

## ROADMAP

Roadmaps aim to inform citizens and stakeholders about the Commission's work to allow them to provide feedback and to participate effectively in future consultation activities. Citizens and stakeholders are in particular invited to provide views on the Commission's understanding of the problem and possible solutions and to share any relevant information that they may have.

<b>TITLE OF THE INITIATIVE</b>	Detailed rules on unmanned aircrafts (drones)
<b>LEAD DG – RESPONSIBLE UNIT</b>	DG MOVE.E.4
<b>LIKELY TYPE OF INITIATIVE</b>	Commission implementing act on operation and registration of Unmanned Aerial Systems (UAS) and Commission delegated act on making unmanned aircraft intended for use in the 'open' category available on the market and on third-country UAS operators (linked to the adoption of a proposal for a Regulation on common rules in the field of civil aviation and establishing the European Aviation Safety Agency (2015/0277(COD))
<b>INDICATIVE PLANNING</b>	Q4 2018
<b>ADDITIONAL INFORMATION</b>	<a href="https://www.easa.europa.eu/sites/default/files/dfu/Opinion%20No%2001-2018.pdf">https://www.easa.europa.eu/sites/default/files/dfu/Opinion%20No%2001-2018.pdf</a>

**This Roadmap is provided for information purposes only. It does not prejudice the final decision of the Commission on whether this initiative will be pursued or on its final content. All elements of the initiative described by the Roadmap, including its timing, are subject to change.**

### A. Context, problem definition and subsidiarity check

#### Context

In its Communication “an Aviation Strategy for Europe” (COM(2015) 598 final of 7.12.2015), the Commission proposed to act in two steps to regulate drones in the EU. First, to review the Regulation 216/2008 providing common rules in field of civil aviation<sup>1</sup> (COM(2015) 613 final of 7.12.2015) and then to prepare a set on detailed technical rules allowing effective drone operations and the development of industry standards.

Following the proposal for a revision of the European Aviation Safety Agency (EASA)<sup>2</sup> basic Regulation of 2015 and the political compromise reached at the end of 2017 by the co-legislators, the adoption process of the new EASA basic Regulation should be completed in the coming months. The new Regulation will provide for a number of essential requirements for all unmanned aircraft systems, also named as "drones". The purpose of this initiative hence is to turn the newly introduced principles and processes in the basic Regulation into operational requirements and practical procedures on the basis of the final opinion received from EASA on 6 February 2018 which followed the Notice of Proposed Amendment<sup>3</sup> for a new regulation on drones prepared by EASA<sup>4</sup> and which has been supported by an impact assessment<sup>5</sup> and stakeholder consultations.

#### Problem the initiative aims to tackle

The drone market is expected to boom over the next years as the drone technology is developing rapidly<sup>6</sup>. Drones and drone operations are expected to outnumber, potentially quite significantly, the number of aircraft currently in use. There is a great variety of drones with different applications, weight and size in a fast-evolving market. It involves a variety of actors, some of whom are completely new to the aviation sector, and taking all these factors together, it implies different level of risks.

In addition to risks posed to the safe operation of aircraft, further significant risks and challenges arising from the

<sup>1</sup> <http://eur-lex.europa.eu/legal-content/EN/HIS/?uri=CELEX%3A52015PC0613>

<sup>2</sup> Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

<sup>3</sup> EASA is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the ‘Rulemaking Procedure’.

<sup>4</sup> Even if the amending Regulation was still under discussion, it was agreed that EASA would issue an NPA proposing a new implementing regulation on drones in order to be able to issue the related opinion as soon as the new Basic Regulation was adopted.

<sup>5</sup> <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52015SC0263>

<sup>6</sup> <https://www.easa.europa.eu/system/files/dfu/NPA%202017-05%20%28B%29.pdf> (p.32)

use of drones need to be addressed, notably in the fields of security, privacy and data protection, as well as the environment. Addressing those issues will be critical to ensure public acceptance of drones as an increasingly common part of daily life.

As the pressure for launching drone operations is growing in the Member States, there is a risk of a fragmented regulatory system hampering the development of a single EU market for drones manufacturing and cross-border drone operations.

Several stakeholders are potentially affected by the development of drone operations: the general public (which may be impacted by risks related to drone operations and which may also benefit from services provided by drone operators), drone manufacturers and operators (including many SMEs and start-ups), a wide range of regulatory bodies (e.g.: civil aviation, ATM, data protection, privacy or security authorities), businesses which include the use of drones in their business model and traditional airspace users.

