THE DRONE REGULATORY ENVIRONMENT

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2 “OPEN” FLIGHT CATEGORY

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THREE CATEGORIES DRONE OF FLIGHT

OPEN

“ BUY & FLY ”

SPECIFIC

Declaration
or
Operational authorisation
or
Light UAV Certificate (LUC)

CERTIFIED

Rules equivalent to manned aviation

What ever the category:
ALWAYS make sure you ALSO comply with the Geo-Zone requirements

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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New EU legislation as from January 1st

Including **automated** flights

OPEN

- Low risk
- No operational authorisation or declaration required by operator before start of flight
- VLOS, 25kg MTOM, 120m AGL

Including **BVLOS** & **autonomous** flights

SPECIFIC

- Increased risk
- Operational authorisation required by CA based on SORA

  or Declaration suffices if Standard Scenario (STS-x)

  or LUC self-authorisation

Think of Air Taxi's
or
Cargo over dense urban area

CERTIFIED

- Risk as manned aviation
- Certified operator
- Certified UAS with CoA
- Licensed pilot

Whatever the category:
there are minimum pilot competencies !

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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EU legislation flight category details

Including **automated** flights

OPEN

- Low risk
- No operational authorisation or declaration required by operator before start of flight
- VLOS, 25kg MTOM, 120m AGL

Including **BVLOS** & **autonomous** flights

SPECIFIC

- Increased risk
- Operational authorisation required by CA based on SORA

  or Declaration suffices for Standard Scenario's (STS-x)

  or LUC with self-authorisation

Think of Air Taxi's
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Cargo over dense urban area

CERTIFIED

- Risk as manned aviation
- Certified operator
- Certified UAS with CoA
- Licensed pilot

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OPEN category : NEW EU LEGISLATION

OPEN

- Low risk
- No operational authorisation or declaration required by operator before start of flight
- VLOS, 25kg MTOM, 120m AGL

Including **automated** flights

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OPEN category

OPEN

No operational authorisation or declaration required

UAS

<25kg MTOM with 3 possibilities:

- **C0, C1,C2,C3 or C4**
- **privately build**
- **certain (older) non-Cx drones**

Operation

VLOS only (except follow-me or using UA observer)

Max 120m AGL

3 subcategories:

- **“over people” (A1),**
- **“close to people” (A2)**
- **“far from people” (A3)**

Not carry dangerous goods and no dropping of any material

Not over assemblies of people

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

OPEN category

OPEN

Open A1/C0
“Over people”

Drone:

- C0 drone (by default <250g)
- privately build <250g
- Non Cx-compliant drone <250g
  (put on the market before January 1st 2024)

Flight:

- You can fly over people (involved or not)
- No flying over “assemblies of people”

No need for operator registration (unless drone has a camera), no need for geo-awareness and remote-ID on the drone

OPEN category

OPEN

Open A1/C1

“Over people”

Drone:

C1 drone (by default <900g)

Flight:

You can fly over involved people (= with explicit OK)

In case of unexpected flight over uninvolved people, the pilot shall reduce that time as much as possible

No flying over assemblies of people

Operator needs to be registered and the drone by default has geo-awareness and remote-ID

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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OPEN category

OPEN

DJI DRONE MAVIC 3

Open A1/C1

“Over people”

Flight:

You can fly over involved people (= with explicit OK)

In case of unexpected flight over uninvolved people, the pilot shall reduce that time as much as possible

No flying over assemblies of people

Operator needs to be registered and the drone by default has geo-awareness and remote-ID

