EASA
European Union Aviation Safety Agency

The EU regulation on UAS – Open Category

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27 May 2021

Your safety is our mission.

An Agency of the European Union

Established
2002

19 years
in operation

800+
aviation experts
& administrators

Headquarters in
Cologne
Office in
Brussels

32 EASA member states
= 28 + 4
EU + Switzerland, Norway
Iceland, Liechtenstein

EASA
European Union Aviation Safety Agency

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Definitions

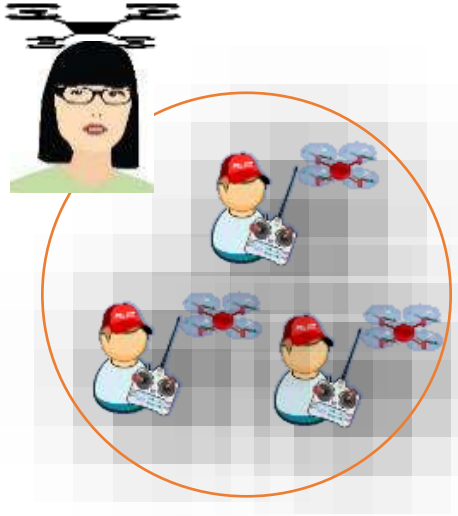
Relevant regulation: Article 2 of Reg (EU) 2019/947

UAS

Model aircraft = UAS

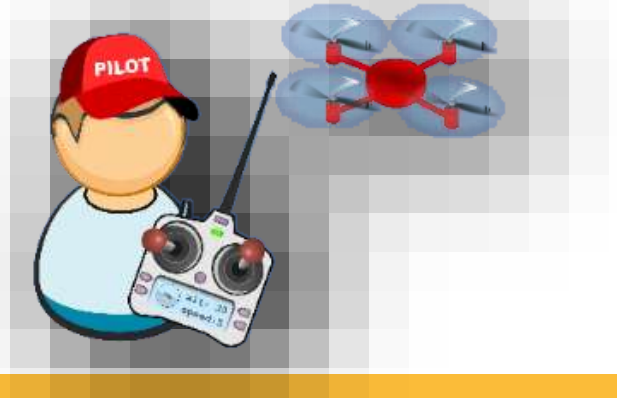
However special provisions apply

UAS Operator



Involved person

Remote pilot



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Legal Basis and scope of competences

Regulation (EU) 1139/2018 (new EASA Basic Regulation) extends **the EU competence** to **all UAS :**

→EASA carries out on behalf of Member States the functions and tasks of the state of designs for all UAS (type-certificate (TC); draft implementing rules: requirements; Oversight MS National Aviation Authorities NAAs))

→MS NAAs issue certificate of airworthiness for individual UAS in compliance with TC, and authorisations to operators, when required

→Only civil drones but ….. possibility to 'opt in' for aircraft carrying out services of state, military, firefighting, search and rescue, coast guard nature

The ‘DRONE’ Regulation

- → Commission Implementing Regulation (EU) **2019/947**
  - → Rules + Procedures for operation of UAS
  - → Registration
- → Commission Delegated Regulation (EU) **2019/945**
  - → Rules + technical requirements: design+ manufacturing, maintenance of UAS
  - → Rules for Third Country Operators
- → 3 categories of UAS operations: **Open**, Specific and Certified

- → **They directly replaced national regulations**

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Drones categories iaw regulation

Commission Delegated Regulation (EU) 2019/945

&

Commission Implementing Regulation (EU) 2019/947

NPA planned for Q1 2022

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Registration of UAS operator

UAS Operators shall register themselves when they operate:

- In the open category:
  - UAS with an MTOM > 250g
  - UAS (non toys) with an MTOM < 250g equipped with a sensor able to capture personal data
  - UAS which, in the case of an impact, can transfer to a human a kinetic energy greater than 80 Joules (e.g. a UAS with MTOM = 250 g and speed > 130 km/h)
- In the specific category: All operators

Member State of residence or main place of business

Relevant regulation: article 21 of EU regulation 2019/947.

Registration of UA

Not applicable to OPEN category

The UA shall be registered when a certificate of airworthiness is required

Tools for enforcement authorities (E-identification)

- Interoperable & real-time registration databases for:
  - UAS operators
  - certified unmanned aircraft

- Each drone will broadcast the following information:
  - UAS operator registration number and UA unique serial number
  - Remote pilot or UA take-off position
  - UA current position, height, timestamp
  - Direction and speed of the UA

- UA marked with UAS operator registration number

UAS operator registration number (example)