Without such a common regulatory framework, the manufacturing and deployment of drone operations would be hampered as existing aviation rules do not properly address the specificities of drones and drone operations.

Failing to act could generate risks of accidents/incidents involving persons on the ground, manned aircraft or sensitive areas, violation of privacy, data protection and security issues. It would also lead to barriers to the market, burden for industry and locked potential for innovation and development.

### **Basis for EU intervention**

The legal bases of this initiative will be Articles 57, 58 and 61 of the Regulation on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and repealing Regulation EC/216/2008 (hereinafter 'new EASA basic Regulation'), which publication and entry into force is pending.

The new EASA basic Regulation will empower the Commission to adopt detailed rules through a delegated act setting out technical requirements on drones and for making drones available in the market (CE marking) and will empower the Commission to adopt detailed rules laying down rules and procedures for the operation of drones through an implementing act.

The EU approach on drones is predicated on the types of operations envisaged by drone operators and the measures to be taken to mitigate the risk of operations. It will help to harmonize the varying national regulations in the 'open', 'specific' and 'certified' categories described below:

- For the Open category which is considered as presenting low risk, it would not require an authorisation by the authority prior to the operation, nor a declaration by the drone operator. Drones falling under the "open" category would be, with a weight of less than 25 kg, flying below 120-m height in VLOS (Visual Line Of Sight) conditions and outside reserved areas, such as airports. The distance at which the drone will be allowed to fly above, close or far from uninvolved people will be determined by the size of the drone. Drones to be operated in the open category should fulfil common technical requirements, product definition and CE Marking processes, including the need for geo-fencing and electronic identification functions for certain sub-categories of drones.
- For the Specific category, the risk is considered as medium. It covers BVLOS (Beyond Visual Line of Sight) operations and will require an operational risk assessment as well as an examination of mitigation measures by the authority before releasing an authorisation prior to the operation. In certain pre-defined standard scenarios, a declaration by the drone operator will be sufficient. In order to obtain the Authorisation, the Operator shall give evidence of risk mitigation factors that have been put in place to mitigate the risk of the specific operation.
- For the Certified category of drones, which present a higher risk, they do require the certification of the drone, a license for the remote pilot and an operational approval for the drone operator to be released by the competent authority.

Adopting a common regulatory framework in that context will avoid the deepening of differences between rules and ensure that for the same application, at least the same level of protection applies as in manned aviation. At the same time, the subsidiarity principle would be fully respected, when it comes to specific privacy laws, or designing no-fly areas. In addition, as it is the case for civil aviation in general, Member States remain responsible for most oversight tasks and they thus manage overall the direct relationship with manufacturers and operators. Specific studies on insurance and on privacy concluded that the existing European and national regulatory frameworks are to a certain extent adequate to address the privacy, data protection and ethical impacts as well as the liability and insurance aspects of drones, while more should be done notably for the effective enforcement of the existing rules.

### **B. What does the initiative aim to achieve and how**

The general policy objective is to enable the development of drones and drone services in a safe, secure and sustainable manner and in full respect of citizens' fundamental rights. The more specific objectives of these initiatives consist of adopting delegated and implementing acts in line with the regulatory framework laid down in the new basic aviation safety Regulation replacing Regulation 216/2008.

The objectives of the delegated act are to ensure a high and uniform level of safety and fulfil common technical requirements, product definition and CE Marking processes (for mass-produced drones operated in the open

category) and to contribute to enhancing privacy, data protection, and security by providing requirements such as registration, geofencing and electronic identification. Finally, the delegated act will also allow third country operators' operation within the Single European Sky airspace under local applicable rules.

The new implementing act should introduce a regulatory framework for all drones and drone operations that is risk-based and proportionate and taking into account the principles of proportionality, set out the measures to mitigate the risk of drones operations taking in particular due account of the following elements:

- (a) Whether the operation can be performed by the general public;
- (b) The extent to which other air traffic, or persons and property on the ground could be endangered by the operation;
- (c) The type of airspace used and the territory overflowed;
- (d) The complexity and performance of the drones involved; and
- (e) The type, scale, and complexity of the operation or activity, including, where relevant, the size and type of the traffic handled by the responsible organisation or person.

