D-FLIGHT

User manual

5th VERSION
November 2020

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INTRODUCTION

The following manual is a guide to the use of basic d-flight services:

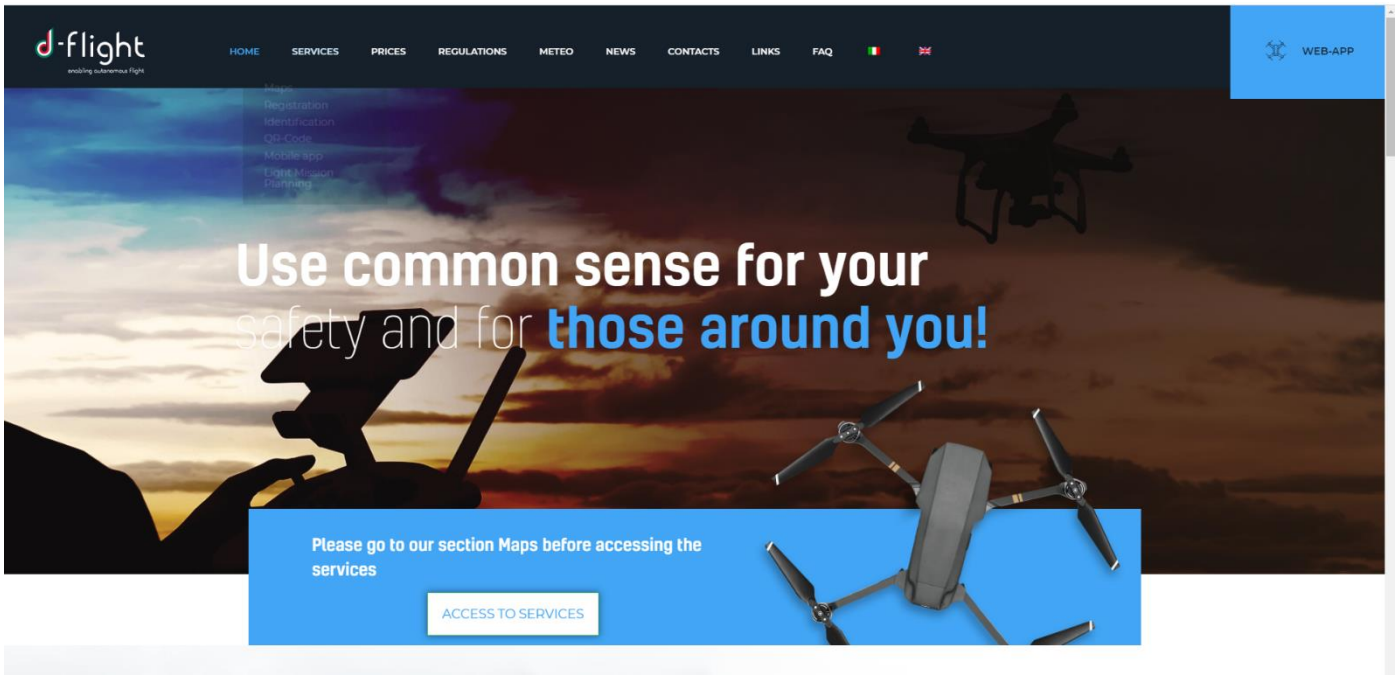
- ✓ Registration
- ✓ User authentication
- ✓ Navigation maps
- ✓ Navigation maps and layer for PRO users
- ✓ Profile management
- ✓ E-payment / D-Coin
- ✓ Drones management
- ✓ Declaration
- ✓ Drone Operation Area
- ✓ Drone Operation Plan
- ✓ Tracking_v0

1. GUIDE

1.1 ACCESS TO THE SITE

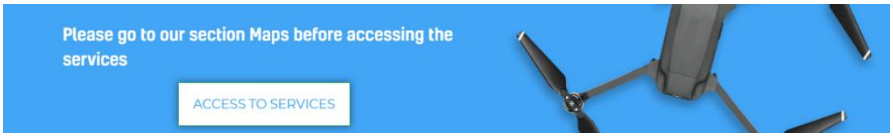
The URL to access the site is https://www.d-flight.it/new_portal/en/.
The welcome page to the site is shown below.

Use of the Chrome / Firefox / Safari browser is recommended, please do not use IE. It is advisable to activate the activation link in the time indicated by the system (60 min).

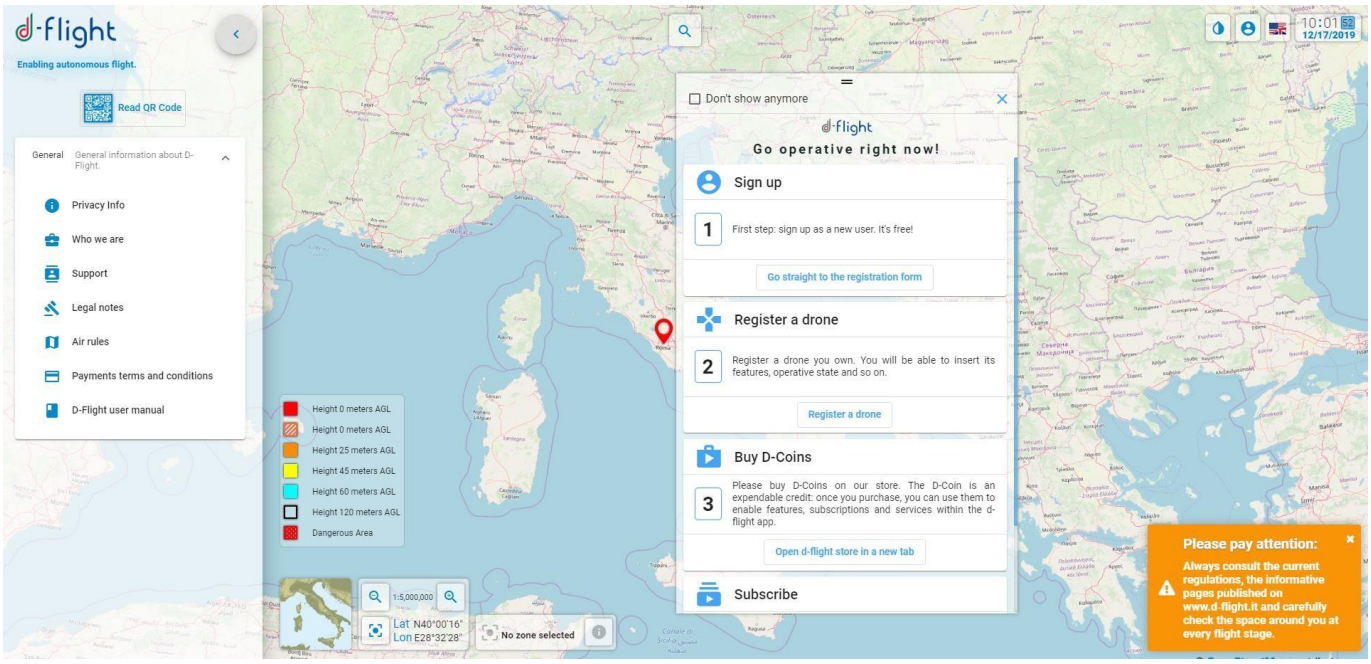


From the welcome page (**HOME**) it is possible to consult the information relating the **SERVICES**, **PRICES, REGULATIONS, METEO, NEWS, CONTACTS,LINKS** and **FAQs.**

✓ CLICK TO ACCESS THE SERVICES



After the click you have the map available (below) that allows you to access the d-flight SERVICES.



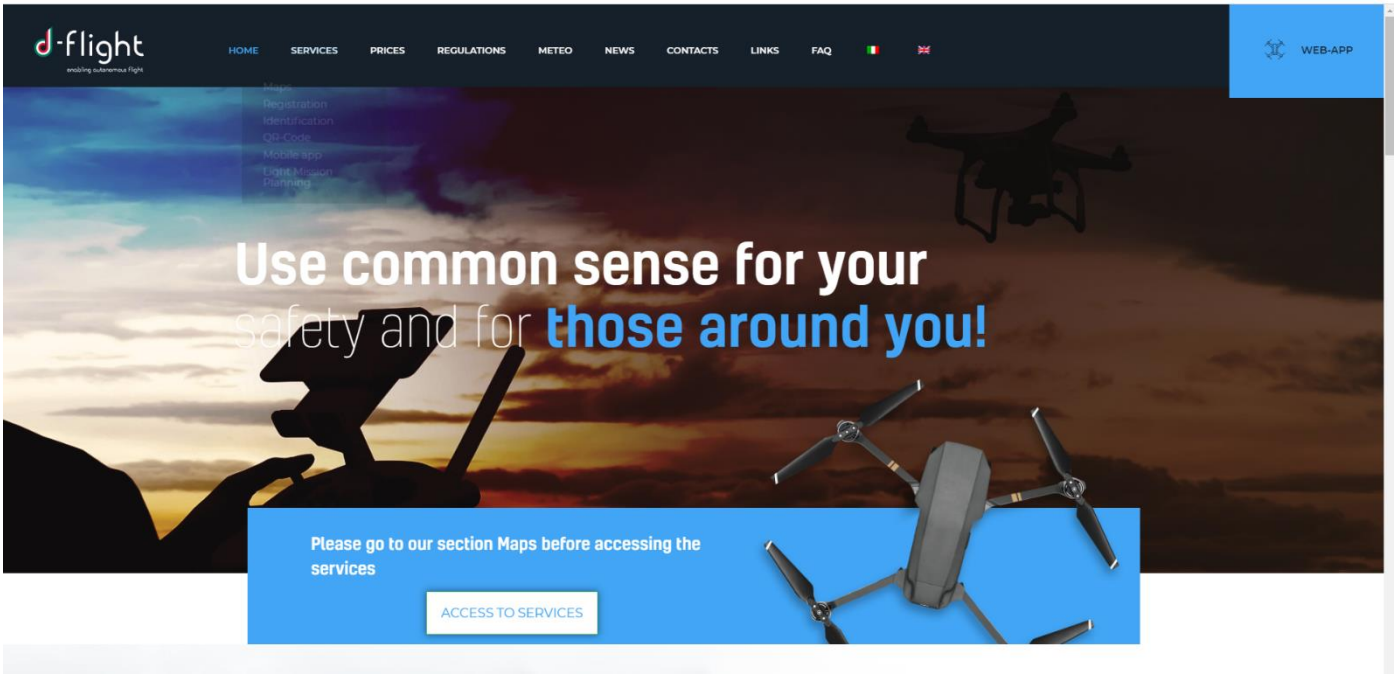
1.2 REGISTRATION

It is the service through which users can register and authenticate to the portal. User enter its personal data and relevant flight qualifications in possession, qualifications and licenses, to create a "Virtual Curriculum".
When a user who is not yet registered wants to register with the System, he must enter his credentials to be able to receive a request to confirm his identity via e-mail, with non-certified email address or certified e-mail address.
Then the user will receive the email with the login credentials with a temporary password, to activate it he must open the email received and click on the link provided to confirm the registration and be able to access the platform with the credentials indicated.

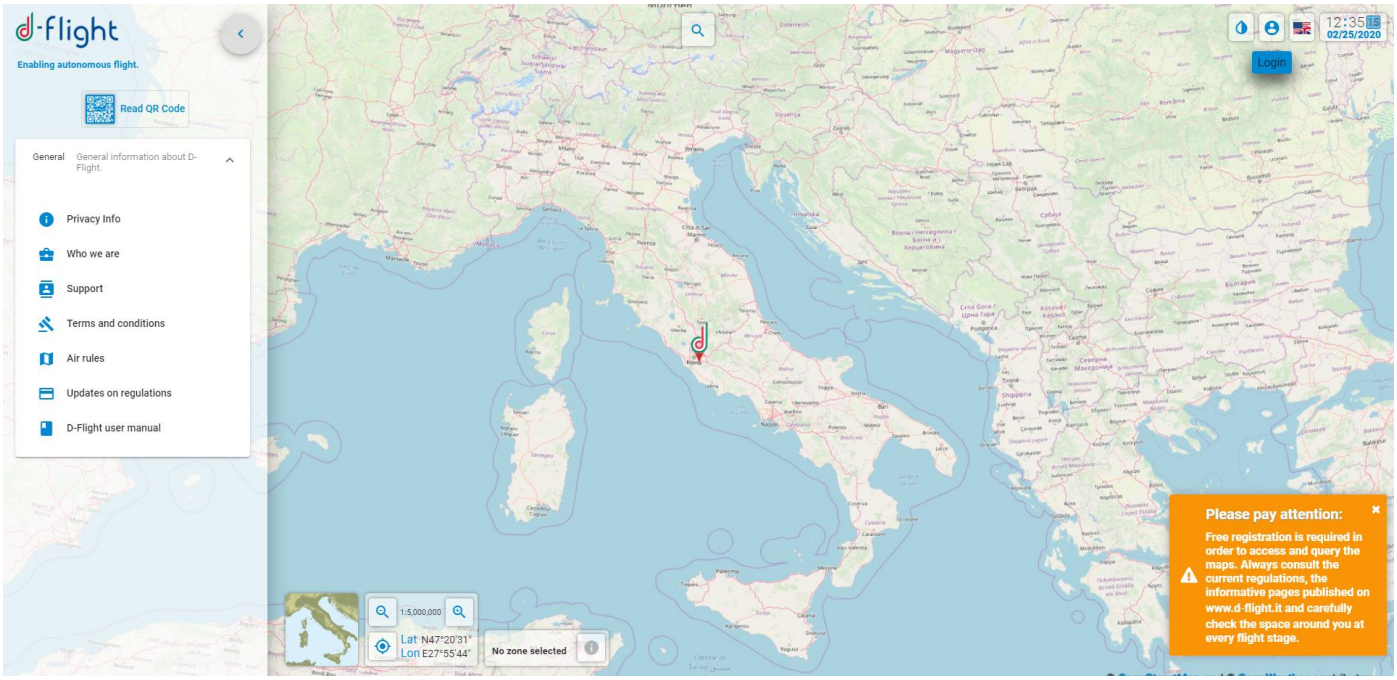
1.2.1 User Registration

1. From an internet browser connect to the d-flight website (https://www.d-flight.it/new_portal/en/) and select <**ACCESS TO SERVICES**>

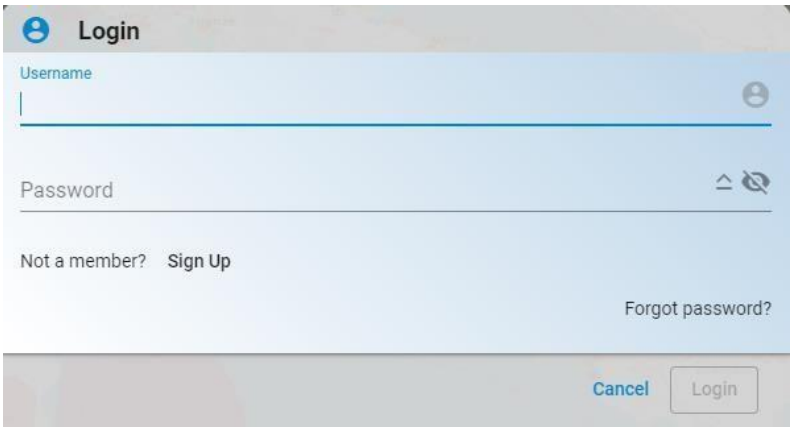
Warning: the use of Chrome / Firefox / Safari browsers is recommended, please do not use IE



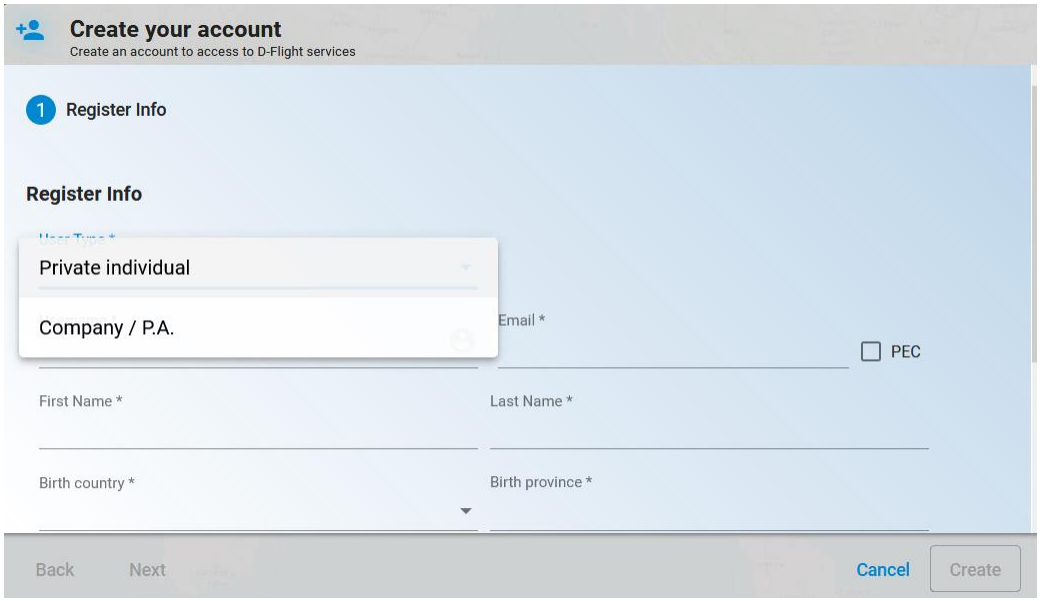
2. Click on user icon (**LOGIN**) at the top right as shown in the following figure:



3. The following screen will appear and select <**SIGN UP**>



After clicking on the icon <**SIGN UP**> you have several steps to do.



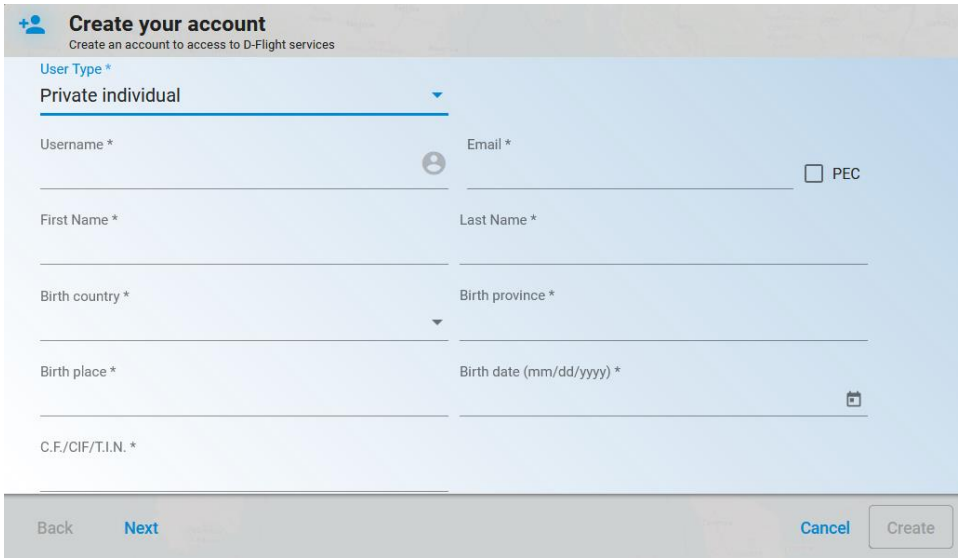
Step 1 Enter the data related to <**Register Information**>

1. User Typology * (Private individual, Company/P.A.)

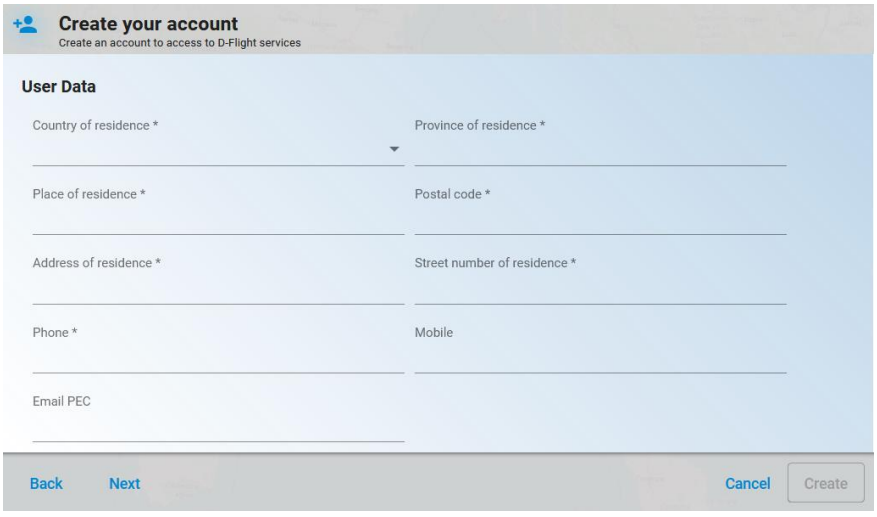
If **Private Individual** has been chosen please insert:

2. Username * (user ID - nickname) **NW. do not use special characters**
3. Email * (Activate the PEC flag if you want to register with certified mail)
4. First Name *
5. Last Name *
6. Birth country*
7. Birth province*
8. Birth place*
9. Birth date*
10. C.F./CIF/T.I.N *
11. Select <Next>.

Attention, fields marked with an asterisk (*) are mandatory



Step2 Enter <**User data**>



1. Place of residence *
2. Country of residence *
3. Province of residence *
4. Postal code *
5. Address of residence *
6. Street number of residence *
7. Phone*
8. Mobile
9. Email PEC

10. Select <Next>
(If you want to go back to the previous page select <Previous>)

Attention, fields marked with an asterisk (*) are mandatory
Note: if you do NOT have a license, select <Create> directly

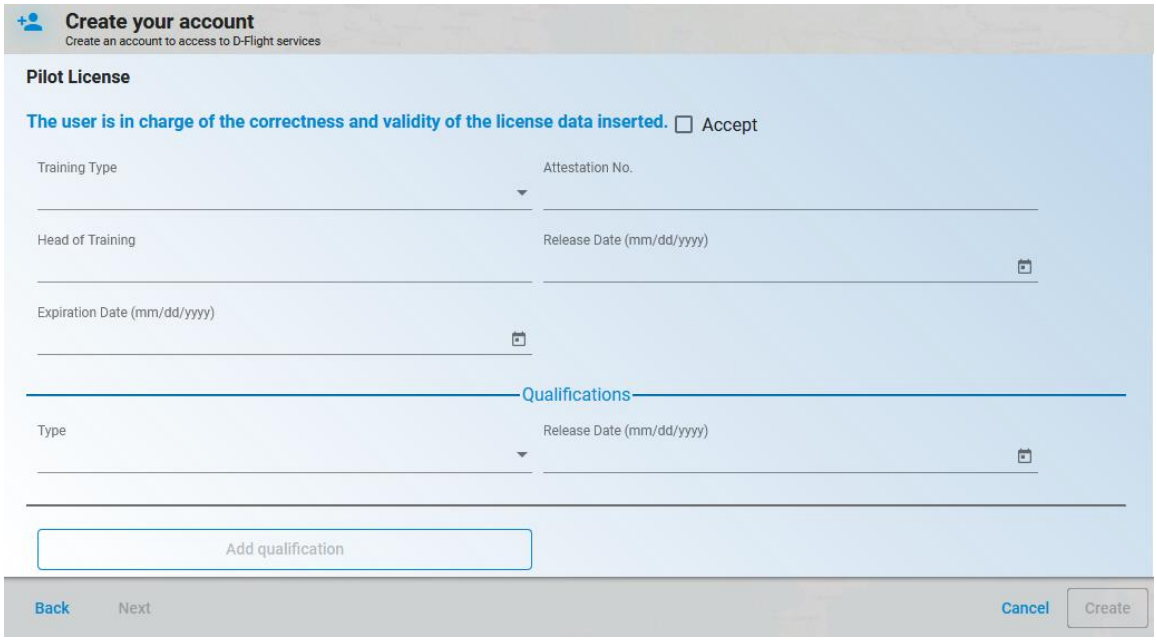
Step 3 Enter the data related to your <**Pilot license**> **NW. You can enter the data on this page even after completing the registration.**

1. Attestation No.
2. Training center
3. Head of training
4. Release date
5. Expiration date

For ***Qualifications***, complete the fields below:

1. Type
2. Release date
3. Select <Create>

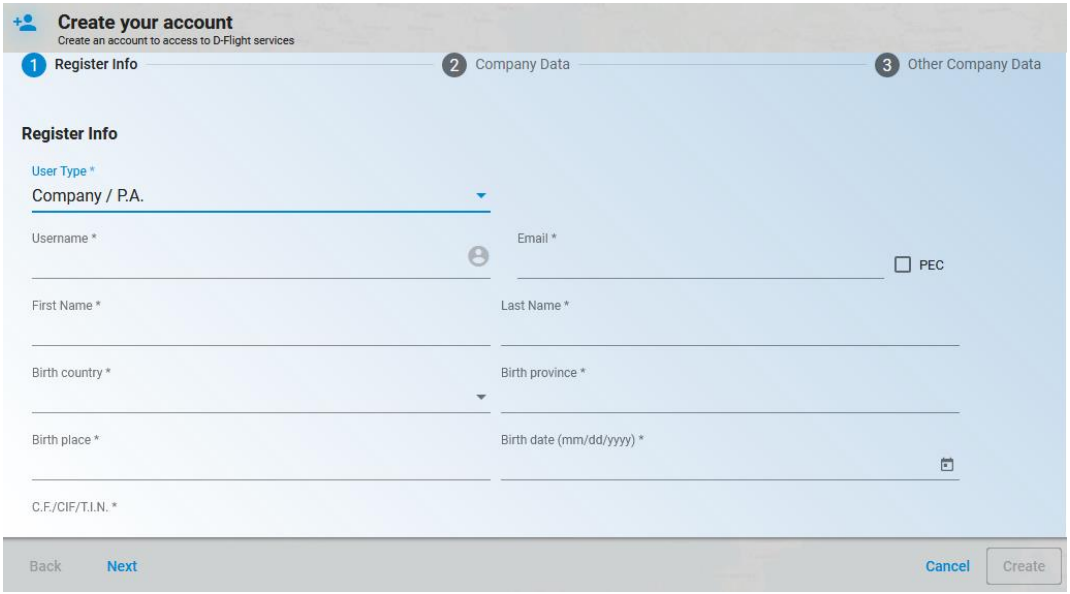
(In case you want to return to the previous page, select <*Previous*>)



Attention activate the flag <Accept> relating to the validity of the data entered to continue

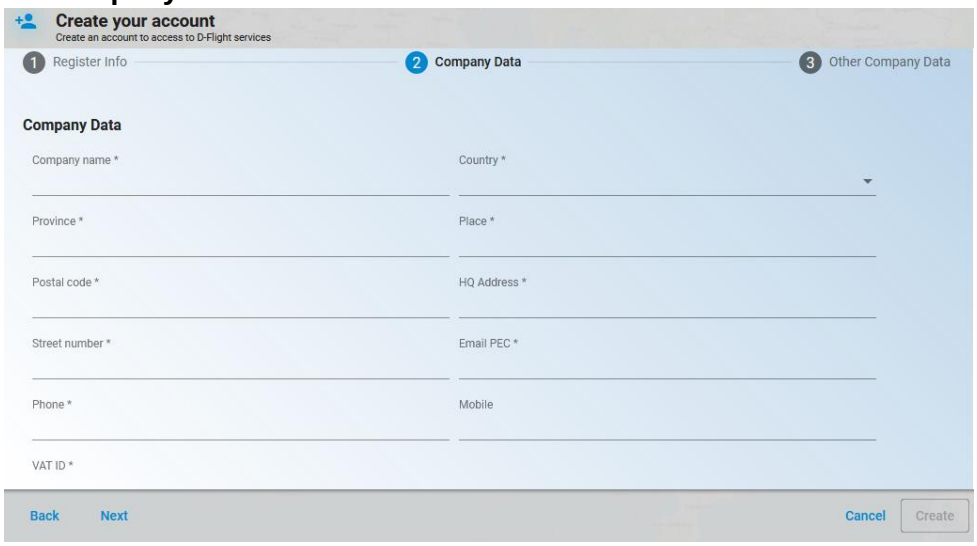
1.2.2 Company/P.A. Registration

If **Company/P.A**. has been chosen please insert:



1. Username * (user ID - nickname) **NW. do not use special characters**
2. Email *
3. First name *
4. Last name *
5. Birth country *
6. Birth province *
7. Birth place *
8. Birth date *
9. C.F./CIF/T.I.N *

2 *Step2* Enter <**Company data**>



1. Company name *
2. Country*
3. Province*
4. Place*
5. Postal code *
6. HQ Address *
7. Street number *
8. Email PEC *
9. Phone *
10. Mobile
11. VAT ID*
12. Click on <*next*>

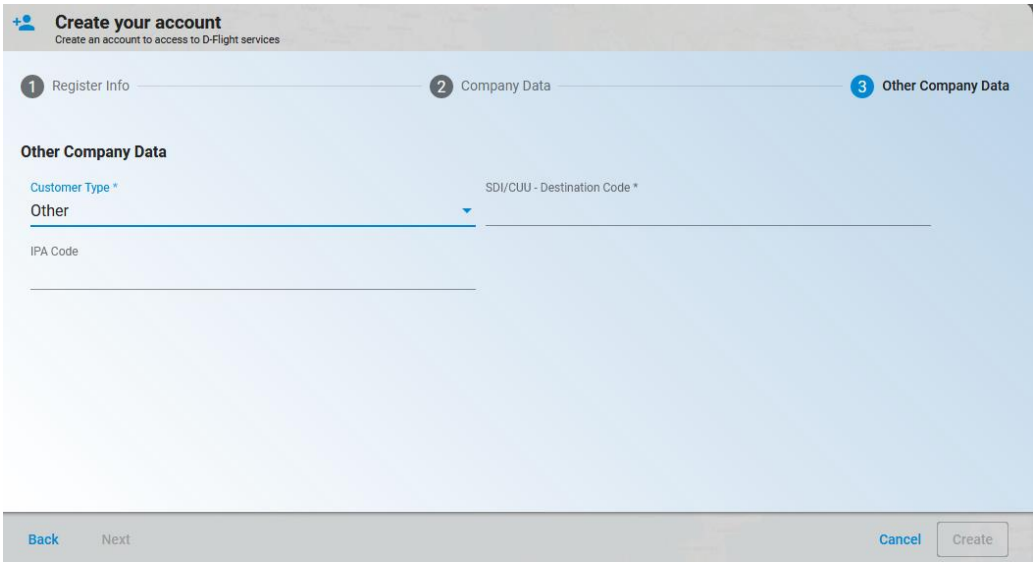
Warning:

- *The maximum number of characters that can be used to complete the company name is 32, abbreviations can be entered if the number is greater*
- *The pilot license is associated only to a private user, therefore it cannot be entered by a company / P.A user.*

Attention, fields marked with an asterisk (*) are mandatory

Step 3 Continue by entering <**Other company data**>:

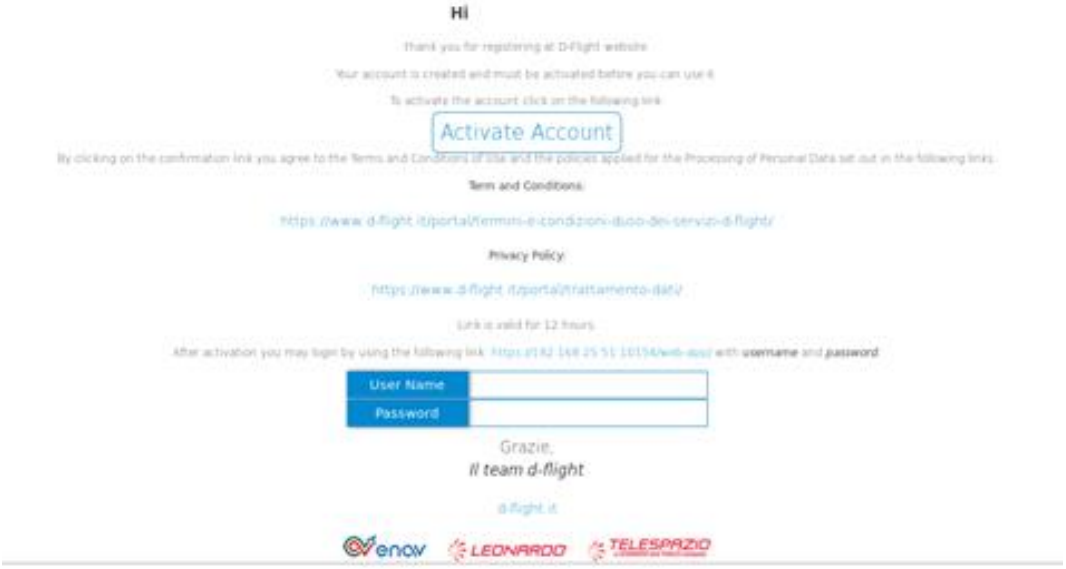
1. Customer type *
2. Destination code SDI *
3. IPA code *
4. Click on <*Create*>



(In case you want to return to the previous page, select <*Previous*>)

After clicking on <*create*> you must accept the platform's Terms and Conditions of Use and consent the processing of personal data to complete the registration.

Step4 After completing the <**User registration**> procedure, you will receive the d-flight email containing the **Activation instructions** at the email address indicated.



4.1 Click on "ACTIVATE ACCOUNT" and enter the username and password provided on the page where you are redirected

Please remember that:

- *after 2 hour from receiving the account activation email, if the link is not clicked, the account will be disabled and, you need to register again, 48 hours after failure to activate.*
- *to complete the registration and therefore the creation of the account it is not necessary to attach any document*

Attention:
In the case of registration as a "Public Administration":

- *the methods of payment for the services, in addition to credit cards, include bank transfers (IBAN: D-Flight Spa, Banca Intesa SanPaolo IT77W0306903390100000002200);*
- *the invoice will be issued in split payment mode.*

The e-mail supportopa@d-flight.it dedicated to the Public Administration is also active for the following aspects:

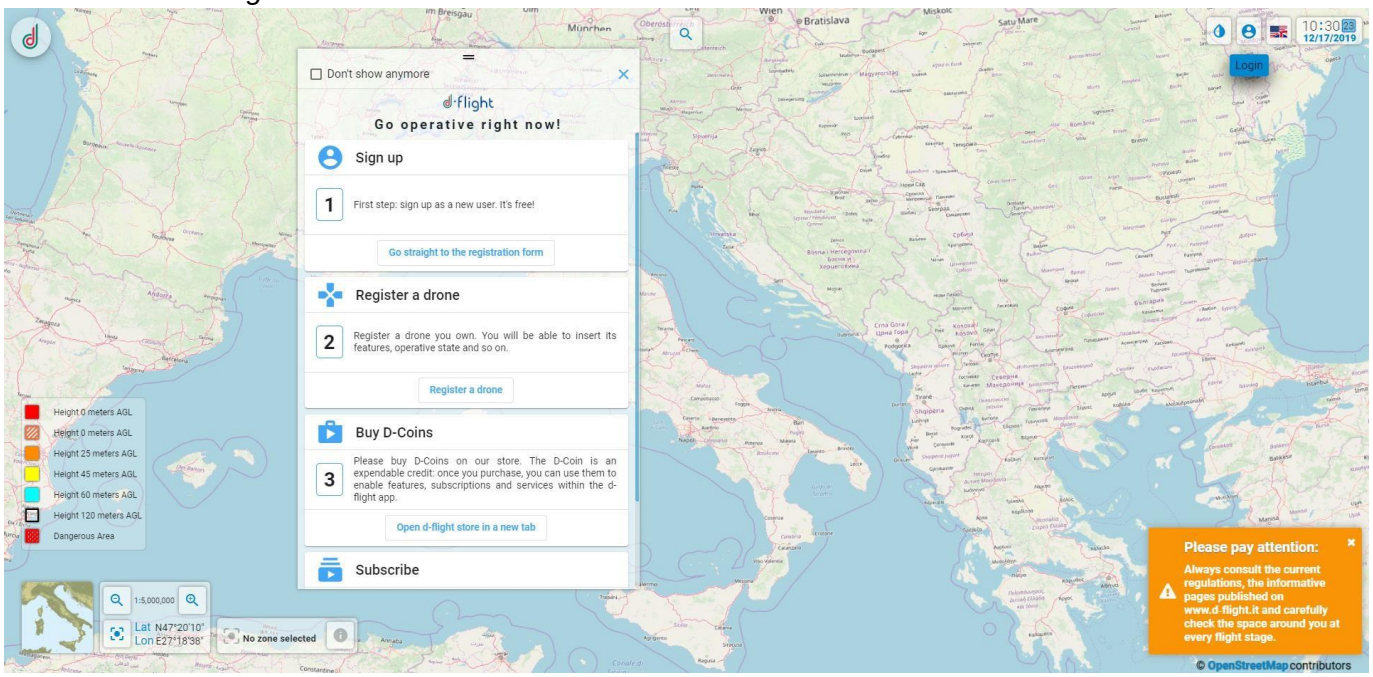
- *issue of a quote / quote order, invoice in advance of the transfer, or any supporting documentation (e.g. internal order, DURC, traceability of financial flows, etc.);*
- *request for inclusion in the CIG invoice and / or references to the determines / orders.*

1.3 USER AUTHENTICATION

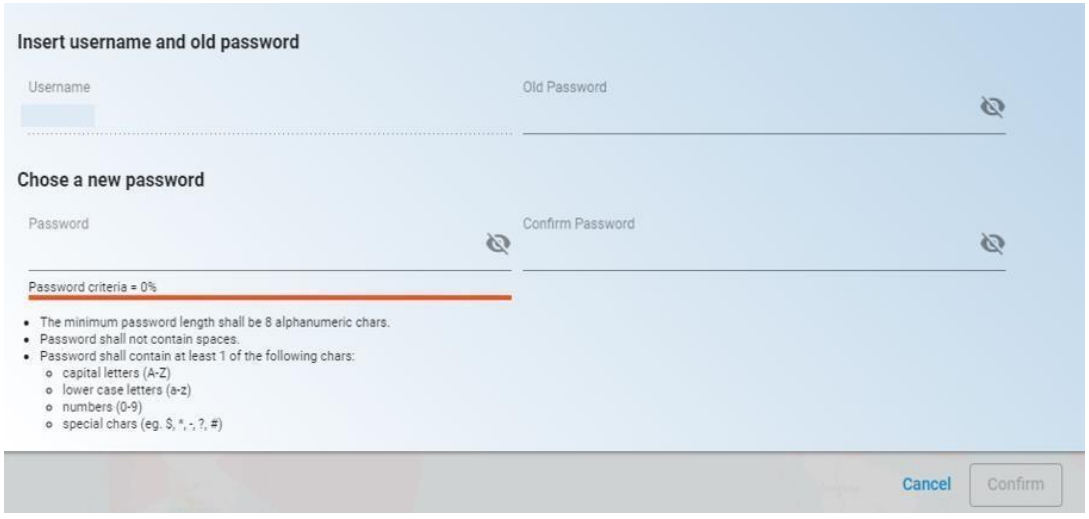
The USER AUTHENTICATION section provides information for access to the d-flight portal. After registering, it is necessary to change the temporary password that is automatically assigned by the system upon registration.

1.3.1 Temporary password change

1. Click on <*Login*>



2. Enter the credentials shown in the attachment of d-flight PEC email



3. Insert new password and click on <*Confirm*>

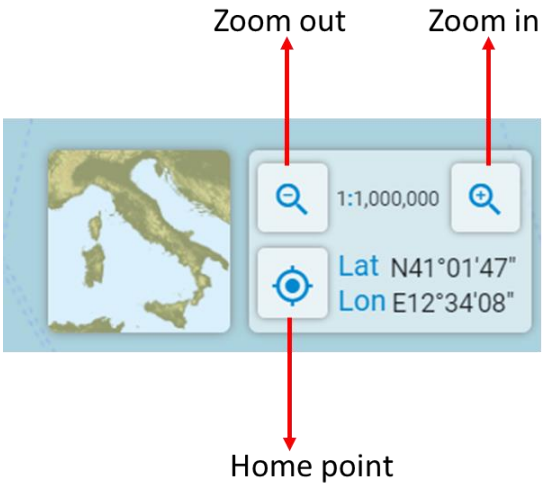
1.4 MAP NAVIGATION

1.4.1 Map View

In order to access the map you must be registered.
The cartographic map allows you to view the air rules in the areas of Italy where you would like to fly, it also allows you to view the no fly zones (reserved air areas).
You can move along the map by holding down the left button and moving the mouse at the same time (like "drag and drop").

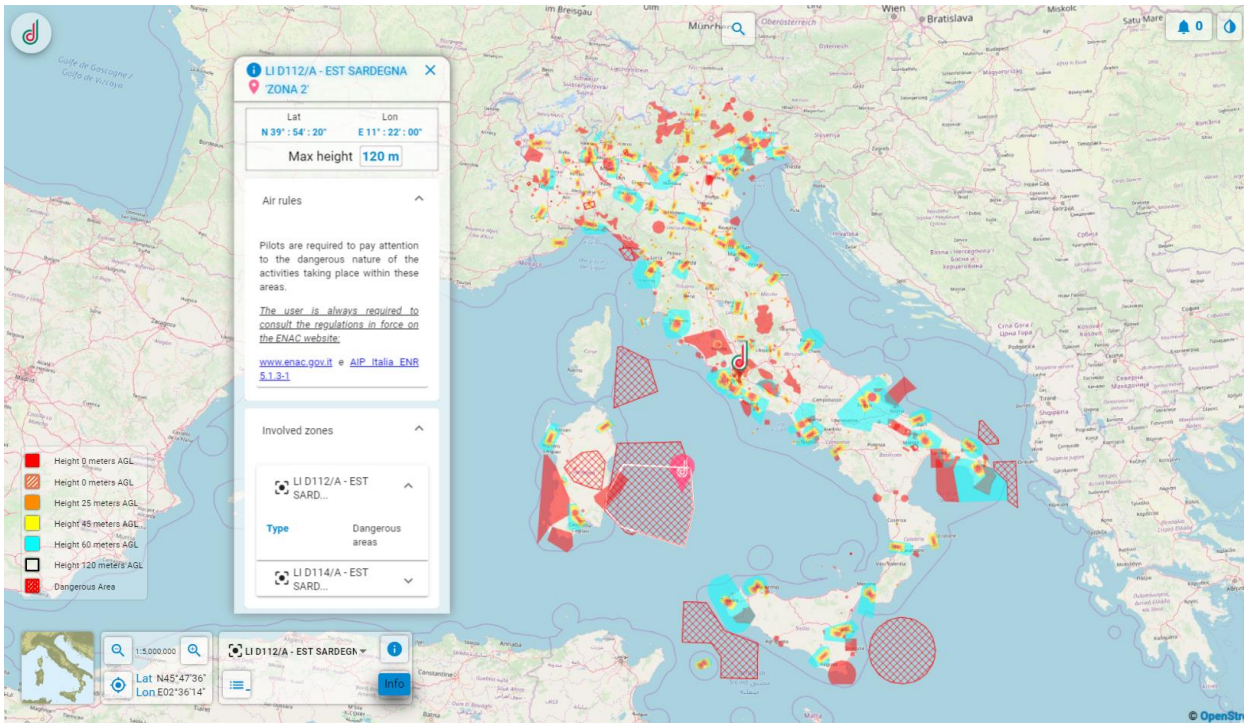
The **map scale** can be changed:

- ✓ Acting on the tabs of zoom in and zoom out (lower left of the screen)
- ✓ Acting on the mouse wheel



Air rules can be viewed:

- ✓ With <click left on the map>. The information of the selected point that will activate the corresponding area of interest, will appear briefly in the window below
- ✓ The detail of the information of the selected point will be available with click (left) on the info

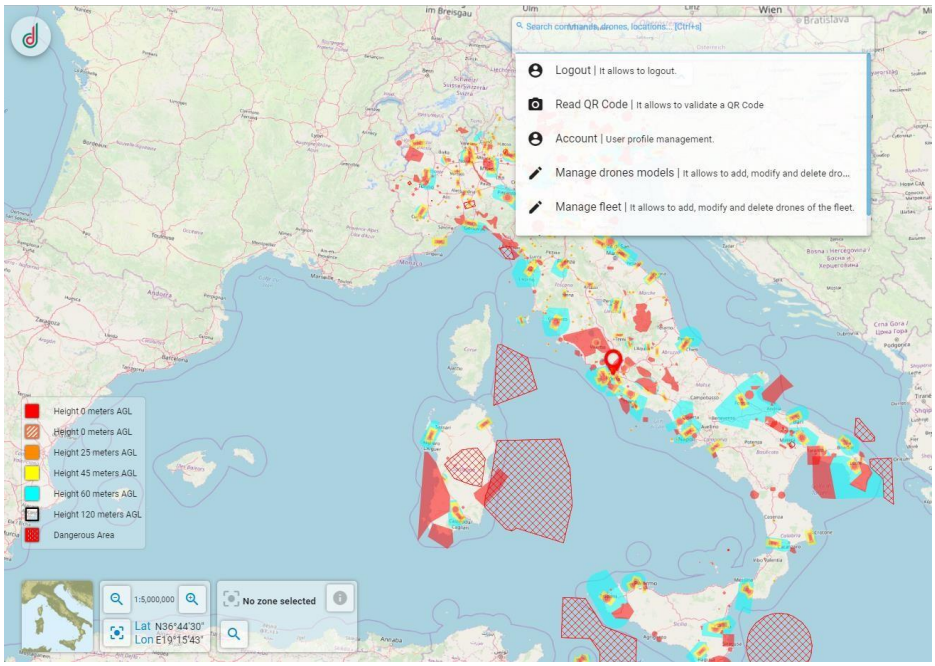


✓ With <right click on the map>. The information of the selected point will activate the corresponding zone and it appear in the pop-up.

The <Information on the selected point> window will show the <air rules> and the <zones involved>.
The detail of the rules and zones is available by selecting the drop-down menu.
Information on the representation of the "maximum height" is shown in the legend with different colors.

Through the window <search commands or places> it is possible:

- **Search / Select a site** (city) of interest
- **Access the registration**
- **Read QR**
- **Manage drone models**
- **Manage fleet**



In order to **look for a site of interest** you can:

1. Write the name of the site you want to look for (a list will appear within the drop down menu)
2. Click on the one you prefer and the system will automatically zoom on the site
   Or

1B. Write the geographical coordinates in WGS 84 format, with lat e lon separated by a space (*example 46.1100 11.3083*)
2B. Press enter and the system will automatically zoom on the site

1.4.2 Map View and Layers for PRO Users only

On d-flight, in addition to maps which are accessible to all registered users, the following maps and added value layers are instead available to PRO users only:

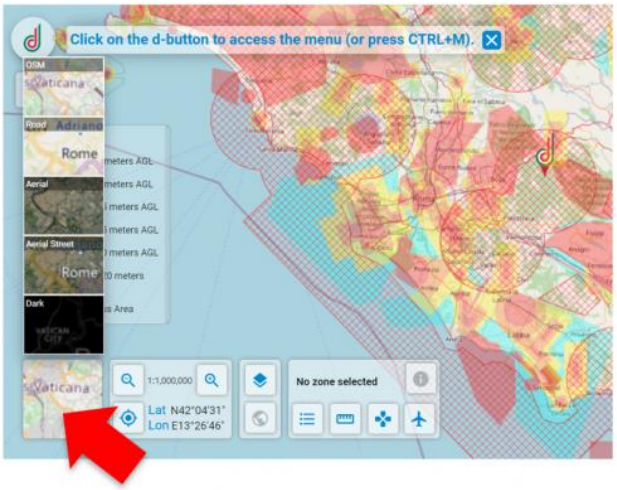
Maps

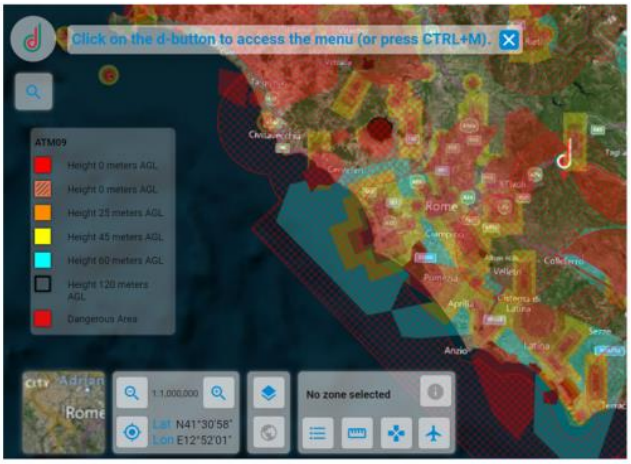
Aerial - This map shows orthophotos: geometrically correct and geo-referenced aerial photographs, so that the scale of representation of the photograph is uniform. The map can be considered equivalent to a geographical map
Road - This map that displays vectorial images of roads, buildings and geography in a graphic manner. The map can be considered equivalent to a political map.
Aerial Street - This Aerial map highlights streets and main landmarks for easy identification of places through satellite images (in addition to the openstreetmap, already available on d-flight)
Dark - Map optimized for night viewing

'Aerial', 'Road', 'Aerial Street', 'Dark' Maps include Google Bing data (the data from which the default road map is rendered is licensed by Navteq) and will allow PRO Operators to analyze in more detail the area of operations.

Activation

To activate Maps, open the Map Selection Panel [Pic. below] and click on the desired Map.

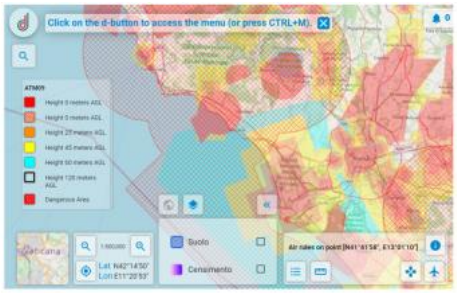


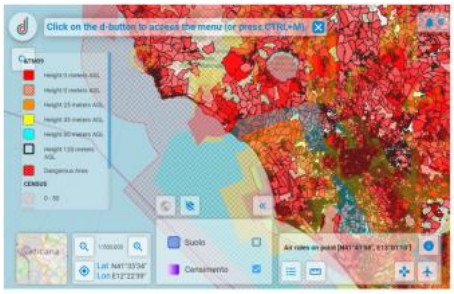


Layers

- Land use - includes information relating to the environment on some priority issues for the European Union (air, water, soil, land cover, coastal erosion, biotopes, etc.)
- Census - includes information on the number of inhabitants by census section

The 'Land use' layer includes data provided by the CORINE 2018 project (a European program launched in 1985 by the European Commission) and will allow PRO Operators to carry out a preliminary analysis of the ground risk for the preparation of the SORA.
The 'Census' layer includes the ISTAT data from the 2011 census and will allow PRO Operators to carry out a preliminary analysis of the ground risk for the preparation of the SORA
To activate the Land Use and Census layers, click on the 'Show Layers' button and select the 'Soil' and / or 'Census' layer [Fig. 2]. NB. The 'Land Use' and 'Census' layers are visible when the zoom is equal to or greater than 1: 20,000 (Land Use) or 1: 50,000 (Census)





1.5 PROFILE MANAGEMENT

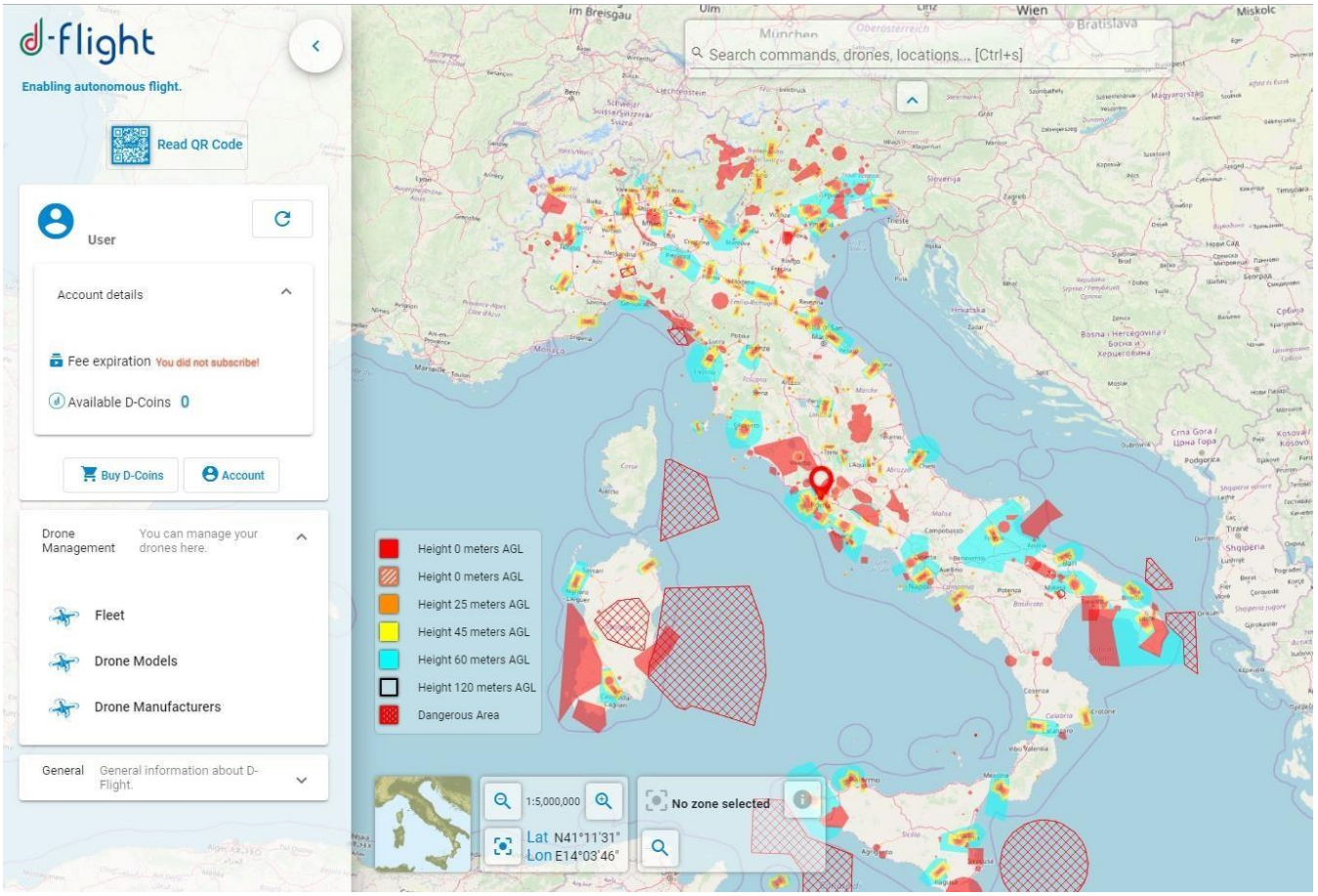
The PROFILE MANAGEMENT section provides information on the procedures for displaying and modifying your profile:

- ✓ **View Data Edit**
- ✓ **Change PSW**
- ✓ **User Enabling as Operator**

1.5.1 View/Edit Data

To view the details of your account (<*Fee expiry*> and <*D-Coin*>):

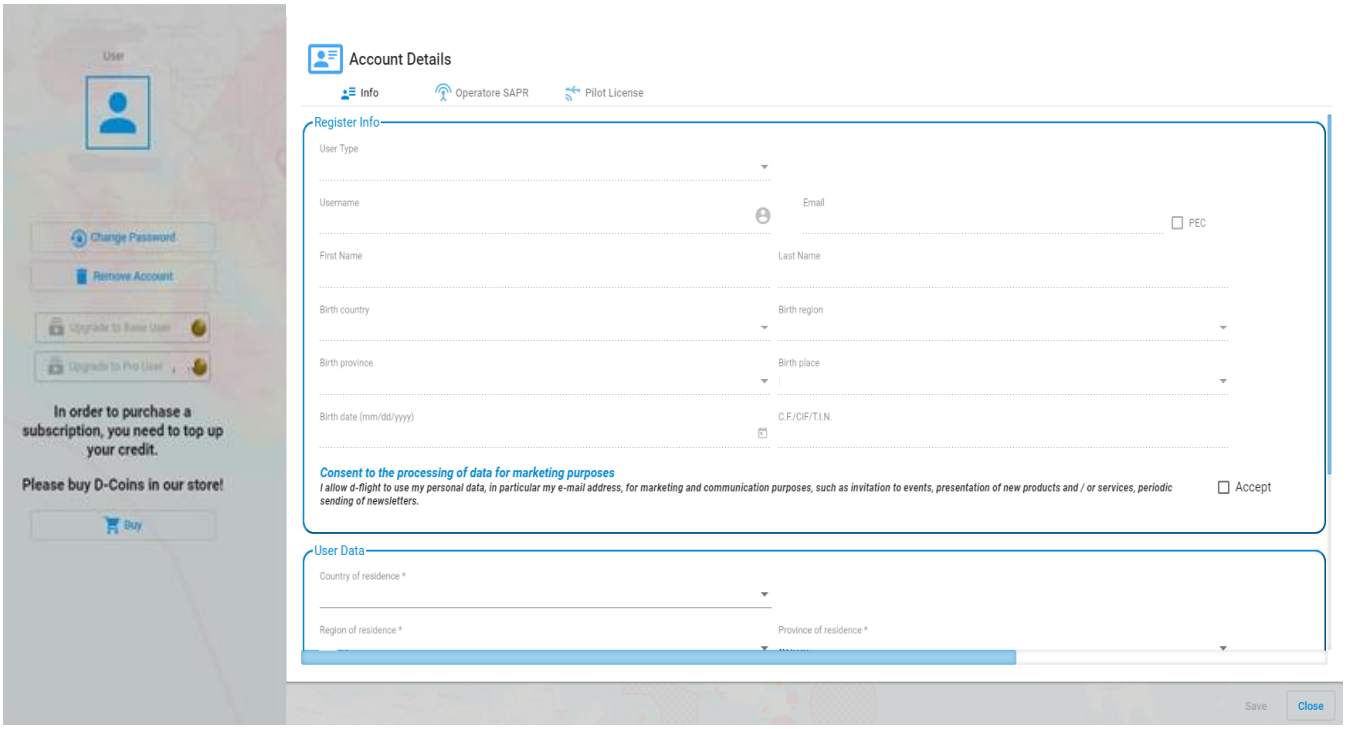
1. left click on the D-Flight icon
2. left click on <*Account Details*>



To **change** your profile details:

1. click left on <*Account*>

In the window of the <*Account Details*> the Tabs will be available for viewing and modifying the User and Pilot information



Selecting the <**Information**> Tab will be possible:

- ✓ display the <*Registration Information*>
- ✓ view / modify <*User Data*>

By selecting the <**Pilot License**> Tab it will be possible to **view** / **modify** the data of your <*Pilot License*> entered during the registration phase.

