into force on 10 February 2021.
- State Drones Decree:²¹ As of 1 August 2022, this decree is the only piece of law in Hungarian legislation that contains provisions solely related to UAS. The decree describes the categories of UA employed by state authorities, the individual authorities with powers to use state drones and further demands for maintenance, repair, registration, type certificates, and airworthiness. This decree entered into force on 10 February 2021.

2. FLYING AUTONOMOUS DRONES IN HUNGARY (AUTONOMY DEFINED AND REGULATED)

The term ‘autonomy’ does not appear directly in Hungarian UA legislation. The Aviation Act does not formulate a separate definition for UA and UAS and instead refers to the relevant EU Commission regulations. ‘Unmanned Aircraft’ is thus defined as ‘any aircraft operating or designed to operate autonomously or to be piloted remotely without a pilot on board’.²² The term ‘Unmanned Aircraft System’ means ‘an unmanned aircraft and the equipment to control it remotely’.²³ Therefore, ‘autonomous’ is one of two ways in which a UA may operate.

¹⁸ Airspace Designation Decree, Section 1(1).

¹⁹ Airspace Designation Decree, Section 24 Point 30a, which refers back to Airspace Decree Section 13 Point 15.

²⁰ Government Decree 39/2001 (5 March) on mandatory aviation liability insurance [39/2001. (III. 5.) Korm. rendelet a légiközlekedési kötelező felelősségbiztosításról].

²¹ Government Decree 38/2021 (2 February) on the flight of unmanned state aircraft [38/2021. (II. 2.) Korm. rendelet a pilóta nélküli állami légijárművek repüléséről].

²² Aviation Act, Section 71 Point 35, directly referring to Commission Delegated Regulation 2019/945, Article 3(1). The same definition can be found in Article 3(30) of the EASA Basic Regulation.

²³ Aviation Act, Section 71 Point 36, directly referring to Commission Implementing Regulation 2019/947, Article 2(1).

It should be noted that the term ‘remote pilot’²⁴ means not only a natural person who manually controls a UA but also someone who monitors its course and is able to intervene ‘when the UA flies automatically’. The terms ‘autonomous’ and ‘automatic’ are not interchangeable. The International Civil Aviation Organization’s Circular on UAS also uses the term ‘autonomous’ and it covers aircraft ‘that does not allow pilot intervention in the management of the flight’.²⁵ Likewise, under EU law, an ‘autonomous operation’ means ‘an operation during which a UA operates without the remote pilot being able to intervene’.²⁶

Conclusively, at least three different operational methods could be outlined for UA:

- Remotely piloted UA: The UA is controlled by a remote pilot during the entirety of the flight.
- Automatic UA: The UA flies automatically, but a remote pilot continuously monitors the flight and has the ability to intervene.
- Autonomous UA: The UA flies without the possibility of human intervention, usually with the involvement of artificial intelligence. (Naturally, monitoring the course of the flight can be part of this method.)

This detailed typology is yet to be further developed by legislators or the interpretation of judicial bodies. Nevertheless, as Hungarian laws rely on EU regulations to define UA and UAS, it can be said that autonomous flights are acceptable within Hungary.

Hungarian legislation did not introduce new rules specifically for autonomous flights, and thus the general EU provisions apply: if a UA is designated to fly autonomously, the operation will fall into the ‘specific’ category²⁷ and must comply with the requirements of that category.²⁸

²⁴ Aviation Act, Section 71 Point 48, directly referring to Commission Delegated Regulation 2019/945, Article 3(27). The same definition can be found in Article 3(31) of the EASA Basic Regulation.

²⁵ *Unmanned Aircraft Systems (UAS)*, ix.

²⁶ Commission Implementing Regulation 2019/947, Article 2(17).

²⁷ Commission Implementing Regulation 2019/947, Annex, Part B, UAS. SPEC.050 (1)(b).

²⁸ Commission Implementing Regulation 2019/947, Article 5; Annex, Part B.

2.1 Regulation of Beyond Visual Line of Sight (BVLOS) Autonomous Drones

Apart from the State Drones Decree,²⁹ the ‘visual line of sight’ (‘VLOS’)–‘beyond visual line of sight’ (‘BVLOS’) distinction is not present in Hungarian legislation. Due to the lack of separate provisions, EU rules apply in this case: all UAS operations in the ‘open’ category must be kept in VLOS, except when the UA is flying in ‘follow-me mode’ or when an ‘unmanned aircraft observer’ assists the remote pilot.³⁰ During ‘follow-me mode’, the UA automatically follows the remote pilot within a predetermined radius.³¹ If the remote pilot is assisted by an ‘unmanned aircraft observer’,³² the observer has unaided visual of the UA while communicating with the remote pilot.³³

BVLOS operations are thus reserved for the ‘specific’ and ‘certified’ categories, with specified requirements set forth either by the national competent authorities³⁴ or by one of the standard scenarios in the Appendix of Commission Implementing Regulation 2019/947.³⁵

2.1.1 Operation of autonomous flight

The relevant rules can be found on certification and registration of drones that apply in Hungary on two levels. First, the EU regulation concerned must be mentioned: Commission Delegated Regulation 2019/945 or Commission Implementing Regulation 2019/947. The second level is the Hungarian (Member State) legislation that completes the EU regulation: the most important rules can be found in the Aviation Act which was amended by the Drone Act to meet the conditions set by the EU legislator.