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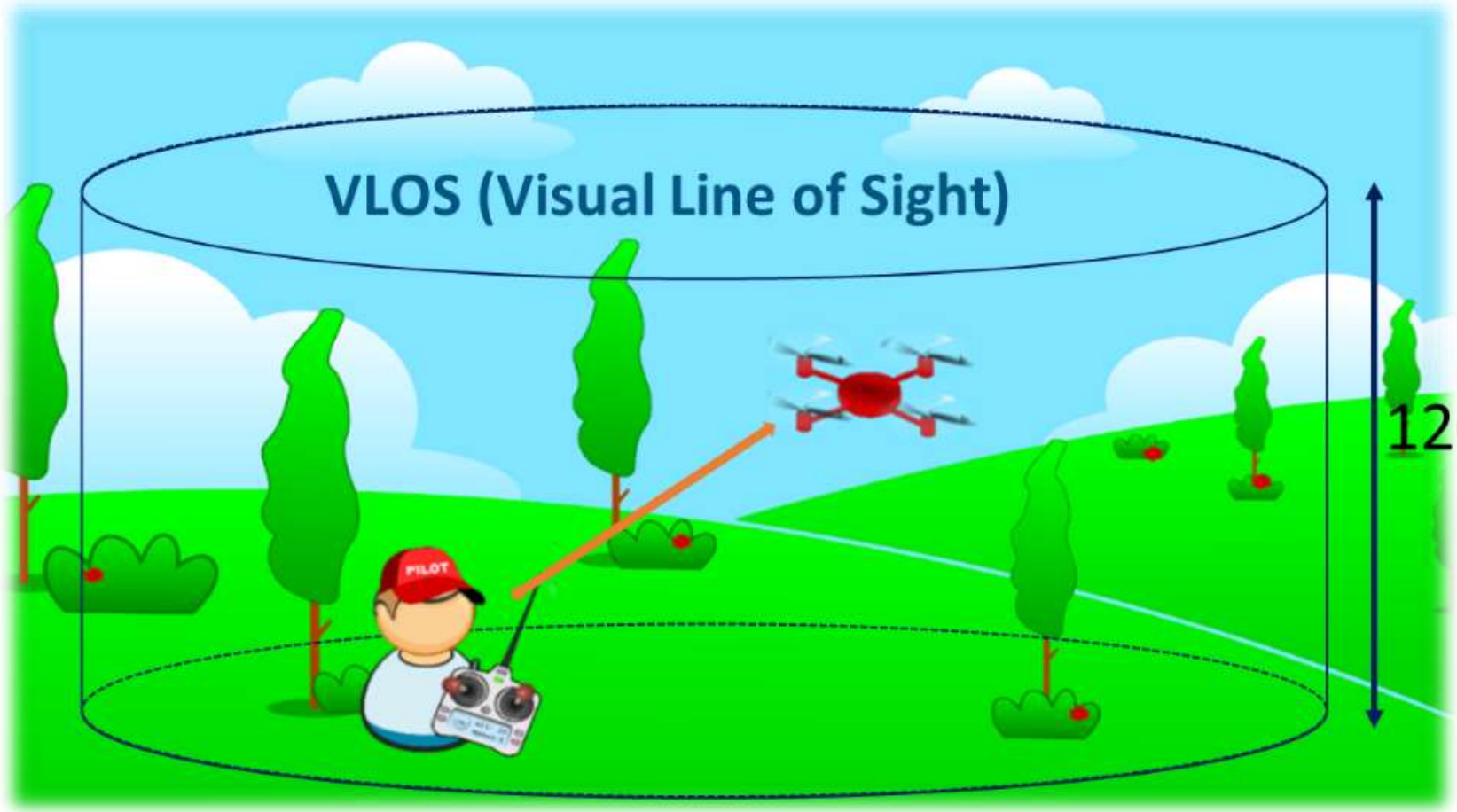
Open category – the main boundaries



- MTOM < 25 Kg
- Remote pilot minimum age 16, unless supervised (it may be reduced to 12, no minimum age for toys)
- No carriage of dangerous goods
- No dropping of material
- No autonomous operations

- A1 fly over people
- A2 fly close to people
- A3 fly far from people

Privately built with MTOM<250g

Privately built with MTOM<25kg

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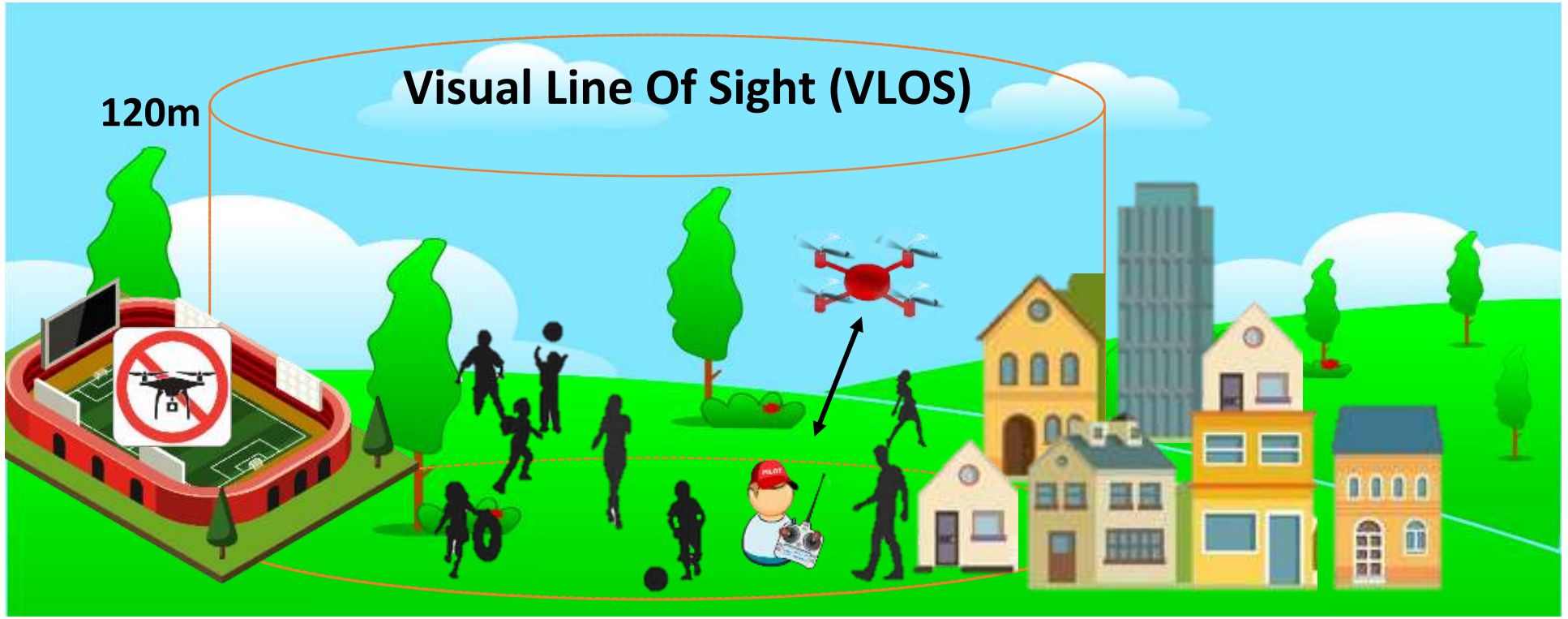
Open category - Subcategory A1



