GIN

Joint Information Platform for Natural Hazards

User Guide

Version: 12 December 2025

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Federal Department of the Environment,

Transport, Energy and Communications DETEC

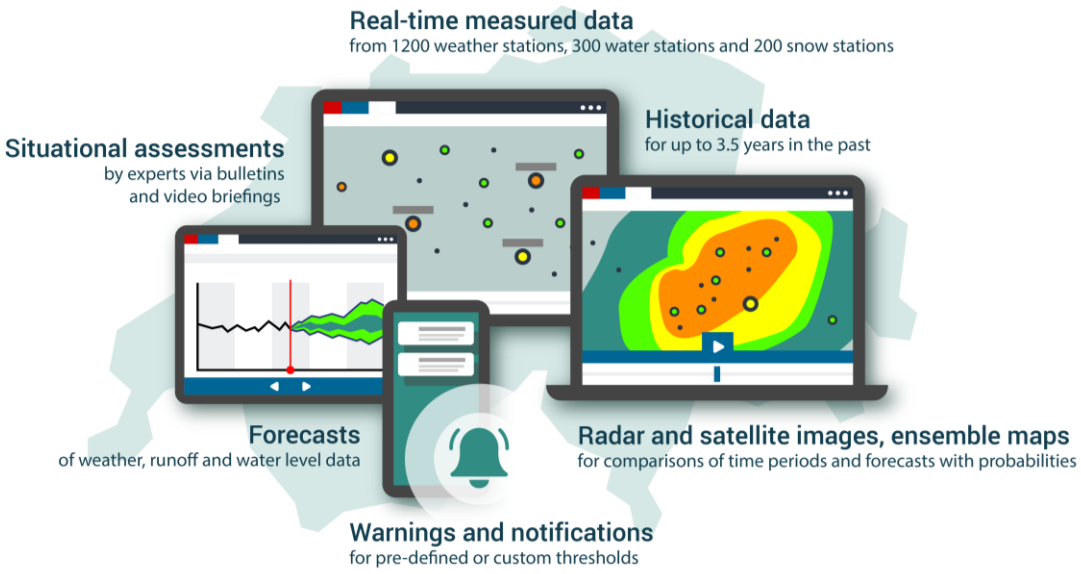
Federal Office for the Environment FOEN

The Joint Information Platform for Natural Hazards (GIN) combines all available data on natural hazards in Switzerland in one map application. It therefore provides a comprehensive basis for the early detection and management of natural hazards.

Extreme events such as storms, floods or avalanches can never be accurately predicted. Safety officers at federal, cantonal and communal level often have to decide on protective measures under extreme time pressure. For this they rely on a wide variety of information, such as measured data on runoff and water levels, weather and hazard forecasts and much more.

Everything on one platform

Since summer 2017, this information has been compiled for use by experts on the federal government's Joint Information Platform for Natural Hazards (GIN). This platform includes measured and observed data, forecasts, warnings, models and bulletins. Crisis teams also have free access to fee-based data on the platform. The data comes from both public and private sources: MeteoSwiss, SLF, FOEN, SED, cantons, communes, MeteoGroup. Data is also exchanged with all neighbouring countries.



Contents

1 Overview of the data available on GIN

The GIN platform gives you detailed data on weather, water, snow and earthquakes.

1.1 Weather

- Bulletins (natural hazard bulletin, detailed forecast, forecast WWEA)
- Air pressure measured / predicted (QFF difference north-south, QFF difference east-west, front map)
- Precipitation measured / predicted (total precipitation, probability severity levels rain)
- Air temperature measured / predicted
- Wind measured / predicted (probability severity levels wind)
- Satellite images (cloud top temperature, infrared image, satellite images in the visible channel, RGB Satellite image)
- Other: air humidity, soil moisture, radiation refl. short-wave, global radiation

Data source: MeteoSwiss (readings every 10 minutes), SLF, cantons. Forecasts are based on the ICON-CH1-EPS and ICON-CH2-EPS models (updated 4 to 8 times daily).

1.2 Water

- Bulletins (FOEN weekly outlook, drought bulletin, bulletin Lake Constance)
- Runoff measured / predicted
- Level measured / predicted
- Lake water level measured / predicted
- Statistics (comparison with flood statistics, general runoff situation)
- Other: Water temperature, lake balance, lake inflow, runoff nowcast, lake water level nowcast, runoff nowcast AEBI (catchment east and west and Murgenthal)

Data source: FOEN (update every 2 to 10 minutes, depending on the station), cantons. Forecasts are based on the ICON-CH1-EPS and ICON-CH2-EPS models and IFS (ECMWF) (updated 4 times daily).

1.3 Snow

- Bulletins (avalanche bulletin, pre-alerts)
- New snow measured, modelled and predicted
- Snow line (radar and area data)
- Snow depth (point data for stations and radar)
- Snow hydrology (snow water equivalent)
- Water equivalent
- Snow drift
- Snow temperature (point data)
- Other: Surface hoar SNOWPACK

Data source: SLF. Measurements are taken at manual stations (observer stations: data verified once a day, incl. indication of seasonal trends) and automatic stations (IMIS stations: snow depth every 30 minutes (unverified data). Modelling is based on the SNOWPACK model.

1.4 Earthquakes

- All earthquakes measured (no predicted data)

Data source: SED (live data, direct notification during an event)

2 Login

Your initial registration on the GIN platform will take about 10 minutes. Once you have registered, you can access the platform on your computer. Please also take 10 minutes to set up the GIN app on your smartphone or tablet.

GIN app

For iOS

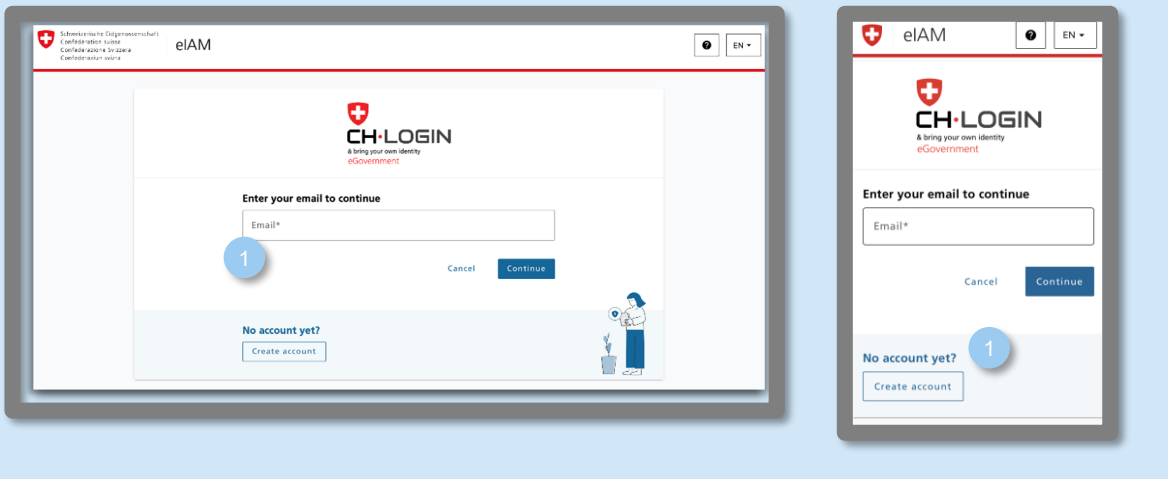
Download on the App Store

For Android

GET IT ON Google Play

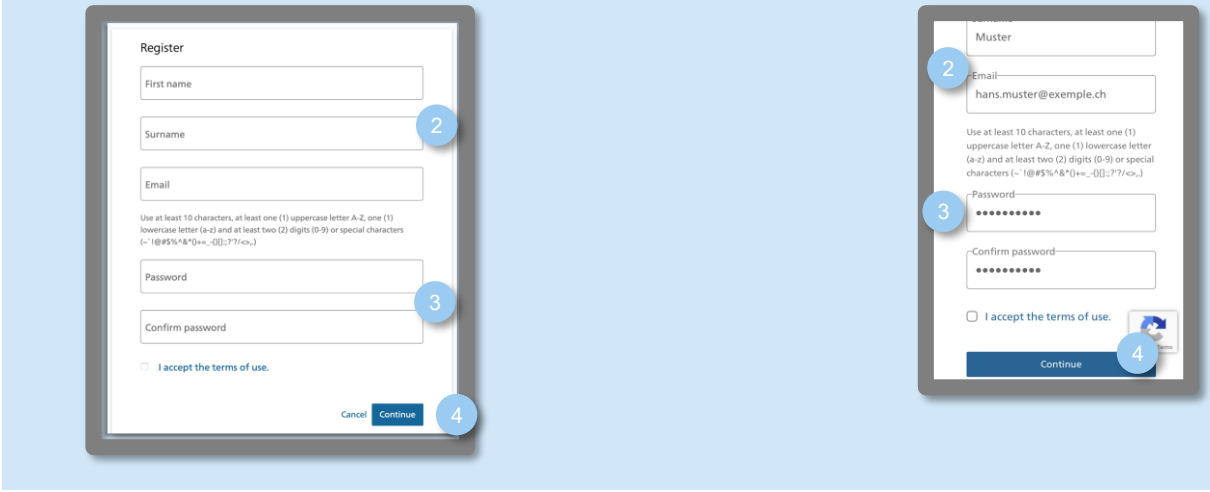
If you do not yet have a CH-Login account, you will need to set one up (see chapter 2.1 “Create a CH-Login”.). If you already have a CH-Login account or if you work at a federal office and are using a smart-card, you can register directly for GIN (see chapter 2.2 “Register for GIN”.).

2.1 Create a CH-Login



1

- Go to www.gin.admin.ch in your browser.
- Click on 'Create account'.

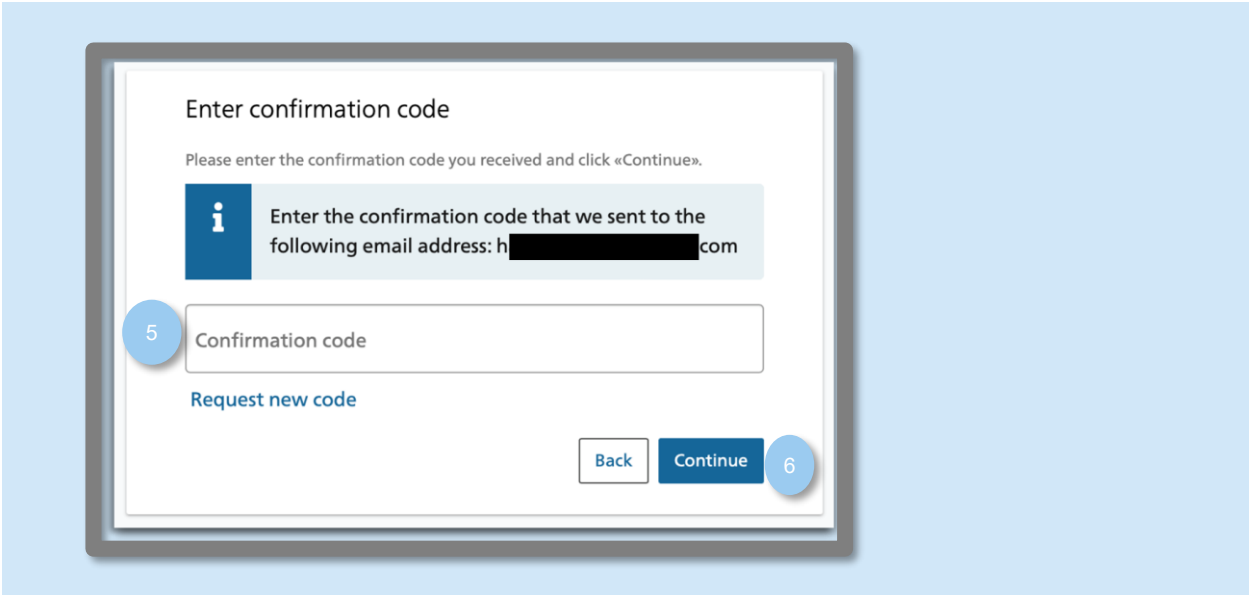


2 An input screen will open in which you can enter your name and email address.

3 Create your GIN password which contains

- at least 10 characters
- at least one uppercase letter
- at least 2 digits or special characters (e.g. 157,.!#)

4 Accept the terms of use and click on 'Continue'. You will then receive a confirmation code by email.



5 In the new window, enter your confirmation code received by email.

6 Click on 'Continue'. You have now created your account.

2.2 Register for GIN

1

- Go to www.gin.admin.ch in your browser.
- Log in with your CH-Login.
- Click on 'Request access to GIN'.

2 Complete the form, accept the terms of use and click on 'Continue'. Your request for access is then checked by the GIN office. You will receive a confirmation email once you have been granted access. This may take several business days.

2.3 Initial registration

Initial registration

With these instructions, you can create a CH login and apply for access to GIN.

2.4 Initial registration with smartcard

Initial registration with smartcard

If you have a smartcard, you can use these instructions to apply for access to GIN.

2.5 Login

Login

These instructions show you how to log in to GIN.
Note: Once you have created a login, you can use it to log in to GIN on different devices (laptop, tablet, smartphone). If you make any changes while logged in with your account (e.g. new password, new dossier, different thresholds), these changes will also be visible on all the other devices you use with the same login.

2.6 Login Mobile

Login Mobile

If you want to use GIN on your mobile phone, these instructions will show you how.

2.7 Change email address

Change email address

You can use these instructions to change the email address stored in your GIN account.

2.8 Reset password

Reset password

Forgotten your password? These instructions show you how to change or reset your stored password.
Note: If you have a smartcard, please contact the issuer of the smartcard to reset the password.

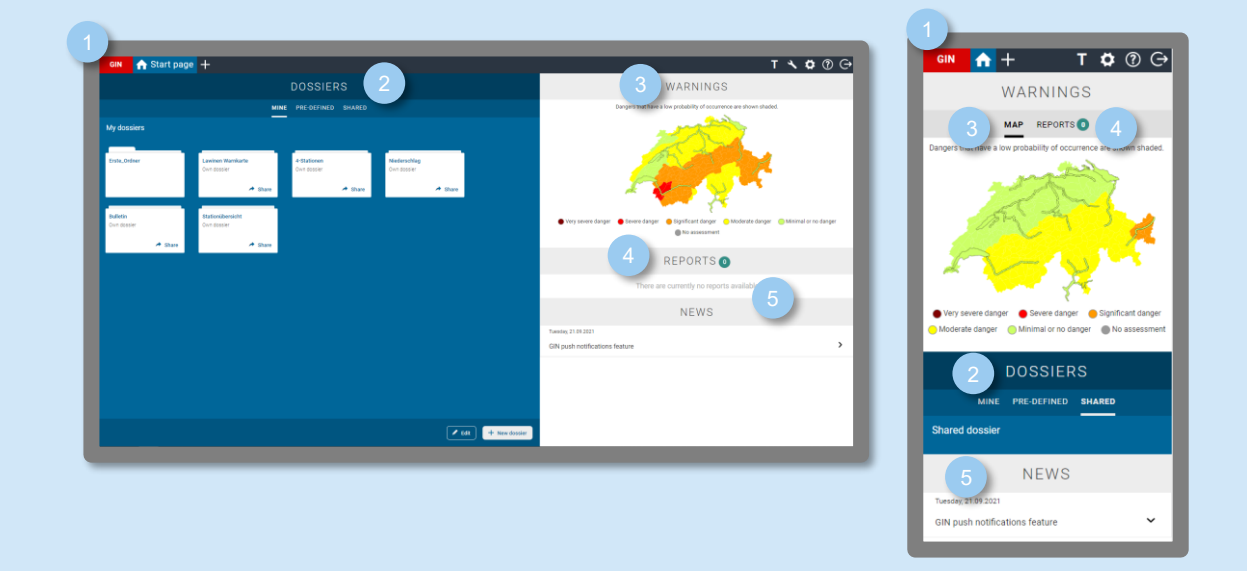
2.9 Disabling two-factor authentication

Disabling two factor authentication

Login too tedious? With these instructions, you can disable two-factor authentication.

3 The Start page

The GIN Start page is divided into five sections:



1 **Header**:

- Click on 'GIN' or the 'home' icon to return to the Start page at any time.
- The plus sign + opens a new dossier.
- Settings ⚙ takes you to an overview of your thresholds and notifications, as well as your language settings and eIAM profile.
- The Help button (question mark) ? takes you to the Help Point, the user manual, site notice and disclaimer.
- Logout ⎋

2 **Dossier overview**:

- The space under 'My dossiers' is blank when you first use the platform. Here you can compile your own set of data.
- 'Pre-defined' dossiers are dossiers which already exist. You can add these to your own dossiers, but you cannot change them directly. (If you want to change one, you first have to add it to 'My dossiers'. Once you have saved the dossier there, you can then change it.)
- 'Shared' dossiers are those which another person has shared with you. Only the person who shared the dossier is allowed to make changes to it.

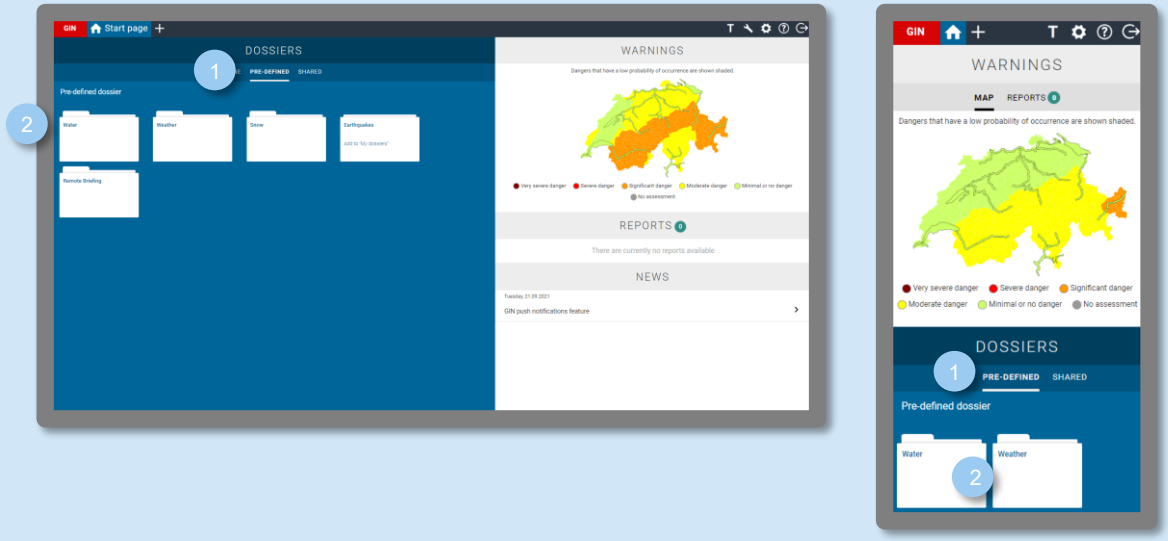
3 **Warnings**: This shows the current federal warning map.

4 **Reports**: Current bulletins (these are automatically displayed if any exist).

5 **News**: Information on new features, faults or issues resolved

4 Getting started

The easiest way to get started is by using the pre-defined dossiers, which already contain some important information.

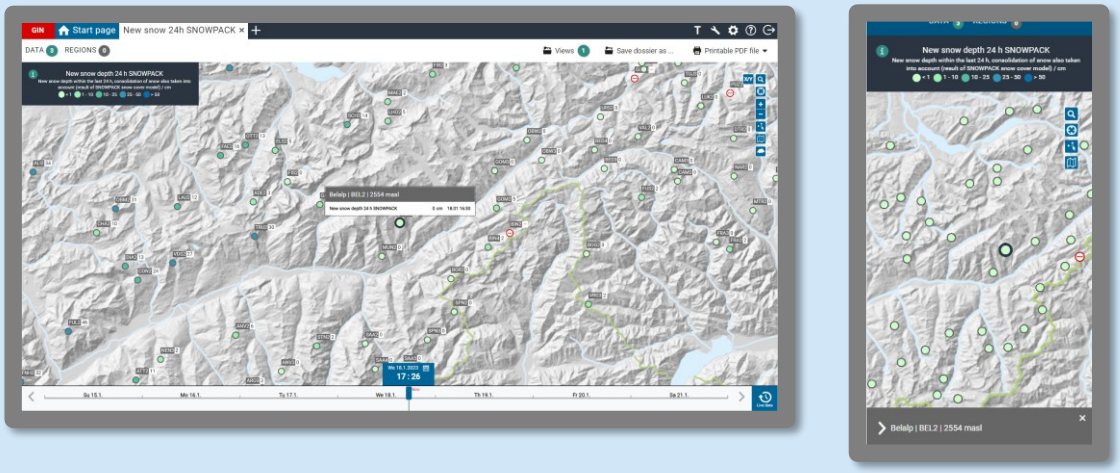


1 On the Start page, click on 'Pre-defined' under 'Dossiers'.

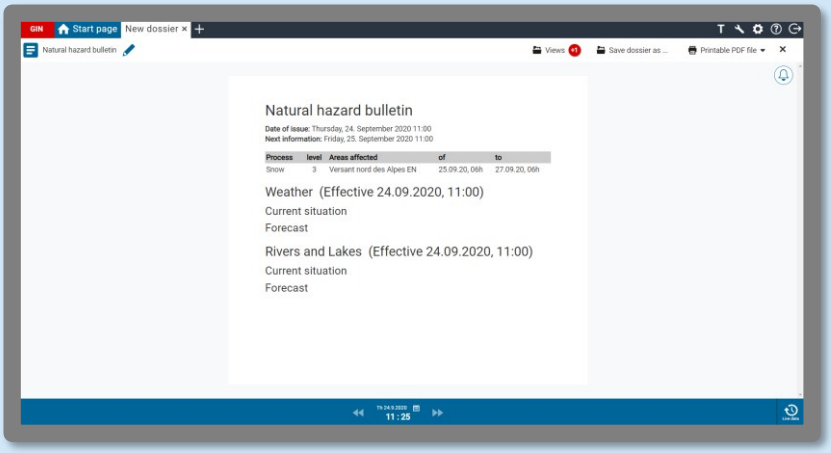
2 Here you can choose between the themes of water, weather, snow, earthquakes and remote briefing.

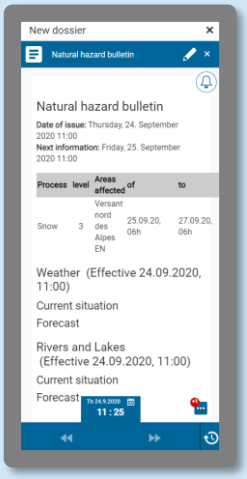
Depending on which pre-defined dossier you select, you will see a map, bulletin or image.

Map

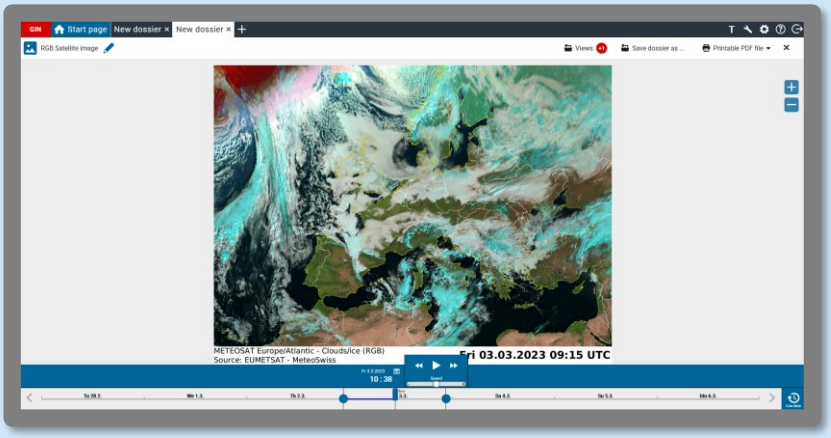


Bulletin

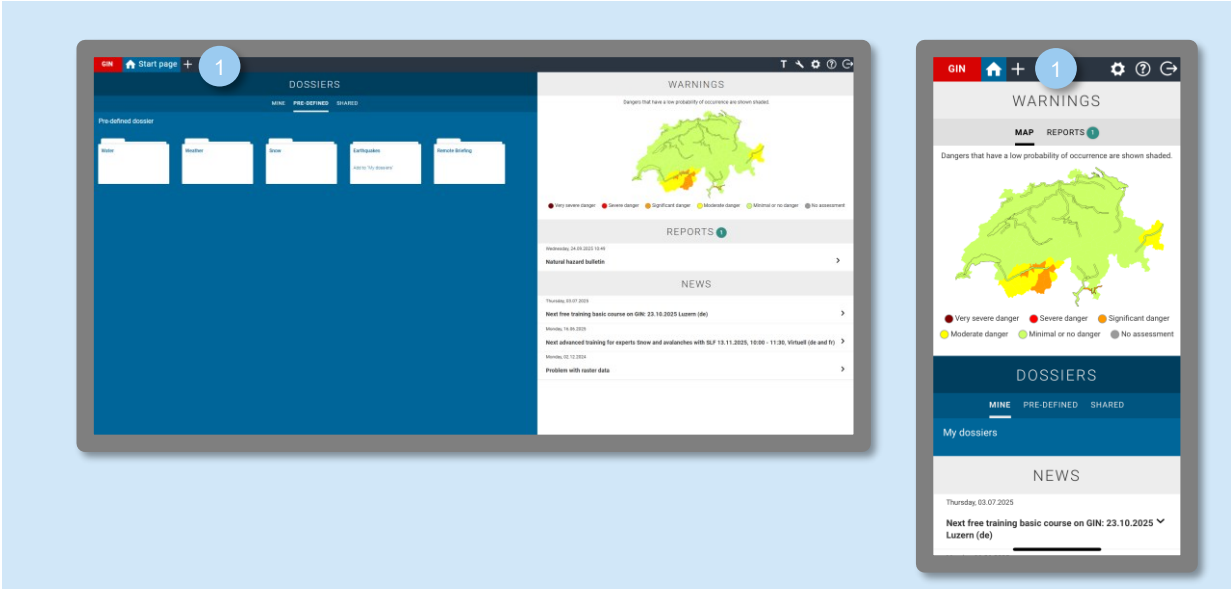




Image



In addition to the predefined dossiers, it is possible to open a new dossier in order to quickly access the desired information.