Article 14 of Commission Implementing Regulation 2019/947 contains the principal rules for certification and registration. Article 14(1) prescribes that ‘Member States shall establish and maintain accurate registration systems for UAS whose design is subject to certification and for UAS operators whose operation may present a risk to safety, security, privacy, and protection of personal data or environment.’ Article 14(2) and (3) enumerate what kind of

²⁹ The decree sets up a categorisation for state drones based on MTOM (including the payload) from ‘A’ to ‘E’; UA within categories ‘A1’, ‘A2’, ‘B1’ and ‘B2’ must always be operated in VLOS. See State Drones Decree, Sections 3(4), 3(7), 4(4) and 4(6).

³⁰ Commission Implementing Regulation 2019/947, Article 4(1)(d).

³¹ Ibid, Article 2(14).

³² Ibid, Article 2(24).

³³ Ibid, Annex, Part A, UAS.OPEN.060 (4).

³⁴ Ibid, Article 7(1); Article 12.

³⁵ Ibid, Appendix, Chapter II, UAS.STS-02.010.

information shall be available in the registration systems for UAS operators and unmanned aircraft.

And according to Article 14(5):

UAS operators shall register themselves:

- (a) when operating within the ‘open’ category any of the following unmanned aircraft:
 - i. with a MTOM³⁶ of 250 g or more, or, which in the case of an impact can transfer to a human kinetic energy above 80 Joules;
 - ii. that is equipped with a sensor able to capture personal data, unless it complies with Directive 2009/48/EC;³⁷
- (b) when operating within the ‘specific’ category an unmanned aircraft of any mass.

The regulation of the Aviation Act is stricter than the principal rules of Commission Implementing Regulation 2019/947. Section 17 of the Aviation Act prescribes that the aviation authority shall keep a register of unmanned aerial vehicle systems other than unmanned toy aircraft and unmanned aerial vehicle system operators.³⁸ According to Section 71 point 50, ‘Unmanned toy aircraft means an unmanned aerial vehicle that is a toy within the meaning of Directive 2009/48/EC, is not equipped with a sensor able to capture personal data, does not have a MTOM of 120 g, and is unable to move more than 100 meters away from the remote pilot.’ If a drone fulfils just one of these four conditions the drone and its operator shall be registered.

The Hungarian registration authority is the Department of Aviation Supervision of Ministry of Technology and Industry as aviation authority. The registration fees are not high: registration of a UAS and an operator of a UAS cost HUF 2000 (approx. EUR 5) and the notification of data change HUF 1000 (approx. EUR 2,5) according to Ministerial Decree 3/2002 (VI. 20) on charges for official aviation procedures.³⁹

³⁶ Maximum Take Off Mass.

³⁷ Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys. It means that the operators of those drones which are toys according to the Directive 2009/48/EC do not need to be registered.

³⁸ Section 17 (4) and (7) points enumerate what kind of information shall be available in the registration systems for UAS operators and unmanned aircraft. These lists contain more items than the lists of Commission Implementing Regulation 2019/947.

³⁹ 3/2002. (VI. 20.) GKM rendelet a légi közlekedéssel kapcsolatos hatósági eljárások díjairól.

The process of operator's registration is rather simple: the forms are available on the website of the aviation authority and the filled forms can be submitted online or on paper. The operators shall provide the following data: full name, maiden name, date and place of birth, mother's maiden name, address, phone number, e-mail and the insurance policy number of the UAS (if the operator is a legal person its tax number must be provided).⁴⁰

The registration process of a UAS is the same and the following data must be provided about the UAS: manufacturer's name, model/type, sub-type and serial number of the UAS.⁴¹

If someone uses a UAS without certification or registration, the Infractions Act⁴² shall apply. According to Section 176, driving without a licence and letting someone drive without a licence is an infringement (these rules shall apply not just for drones but for other vehicles as well).

Finally, we note that the relevant regulation does not contain significant special norms about BVLOS in connection with certification and registration. However, Article 2(8) of Commission Implementing Regulation 2019/947 defines 'beyond visual line of sight operation' ('BVLOS') as a type of UAS operation which is not conducted in VLOS; if a drone falls under the category of BVLOS this may be relevant in connection with operation.