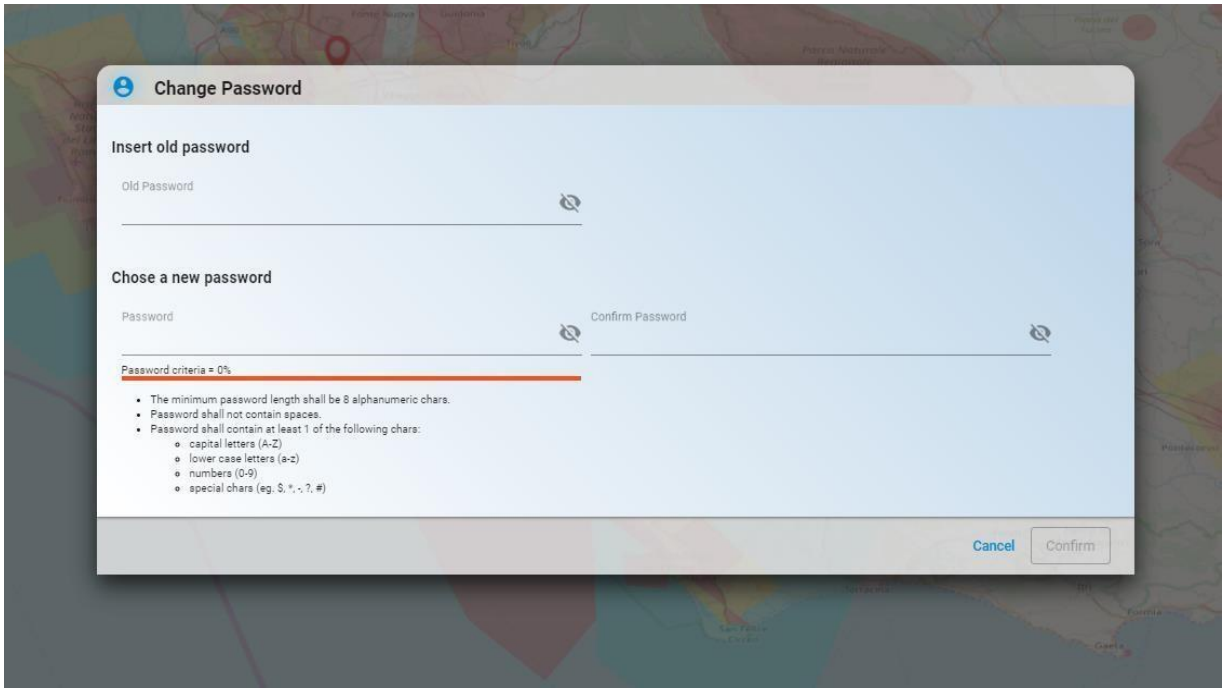
By selecting the Tab <**Sapr Operator**> it will be possible to register further as an operator Sapr and obtain the release of QR-Codes

In the <*Account Details*> window, the <*Change Password*> and <*Remove Account*> functions will be available;

1.5.2 Change Password

With <**Change Password**> you can update your password.

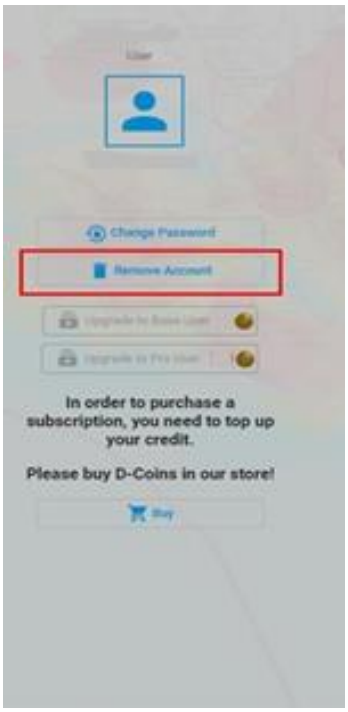
1. Enter the old password
2. Follow the pop-up instructions
3. Once all the fields have been updated, select <*Save*> to complete the procedure 4. <*Close*> to exit without making changes



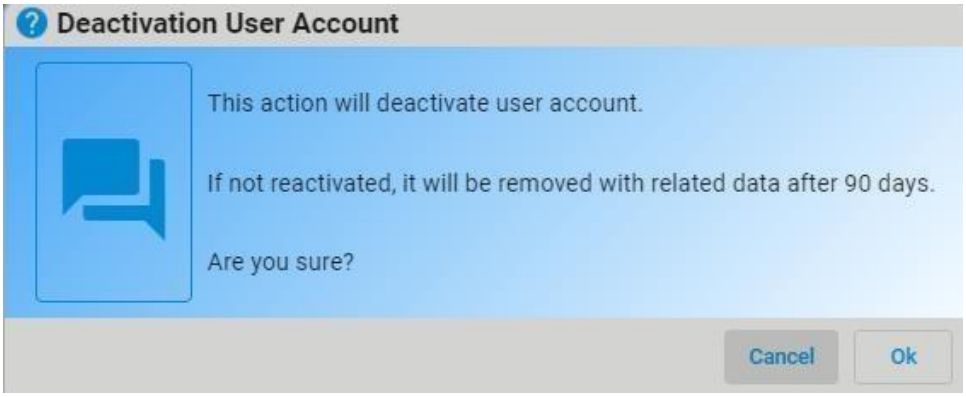
If they are not followed correctly, the error will be indicated in red

1.5.3 Remove Account

With <**Remove Account**> it will be possible to DELETE the account created in d-flight



1. Click left on <*Remove Account*>
2. The warning pop-up shown below will appear
3. Select:
   - ✓ <*Cancel*> to exit without make any changes
   - ✓ <*Ok*> to cancel



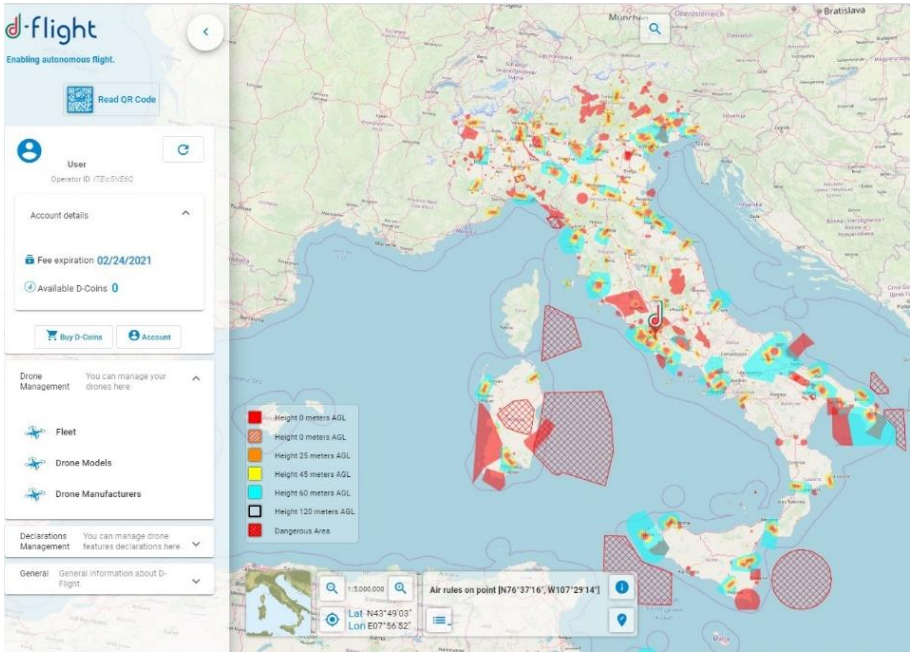
4. Check the receipt of the user de-activation confirmation e-mail
5. Click on the confirmation link

ATTENTION. By performing this procedure you will no longer be able to log in to the d-flight system as a registered user

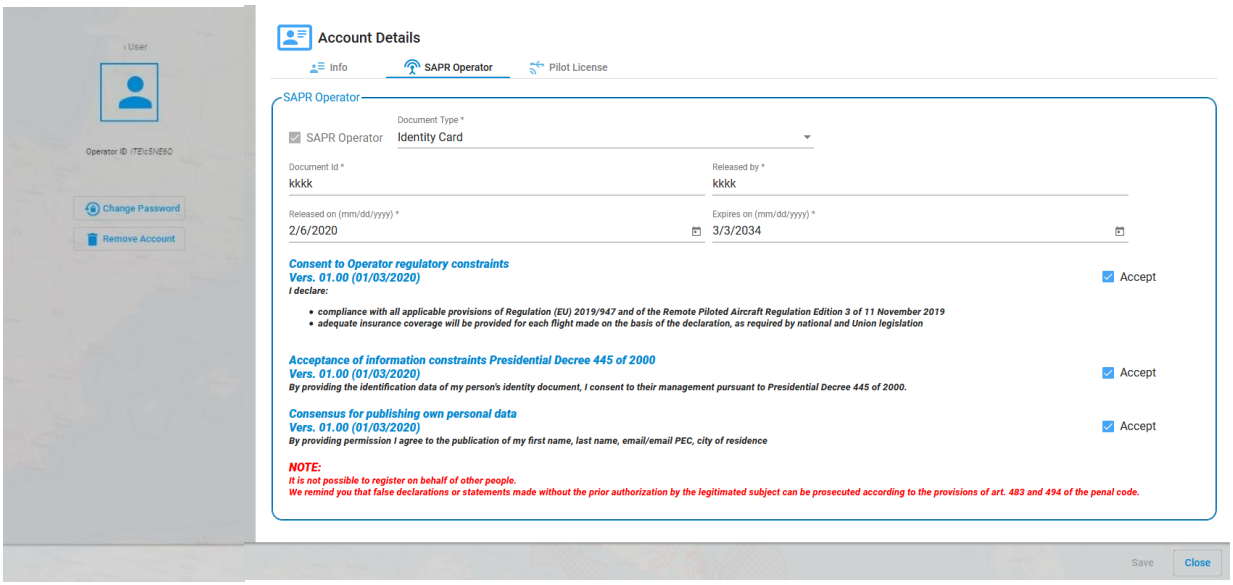
1.5.4 Enabling User As SAPR Operator

Left Click on the d-flight icon

1. Click on <Account Details> from which the drop-down menu will open
2. Click on <Account>



1. Left Click on < Sapr Operator> icon and select <ON>
2. Insert <Type of document> that can be:
   - ✓ Identity card
   - ✓ Electronic Identity card
   - ✓ Passport
3. Insert <ID Document>
4. Fill in <Released by>
5. Fill in <Released on>
6. Insert <Deadline>
7. Accept consent to regulatory and IT constraints
8. Click on <Save>, otherwise if you do not want to proceed click on <Close>
9. If you do not give your consent to the Operator's regulatory constraints and do not accept the informative constraints of Presidential Decree 445, the user is placed in a ***suspended*** state which is canceled once the flag has been made on the two boxes.



ATTENTION: Before being completely registered as an operator, the user will receive an email with instructions for the activation procedure:

- *send by e-mail with which you registered on d-flight to the e-mail address **registration@d-flight.it**, within two working days, a copy of the identity document, legible and valid, signed, and the operator ID*

If you are under the age of 18, you must also attach, still via pdf file, the signed scan of a document of your parent or guardian, valid.

If you are registering a legal personality, and you are not its legal representative, you must also attach, still via pdf file, the proxy of the legal representative and the signed copy of his identity document, currently valid (delegating)

If you are registering a public office o PA, and you are not its Manager in charge, you must also attach, always via pdf file, the proxy of the Manager in charge and the signed copy of his identity document, currently valid (delegating).
It is not possible to register on behalf of other people.

The pilot license is associated only to a private user, therefore it cannot be entered by a company / P.A user.

*Once the required documents have been sent to the email registration@d-flight.it and received the automatic notification of correct delivery email, **the registration as SAPR Operators must be considered immediately effective**; if incorrect and / or incomplete data emerge from the documentary confirmation, D-Flight will promptly send evidence for the necessary changes / additions.*

1.5.5 Publishing your data in the SAPR Operator List

As an option, PRO users can decide to provide d-flight with their consensus for the publishing of their personal data within the SAPR Operator List.
The list is published on d-flight portal and it is accessible to everyone who visits the website.

d-flight is not in way responsible and/or liable for the use or the unlawful processing, by any third party which has access to the site, of personal data published on d-flight portal.

To provide the Consensun for publishing your data, once logged in to d-flight platform:

1. Open your 'Account Detail' page
2. Go to the 'SAPR Operator' menu
3. Click on the right box next to "**Optional Consensus for publishing own personal data"**

You can eventually remove the consensus whenever you want, just clicking again on the box and removing the flag. Once the Consensus is removed, your personal data will be removed as well from the SAPR Operator List as soon as the List is refreshed (typically any Monday, or the first working day in case of holiday).

1.6 D-COIN AND E-PAYMENT Management

1.6.1 D-Coin

With the purchase of d-coins through d-flight Market Place it will be possible to purchase the basic / pro subscription and activate QR-Code.
Each d-coin has a value of € 1, once the required amount is reached it can be used for the purchase of the basic / pro subscription and therefore for the activation of the services.
In addition, packages associated with the services offered by d-flight are available in the Market place to facilitate the purchase process.
After selecting the number of d-coins or packages you want to buy, from d-flight Market Place you are redirected to the page where you can enter the payment methods and finalize the operation. At this point, the d-coins are available for activate subscriptions and therefore for access to d-flight services.
From the page relating to your user profile, it is possible, through the use of the purchased d-coins / packages, to be promoted to a basic / pro user. As described in the next section (**1.6.2.2 *Subscription Activation***), the basic subscription is free and it will be activated once you have registered while for the pro subscription you must register and pay the fee of € 24,00.

1.6.2 E-Payment Management

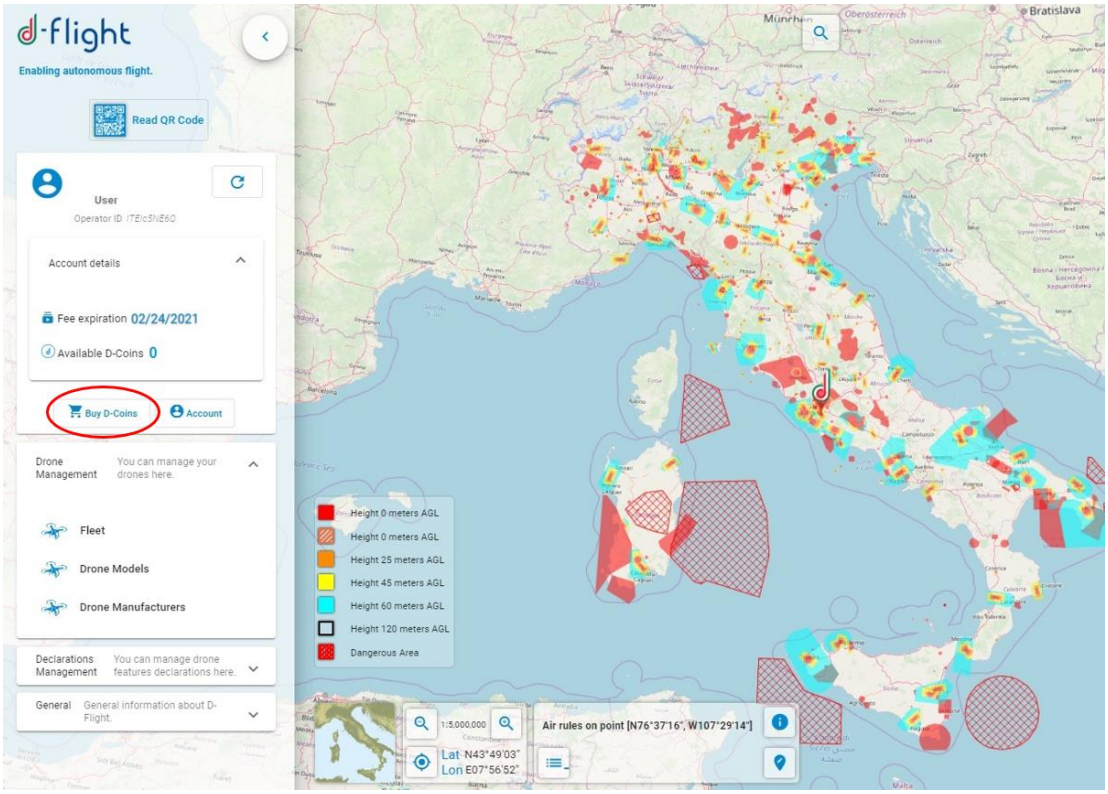
The E-PAYMENT MANAGEMENT section provides information on d-flight Market Place portal access and on how to purchase d-flight products:

- ✓ Access to the D-Flight Market Place Service
- ✓ Subscription Activation
- ✓ E-Payment. Account Management and Order Monitor
- ✓ Purchase QR-CODE

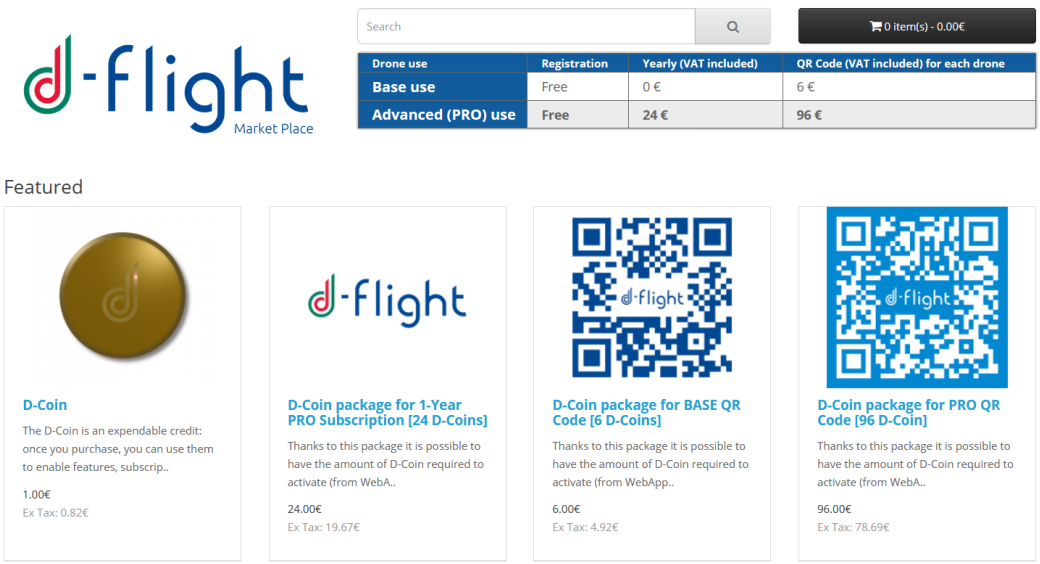
1.6.2.1. D-Flight Market Place Service Access

Profile: Registered User

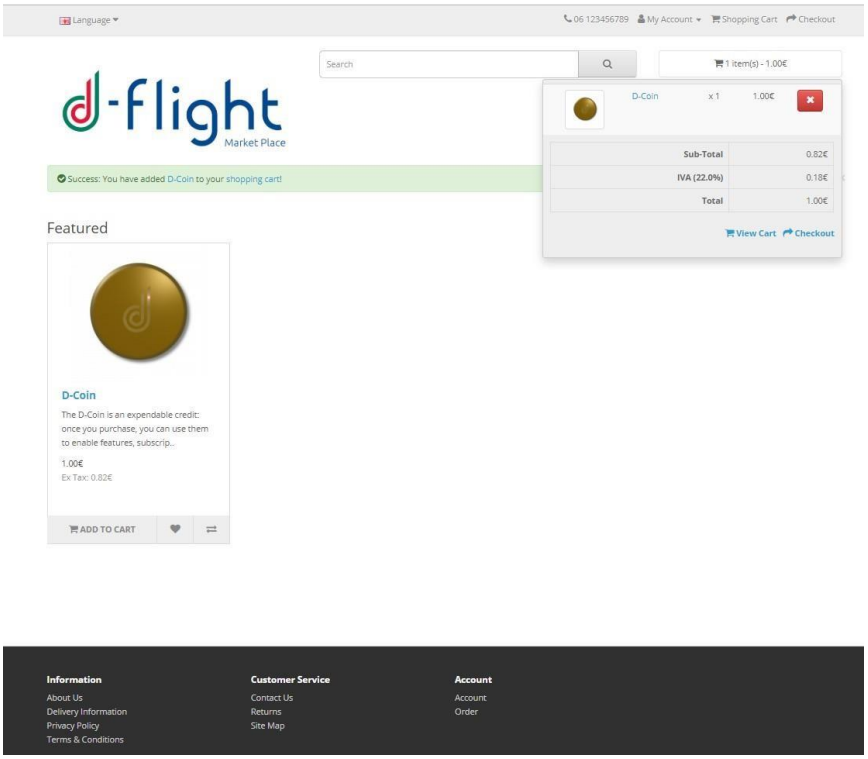
1. From the "Main Page" select the d-flight icon (top left) and select <*Buy*>



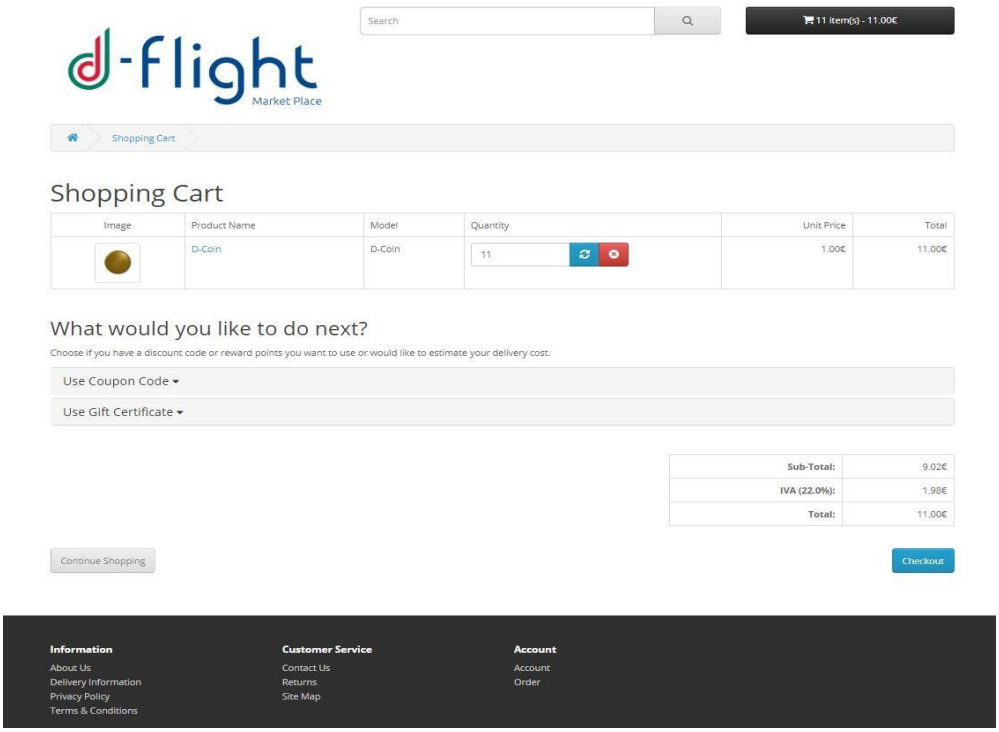
This allows you to access to the d-flight Market Place WEB page, required for the purchase of D-Coins that can be used to subscribe the subscriptions (basic or pro) and / or to buy QR Code.



