

WILDFIRE MANAGEMENT DASHBOARD

USER GUIDE

V2.0

SAFERS DASHBOARD DESCRIPTION

AIM

The SAFERS (Structured Approaches to Forest Fire Emergencies for Resilient Societies) open-source platform is an Emergency Management System that uses advanced Artificial Intelligence models and big data to provide decision support for professionals and citizens facing wildfire emergencies.

SAFERS aims to enable the assessment of potential, ongoing and extinguished fire events, thus acting along three key **phases of the emergency management cycle**:

- prevention & preparedness;
- detection & response;
- restoration & adaptation.

By integrating big data with AI algorithms, the SAFERS Dashboard generates a series of **early warnings**, **risk Maps**, **fire extension and propagation estimations and impact assessments**, available based on your user profile.

BENEFITS & VALUE

The SAFERS Dashboard:

- is **one single platform** for coordinating citizens, volunteers, professionals, and authorities.
- It provides a holistic view of emergencies by combining multiple data sources and tools.
- makes restricted data securely accessible to the right audience upon specific authorisation.

PLATFORM REQUIREMENTS

The recommended browser to use the SAFERS Dashboard is **Chrome**.



To use Chrome, the following system requirements must be met:

- Windows: Windows 7, Windows 8, Windows 8.1, Windows 10 or later
- Mac: OS X El Capitan 10.11 or later
- Linux: 64-bit Ubuntu 18.04+, Debian 10+, openSUSE 15.2+, Fedora Linux 32+

IMPORTANT!

All the services and systems proposed in SAFERS are prototypes and still under development. The information presented here may be subject to further changes.

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1. ACCESS, REGISTRATION AND ACCOUNT

The SAFERS Dashboard is available online at the URL: <u>https://webapp-test.safers-project.cloud/login</u>

1.1. Registration

To access the SAFERS Dashboard, you are required to register an account.

- In the Login form, click Create an Account (Figure 1, nr. 1).
- The credentials required are email and password. Create a secure password and confirm it in the form (Figure 2, nr. 2).
- Click Register (Figure 2, nr. 3).

A confirmation email will be sent to the provided email address. Open the email and follow the instructions to activate your account. Upon the successful activation, you can use the credentials set to log into the SAFERS Dashboard.



GOOD TO KNOW

At the moment, the SAFERS Dashboard is only available in English. In the future, other languages will be available improving the personalisation of the tool.

1.2. Log-in

- In the Login form, enter your credentials, email and password (Figure 1).
- Click Submit.

After the successful authorisation, you will enter the SAFERS Dashboard.

GOOD TO KNOW!

At the moment, customising the personal profile is not allowed.

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1.3. Logout

To log out, click on the user icon in the top-right corner of the upper bar (Figure 3) and click the command Logout (Figure 3).



Figure 3 - User Icon and Logout button

2. THE SAFERS DASHBOARD

2.1. Navigate the Dashboard

2.1.1. The main menu

The SAFERS Dashboard functionalities are organised in the main menu that you can find under the so-called Hamburger menu, the icon in the top-left corner of the screen (Figure 4).



The main menu includes the following sections, available to logged users:

- Map
- Chart
- Social media
- Events
- Profile
- About

You can use a minimised visualisation of the main menu, where only icons are shown, or a complete visualisation with the different menu options described. Click the bottom-left corner arrow button to switch the visualisation mode (Figure 5).



Figure 5 – The main menu opened with labels (1) and icons (2)

2.1.1. Time Filtering

The SAFERS Dashboard allows you to set a time interval to display the relevant information concerning the displayed area of interest.

The **default** time interval spans from **3 days before the current date to 45 days after**. However, this interval is adjustable to accommodate your specific requirements.

Starting date		End date				
Wed 03 January 2024 - 20:13	\sim	Thu 22 February 2024 - 18:32 📋			Apply	Reset
		Figure 6 - Time filter				

To set the time interval of your interest:

- Click the starting date or end date field, on top-centre of the header (Figure 6).
- Navigate the calendar using the arrows for months (previous: "<" and following: ">") and the double arrows for the years (previous: "<<" and next: ">>").
- Check the start date and the end date. The chosen interval is highlighted in blue, with darker shades denoting the start and end dates (Figure 7).
- Once the interval is defined, click Select Time to confirm.

8

	Starting	date						End	date							_			
	Wed 03 January 2024 - 19:12						~ Thu 22 February 2024 - 17:30								Apply Reset			set	
	~~ <		Ja	in 202	24						Fe	eb 202	24		> >>	Automatic Aler	s	•	Upda
	Mo	Tu	We	Th	Fr	Sa	Su	M	o T	Гu	We	Th	Fr	Sa	Su	1. J. C. S. S.	1		R
No.	1	2	3	4	5	6	7	2	9 3	30	31	1	2	3	4		88	\$ ~}	
9	8	9	10	11	12	13	14	5		6	7	8	9	10	11	14. 800			
	15	16	17	18	19	20	21	1	2 1	13	14	15	16	17	18				
	22	23	24	25	26	27	28	1	9 2	20	21	22	23	24	25	S Della			
	29	30	31	1	2	З	4	2	5 2	27	28	29	ä	2	3	1			14
	5	6	7	8	9	10	11	2		5	6	7	8	9	10				
													Select	time	Ok	NS (2.44)			1
-	100 C				- 24			1.00	- 200		1000		1000	5.00	1				

Figure 7 – Starting and Ending dates

 You can also set the hours: scroll through the desired hour and minute and confirm your selection by clicking on them (Figure 8).
 To finalise your choice, click OK on the right.

Starting date		End date			
Wed 03 January 2024	4 - 19:12	~ Thu 22 February 202	24 - 17:30	Apply	Reset
Jan 3	2024	Feb 22	2 2024	Automatic Alerts	👻 Upda
19	12	17	30	Contraction of the St	LANT AN
20	13	18	31		L
21	14	19	32	Ser Anna Serie	15- C
22	15	20	33	1 TO 1892	
23	16	21	34		A STAR Pro
	17	22	35	ALL STREET	West and
	18	23	36	2 10 10 10	
	19		37	F A. BERRY	
	20		38		
	~ *			Sol Table Side	193
			Select date Ok		
		No.	and the second s		1

Figure 8 – Hours

IMPORTANT!

To apply the selected dates, always click on the **Apply** button.

2.1.2. Filter bar

The SAFERS Dashboard empowers you to personalise the displayed information by filters. Collected in the Filter bar located at the top centre of the header (Figure 9), just below the time interval, the Filter bar provides various options corresponding to data gathered and made available by the SAFERS Dashboard:

- **Persons**: data on agents and volunteers, displayed per status and eventually assigned team.
- **Reports**: geolocated information collected from the field via Telegram chatbot.
- **Missions**: tasks assigned by the control room to individuals or groups.
- Field cameras: images gathered by cameras installed to monitor specific areas of interest.
- **Updates:** messages created by the control room and distributed to the Telegram chatbot users. They can be sent to specific groups, organisations, and citizens.
- **Map requests:** With Map-based visualisation, the user can create and save to conduct post-hoc analyses on past events or simulate possible scenarios based on satellite data integrated by SAFERS.