2.2 Airworthiness and Operation

2.2.1 'Airworthiness' standards and their regulation

Current airworthiness standards are enshrined in Annex IX of the EASA Basic Regulation, with the Commission empowered to amend these requirements in accordance with Article 128. As of 1 August 2022, such detailed airworthiness rules tailored to drones have not been adopted by the Commission,⁴³ and therefore Annex IX is applicable.⁴⁴ These standards include:

- the safety design of the UA, which must be engineered in a way that its functioning is safe for the UA's operator and for third parties, including property;

⁴⁰ See www.kozlekedesihatosag.kormany.hu/hu/dokumentum/202887.

⁴¹ See www.kozlekedesihatosag.kormany.hu/hu/dokumentum/202855.

⁴² Act II of 2012 on infractions, infraction procedure and the infraction records system aircraft [2012. évi II. törvény a szabálysértésekről, a szabálysértési eljárásról és a szabálysértési nyilvántartási rendszerről].

⁴³ According to Article 128(2) of the EASA Basic Regulation, the Commission may adopt such acts until 11 September 2023. This time period may be extended unless the European Parliament or the Council opposes such extension.

⁴⁴ EASA Basic Regulation, Article 55.

- safe manoeuvrability and controllability under all anticipated conditions, including the failure of one or more systems;
- intended functionality under any foreseeable operation condition, with respect to the UAS and its parts;
- mitigated probability of failure and mitigated effect on people in the event of a failure; and
- control equipment which is capable of providing situational awareness and management of any expected situation and emergencies.

The Hungarian regulation on the standards of airworthiness applies to UA above the MTOM of 25 kilogrammes.⁴⁵ The assessment of airworthiness is regulated by the aviation authority.⁴⁶ UAS operators must obtain an airworthiness certificate and an airworthiness review certificate to operate the drone, or alternatively, they must seek an individual flight permit.⁴⁷ The Minister of National Development adopted a decree in 2015⁴⁸ which prescribes the exact content of such certificates and permits.

2.3 Operational Authorisations for Specific Drone Categories

The key division for civil drone categories in Hungary lies in whether the drone can be considered a toy or not. The (cumulative) requirements of an ‘unmanned toy aircraft’ are met, if:

- the drone can be considered as a toy under Directive 2009/48/EC of the European Parliament and of the Council of 18 June 2009 on the safety of toys;
- the drone’s maximum take-off mass (‘MTOM’) remains below 0.12 kilogrammes;
- the drone is not equipped with a device capable of recording data in any form; and
- the drone cannot fly more than 100 metres away from the remote pilot.⁴⁹

⁴⁵ Aviation Act, Section 48(1); *Hegyes*: ‘A pilóta nélküli légijárművek’, 74.

⁴⁶ Aviation Act, Section 48(1).

⁴⁷ Aviation Act, Section 48(1)(a)–(b).

⁴⁸ MND Decree 21/2015 (4 May) on the manufacture, construction and technical sustainability of aircraft [21/2015. (V. 4.) NFM rendelet a légijárművek gyártásáról, építéséről és műszaki alkalmasságáról], Sections 22–26, 101–102.

⁴⁹ Aviation Act, Section 71 Point 50.

Every drone which does not meet at least one of these requirements is a ‘general’ UA/UAS in Hungary; there are no further subdivisions or categories regarding operational authorisation.

General UAS are subject to requirements under the Aviation Act and other laws:

- Regardless of MTOM, the UAS must be registered by the aviation authority.⁵⁰ Registration is a prerequisite for using Hungarian airspace.⁵¹ The same registration obligations apply to drone operators. If the UAS is leased, the owner’s consent is needed for registration.⁵²
- Remote pilots must use a mobile application called MyDroneSpace⁵³ before and during the operation in order to monitor the availability of the airspace and to check whether the designated airspace is not prohibited for UAS operations.⁵⁴
- Before specific UAS operations, the remote pilots must submit a request for *ad hoc* airspace.⁵⁵ Remote pilots must always request *ad hoc* airspace if the UAS operation would be carried out above inhabited areas.⁵⁶ These requests are issued by the military aviation authority (currently the State Aviation Department in the Ministry of Defence).⁵⁷

⁵⁰ Aviation Act, Section 17(1). In accordance with Section 9(1) of the Government Decree 382/2016 (2 December) on the designation of bodies performing official tasks in the field of transport administration [382/2016. (XII. 2.) Korm. rendelet a közlekedési igazgatási feladatokkal összefüggő hatósági feladatokat ellátó szervek kijelöléséről], the powers of the aviation authority are vested in the minister responsible for transportation. These powers are currently delegated to the Unmanned Aircraft Division of the Aviation Supervisory Authority Department in the Ministry of Technology and Industry. This authority can be considered as one of the ‘national competent authorities’, pursuant to Article 3(34) of the EASA Basic Regulation.