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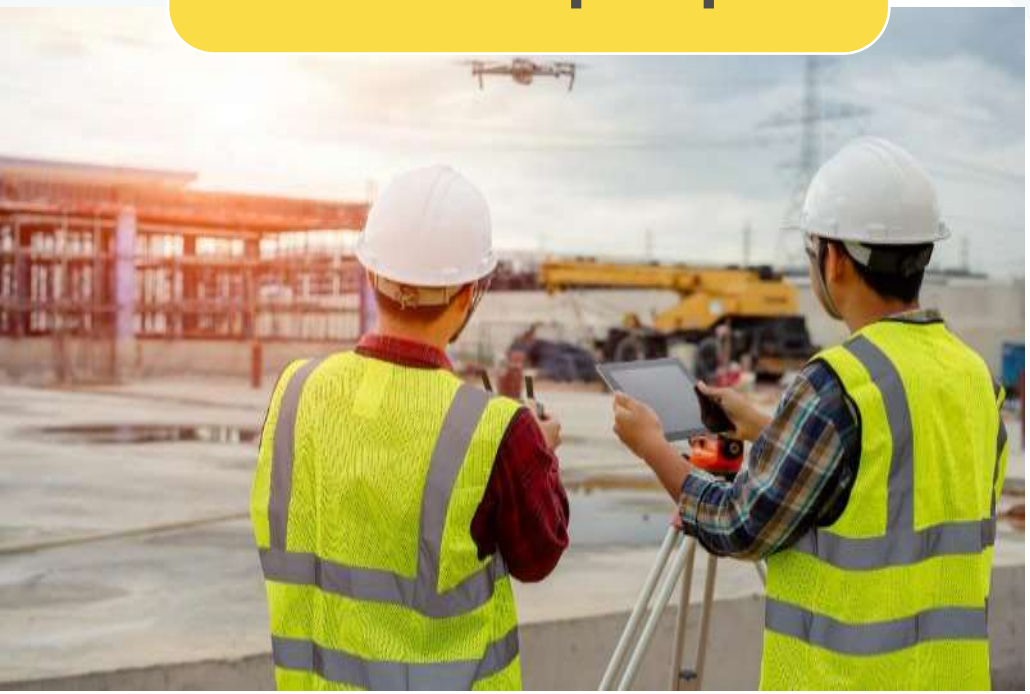
OPEN category

OPEN

Open A2

“Close to people”



Drone:

C2 drone (by default <4kg)

Flight:

- You can fly over involved people (= with explicit OK)
- No flying over uninvolved people and keep horizontal distance of at least 30m from them, or distance of up to 5m when low-speed mode function is activated
- No flying over assemblies of people

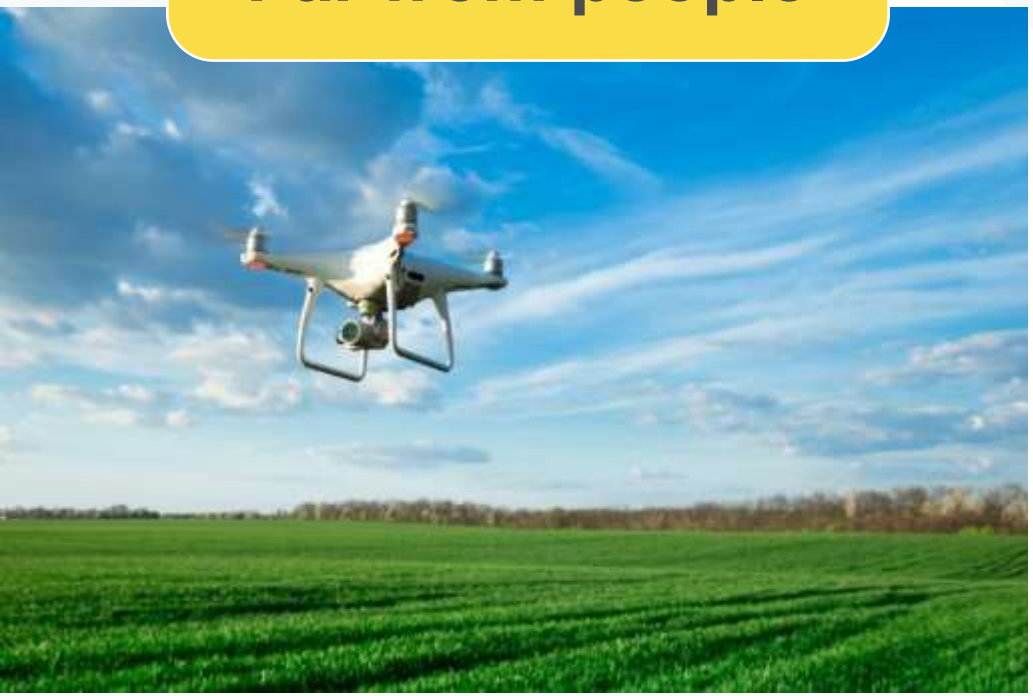
Operator needs to be registered and the drone by default has geo-awareness and remote-ID