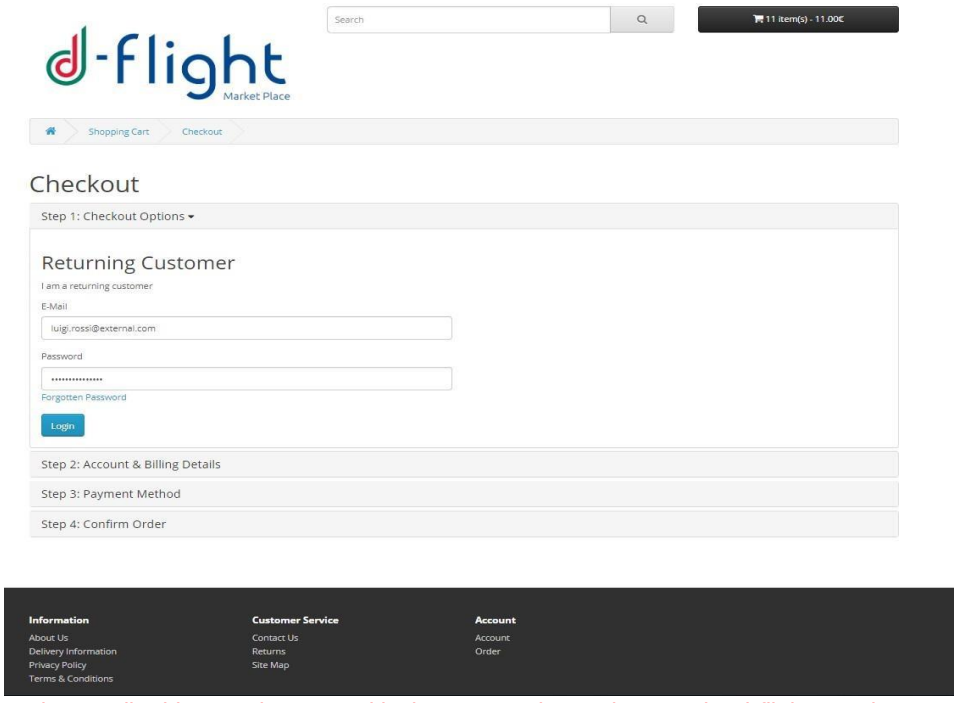
2. At this point it is possible to purchase the D-Coin needed to subscribe and / or acquire QR Code by clicking on <*Add to Cart*>



3. Select the shopping cart (top right) and press <*View cart*> to get a summary of the order and then proceed with the purchase by clicking on <Buy>

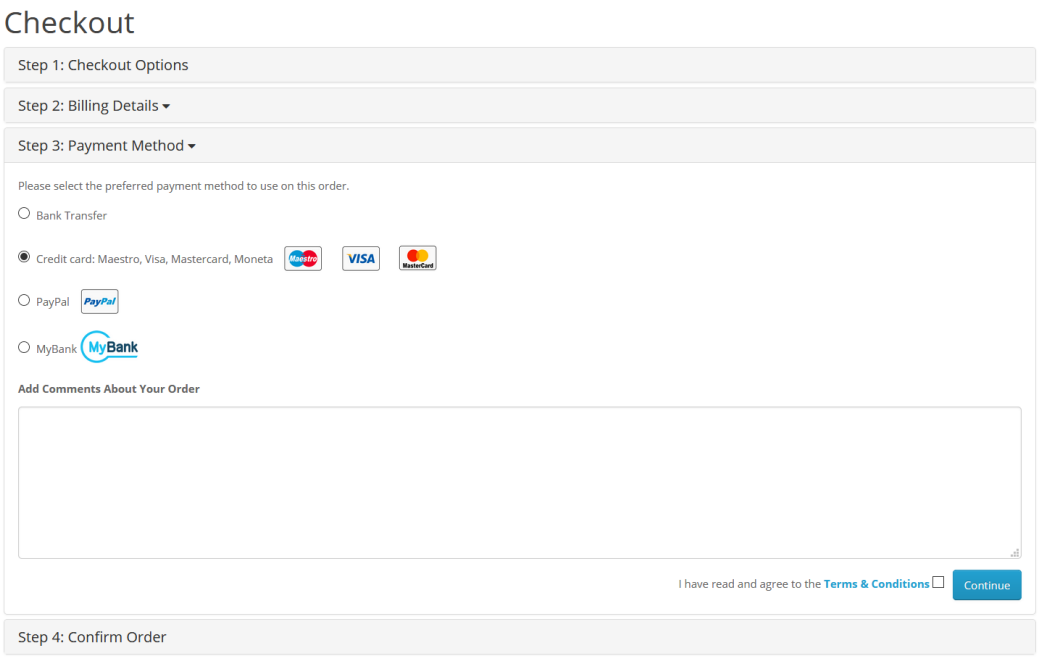


4. Or press <*Checkout*> to purchase immediately
5. You will be redirected to the following page, check the credentials with which you are making the purchase, if the credentials are correct select <*Access*>

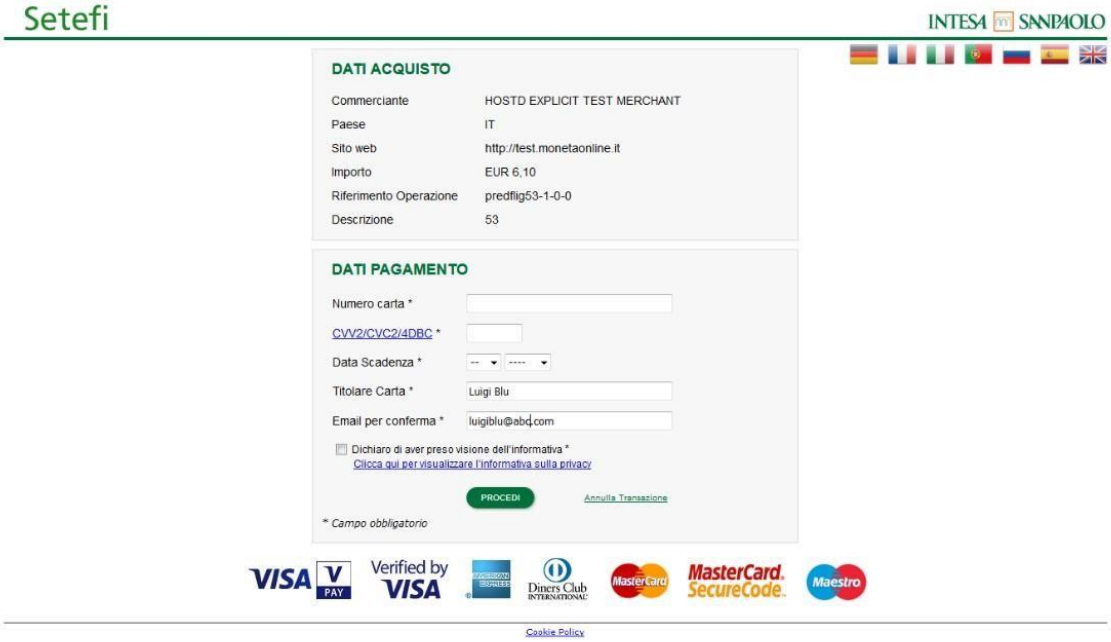


Attention, the Email address to be entered is the one used to register on the d-flight portal

6. Enter the billing details
7. Select the payment method and accept the "Terms and conditions"

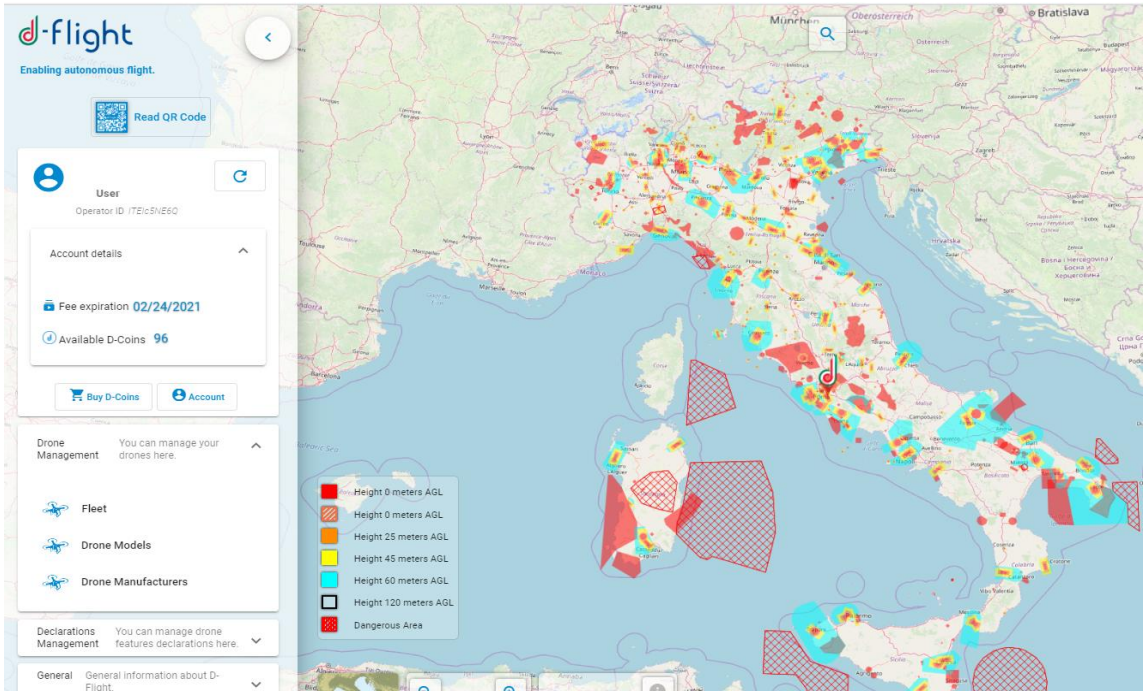


8. Click on <*Continue*>
9. Click on <*Order Confirm* >
10. If Credit card has been chosen, you are redirected to the following page, where you can enter your credit card details



Attention: in the case of payment by coin web-credit card, please note that only VISA and MasterCard cards are accepted

11. Click on <*Go on*> and <*Pay*>
12. At this point the number of D-coins available can be viewed from the main page



N.w. if you have chosen to pay by bank transfer:

- send a bank transfer to the following IBAN: IT77W0306903390100000002200
- insert holder: d-flight S.p.a.
- indicate the order ID in the reason for the transfer

Instead if you have chosen the web-credit card currency:

- Enter Card Number
- Insert CVV2 / CVC2 / 4DBC
- Enter the Expiration Date
- Enter the Cardholder
- Enter an email to confirm the order

1.6.2.2. Subscription Activation

Profile: Registered User

After D-Coins purchasing it is possible to activate a subscription which allows the acquisition of functional privileges valid in the time period in which the subscription is considered valid. The following table shows the privileges in relation to the type of subscription subscribed:

Drone User	Registration	Annual Subscription (VAT included)	QR Code (VAT included) for only one drone
Basic User	Free	0€	6€
Pro User	Free	24€	96€

The fees charged for each service are determined under the supervision and approval of ENAC.

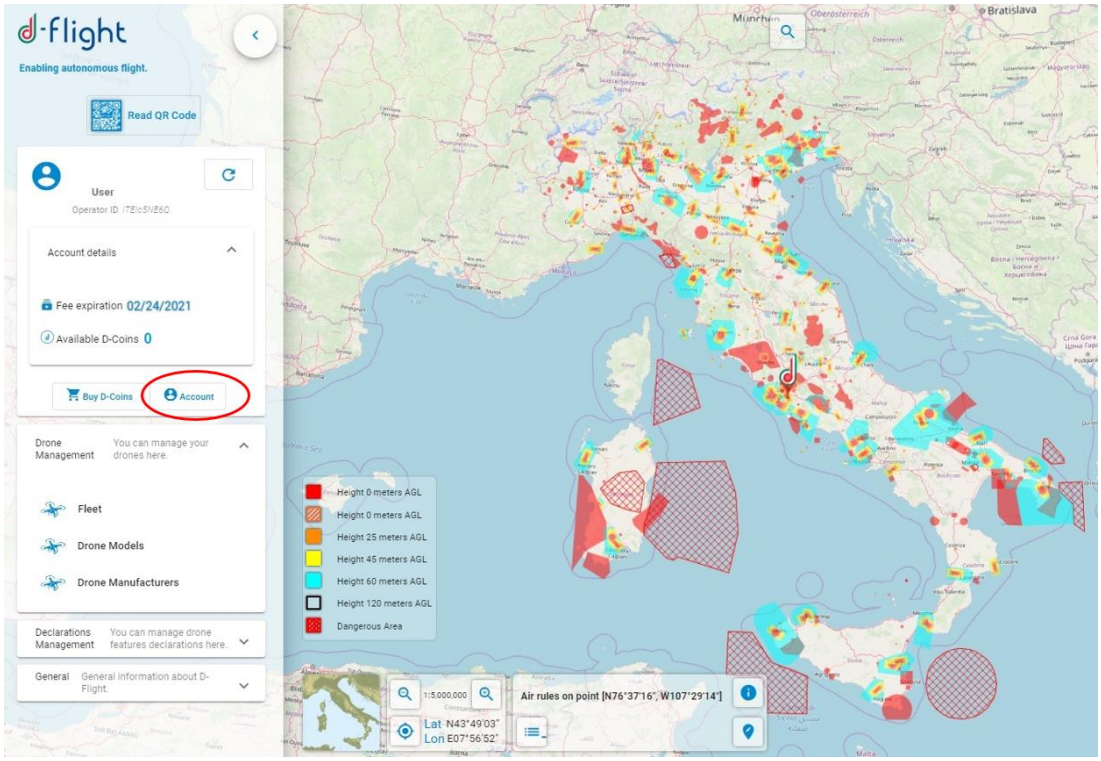
< **BASIC SUBSCRIPTION** >
This subscription allows a User to access basic d-flight services for 1 year for free.
With this subscription it will be possible to activate the QR Code Base, for a cost of € 6.00 (each).
The basic subscription will be activated once the registration procedure has been successfully completed.

< **PRO SUBSCRIPTION**>
This subscription allows a Pro user to access d-flight services for 1 year for a cost of € 24.00.
With this subscription, it will be possible to activate the QR Code Base or Pro, for a cost of € 6 and € 96 (each ones) respectively.
The pro subscription, unlike the basic one, will allow the user to make the declaration (standard VLOS scenarios) via the d-flight website.

Attention: the Company/ P.A. users can only subscribe PRO subscriptions.

To proceed with the **purchase of the subscription**:

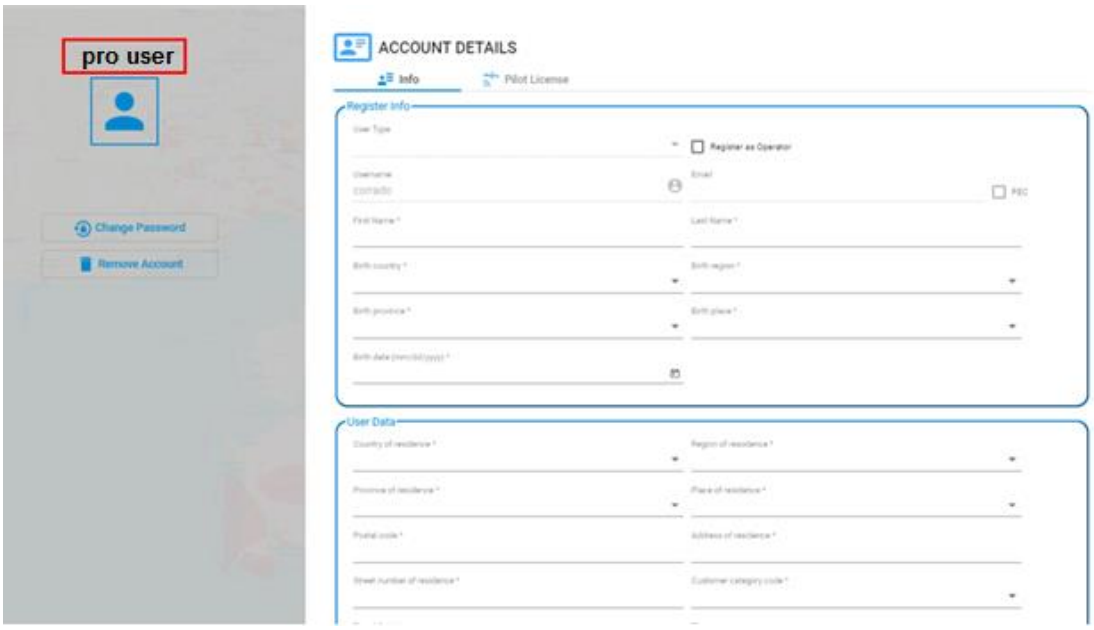
1. Left Click on d-flight icon
2. Left Click on <*Account*>



3. In the <*Account Details*> window, the two types of subscription, **Basic** and **Pro**, will be available

4. Select the subscription type **Pro**

5. Left click on <*Ok*>



The purchased subscription will appear to the left of the < *Account Details* >

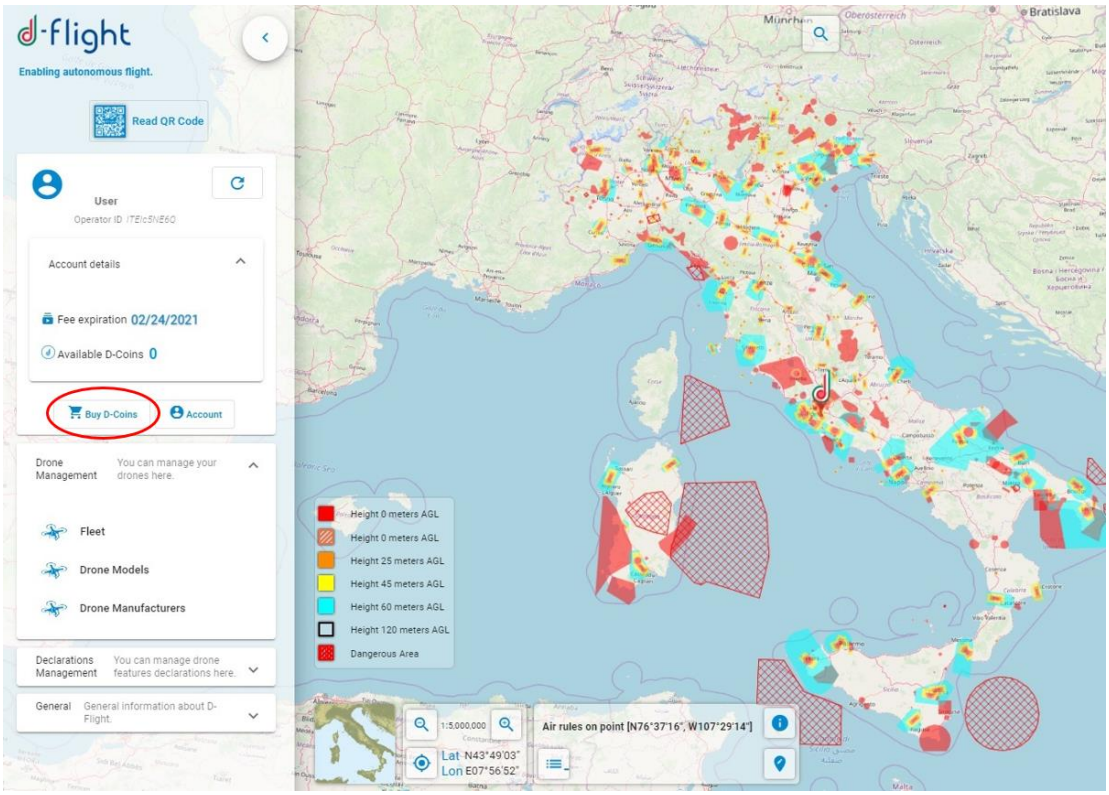
To complete the subscription registration activities, you will receive an email from d-flight CERTIFIED MAIL with confirmation that the subscription has been successfully activated ubscription successfully activated.

1.6.2.3 E-Payment. Account Management and Orders Monitor

Profile: Registered User (Basic/PRO)

After logging in to d-flight Market Place you can view / edit your D-Flight Market Place account and view your orders.

1. Click on <Buy D-Coin>



2. You access the WEB page of d-flight Market Place
3. By selecting <My Account> you will have the possibility to access the menus of:
   - ✓ Change Password
   - ✓ Edit your addresses in the address book, to edit or add address
4. By selecting < My Orders> you will have the possibility to access the menus of:
   - ✓ View the Order History
   - ✓ View your transaction

1.6.2.4. QR-Code Purchasing

After purchasing the d-coins from d-flight Market Place, you can activate the QR-Codes (see section 1.7.4 Activate QR-Code).
To activate the QR code, you must have signed up for the pro / base subscription.

1.7 DRONES MANAGEMENT

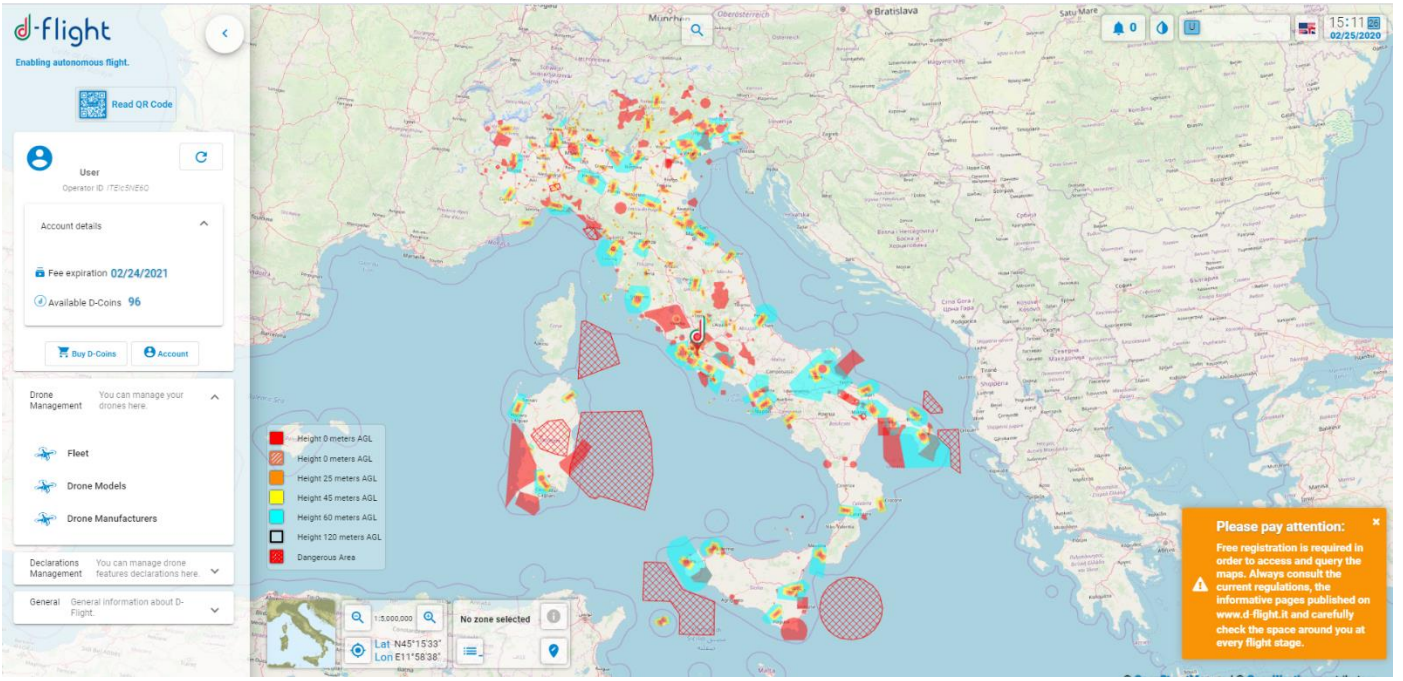
It is the service through which a user can record the data of a drone in his possession with the brand, model, serial number and configuration (UAS).
The drone operator user can print the QR-Code containing information on the Drone, on the owner, on the operator himself and then fly with the drone.
The section also provides information for fleet display and QR-code management, in particular:

- ✓ **Access to <Drones Management>**
- ✓ **Drone Management (Creation / Modification / Cancellation)**
- ✓ **Enable QR code**
- ✓ **QR code printing**
- ✓ **Reading QR code through mobile app**
- ✓ **Change Drone Status**
- ✓ **Declaration**

1.7.1 Access to <Drones Management>

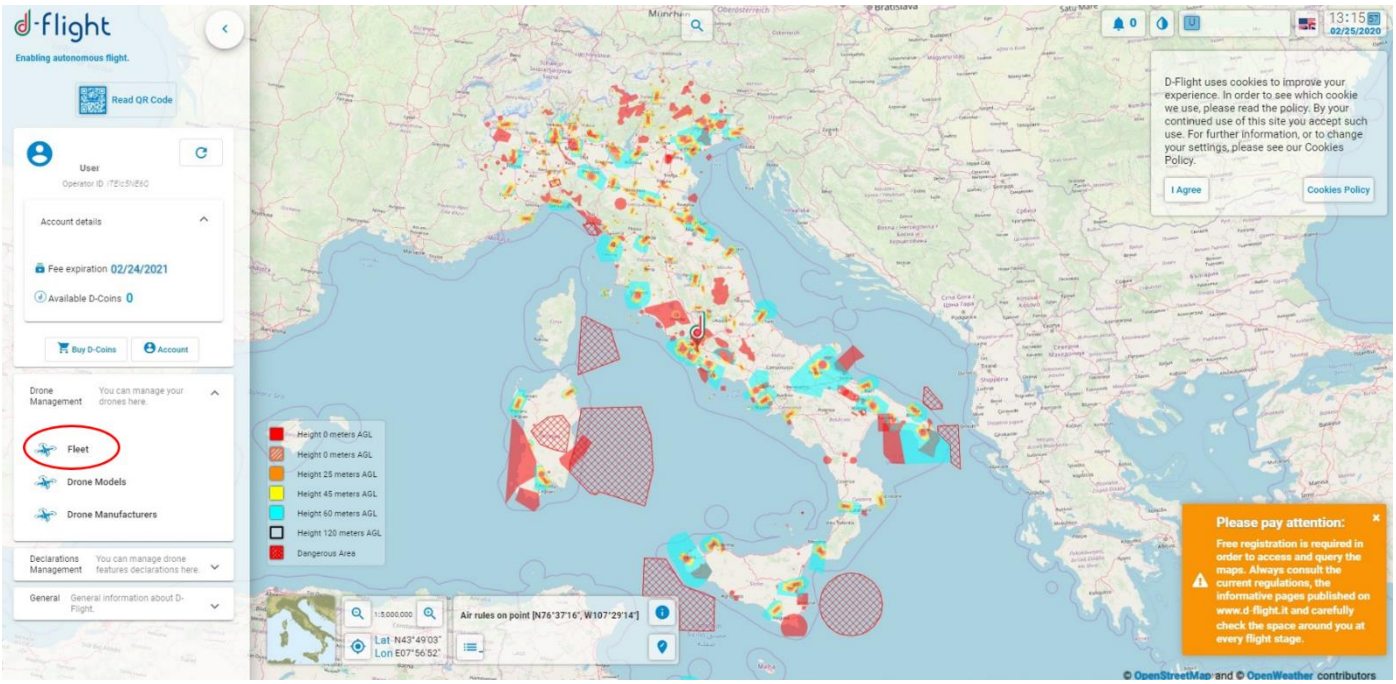
To access the display pages:

1. Left click on d-flight icon
2. Select <*Drone Management*>

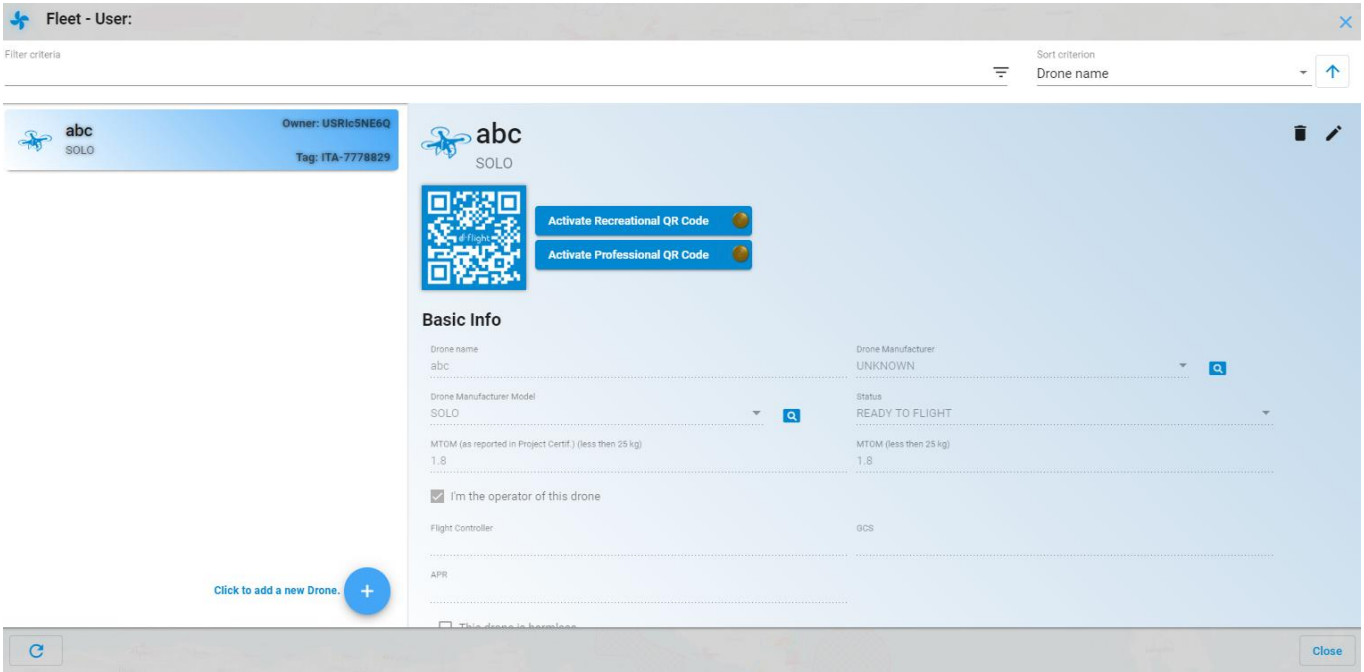


1.7.2 Drone Management (Creation/Modification/Cancellation)

From Drone Management page select <*Fleet*>



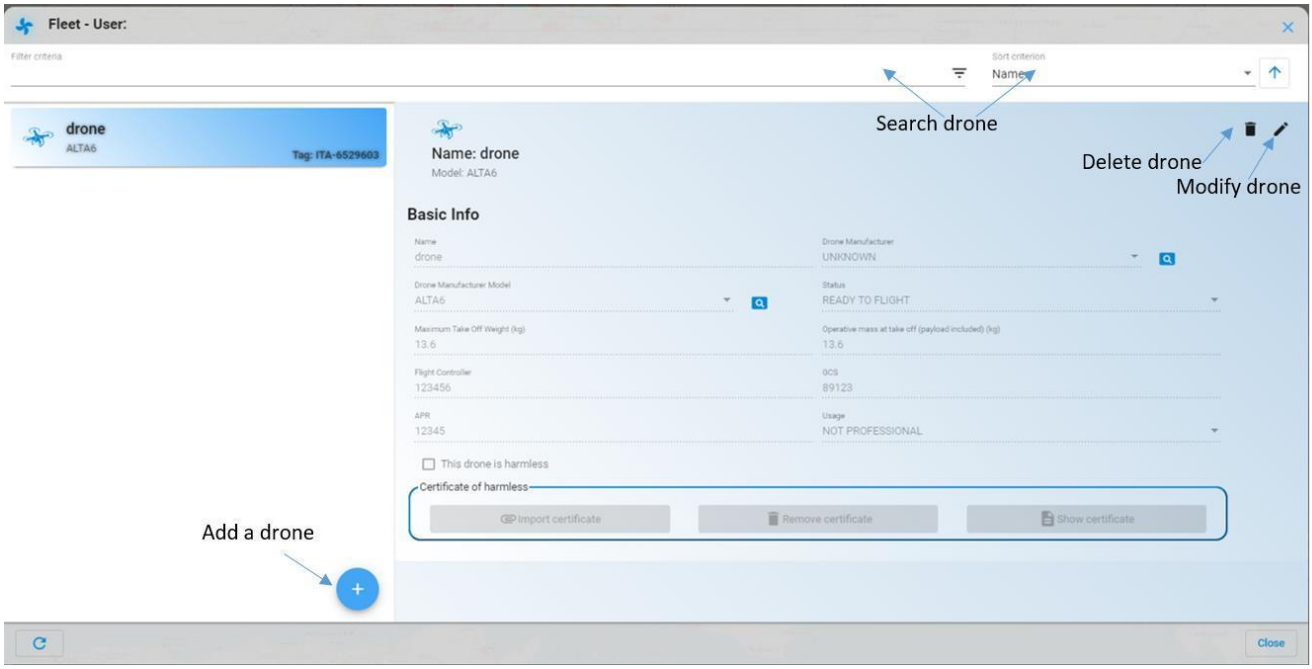
<**Fleet**>: allows viewing, editing and creating drones on your account.
The system retrieves the list of drones for which the user is the owner.
In the case of multiple drones it is possible to carry out searches with Filter or Sorting



To **create a new Drone** click on the icon create drone (+) and enter the data related to the drone:

1. Name *
2. Drone manufacturer*
3. Drone model*
4. Status*
5. MTOM*
6. Flight Controller
7. GCS (*),
8. APR (*),
9. If non-offensive drone insert the flag on "this drone is non-offensive"
10. Click on <*Save*> to complete the entry
11. Click on <Close> to exit without saving

To **modify the data related to created drone** select the drone to be modified and click on the edit icon <*modify drone*>



To make changes, select:

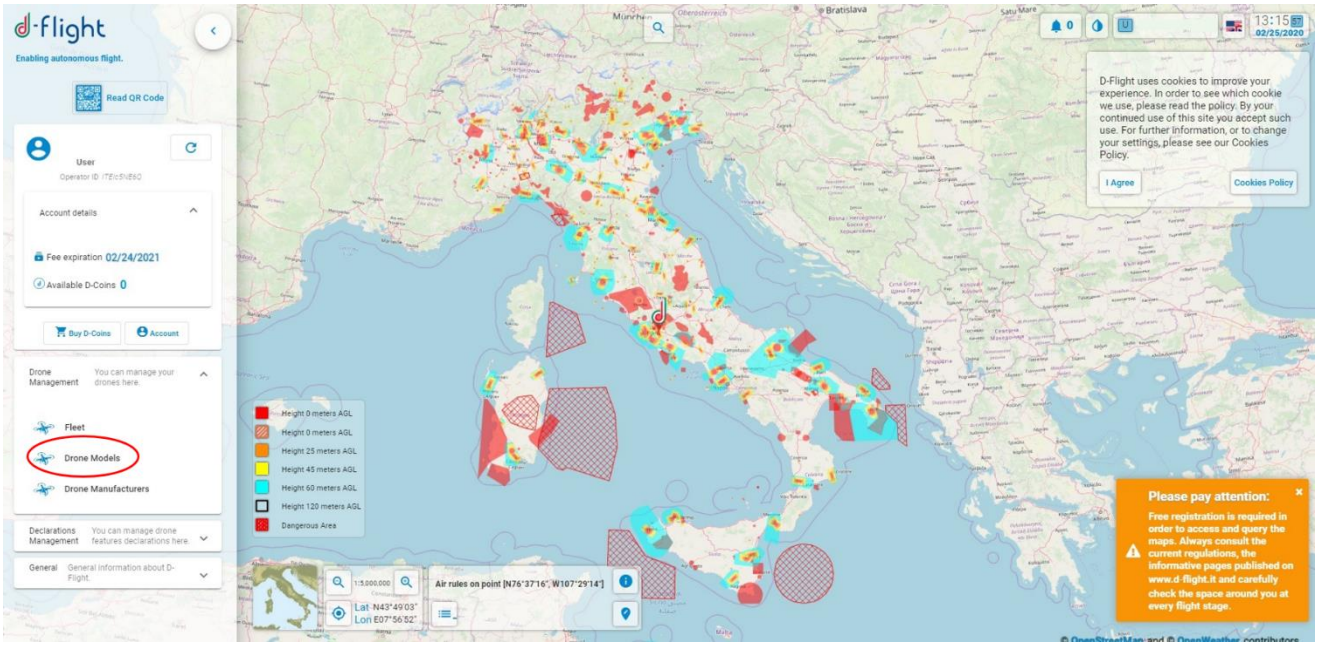
- ✓ <*OK*> to confirm the changes
- ✓ <*Cancel*> to exit without making changes

To **delete the data related to a drone created** select the drone to be deleted and click on the delete icon <*delete drone*>.
The system asks for confirmation of the cancellation operation.
Select:

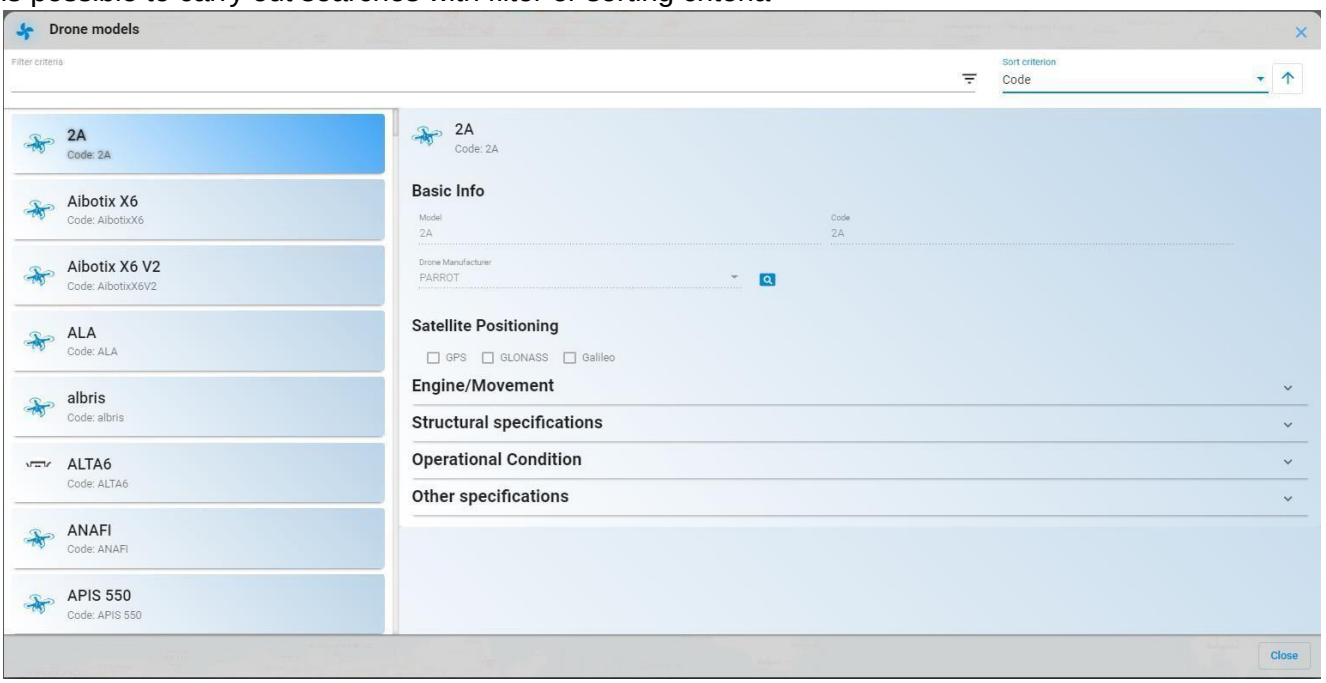
- ✓ <*OK*> to confirm the deletion
- ✓ <*Cancel*> to exit without making changes:

1.7.3 Viewing Drone Models / Manufacturers

From the Drones Management page select <*Drone Models*> to view drone types



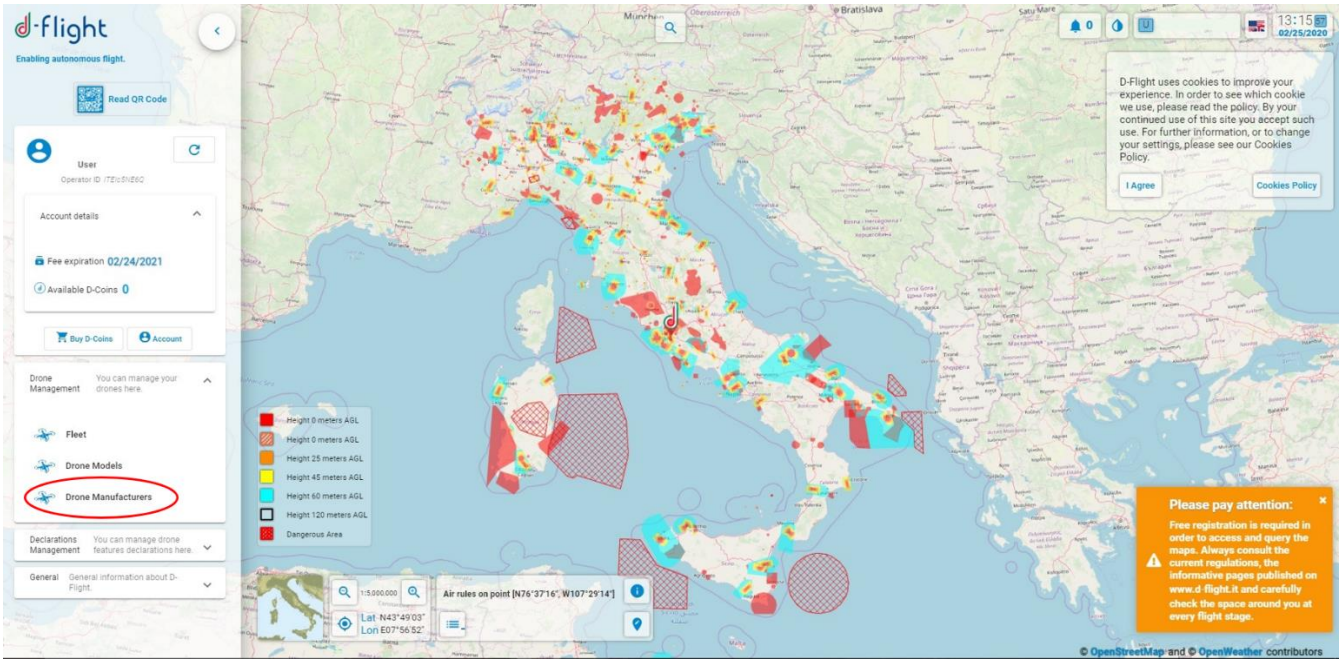
The list of Drones Models is displayed on the left side.
It is possible to carry out searches with filter or sorting criteria



For each model the following are displayed:

- ✓ Basic Information
- ✓ Information on satellite positioning (GPS, GLONAS, Galileo)
- ✓ Engine / Movement information
- ✓ Structural specifications
- ✓ Information relating to operating conditions
- ✓ Other specifications

From the Drones Management page select <**Drones Manufacturers**> to view drone manufacturers



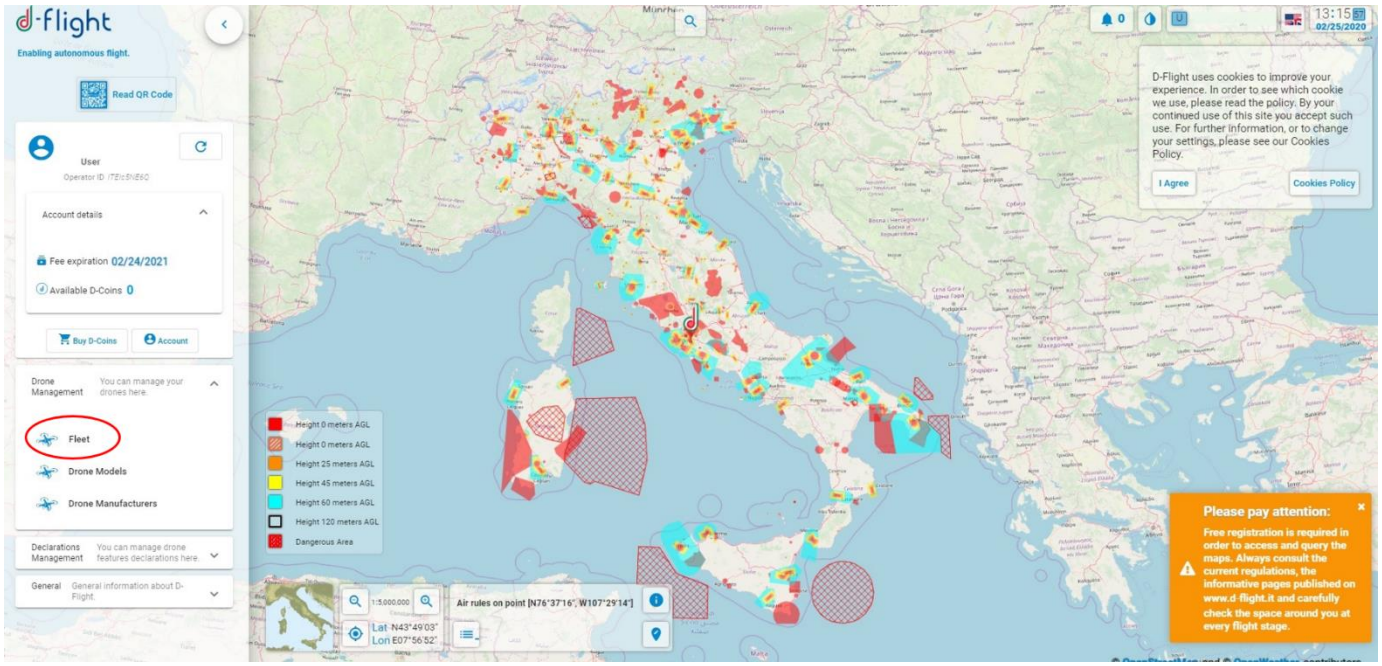
It is possible to carry out searches with filter or sorting criteria.
For each manufacturer the information is displayed:

- ✓ First name
- ✓ Legal form
- ✓ Industrial sector
- ✓ Tax code or VAT number
- ✓ Reference email
- ✓ Web site
- ✓ Headquarters address
- ✓ Registered office address
- ✓ Production year
- ✓ CEO
- ✓ Division

- ✓ Number of employees
- ✓ Quality certification
- ✓ Share capital (KS)
- ✓ Share value (KS)

1.7.4 Activate QR code

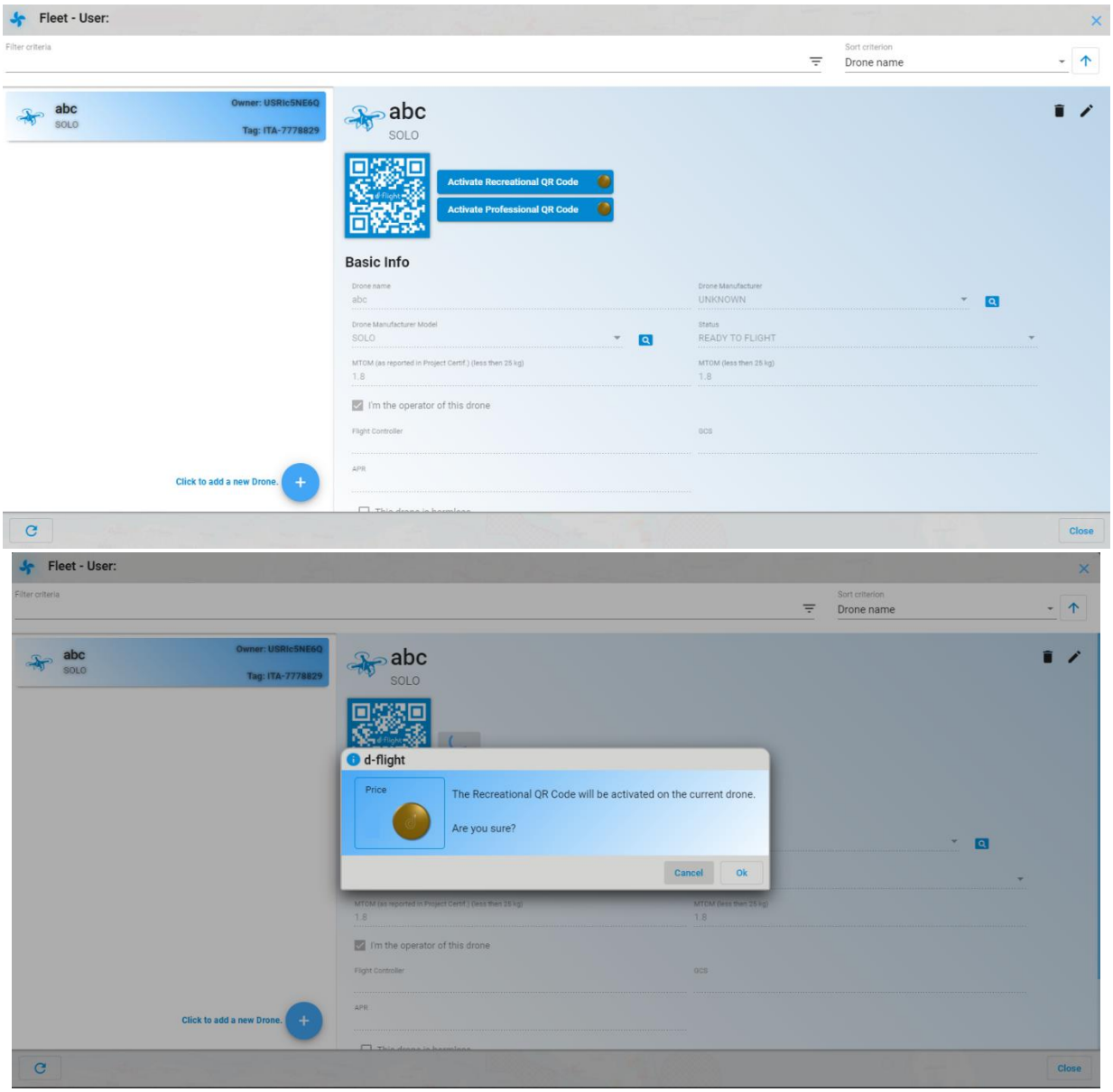
Profile: User Operator, subscription Basic or Pro



After having purchased enough D-Coin from d-flight Market Place to purchase and activate QR-Codes on their drones, the following are activated:

1. From the Drones Management page, click on <*Fleet*>:
2. From the list of your drones <select the Drone> for which you want to activate the QR-code
3. Select <**Activate**>
4. Select <**OK**>

Remember that for the activation of the QR-Code it is necessary to have subscribed to a basic or pro type subscription and that it is necessary to flag the box "I am operator of this drone" (for the drone you want to activate the QR-Code) after clicking <*modify drone*> at the top right of the <**Fleet**> section.



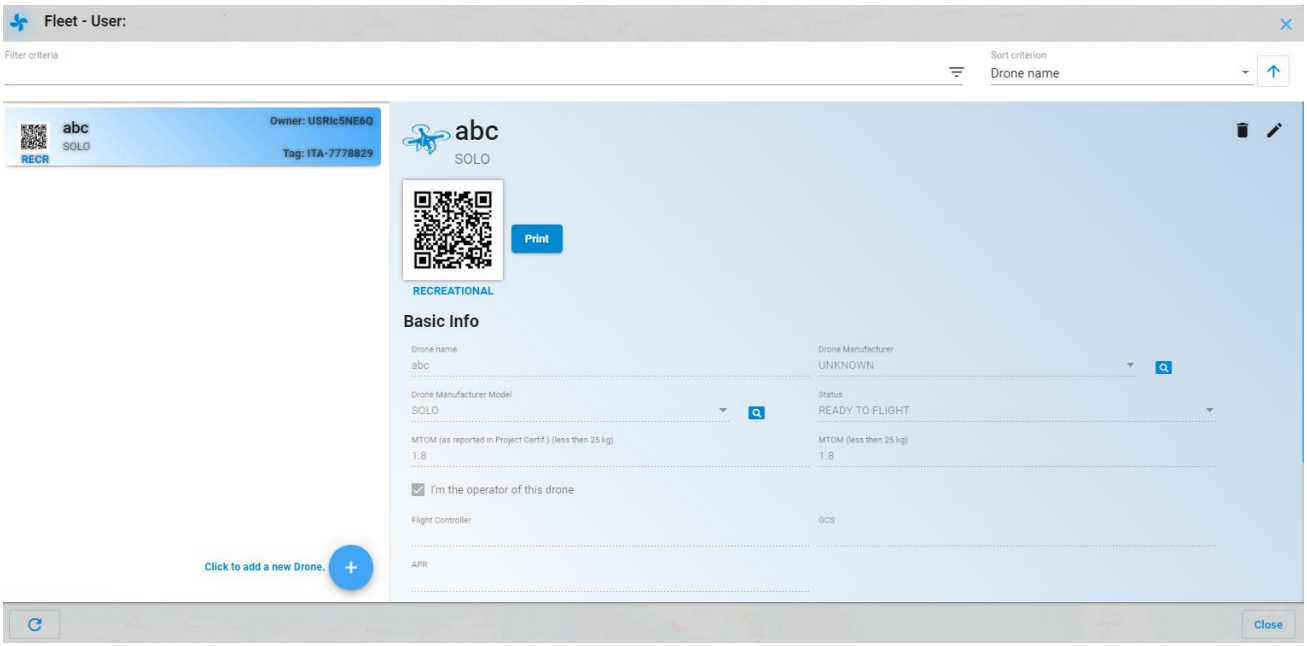
The QR code is activated.
If the drone is deleted from its list, it is necessary to buy back a new QR Code.