⁵¹ Aviation Act, Section 17(2).

⁵² Aviation Act, Section 17(3).

⁵³ The application is hosted by HungaroControl Hungarian Aviation Service Ltd., a company with the Hungarian state as its founder and sole shareholder. See Aviation Act, Section 61/A(2)(c).

⁵⁴ Airspace Decree, Section 4/C(1).

⁵⁵ Airspace Decree, Section 1(3a)(d).

⁵⁶ Aviation Act, Section 5(3).

⁵⁷ Government Decree 392/2016 (5 December) on the designation of the military aviation authority, Section 3(a) [392/2016. (XII. 5.) Korm. rendelet a katonai légügyi hatóság kijelöléséről]. Similarly to the aviation authority, the military authority can be considered as a ‘national competent authority’.

The legal provisions in Hungarian legislation are supplemented by Commission Implementing Regulation 2019/947, which classifies UAS operations in ‘open’, ‘specific’ and ‘certified’ categories.⁵⁸ This distinction is not reflected in Hungarian legislation, except for the fact that the EU categorisation may be considered the ‘general rule of operations’ – meaning that *ad hoc* airspace need not be designated if the operation can be conducted in accordance with the provisions outlined in the Regulation.⁵⁹

2.4 General Traffic Control Laws and Regulations Applicable to Drones

UAS in Hungary must abide by general air traffic control laws, with a few exceptions and a few additional rules. A notable exception is that in terms of taking off and landing, drones are exempt from the general rule that aircraft must use airports or landing sites for the beginning and the ending of the flight.⁶⁰

Drones may only occupy Hungarian airspace if the MyDroneApp is used by the remote pilot.⁶¹ Unauthorised flights⁶² may be interrupted and the drone can be intercepted or even forced to land, if it:

- threatens the safety of air traffic, certain protected facilities or the sanctity of private life;
- is being used for an unlawful activity;
- is reasonably presumed of being used for the transportation of illegal substances or weapons;
- unlawfully occupies Hungarian airspace.⁶³

A comprehensive list enshrined in Section 4/A of the Airspace Decree delineates the airspace for drones and lists the types of airspaces where UAS operations are forbidden (e.g. prohibited airspace – with a few exceptions,⁶⁴ dangerous airspaces, temporarily reserved airspace, the so-called ‘No Drone Zones’, and near-certain essential and dangerous facilities, military and

⁵⁸ Commission Implementing Regulation 2019/947, Articles 3–6; Annex, Parts A–B.

⁵⁹ Airspace Decree, Section 1(3a)(d)(da).

⁶⁰ Implementing Decree of the Aviation Act, Section 22(2)(f).

⁶¹ Aviation Act, Section 6(6).

⁶² Airspace Decree, Section 9/A(1).

⁶³ Airspace Decree, Section 9/A(2).

⁶⁴ UA may occupy prohibited airspace on exceptional grounds for emergency response, the maintenance of public order and public safety, national defence reasons or research purposes. See Joint MET-MD-MEW Decree, Section 8(2).

law enforcement objects, diplomatic offices and the Hungarian Parliament Building).

Hungarian aviation laws do not provide for private entities to regulate flights and access to airspace. Correspondingly, private companies and other legal persons can rely on the general rules of protecting property and possession, in accordance with the provisions of the Civil Code.⁶⁵

3. CIVIL LIABILITY

Drones can easily cause damages to third parties during their flight operations. The main reasons for these accidents are manufacturing defects or the loss of control.⁶⁶

3.1 Civil Liability for Manufacturing Defects

If someone suffers an accident caused by a manufacturing defect of a drone the product liability regime shall apply in Hungary. The rules are based on the Product Liability Directive and implemented by Sections 6:551–559 of the Civil Code. According to these rules the producer and the importer – or the supplier – shall be liable for the damages caused by manufacturing defects. The list of liability exemptions cases are very limited,⁶⁷ but the producer is liable only for damages caused by death or by personal injuries and damages

⁶⁵ See Sections 5:5–5:7 of Act V of 2013 on the Civil Code [2013. évi V. törvény a Polgári Törvénykönyvről] for the protection of possession and Section 5:36(1) for the protection of property/ownership.

⁶⁶ *Miskolczi Bodnár, Péter*: ‘A pilóta nélküli légi jármű-rendszerek biztonságos használatának jogi kérdései’ [‘Legal Issues of the Safe Usage of Unmanned Aircraft Systems’] in: *Homicskó, Árpád Olivér* (ed.): *Modern technológiák a jog egyes részterületein* [Modern Technologies in Certain Areas of the Law], KRE Állam- és Jogtudományi Kar, Budapest (2021), 217–254. 222.