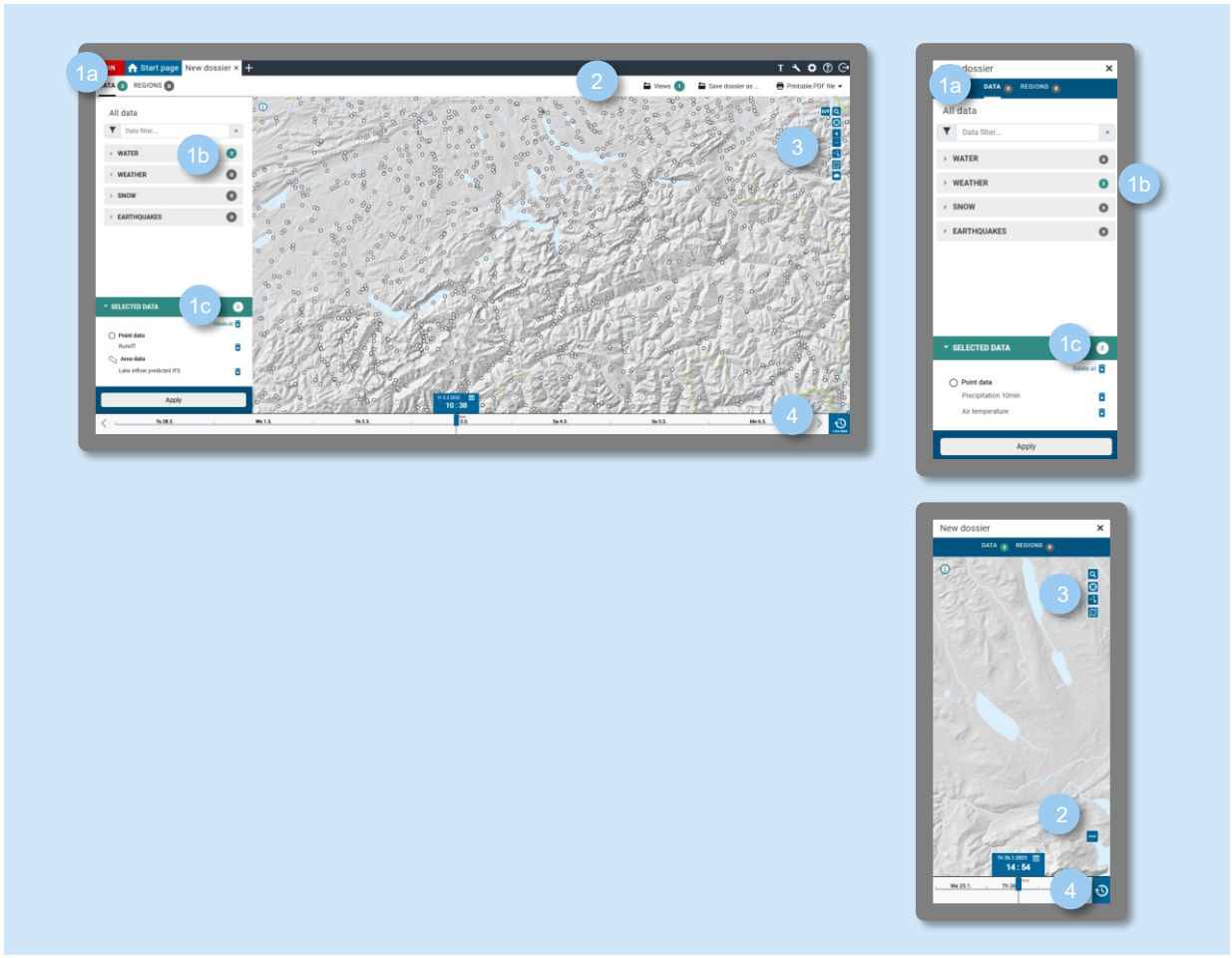
1 On the start page, click on the “plus sign” to open a “new dossier”.

For more details on the functions of this view, see chapter 5 “set up your own dossiers”.

5 Set up your own dossiers

Under Dossiers, you can compile your own data and save the settings so as to quickly retrieve them whenever you want.

The dossier view can be divided into four sections:



1a **Map configuration**
In the second menu bar from the top you can select the data and regions.

1b The numbers indicate how many items you have selected in each case.

1c The number beside 'Selected data' shows how many items you have selected in total. Click on the dropdown list to see a list of all your selected data items (you can also delete them there).

2 **Dossier functions**
(in the mobile app, only visible after you select specific data items)

- **Views**: Displays a bar under the map where you can see which diagrams, tables, maps, bulletins or images belong to the dossier. You can click on any of these to open, move or delete them from the dossier.
- **Save dossier as...**: Here you can save the current selection as your own dossier and then call it up again later.

- **Printable PDF file:** Here you can save individual views or the entire dossier as a PDF file and then download it for printing (see chapter 5.4 “Print a dossier / Export as a PDF”).

3 **Map**
(in the mobile app, only visible after you select specific data items)

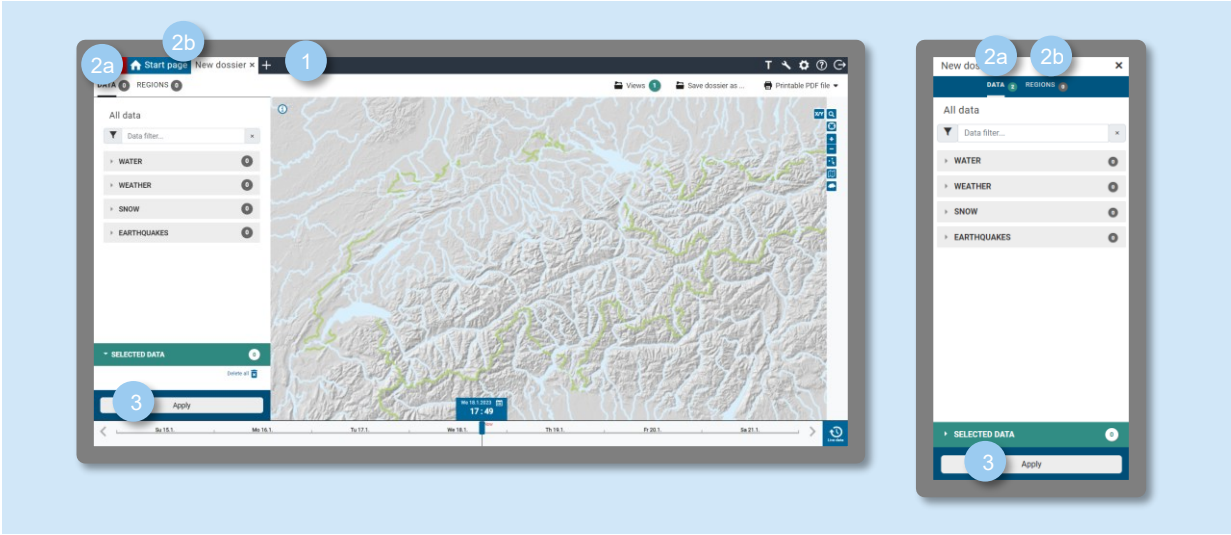
Shows the selection made in the map configuration.

4 **Time selection**
(in the mobile app, only visible after you select specific data items)

Shows the time corresponding to the map content shown.

5.1 Create your own dossiers

a. Select data



1 To create a new dossier, click on the plus sign at the top of the Start page.

Use the tabs at the top to select 'Data' or 'Regions'.

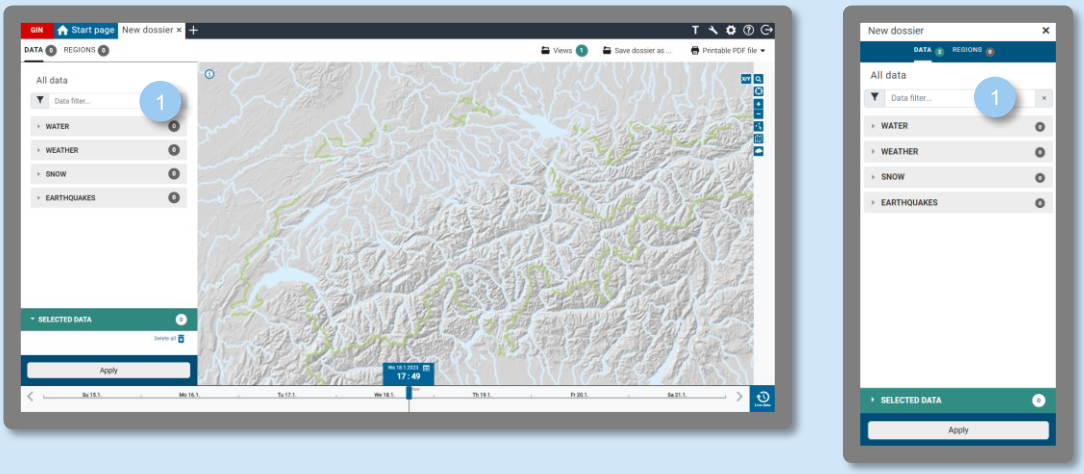
2a
- Under **Data**, you can choose between water, weather, snow and earthquakes.

2b
- Under **Regions** you can choose between river basins, snow regions, climatic regions, cantons, neighbouring states, and danger regions. (This selection only narrows down the data displayed. You must always select one or more options under 'Data' so that something is displayed on the map.)

NB: If you select a bulletin (e.g. under Data > Water > Bulletins) or an image (e.g. under Data > Weather > Satellite images), you jump from the map to that bulletin or image view. To return, select 'Views' in the top right-hand corner. A bar with all the views belonging to that dossier then opens at the bottom. Here you can switch back to the map

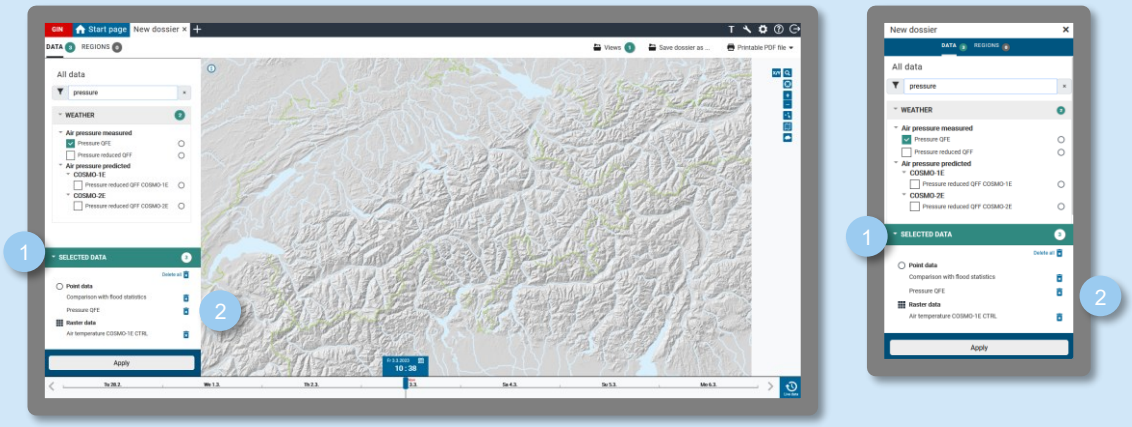
3 Once you have chosen the data you want, click on 'Apply'.

b. Search for data



1 If you already know what you are looking for, you can enter a search term in the 'Data filter...' box.

c. Show or delete selected data

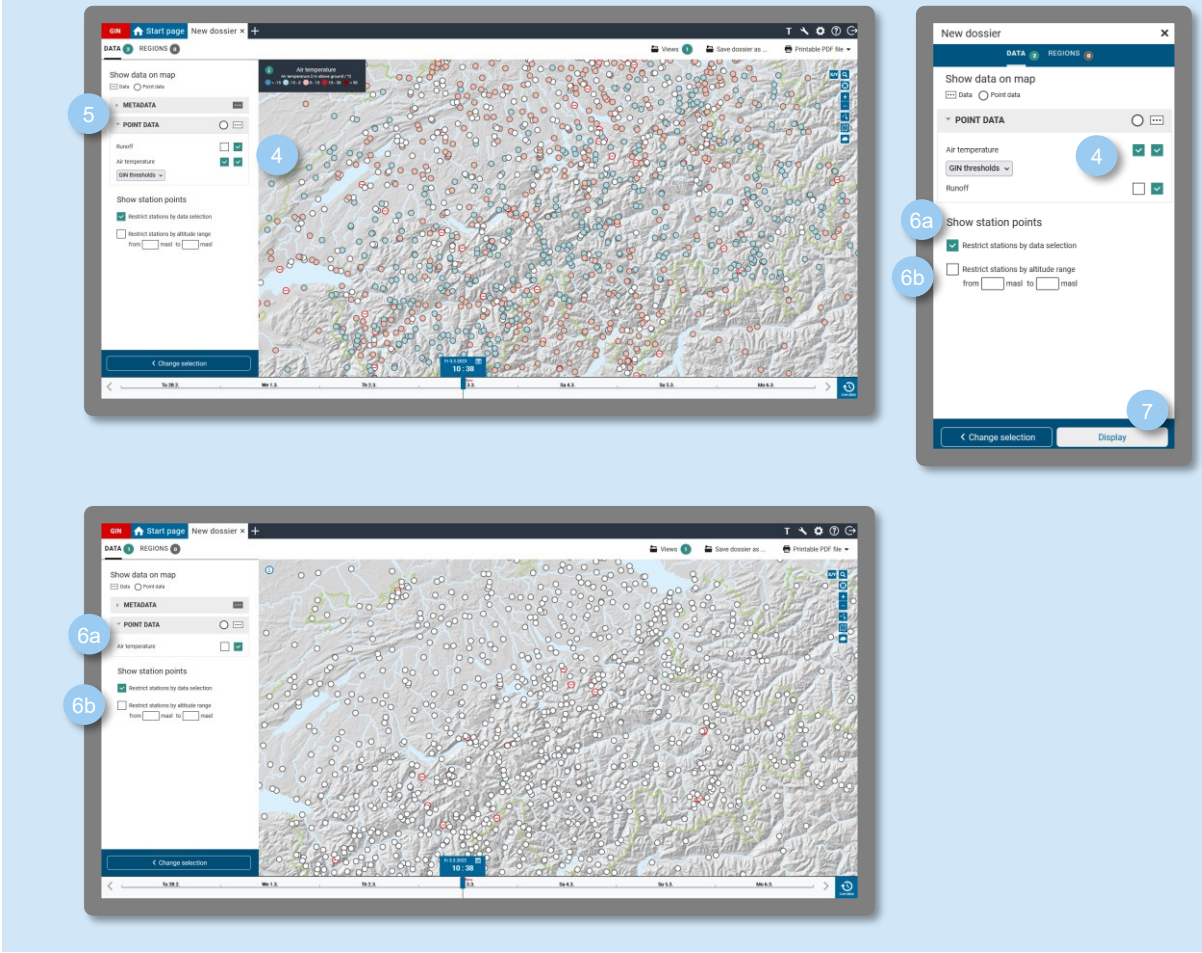


1 For a quick overview of the data you have selected, click on 'Selected data'.

2 To delete individual or all selected data, click on the bin icon beside the item or 'Delete all'.

d. Show data on the map

Once you have selected the data, you still have to tick under 'Show data on map' which data you want to see (primarily) on the map.



4

- To show all stations that provide the selected data, tick in the right-hand box under the data icon [•••].
- To also colour-code the stations according to the map legend (pre-defined or custom threshold values), tick the box on the left. This way you will see the measuring range of the values for the station.
- You can only colour-code the stations according to one unit of measurement (e.g. precipitation, temperature).
- If there are different thresholds for the data, a dropdown list appears for you to select the thresholds to be used (e.g. GIN thresholds or federal thresholds).

See also chapter 7.4 c “Thresholds”.

5 In addition, under 'Metadata' (desktop only) you can set which station label you would like to show (name, abbreviation or height masl). These will be visible once you zoom in on the map.

Under 'Show station points' you can set which stations are to be shown on the map:

- 6a 'Restrict stations by data selection': If you tick this box, you will only see stations that can provide the selected data.
- 6b 'Restrict stations by altitude range': Here you can show stations that are located at your choice of altitude.

7 To display the map in the mobile view, click on 'Display' at the bottom after selecting the data.

5.2 Save a dossier

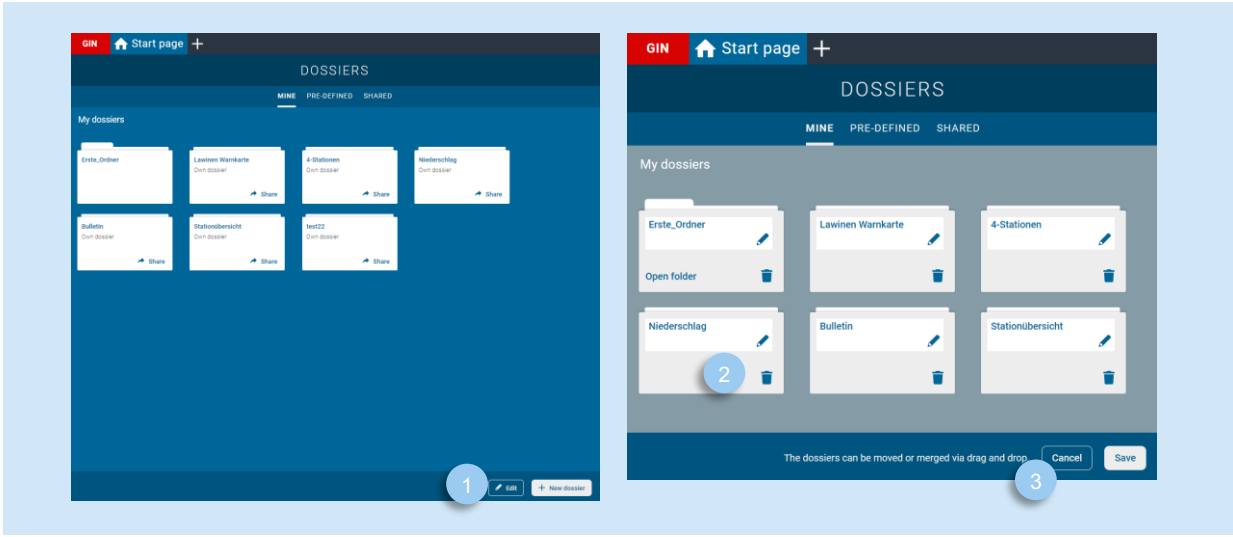
To save a new dossier, click on 'Save dossier as...' in the top right-hand corner.

The dossier stores the following:

- Selected data
- Zoom level (e.g. 2km) and section (e.g. Bern region) of the maps
- Limitation of the region
- Time selection (stored in relative terms, not a specific time, i.e. if you look at an event from three days ago today, the time selection will also jump back three days the next time you look, and not to the day of the event)
- All views (bar below).

5.3 Move, rename or delete a dossier

(desktop only)



1 To edit dossiers or folders, click on 'Edit' at the bottom.

2 Rename a dossier: Click on the pencil icon, enter the new name, then click on 'Apply'.

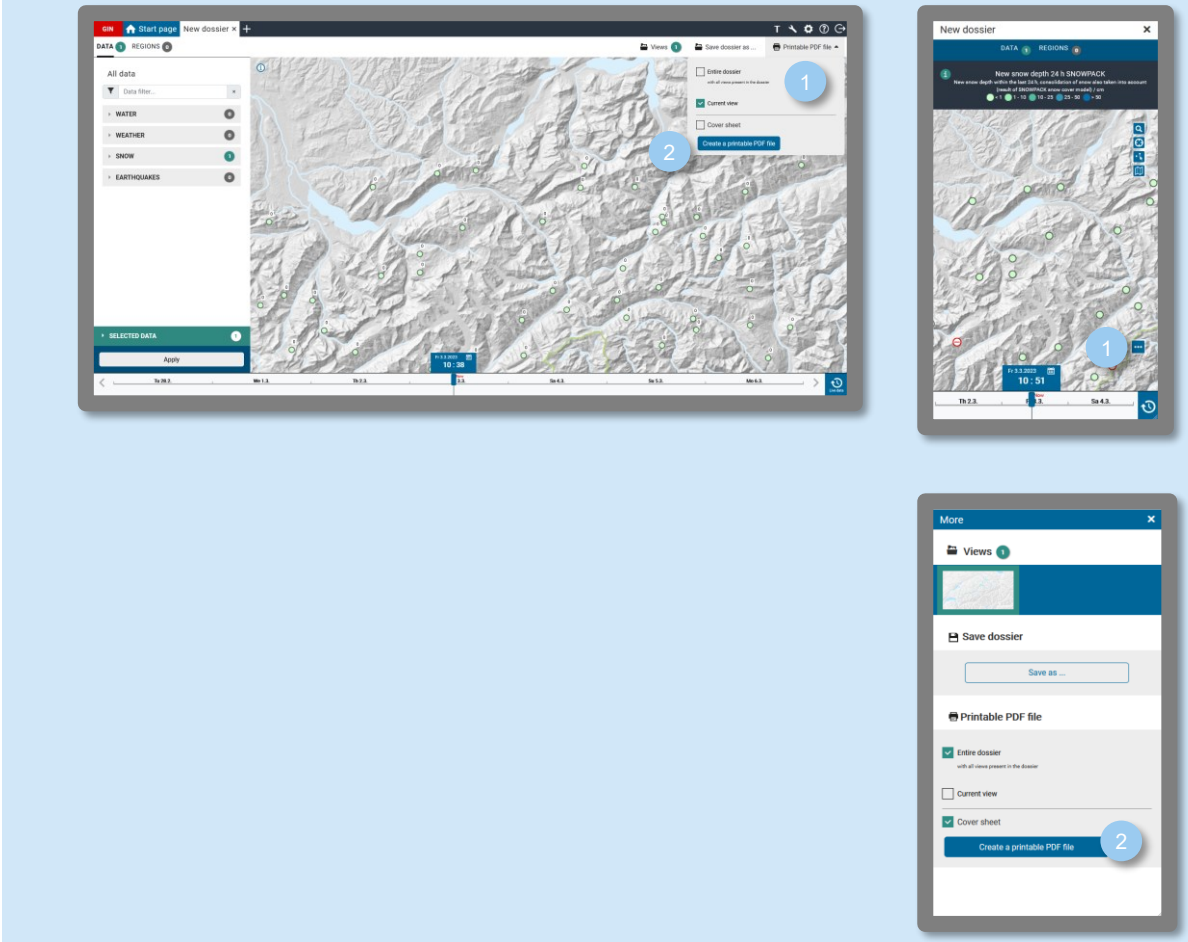
Delete a dossier.

Move a dossier: Hover with the mouse over the dossier or folder until the move icon appears. Press and hold the left mouse button, drag the folder to the desired location and then release the mouse button.

3 You can then save the changes or discard them with 'Cancel'.

5.4 Print a dossier / Export as a PDF

You can save a single view or the entire dossier as a PDF file and download it for printing.