Persons	-	Reports		Missions		Field-Cameras	Updates		Map Requests		
	Figure 9 - Filters bar										

By default, all the filters are inactive, allowing for an unobstructed view of all types of information on the Map.

- Every category is a button.
- Every button allows you to switch on and off the filter that shows the specific information on the Map.
- The colour of the label informs you of the status of the filter.
 - **coloured**: filter active and data if any are displayed on the Map.
 - o grey: the filter is inactive, and data are not displayed on the Map (Figure 10).

Persons	-	Reports	•	Missions	•	Field-Cameras	Updates	•	Map Requests	-
Figure 10 - Missions filter active										

For some data, it is possible to add some filter criteria.

- To filter the visualisation more precisely, click the rightward arrows where available.
- Set the additional criteria by selecting the checkboxes.
- Click Apply or Reset to close the menu (Figure 11).



2.2. Map-based view and controls

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Upon entering the SAFERS Dashboard, the default section is the Map, always by selecting the first command of the side menu.

The SAFERS Map lets you personalise the data visualisation according to your tasks and needs. You can select the data to see by using the Filter bar (Section 2.1.2).

IMPORTANT!

All the information displayed in SAFERS corresponds to the **selected time interval**, thus no data before or after the set interval are shown.

All data visualised on the Map are automatically updated every minute.



Figure 12 - Time window and filter bar

The interaction with the Map is possible by using common keyboard commands and convenient controls are grouped on the right side of the Map (Figure 13).

- To browse and move the Map, click and drag the pointer to the desired direction.
- To rotate the Map, use the right-click.
- To zoom in and out, scroll the **mouse wheel** or the designated **buttons** and it is located on the right of the screen.

Ø)

You can also:

- Centre the Map onto your location, if you authorised the browser to access your location.
- To reset the orientation, click the Reset North button.
- Seamlessly switch between various visualisation styles, including "satellite", which is the default one, "basic", "dark matter", "fiord colour", "positron", and "OSM bright".

49:1762860575, 19:9361767858 Zoom* 9.01 Search location Show my location Com in Com in Com out Com out Reset North Mag visualisation Eizeura 12 Anno 2004 Control Co

Figure 13 - Map centre coordinates, Zoom level and Map controls

Latitude: 43.474997 | Longitude: -2.414945 | Zoom: 3.11
Turi
Turi
Turin, Turin, Italy
Turin, Italy
Turin Airport, Strada San Maurizio 12, Caselle
Torinese, Turin 10072, Italy
Turis, Valencia, Spain
Church of San Lorenzo, Via Palazzo di Città 4, Turin,
Turin 10122, Italy

Figure 14 - Map search location

Finally, you can search for a specific location by typing its name in the research field. The auto-form filling will make your research quicker (Figure 14). As you navigate the Map, the button Search This Area, in the top centre of the Map, becomes active, allowing you to target your exploration and refresh the data concerning the area you are visualising (Figure 15).

Click on it every time you move around the Map.



Figure 15 - Search this area button

Additional pieces of information on the Map that you can display are:

- The last update of data on the top-right corner of the header.
- The zoom level of the Map above the Map controls.
- The Map centre coordinates above the Map controls.
- The coordinates of a specific location by double-clicking in correspondence with it.

2.2.1. Data display

SAFERS offers different modalities to consult the data on the Map.

2.2.1.1. Data clusters

Data filtered by the time interval are aggregated in **doughnut-shaped charts**, reporting the total number of elements in the centre (Figure 16). The coloured segments of the doughnut chart correspond to active filters and apply to the same colour code, which is also described in the legend available on the right side of the screen (Figure 17).



Figure 16 - Map doughnut and single pins

The doughnut charts are in the area where the data refers. By zooming in on the Map, it is possible to expand the doughnut charts and see more details till the single elements are indicated as pins (Figure 16).



Figure 17 – Map Elements Legend

Moreover, by hovering over a pin and clicking on it, it is possible to display more cards containing comprehensive details, which appear on the top-right side of the page (Figure 17). The Map may also feature a colour-coded area according to the information type, enhancing the visualisation of the various information on the Map (Figure 19).



Figure 18 - Pin details on hover

2.2.1.2. List

The data available for the selected time interval shown on the Map are also available in the side list.

You can:

Open and close the list by using the command List on the right of the screen (Figure • 20-1).

To close the drawer, you can either click the Close button on the top-right corner of the List (Figure 21 - 4).

- Select the elements using the Filter bar (Section 2.1.2) or the drop-down menu at • the top of the List (Figure 21 - 2).
- Search a specific element using the list's research bar (Figure 21 3).



Figure 20 - List button



Figure 21 - Sorting and research on the List

The List is organised in cards, each presenting the specific details of that piece of information. For instance, Figure 22 shows the list of Persons located in the area focused on the Map by the Data clusters (Sections 2.2.1.1).

By clicking on a single card, the full details of the selected element are provided (Figure 22). The colour of the board of the elements coherently informs you of the category with the filter bar buttons. You can refer to it to quickly identify other displayed elements on the List and the Map.





IMPORTANT!

SAFERS allows the download of the data visualised in a JSON feature collection (Figure 23).

 To download the data, select the command Download on the screen's right side (Figure 23 – 1).



Figure 23 – Elements buttons

2.2.2. Map Layers

The Map layers are a distinctive feature within the SAFERS Dashboard, seamlessly integrated with the time filtering settings.

SAFERS entails two types of Map layers.

- Weather layers (Section 2.2.2.1)
- Environmental layers (Section 2.2.2.2)

IMPORTANT!

The availability of the layers is based on the selected time interval set in the time filter above the Map (on the page's header).

To activate and select layers, click the Map Layers button on the right of the screen (Figure 24 -1). A floating card shown on the Map will allow you to select the Layer category, then the time range of interest among:

- Short term
- Medium range
- Sub-seasonal

(Figure 24 -2) and finally, the specific layer you want to visualise in the list of the available ones (Figure 24 -3).



Figure 24 – Map layer selection procedure

To activate a layer, click the checkbox next to its name (Figure 24 -3).

The SAFERS Dashboard allows you to select and visualise more Map Layers simultaneously. The different layers will appear overlapped on the Map.

IMPORTANT!

SAFERS allows the visualisation of up to 4 Map Layers simultaneously.

You can show or hide layers by de/selecting them from the list (Figure 26 - 1).

The metadata related to the specific Map layer are available under the button •, in the right corner of the bottom widget. A floating window will display the available data (Figure 25 - 1).