⁶⁷ According to Section 6:555 of the Civil Code the ‘producer shall be exempted from liability if he proves that

- a) he has not placed the product on the market;
- b) the product was not produced for businesslike distribution, or was not produced or distributed in the course of businesslike economic activity;
- c) the product was free of defects at the time of placing it on the market by the producer, and the cause that led to the defect has occurred later;
- d) in accordance with the state of the scientific and technical knowledge, the defect was not recognisable at the time the product was placed on the market by the producer; or
- e) the defect of the product was due to compliance with law or a mandatory provision of an authority.’

to any item of property with a lower threshold of EUR 500 if it was used by the injured person mainly for his own private use or consumption.

3.1.1 Civil liability for loss of control

The case is not that obvious if someone suffers an accident caused by loss of control. In such cases the question arises as to whether strict liability shall apply, under the rules governing ‘hazardous activities or operations’ – the relevant rules of which in Hungarian law are based on the German concept of the so-called ‘*Betriebsgefahr*’. Section 6:535 of the Civil Code prescribes that a ‘person carrying out hazardous activities shall compensate for the resulting damage. He shall be exempted from liability if he proves that the damage was caused by an unavertable event outside the scope of the hazardous activity.’ This means that it is much more difficult for the operator of a hazardous activity to exonerate himself than for a tortfeasor. In such a case, the general rule of tort law would apply, which prescribes under Section 6:519 of the Civil Code that a ‘person causing unlawfully damage to another shall compensate for the damage caused. The person causing damage shall be exempted from liability if he proves that he was not at fault.’ Fault means that the person did not proceed with the care that is generally expected under the given circumstances (see Section 1:4 of the Civil Code).

However, the Civil Code does not contain a list of hazardous activities, as the text only mentions two activities as hazardous operations, namely, that of endangering the environment and the keeping of dangerous animals. Hence the question whether an activity as a hazardous operation shall be determined on a case-by-case basis by the judiciary. According to commentators and case law an activity is considered to be hazardous if a minor malfunction or omission could lead to a serious situation, even endangering several persons or a significant amount of property, because the consequences are amplified by mechanical or natural processes.⁶⁸ In order to determine whether an activity can be classified as a hazardous operation ‘the objects, equipment and resources of the activity, as well as the entire process of the activity, must always be examined and analysed in order to determine the impact of any abnormalities that may occur on the environment and on the people nearby’ (see the decision of the Curia, the Supreme Court of Hungary published as BH 2013. 93.).

The main categories of hazardous activities have been developed by the case law. These include in particular activities which involve:

⁶⁸ Fuglinszky, Ádám: *Kártérítési jog [Tort Law]*, HVG-ORAC, Budapest (2015), 351.

- larger vehicles with petrol or electric engines (passenger cars, railways, aircraft, motor vessels, etc.);
- machines with petrol or electric engines (e.g. escalators, chainsaws, etc.);
- power plants and transmission lines;
- explosive or radioactive materials;
- firearms;
- toxic substances, chemicals (excluding household, i.e. small quantities);
- construction, mining, certain manual working activities (e.g. woodcutting).

The range of hazardous activities is not closed and may change over time. The Curia concluded in a case that ‘the scope of the concept of hazardous activity is expanding as technology develops, and it is therefore for the court to decide on an individual basis whether the activity under consideration in a particular case involves an increased risk and shall be classified as a hazardous activity’ (the decision was published as BH2002. 306.).

The case law also shows which activities, while presenting different dangers, do not qualify as hazardous activity. Operation of bicycles or scooters are not considered hazardous activities, but the operation of a quad with a petrol engine for children qualifies as a hazardous activity (see the decision of the Curia published as BH2017. 406.).

The available databases do not contain any published judgments about the question of whether drone operations shall be classified as a hazardous activity. However, the Pécs Regional Court of Appeal had to decide in 2009 about the liability of the operator of a radio-controlled airplane model, which caused the death of two people. The court concluded that the operation of a radio-controlled airplane model was a hazardous activity (the decision was published as BDT 2010. 2236.), but the court did not give any explanations as to the reasons why the operation of a radio-controlled airplane model should be classified as hazardous activity.

Unfortunately, the exact parameters of this radio-controlled airplane model are not known from the facts of the case. However, one may assume that the operation of this model – and the risks of its operation – are similar to the operation of a typical drone. Scholarly commentary considers the operation of drones to be a hazardous activity based on this decision.⁶⁹ However, in our view, there is no clearcut answer to this question. It is also possible that one court may deem the operation of a certain drone as a hazardous activity in one

⁶⁹ Szikora, Veronika and Szilágyi, Gábor: ‘Drónok a horizonton, gyerekjáték vagy új veszélyes üzem’ [‘Drones on the horizon, toy or a new hazardous activity’] (2017) 3–4. *Debreceni Jogi Műhely* www.debrecenijogimuhely.hu/archivum/3_4_2017/dronok_a_horizonton_gyerekjatek_vagy_uj_veszelyes_uzem/.

case, whereas another court may find the opposite in another case, given that the risks of operating drones can be very different depending on the type of drones.