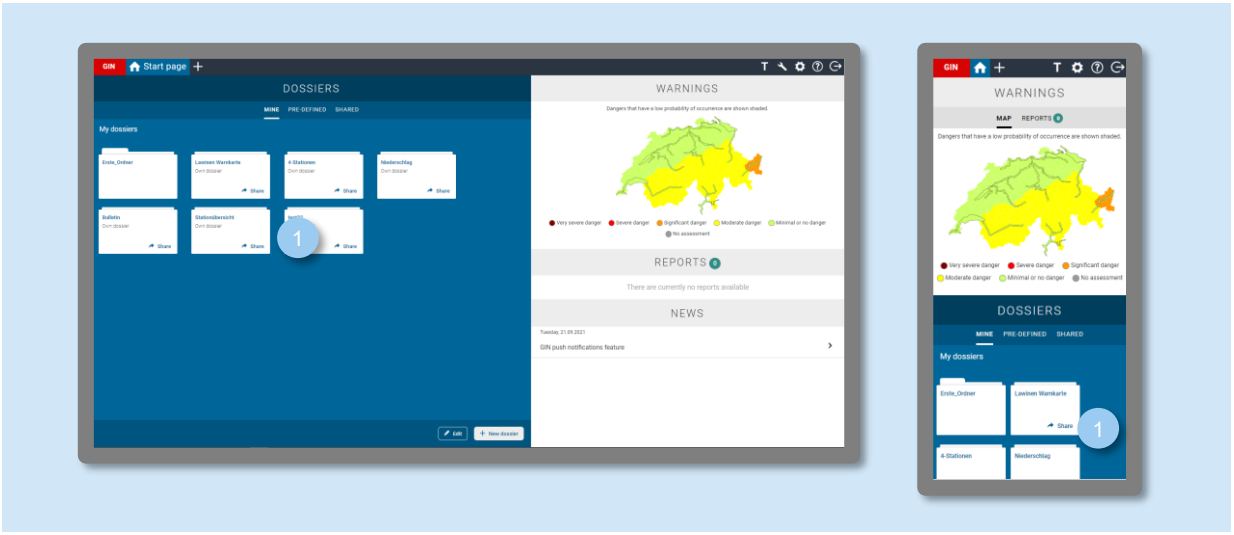


1. Desktop: Click on 'Printable PDF file' at the top right.

   Mobile: Tap on the three dots at the bottom right.

2. A new window then opens with the print settings. Click on 'Create a printable PDF file' to finish.

5.5 Share a dossier

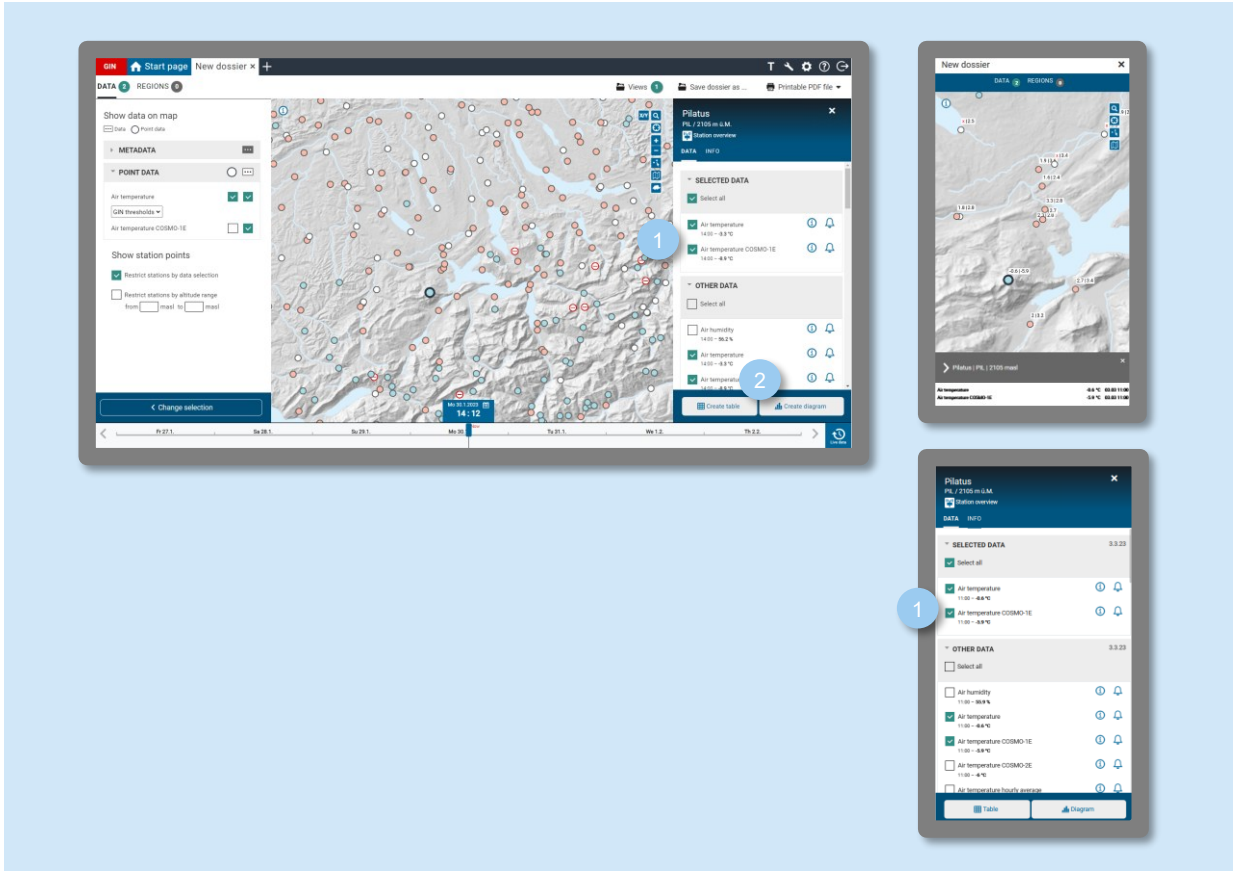


1 In your dossier overview you will find a 'Share' link on each folder. Click on this and enter the email address of the person you want to share the dossier with. Precondition: The other person must also have GIN access.

6 Views

6.1 Diagrams

Data from measuring stations or areas can be displayed as diagrams and exported as a PNG file.

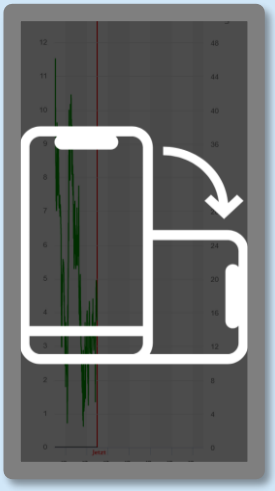


Select data

Open a pre-defined or new dossier (see chapter 5.1 “Create your own dossiers”). Click on a station point or area on the map (mobile: tap also on the station name at the bottom of the grey bar). The info window then appears on the right.

1 In the info window, tick the values you want to show in the diagram. You can select multiple data types.

2 Click on 'Create diagram' (desktop) or 'Diagram' (mobile). Then a new view opens.



Fullscreen mode in mobile view

In the mobile view, when you click on the diagram you will see a note telling you to turn your device to enter fullscreen mode.

In **fullscreen mode**, tapping on the desired time brings up the mouseover with the respective values.

Use diagrams

1. **Legends**: The selected measured values, modelled values and the available threshold values can be enabled and disabled for display in the diagram. Additional calculation times can be added for modelled values.

2. **Diagram functions**: With the tool icon you can customise the Y-axis and download the diagram as a PNG.

3 **Combine** , **separate** and **sort** diagrams (see chapter 6.1 c “Combine, separate and sort diagrams”).

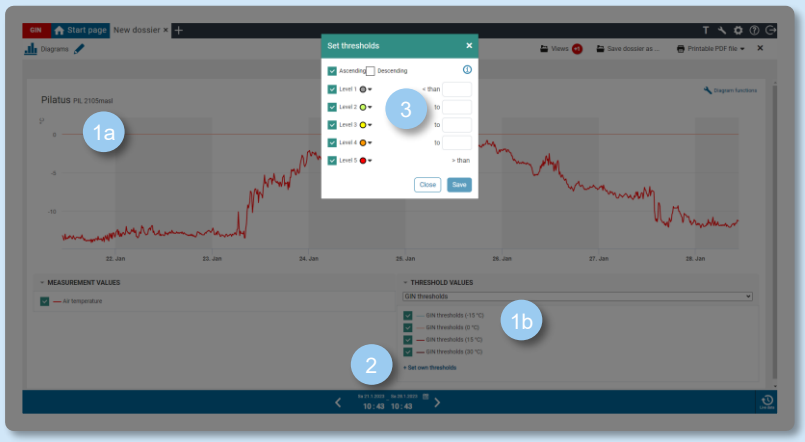
4 Select the **time period** for the displayed values.

5 When you hover the mouse pointer over the diagram (or tap on a point in time on mobile devices), a **window opens with the respective values**.

6 **Rename** the diagram view.

7 **Close diagram** / Mobile: Exit fullscreen mode.

a. Add threshold values in diagrams



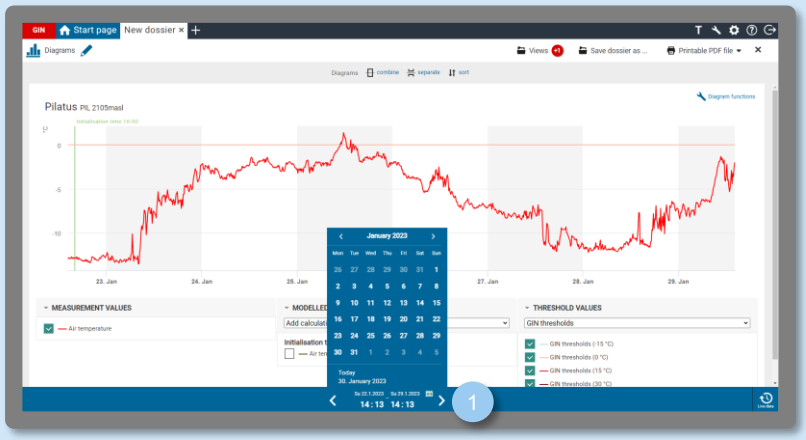
For ease of use, you can display threshold values in diagrams.

1a The threshold values appear in the diagram as continuous horizontal lines, according to the col-
1b our code in the legend.

2 To display your own thresholds, click on 'Set own thresholds' (or, if you have already set your own thresholds, then it says 'Adjust my thresholds').

3 Enter or adjust your threshold values and click on 'Save'.

b. Set time intervals



1 You can also show longer time intervals in the diagram. To do this, click on the calendar icon in the timeline. Then click on a start date and an end date.

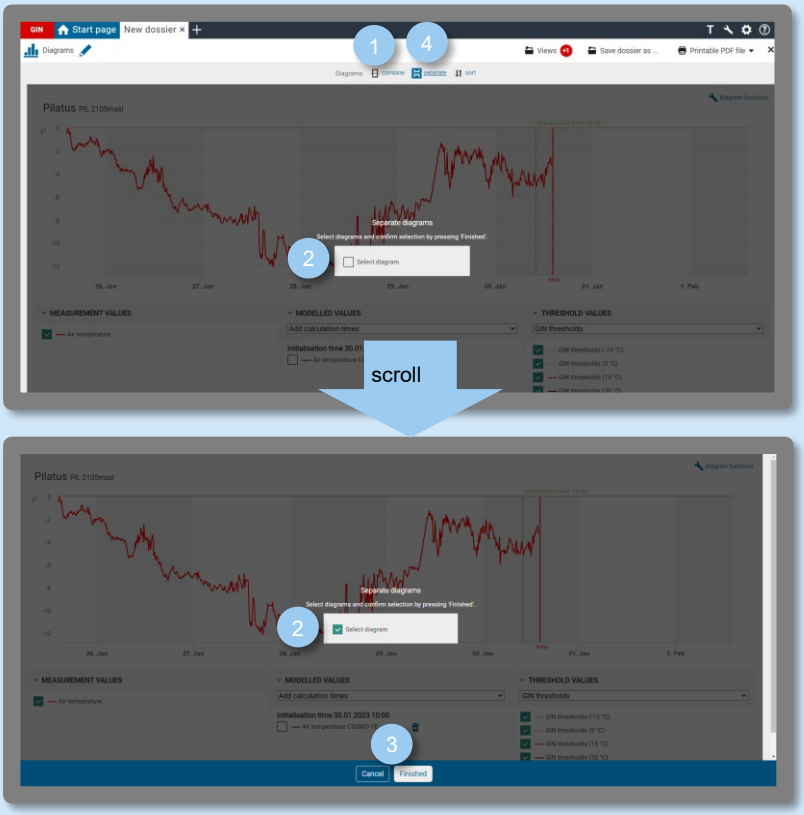
Tip: Zoom in view

If you want to take a closer look at a detailed section of a diagram, move the mouse to the area you want to view. Hold down the left mouse button and move the mouse diagonally up or down. Wherever you release the mouse button, you then zoom in to the marked area.

Click on the 1:1 icon 1:1 to return to the standard view.

c. Combine, separate and sort diagrams

You can combine diagrams with different values into one diagram, separate diagrams so that each parameter is shown in a separate diagram and also sort the diagrams in any order.

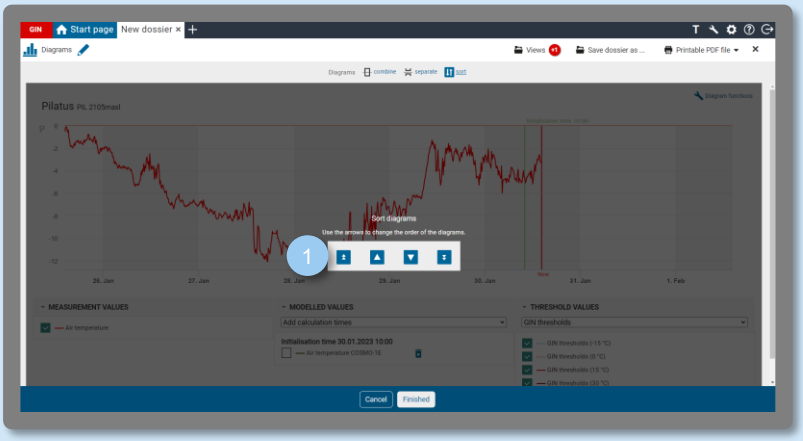


1 Click on 'combine' at the top.

2 Scroll down and tick the charts you want to combine. A maximum of two units of measurement can be displayed in one diagram, e.g. temperature (°C) and wind speed (km/h).

3 Click on 'Finished' to create the new diagram.

4 To separate a combined diagram in two, proceed in the same way, i.e. click on 'separate' and select the diagram in question.

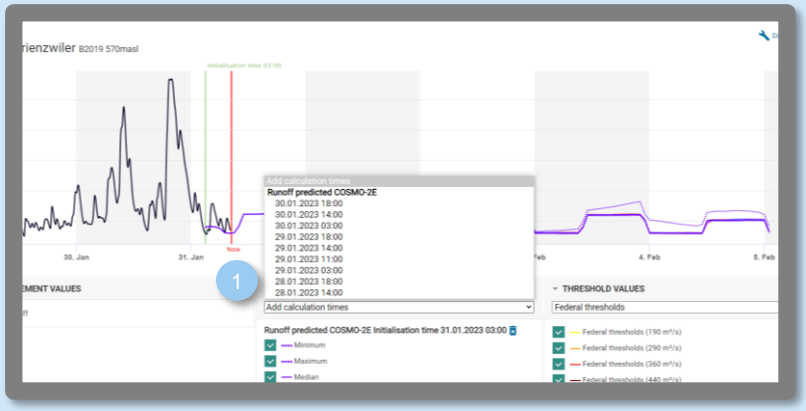


If you have several diagrams in your view, you can change the order in which they appear.

1 Click on 'sort' at the top. Then you will see a move bar with arrows on each diagram. By clicking on the single arrows ▲ ▼ you can move the diagram one position up or down. Click on the double arrows ⏬ ⏫ to move the diagram to the first or last position.

d. Add multiple calculation times for predicted data

You can set different times for when the forecast was created.



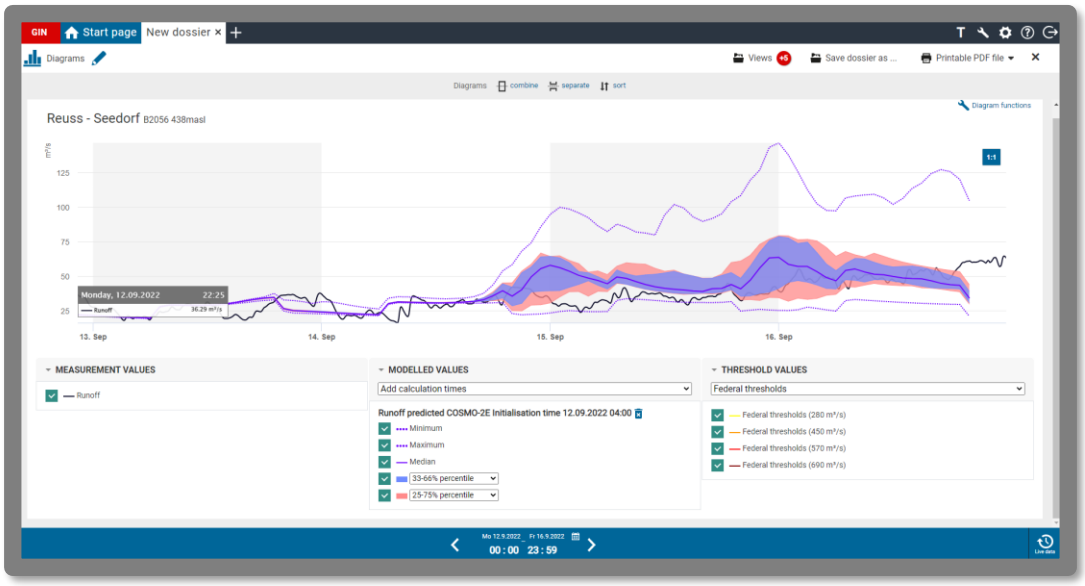
1 Click on 'Add calculation times' under 'Modelled values' and select your data.

e. Show percentiles and scenarios ('spaghetti view')

1 If you select 'All members' under 'Modelled values', the diagram shows all scenarios as lines (21 scenarios from ICON-CH2-EPS and 11 scenarios from ICON-CH1-EPS).

2 Here you can also choose which percentile you want to display.

Reading aid for runoff and water level forecasts

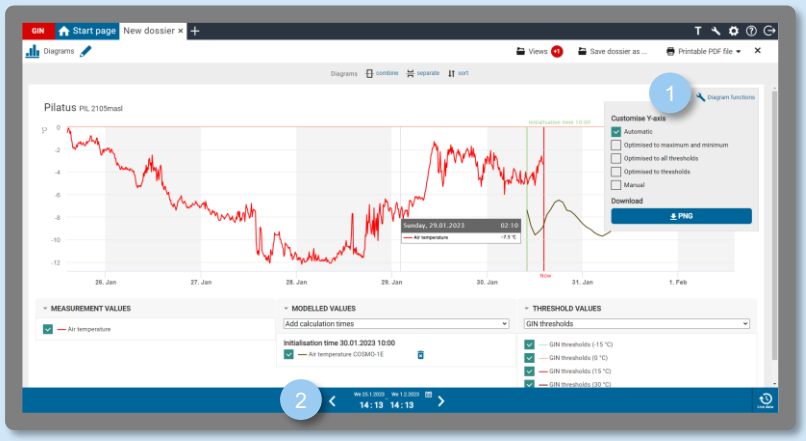


The dashed lines at the top and bottom show the maximum and minimum values reached in one of the computational runs. The middle half of the computational runs were somewhere within the red area (25–75th percentiles, the red area is contiguous, the blue only superimposed), the middle third within the blue area (33–66th percentiles). The median line (purple) shows the value at which half of the values were higher, and half were lower.

From this chart, the probability of exceeding a certain value can be estimated. Assuming that the predicted value for the upper transition from blue to red is on the flood line of a water body, this means that the flood line will be exceeded with a probability of one third. If the high-water mark is at the upper edge of the red range, it is only reached with a probability of one quarter.

The slight variations in starting conditions have different effects on the outcome of the individual runs. If all the results are similar, the prediction is likely to be reliable; however, if they differ widely, the prediction is highly uncertain.

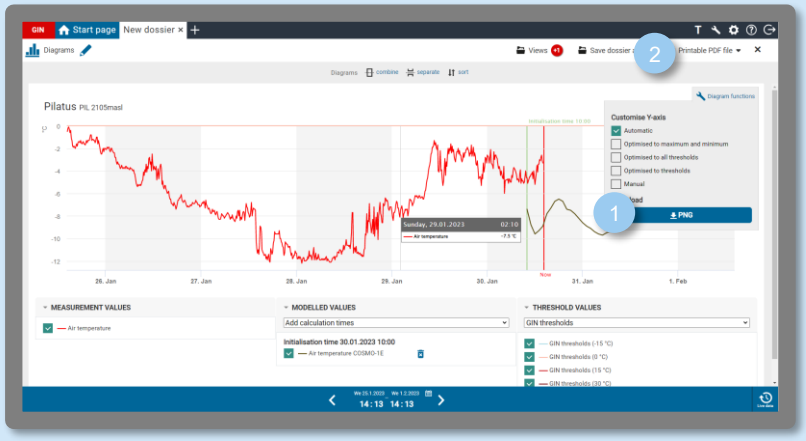
f. Axis configuration



1 The Y-axis can be customised using 'Diagram functions'.

2 You can adjust the X-axis with the time slider/calendar.

g. Export

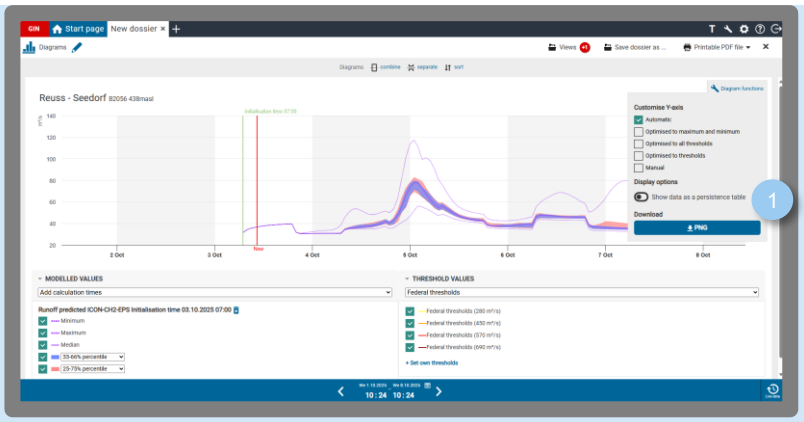


1 You can download the diagram as a PNG using 'Diagram functions'.

2 Or click on 'Printable PDF file' at the top right to export a PDF.

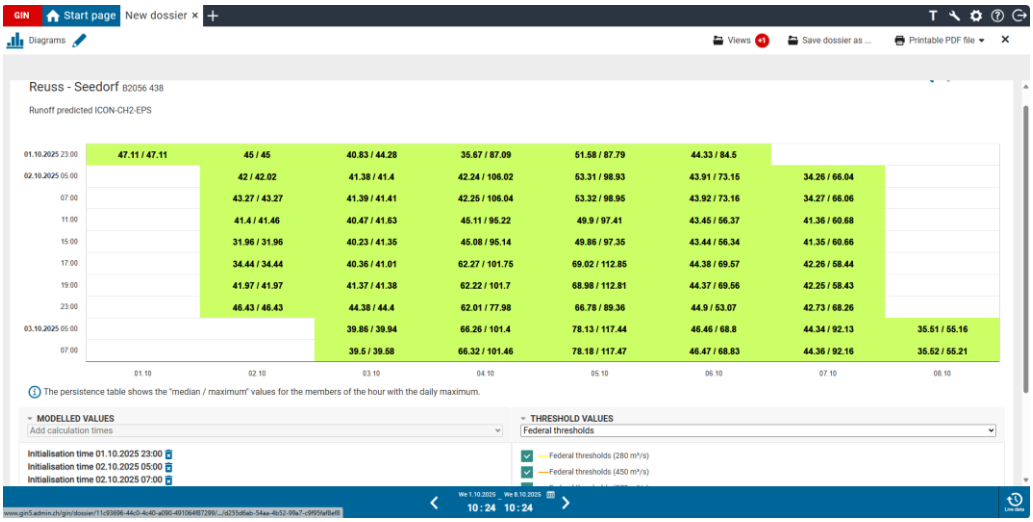
h. Display persistence table for forecasts

You can display the data as persistence tables showing when the prediction was made.



1 You can display the diagram as persistence tables via “Diagram Functions”.

Reading aid persistence tables



The new persistence tables provide you with additional information for managing flood events. The tables help you interpret different model runs. They allow you to compare published model runs and provide an overview of the different scenarios (members) within a run.

When the slider is activated, the persistence table is now displayed instead of the forecast shown as a graph. The persistence table contains various elements, which are now explained using an example with the predicted runoff using ICON-CH2-EPS.

The **X-axis** shows the time axis. The **Y-axis** shows the calculation times of the forecasts. The ten most recent forecasts for the selected time are displayed. The oldest of the ten forecasts is shown at the top, and the most recent at the bottom.

If available, federal thresholds are displayed in GIN by default.

Colouring: If at least seven of the 21 members (one third) exceed a threshold value on a given day for a forecast run, the cell is coloured according to the colour of the threshold value on that day. The threshold value exceedances are cumulated. The entire day is coloured, regardless of when the forecast was calculated.