Figure 25 - Map layer metadata

Additional functions are made available by a bottom bar, one per layer displayed, that allow you to:

- Adjust the opacity of the specific Map Layer (Figure 26 2).
- Consult the legend explaining the colour code used in the specific Map Layer (Figure 26 3).
- Follow the evolution of the data over time, **playing** or moving the focus up and down the interval (Figure 26 4).
- Close the layer by clicking the X button on the right of the widget (Figure 26 6).



Figure 26 - Map layer player

You can Download the Map layer by clicking the dedicate button in the right side of the screen (Figure 26-7).

Moreover, you can right-click on the location of interest to access additional functions (Figure 27):

- Consult the Coordinates of the specific point where you clicked on. The coordinates can be copied to the clipboard and pasted on other programs (Figure 27 -1).
- Get Timeseries to visualise the Time series evolution and feature information (Figure 27 – 2); the different values for timestamps will be shown in a chart. (Figure 28).



Figure 28 - Map layer time-series

 Get Feature Info (Figure 27 – 3) to consult additional feature information on the selected location (Figure 29).

IMPORTANT! If more than one layer is displayed, the feature information will be retrieved for all the selected layers.



Figure 27 - Map layer menu with layer options

IMPORTANT!

A time series may contain one or more tabs, each with a chart showing the evolution of the values over time (Figure 28). If more than one layer is currently displayed, the time series refers to **the layer on top**.

Feature info		×
Relative humidity Short	term	
r2	77.79%	
2m dewpoint temperature	e Short term	
t2m	2.35°C	
Total precipitation Short	t term	
d2m	-1.18m	
Total precipitation in the	last 24h Short term	
tp	0m	

Figure 29 - Map layers feature info

2.2.2.1. Weather Layers

Within the Weather forecast category, a variety of weather and climate layers are available, further organised into three subcategories:

- The Short-term layers are deterministic, covering a span of 72 hours with hourly intervals, and are updated every 6 hours.
- The Medium range layers are probabilistic, spanning 14 days with 3-hour intervals, and are refreshed every 12 hours.
- The Sub-seasonal layers, also probabilistic, extend up to a lead time of 45 days with 6-hour intervals and receive updates twice a week.

For probabilistic layers, two additional values are included: the 10th percentile and the 90th percentile (Figure 31 and Figure 30).

Feature info							
Relative humidity Medium range							
r2	88.67%						
r2_p10	87.77%						
r2_p90	89.66%						

Figure 30 - Feature information of probabilistic Map layer



Figure 31 - Time series of the probabilistic Map layer

- A noteworthy layer in this category is the Averaged total lightning flash density (in the last hour or the last 6 hours), which forecasts lightning occurrences. It serves as a valuable tool for gauging the likelihood of wildfires. This layer, combined with other weather conditions, enhances our understanding of the potential for wildfire occurrences.
- The wind direction and wind speed layers are very useful for estimating the development course of a wildfire. These Weather layers show the evolution of the wind over time. Furthermore, the time-series feature graphically displays the values increasing or decreasing in terms of degrees for the Wind direction and meters per second for the Wind speed at a given hour for the next three days.

2.2.2.2. Environmental Layers

The Environmental layers encompass Map layers focusing on environmental conditions and land cover, including fire and soil conditions, critical infrastructure, and fire propagation forecasts.

 The Fire Weather Index, sourced from EFFIS (the European Forest Fire System), is seamlessly integrated with a lead time of 10 days. Anomaly detection involves analysing averaged data from the previous 40 years. The accompanying legend offers a colour guide, delineating whether the deviation from normal climatological conditions is very low, high, or extremely high. The time series feature provides insights into the evolution of the Fire Weather Index layer's value over time. The proximity of the value to 0 indicates a lower deviation from normal climatological conditions.

- Additionally, the Drought Code layer highlights anomalies in climate conditions, offering a comprehensive view of environmental dynamics.
- The **Prescribed Burning Plan** is a short-term environmental layer, updated daily. Its values are computed based on temperature, humidity, and wind speed. The green colour on the Map indicates a favourable situation, while the red shows otherwise.

 Layers

 Particulate Matter 2.5 (PM2.5)

 Particulate Matter 10 (PM10)

 Ocone (03)

 Nitrogen Dioxide (NO2)

 Prescribed burning plan

 Prescribed burning plan

 Free Weather Index builden

This layer is not available in all regions. available only in some areas (Figure 32).

Figure 32 - Prescribed Burning Plan

Sub-seasonal Environmental The Land Cover Map is а Map Laver. It undergoes an **annual update**, generated on the 1st of January each year (Figure 33). The algorithm generating this Map Layer employs real-world data and Copernicus information to create а comprehensive model for fire propagation. It incorporates classes specifically designed for enhancing the fire propagation model. Additionally, the algorithm delineates urban areas, contributing to more effective fuel management strategies.



Figure 33 - Land cover Map layer

2.3. Charts

The SAFERS Dashboard gathers and integrates different sources of data, most of them crowdsourced, that are provided by geolocated users. The section Charts allows access to these data aggregated in charts as a complementary view to the map-based visualisation.

To access the Charts section

• Select the second command of the side menu.

IMPORTANT!

The Charts section is still under development. It is a working prototype to be improved in terms of functions, data visualisation and user interaction. Sorry for the bugs and interaction issues.

Likewise to the map-based visualisation, all the data displayed in the Chart Section are ruled by the Time filter (Section 2.1.1). So, check and refine the interval when consulting this section. Moreover, you can use the Filter bar to personalise your view, considering that it differs slightly from the filters available in the Map.

- Check the Time filter to set your period of interest.
- Enable the Filters to combine the elements of interest (Figure 34).

Starting date			End date					
Tue 12	March 2024 -	13:01 ~	Mon 29 April 2024	4 - 14:01	Ė .	Apply	Reset	
Persons	Persons Reports Missions		Field-Cameras	Updates	Map Requests			
Figure 34 - Charts time and filters bar								

Even though this section focuses on the charts, a Mini-map on the left side provides the spatial context to facilitate the information consultation

The Mini-map offers the same controls as the main Map (Section 2.2).

 Use the Search this area button to refresh data when moving the map. It will also update the Charts.

In this section, you can consult data concerning:

- Persons
- Reports
- Missions
- On-site cameras
- Updates
- Map Requests

To access more detailed information on a specific category:

Click on the correspondent box.
 You will be shown the specific details in the lower part of the screen.

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PERSONS: it shows the overall count of individuals and teams. The bar chart displays the distribution per Status, and a line chart depicts the evolution of the total number of people over the set time interval (Figure 35**Error! Reference source not found.**).

• The **time granularity** of the line chart can be customised by selecting among the options (daily, weekly, or monthly intervals) offered in the drop-down menu above the chart.



Figure 35 - Charts Persons card

REPORTS: it presents the total amount of reports received in the set interval and their distribution per hazard type (Figure 36).

MISSIONS: it exhibits a bar chart illustrating the distribution of Missions per status and the total count (Figure 37).

UPDATES: it presents the total communications per scope (Figure 38 - Charts – UpdatesFigure 38).