The courts shall consider several parameters in deciding this issue, such as the weight, the maximal speed or the range of the drone, etc. If the relevant administrative regulation were uniform – that is to say, if the conditions were the same for the registration of the drones, the prior authorisation of the operation and the compulsory liability insurance, etc. – it would help predict whether the operation of a certain drone shall be classified as a hazardous activity. If the drone should be registered and its operation would be subject to compulsory liability insurance and prior authorisation, it should be deemed as a hazardous activity. In case it is not, it would fall outside the concept of hazardous activity.

However, the relevant administrative regulations are not uniform, because the legislator took different factors into account in determining whether a drone shall be registered or whether its operation shall be subject to compulsory liability insurance and prior authorisation. In cases where all public administrative rules apply to the operation of the drone (it shall be registered, its operation is subject to compulsory liability insurance, etc.), the courts will probably conclude that the operation of such a drone is a hazardous activity, because it shall be registered, and its operation is subject to compulsory liability insurance. This means that this activity is dangerous and that is the reason for the detailed administrative conditions of its lawful operation. However, if some of these criteria are not met (e.g. the drone must be registered and its operation authorised but it is not subject to compulsory liability insurance), it is questionable whether the court should consider the operation of such a drone as a hazardous activity.

We note that it is not at all a unique phenomenon that when a new vehicle enters the market and the traffic, it is uncertain whether its operation shall be considered to be a hazardous activity or not. The same uncertainty has surrounded the operation of electric bicycles and scooters. As long as there is no unified case law with regard to the specific status of drones, there is no clear answer to this question.

The following simple example shows the importance of the dilemma whether the operation of a drone qualifies as a hazardous activity, or not. If someone suffers an accident caused by a manufacturing defect of a drone, the operator will not be liable if the general rule of tort law applies, because in such a case, the operator can prove that they were not at fault (see Section 6:519 of the Civil Code). However, if the liability norms of hazardous activities apply, the operator shall be liable with the producer jointly and severally because the operator cannot prove that the damage was caused by an unverifiable event outside the scope of the hazardous activity (see Section 6:535 of the Civil Code). We note

that such a regulation is not at odds with the maximum harmonisation of the Product Liability Directive. Under the Directive, only the producer and the importer or the supplier cannot be sued under different liability rules than product liability, but it does not exclude the possibility that a third person (in our case the operator) can be sued under a different liability regime in connection with the harm caused by a manufacturing defect.

It is also possible that the registered operator and the actual operator of the drone are two different persons at the time of the accident. In that case, the registered operator shall be liable with the actual operator jointly and severally, but the actual operator shall be liable according to the general rule on tort liability (see above). It means that the actual operator can be exempted from liability more easily because the rules of hazardous activities would not apply. However, if the operation of the drone is not considered a hazardous activity, only the actual operator can be held liable according to the general rule on tort liability, and the registered operator must not be liable at all.

3.1.2 Civil liability and jurisdiction

Complaints arising from harm caused by autonomous drones are heard by civil courts. According to Section 20 of Civil Procedure Act⁷⁰ district courts shall have jurisdiction if the value of the subject matter of the action does not exceed 30 million HUF (approx. EUR 75,000) and regional courts shall have material jurisdiction if the value of the subject matter of the action exceeds 30 million HUF (approx. EUR 75,000) and over actions brought for the payment of grievance awards which arise if someone is hurt in an accident.

3.2 Liability Insurance

As a typical drone can easily harm third parties, most flight operations with drones require a compulsory liability insurance coverage against damages to third parties in Hungary. First, Regulation (EC) No 785/2004 of the European Parliament and of the Council of 21 April 2004 on insurance requirements for air carriers and aircraft operators applies in Hungary. According to Articles 2 and 7 of the Regulation the operations of drones shall be insured in respect of liability for third parties if the drones are used for commercial purposes (e.g. filming a wedding or thermal imaging of buildings). The minimum insurance cover per accident, for each and every drone with a Maximum Take-off Mass of less than 500 kilogrammes shall be 0,75 million SDRs (Special Drawing Right as defined by the International Monetary Fund). If the Maximum Take-off

⁷⁰ Act CXXX of 2016 on Civil Procedure [2016. évi CXXX. törvény a polgári perrendtartásról].

Mass of the drone is more than 500 kilogrammes, the amount of the minimum insurance cover is higher, but such drones are not typical. The Regulation does not contain any other important rules about insurance conditions, such as rules about deductibles, invalid exclusion terms (except for the risks of war and terrorism, which are not really relevant in case of drones), and it is not applicable if the drone is used for non-commercial purposes.