OPEN category

OPEN

Open A3

“Far from people”



Drone:

C2 drone (by default <4kg)

C3 drone(by default <25kg and <3m)

C4 aero-model drone (by default <25kg)

Privately build <25kg

Non-Cx compliant drones <25kg
(put on the market before January 1st 2024)

Flight:

- You can fly over involved people (= with explicit OK) but only fly in an area where the pilot reasonably expects that no uninvolved person will be ***endangered***
- Keep a safe horizontal distance of 150m from residential, commercial, industrial or recreational areas

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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OPEN category

OPEN

Open A3

“Far from people”

- How do I make sure that no uninvolved person will be ***endangered?***

AMC states this:

A minimum horizontal distance from the person that is passing the area could be estimated as follows:

(1) no less than 30 m;

(2) no less than the height (‘1:1 rule’, i.e. if the UA is flying at a height of 30 m, the distance of the UA from the uninvolved person should be at least 30 m), and

(3) no less than the distance that the UA would cover in 2 seconds at the maximum speed (this assumes a reaction time of 2 seconds).

This minimum horizontal distance is intended to protect people on the ground, but can be extended to property and animals.

OPEN category

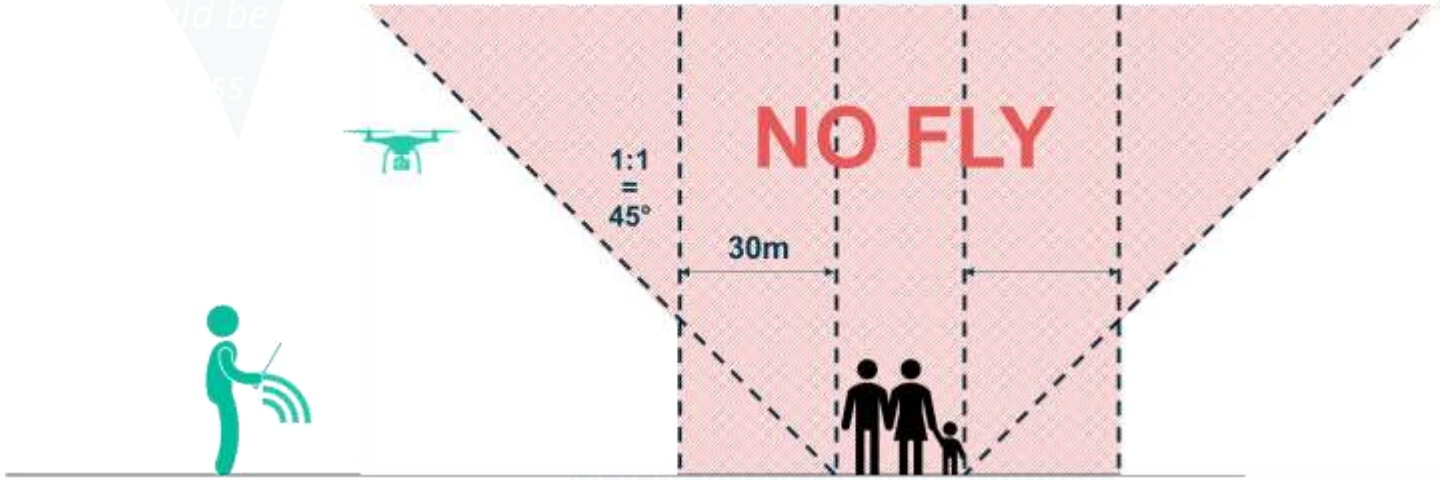
OPEN

Open A3

“Far from people”

- How do I make sure that no uninvolved person will be ***endangered?***

1:1 rule with minimum of 30m



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OPEN category

OPEN

Pilot responsibility:

- **Explicit OK** from **all involved people** after risk briefing (otherwise they are consider ‘uninvolved’)
- Keep VLOS, eventually through help of an observer (e.g. FPV)
- Not fly close to or inside area where an emergency response effort is ongoing (unless approval)

How about FPV?