CE 0

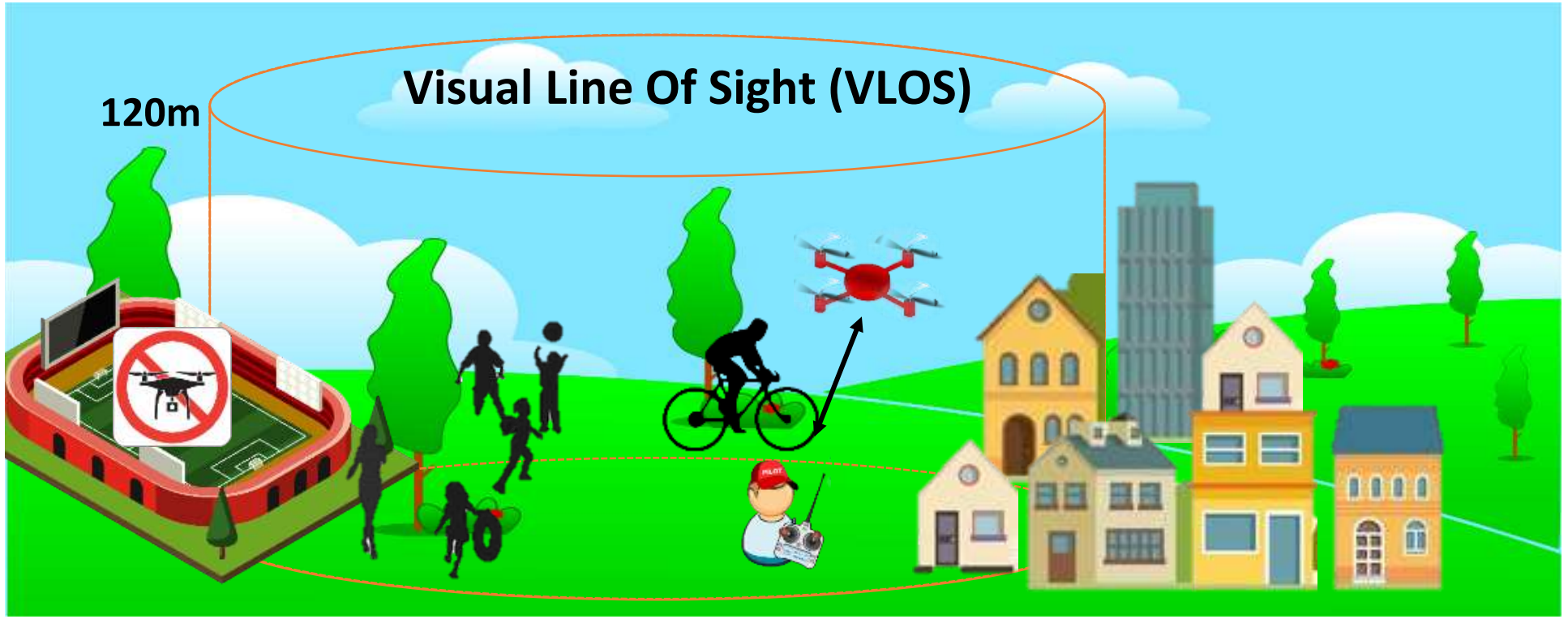
MTOM<250g

Privately built with MTOM<250g and maximum speed of 19 m/s

- **No fly over assembly of people**

Regulatory reference: UAS.OPEN.020 Annex Part A of EU Regulation 2019/947

Open category - Subcategory A1



CE 1
MTOM<900g

- **No fly over assembly of people**
- reasonably expect that no uninvolved person is overflown. In case of unexpected overfly over uninvolved persons, the remote pilot shall reduce as much as possible the time during which the unmanned aircraft overflies those persons