In such a case, i.e. if the drone is used for non-commercial purposes, Government Decree 39/2001 (III. 5.) on compulsory aviation liability insurance applies. According to Section 2/A – which was incorporated by Government Decree 39/2021 (II. 2.) amending certain government decrees in the field of aviation – the operation of drones with a Maximum Take-off Mass of less than 0.25 kilogrammes does not need to be insured in respect of liability for third parties. The minimum insurance cover for a drone with a Maximum Take-off Mass of more than 0.25 kilogrammes and not more than four kilogrammes shall be 3 million HUF (approx. EUR 7,500) per accident and 6 million HUF (approx. EUR 15,000) per insurance policy period and for a drone with a Maximum Take-off Mass of more than 4 kilogrammes and less than 20 kilogrammes shall be 5 million HUF (approx. EUR 12,500) per accident and 10 million HUF (approx. EUR 25,000) per insurance policy period. The Government Decree does not impose compulsory liability insurance cover for a drone with a Maximum Take-off Mass of more than 20 kilograms but it contains two detailed rules about the insurance conditions. First, according to Section 1 (7) damage also includes non-pecuniary damage and second, Section 5 (2) prescribes that the deductible may not exceed 5 per cent of the sum insured. However, the Government Decree does not contain any other important regulation about the insurance conditions.

It appears that neither EU law nor Hungarian law regulates the voluntary liability insurances of drone operations. It means that those operators who are not compelled by the law to conclude a liability insurance can also find policies on the market; however, the parties are free to agree on the terms of the insurance (e.g. the insurance cover per accident and insurance policy period).

Table 11.1 summarises the applicable rules.

3.3 Protection of Personality, Privacy, and Property

There are no other special private law rules on protection of personality, privacy or property in connection with drones, hence the general rules of the Civil Code apply for such cases. According to Section 2:43 of the Civil Code, violation of personality rights means in particular harm to life, physical integrity and health; violation of personal liberty and privacy, and trespass; violation of the right to keep personal secrets and the right to the protection of personal data; and violation of the right to the protection of one's image and

Table 11.1 Drone MTOM regulations and insurance requirements

MTOM ('m')	Applicable Law	Insurance Cover
$m < 0,25$ kilograms	Commission Implementing Regulation 2019/947 ^a	insurance is not needed
$0,25 \text{ kilograms} \leq m \leq 4$ kilograms	Liability Insurance Decree	HUF 3 million per accident HUF 6 million per insurance period
$4 \text{ kilograms} < m < 20$ kilograms	Liability Insurance Decree	HUF 5 million per accident HUF 10 million per insurance period
$20 \text{ kilograms} \leq m$	Regulation 785/2004	as specified by MTOM in Regulation 785/2004, Article 7(1)

Note: ^a According to Commission Implementing Regulation 2019/947, UA below 250 grams pose little to no risk to the safety and security of individuals and assets and these UA usually fall into the lowest class. See Commission Implementing Regulation 2019/947, Preamble (15); Commission Delegated Regulation 2019/945, Annex, Part 1 (I).

recorded voice. This list comprises only those rights that can be violated by the operation of drones.

Section 2:51 prescribes the no-fault sanctions. According to it:

any person whose personality rights have been violated may claim, based on the fact of violation, within the limitation period and according to the circumstances of the case:

- the establishment of the violation by the court;
- that the violation be ceased and the person committing the violation be forbidden from continuing the violation;
- that the person committing the violation give appropriate satisfaction, and provide for its publicity at his own expenses;
- the ending of the injurious situation, the restoration to the situation existing prior to the violation, and the destruction of things produced through the violation or the depriving such things of their unlawful character;
- that the person committing the violation or his legal successor relinquish the material gain obtained by the violation according to the rules on unjustified enrichment. Section 2:52 prescribes that beside the no-fault sanctions 'any person whose personality rights have been violated may claim a grievance award for non-material harm done to him'.

We note that the general rules of the Civil Code on the protection of property (e.g. protection of possession, see Sections 5:5–8) could not apply in practice

to cases involving drones. The reason is simple: these tools cannot be effective because of the length of the proceedings.

However, harms caused by drones can trigger criminal liability. According to Section 229 of the Infractions Act unauthorised activity with an unmanned aerial vehicle over a populated area constitutes an infringement. In case of an infringement, an on-site fine may be imposed not just by the police but also by an authorised officer of the disaster management authority. The Infractions Act contains other rules in connection with drone activities, which are applicable not only for drones, but also for other vehicles. These are the following: driving without a licence and letting someone drive without a licence (Section 176); driving under the influence of alcohol (Section 217); breach of aviation safety and security rules and interference with the operation of aviation safety facilities or equipment (Section 228).