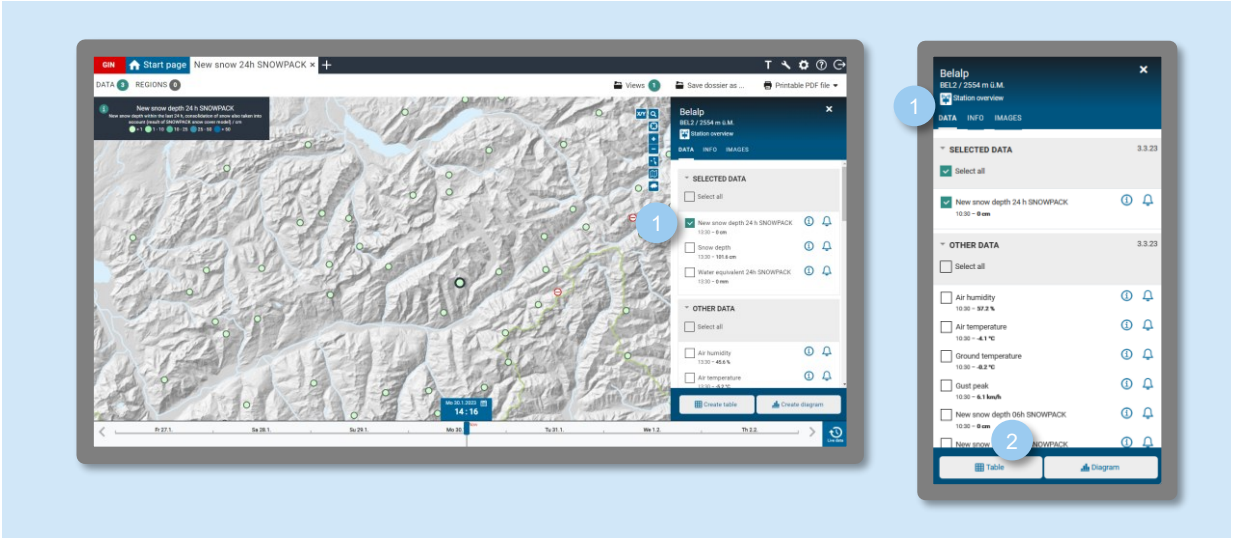
Statistical values: The tables show the arithmetic mean (left number) and the predicted maximum (right number) for the selected time. The persistence table shows the “median/maximum” of the members of the hour with the highest daily maximum.

Hover element: When the mouse is moved over a cell, an overview of the individual members appears in a mouseover. The members are sorted and displayed according to threshold values. In addition, the output time of the prediction is visible in the hover element.

6.2 Tables

Data from measuring stations or areas can be displayed as a structured table and exported as a CSV file.

a. Select data for table view



Open a pre-defined or new dossier (see chapter 5.1 “Create your own dossiers”). Click on a station point or area on the map. The info window then opens on the right.

1 In the info window, select the data you want to show in the table. You can select multiple data types.

2 Click on 'Create table ' (desktop) or tap on 'Table' (mobile). Then a new view opens.

b. Select period

3 Set the period to be displayed in the table by clicking on the calendar icon in the timeline and then selecting the start and end dates. Use the arrows to jump forward or back by one day.

4 By clicking on the live data function you jump to the current time, and the selected data is updated in real time.

c. Sort table

5 You can jump to the beginning or end of the set time series in the table by clicking on the arrow in the table header behind 'Date & Time'.

6 Sort values: By clicking on the arrow next to the value in the table header, you can sort the values. There are three possible sort options: ascending ↑ (low to high), descending (high to low) ↓ or sorted by date ↑↓.

d. Rename, download or close table

7 Rename table: Click on the pencil icon

8 Download table (as a CSV file): Click on the download icon

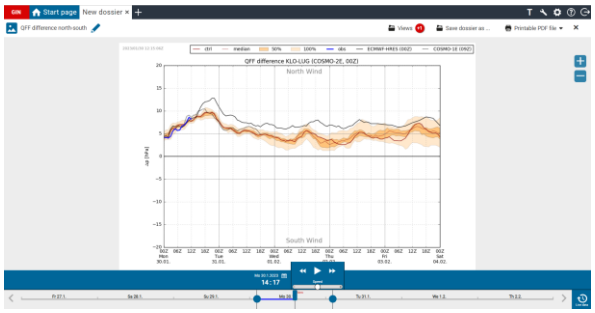
9 Close table: Click on the 'x' (mobile: 'x' in the blue bar).

6.3 Images

Name	Content	Update

Weather

Air pressure measured, QFF difference north-south and east-west

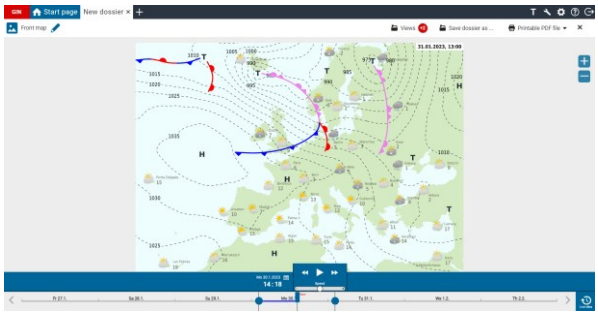


This shows a comparison of the air pressure between north-south and east-west. You can use these in particular to assess the Foehn or Bise situations.

Update:
every 15 minutes

Frontal map

Air pressure measured, frontal map

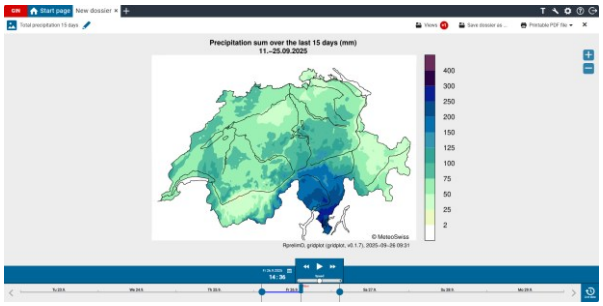


The frontal map shows the isobars over Europe.

Update:
daily at 14:00

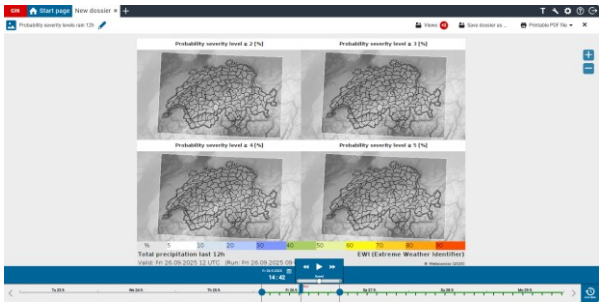
Total precipitation

Precipitation sum over the last 15 or 53 days



Probability severity levels rain 12h, 24h, 36h, 48h, 72h

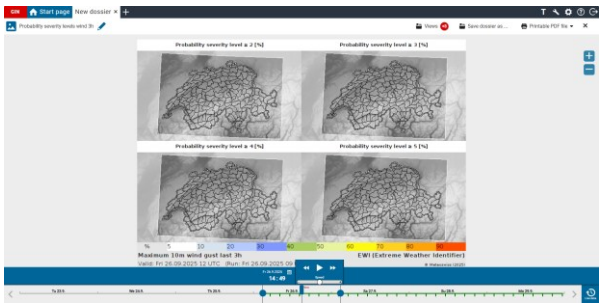
The probability that the severity level thresholds for xxh-rain were reached or exceeded in the last xxh. Computed by the Extreme Weather Identifier (EWI) based on Seamless Weather input data.



Update:
every 3 hours

Probability severity levels wind 3h, 24h

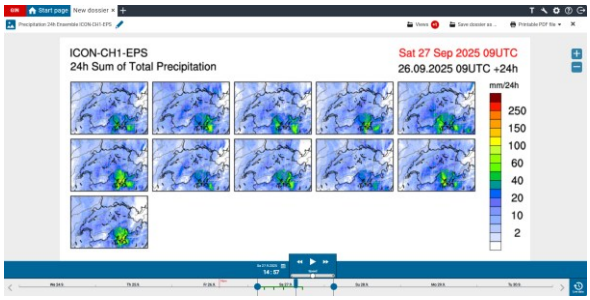
The probability that the severity level thresholds for wind were reached or exceeded in the last xxh. Computed by the Extreme Weather Identifier (EWI) based on Seamless Weather input data.



Update:
every 3 hours

Probability maps (ensemble maps)

Precipitation and new snow forecast, ICON-CH1-EPS and ICON-CH2-EPS



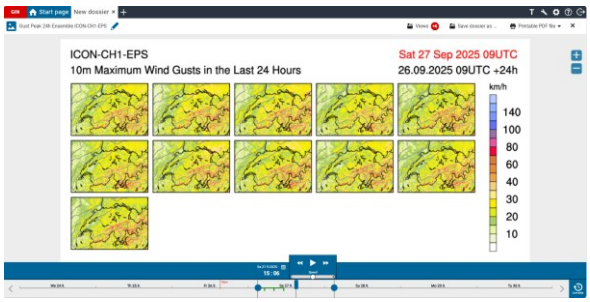
These maps show the probability with which a certain event will occur. A statement such as '70% for precipitation greater than 30mm' indicates that the stated precipitation value is predicted to be exceeded in 7 out of 10 cases. This information is useful in making decisions. You can thus use the probability maps (e.g. if a certain precipitation value is exceeded) to take precautions and mitigate risks.

Precipitation probability in the next hour, update: every hour

Precipitation probability in the next 24 hours (for ICON-CH2-EPS additionally in the next 48 and 72 hours), update: every 3 hours: 02:00, 05:00, 08:00, 11:00, 14:00, 17:00, 20:00, 23:00

New snow probability in the next 12 and 24 hours, update: every 3 hours: 02:00, 05:00, 08:00, 11:00, 14:00, 17:00, 20:00, 23:00

Gust peak probability, ICON-CH1-EPS and ICON-CH2-EPS

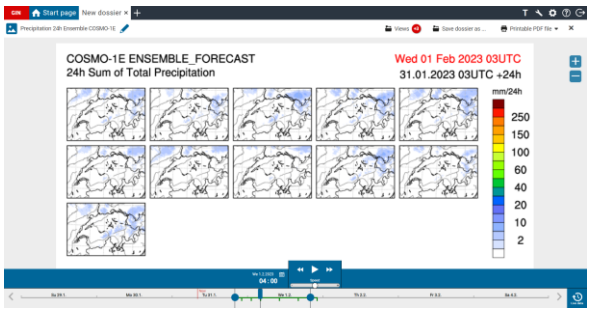
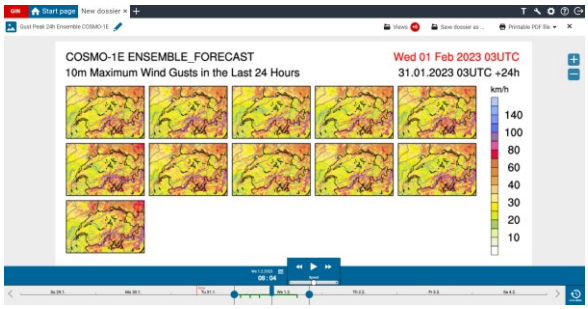


Comparison of different scenarios.

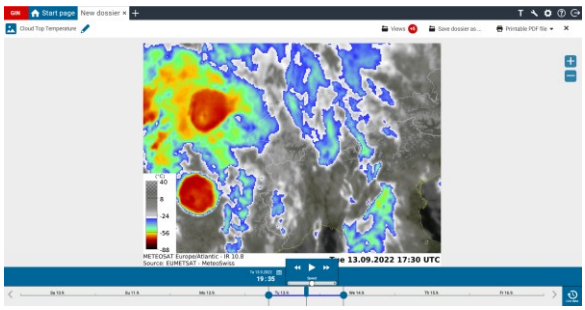
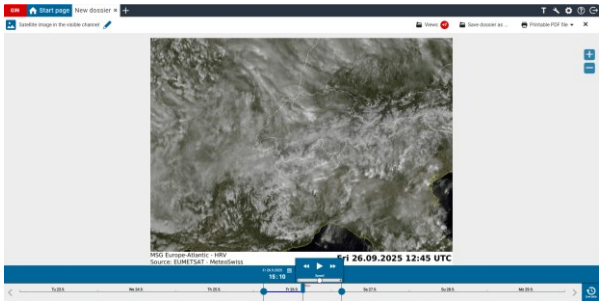
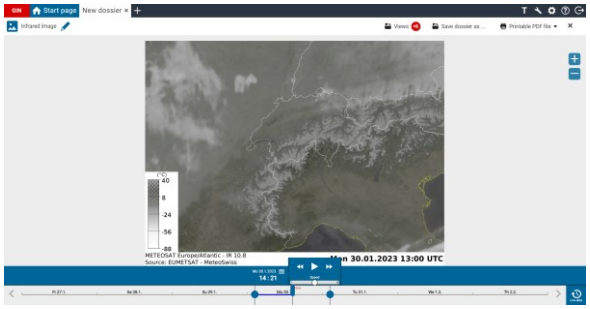
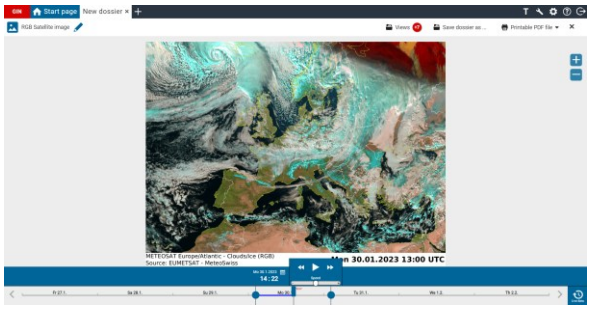
Gust peak probability in the next hour, update: every hour

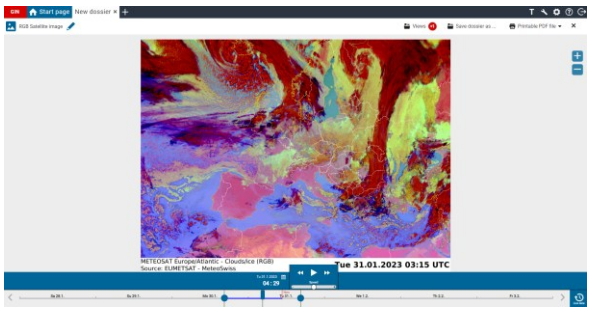
Gust peak probability in the next 24 hours, update: every 3 hours: 02:00, 05:00, 08:00, 11:00, 14:00, 17:00, 20:00, 23:00

Ensemble maps / Stamp maps

Precipitation and new snow forecast, ICON-CH1-EPS, ensemble	 Ensemble maps or 'stamp maps' are comparative representations of several scenarios/forecast models. They can be used for a more accurate evaluation of the probability of a prediction. See also the 'Probabilities' infobox.	Precipitation and fresh snow forecast for the next 24 hours, update: every 3 hours: 02:00, 05:00, 08:00, 11:00, 14:00, 17:00, 20:00, 23:00
Precipitation and new snow forecast, ICON-CH2-EPS, ensemble		Precipitation and fresh snow forecast for the next 24 hours, update: every 6 hours: 02:00, 08:00, 14:00, 20:00
Gust peaks, ICON-CH1-EPS, ensemble		Gust speed in the last 24 hours, update: every 3 hours: 02:00, 05:00, 08:00, 11:00, 14:00, 17:00, 20:00, 23:00
Gust peaks, ICON-CH2-EPS, ensemble		Gust speed in the last 24 hours, update: every 6 hours: 02:00, 08:00, 14:00, 20:00

Satellite images

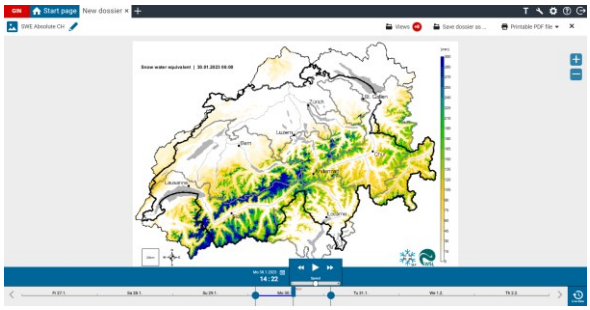
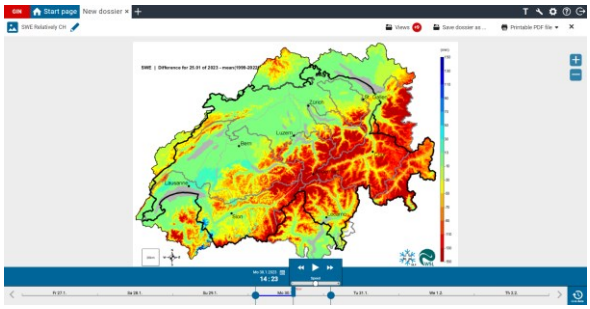
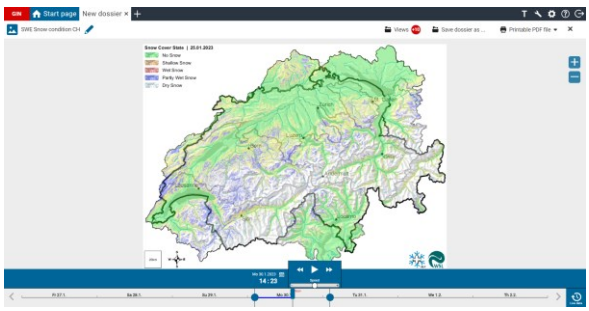
Cloud top temperature		Update: every 15 minutes
Satellite image in the visible channel		Update: every 15 minutes
Infrared image		Update: every 15 minutes
RGB (day and night)	 Day image	Update: every 15 minutes

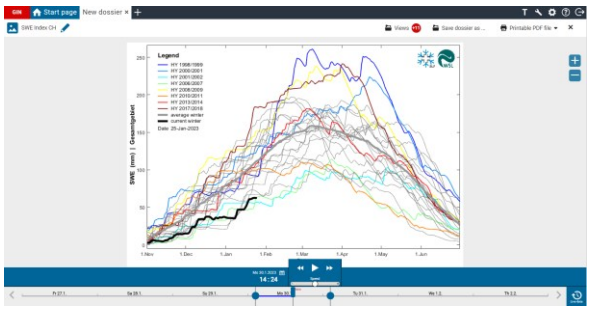
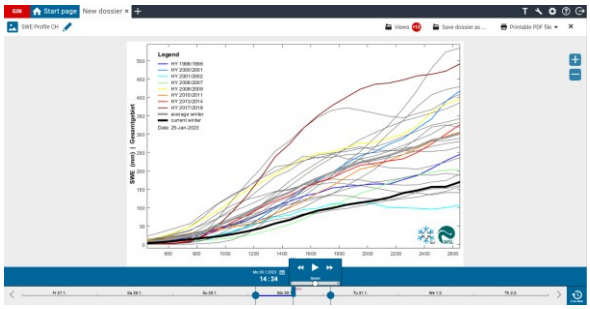
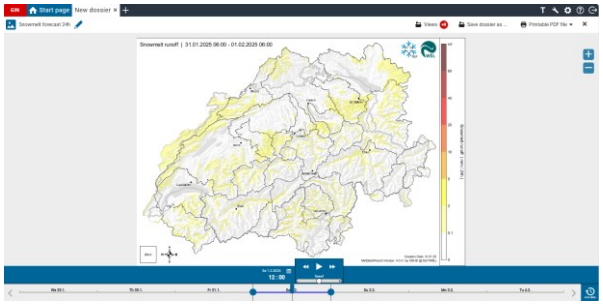
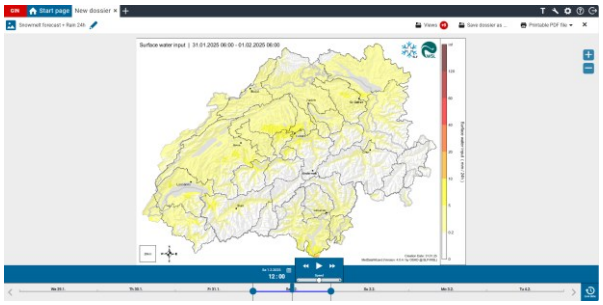


Night image

With the different colours for day and night, you can distinguish, for example, snow on the ground during the day (blue) from low and medium-high clouds (white) or high clouds (light blue). At night, cloudless regions (pink) and regions with cloud cover can be identified. Fog and high fog are shown in white, high cloud cover is shown in red or black on the image at night (instead of light blue, as during the day).

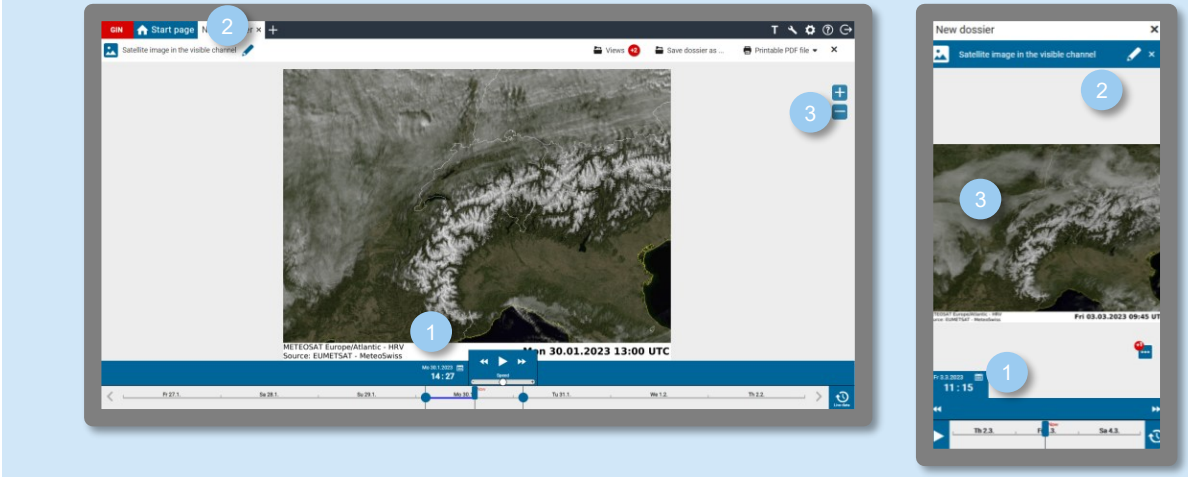
Snow

Snow hydrology, snow-water equivalent (SWE), absolute (available for the whole of Switzerland and for regions)		Update: once a week (Wed)
Snow hydrology, snow-water equivalent (SWE), relative (available for the whole of Switzerland and for regions)		Update: once a week (Wed)
Snow hydrology, snow-water equivalent (SWE), snow condition (available for the whole of Switzerland and for regions)		

Snow hydrology, snow-water equivalent (SWE), index (available for the whole of Switzerland and for regions)		Update: once a week (Wed)
Snow hydrology, snow-water equivalent (SWE), profile (available for the whole of Switzerland and for regions)		Update: once a week (Wed)
Snow hydrology, snow-melt forecast 24/96h		Update: once a day
Snow hydrology, snow-melt forecast and rain 24h/96h		Update: once a day

a. View and edit images

Images (satellite images, ensemble maps, etc.) are opened directly in a new view.



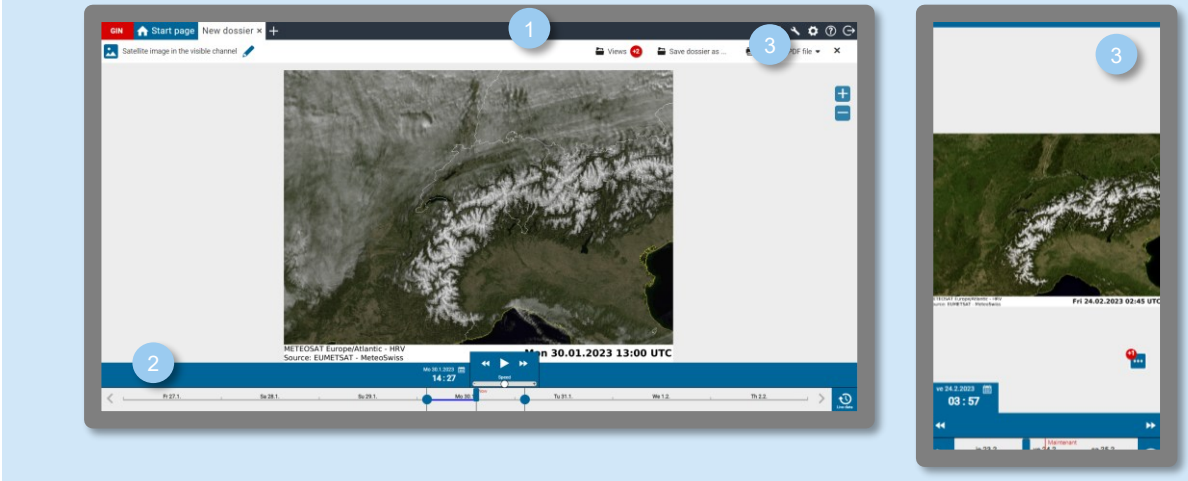
1 You can use the time slider to jump to a certain point in time. With the two dots you can limit a period of time and then view the pictures in fast motion using the play function (see chapter 7.2 “Time selection”).

2 Rename the image using the pencil icon .

3 You can use the mouse wheel or zoom icons to enlarge and reduce the displayed image section (desktop). In the mobile app, zoom in with your fingers (use two fingers to move the image up and down).

b. Close images

When you select a bulletin or an image , you jump from the map to that bulletin or image view. To return, proceed as follows:



1 Select 'Views' at the top right (desktop only).

2 A bar with all the views belonging to that dossier then opens at the bottom. Here you can switch back to the map.

3 Or close the picture at the top right with the 'x'.
Mobile: Click on the 'x' in the blue bar of the opened image.

6.4 Bulletins

Bulletins contain the measured and predicted data as interpreted by experts. Here, the experts describe the current situation and how they expect it to evolve. A lot of experience goes into drawing up a weather report, drought bulletin or avalanche bulletin, so they are generally more reliable than pure model calculations.