Regulatory reference: UAS.OPEN.020 Annex Part A of EU Regulation 2019/947

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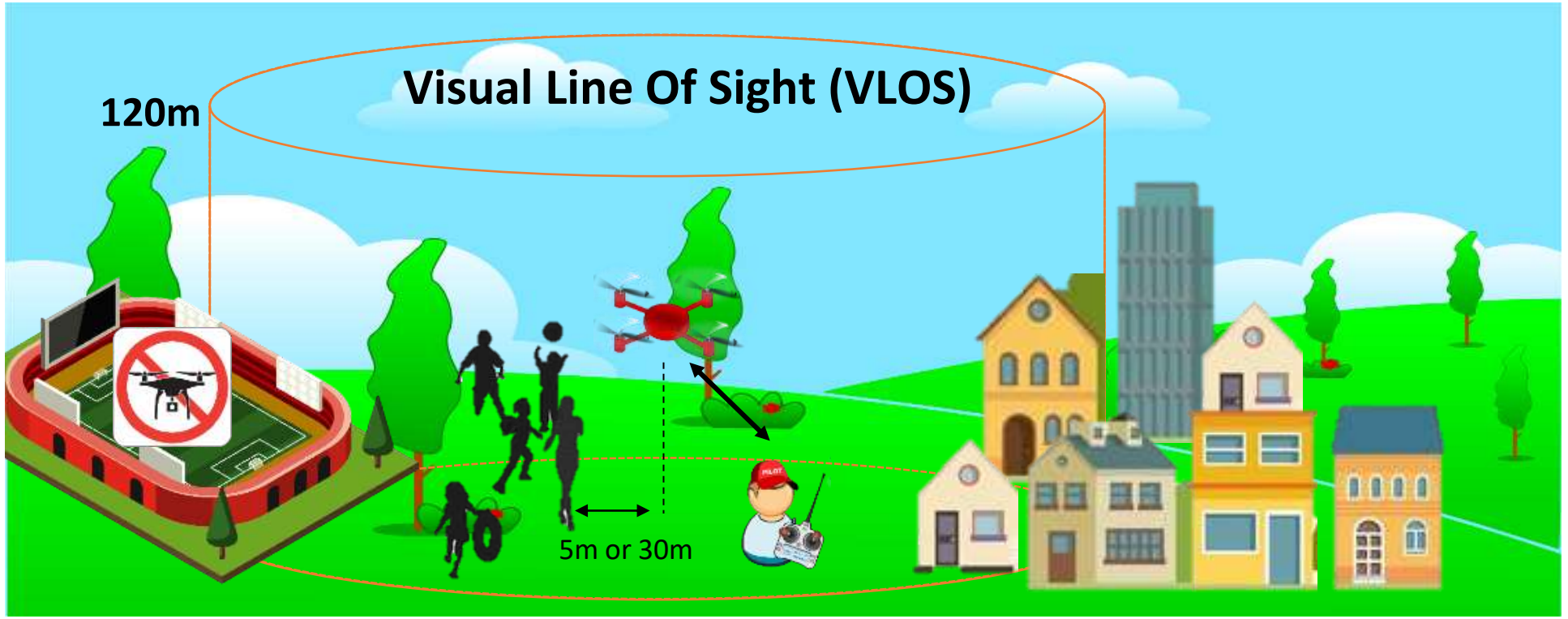
Open category - Subcategory A2



CE 2

MTOM<4kg

- **No fly over uninvolved people**
- UAS at a horizontal distance of at least:
  - **30 metres** from uninvolved persons, or
  - **5 metres** when low speed mode function is activated

Regulatory reference: UAS.OPEN.030 Annex Part A of EU Regulation 2019/947

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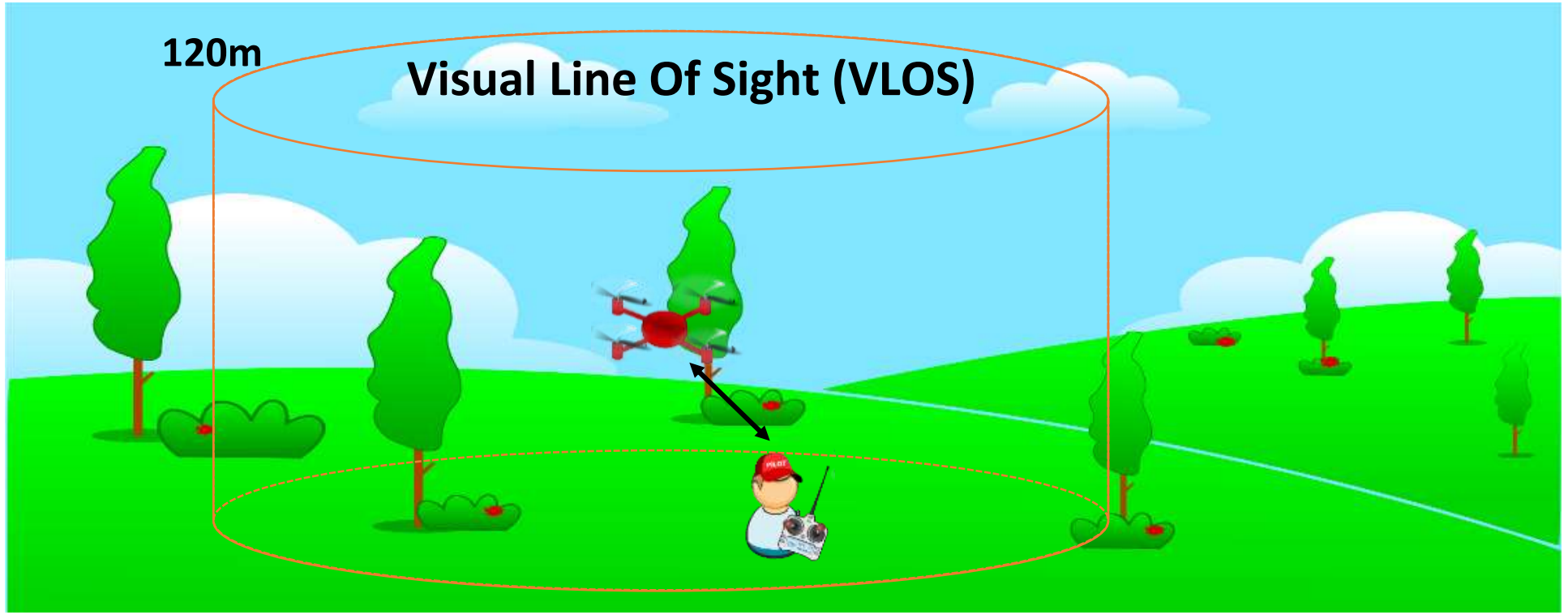
Open category - Subcategory A3