Warning: users can activate qr-code only if they are registered as SAPR operator

1.7.5 Print QR code

Profile: User Operator, subscription Basic o Pro

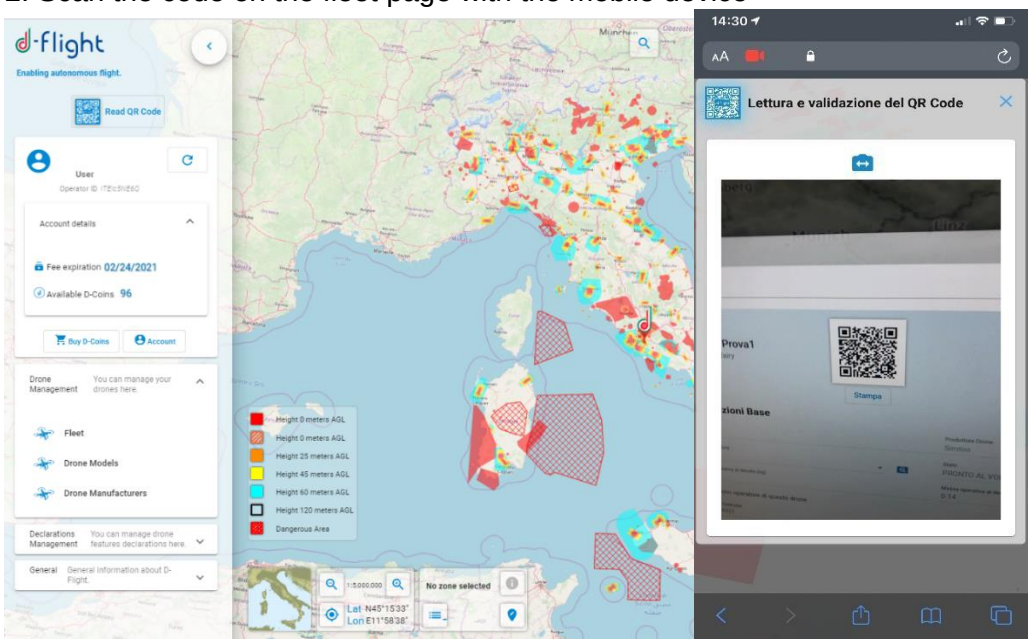
Once the QR-code is activated, the code can be printed by clicking on the <*Print*> icon



1.7.6 Reading QR-Code through Mobile App

After registering, purchasing and activating the QR Code, it is possible to decode the QR code which is encrypted by scanning with a mobile device:

1. Click on <Read QR-Code>
2. Scan the code on the fleet page with the mobile device

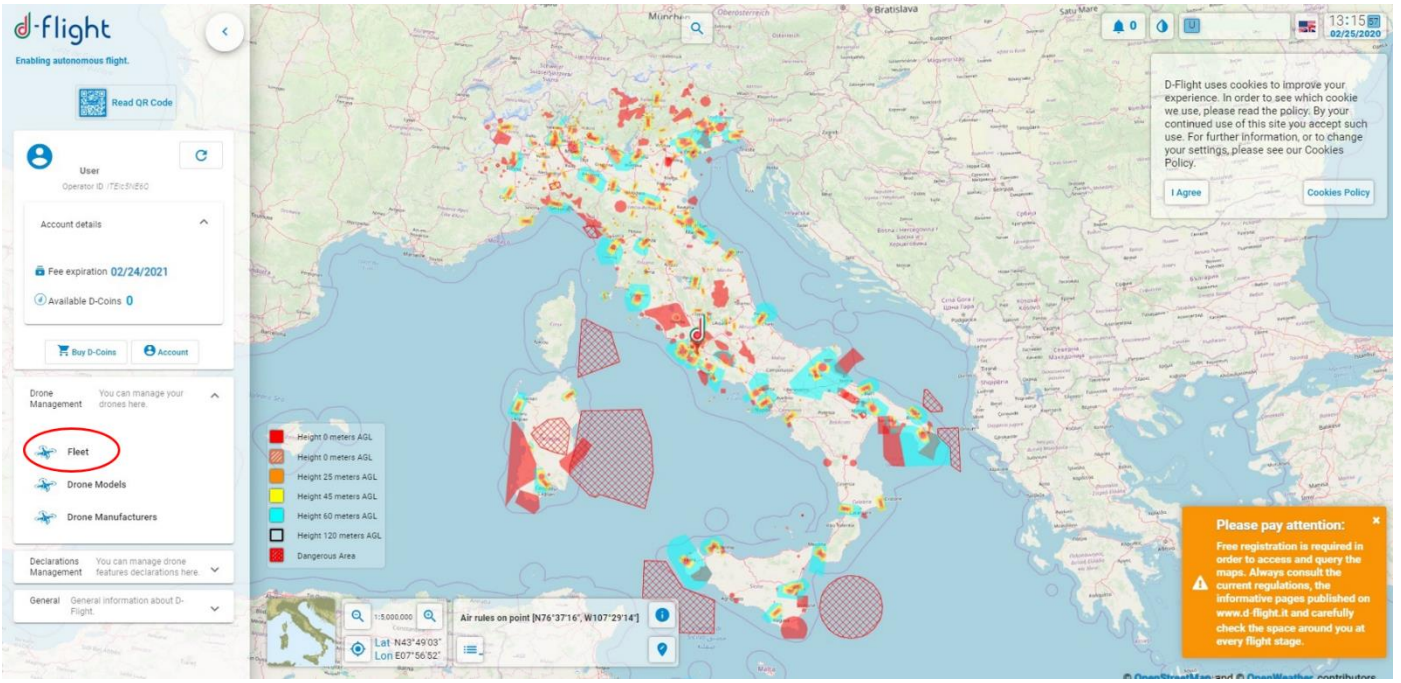


1.7.7 Change Drone Status

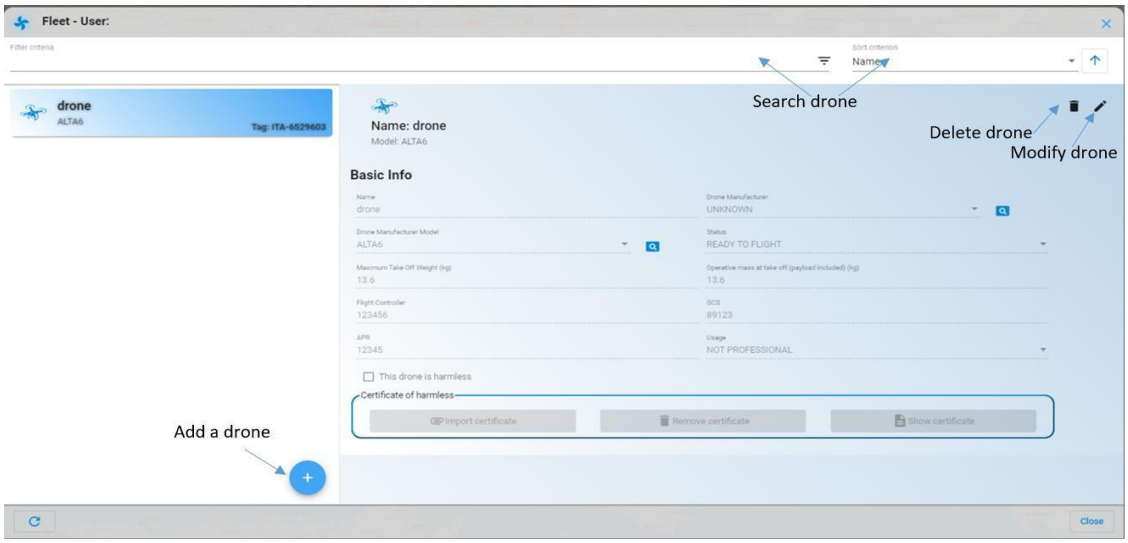
Profile: User registered

After registering, from the <*Drones Management*> page select <*Fleet*>

<**Fleet**>: allows the display, modification and creation of drones on your account. The system retrieves the list of drones for which the user is the owner.



To modify the data related to a drone created select the drone to modify and click on the edit icon <*Modify Drone*>



To make changes, select:

- ✓ <**OK**> to confirm the changes
- ✓ <**Cancel**> to exit without making changes

Among the data that can be changed is the "State" of the drone.
The possible states are:

- ✓ *READY TO FLY* for a drone ready to fly
- ✓ *NOT WORKING* for a drone that no longer flies and is forbidden to fly for a long time
- ✓ *IN MAINTENANCE* for a drone in maintenance and banned from flying for a short period

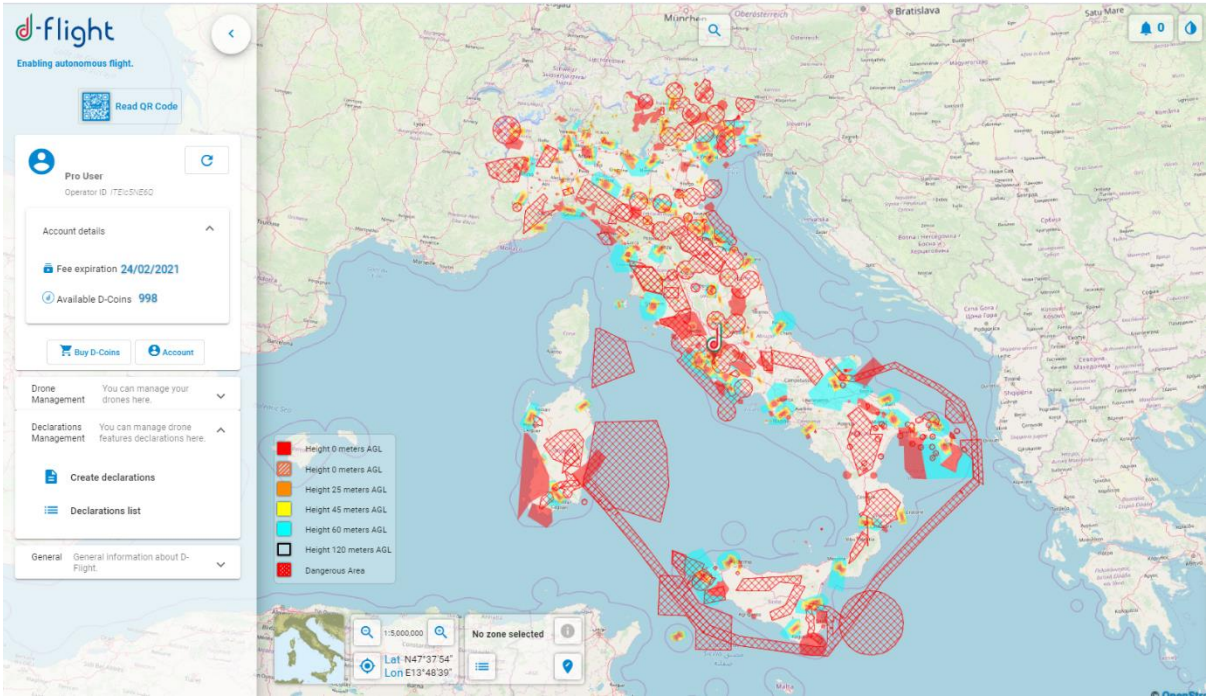
1.7.8. Declaration

As defined in Art. 10 and Art. 11 of the Regulation, mission Declaration must be made by the SAPR operator to ENAC to carry out critical specialized missions in accordance with the standard scenarios defined by ENAC itself.

To make the declaration it is necessary to have already made the declaration foreseen payment to ENAC on the ENAC website, as reported on the Authority's website https://www.enac.gov.it/sicurezza-aerea/droni/fatturazione-droni

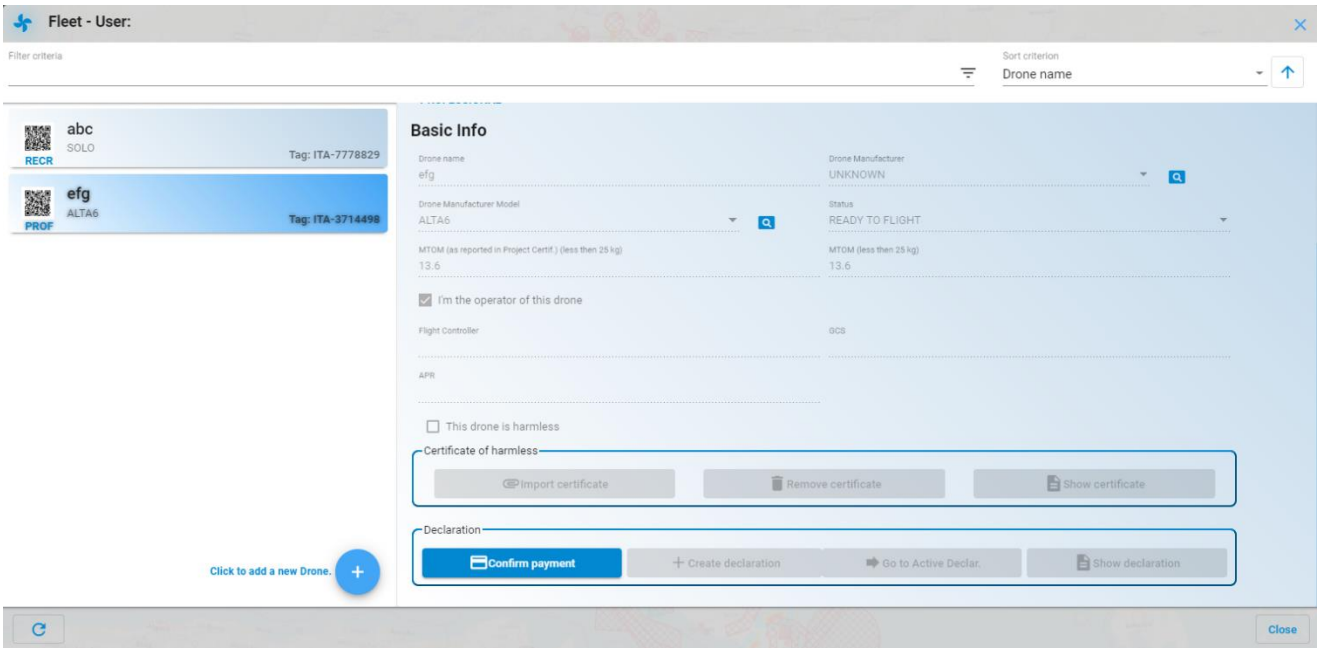
In order to make the declaration from the d-flight website:

1. Log in to the platform
2. Click on the d-flight logo
3. Access the Management of declarations section and open the drop-down menu



4. Click on <*Create declarations*>

5. After clicking, the following page will open

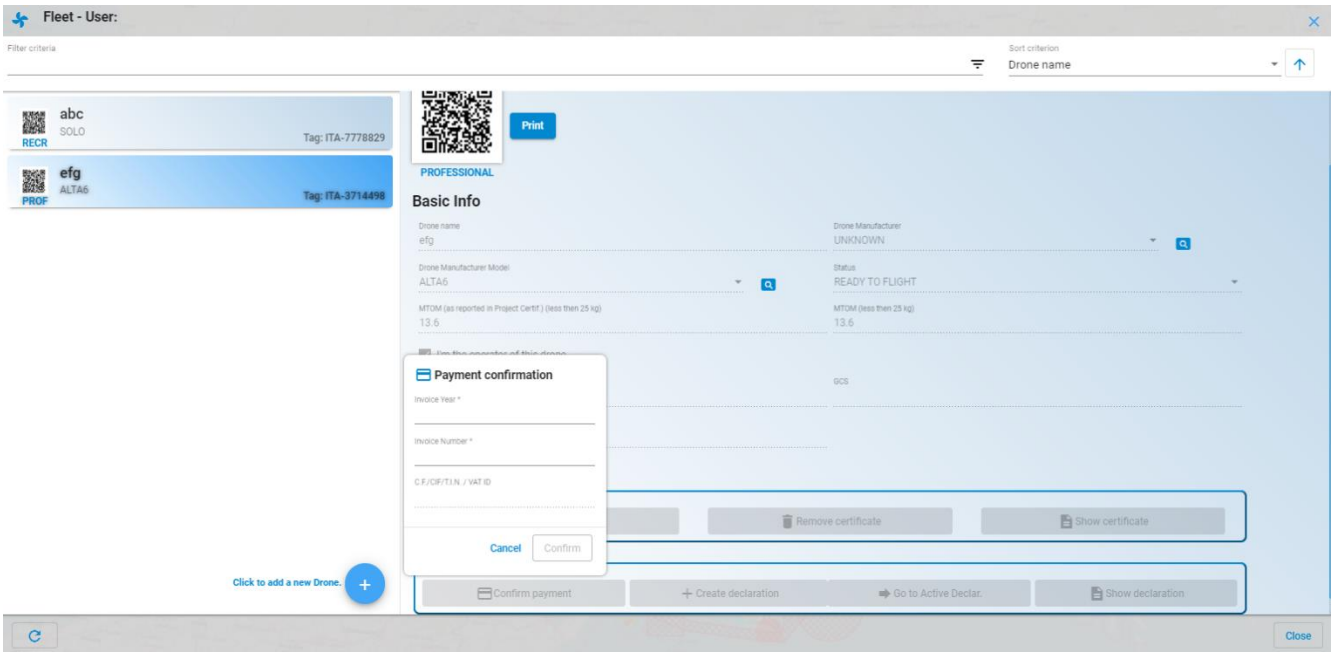


ATTENTION: the declaration can be made only if:

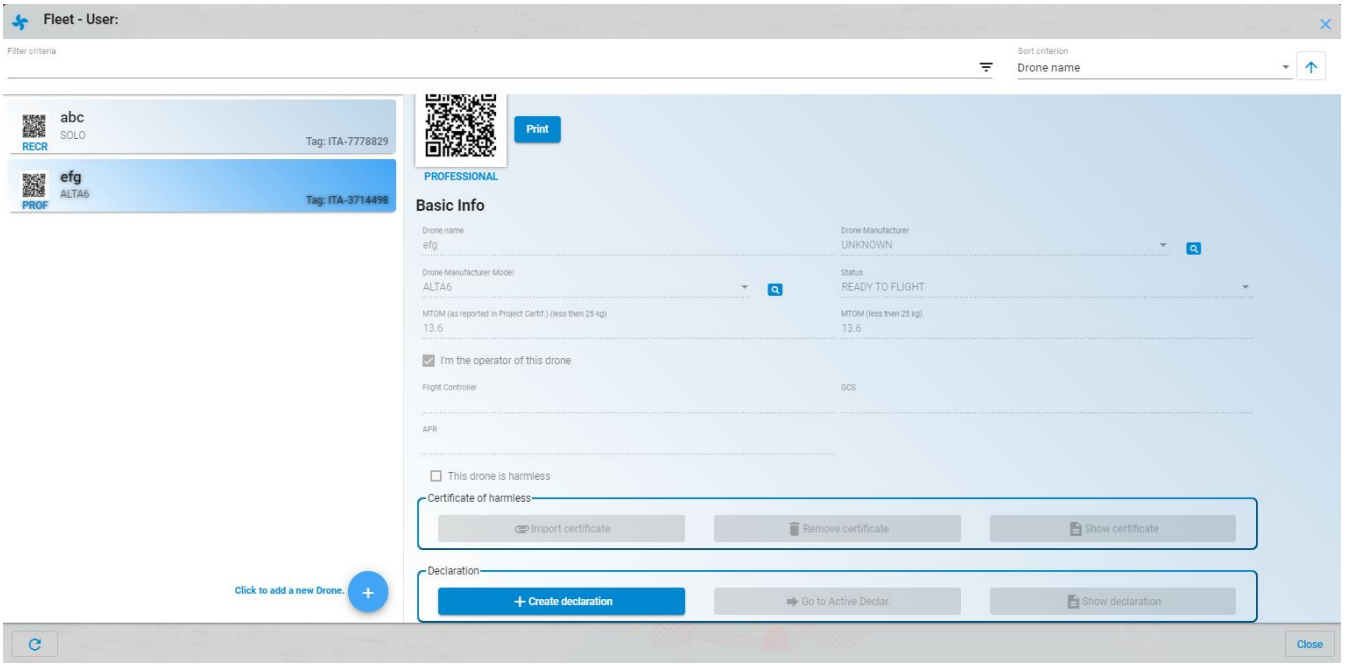
- a pro subscription has been subscribed
- the scheduled tariff was paid to ENAC
- the upgrade to SAPR operator user has been carried out
- a QR-Code Pro has been activated
- the drone for which you want to make the declaration is not harmless
- in the 'Account Details' section - having entered all the necessary information contained on your account page (including the PEC) and having flagged all the required consents.
- in the 'Drone management' section for the selected drone the check 'This drone is harmless' has not been ticked

6. To continue with the declaration, click on <*Confirm payment*> and complete the insertion of the required fields as shown in the following figure:

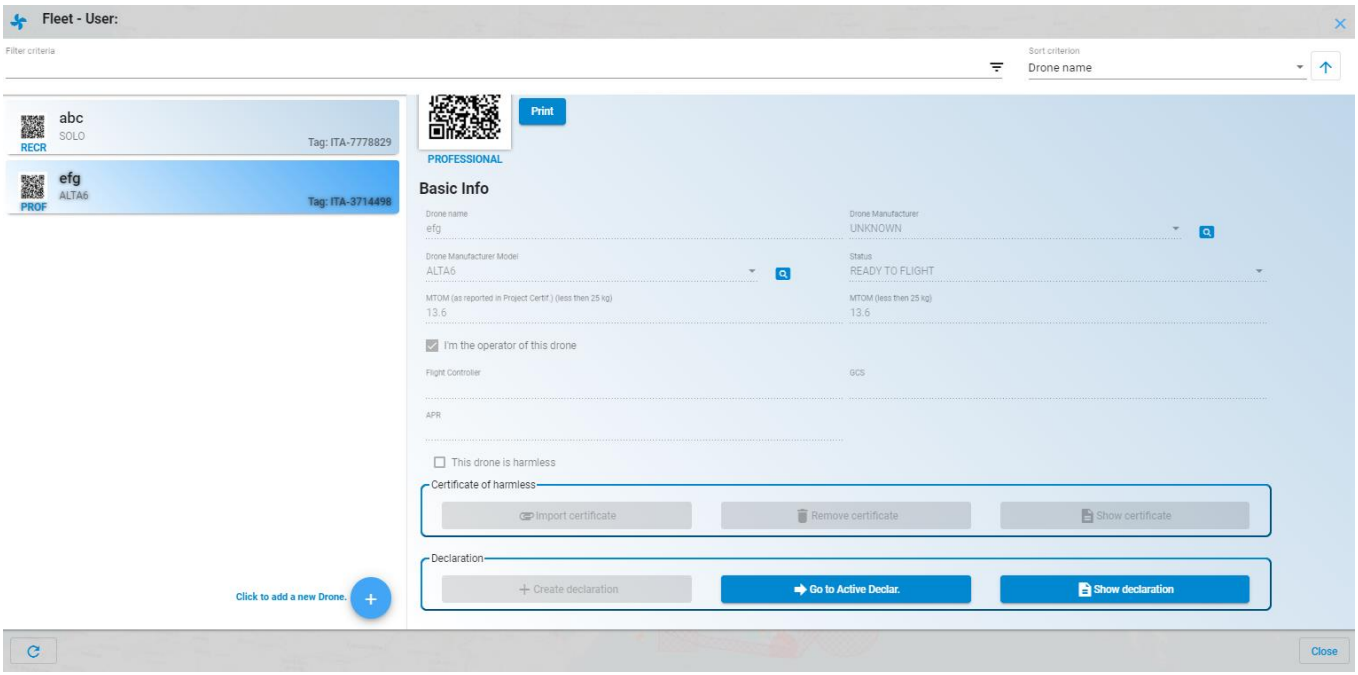
    - invoice year
    - invoice number



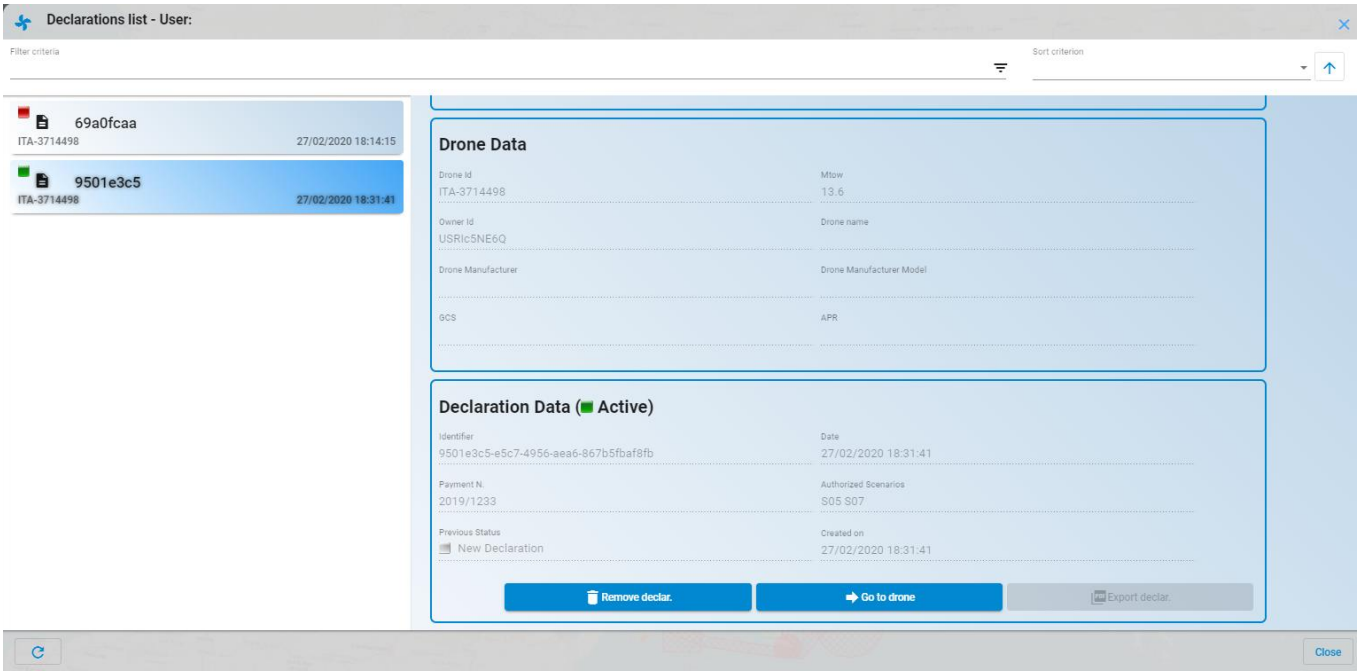
7. Once the payment has been confirmed, it is possible to proceed with the creation of the declaration



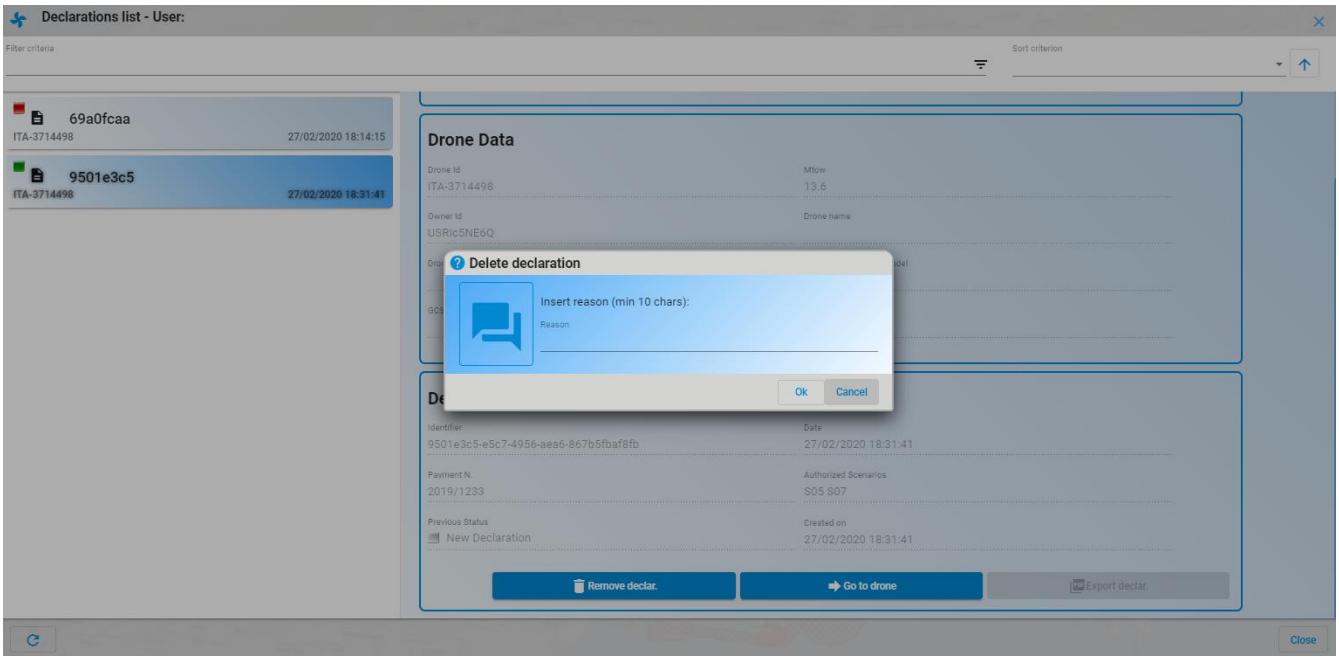
8. Click on <*Create declaration*> and if you want to continue press <*Ok*> otherwise press <*Cancel*>
9. To view if the declaration has been activated click on <*Go to active declaration*>