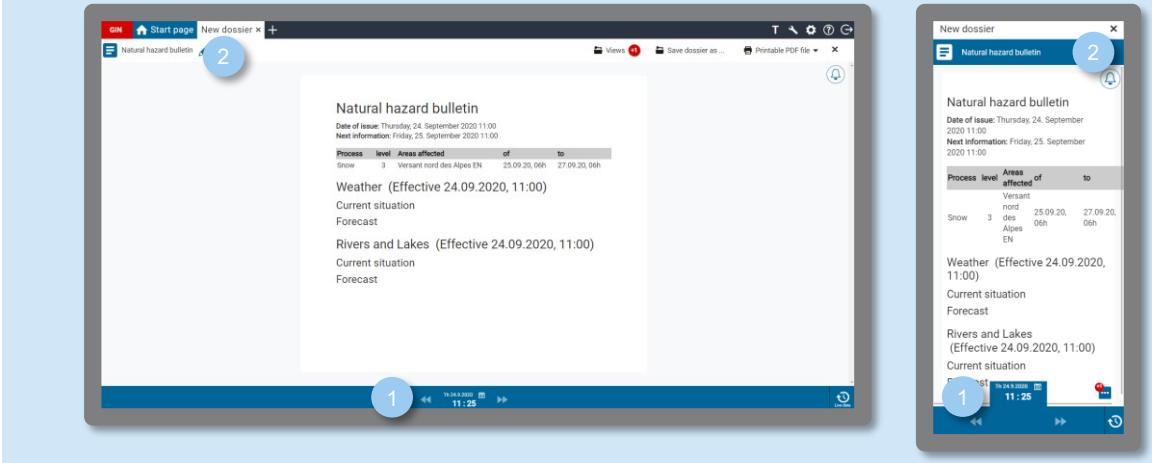
The bulletins below are available in GIN. You can find them under 'pre-defined dossiers' in the relevant theme folder (water, weather, snow) under 'Bulletins' or when you open a new dossier under the relevant theme (water, weather, snow).

Name, source	Content	Update
Water		
Drought bulletin (FOEN, MeteoSwiss, swisstopo)	Information on the current situation regarding drought.	Irregularly, depending on the situation
Weekly forecast (flood outlook) (FOEN)	Preliminary information on the federal flood warnings for the next five days. The flood probability is given in three classes: Current flood warning (probability over 70%) Flood warning likely (probability between 40% and 70%) Flood warning possible (probability below 40%)	Daily at 12:00
Lake Constance bulletin (FOEN, Baden-Württemberg State Institute for the Environment, Office of the Vorarlberg Provincial Government)	Hydrological classification of current runoffs and water levels in Lake Constance.	Irregularly, depending on the situation
Natural hazards bulletin (FOEN, MeteoSwiss, SLF)	Information on the current situation and developments in the weather and hydrology and, as required, also on snow conditions and landslides.	Irregularly, depending on the situation

Weather		
Natural hazards bulletin (FOEN, MeteoSwiss, SLF)	See above	
Detailed forecast (MeteoSwiss)	General weather situation, forecast for the next 5 days, divided by region	3x a day 05:30, 09:30 and 17:00
Forecast WWEA	Precipitation forecast for the Office for Waste, Water, Energy and Air WWEA of the Canton of Zurich	2x a day 11:30 and 21:00
Precipitation probability 72h ICON-CH2-EPS (MeteoSwiss, SLF)	Probability of over 60 mm, 80 mm, 100 mm and 120 mm of precipitation in the next 3 days	2x a day 08:00 and 20:00
Snow		
Avalanche bulletin (SLF)	Warnings and forecasts of avalanche danger for the Swiss Alps, Liechtenstein and, if there is sufficient snow, also for the Jura region. Information on danger points (exposition, altitude), description of the danger, condition of the snow cover and avalanche-relevant weather information.	From November/December: 2x a day 08:00 and 17:00 In summer/autumn only in case of very large snowfalls (extraordinary bulletin)
Pre-information / pre-warning (MeteoSwiss, SLF)	Warnings of heavy snowfall and avalanches	In case of danger, 3 days in advance
SWE bulletin Snow hydrological bulletin	Snow hydrological bulletin CH, catchments Lake Bienne, Lake Lucerne, Lake Zurich, Thur, Alpine Rhine, Lake Maggiore, Lake Geneva	Irregularly, depending on the situation

a. View and edit bulletins

Bulletins are opened directly in a new view.

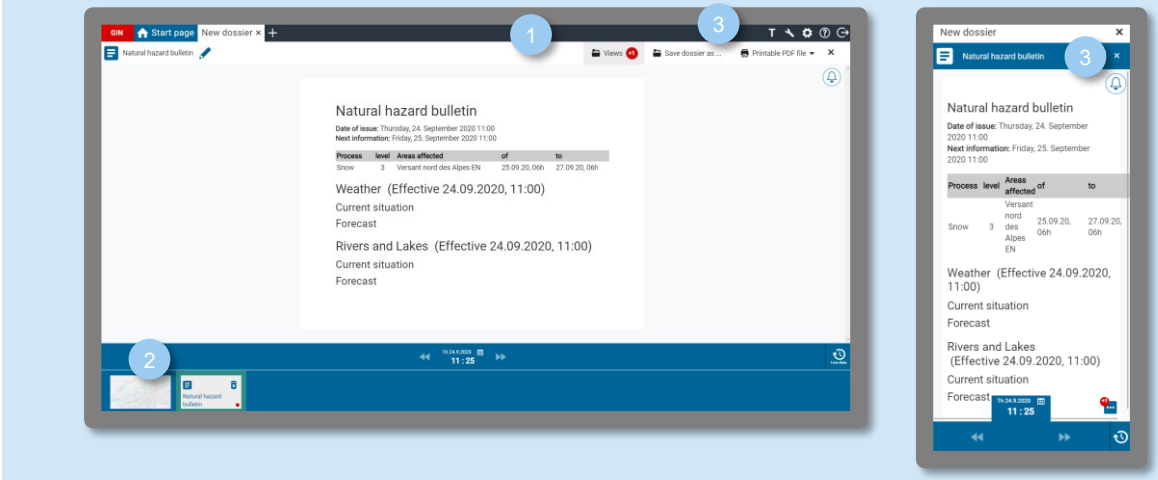


1 Use the **double arrows** or the calendar to view past bulletin issues.

2 Rename a bulletin using the pencil icon .

b. Close bulletins

When you select a bulletin or an image , you jump from the map to that bulletin or image view. To return, proceed as follows:



1 Select 'Views' in the top right-hand corner.

2 A bar with all the views belonging to that dossier then opens at the bottom. Here you can switch back to the map.

3 Or close the bulletin at the top right with the 'x'.
Mobile: Click on the 'x' in the blue bar of the opened bulletin.

6.5 Station overview

The station overview shows all data available for the station in a new view.

1 Click on 'Station overview' in the info window.

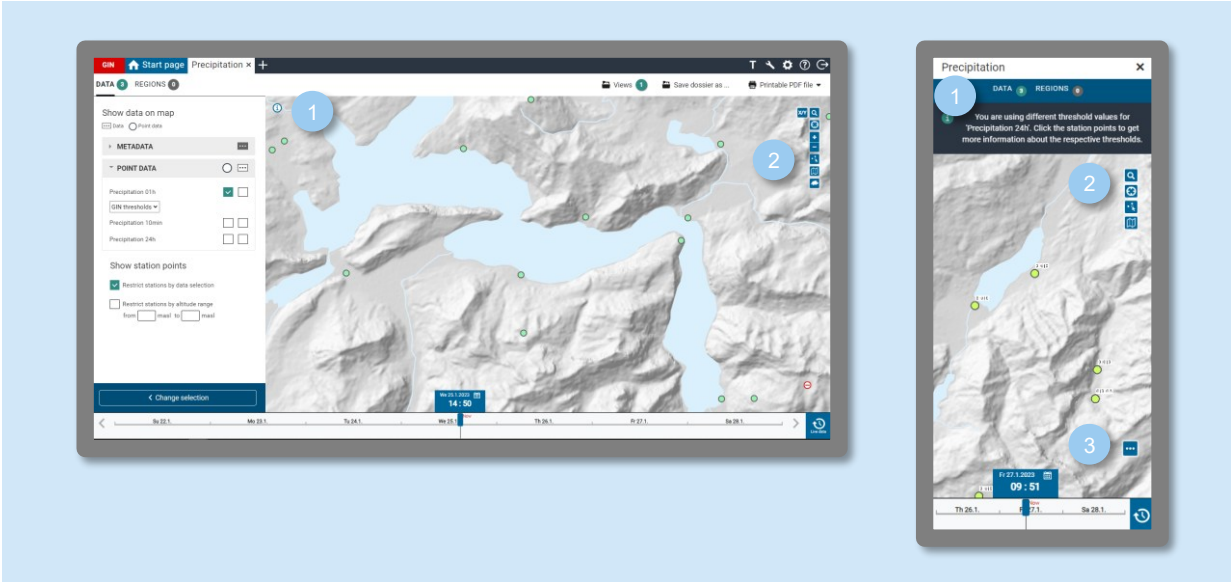
You will see all the data available for the station displayed in diagrams.

In addition, a wind compass is displayed for meteorological stations.

2. You can use the time selection to adjust the displayed time (see chapter 7.2 “Time selection”).
3. You can copy the link for the station overview to the clipboard.
4. Click on the pencil icon  to rename the view.
5. Click on the 'x' to close the station overview.

7 Working with the map

7.1 Functions



Here the pre-defined dossier Weather > Precipitation > Precipitation is selected.

1 **Legend**: Shows explanations for the selected data. Click on the info icon again to close the legend.

2 **Show coordinates** (desktop only): Shows the coordinates for the location where the mouse pointer is

Find station or location: Lets you search for a station or location

Locate me: Shows the current location.

Zoom in / Zoom out (desktop only): Zooms in and out of the map section shown

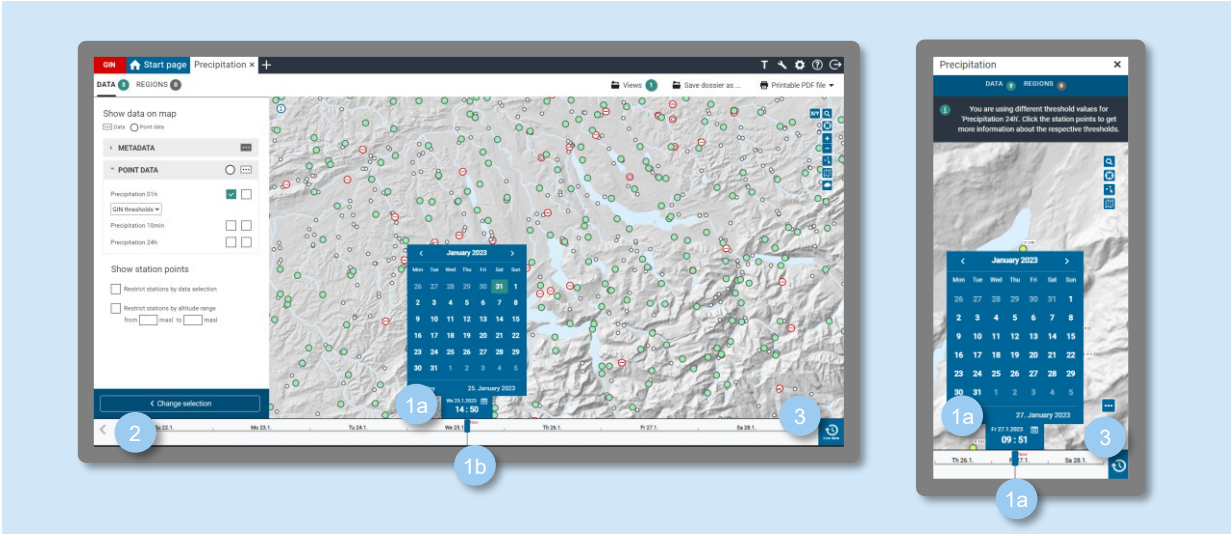
Multiple selection: Lets you search for several stations or areas at once (see chapter 7.8 “Multiple selection”)

Map settings: Lets you select the background map and add additional layers

Shows the whole of Switzerland (desktop only)

3 **More** (mobile only): Opens the dossier functions available for mobile use: 'Views' (here you can switch between maps and bulletins, for example), 'Save dossier' and 'Printable PDF file'.

7.2 Time selection



1a You can **select the time and date** in the time selection window by clicking on the calendar icon or by entering the desired time. Confirm with Enter.

1b Alternatively, you can set the desired time by dragging the time slider.

2 You can **jump forward or back one day** by clicking on the arrows at either side of the timeline (desktop). On the mobile version, drag the time slider to the edge of the timeline to jump to the next or previous day.

3 You can get **live data** by clicking on the live data icon to the right of the timeline. The display then jumps to the current time, and the data displayed are continuously updated in real time.

Note: The GIN platform uses Central European Time (CET).

Timeliness of the data

The various stations use different time intervals for their measurements and data transmission. The GIN platform displays the most current data on the map, starting from the set time. It is possible, therefore, that not all measured values shown on the map were measured at the time currently set.

7.3 What data can you choose?

◯ Point data

- Measured data at stations
- Predicted data at stations

For more on this, see chapter 7.4 d “Point data”.

Raster data

- Measured data
- Predicted data

For more on this, see chapter 7.4 e “Raster data”.

Area data

- Measured data for areas
- Predicted data for areas

For more on this, see chapter 7.4 f “Area data”.

Event product

- Earthquakes

For more on this, see chapter 7.4 g “Event product”.

Images

- Satellite images (infrared images, RGB images day/night)
- Stamp maps / ensemble maps
- Diagrams
- Frontal maps
- Probability maps (ensemble maps)
- Snow hydrology maps

Note: Images are shown in a separate view (i.e. not directly on the map).

For more on this, see chapter 6.3 “Images”.

Bulletins

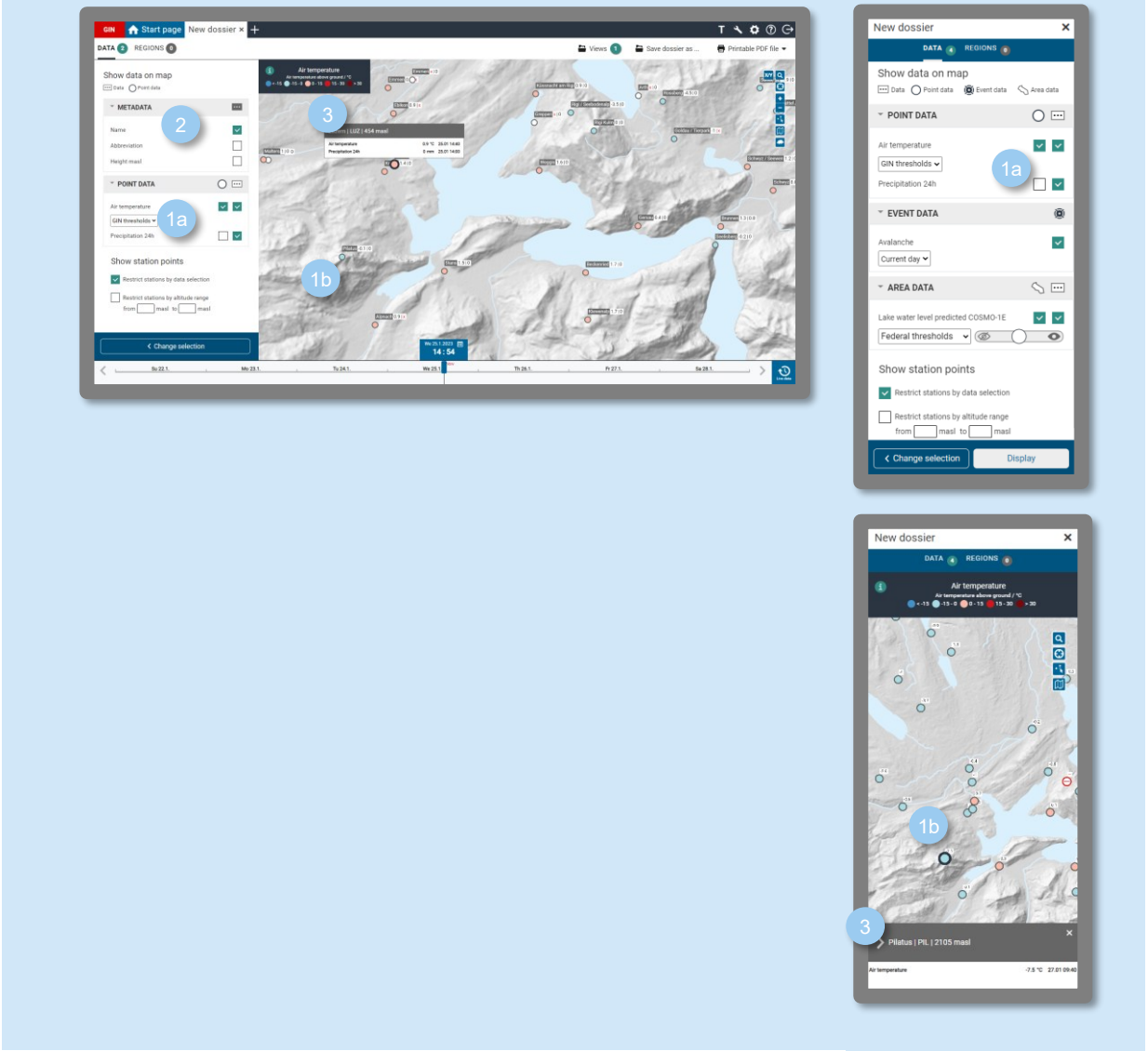
- Expert assessments of water, weather and snow situations

Note: Bulletins are shown in a separate view (i.e. not directly on the map).

For more on this, see chapter 6.4 “Bulletins”.

7.4 How can the data be presented and narrowed down? (data visualisation)

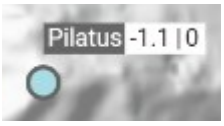
a. Show data on the map



Open a pre-defined or new dossier (see chapter 5.1 “Create your own dossiers”).

1a Click on the data you would like to show on the map. To show the measuring stations, areas, grids or event locations, click on the box below the icon for point ○, area ⬭, grid ▦ or event product ◎.

1b To also show the label for a station or area (i.e. the data measured), click on the box below the data icon ⋯. However, the label is only visible when you zoom in on the map.



It is not always possible to display all data at the same time. If, for example, you have selected 'Air temperature measured' and 'Precipitation measured', you can only tick one of them under

Point data ○. Depending on what is selected, the station point is colour-coded according to the legend and thus shows you the range of the measured values.

2 You can show or hide the station name, its abbreviation and its altitude above sea level in the 'Metadata' section (desktop only). However, the label is only visible when you zoom in on the map. In the mobile view, the station name and height are not shown on the map.

3 When you hover the mouse pointer over a station, a pop-up window opens with the values for that station (desktop view). In the mobile view, you tap on the station values to open them.

b. Colours and symbols of station points

There are three ways of showing station points:

- ○ White point: The station has data for a selected time, but there are no thresholds available for colour-coding in the GIN platform.
- ⊖ Red point with a dash: The station has no data on the selected parameter for the selected time.
- ● Coloured-in point: The station has data corresponding to the selected criterion. The colour indicates the measurement range (according to the legend). (To set the colour-coding, see chapter 5.1 d “Show data on the map”.)

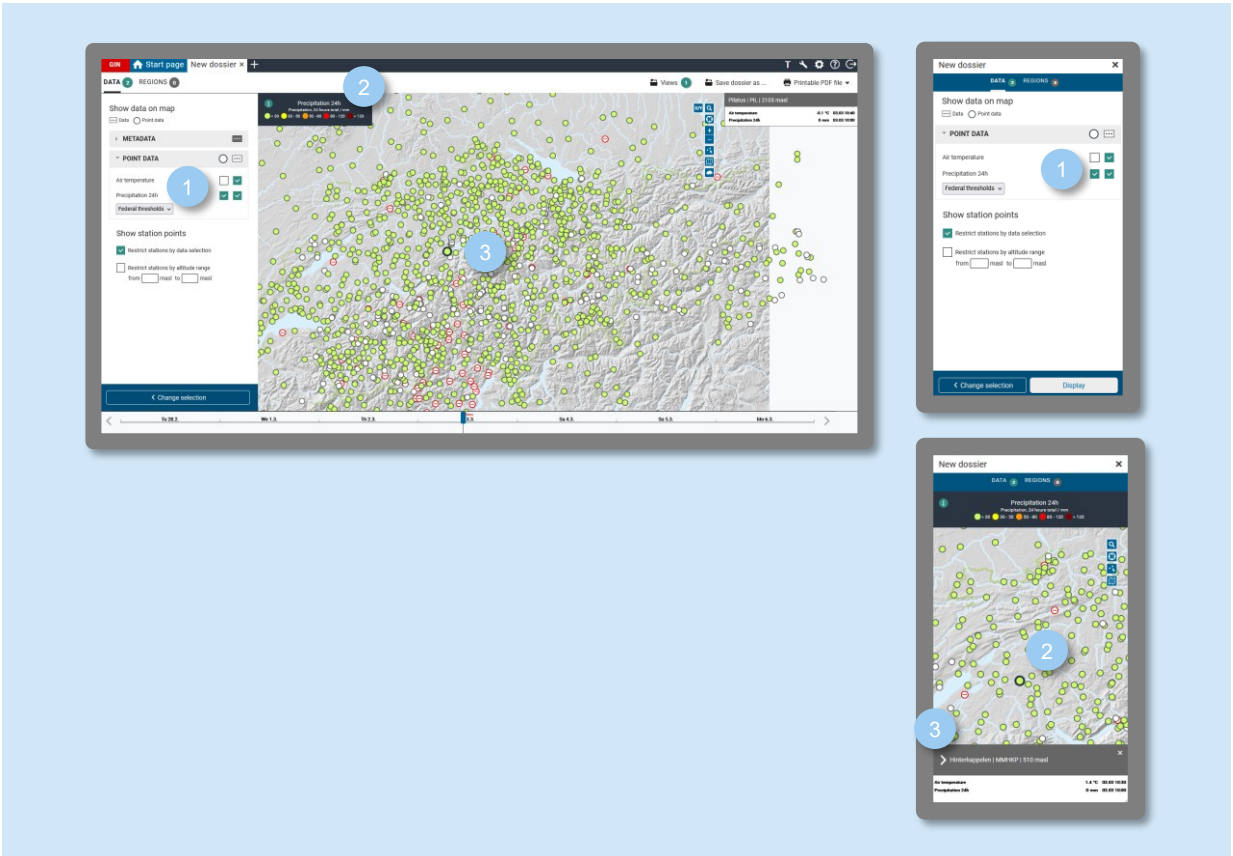
This is similarly depicted in the station label. If there is currently no data available, there is a red dash –. If a station does not even measure the desired data, there is a red x.

1 Example 1, station at Gulderstock: This station measures the air temperature (here -6.3) but not the precipitation (red x).

2 Example 2, station at Chrauchtal: It does not measure the air temperature (red x). There is data for precipitation, but not for the selected time (station shown as a red point with a dash and station label with a red dash).

c. Thresholds

Threshold values exist for certain parameters, for example GIN thresholds or federal thresholds. They are used to classify situations or dangers. You can also set your own threshold values (see chapter 9 “set thresholds”).



Open a pre-defined or new dossier (see chapter 5.1 “create your own dossiers”).

1 If there are threshold values for the selected data, two boxes are shown under 'Show data on map'. If you tick the box on the left, a dropdown list appears with the available thresholds (e.g. GIN thresholds or federal thresholds).

2 The legend shows the different threshold values. A colour is defined for each range.

Click on the info icon ⓘ to open and close the legend.

3 Depending on the measured value of the stations, the station points or areas are colour-coded according to the legend.

You can select a threshold for point data (e.g. precipitation) and for area data (e.g. lake level) at the same time.

However, you cannot select two or more threshold values for point data at the same time (e.g. threshold values for temperature and precipitation), because the point shown can only be one colour at a time. The same applies for area data.

d. Point data

Point data refer to the data measured or predicted at a location (measuring station).

How to derive information for the surrounding area from measured values (point data)

Measured values from stations are usually quite accurate but only apply to the location at which they were measured. However, interpretations can often be made for the area surrounding measuring stations:

- The **runoff** of a river usually increases downstream. At the confluence of two rivers, their runoff flows are combined (for dynamic events such as flood waves, however, the transit times must be taken into account).
- In the case of **large-scale precipitation**, a rain gauge station is often representative of the region in which it is located (this was also a criterion in the selection of the site), but this is less the case with thunderstorms, which are very localised.
- **Air pressure:** For MeteoSwiss stations, both the measured air pressure data at station height and the reduced values derived from this for sea level are given. For stations above 600 masl, the air pressure is not reduced to sea level, but – depending on the altitude of the station – is given in metres for 850 hPa or 700 hPa. The reduced pressure data at sea level is also available in the GIN platform as a predicted value.