OPEN

No worries, you're still flying VLOS **for as long as there is an 'UA observer' standing next to you** who helps you to keep the drone in his un-aided VLOS

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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OPEN category overview

OPEN

OPEN CATEGORY: not over assemblies of people; up to 120m above the ground*
VLOS/EVLOS only, except in follow-me mode within 50m distance from pilot; not drop any material

Operation		Remote pilot competency	UAS				UAS operator registration
Sub-Cat.	Area of operation		Class	MTOM / Joule	Main technical requirements (CE marking)	Remote ID & geo-awareness	
A1 Fly over people	You can fly over uninvolved people (not over assemblies)	• Minimum age to be set by Member States between 12 and 16 • No minimum age for privately build drone or true toy drone marked as C0 • Familiarised with the user's manual	Non-Cx compliant**	< 250g	N/A	No	No, not for true toy drones or for as long as not equipped with a camera 250g or 80J impact
			Privately build		Max speed 19m/s		
			C0 ('toy drone')		Max speed 19m/s, max attainable height above the take-off point of 120m, no sharp edges, follow-me within max 50m		
	You cannot intentionally fly over uninvolved people	• Minimum age to be set by Member States between 12 and 16 • Familiarised with the user's manual • On-line theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*)	**C1** ('hobby drone')	< 80J impact at V_{term} or <900g	Max speed 19m/s, max height above the take-off point of 120m or selectable and visualised height limitation, no sharp edges, follow-me within max 50m, mechanical strength, lost-link management, geo-awareness pilot warning, battery warning, be equipped with green lights, max sound power level	Yes + unique SN for identification	Yes

A2 Fly close to people	You cannot fly over uninvolved people and need to keep a safe horizontal distance of 30m from them, reduced to 5m when flying in low-speed mode	• Minimum age to be set by Member States between 12 and 16
		• Familiarised with the user's manual
		• Hold a certificate of remote pilot competency after:
		  • Online examination (idem as for cat A1/C1)
		  • Declaring practical self-training
		  • Additional cat A2 theoretical knowledge examination (with *Certificate of remote pilot competency*)
			C2 ('prosumer drone')	< 4kg	Max height above the take-off point of 120m or selectable and visualised height limitation, no sharp edges, mechanical strength, lost-link management, geo-awareness pilot warning, low-speed mode (3m/s), battery warning, max sound power level, be equipped with green lights, protected C2 link		

A3 Fly far from people	You should: • fly in an area where it is reasonably expected that no uninvolved people will be endangered • keep a safe horizontal distance of 150m from residential, commercial, industrial, or recreational areas	• Minimum age to be set by Member States between 12 and 16 • Familiarised with the user's manual • On-line theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*) (idem as for cat A1/C1)	**C0 C1 C2**	See rows above	See rows above		
			C3 ('professional')	< 25kg < 3m in size	Max height above the take-off point of 120m or selectable and visualised height limitation, mechanical strength, lost-link management, geo-awareness pilot warning, battery warning, max sound power level, be equipped with green lights, protected C2 link		
			C4 (aero-model)	< 25kg	No automatic flight, lost-link management	if required by zone of operations	
			Privately build or non-Cx compliant**		N/A		

*: Exception: when flying a drone within a horizontal distance of 50m from an artificial obstacle taller than 105m, the maximum height of the operation may be increased up to 15 meters above the height of the obstacle at the request of the entity responsible for the obstacle

**: Only valid when the non-Cx drone has been put on the market by its manufacturer before January 1st 2024

JDM16032022

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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OPEN category overview