FIELD-CAMERAS: it provides cameras with detailed information, including their active status, name, and location.

MAP REQUESTS: it presents the Map Requests by type (Figure 39).



Figure 36 – Charts - Reports

MISSIONS		Total: 15	
Mission Status			
Taken in charge	2		
Created	11		
Completed	2		

Figure 37 - Charts - Missions

<u>UPDATES</u>		Total: 9
Professional	2	
Organization -	2	
Citizen	5	

Figure 38 - Charts - Updates

MAP REQUESTS	Total: 24
Wildfire Simulation	6
Post Event Monitoring	8
Flooded Areas	5
Fire and Burned Areas	5

Figure 39 - Chart Map Requests

3. USAGE OF SAFERS INTELLIGENT SERVICES

3.1. Onsite cameras

The SAFERS Dashboard allows the display of the pictures periodically captured from onsite cameras installed on the territory.

To access these data, select Field cameras

- in the Filter bar (Section 2.1.2) to activate the correspondent filter.
- In the drop-down menu of the List (Section 2.2.1.2) (Figure 40-1).

The installed cameras will be displayed on the Map.

You can identify the location of each specific camera by selecting the blue pin in the card of the list (Figure 40- 2). The corresponding Pin on the Map will be highlighted.

Moreover, every card provides the information, such as

- The camera position coordinates.
- The number of orientations it supports.
- The timestamp of the last update.



Figure 40 - Field-Cameras Elements in the List and on the Map

The system automatically detects and tags the pictures containing flames and smoke. The presence or absence in the card of the specific tags informs you of the detection result (Figure 41)



From each card in the list, it is possible to access the Details (Figure 41 - 3) including a comprehensive overview of the pictures gathered from the specific in-field camera from each



Figure 42 - Field-Camera details - Carousel of the pictures per orientation

By swiping the carousel of pictures, you can see the result of the manual and automatic analysis of each image. The presence of tags on the miniatures informs you about what has been detected, flames and/or smoke.

GOOD TO KNOW!

You can hide from the carousel the pictures that lack detection of smoke or fire or not manually validated by de/activating the toggle above the carousel (Figure 42 - 1).

Icons provides you with additional information (Figure 43):



the automatic detection /manual validation of data on the single picture

By selecting a specific picture, side commands allow you to consult the automatic detection and the manual validation if any. You can also add or modify manually the tags of the single picture, by using the following commands:

ADD FLAMES	+	CONFIRM FLAMES	\checkmark	REMOVE FLAMES	命	DISCARD FLAMES	×
ADD FLAMES	+	CONFIRM SMOKE	\checkmark	REMOVE SMOKE	俞	DISCARD SMOKE	×
-	•						
		CONFIRM FLAMES	~	REMOVE FLAMES		DISCARD FLAMES	×
		CONFIRM SMOKE	\checkmark	REMOVE SMOKE	â	DISCARD SMOKE	×

Figure 44 – Dynamic commands to interact with the single picture

The **manual validation** is crucial in refining the algorithm to accurately distinguish between flames and smoke and other atmospheric conditions like clouds or fog. So, it is essential to keep validating the pictures to guarantee an effective detection service.

GOOD TO KNOW!

By selecting the last picture of each orientation, you can open the carousel displaying images captured by the camera over the past 3 days (Figure 42). The captured images are retained for 3 days.

3.2.1. Reports from the field: visualisation and review.

The SAFERS Dashboard aims to enhance situational awareness by integrating data actively collected by in-field agents and volunteers.

The dashboard collects, processes, and visualises Reports that in-filed users can create through a dedicated procedure through the SAFERS Telegram Chatbot.

The SAFERS Chatbot is a tool running on mobile devices that enables fast and effective bidirectional communication between deployed responders, field forces, control centres, and citizens.

It works on **Telegram** (a globally available messaging app) and uses the **conversational approach** (based on the exchange of messages), and it allows the users to:

- Create Reports on the situation they are witnessing.
- Send Report to the Control Room.
- Receive Updates from the Control room.

Professionals can also:

- Send their location.
- Provide and update their operational status,

- Take in charge Missions that the Control room assigns to individuals or groups.

All these data can be visualised in the SAFERS Dashboard, on the Map, in the List and detailed Cards.

A Report is a piece of information that a SAFERS Chatbot user can create and send. A SAFERS Report includes:

- One Hazard.
- The Location of the reported observation.
- Eventual additional parameters (according to the event selected).
- A textual description.
- Eventual media, which can be Photos, Videos, or Voice notes.

To Consult the Reports:

- Enable Reports in the Filter bar (Section 2.1.2) above the Map (Figure 45 1)
 - From the Filter Bar, furtherly filter the Reports per Hazard and Visibility is possible.
- Or select Reports in the drop-down menu of the List (Section 2.2.1.2) (Figure 45 2).

The Reports created in the time interval set will be visualised on the Map, where the Data clusters (Section 2.2.1.1) and single pins inform about the geographical distribution of the event reported. More details can be read in the List.

In the List, every card provides a Report preview (Figure 45 - 3), showing the most relevant data:

- The preview of the **media** is attached.
- The hazard.

V2.0

- The date and hours of creation.
- Reported details (name, organisation).
- The report **content status** (submitted, inappropriate, inaccurate, or validated) and the visibility type.
- The **read status**, indicating if it has been visualized by other SAFERS Dashboard users (control room operators).
- The **related Mission**, in case the Report is created to comply with a task assigned via Dashboard to in-field agents.
- By clicking the Pin of the card, the Map is centred on the **location** of the report (Figure 45 4).



Figure 45 - Report Elements in the List and on the Map

• Clicking on a single card, additional details are provided on a floating card. Here, it is possible to explore all attached media content in a larger format, the textual description, and measurements if provided by the in-field reporter (Figure 46).



Figure 46 - Report media carousel

As per the pictures gathered by the on-site cameras, also the Reports can be manually validated. The **manual review of the Reports** aims to improve the quality of the available data to support the Control Rooms operators and decisions.

SAFERS includes 2 levels of review:

The **peer review**: it can be done by the Chatbot users, to validate the information directly from the field (Figure 47). In particular, the majority is reported out of the total reviews:

× is displayed in the case of the majority of **negative** reviews (The Report is considered invalid or unreliable.) ✓ is displayed in the case of the majority of **positive** reviews (the Report is considered **valid** or reliable).



The **expert review**: it can be done by the Dashboard users, to decide if keeping or discarding the received report to support the ongoing activities (Figure 48).

To manually review a Report,

- In the Report card, click the first icon near the Title (Figure 48 -1).
- Then reply to the review question (Figure 48 2).
- Finally, Confirm your review (Figure 48 3).



Figure 48 – Expert Review of a Report

3.2.2. Missions: creation and management

The SAFERS Dashboard allows the creation and spread of different types of communications for the territory.