Statistics on the general situation of watercourses and floods

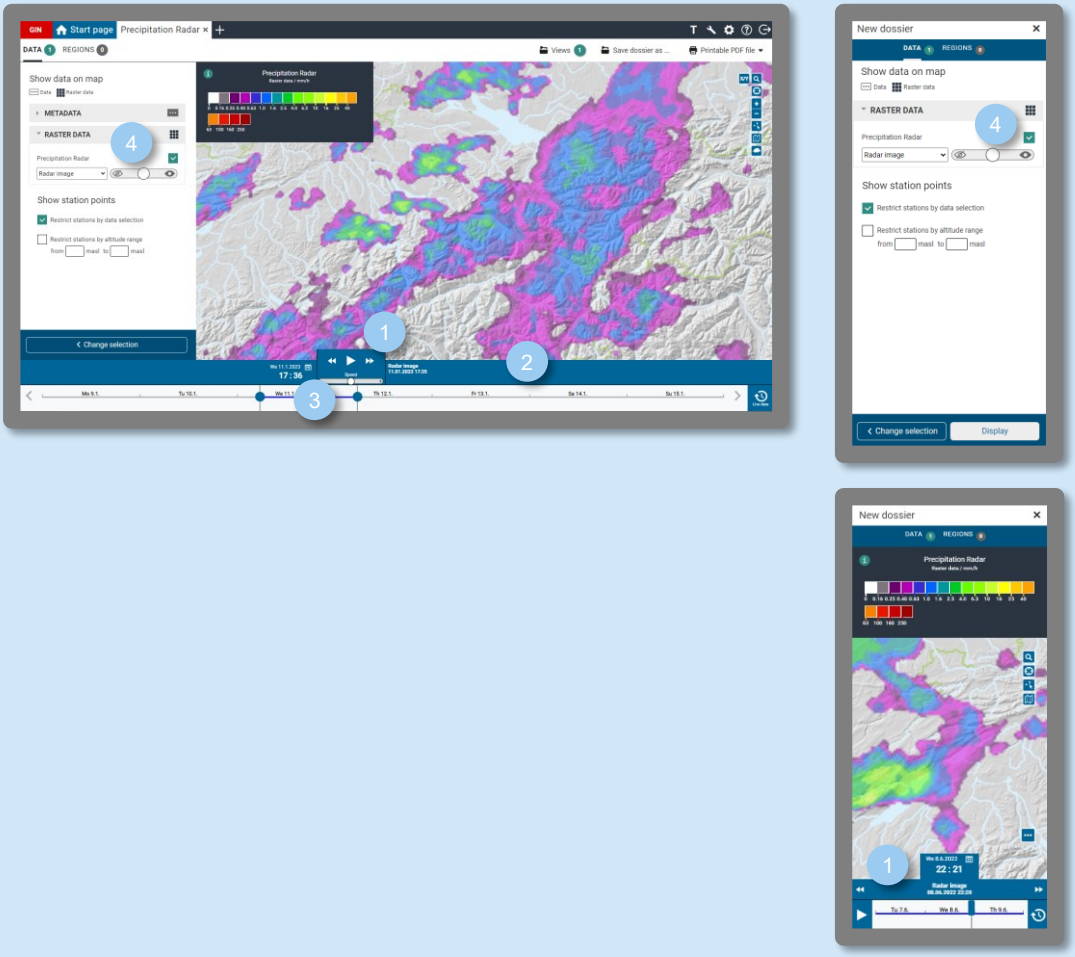
For 'Water', the GIN platform offers two special maps under 'Statistics' that statistically evaluate the current runoff and thus create a reference to the long-term measurement series. This way, you can assess at a glance whether the hydrological situation is average or whether something extraordinary is happening somewhere.

On the 'General runoff situation' map, the classification is made using percentiles of the long-term monthly mean. More about percentiles in the glossary.

e. Raster data

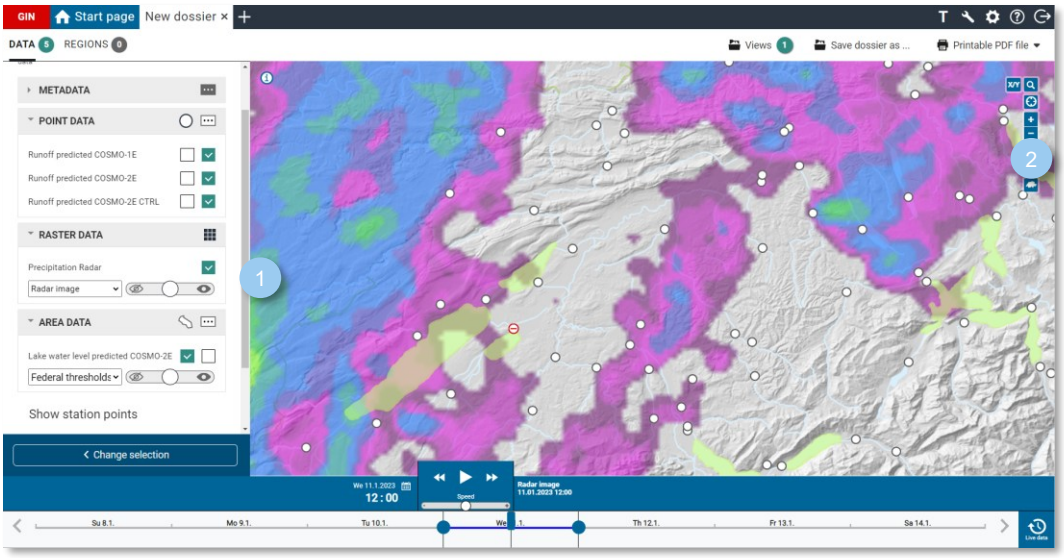
In addition to data from measuring stations that apply to a specific point, GIN also contains area-specific data. This includes the precipitation radar image and the ICON forecasts. Such data covering a specific area are called raster data because a raster is laid over the map of Switzerland, and a value is set for each cell in the raster. Each grid cell is then colour-coded according to the value.

Raster data are marked with the symbol  .



1. With the Play button you can run several raster images like a video clip. For example, you can track the paths of thunderstorms. With the **double arrows** you can skip to the previous or next grid image.
2. You can use the **time limiters** to select the time span over which the raster images are to be shown (desktop only).
3. You can set the speed of playback using the **speed controller** (desktop only).
4. For raster data with thresholds, you can adjust the transparency of the colouring by moving the slider with the eye icons (left: invisible/100% transparent, right: full colour/100% coverage).

Easily identify raster data



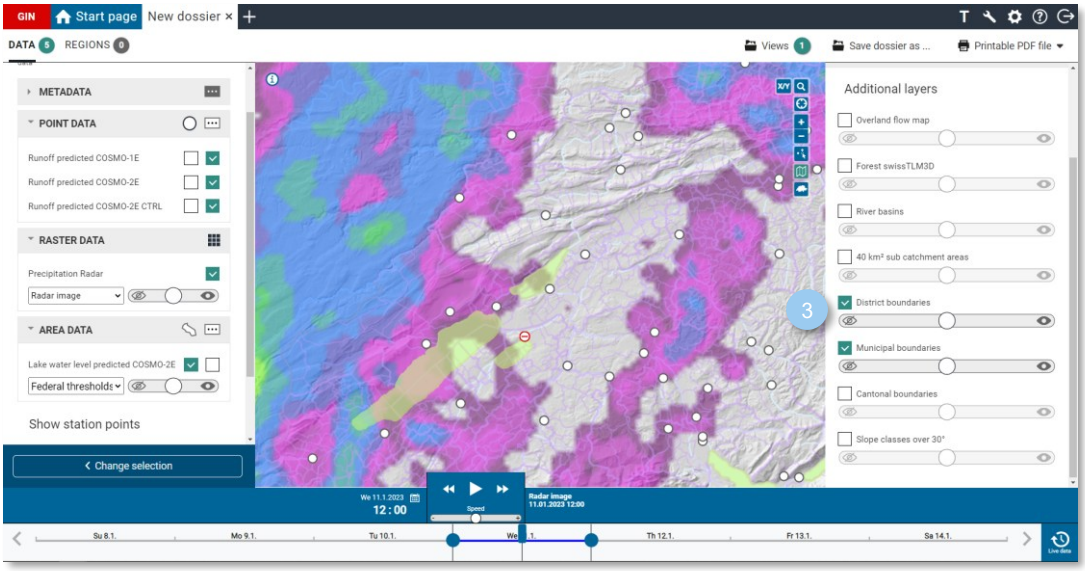
In the default setting, raster data are displayed semi-transparently over the map relief. This makes it easier to read the map. However, this sometimes makes the transition from one intensity level to the next difficult to recognise.

Here's how to make the map easier to read:

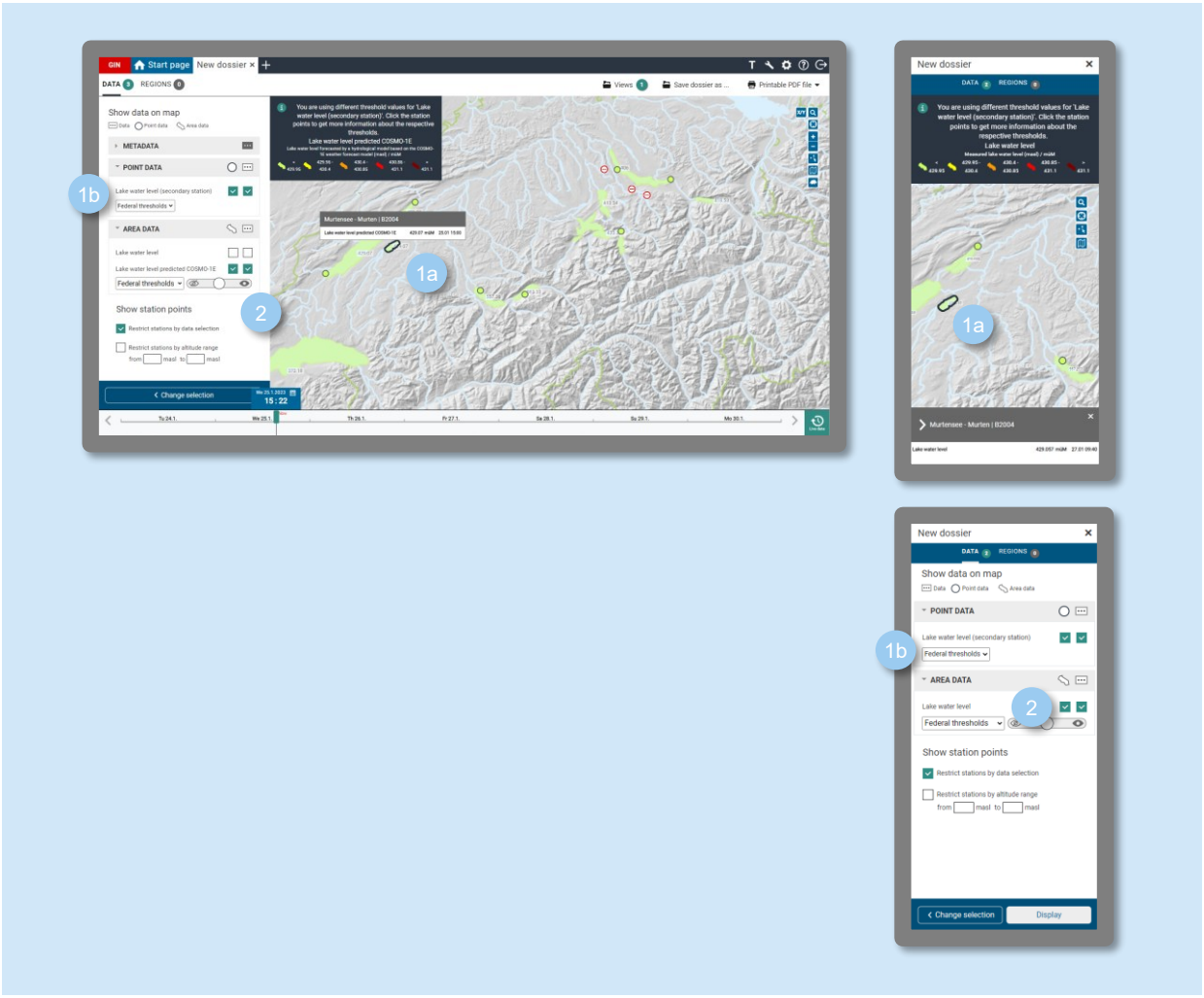
1 Set the saturation slider  to 100%.

2 Show the map settings

3 Show the district, communal or cantonal boundaries to make it easier to read the map.



f. Area data



1a Lakes are always shown as one area, even where the lake has more than one measuring station. The area data comprise the data from the main station as well as values that apply to the entire lake. Predicted lake water levels can also be found here.

1b Other stations are shown as a point. To show these, tick the box for 'Lake water level (secondary station)'.

2 For area data with thresholds, you can adjust the transparency of the colouring by moving the slider with the eye icons (left: transparent, right: full colour).

g. Event product

Event product are based on observations or measurements. There are event product for avalanches and earthquakes, and observations in relation to avalanches.

1 For event product e.g. avalanches, you can select the time period for which the data are to be show on the map, e.g. current day, last 24 hours, last 7 days or last 30 days.

2 For example, if you have selected 5.1. as the date in the timeline below and set '7 days' in the dropdown menu for the event, the map will also show events that took place seven days before.

3 Desktop: If you hover with the mouse over an event (red point), you will see information about it in a pop-up window.

3a Mobile: If you tap on an event (red point),
3b you will see information about the location below.

4 Desktop: Click on the event (red point) to open the info window on the right with further details.

4a Mobile: If you tap on the grey bar with the location information,
4b the info window opens with further details.

h. Predicted data

The predicted data on the GIN platform are based on the MeteoSwiss models ICON-CH1-EPS and ICON-CH2-EPS. These two probabilistic models cover all meteorological parameters. The hydrological forecasts are also made using the two models ICON-CH1-EPS and ICON-CH2-EPS. However, the deterministic forecast with the IFS model still exists.

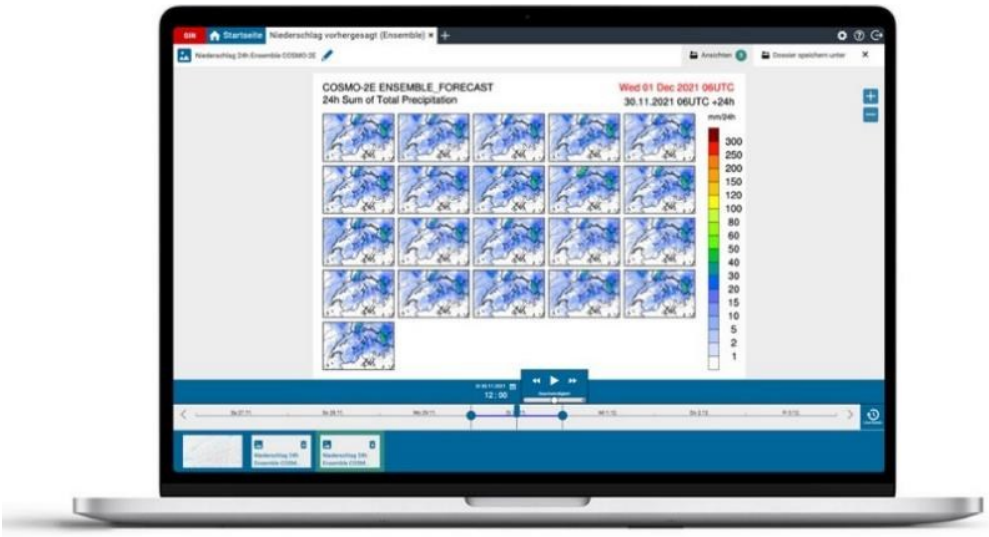
The ICON-CH1-EPS forecasts are updated every three hours (02:00, 05:00, 08:00, 11:00, 14:00, 17:00, 20:00, 23:00), the ICON-CH2-EPS forecasts every six hours (02:00, 08:00, 14:00, 20:00).

Probabilities

Every weather forecast is subject to a certain degree of uncertainty. To quantify this uncertainty, an 'ensemble' approach is used in numerical weather models. This means that several scenarios are calculated with the same numerical weather model, but each scenario is slightly different, e.g. with respect to the initial conditions that were entered as starting parameters for the simulations.

MeteoSwiss uses this ensemble approach in its two proprietary probabilistic weather models ICON-CH1-EPS with 11 scenarios and ICON-CH2-EPS with 21 scenarios.

The different scenarios of a weather model are available in the GIN platform as what are known as 'ensemble maps': for the 24-hour precipitation amount, fresh snow and gust peaks. You can find these by opening a new dossier and searching for 'ensemble' in the 'Data filter...' box.

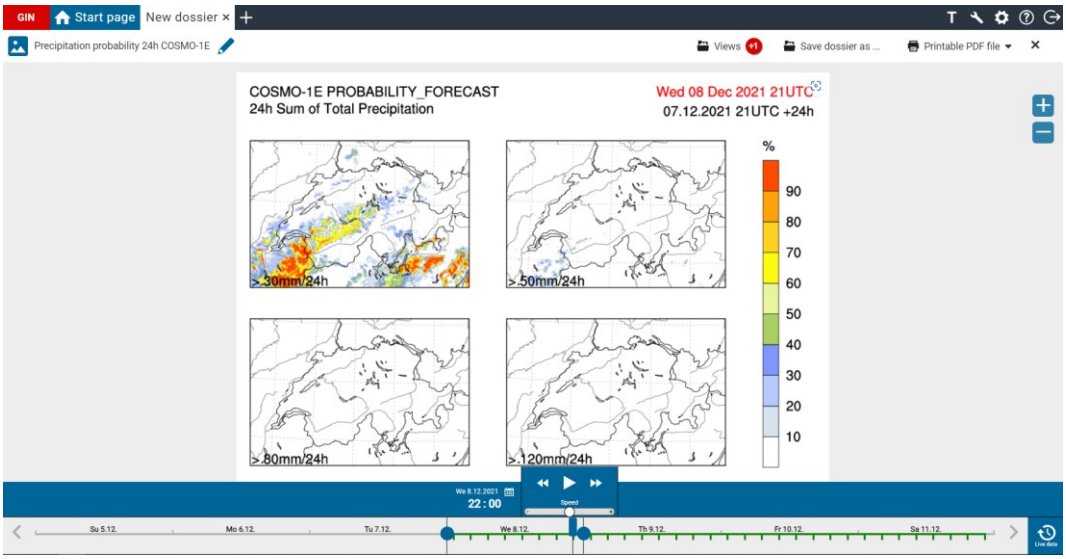


Stamp map for 24-hour precipitation from all scenarios of ICON-CH2-EPS: here you can see the 21 scenarios from ICON-CH2-EPS for the 24-hour precipitation amount. The first image on the top left shows the control run (CTRL), in which no modifications were made. The other images correspond to the modified scenarios ('members'). The red timestamp in the upper right corner shows the time until which the 24-hour aggregation is valid (Thu 08 Jul 2021 06UTC). The black timestamp indicates the model run (07.07.2021 06UTC) and the forecast time step (+24hr). The precipitation in this case therefore applies to the period from 7 July 06:00 UTC to 8 July 06:00 UTC.

Ensemble maps cannot be used to derive probabilities, e.g. of exceeding a certain threshold. They show all scenarios, where basically each scenario has the same probability of occurrence. However, just by looking at the scenarios, you can already get an idea of how certain or uncertain the prediction is. The more uniform the various scenarios are, the more

likely it is that a reliable forecast can be assumed. If the scenarios show very divergent results, the prediction is uncertain.

To detect the probability of exceeding a certain threshold, open a new dossier and enter 'probability' in the 'Data filter...' box. Here you can, for example, select the probability of precipitation for the next 24 hours and then see various different scenarios.



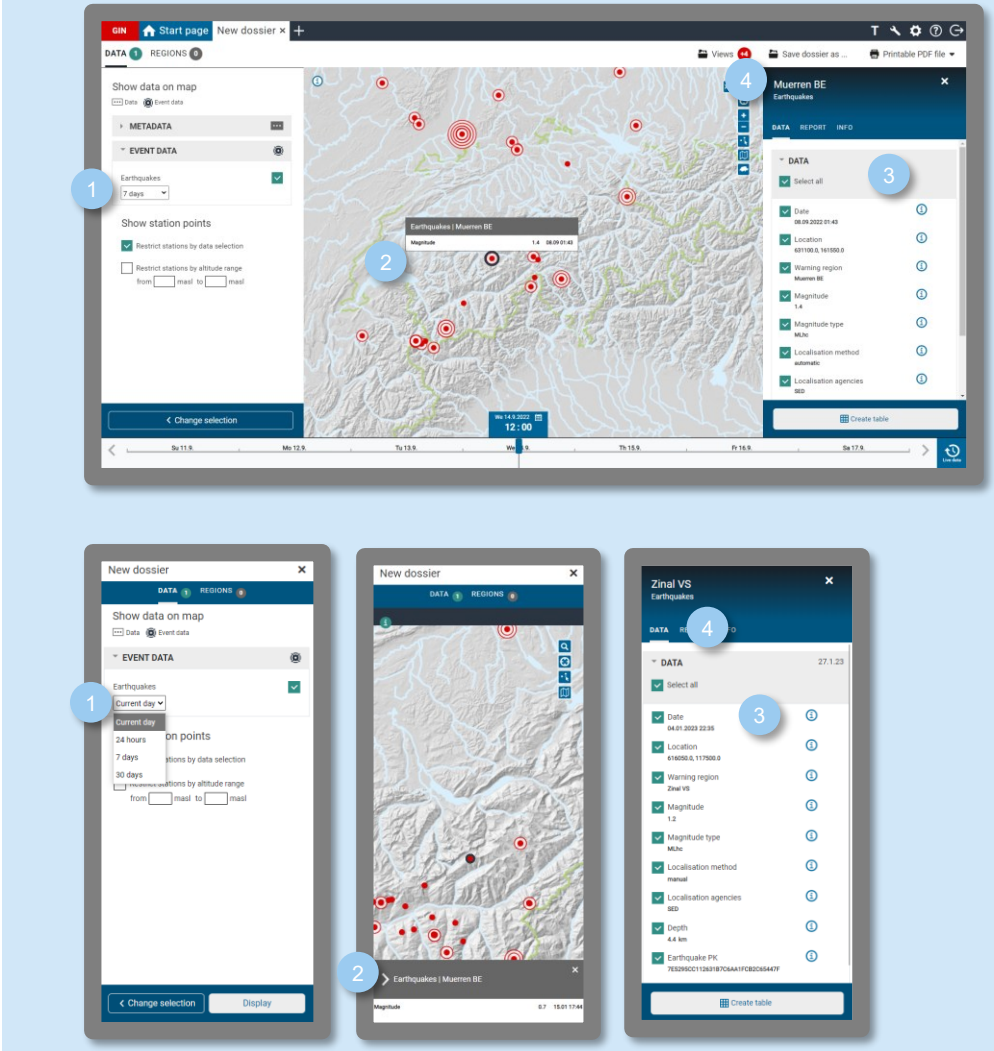
Probabilities from ICON-CH1-EPS of certain precipitation totals being exceeded: here, for example, the probability of more than 30mm of precipitation falling within the specified 24 hours (8.12.2021 00:00 UTC to 9.12.2021 00:00 UTC) is high in the Bernese Oberland region (red area, > 90%). However, the probability of even more precipitation (> 50mm/24hr) is very low – only around 10 to 20% locally. Most scenarios thus calculate a 24-hour precipitation amount of between 30 and 50mm for the Bernese Oberland region.

More information on probability in forecasts:
https://www.meteoswiss.admin.ch/weather/weather-and-climate-from-a-to-z/probability-in-forecasts.html

i. Earthquake data

The GIN platform contains earthquake data from the Swiss Seismological Service SED. These data cover all earthquakes measured in Switzerland. There is no predicted data.

You will find the earthquake data in the pre-defined dossiers.



1 By clicking on the dropdown list, you can adjust the time period for which earthquakes are to be shown on the map: for the current day, the last 24 hours, the last 7 days or the last 30 days.

2 If you hover the mouse over a marked event (mobile: tap on the event), you will see information about the location, time and magnitude of the earthquake (a pop-up window for desktop, in the grey bar below on the mobile app).

3 If you click on the event (desktop) or tap on the grey bar (mobile), the info window opens with more details, such as the exact coordinates or the depth of the seismic centre.

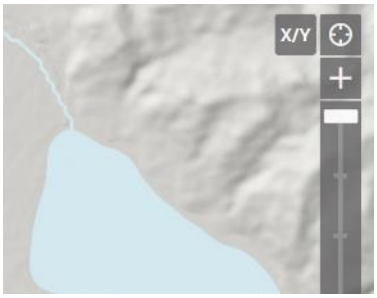
4 If you click on the 'Report' tab, you will see the SED report issued for the earthquake in question.

7.5 Change background maps

You can choose between three different background maps. Depending on which background map you choose, you can zoom in to a greater or lesser extent.