OPEN

OPEN CATEGORY: not over assemblies of people; up to 120m above the ground*
VLOS/EVLOS only, except in follow-me mode within 50m distance from pilot; not drop any material

Operation		Remote pilot competency	UAS				UAS operator registration
Sub-Cat.	Area of operation		Class	MTOM / Joule	Main technical requirements (CE marking)	Remote ID & geo-	
A1 Fly over people	You can fly over uninvolved people (not over assemblies)	• Minimum age to be set by Member States between 12 and 16 • No minimum age for privately build drone or true toy drone marked as C0 • Familiarised with the user's manual	Non-Cx compliant**	< 250g	N/A		No, not for true toy drones or for as long as not equipped with a camera 250g or 80J impact
			Privately build		Max speed		
			C0 ('toy drone')				
	You cannot intentionally fly over uninvolved people	• Minimum age to be set by Member States between 12 and 16 • Familiarised with the user's manual • On-line theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*)	C1 ('hobby drone')	<900g	Max height above the take-off point of 120m or selectable and visualised height limitation, no sharp edges, mechanical strength, lost-link management, geo-awareness pilot warning, battery warning, be equipped with green lights, max sound power level		

A2 Fly close to people	You cannot fly over uninvolved people and need to keep a safe horizontal distance of 30m from them, reduced to 5m when flying in low-speed mode	• Minimum age to be set by Member States between 12 and 16
		• Familiarised with the user's manual
		• Hold a certificate of remote pilot competency after:
		  • Online examination (idem as for cat A1/C1)
		  • Declaring practical self-training
		  • Additional cat A2 theoretical knowledge examination (with *Certificate of remote pilot competency*)
			C2 ('prosumer drone')	< 4kg	Max height above the take-off point of 120m or selectable and visualised height limitation, no sharp edges, mechanical strength, lost-link management, geo-awareness pilot warning, low-speed mode (3m/s), battery warning, max sound power level, be equipped with green lights, protected C2 link	Yes + unique SN for identification	Yes

A3 Fly far from people	You should: • fly in an area where it is reasonably expected that no uninvolved people will be endangered • keep a safe hor… distance of 150… residential, commercial, in… or recreational	• Minimum age to be set by Member States between 12 and 16 • Familiarised with the user's manual	C0 C1 C2	See rows above	See rows above		
			C2	< 25kg	Max height above the take-off point of 120m or selectable and visualised height limitation, mechanical strength, lost-… management, geo-awareness pilot warning, battery …ning, m… power level, be equipped with green …ts, pr…		
					…nagement	if required by zone of operations	

*: Exception: when flying a dron… at the request of the entity responsible for the obstacle … to 15 meters above the height of the obstacle

**: Only valid when the non-Cx drone has been put on the market by its manufacturer before January 1st 2024

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Registration of operator + obligation to display reg. nr on UAS

Operatornummer - Numéro de l'opérateur - Operator number

BELj5lo7de5jruil

For further details and possible updates on the applicable regulations in Belgium … consult: https://mobilit.belgium.be

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OPEN category, pilot competences

OPEN

Operation		Remote pilot competency
Sub-Cat.	**Area of operation**	
A1 **Fly over people**	You can fly over uninvolved people (not over assemblies)	• Familiarised with the user's manual
	You cannot intentionally fly over uninvolved people	• On-line training & theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*)

A2
Fly close to people
	You cannot fly over uninvolved people and need to keep a safe horizontal distance of 30m from them, reduced to 5m when flying in low speed mode	• Hold a certificate of remote pilot competency after:
		  • Online examination (idem as for cat A1/C1)
		  • Declaring practical self-training
		  • Additional cat A2 theoretical knowledge examination (in classroom, with *Certificate of remote pilot competency*)

A3 **Fly far from people**	You should: • fly in an area where it is reasonably expected that no uninvolved people will be endangered • keep a safe horizontal distance of 150m from residential, commercial, industrial or recreational areas	• On-line training & theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*) (idem as for cat A1/C1)

BE: min age = 14

A1/A3

BE: min age = 14

A1/A3

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OPEN category, pilot competences