CE

3

4

MTOM<25kg

Privately built with MTOM<25kg

- **No fly over uninvolved people**
- conducted in an area where the remote pilot reasonably expects that no uninvolved person will be endangered within the range where the unmanned aircraft is flown during the entire time of the UAS operation

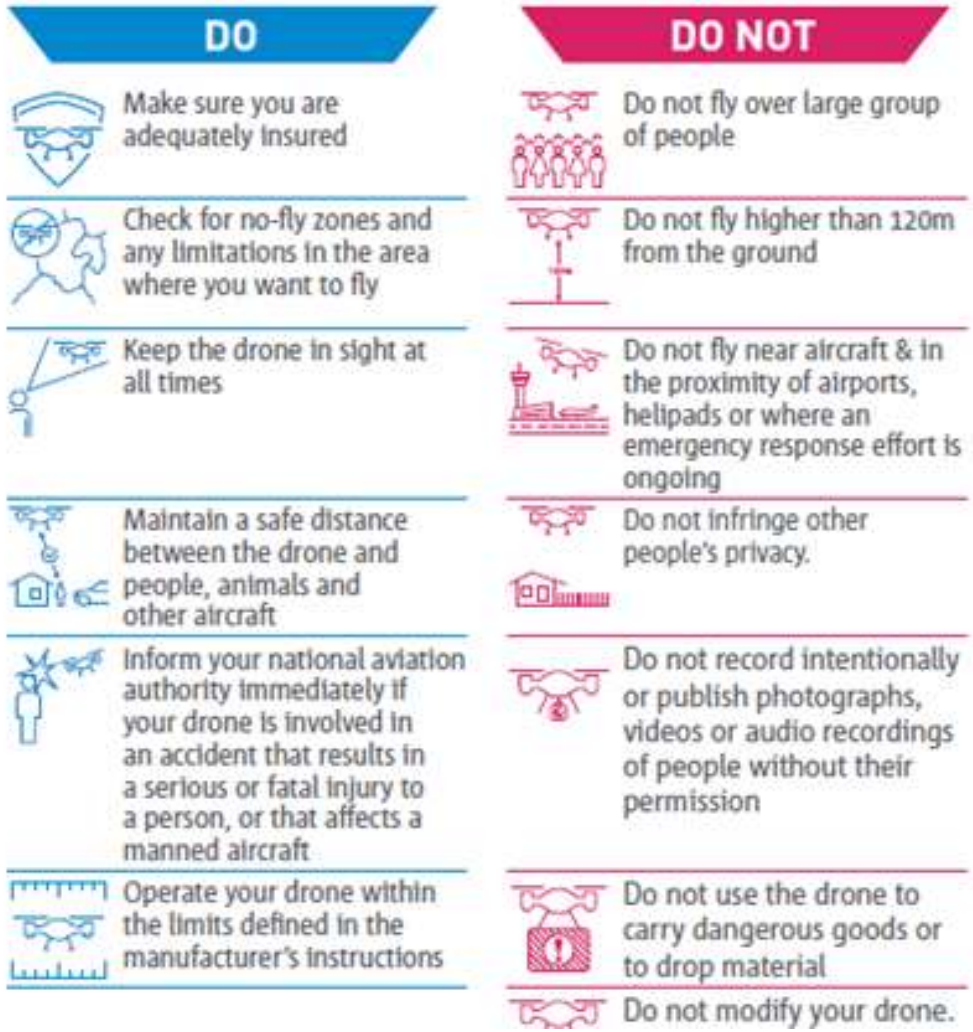
0 1 2

Privately built with MTOM<250g

Regulatory ref: UAS.OPEN.040 Annex Part A of EU Reg. 2019/947

Rules made simple for UAS operators - Leaflets

Each drone package will include consumer information



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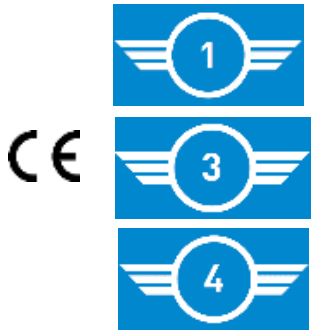
Training for remote pilot: subcategory A1/A3

Privately built with MTOM<250g

- Familiarisation with the manufacturer's instructions



Privately built with MTOM<25kg

- Familiarisation with the manufacturer's instructions
- Complete the online training
- Pass the online test

Remote Pilot training proof of completion number

After passing the examination, the MS issues the proof to the remote pilot

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Regulatory reference: Annex part A (DRONE.OPEN.020) of EU regulation 2019/947.

Training for remote pilot: subcategory A2

- Familiarisation with the manufacturer's instructions
- Complete the online training
- Pass the online test
- **Conduct a self-practical training in a "safe" area (A3 subcategory conditions)**
- **Declare completion of the practical training**
- **Pass a written test in an entity recognised by the competent authority**

Regulatory reference: UAS.OPEN.030 Annex Part A of EU regulation 2019/947.