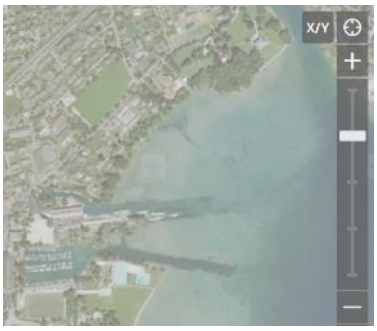
GIN base map **National maps (coloured)** **SWISSIMAGE background**

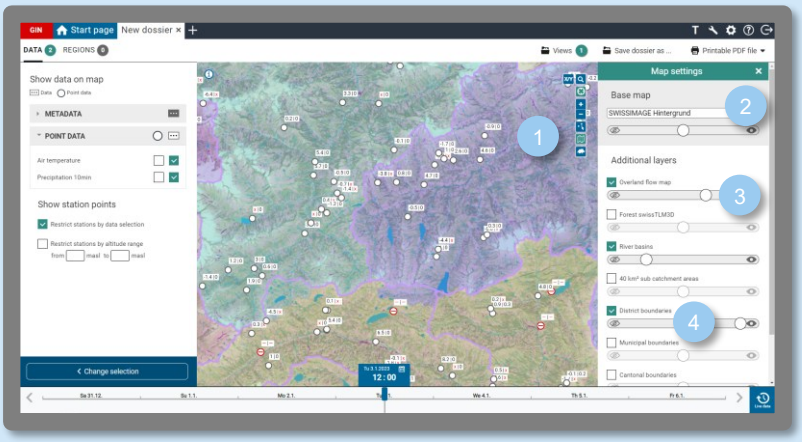
Only a limited zoom is available here.

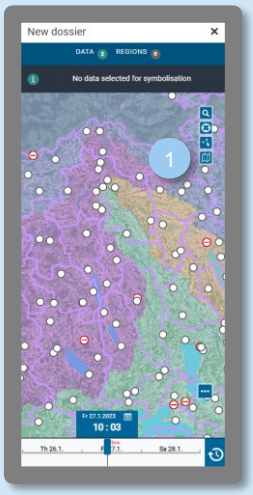


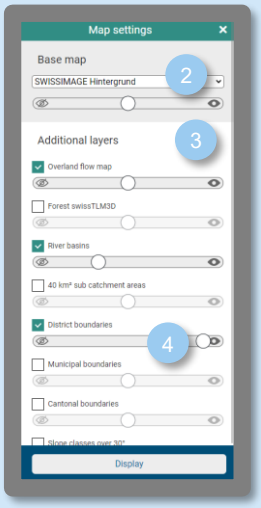
A higher resolution is possible with this map.

A higher resolution is possible with this map.









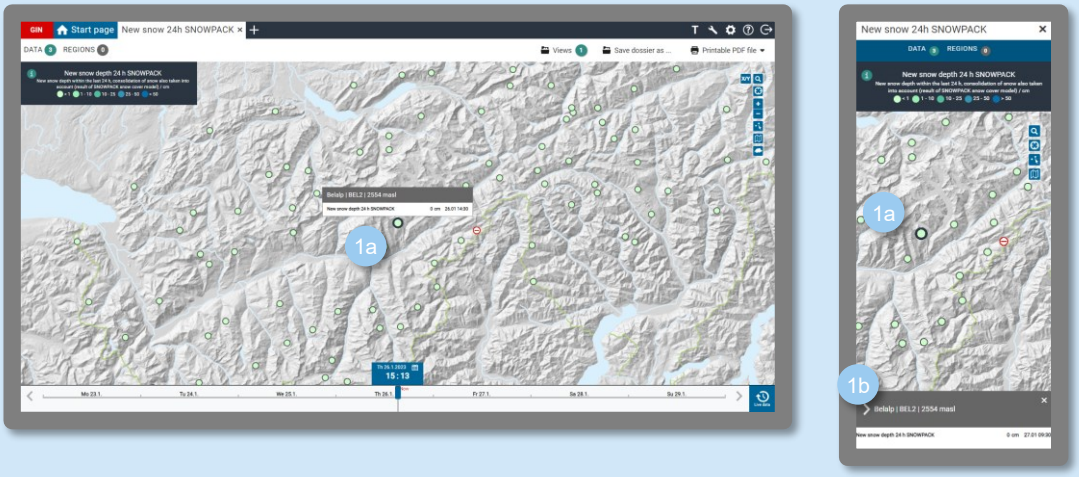
1. To change the base map, click on the map icon in the top right-hand corner.
2. The info window opens. Here you can choose from the three different maps under 'Base map'.
3. Under 'Additional layers' you can choose to show further information.

4 Use the sliders to adjust the transparency of the background map and the additional layers: from transparent (move slider to the left) to opaque (move slider to the right).

7.6 Show data of a measuring station/area (info window on the right)

If you hover with the mouse over a station, the station name, its altitude above sea level and the measured value at the set time will appear.

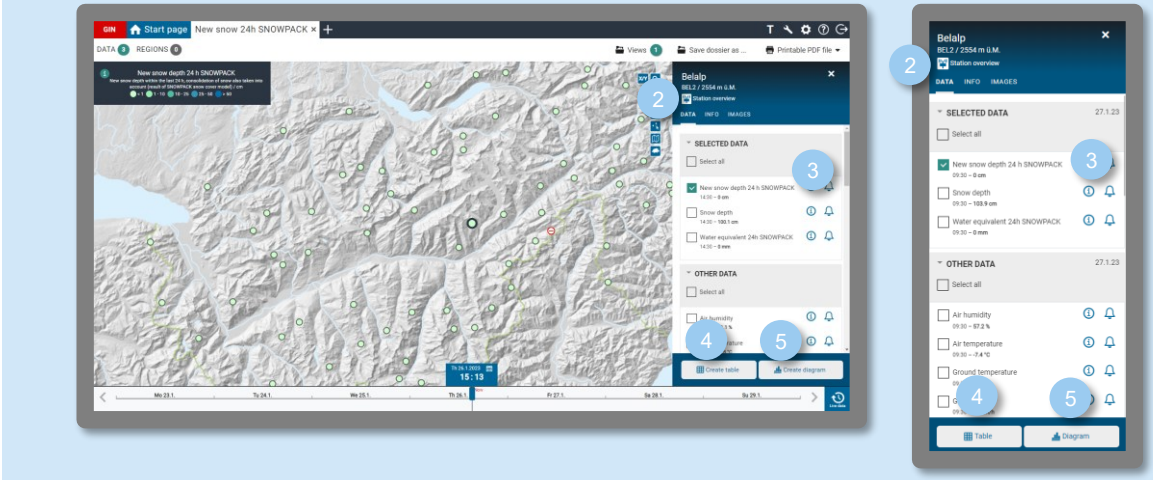
You can see more detailed information about each measuring station or area by clicking on the station or area on the map. This opens the **info window**. If a station is currently not providing data, a red point with a dash is shown ⊖.
(For more information on the colour-coding of the stations and on the '–' and 'x' icons in the station label, see chapter 7.4 b “colours and symbols of station points”.)



1a Click on any station.

Desktop: The info window opens to the right.

1b Mobile: The info window opens but is collapsed at the bottom. Click on the arrow to open the complete info window.

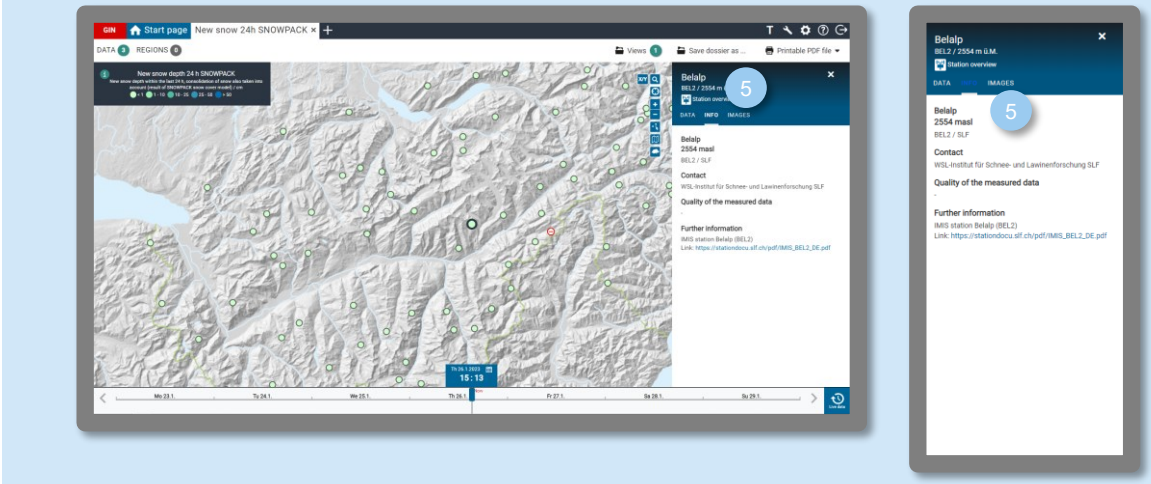


2 The 'Data' tab contains an overview of all available data for the selected station/area.

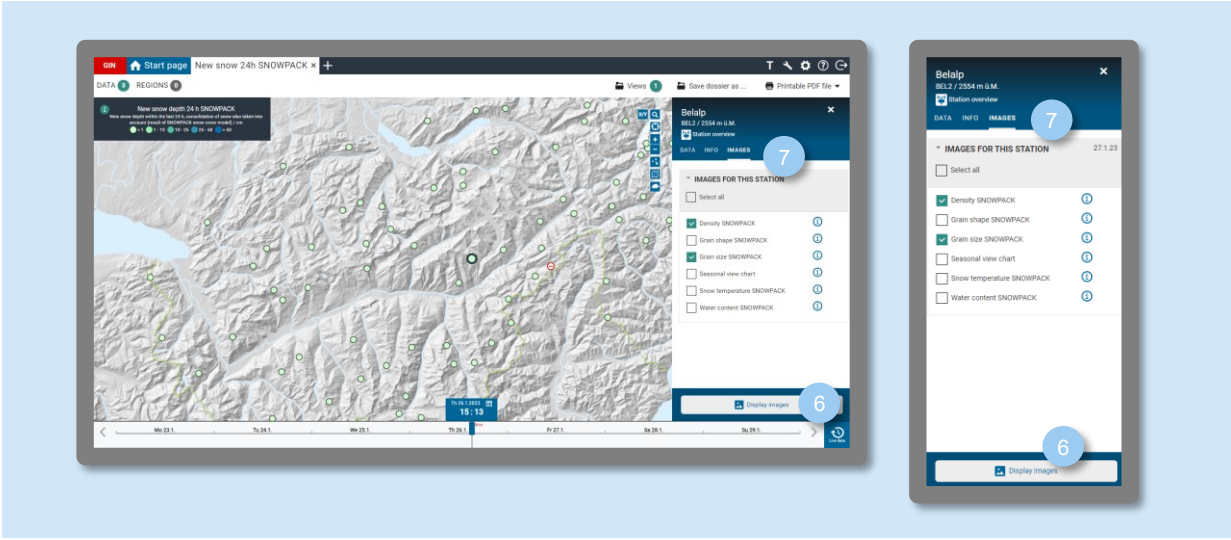
3 **Info icon**: Click on the info icon to show the description of the parameter in question.

4 **Create table**: Creates and opens a table for the selected station data in a new view (see chapter 6.2 “Tables”).

5 **Create diagram**: Creates and opens a diagram for the selected station data in a new view (see chapter 6.1 “Diagrams”).

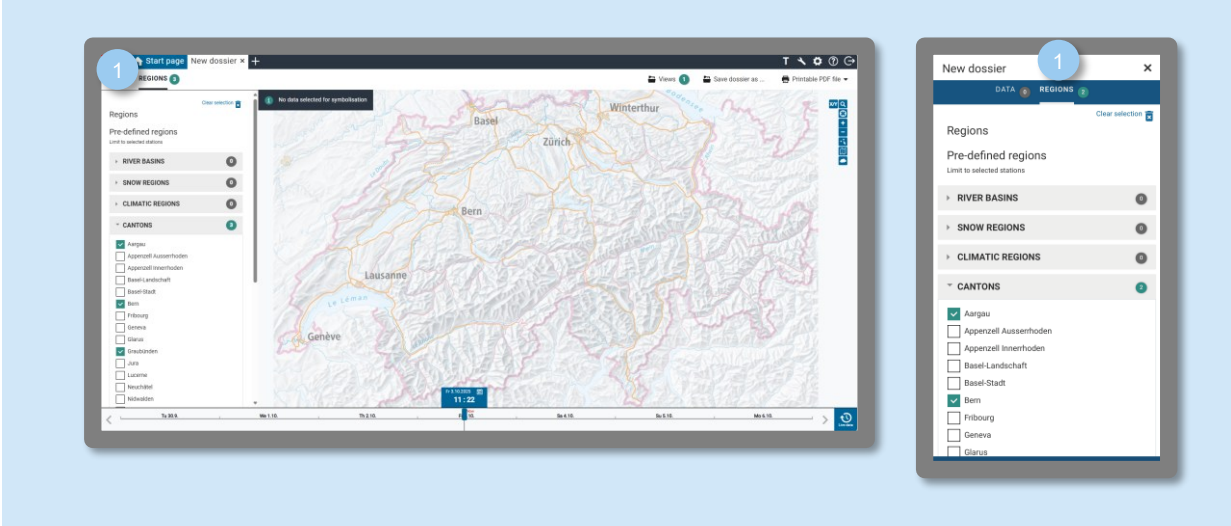


5 Under the 'Info' tab, information and contact details for the respective measuring station are given.



6 **Station overview:** The station overview shows all the data available for that station in a new view (see chapter 6.5 “station overview”).

7.7 Restrict regions

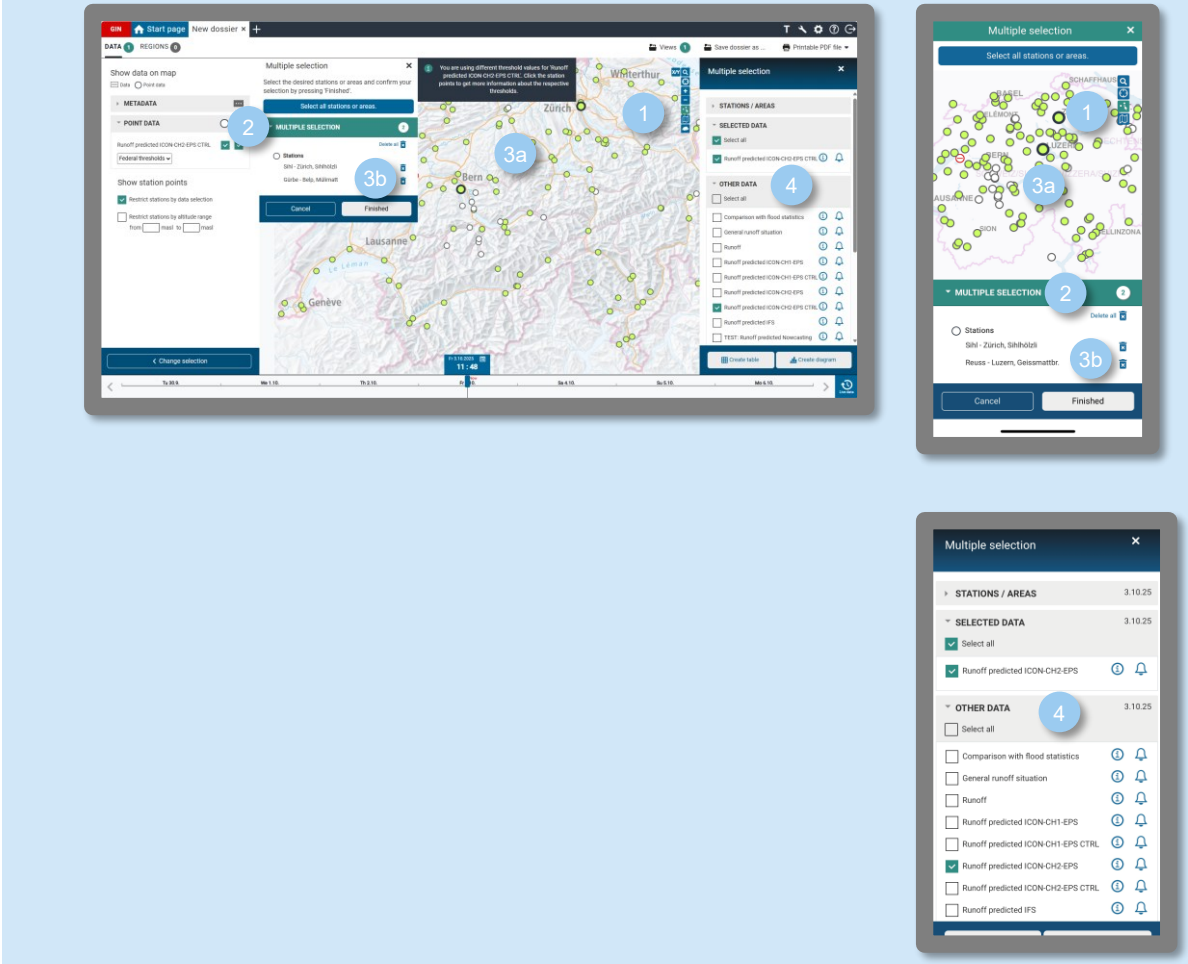


Open a predefined or new dossier (see chapter 5.1 “create your own dossiers”).

1 Under the “Regions” tab, you can narrow down the data selection to river basins, snow regions, climate regions, cantons, neighbouring countries and warning regions.

7.8 Multiple selection

If you would like to view the data for several stations or areas at the same time, you can do so using the multiple selection option. As an alternative to the instructions below, you can also watch the tutorial video on how to use the multiple selection.



1 Click on the multiple selection icon on the map

2 Click on the “Multiple selection” list to expand it.

3a Select several measuring stations on the map.

3b They will appear in the list. You can remove them from the list by clicking on the bin icon

Confirm your selection by clicking on “Finished”.

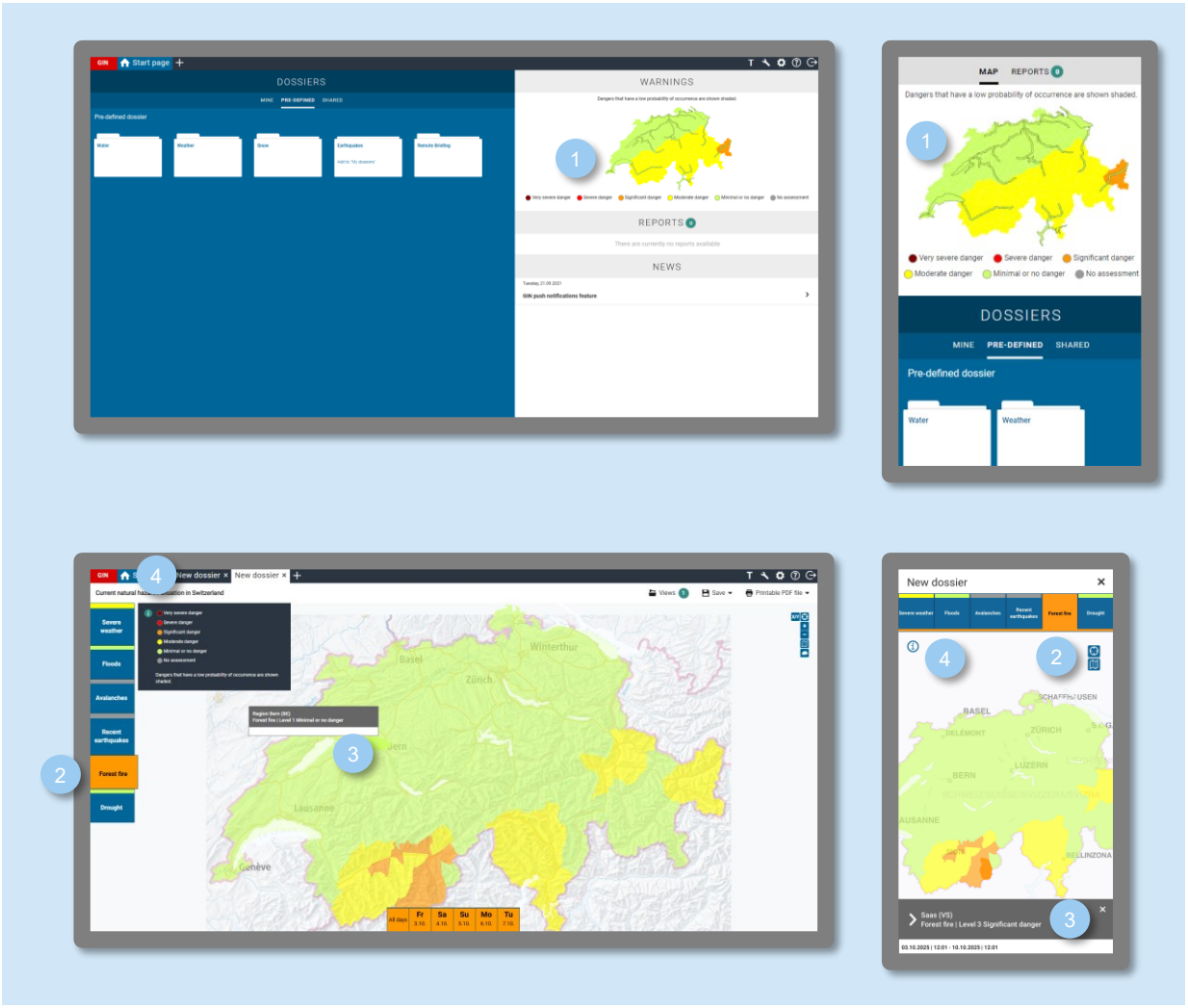
4 The information window will then open and you can select which data you would like to see for the selected stations/areas.

By selecting the multiple selection icon again you can adjust the station/area selection.

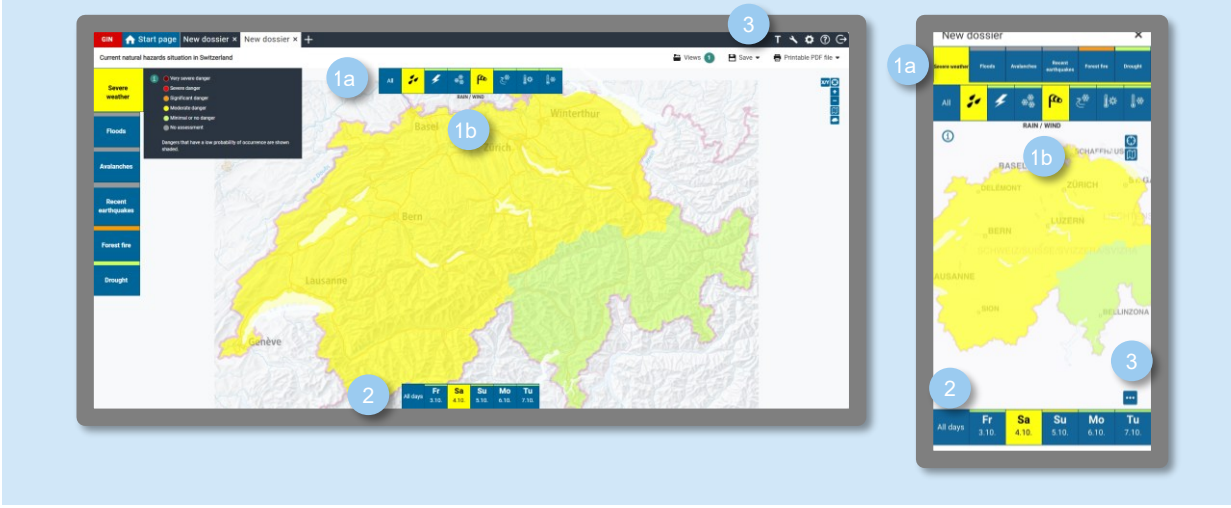
8 Working with the warning map

The federal warning map is generated semi-automatically. If a measured or predicted value exceeds the defined threshold, an expert checks this and decides which warning level to issue, e.g. for avalanche warnings. The thresholds have been set by the federal agencies.

The warning map shows the current federal warnings with the highest warning level.



1. When you click on the warning map on the Start page, it is opened in a new dossier.
2. The area with the highest warning level is always pre-selected.
3. If you hover the mouse over a warning region (or tap on it), you will see more detailed information about the warning.
4. Click on the info icon ⓘ to open the map legend. To close the legend, click on the info icon again.



1a For the 'Severe weather' section, you can show and hide the various processes (rain, thunderstorm, snow, wind, slippery roads, heat wave, frost). In the 'Avalanches' section, you can divide it into a first evaluation and a second evaluation.

Blue tile = values hidden
Coloured tile (colour of the current warning level, or grey for avalanches) = values shown

1b The text under the selection tiles tells you what is currently displayed on the map.

2 The displayed period covers five days in each case. By default, all days are selected. You can click on individual days to select them.

3 Click on Save (desktop) or the three dots (mobile) to save the warning map as a new dossier or to add it to an existing dossier as a view.