Consequently, the new Implementing act will establish two categories:

- (a) The open category through a combination of limitations, operational rules, requirements for the competence of the remote pilot, as well as technical requirements for the drones; and
- (b) The specific category through a system including a risk assessment conducted by the operator before starting an operation, or the operator complying with a standard scenario, or the operator holding a certificate with privileges.

These measures will furthermore provide flexibility to Member States mainly by allowing them to create zones on their territory where the use of drones would be prohibited, limited or on the contrary facilitated.

## C. Better regulation

### Consultation of citizens and stakeholders

Prior to the Notice of Proposed Amendment mentioned above, EASA realised an impact assessment<sup>7</sup> (IA) providing a quantitative and qualitative analysis, based on which the most beneficial rulemaking option were selected, as well as an understanding of the various impacts of all analysed options. Comments received for the impact assessment were reflected in the final opinion published by EASA on 6 February 2018<sup>8</sup>. The Commission's objective for the new consultation linked to this initiative is to ensure that across a series of consultation activities all relevant stakeholders will have been given an opportunity to express their views on all elements relevant to the Commission's proposals for a regulatory framework on drones.

The aim of the consultation is twofold:

- (a) To provide the wide public and stakeholders an opportunity to express their views on the approach adopted in the new regulation
- (b) To gather specialised input (data and factual information, expert views) from stakeholders on their views and positions regarding the potential impacts of the various measures proposed in the new regulation.

The main stakeholders are the operators (private, public and commercial); competent authorities (Civil Aviation Authorities, Security, etc.); Member States; region and local communities; European social partners in the civil aviation sector; flight crews; remote pilots, training centres; maintenance staff; drone manufacturers; related industries such as telecommunication; other airspace users (private and commercial air transport companies); standard organisations; service providers of air traffic management/air navigation services and other air traffic management network functions; air traffic services (ATS) personnel; aerodromes; insurance companies; model aircraft associations, general public.

A balanced and comprehensive coverage of stakeholders will be achieved through a public consultation and targeted consultation.

The public consultation is expected to be launched in the first semester of 2018 in the form of an on-line questionnaire, available in 23 EU languages for at least 12 weeks on the Commission's central consultation portal [[https://ec.europa.eu/info/law/contribute-law-making\\_en](https://ec.europa.eu/info/law/contribute-law-making_en)]. The public consultation will target the general public and small drone users in particular, small and medium companies and associations directly involved in drone related activities.

Furthermore, a targeted consultation of professional stakeholders on the issues related to approach proposed for the new regulation will take place through the Commission expert group on drones<sup>9</sup>.

At the end of the consultation process, a synopsis report will be published, summarizing all the consultation activities performed and the outcome of the consultation. This report will be available in all EU languages.

### Evidence base and data collection

Since the European Aviation Safety Agency has prepared the draft new Implementing and delegated acts

<sup>7</sup> <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52015SC0263>

<sup>8</sup> <https://www.easa.europa.eu/sites/default/files/dfu/Opinion%20No%2001-2018.pdf>

<sup>9</sup> Published in the Register of Commission Expert Groups and Other Similar Entities, code number E03533

following an impact assessment-like process and as these draft acts do not substantially deviate from EASA's Notice of Proposed Amendment<sup>10</sup>, another impact assessment will not be prepared. EASA consulted stakeholders in several ways throughout the development of its final opinion. First, before issuing the Notice of Proposed Amendment, by sending a questionnaire to different stakeholders' groups: operators, manufacturers, authorities, training schools and model aircraft associations as well as the member of its Expert Group<sup>11</sup> and second, after the publication of the NPA itself, by receiving more than 3000 comments to the NPA. These were considered by EASA in consultation with an expert group at a meeting, which was held in November 2017. Moreover, the information contained in two complementary reports drafted by two EASA task forces respectively benefitted the work on the NPA:

- Study and Recommendations regarding Unmanned Aircraft System Geo-Limitations; and
- 'Drone Collision' Task Force.

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<sup>10</sup> <https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2017-05>

<sup>11</sup> The "expert group" included representatives of the EU MSs, the drone industry (both for large and small drones), of manned aviation and of model aircraft associations. The size of the expert group was small, but as there were many candidatures, individuals not retained as group members were included in a distribution list and kept informed of the activities of the group, with the possibility to comment during the drafting of this NPA.