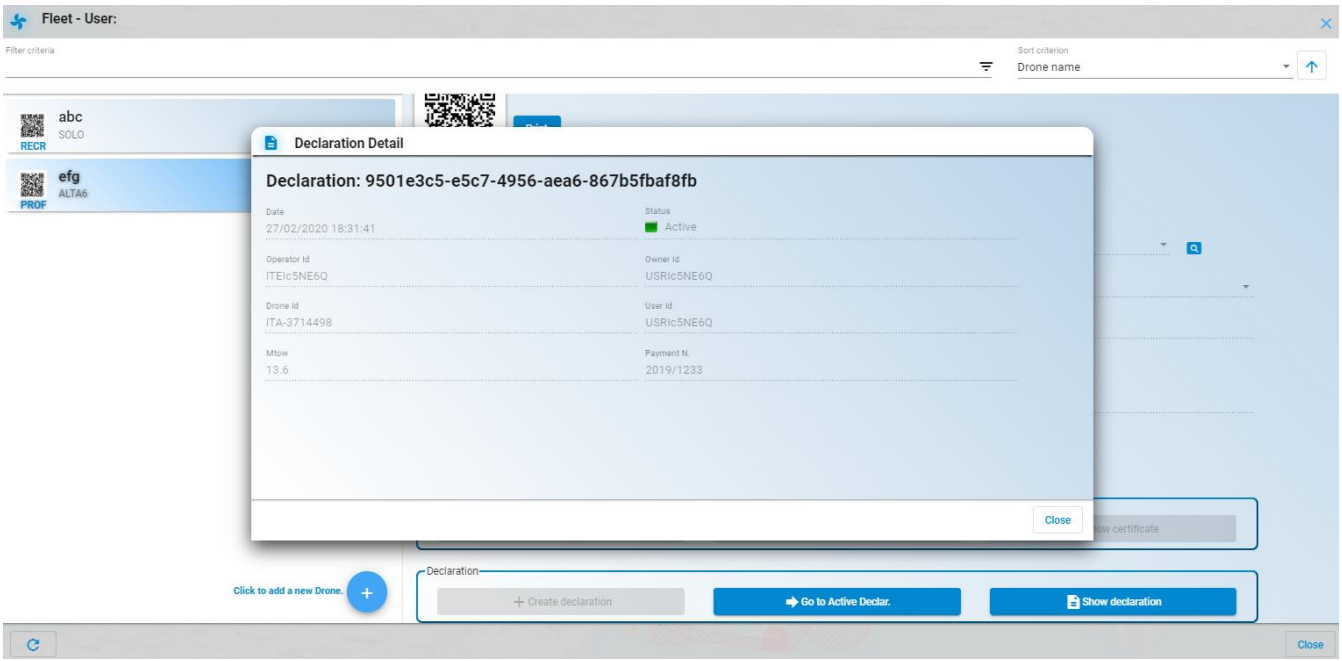
At this point the list of active declarations is available (following figure)



To delete the declaration made click on <*Remove declaration*> and click <*Ok*> to continue, entering a reason, or <*Cancel*> to cancel



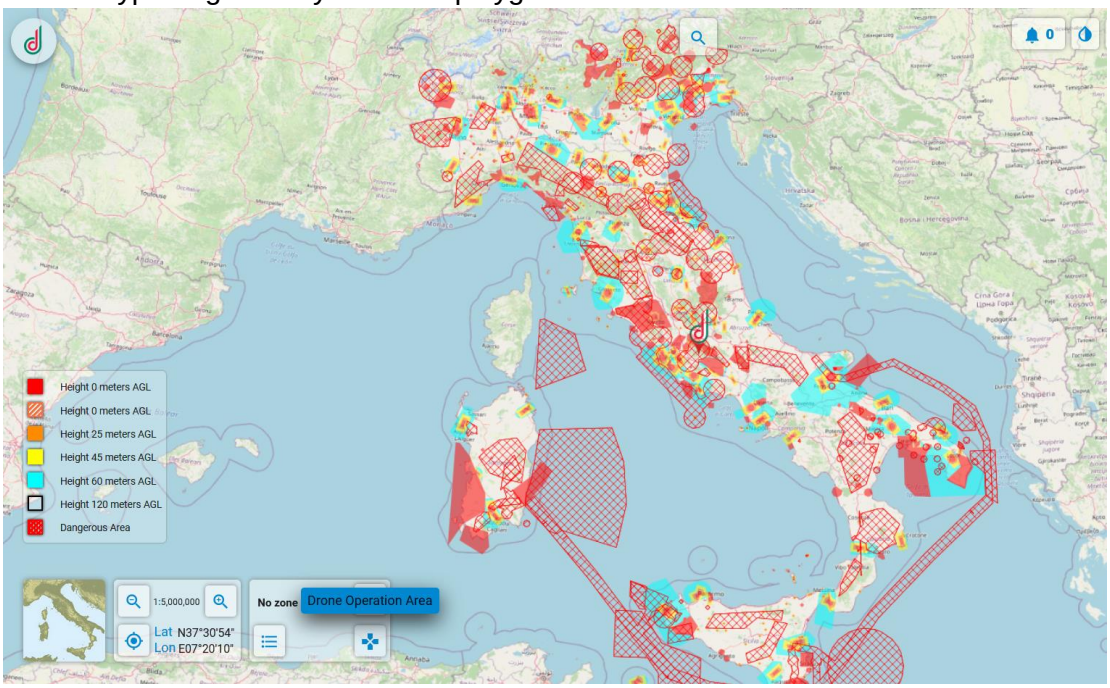
If you want to view the declaration made, click on <*Show declaration*>, at this point the detail of the declaration will open as in the following figure:



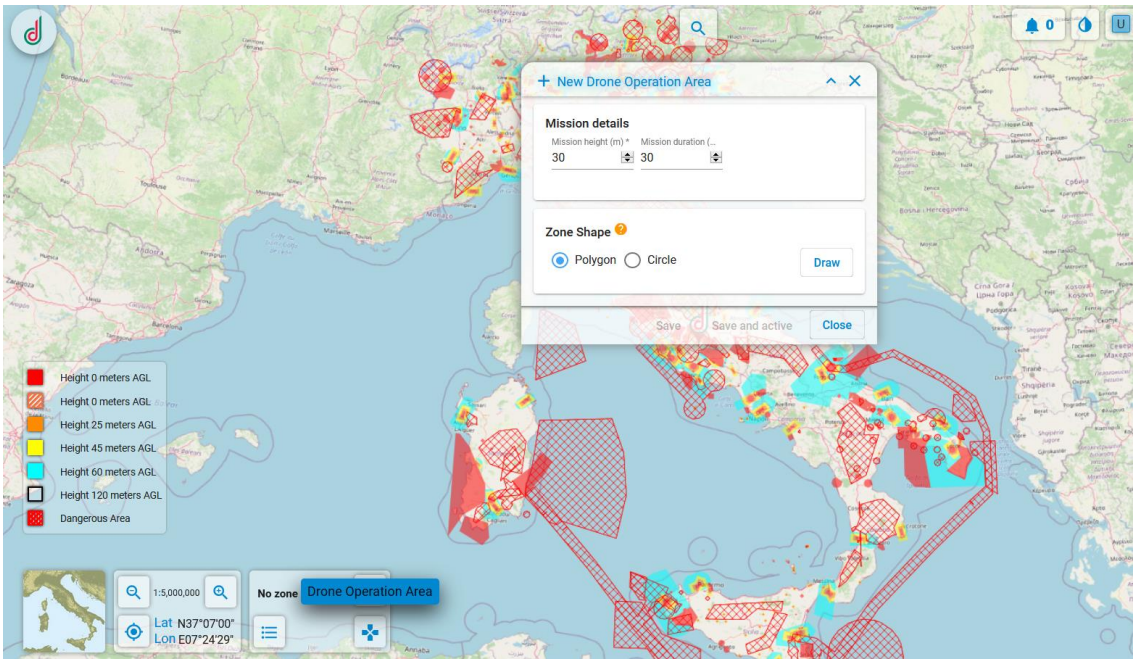
1.8 VLOS Drone Operation Area

This service allows the declaration of a NON-CRITICAL VLOS mission by a registered user and subsequently its activation / deactivation, allowing the user to plan and activate their VLOS mission and make it visible to all users logged on the portal. This service constitutes an important contribution to situation awareness regarding the flight zone in which the user is interested, allowing him to find out if there are already active VLOS missions at the same time and in the same space.
The service allows the user to draw on the map the area where he will want to carry out his VLOS-type mission. The mission will be plannable if it respects the flight rules in the area concerned. Immediately before starting the flight, the pilot must have activated localization on the device used and sharing with the browser and will have to start the mission; only at that moment will the area he designed become visible on the map to all d-flight users present at that moment on the portal. The visualization will be anonymous, as the system will not present any data concerning the user (including drone) who planned and activated the mission.
At the end of the mission, the pilot will have to "end" the mission, and the planned area will no longer be visible otherwise the system will remove this area automatically after a timeout time from the start.
In order to access the VLOS Drone Operation Area it is necessary to be registered on d-flight as **SAPR operators**, to have a drone with **active Qr-Code** and in a **ready-to-fly status**.
An operator user must:

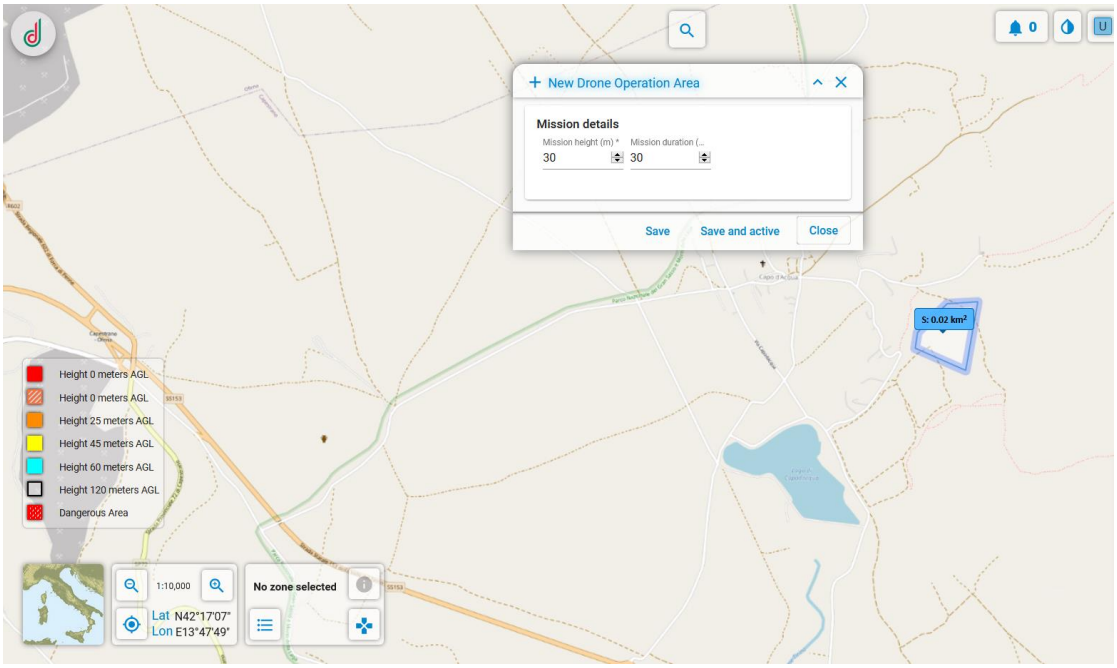
1. log in to the d-flight portal
2. select the VLOS - Drone Operation Area - flight declaration addition button ( ). The application presents a panel with the mandatory data of the mission:
    - Maximum flight height of the mission, maximum 120 m
    - Mission duration in minutes
    - Type of geometry: circle or polygon

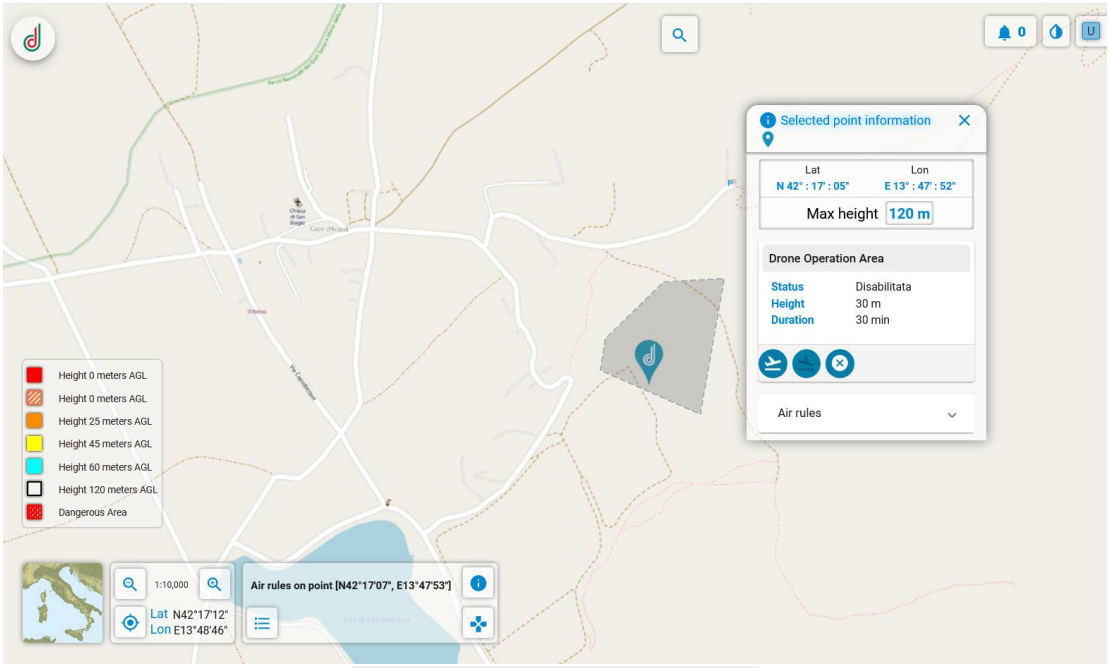


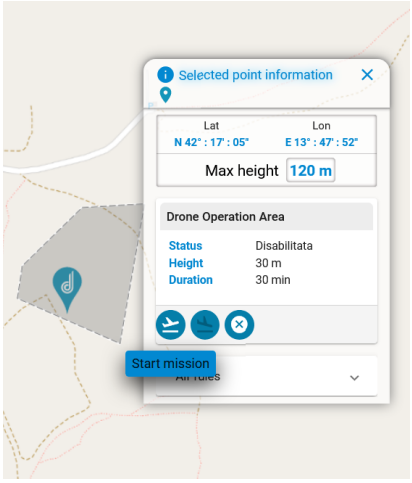
3. select the <*draw*> button and start defining the area that will interest you with your VLOS mission



4. *save* pressing on the button. Once the mission has been saved it is in the "DECLARED" state, the declared mission is displayed on the map only for the user creator with a grey color, in a special information window. To activate the mission, select the grey area and click on <*Start*> and then on <*Ok*>. At this point, the activation time is saved, the polygon changes color to green and is visible to all users in pink. The detailed information panel will be visible only to the user who created the mission.

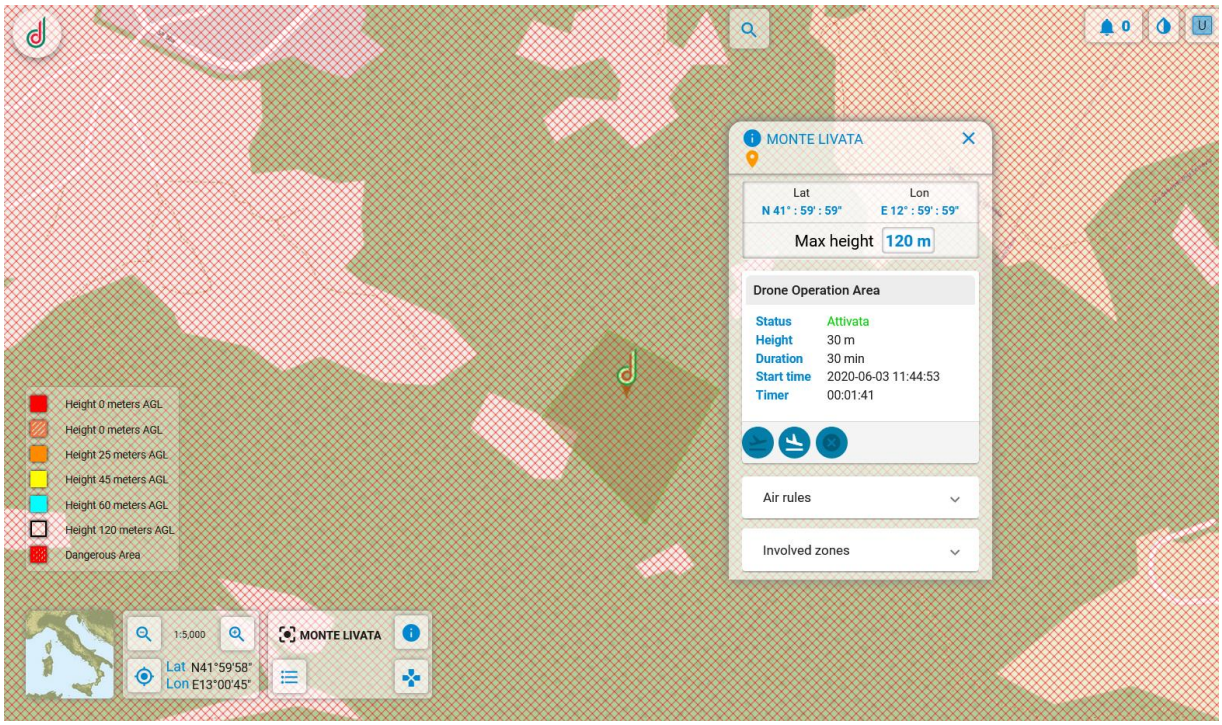






ATTENTION. The user must be inside the area declared to ACTIVATE the mission, having activated the location on the device used and sharing it with the browser

5. on the other hand, the user can *save and start* the mission directly with the appropriate button.
   The mission is "ACTIVE", the activation time is saved, and the drawn polygon will become green and visible to all users in pink, while the detailed information panel will be visible only to the user who created the mission.



ATTENTION. The user must be inside the area declared to ACTIVATE the mission, having activated the location on the device used and sharing it with the browser

6. select the <*Stop mission*> button on the information panel to end the mission

ATTENTION. If the user, after starting a mission, does not terminate it, the system automatically ends the mission after a time of 10 minutes in addition to the number of minutes entered during the declaration phase starting from the moment of start.

7. press the <*Delete*> button from the information panel to cancel the mission

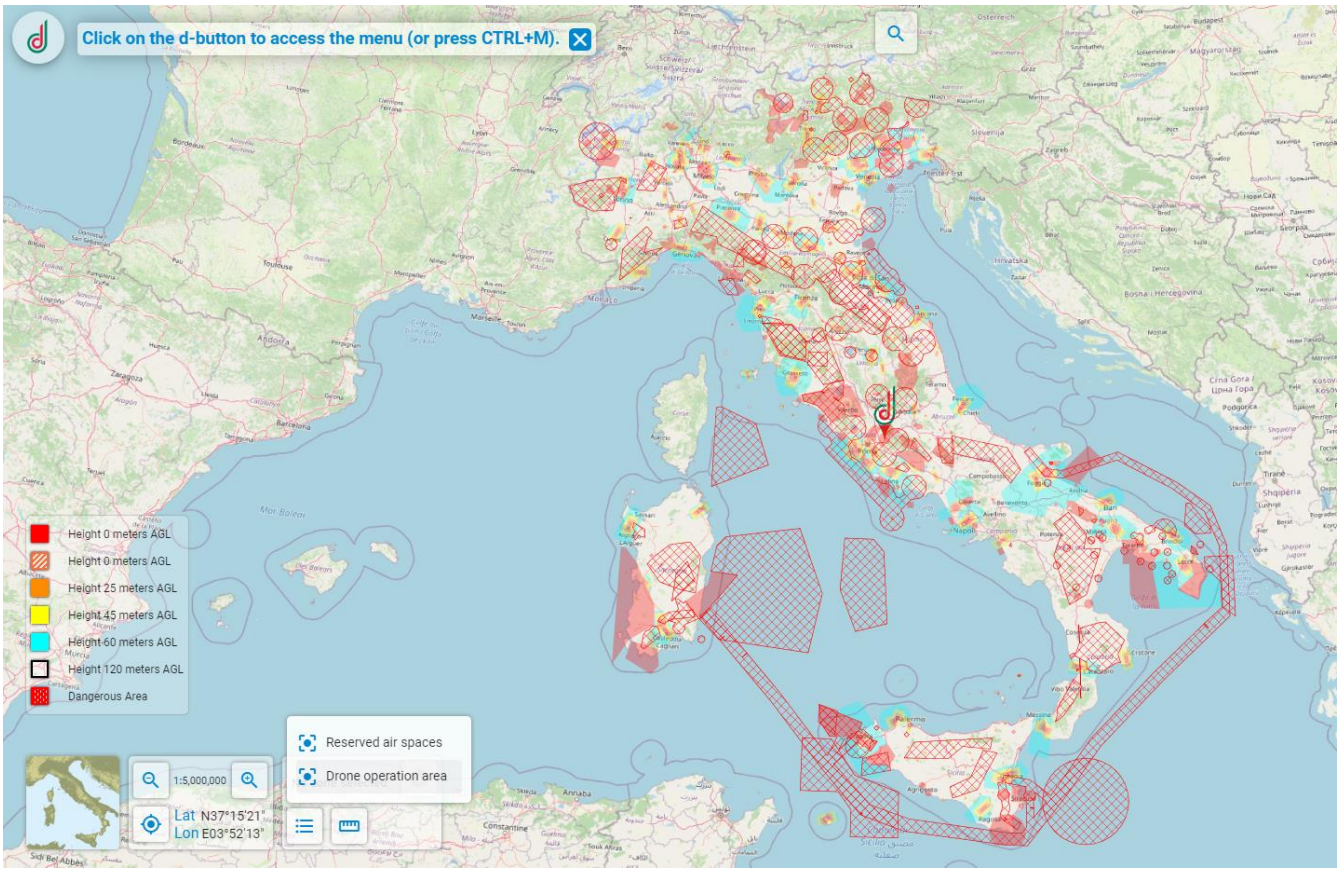
ATTENTION:

- Each user can declare only one mission at a time.
- The designed area must be outside of regulated and forbidden areas.
- The maximum height must be compatible with that of the most restrictive area intersected by the declared area (the system automatically updates the maximum height).

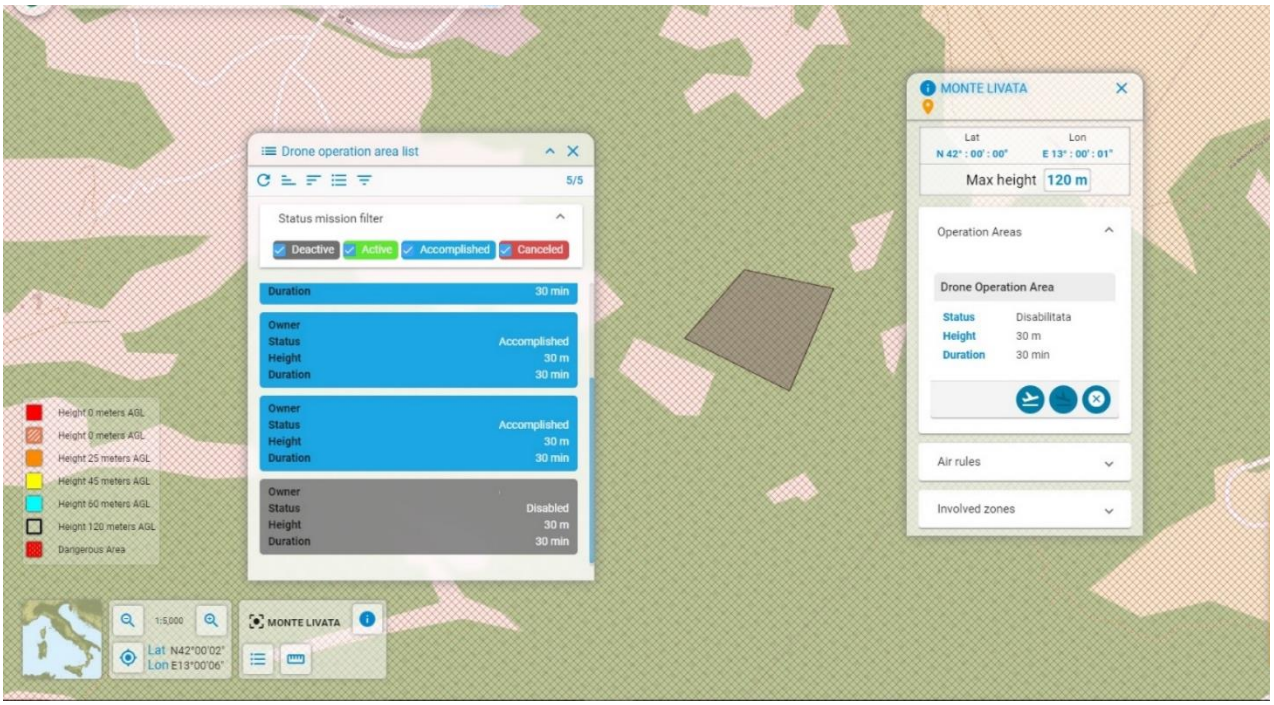
- The user must be within the area declared for the mission, having activated location on the device used and sharing it with the browser.
- The size of the area has a maximum extension of 1km, the user can move during the flight as long as he always keeps the drone in VLOS.

1.8.1. DOA list

You can access the list of your own disabled, enabled, accomplished and cancelled Drone Operation Area missions by clicking on the button where on the Drone Operation Area you can view the list mentioned above:

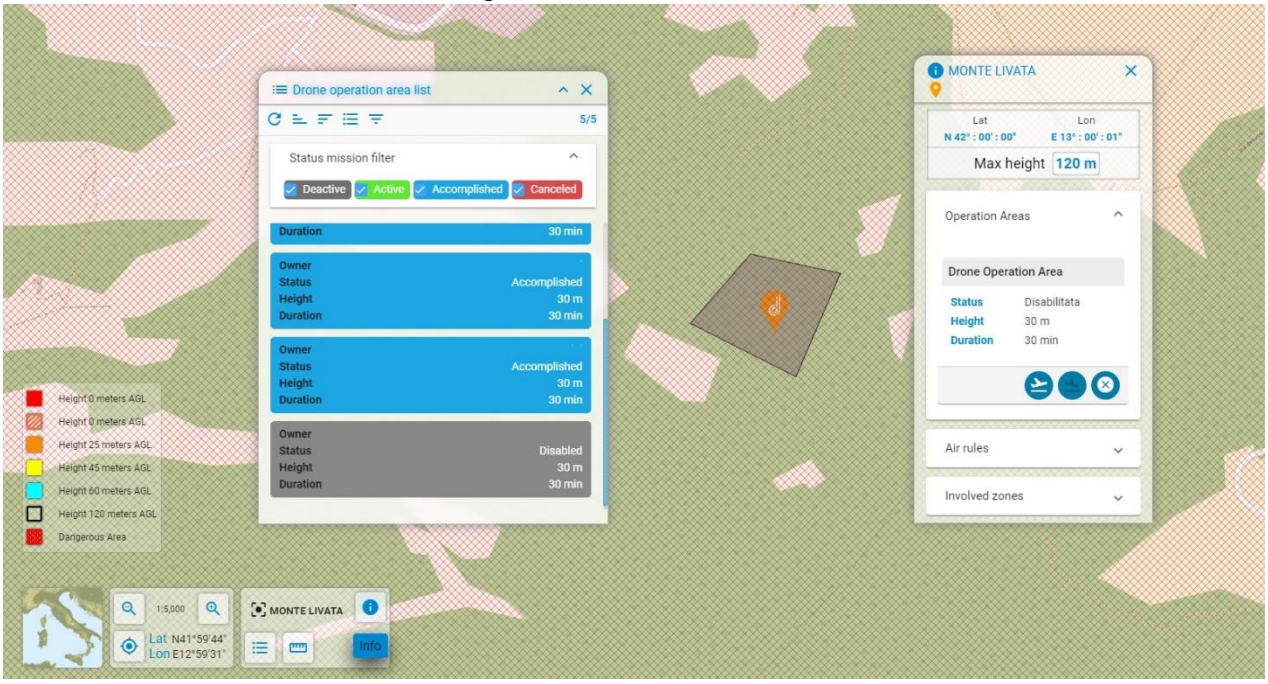


Red shows cancelled missions, blue accomplished missions, grey deactive ones.
It is also possible to search faster for the desired mission by activating the filters available in the *"Status Mission Filter"* toolbar.
When selecting a DOA in the list, the cursor points directly to the chosen area, in the example in the following figure there is a mission accomplished and disabled:



It is also possible to activate DOAs in a deactive state:

1. click with the right button inside the area to which you are redirected or click on the information icon after selecting the area with the left mouse button

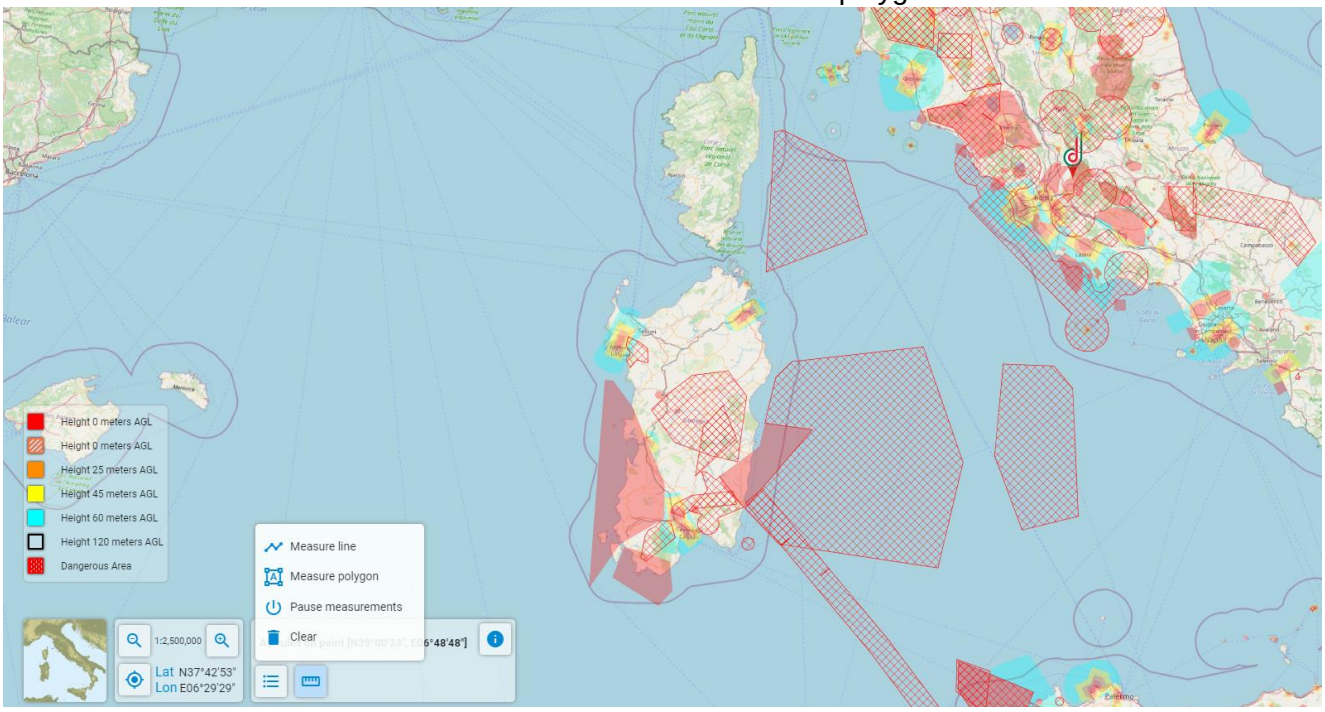


2. click the start mission icon
3. At this point the selected area will turn green and the mission will be "*Enabled*"

1.9 Measurements

This service allows the user to measure the length of a line and the area of a polygon.