OPEN

Operation		Remote pilot competency
Sub-Cat.	Area of operation	
A1 **Fly over people**	You can fly over uninvolved people (not over assemblies)	• Familiarised with the user's manual
	You cannot intentionally fly over uninvolved people	• On-line training & theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*)
A2 **Fly close to people**	You cannot fly over uninvolved people and need to keep a safe horizontal distance of 30m from them, reduced to 5m when flying in low speed mode	• Hold a certificate of remote pilot competency after: • Online examination (idem as for cat A1/C1) • Declaring practical self-training • Additional cat A2 theoretical knowledge examination (in classroom, with *Certificate of remote pilot competency*)
A3 **Fly far from people**	You should: • fly in an area where it is reasonably expected that no uninvolved people will be endangered • keep a safe horizontal distance of 150m from residential, commercial, industrial or recreational areas	• On-line training & theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*) (idem as for cat A1/C1)

BE: min age = 16

A2

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OPEN category, pilot competences

OPEN

Can be based on self-study

OPEN A2

Additional theoretical knowledge examination
''Certificate of remote pilot competency'' *by CA or DE*

Practical-skill self-training declaration

OPEN A1 & A3

On-line theoretical examination
'Proof of completion of on-line theoretical knowledge examination'
by CA or Designated Entity

On-line theoretical training

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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OPEN category, pilot competences

OPEN

Can be based on self-study

OPEN A2

Additional theoretical knowledge examination

Conversion was possible from former Class 1 licenses

Practical self-training declaration

OPEN A1 & A3

On-line theoretical examination

Conversion was possible from former Class 2 attestations and Class 1 licenses

On-line theoretical training

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How about night flights?

OPEN

- Drone needs to be equipped with green flashing light to be considered as VLOS
- Can be in Open category (with green light switched on), unless prohibited by GeoZone
- Definition: ‘night’ means the hours between the end of evening civil twilight and the beginning of morning civil twilight.

  June 21st in Ghent: starts at 47min after sunset until 47 min before sunrise

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

How about non-Cx-compliant drone? What if I still buy one tomorrow?

OPEN

- You can fly in the OPEN category for as long as the drone will last, provided it was put on the market by the manufacturer before January 1st 2024, but only:
  - in the Open A1 category if MTOM < 250g
    - *you can fly over people (involved or not)*
    - *no flying over "assemblies of people"*
  - in the Open A3 category if MTOM < 25kg
    - *you can fly over involved people but only in an area where the pilot reasonably expects that no uninvolved person will be endangered*
    - *keep a safe horizontal distance of 150m from residential, commercial, industrial or recreational areas*
- Can fly in the Specific category if the technical characteristics comply with the Operational Authorisation

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How about non-Cx-compliant drone? What if I still buy one tomorrow?

OPEN

- Up to 1/1/2024 a special ‘Limited’ Open category was created to temporarily allow you to fly in more than just the Open A1 (<250g) or Open A3 category:
  - In Open A1/C1 conditions if MTOM < 500g (in stead of 900g)
    - *You can fly over involved people*
    - *In case of unexpected flight over uninvolved people, the pilot shall reduce that time as much as possible*
    - *No flying over assemblies of people*
  - Keeping a safe horizontal distance of 50m from people (in stead of 30m) if MTOM < 2kg (in stead of 4kg)

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OPEN category overview for Belgium

OPEN

OPEN CATEGORY: not over assemblies of people; up to 120m above the ground*
VLOS/EVLOS only, except in follow-me mode within 50m distance from pilot; not drop any material

Operation		UAS		Remote pilot competency	UAS operator registration
Sub-Cat.	Area of operation	Class	MTOM		
A1 Fly over people	You can fly over people, involved or not (not over assemblies)	Non-Cx compliant**	< 250g	• Minimum age 14 • No minimum age for privately build drone or true toy drone marked as C0 • Familiarised with the user's manual	No, not for true toy drones or for as long as not equipped with a camera (250g or 80J impact)
		Privately build			
		C0			
	You can fly over involved people but cannot intentionally fly over uninvolved people	Non-Cx compliant (up to 1/1/2024)***	<500g	• Minimum age 14 • Familiarised with the user's manual • On-line theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*)	
		C1	<900g		