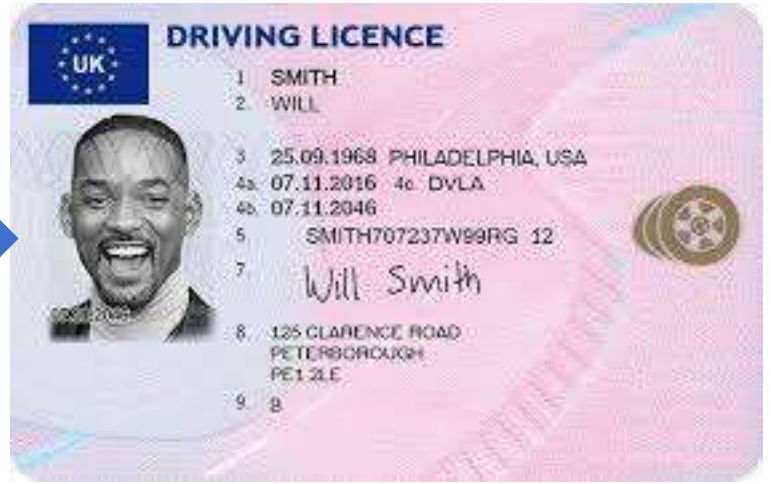
Open category: renewal of training for remote pilots

- online theoretical competency and certificate of remote pilot competency are valid for **5 years**

- Competencies need to be re-demonstrated or remote pilot may attend a seminar provided by the NAA or an entity recognised by the NAA

Regulatory reference: DRONE.OPEN.070 (1) of EU regulation 2019/947.

UAS operator registration number vs remote pilot training proof of completion number



UAS operator registration number

FIN87astrdge12k

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Responsibility of the UAS operator

develop operational procedures adapted to the type of operation and the risk involved

ensure efficient use of radio spectrum

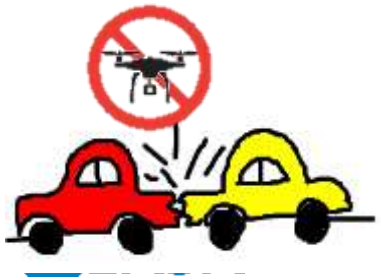
designate a remote pilot for each UAS operation

ensure that the remote pilots and all other personnel performing a task in support of the operations have the required competency and informations

Responsibility of the remote pilot

keep the UA in VLOS and maintain a thorough visual scan of the airspace surrounding the UA in order to avoid any risk of collision with any manned aircraft. Discontinue the flight if the operation poses a risk to other aircraft, people, animals, environment or property

remote pilots may be assisted by an UAS observer, situated alongside them, who, by unaided visual observation, assists in safely conducting the flight



not fly close to or inside areas where an emergency response effort is ongoing unless with permission

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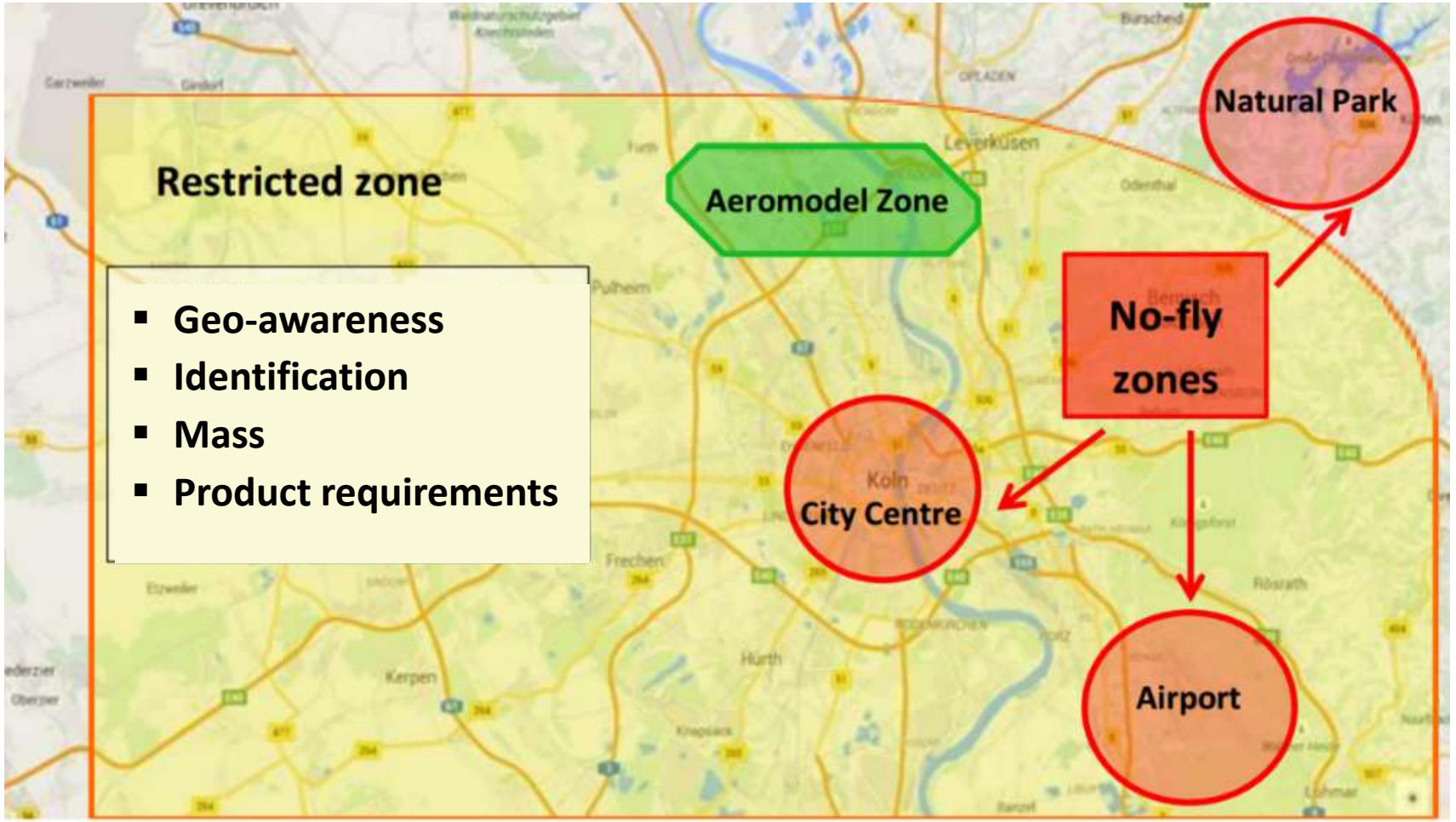
Flexibility for Member States