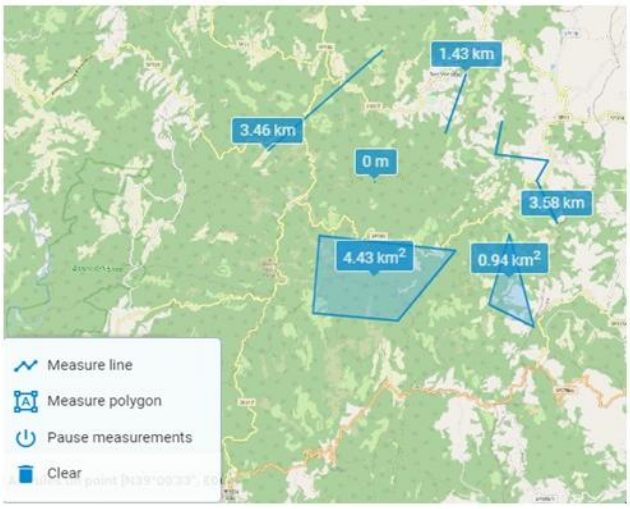
You can access the service by clicking on the icon .
The user can choose whether to measure a line or the area of a polygon.



To make a measurement:

1. Click on "***line measurement***" or "***polygon measurement***"
2. Draw the line or polygon
3. Click with the left mouse button on the last drawn point

At this point, the line or area of the drawn polygon will be measured.



4. To delete the measurements made, click on the "***Clear***" button.

2 Mission Planning

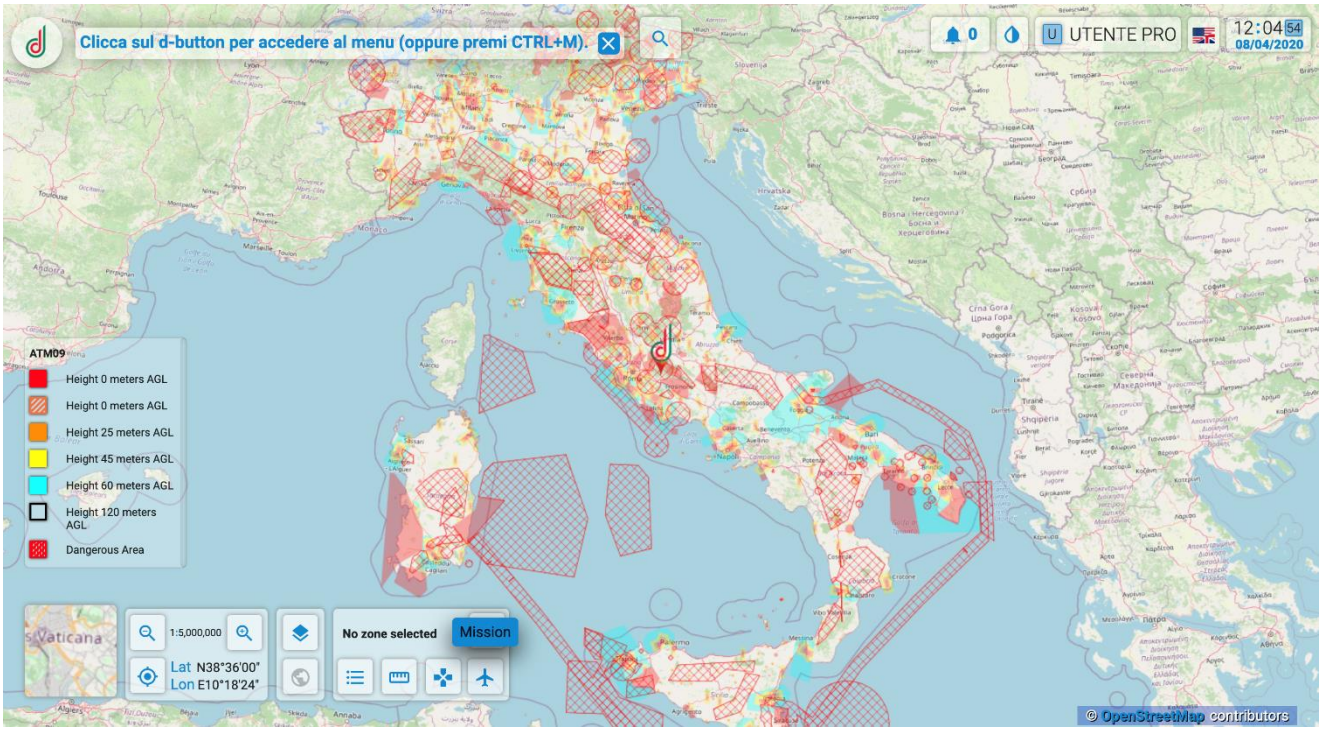
Users can access the Mission Planning & Validation service only if they:

1. are registered
2. have signed a Pro subscription
3. are upgraded to SAPR operator user
4. have an active QR-Code (BASE and / or PRO)
5. have at least one drone ready to fly

The Mission Planning service allows the user who match the above characteristics, to plan a mission by providing the following information:

1. **type of scenario or type of mission:**
   A. Open;
   B. Critical with drones declared harmless (i.e. with "weight including payload" not greater than 300gr or not greater than 2Kg with recognition of "harmlessness" issued by ENAC);
   C. Critical on Standard scenario (standard scenarios are published by ENAC), flight type VLOS and BVLOS;
   D. Critical
2. **the drone of the fleet that you intend to use for the mission;**
3. **the set of space-time coordinates representing in the mission;**
4. **pilot or crew data;**

To access the service, click on the button <***Mission***>



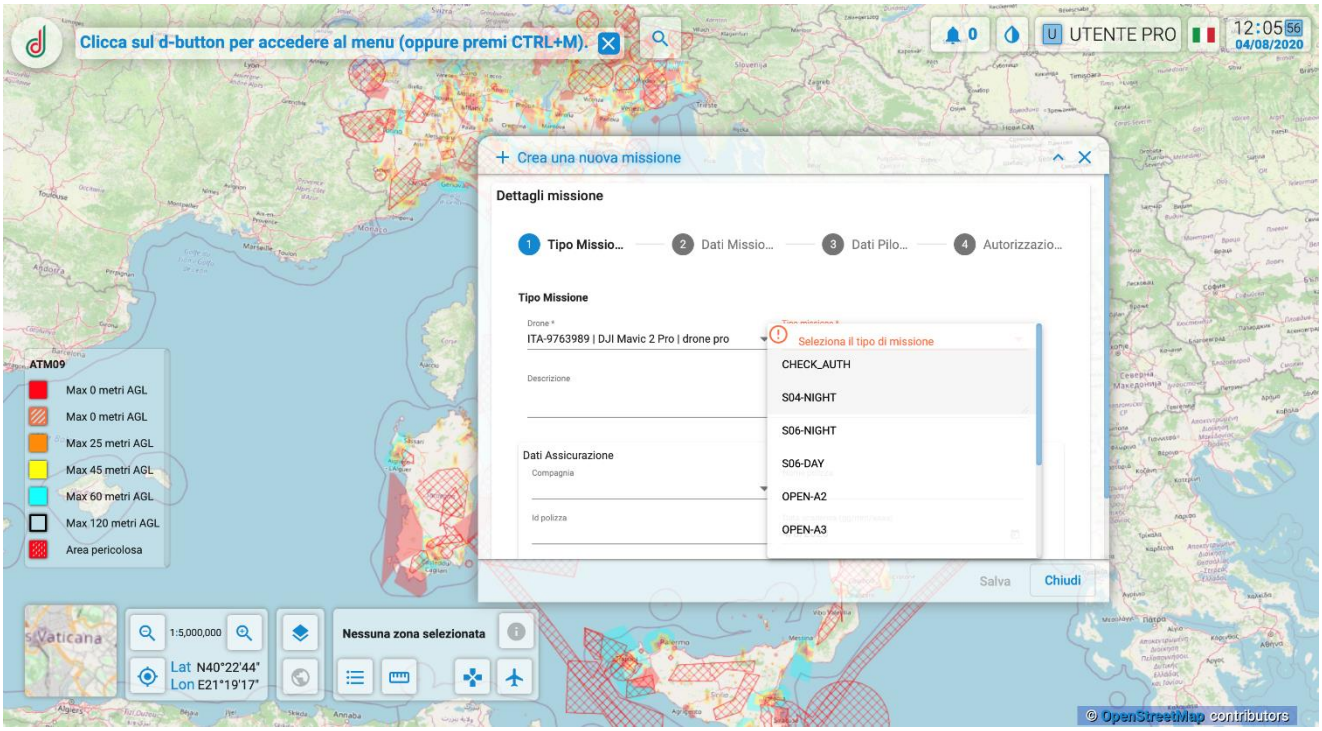
After clicking, you can enter all the details relating to the mission:

1. Mission type
2. Mission data
3. Pilot data
4. Authorization (optional)

2.1 Mission Type

In this phase the user can retrieve the list of drones that he operates and fill in the *Drone field *.* Subsequently in the *Mission Type* * (Open, Critical) section, the system allows the operator user to define the scenario in which the drone can operate, in relation to its weight.
There is also the possibility to insert a *Description* of the mission to be carried out.

Attention the fields with asterisk (*) are mandatory



After selecting the drone from the user fleet, the system retrieves the details of the insurance policy defined in the drone database, displaying the information:

- Name of the insurance company
- Name of the insurance package
- Policy ID
- Expiry date

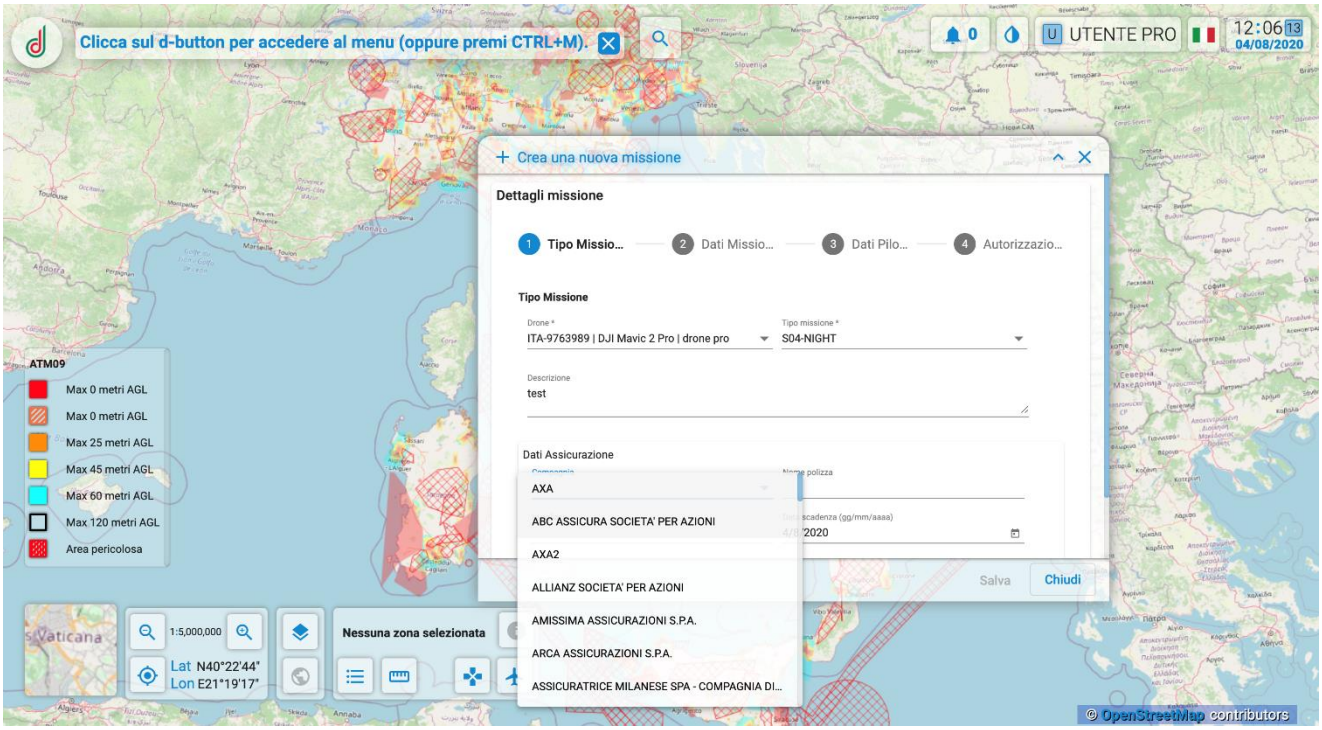
The user can:

1. confirm the insurance defined for the drone;
2. specify the details of an insurance policy that applies to the mission only, by entering:
   - Name of the insurance company

- Name of the insurance package
- Policy ID
- Expiry date

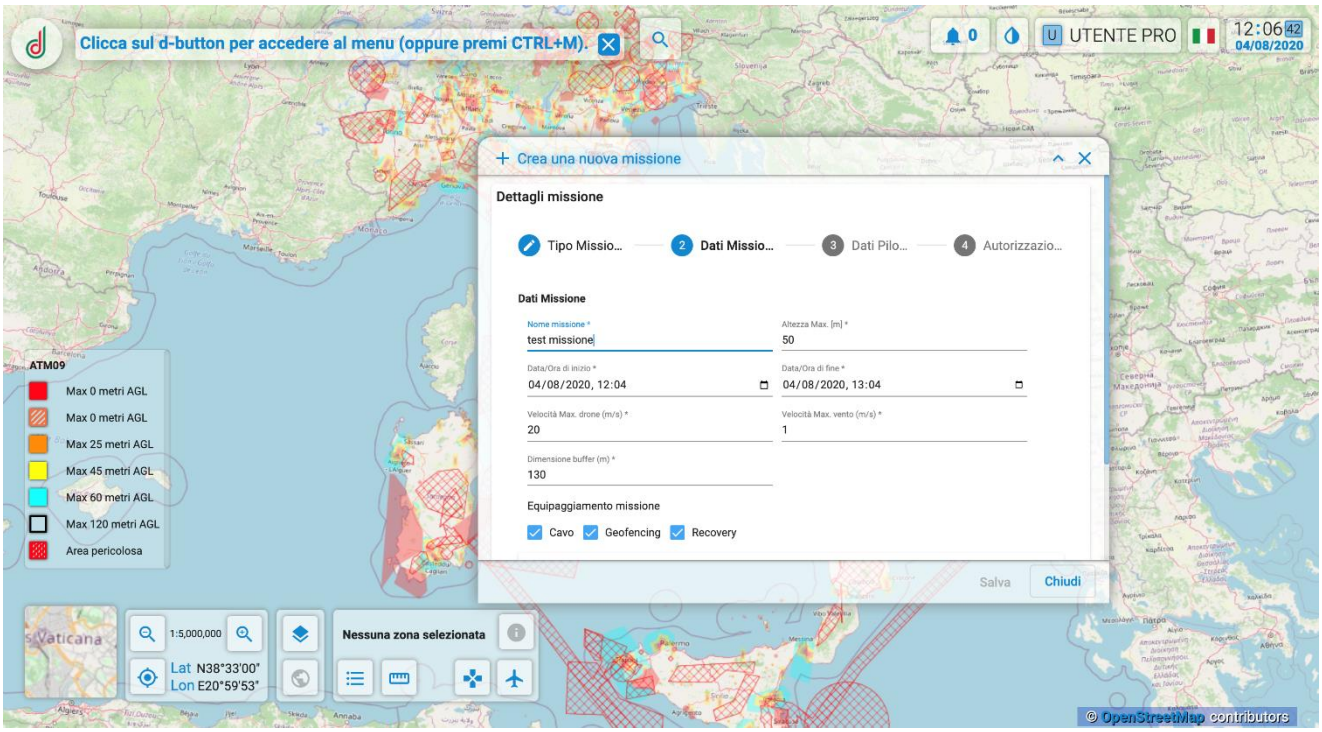
3. Leave the fields empty/Deleting the info automatically retrieved

After entering all the necessary information, click on <***Save***> to continue otherwise on <***Close***> to cancel.

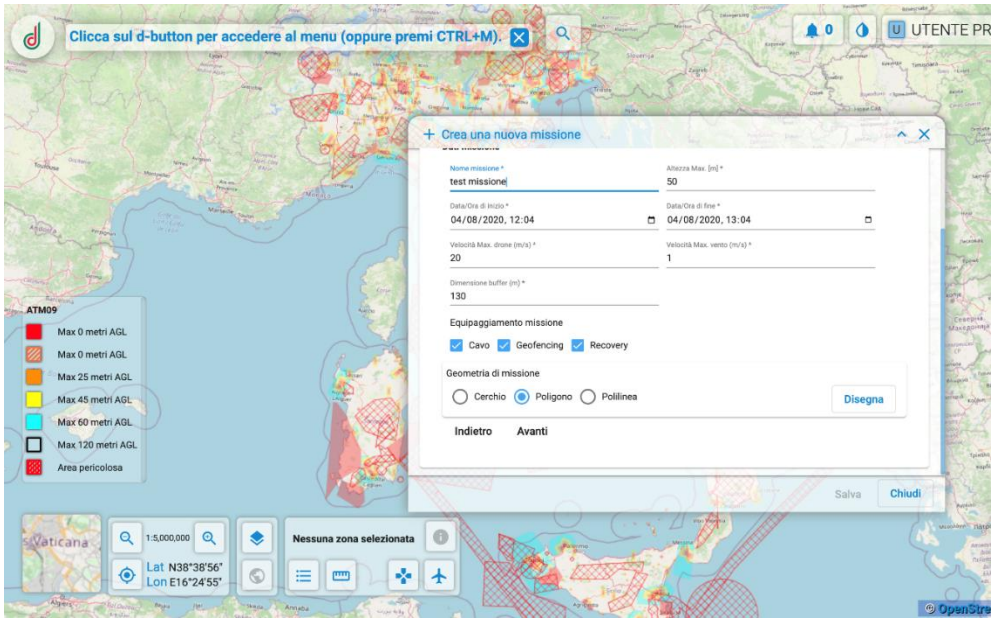


2.2 Mission Data

Within this section, the User has the possibility to enter the spatial and temporal data of the mission:



- Mission Name *
- Maximum Height * [m]
- Start Date / Time *
- End Date / Time *
- Maximum Drone Speed * [m / s]
- Maximum Wind Speed * [m / s]
- Buffer size * [m]



Attention the fields with asterisk (*) are mandatory

The user also has the option to enter:

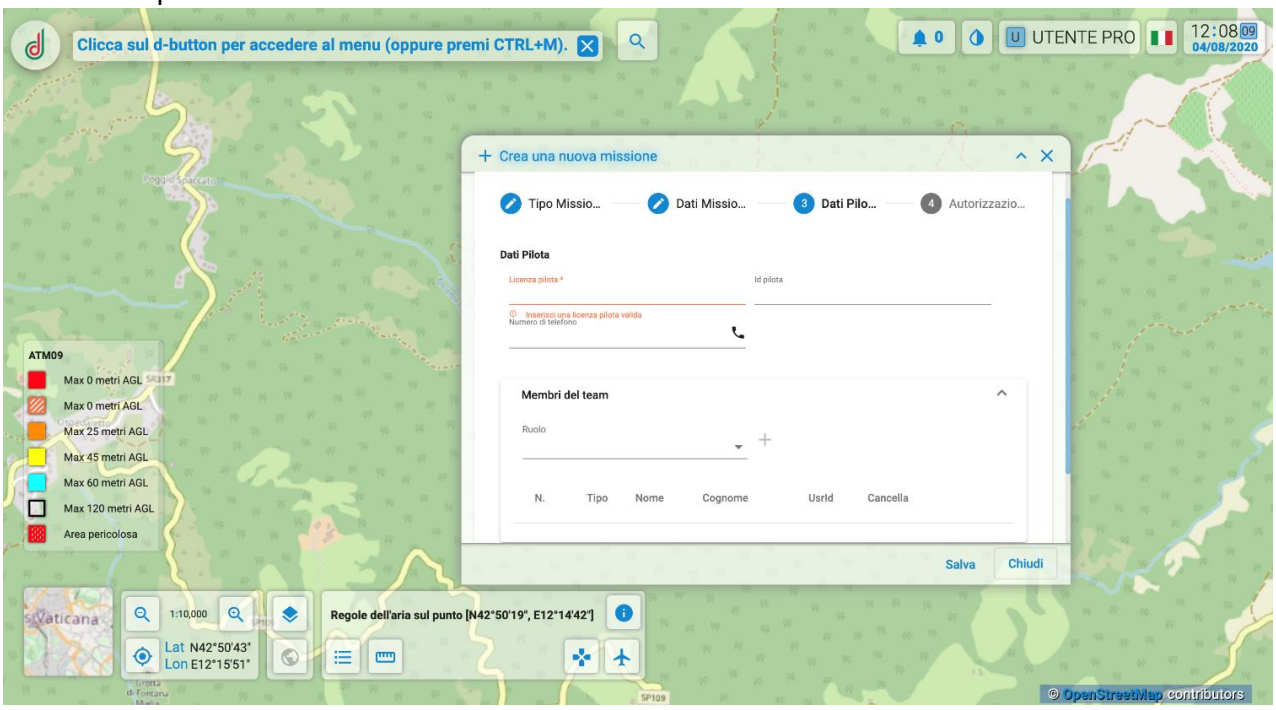
1. The equipment available:
   - Cable
   - Geofencing
   - Recovery
2. The type of mission geometry
   - Circle
   - Polygon
   - Polyline

After entering all the necessary information, click on <***Next***> to continue otherwise on <***Close***> to cancel. At this point, the Operator User has the drawing tool available for creating the mission geometry with its buffer.

2.3 Pilot Data

The system allows the operator user to define the pilot of the drone, by entering the information:

- Pilot License *
- Pilot ID (identification of the registration on d-flight)
- Telephone number



After inserting the pilot data, it is possible to bring the list of people involved in the mission, characterized by the following information:

- Role
- Type
- First name
- Surname
- User id (d-flight ID)

Entered all the necessary information, click on <***Save***> to continue otherwise on <***Close***> to cancel. Once clicked on <***Save***> the mission is saved on the system and a unique identifier code is generated.

2.4 Submission and Starting of the mission

Subsequently, the saved mission can be submitted and thus subjected to the validation process. The result of the validation process will be communicated by email: approved / refused (with possible request for modification).

Once the mission has been approved, you can access the list of missions, select the validated mission and click on:

1 start mission (to start the mission, if the user is in the planned tima/date and if he/she is ge-localized within the planned area))
2 cancel mission (to cancel the mission)

Once you have clicked on start mission you can pause the mission with the <***Stop***> button, end the mission with the <***Complete***> button or resume the mission with the <***Resume***> button.
If the mission has not been properly planned, the user receives an email with a list of all errors found during validation, which can be used to modify the mission and, therefore, satisfy the acceptance procedures.

Below is the list of errors that the user can receive with their description:

Error	Codice	Description
DRONE_MTOW_CHECK	800002	MTOW entered is outside the minimum and maximum limit
DRONE_MAX_SPEED_CHECK	800004	The maximum horizontal speed of the drone inserted is higher than that foreseen by the scenario
DRONE_QR_CODE_CHECK	800006	The QR-Code is not valid for the selected scenario type
DRONE_QR_CODE_CHECK	800007	The QR-Code is not active for drone selected
DRONE_MAX_DIMENSION_CHECK	800032	The drone dimensions are larger than those foreseen for the selected scenario
DRONE_INOFFENSIVE_DECLARATION_CHECK	800013	The declaration of harmlessness of the drone is not valid
DRONE_INSURANCE_EXPIRATION_CHECK	800015	The expiration date of the insurance is not valid
MISSION_FLIGHT_CONDITION_TYPE_CHECK	800017	Invalid correspondence of the scenario to the type of flight entered
MISSION_MAX_HEIGHT_CHECK	800019	The height entered for the mission exceeds that foreseen by the selected scenario
MISSION_MAX_HORIZONTAL_DISTANCE_FROM_PILOT_CHECK	800021	Maximum distance of the mission from the pilot exceeds what is foreseen by the scenario as the maximum allowable distance
MISSION_RECOVERY_REQUIRED_CHECK	800026	The recovery equipment for the mission has not been entered
MISSION_GEOFENCING_REQUIRED_CHECK	800028	No geofencing entered for the mission
MISSION_REMORE_PILOT_REQUIRED_CHECK	800030	No remote pilot entered for the mission
MISSION_MIN_BUFFER_CHECK	800023	The minimum buffer entered for the mission is invalid
EPAY_SUBSCRIPTION_CHECK	800034	The subscription type is not valid for the selected scenario
PILOT_LICENSE_TYPE_CHECK	800037	The pilot qualifications are not compatible with the type of pilot license required for the selected scenario
ACTIVE_DECLARATION_CHECK	800039	No declaration is active for the selected drone
BVLOS_MODULE_CHECK	800054	BVLOS does not exist for the selected mission
DOCUMENTS_CHECK	800051	Missing documents