A2 Fly close to people	You need to keep a min. horizontal distance of 50m from people (involved or not)	Non-Cx compliant (up to 1/1/2024)***	< 2kg	• Minimum age 16
				• Familiarised with the user's manual
				• Hold a certificate of remote pilot competency after:
				  • Online examination (idem as for cat A1/C1)
				  • Declaring practical self-training
				  • Additional cat A2 theoretical knowledge examination (with Certificate of remote pilot competency)
					Yes

	You can fly over involved people but cannot fly over uninvolved people and need to keep a safe horizontal distance of 30m from them, reduced to 5m when flying in low-speed mode	**C2**	< 4kg		
A3 Fly far from people	• You can fly over involved people but only in an area where you reasonably expect that no uninvolved person will be endangered (AMC: by keeping a safe distance of at least 30m) • You should keep a safe horizontal distance of 150m from residential, commercial, industrial or recreational areas	**C0 / C1 / C2**	See above	Minimum age 14 • Familiarised with the user's manual • On-line theoretical knowledge examination (with *Proof of completion of on-line theoretical knowledge examination*) (idem as for cat A1/C1)	
		C3	< 25kg < 3m in size		
		C4 (aero-model)	< 25kg		
		Privately build or non-Cx compliant**			

*: Exception: when flying a drone within a horizontal distance of 50m from an artificial obstacle taller than 105m, the maximum height of the operation may be increased up to 15 meters above the height of the obstacle at the request of the entity responsible for the obstacle

**: Only valid when the non-Cx drone has been put on the market by its manufacturer before January 1st, 2024

***: Temporary 'Limited' Open category (up to 1/1/2024)

JDM16032022

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I have a Mavic Mini and I want to do take pictures for a real estate agency

OPEN

- Drone is non-Cx-compliant and assuming MTOM = 249g

Open A1/C0

“you can fly over people”

Pilot needs to be familiarised with the user’s manual

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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Enabling safe drone operations

I have a Mavic Air and I want to do take pictures for a real estate agency

OPEN

- Drone is non-Cx-compliant and assuming MTOM = 430g

Limited Open A1

“you can fly over involved people but cannot intentionally fly over uninvolved people”

Pilot needs A1/A3 “Proof of completion of on-line theoretical knowledge examination”

I have a Mavic Mavic 2 Pro and I want to do take pictures for a real estate agency

OPEN

- Drone is non-Cx-compliant and assuming MTOM = 905g

Limited Open A2

“You need to keep a safe horizontal distance of 50m from all people ”

(AMC stipulates 1:1 rule)

Pilot needs A2 “Certificate of remote pilot competency”

OPEN category

OPEN

What if I cannot comply with all Open category conditions?

What if my flight meets none of the A1, A2 or A3 conditions?