The Mission is a specific content that the Control Room operator can create in the SAFERS Dashboard to assign tasks to geo-located users. When the users in the area are notified of the Mission, they can take it in charge and create associated Reports.

This flow guarantees efficient support to the operations.

To access the Missions:

- Enable the Missions in the Filter bar (Section 2.1.2) to activate the correspondent filter (Figure 49 - 1).
 - From the Filter Bar, it is possible to further filter the Missions per status, selecting Created, Taken in Charge, Completed, and Deleted.
- Select Missions in the List's drop-down menu (Section 2.2.1.2) (Figure 49 2).



Figure 49 – Missions Elements in the List and on the Map

The Missions created in the time interval set will be visualised on the Map, where the Data clusters (Section 2.2.1.1) and single pins inform about their geographical distribution.

- To identify the location of each specific Mission, click the pink pin on the specific card (Figure 49 – 3). The correspondent pin on the Map will be highlighted.
- To read more details about the Mission, click the card in the list or the specific pin on the Map (Figure 49 – 4).

In the List, every card provides the Mission details (Figure 45 - 3), showing the most relevant data.

To create a new Mission:

- In correspondence with the location of interest, right-click on the Map.
- In the contextual menu, select Create Mission (Figure 51).



create a new item

- You will be required to draw the polygon defining the area of interest for the new Mission:
 - Every **single click** of your mouse defines one angle of the polygon. The first **2 clicks** allow you to start to see the area.
 - Refine it by adding the 3rd or additional other angles.
 - To close the Polygon, double-click on the last point.
- Once the area is established, a form asks for the essential details of the new Mission (Figure 51). It includes:
 - \circ A title
 - The starting and ending dates,
 - The recipients, such as organisations, teams and/or individuals.
 - The textual description of the actions expected



Figure 51 – New Mission creation form

• Finally, Confirm the creation of the New Mission. It will be notified to the interested users via the SAFERS Telegram Chatbot.

As soon as a New Mission is created, its status is Created.

When the recipients receive the notification, they will change the Mission status through the SAFERS Chatbot according to their actions:

- when assuming the Mission, they change its status to Taken in charge.
- When the assigned tasks are accomplished, they must change the Mission status to Completed.

GOOD TO KNOW!

Every Mission is identified by a number provided in the Associated Reports. This link facilitates Move among one Mission and the Associated Reports.

3.2.3. Updates: communications toward the field

If the Missions allow the Control Room to assign specific tasks to geolocated individuals, the Updates are communications that the Control Room can send to geolocated users, including professionals, volunteers, and citizens, based on their profile and location.

It can be used, for instance, to send indications derived from an automatic alert or a wildfire simulation.

To access the Updates:

- Enable the Updates in the Filter bar (Section 2.1.2) to activate the correspondent filter (Figure 48 1).
 - From the Filter Bar, it is possible to filter further the Updates per Scope and Restrictions applied.
- Select Updates in the List's drop-down menu (Section 2.2.1.2) (Figure 52-2).



Figure 52 - Updates Elements in the List and on the Map

The Updates sent in the time interval set will be visualised on the Map, where the Data clusters (Section 2.2.1.1) and single pins inform about their geographical distribution.

- To identify the location of each specific Update, click the green pin on the specific card (Figure 52 – 3). The correspondent pin on the Map will be highlighted.
- To read more details about the Update, click the card in the list or the specific pin on the Map (Figure 52 - 4).

In the List, every card provides Update details (Figure 52 - 3), showing the most relevant data.

IMPORTANT!

Updates can be only received by SAFERS Chatbot users who authorised the system to share their location and receive real-time Updates.

To create a new Update:

- In correspondence with the location of interest, right-click on the Map.
- In the contextual menu, select Create Updates (Figure 53).
- Then you will be required to **draw the polygon**, delineating the area where geolocated users will receive the Update via the SAFERS Chatbot:
 - Every single click of your mouse defines one angle of the polygon.
 The first 2 clicks allow you to start to see the area.
 - Refine it by adding the 3rd or additional other angles.
 - To close the Polygon, double-click on the last point.
- Once the area is established, a form asks for the essential details for the new Update (Figure 54). It includes:
 - The starting and ending dates,
 - The scope, that can be Public (that is all the SAFERS users in the selected area) or Restricted to specified targets (citizens, professionals from all organisations, or professionals from chosen organisations).
 - The **textual description** is the communication that all the intended users will receive.
- Create Updates
 Starting date End date
 Wed 31 January 2024 00.00 ~ Wed 31 January 2024 23.59
 Scope
 Public
 Description
 e/1000
 CANCEL CONFIRM

Figure 54 – New Update creation form

Finalise the Update creation by clicking Confirm.
 Afterwards, the SAFERS Chatbot users will send and receive the communication as a message on their mobile devices.

GOOD TO KNOW!

In case you want to send an Update to professional users of specific organisations or teams, you can start by filtering the Persons in the Filter bar above the Map. In this phase, you can filter the professionals based on their Operational Status or Team. You can draw the range of the Updates based on their geographical distribution.

		240	2
	i	51.01860251880241, 16.238652711854748	3
	+	Create Updates	0
	+	Create Missi	ALL S
	+	Create Map request	den a
	+	Get Timeseries	-5
	+	Get Feature info	- Ic
	×	Close Menu	12
а.			197

Figure 53 – Contextual menu to create a new item

The SAFERS Dashboard provides an intuitive way to perform on-demand requests related to mapping, monitoring, or simulation through the concept of Map Request.

In total, SAFERS support 4 types of Map Requests (Figure 56):

- Fire and Burned Areas
- Flooded Areas
- Post-Event Monitoring
- Wildfire simulation.

To create a new Map request:

- Right-click on the Map and select Create Map Request in the contextual menu (Figure 55).
- Then select one of the Map requests supported.
- Confirm your selection.



Figure 55 – Contextual menu to create new item

	Create Map request
	Туре
	Fire and Burned Areas
	Flooded Areas
	O Post Event Monitoring
	Wildfire Simulation
	I ——— 🗡
	CANCEL CONFIRM
Fie	gure 56 - Map Request menu

After having created a Map Request, you can monitor its status.

A Map request can be:

- Submitted, right after the initial creation.
- Processing, when the system is handling it.
- Available, when ready to display the results.
- Not available, in case its processing encounters issues.
- Cancelled, if the request has been manually deleted.

When a Map request status becomes Available, it is possible to visualise the result on the Map.

IMPORTANT!

Please consider that the execution of the map request may takes several minutes to be processed. **Known issue:** right after the map request results are in status available, they may not be ready for visualisation because of the importing procedure. In this case, please wait for the system to import the data. You can refresh the page until the data within the Map request card becomes available.

3.3.1. Fire and Burned Areas

The Fire and Burned Areas Map request allows you to obtain fire-related Mapping within a specified spatial-temporal window.

Once selected the type of Map request you are interested in by selecting Fire and Burned areas in the Map request Menu (Figure 56), on the left of the screen, a form allows you to set the parameters of the Map.