Geographical zones defined by Member States

Geo-awareness on drones to support remote pilots



Regulatory reference: Art.15 of EU regulation 2019/947

Model aircraft

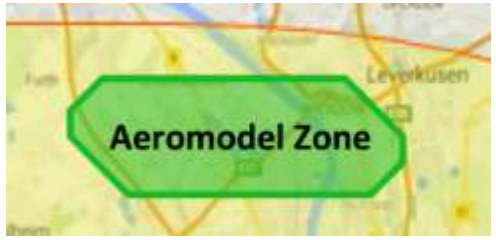
Regulatory reference: Art.16 of EU regulation 2019/947

Option 1 - Article 16 regulation (EU) 2019/947

- Model clubs and associations may receive an authorisation from the NAA defining the applicable conditions (i.e. NAA may define the full set of rules such as minimum age, maximum altitude etc..). Registration as UAS operator still mandatory
- All members of an authorised model club or association must operate according to the procedures of the club or association

Option 2

Fly in areas designated by the NAA where different conditions apply



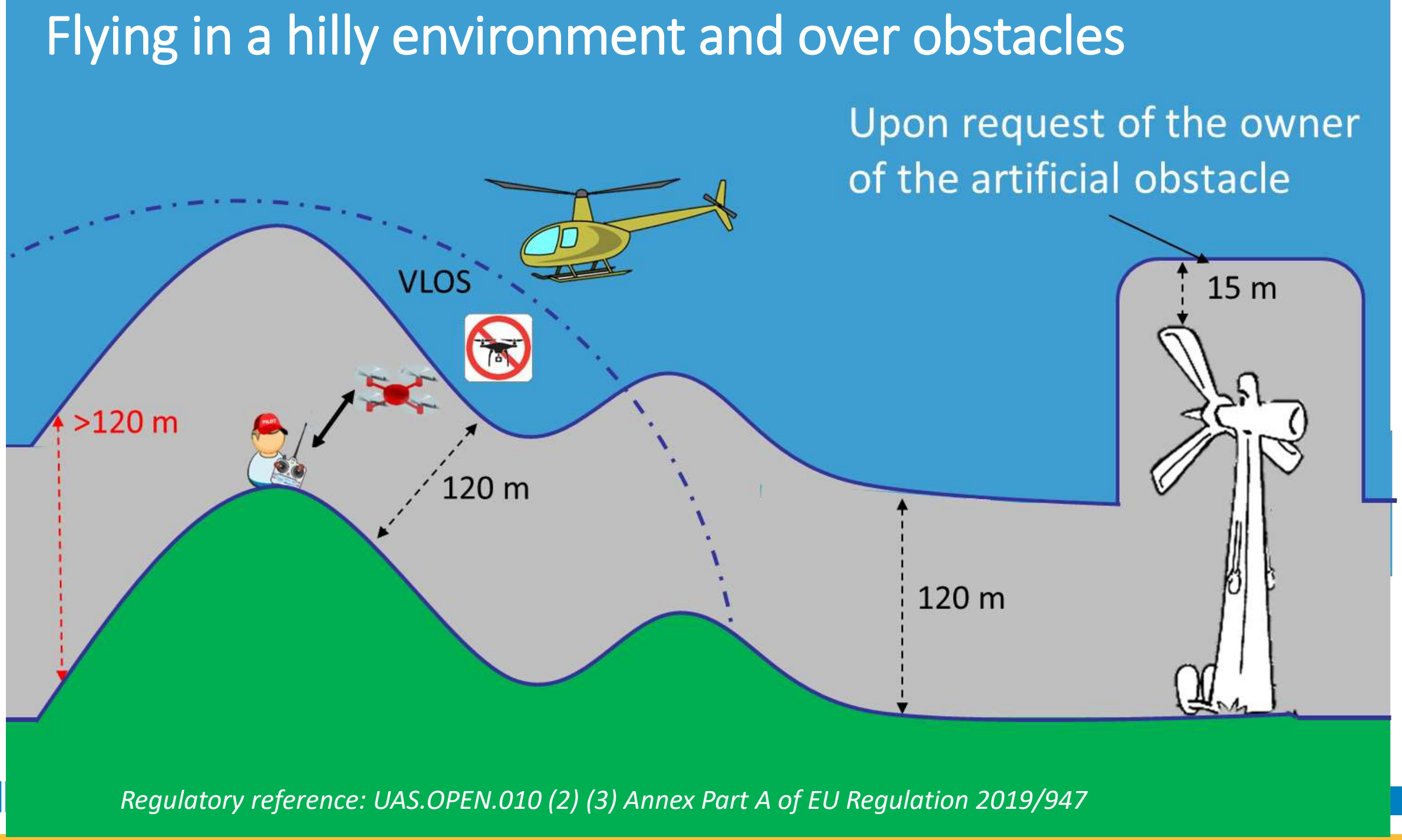
Option 3

Fly in subcategory A3

CE 4

Privately built with MTOM<25kg

Flying in a hilly environment and over obstacles



Regulatory reference: UAS.OPEN.010 (2) (3) Annex Part A of EU Regulation 2019/947

Summary of ‘open’ category

Fly respecting rules

Train the remote pilot

Register as operator

CE

Buy

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Regulatory reference: Article 20 and Annex part A of EU reg. 2019/947 and EU reg. 2019/945.