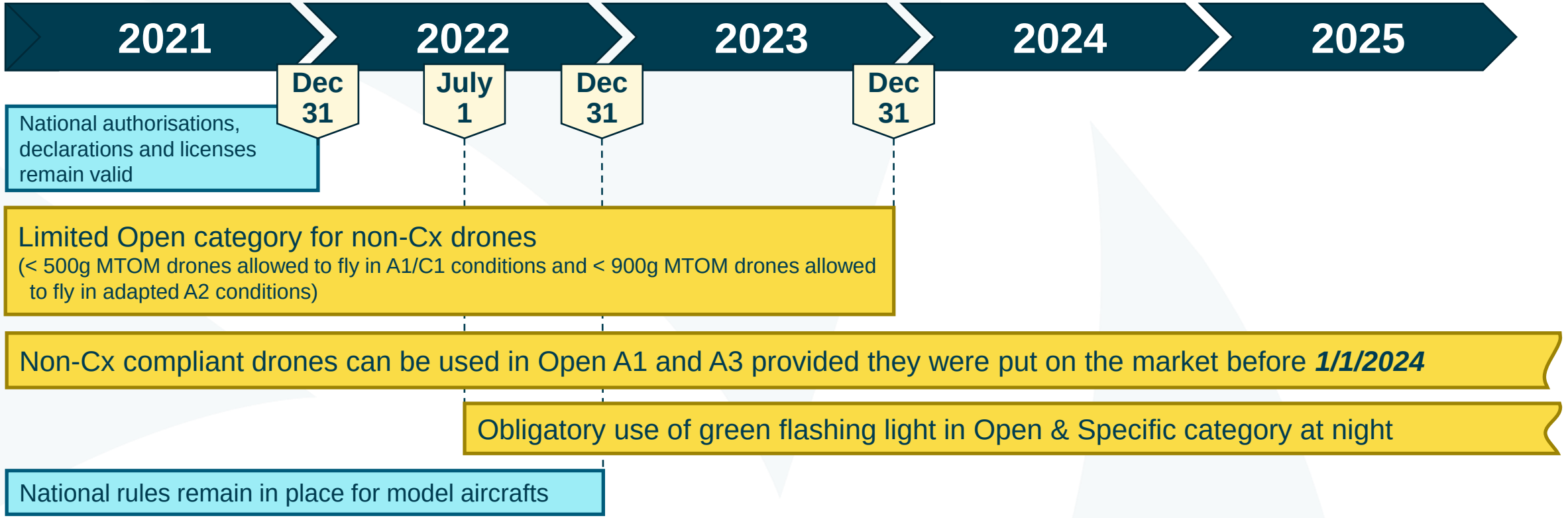
ANSWER:

Your flight is to be categorized as SPECIFIC

(or maybe even CERTIFIED)

Open category “NEED TO KNOWS” BEFORE TAKE-OFF

Applicability overview



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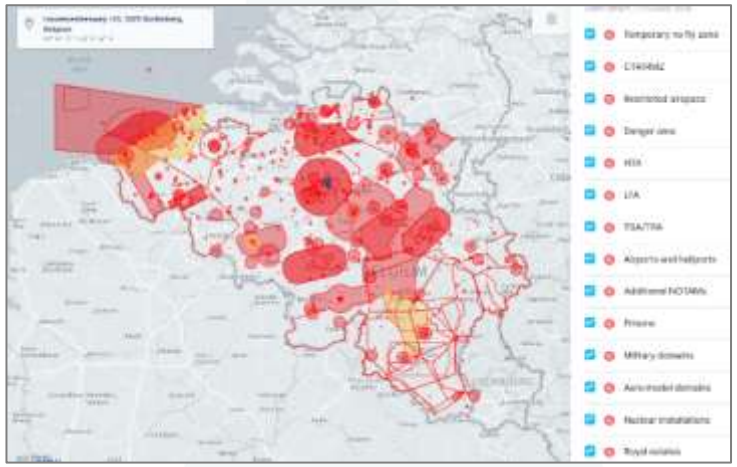
SUMMARY OF WHAT TO KEEP IN MIND

NEED TO RESPECT

Generic rules

National GeoZones



- Aerodrome zones (incl. heliports)
- P/D/R + Military zones
- CTRs
- Seaports
- UAS test-zones
- ….

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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SUMMARY OF WHAT TO KEEP IN MIND

NEED TO RESPECT

Generic rules

No individual flight approval nor notification required

+

National GeoZones

Individual flight approval and/or notification might be required

- Aerodrome Zones (incl. Heliports)
- P/D/R + Military zones
- CTRs
- Seaports
- UAS test-zones
- ….

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HAVE A SAFE FLIGHT

map.droneguide.be

Check on that map which GeoZones overlap with your flightplan and list all of them in YOUR LIST of relevant GeoZones.

For each GeoZone on YOUR LIST you will have to go and see who the GeoZone Manager is and what extra rules he imposes

Make sure you comply with all additional conditions for each zone (e.g. max flight height, drone requirements, ...)

Get all your authorisations from the different Geozone managers (if required)

For further details and possible updates on the applicable regulations in Belgium: please consult: https://mobilit.belgium.be

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