- Assign a title to the request you're creating (Figure 57 1).
- Set the start and end dates (Figure 57 2).
- Select the Layers you want to use to visualise the result (Figure 57 3). This request supports various data types, including:
 - The Fire front and smoke detection and delineation of fronts.
 - The Burned area delineation Map.
 - The estimation of the **Burned area severity**.
 - The **Burned Area geospatial image** relies on satellite imagery of the area of interest.
 - The **impact quantification and wildfire impacts** provide information on affected land cover types, population, and infrastructures.
- Optionally, you can set the day frequency and the resolution in meters (minimum accepted value: 10) (Figure 57 4).



Figure 57 - Map Request Fire and Burned Areas form

- Next, to specify the area of interest, you can draw the polygon on the mini Map on the right (Figure 36 - 5), or alternatively, you can use the WKT textbox (Figure 57 - 6).
- Finally, click Confirm in the bottom-right corner to launch the Map request (Figure 57 -7).

3.3.2. Flooded Areas

The Flooded Areas Map Request enables you to request flood-related mapping following a process similar to the Fire and Burned Areas Map Request (Section 0).

Once you have selected the type of Map Request you are interested in, choose Flooded areas in the Map Request Menu (Figure 56), on the left of the screen, a form allows you to set the parameters of the Map.

- Assign a title to the request you're creating (Figure 58 1).
- Set the **start and end dates** (Figure 58 2).
- Select the Layers you want to use to visualise the result (Figure 58 3). This request supports various data types, including:
 - The delineation Map of flooded areas
 - The **geospatial image**, specifically radar satellite imagery of the area of interest.
- Optionally, you can set the day frequency and the resolution in meters (minimum accepted value: 10) (Figure 58 4).



Figure 58 - Map Request Flooded Areas form

- Next, to specify the area of interest, you can draw the polygon on the mini-map on the right (Figure 37 - 5), or alternatively, you can use the WKT textbox (Figure 58 - 6).
- Finally, click Confirm in the bottom-right corner to launch the Map Request (Figure 58 7).

3.3.3. Post Event Monitoring

The Post-Event Monitoring Map Request enables you to obtain the burned area and vigour intensity Maps over time. This aids in evaluating the vegetation recovery process following a wildfire event.

Once selected the type of Map Request you are interested in, by selecting Post Event Monitoring in the Map Request Menu (Figure 56), on the left of the screen, a form allows you to set the parameters of the Map.

- Assign a **title** to the request you're creating (Figure 59-1).
- Set the **start and end dates** (Figure 59 2).
- Select the Layers you want to use to visualise the result (Figure 59 3).



Figure 59 - Map Request Post Event Monitoring form

- Next, to specify the area of interest, you can draw the polygon on the mini Map on the right (Figure 37 4), or alternatively, you can use the WKT textbox (Figure 59 5).
- Finally, click Confirm in the bottom-right corner to launch the Map Request (Figure 59 6).

The Wildfire simulation offers comprehensive capabilities of wildfire simulation tools, combining precision, customisation, and strategic planning for effective disaster management.

Once selected the type of Map Request you are interested in, by selecting Wildfire simulation in the Map Request Menu (Figure 56), on the left of the screen, a form allows you to set the parameters of the Map.

- Assign a **title** to the request you're creating (Figure 61 1).
- Set the start date and hours of projection (Figure 61 2).
- Select the Layers you want to use to visualise the result (Figure 61 3).

Some remarkable Map layers are:

- The **Fire Perimeter Simulation Only**, a Map layer that presents a distinct line for each hour of the simulation period.
- The Fire Perimeter Timeseries Simulation layer, that includes the player widget allowing to visualise one single line per hour.
- The Mean and Max Fireline Intensity layers, using KW/m as a measure, and their opacity can be adjusted to facilitate simultaneous viewing with the fire perimeter layers (Figure 60).
- Similarly, the Mean and Max Rate of Spread, measured in m/h, can be displayed alongside the fire perimeter layers with adjustable opacity.
- Similarly, the Stepwise fire spread probability and the Total fire spread probability layers work.



Figure 60 - Fire perimeter simulation only and Mean fire-line intensity layers

- Afterwards, you can define the probability range for a nuanced simulation (Figure 61 4) and set the fire spotting according to your preferences (Figure 61 5).
- The Wildfire Simulation Map Request includes some boundary conditions to be set to enhance the precision of your simulation. For each hour of projection, you can define the time offsets and weather conditions such as wind direction in degrees, wind speed in km/h, and fuel moisture content percentages (Figure 61 - 6). Moreover, you can explore the role of possible firebreak interventions, such as Canadair, helicopter, water line, or vehicle (Figure 61 - 7), drawing on the mini Map a line to indicate their position.



Figure 61 – Map Request – Wildfire Simulation form

- Next, to specify the area of interest, you can draw the polygon or a point, using the dedicated buttons on top, on the mini Map on the right (Figure 61 - 8) or use the WKT textbox.
- Finally, click Confirm to launch the Map Request (Figure 61 9).

IMPORTANT!

If you move the Map and search for other regions, remember to click the button Search in this area to update the data and the mini-Map view.

The same goes for the Map layer style, which will be the same for both the big and mini Maps.

3.3.5. Map Requests consultation and management

You can access all the simulations created,

- Setting the time range in the Time Filter (Section 2.1.1)
- Filtering the data by clicking Map Requests in the Filter bar (Section 2.1.2) and/or on top of the List (Figure 62 1).
- In the List, the Map Requests created are sorted in chronological order.

To explore one Map Request:

- Click on the card to highlight it (Figure 62 2).
- In parallel, the Map will be centred on the area of interest of the selected Map Request, identified by the Data Cluster (2.2.1.1) of the same colour (Figure 62 3).
- A Floating card provides you with the Simulation details (Figure 62 4).

GOOD TO KNOW!

If you move the Map from the ignition point and want to return to your Map Request pin, click the coloured pin in the card or click See on Map (Figure 62).



Figure 62 - Map Request visualisation

- Widen the cards, opening the Layers list into the card of the specific Map Request (Figure 63 1).
- Check the Layers you want to visualise on the Map (Figure 64 2).
- Fine-tune the Map visualisation by adjusting layer opacity (Figure 64 3).
- Use the right-side menu to download the metadata and consult the colour legend.
- Download the layer by clicking the download button next to the timestamp.