If the consequences of an inappropriate activity committed with an unmanned aerial vehicle are more serious, the operator commits a crime. According to Section 233 of Act 100 of Criminal Code⁷¹ a person who endangers the life or physical integrity of one or more persons by violating the rules of air or waterway traffic is guilty of a felony. The punishment is more severe if the criminal offence causes grievous bodily harm, permanent disability, serious degradation of health, death or a fatal mass catastrophe. If someone drives a drone under the influence of alcohol or drugs or lets someone else drive under such influence, they commit a crime too (see Sections 236–238). These rules of the Criminal Code are applicable not only for drones, but also for other vehicles.

Furthermore, we should mention those infringement and criminal rules which govern the protection of personal data and privacy during drones' flight operations. Section 166 (1a) of the Infractions Act prescribes that making an unauthorised recording of sound or images from the home of another person or any other related premises or a fenced area thereof by an unauthorised use of an unmanned aircraft constitutes an infringement. If the aim of the recording serves surveillance purposes of events taking place in the home of another person or any other related premises or a fenced area there of the unauthorised use of an unmanned aircraft the illegal activity is a crime. The corresponding punishment is more severe if the sound or image recorded during the surveillance becomes available to the general public (see Section 422/A of the Criminal Code).

⁷¹ Act C of 2012 on the Criminal Code [2012. évi C. törvény a Büntető Törvénykönyvről].

4. THE FUTURE OF UNMANNED AIRCRAFT SYSTEMS REGULATION

Contemporary Hungarian drone regulation has been in effect for a year, meaning that it may be too early to draw any definitive conclusions on the effectiveness and enforceability of such laws. In connection to civil law claims, Zsurzsa identified three possible areas, where drone regulation could be relevant in the future: liability for damages caused by drones, the protection of personality rights and the protection of possession and property.⁷² Klein and Tóth supplement this with data protection concerns.⁷³

The future of criminal acts perpetrated by drones is uncertain: the Infractions Act was amended to include a new infraction, which penalises an individual using a UA above inhabited areas without proper authorisation.⁷⁴ The infraction of trespass was also changed and now trespass can be perpetrated with a drone by making an audio or image recording of the home or other premises of another person, or any related enclosed area without authorisation.⁷⁵ Sanctions for these penalised activities mainly involve pecuniary fines, but an official database collecting information on the frequency and severity of penalties is not available.

A new criminal offence was also introduced in 2020, which generated even more pervasive uncertainties. Section 422/A of the Criminal Code establishes that the surveillance of the home or any other premises of another person and recording the events there by employing a drone is a misdemeanour and the perpetrator shall be punished by confinement unless another criminal offence is established. Ambrus predicts that due to the subsidiarity clause within the text of the Criminal Code – that being, the criminal offence committed with the use of a drone is only established if another criminal offence is not established⁷⁶ – there is significant chance that the provision is purely symbolic and will never be applied by the judiciary.⁷⁷ As of 1 August 2022, no judicial practice can be shown with regard to drone regulation in Hungary.

⁷² Zsurzsa: 'Magánjogi igények', 97–100.

⁷³ Klein, Tamás and Tóth, András: *Technológiai jog – Robotjog – Cyberjog* [Technology Law – Robot Law – Cyber Law], Wolters Kluwer, Budapest (2018). It should be noted that violating the right to the protection of personal data is included in the protection of personality rights. See Section 2:43(e) of the Civil Code.

⁷⁴ Infractions Act, Section 229.

⁷⁵ Infractions Act, Section 166(1a).

⁷⁶ Criminal Code, Section 422/A(1).

⁷⁷ Ambrus: Digitalizáció és büntetőjog, electronic copy.

The legislation on UA in Hungarian law has just begun and it will probably take a couple of years to see how it plays out in practice. The new criminal offence is highly unlikely to be established due to its formulation, whereas some infractions may appear in connection with civil law claims involving trespass and other violations of personality rights. Drones may impact civil claims involving liability for damage caused and personality rights in the long run; however, at the moment, these legal areas are governed by their own general rules and drones are just a new technology, capable of creating new legal issues and legal relationships.

Hungarian UA legislation did not take full advantage of the available delegated powers: for example, the minimum age for remote pilots is universally at 16, even though EU regulations would allow this age requirement to be lowered depending on the category of the UAS.⁷⁸ The same can be said for differentiating the availability of airspace depending on UAS categories or allowing model aircraft clubs and associations to use a special register.⁷⁹ As it was demonstrated above, many limbs of UAS regulations follow the EU's route without forming additional ones. In summary, Hungary adopted the rules necessary to comply with EU regulation but remained passive in many areas otherwise open to Member State lawmakers. Therefore, it can be assumed that the political interest in drone regulation is rather limited at the moment. Currently, there is no available information regarding the discussion of further drone regulations in Hungary.

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⁷⁸ Commission Implementing Regulation 2019/947, Article 9(3).

⁷⁹ *Miskolczi Bodnár*: 'A pilóta nélküli légi jármű-rendszerek', 250–251.