All UAS operators shall register themselves and register certified UAS

Entry into force (1st July 2019)

Applicability (31st Dec 2020)

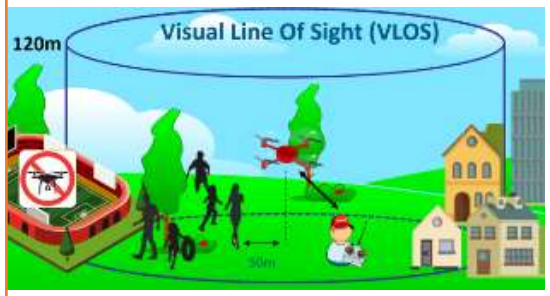
End of transitional period (1st Jan 2023)

2019: 2Q 3Q 4Q | 2020: 1Q 2Q 3Q 4Q | 2021: 1Q 2Q 3Q 4Q | 2022: 1Q 2Q 3Q 4Q | 2023: 1Q 2Q 3Q

National regulation fully applicable

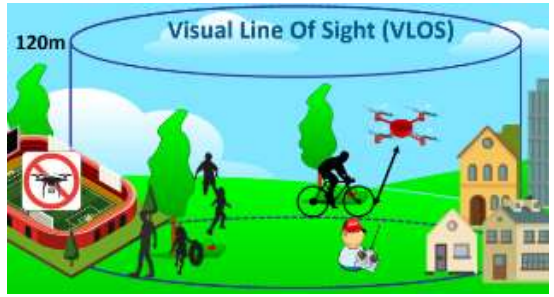
Limited open category

Open category according to EU Regulation



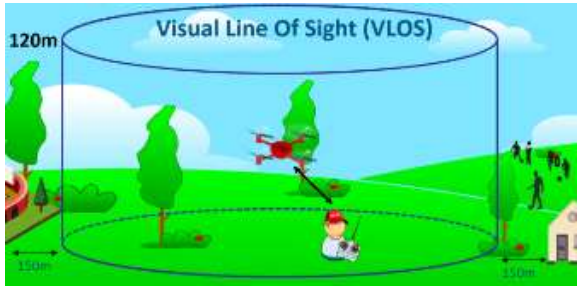
UAS with MTOM **< 2 kg** may be operated at a minimum horizontal distance of **50 m** from people

UAS with MTOM **< 500 g** may operate in subcategory A1



After 1/1/2023 all drones with MTOM >250g and without CE marking can be operated in A3

UAS with MTOM < 25kg may be operated in subcategory A3



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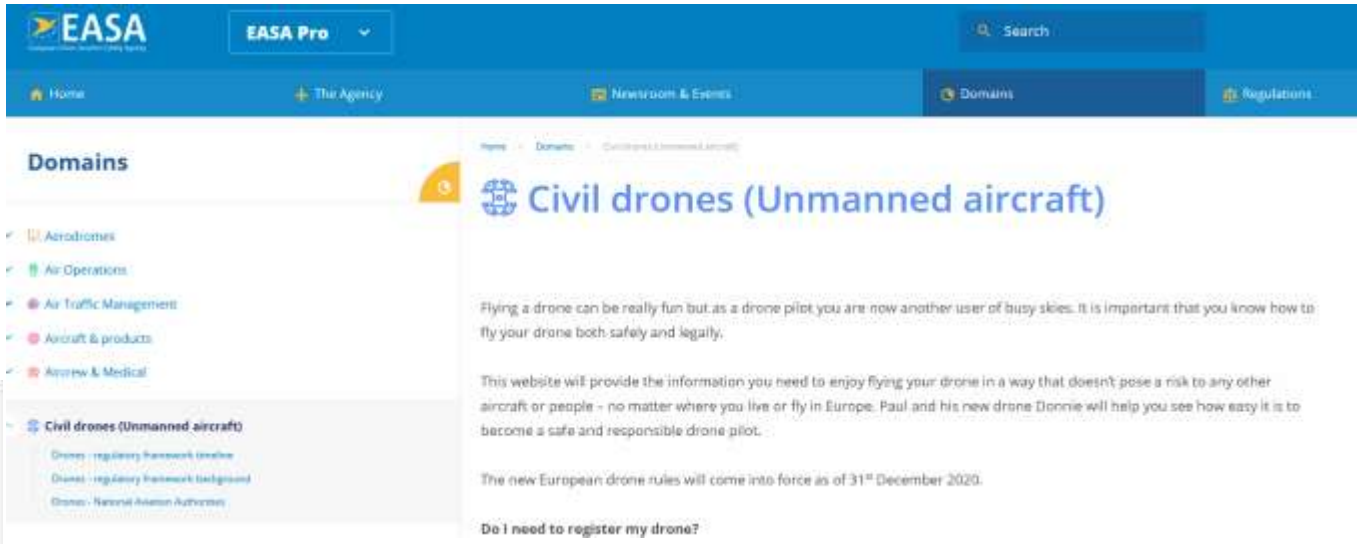
EASA drone website

https://www.easa.europa.eu/domains/civil-drones-rpas

Documentation



Videos and presentations

FAQ

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An Agency of the European Union