Real 1. al n mrf 2 al 2. E	Map Requests (53) Search Q X
STATUS: Content available	Status: Completed
Layers ^	Timestamp: 1/18/24, 24:00 🛓
Fire perimeter simulation only @ 🔲 🛈 Status: Completed	Opacity:
Timestamp: 1/18/24, 24:00	Mean rate of spread
Opacity:•	Status: Completed
Mean fireline @ [] () intensity @ [] () Status: Completed	Timestamp: 1/18/24, 24:00 🛓
Timestamp: 1/18/24, 24:00 👲	Opacity:
Opacity:	
Figure 63 - Map	2 ☑ Max rate of spread 🕜 🔲 🛈
Request layers	Status: Completed
	Timestamp: 1/18/24, 24:00 🛓
	Opacity:
	Fire perimeter 5 🔲 🛈
	simulation
	Status: Completed
	•
3	Opacity:
	Figure 64 - Map Request layers selected

In some cases, SAFERS provide the player widget to visualise the time evolution of the simulation on the Map (Figure 64 - 4). When the animation is not available, the timestamp will be prominently displayed.

GOOD TO KNOW!

When the question mark button is switched on, potential errors in that layer creation process occur (Figure 64 - 5).

As per the Map Layers (Section 2.2.2), also for the Map Requests, it is possible to examine the Timeseries and Feature information by right-clicking on any point of the visualised layer.

Based on your role and permissions on the SAFERS Dashboard, you can duplicate or delete a Map Request using the dedicated commands offered in the single card displayed in the List (Figure 65 - 1).

- Once a Map Request is deleted, its status changes to Cancelled (Figure 65).
- When a Map Request is going to be duplicated, a new title and description, if present, will be asked. The remaining data remain the same as the original Map Request.



Figure 65 - Map Request duplicate and delete buttons.

3.4. Decision Support System (Automatic updates)

SAFERS works as a Decision Support System by providing proactive suggestions to the decision-makers based on the data analysis.

Starting from the **Fire Weather Index** values, the system computes the average of the indices and anomalies. These data can be used to generate **automatic updates** tailored for citizens and professionals (in-field agents, volunteers).

Note that the automations performed by the SAFERS Dashboard can be programmed according to the rules and schemes of official Early Warning Systems which are under the responsibility of Local and National Authorities.

To consult the Automatic Updates sent, select them using the Filter bar on top of the Map, by clicking the Updates button. The filters allow to restrict the content by scope, distinguishing between Public and Restricted updates, and in case of restriction selected the target recipient between Citizen, Organization and Professional.

3.5. Social Media Analysis

The SAFERS Dashboard includes a Social Media module, offering an insightful overview of the hazards-related tweets from January 1, 2021, to March 14, 2023.

3.5.1. Tweet view

To access the Tweet section

• Select the third command of the side menu.

This section's layout combines the List and the map-based visualisation (Section 2.2) and the List (Section 2.2.1.2).

From the List, it is possible to access to Tweets and Statistics.

TWEETS

Tweets are listed in chronological order (Figure 66 - 1).

In the List, every card concerns one tweet and includes its text, author details, and publication date. Moreover, **automatic tags** are added to describe the hazard and the presence of helpful information. An **automatic validation** is also provided concerning the informative value of the tweet. If available, the **media** are included.

• To enter the tweet details and the media open the collapsible part of the card (Figure 66 - 2 and Figure 67 - 2).

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Figure 66 - Social media module

media

- To discover the location of the tweet, click the pin on the card. The corresponding doughnut or pin will be highlighted, indicating the location on the Map (Figure 66 - 3). It will centre the Map on the corresponding position. On the contrary, by clicking on the geolocated pin, the correspondent card will be highlighted, allowing you to access the details of the selected tweet.
- То the original tweet. click the Twitter icon. open on You will be redirected to Twitter on the original page (Figure 66 - 4 and Figure 67 - 4).

GOOD TO KNOW

Use the map to browse and visualise elements based on your area of interest. All the controls to adjust the map are grouped on the right side of the map. You can also use the mouse to adjust the zoom and move the map. Check how to interact with the Map in Section 2.2.

Besides the geolocations, it is possible to filter the tweets per further

- Dates (within a time range of up to 5 days) •
- Language •
- Hazard type •
- Informative content •
- Automatic validation result



The Social media module filters are available by clicking the floating button near the list.

STATISTICS

Entering the second tab available in the List of the Social Media module, some aggregated data are provided, including the total number of tweets, the percentage of informative versus non-informative tweets, the distribution of languages detected, hazard types and types of information conveyed in the tweets.

GOOD TO KNOW

This section is still under development. It is a working prototype to be improved in terms of

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functions, data visualisation and user interaction. Sorry for the bugs and interaction issues.

3.5.2. Event view

The Events section collects and displays data about different types of **hazards emerging from the automatic grouping of tweets** published from January 1, 2021, to March 14, 2023.

To access the Event section

• Select the fourth command of the side menu.

The section is very similar to the Social Media module (Section 3.5), displaying data on the Map and the details in the side List. From the List, it is possible to access Events and Statistics.

EVENTS

Events are listed in chronological order (Figure 69 - 1).

In the List, every card concerns one Event and includes its details, such as title, hazard, location, and start and end dates. In addition, the list of tweets related to the event is provided.

 To enter the tweet list, open the collapsible part of the card (Figure 69 - 2 and Figure 70 - 2).



Figure 69 – Events page

Figure 70 – Event card and related tweets

 To discover an Event's location, click the card's pin. The corresponding doughnut or pin will be highlighted, indicating the location on the Map (Figure 69 - 3). It will centre the Map on the corresponding position. On the contrary, by clicking on the geolocated pin, the correspondent card will be highlighted, allowing you to access the selected Event's details.

Besides the geolocations, it is possible to filter further the Events based on some criteria applicable to the tweet from which they refer. Available filters are:

- Dates (within a time range of up to 5 days)
- Language
- Hazard type
- Informative content

The Events filters are available by clicking the floating button near the list.

	Filters			×
•	Starting date 02/01/2021 - 00:00	Ending date 02/05/2021	- 00:00	ē
	Filter by language			
	Filter by hazard type			
	Filter by information			
			RESET	APPLY



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GOOD TO KNOW

This section is still under development. It is a working prototype that can be improved in terms of functions, data visualisation, and user interaction. Sorry for the bugs and interaction issues.

STATISTICS

By entering the second tab available in the List of the Event section, some aggregated data are provided, including the total number of Events, the languages used in the tweet about the Events, the hazards, and the types of information presented.

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4. USER MANAGEMENT

The SAFERS Dashboard supports four user roles, implying different rights of access:

- Admin: role dedicated to IT staff, it benefits from unrestricted access to data and functionalities of the SAFERS dashboard. Exclusively can handle the functions Uncompleted Users (Section 4.2) and Data Import (Section 4.4.2).
- Organization manager: role dedicated to operation managers and people managing teams. It can access the User management functions to create child organisations. If its current organisation is a parent organisation, any new organisations created will have the original organisation as a parent. Additionally, this role can manage users within its organisation. Moreover, it can create Updates (Section 4.6), create and manage Missions (Section 4.3), handle Reports (Section 4.2), and create and delete Map Requests (3.3).
- **First responder**: role dedicated to professionals and volunteers that use the SAFERS Telegram Chatbot. It can access all data within the SAFERS dashboard with reading permissions to access. This role cannot create, edit, or delete any data.
- **Citizen**: this role is only enabled to access the public content, including the Updates (Section 3.2.3), either public or addressed only to Citizens and public Reports (Section 3.2).

IMPORTANT!

Consider that the management of Citizen users is not included in this section.

The User management is enabled and distributed in three sections, described in the following, and that will be visible in the sidebar only to authorised users.

4.1. People

The People section is accessible from the side menu of the Dashboard and presents the table of all users of the SAFERS platform (Figure 72).

The Users' table includes:

- Avatar
- Username
- Email
- Role
- Organization
- Actions

These data are asked when **creating a new user**.

The users must be imputed manually by Admin and/or Organisation Manager users.

- Click the + button: a new table row will be added on top (Figure 72 1).
- Fill in the empty fields, providing the above data (avatar image URL, username, email address, role, and organisation).
- Confirm the creation of the new user by clicking the "✓" or discard the input by clicking the "×" button.
- Finally, refresh the table content on the page by clicking the button near the title (Figure 72 - 3).

Users 🕁 3				Q Search	<u>× • 1</u>
Avatar	Username	Email	Role:	Organization	Actions
•			First Responder		1
•			First Responder	_	1
•		-	First Responder	—	1
•	-	· •	First Responder	-	1
-	-	-	First Responder	_	1
-			First Responder		1
-			First Responder	-	1 2
				10 rows - < < 1-10 of 51	5 > >

Figure 72 - People page

You can also edit the Users' profile.

- Click the icon edit button on the row of the user to be modified \bigcirc (Figure 72 2).
- The row will be selected and made available to the changes.
- At the end, Confirm the changes by clicking the "✓" or discard them by clicking the
 "≭" button on the same row.
- Finally, refresh the table content on the page by clicking the button near the title (Figure 72 - 3).

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GOOD TO KNOW

Users can be associated with more than one organisation. Each user can also autonomously modify these settings using the SAFERS Chatbot.

To consult the Users' table, you can use:

- The **search box** in the top-right corner to perform specific research.
- The **pagination commands** at the bottom of the screen adjust the number of elements • displayed at once (10, 20, or 30) and navigate the data, moving back and forth.
- The column headers are commands to sort and reorder the table in ascending or descending order.

4.2. Teams

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The possibility to create Teams is a helpful feature for organising the SAFERS users, reflecting the actual organisation structure. In the alternative, the Teams can be ۵Ľ designed to exploit, at best, the SAFERS functionalities, addressing very precisely o00 Missions (Section 4.6) and Updates (Section 3.2.2). y The Teams section is accessible from the side menu. To create a new Team: • Click the + button: a new row of the table will be added on top (Figure 73 - 1). ₼ Fill in the required fields. θ Confirm the creation of the new user by clicking the " \checkmark " or discard ٥ the input by clicking the "*" button on the same row.

Finally, refresh the table content on the page by clicking the button near the • title \bigcirc (Figure 73 - 3).

To modify or delete an existing Team:

- On the Team row, click the icon edit button to modify it or the bin button to delete it (Figure 73 - 2).
- The row will be selected and made available to the changes, adding members or removing team participants using the correspondent checkboxes.
- At the end, Confirm the changes by clicking the " \checkmark " or discard them by clicking the • " $\stackrel{*}{\succ}$ " button on the same row.
- Finally, refresh the table content on the page by clicking the button near the title \supset (Figure 73 - 2).

Team 5 3		Q Search	× +	Select a team to see its members
Team	Organization	# people	Actions	
-			/ Ō	2

Figure 73 - Teams page

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4.3. Organizations

The Organizations section informs about all the organisations associated with your account (Figure 74).

In particular:

- The Admin user role can manage the parent Organization and edit its details.
- The Admin and Organisation managers can manage the associated Organizations.

GOOD TO KNOW

Check the SAFERS Dashboard user roles in Section 4.1.

The Organisation section is accessible from the side menu.

The Organisation tables include:

- The organisation's logo (optional)
- The short name (to make the consultation in SAFERS quicker and more accessible)
- The full name
- A description
- The tax code
- The type of Organisation (parent, if empty or associated organisation).

Organizations					Q Search	×_ +
Logo	Short Name	Name	Description	Tax code	Root Org.	Actions
	то	Test Organization	This is a test organization			1
		E: 74 0	· · · · · ·			

Figure 74 - Organizations page

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4.4. Advanced functions for the Admin role

4.4.1. Uncompleted Users

The section Uncompleted Users is exclusively accessible to the Admin user role. It shows the list of the users who could not **complete the registration** process. In this table, very similar to the User's table of the People section (0), the Admin can:

• Delete rows that result in uncompleted to enable the users to repeat the registration process.

Uncompleted Users					Q Search	×
FusionAuth Id	Email	Username	Roles	Organization	Verified	Actions
		Figure 75 - Uı	ncomplete Users	page header		

GOOD TO KNOW!

It is recommended to inform the users of the possibility of repeating the registration and guide them to fill in the data required, with special attention to the Organisation name Type and Role, if required (according to the user role).

4.4.2. Data Import

The section Data Import is exclusively accessible to the Admin user. Here, it is possible to import various types of data into the platform, including:

- **Users** to be added as registered users in the People Section (0).
- Layers to be displayed on the map-based view (Section 2.2).
- Activities are various actions the SAFER Chatbot users can check when handling one Mission (e.g., surveillance riverbanks control) (Section 3.2.2).
- **Categories** that the Chatbot users can find in the Report creation procedure (Section 3.2), as additional details (e.g. fire flame height, smoke colour).
- The so-called **Tips and, Quizzes**, and **Answers**, content specific for the SAFERS Chatbot, to engage the Citizen to receive very informative pills and questions on hazard and safer behaviours. Reading and replying to the Tips and Quizzes is acknowledged by points and medals as gamification features.

IMPORTANT!

The system accepts Excel files in .xls and .xlsx. format.

- It is mandatory that the file name includes "importActivity", as explained in the upload form (Figure 76).
- To select the file, **drag and drop** the file into the upload area **or click** in the upload area.
- Once the file is uploaded, the buttons Delete and Upload become active, allowing you to proceed with importing or deleting the uploaded file.
- The system provides **feedback** if the file deviates from the template supported for importing data.



Figure 76 - Data Import form

GOOD TO KNOW!

One specific type of content that can be uploaded is the so-called.

4.5. The User Profile

The User Profile section is accessible from the main menu. It provides you with the information provided at the registration (Figure 77). Moreover, it shows your Current status.



Figure 77 - Profile page

IMPORTANT!

The SAFERS Dashboard is still under development. It is a working prototype, and it might include elements not yet available. In this section, the Devices function finds a place but is not yet supported. V2.0

structured <u>Approaches for Forest Eire Emergencies in R</u>esilient <u>S</u>ocieties SAFERS https://safers-project.eu/ Horizon 2020 H2020-SC5-2018-2019-2020 Proposal n. SEP-210597754