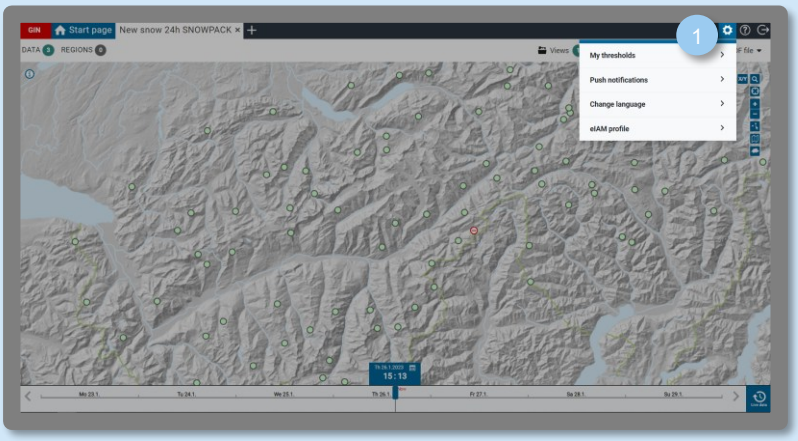
Federal heat warnings

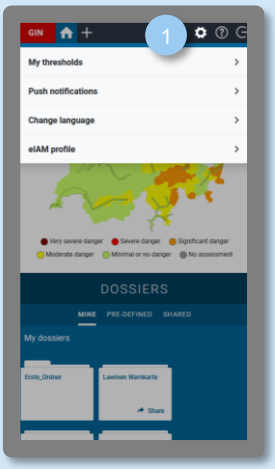
The federal heat warning concept is integrated in the GIN platform. This is based on the mean daytime temperature and contains warnings starting from level 2. The heat warning concept takes account of the night-time temperature, among other things, and also warns of short intense heat periods.

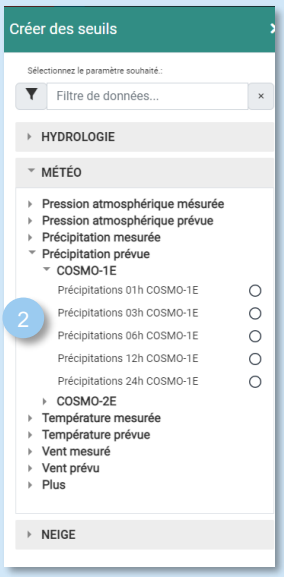
More about the heat warning concept from MeteoSwiss

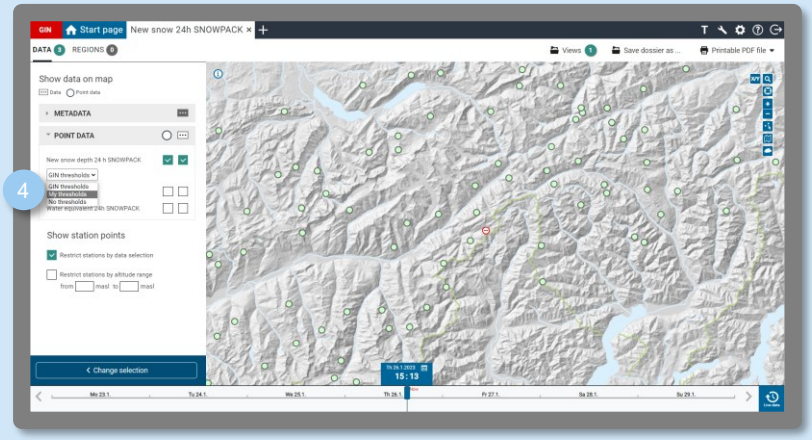
9 Set thresholds

In the settings, you can set your own threshold values for individual or multiple stations/areas for each parameter. As an alternative to the instructions below, you can also watch the tutorial video on how to set thresholds.









1 Click on the cogwheel icon at the top right to open the settings, then click on 'My thresholds' and 'Set thresholds'.

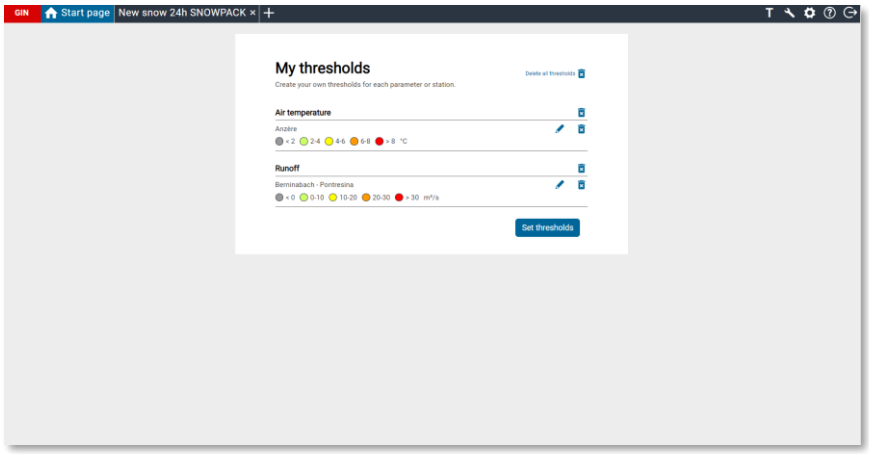
2 Select the parameter for which you want to create a threshold.

3a Enter your individual threshold values and click on 'Save'. This threshold value then applies for the entire parameter or all stations.

3b In addition, you can select 'Threshold per station/area' to set a threshold for one station or area only.

4 Once you have saved your threshold values, they will apply under 'Show data on map'. The threshold values can also be shown on diagrams.

You can change or delete your own thresholds at any time. To do this, go back to the cogwheel icon as described in point 1 and then 'My thresholds'. Click on the pencil icon to edit your threshold values. Click on the bin icon to delete a threshold value.



Threshold values in diagrams
As an alternative to the procedure described above, you can also adjust a threshold value from within the diagram view (see chapter 6.1 a “add threshold values in diagrams”).

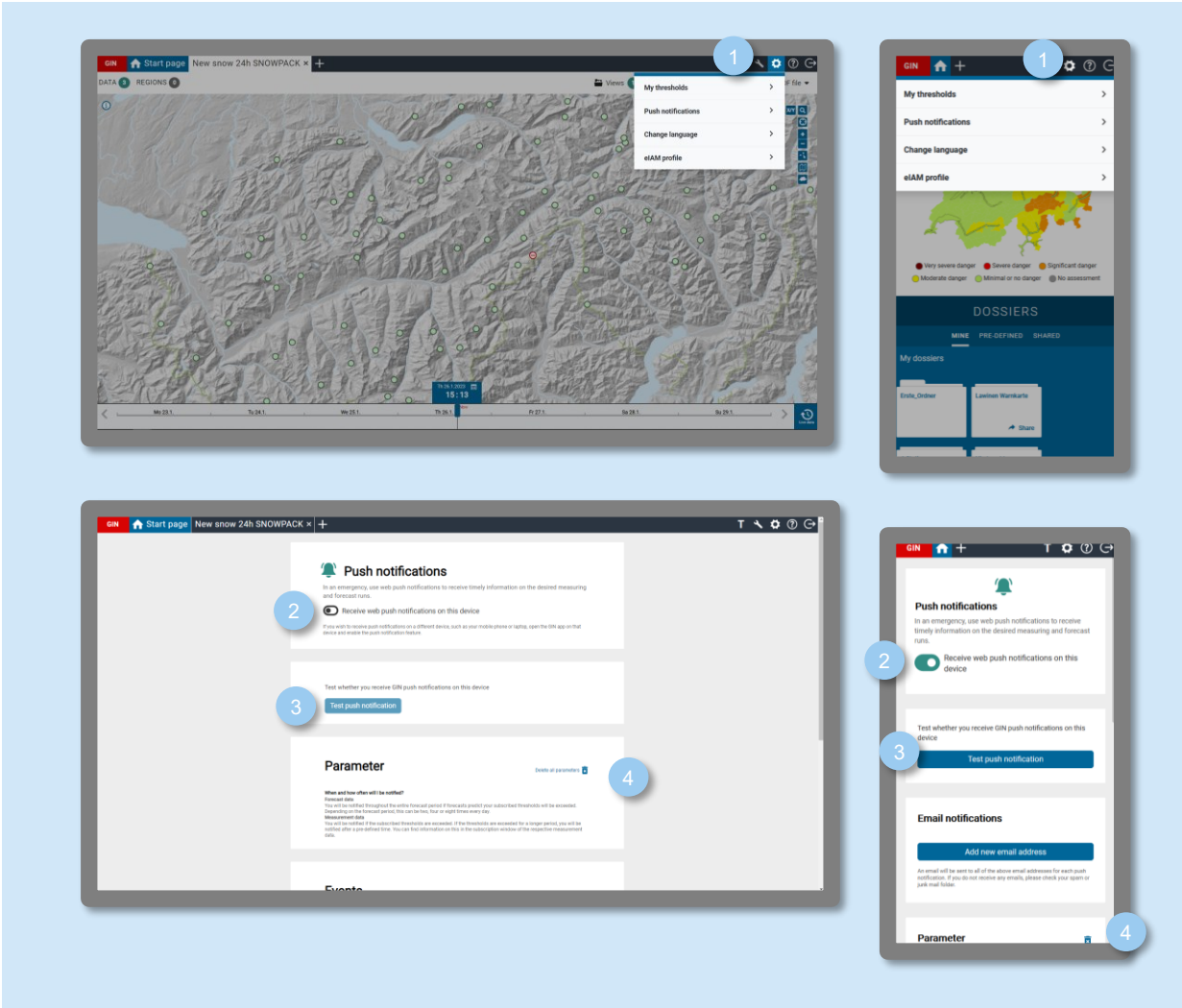
10 Define push notifications

You can subscribe to push notifications for measured data, predicted data, station parameters, bulletins, warnings and events. This keeps you up to date whenever there is some relevant news or, for example, when a certain threshold value is exceeded.

You can have the push notifications sent to your mobile phone and/or your computer or tablet. You decide which notifications are sent where, e.g. you may wish to enable push notifications for your account on your computer but disable them on your mobile phone.

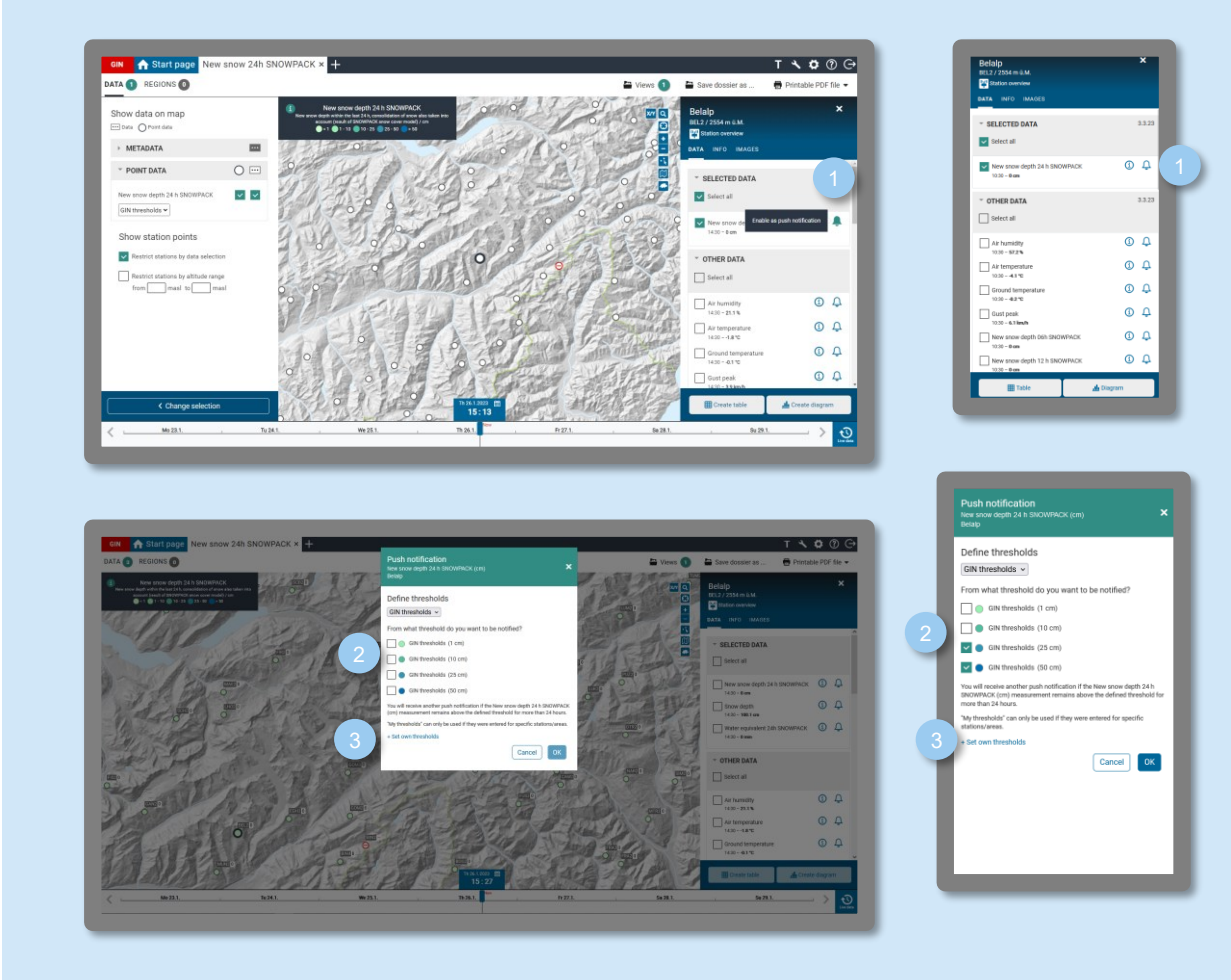
As an alternative to the instructions below, you can also watch the tutorial video on how to set up push notifications.

10.1 Accept and set up push notifications



1. First you need to authorise GIN to send notifications to your device. To do this, click on the cog-wheel icon ⚙ at the top right to open the settings, and then select 'Push notifications'.
2. Enable push notifications.
3. Click this button to receive a test push notification.

4 Click on the bin icon to delete push notifications.



You can subscribe to push notifications for individual parameters via the info window.

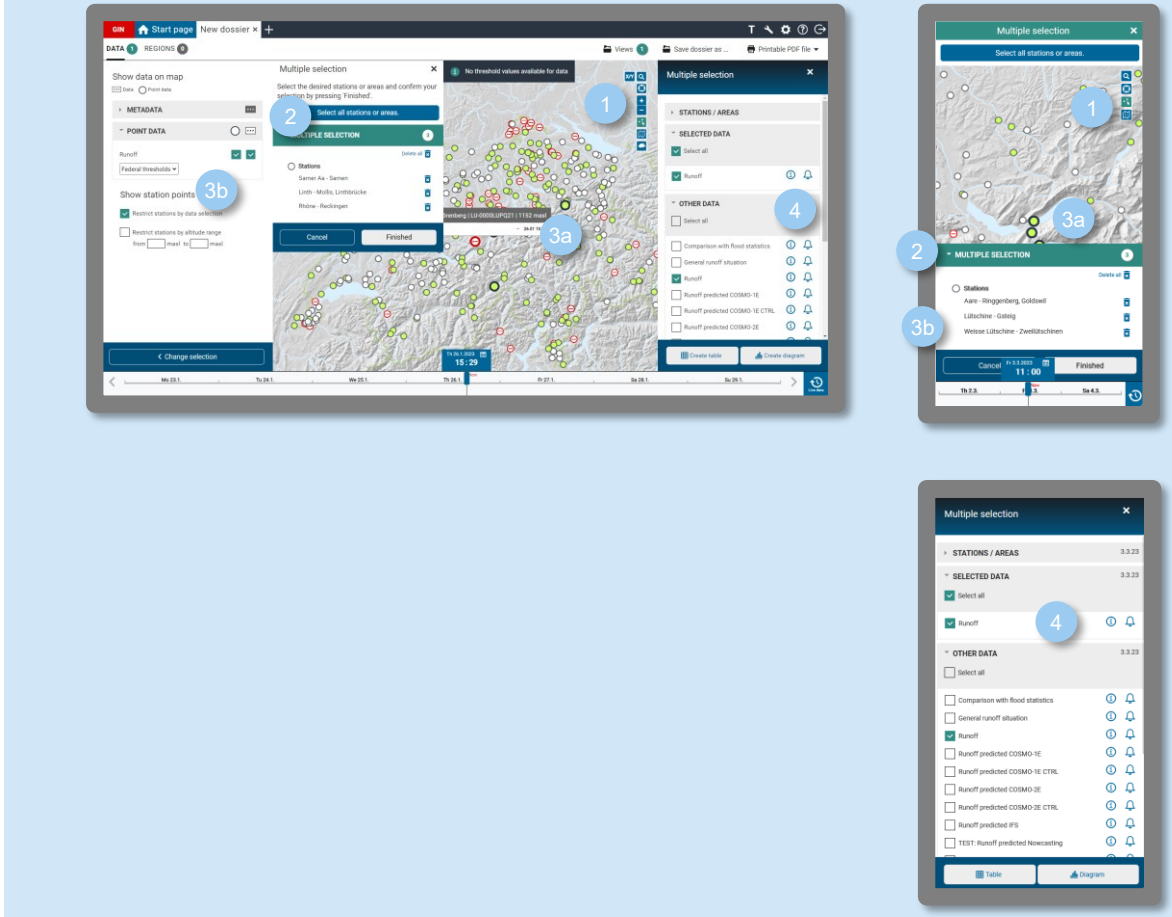
1 Click on a station, then click on the bell icon next to the parameter you want.

2 Select your threshold values.

3 Or you can create your own thresholds.

10.2 Push notifications for several stations or areas

Via the multiple selection (see chapter 7.8 “multiple selection”) you can also subscribe to push notifications for several stations or areas at the same time.



1 Click on the multiple selection icon beside the map.

2 Click on the 'Multiple selection' list to expand it.

3a Select several measuring stations on the map by clicking/tapping on them.

3b They then appear in the list. Click on the bin icon to remove them from the list.

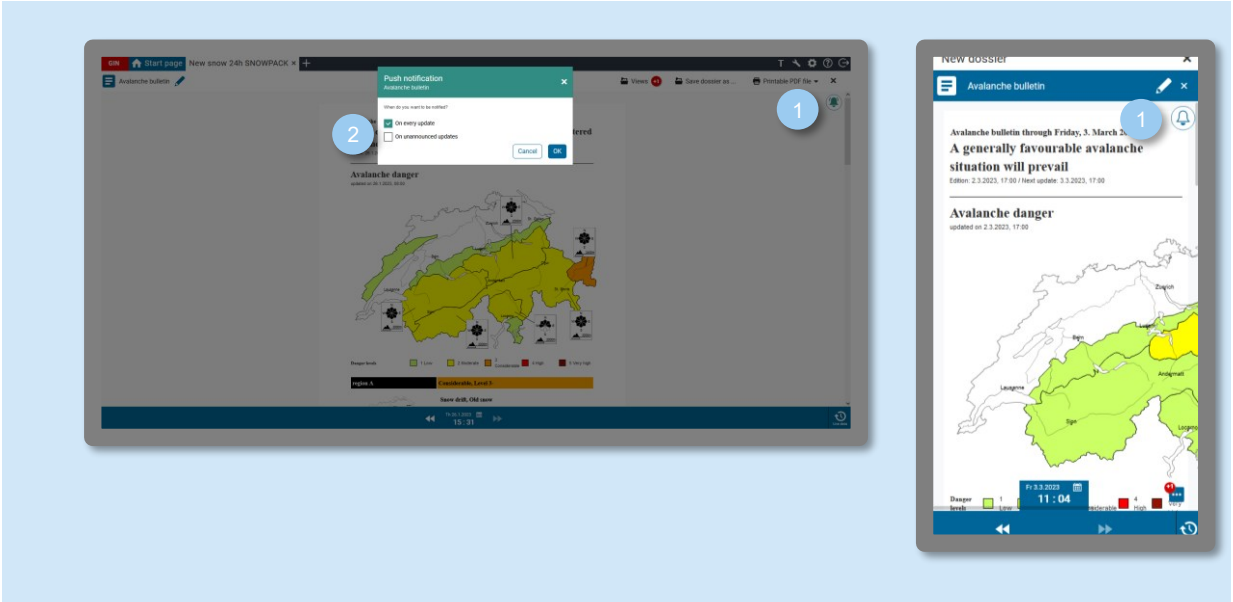
Confirm your selection with 'Finished'.

4 Click on the bell icon for your chosen parameter on the right in the info window to create a push notification for the selected stations.

Notes:

- If the selected thresholds are not available for all selected stations/areas, no push notifications are subscribed to.
- For predicted data, the threshold value is checked for the entire forecast.

10.3 Push notifications for bulletins



1. You can subscribe to bulletins via the bell icon .
2. For the avalanche bulletin, you can also choose whether you want to receive push notifications with every update or only in the case of an extraordinary situation. If you subscribe to the extraordinary avalanche bulletin only, you will not receive any notifications about the daily updates.

10.4 Push messages for warnings

You can subscribe to push notifications for selected warning regions via the warning map.

1 Click on the warning map on the Start page.

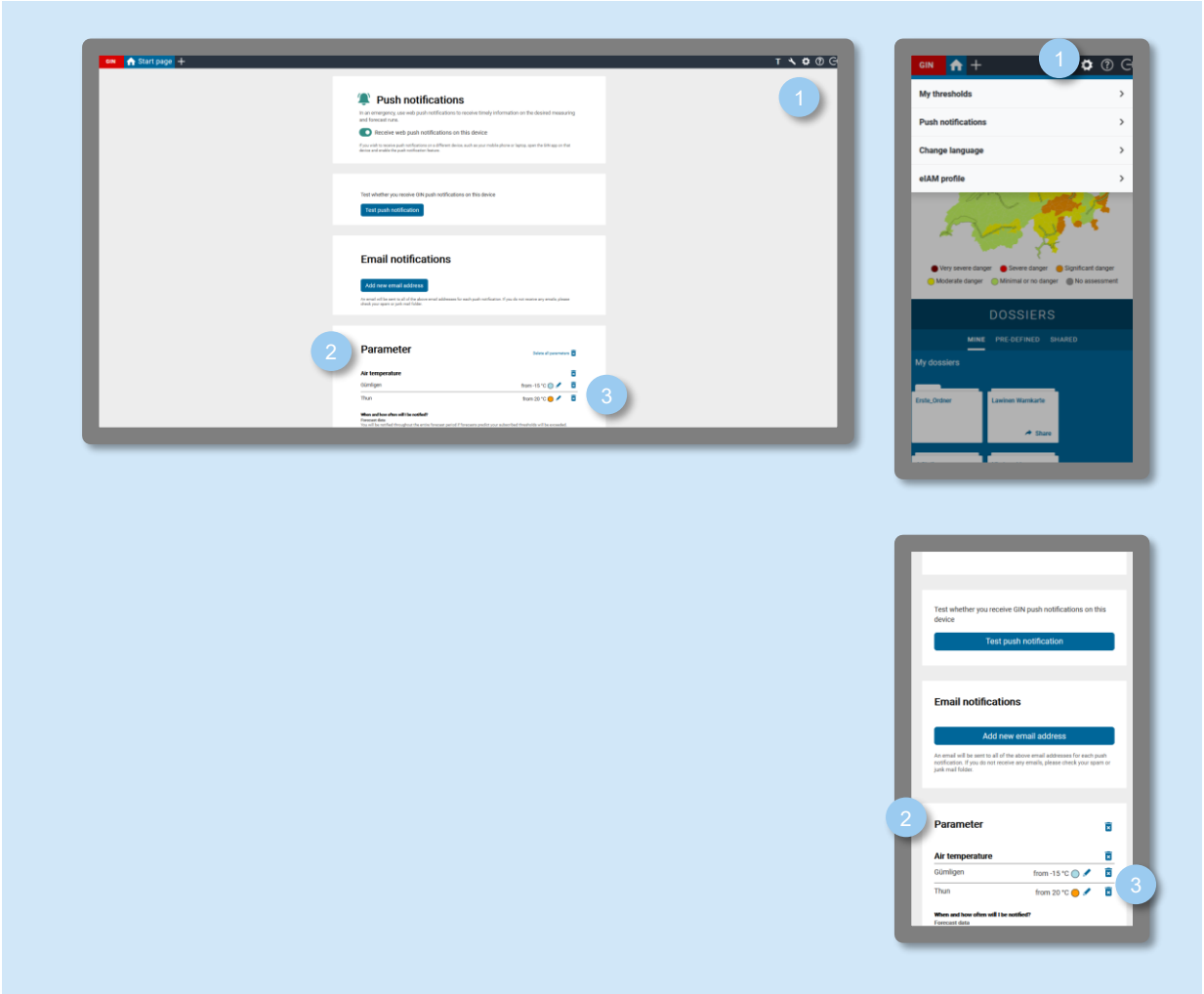
2a Select a hazard, then click on a region in the warning map.

2b Mobile: Tap also on the area at the bottom of the grey bar.

3 The info window opens. After clicking on the bell icon, you can set the danger levels for which you

4 want to receive a push notification.

10.5 Change push notifications



1. If you want to change the push notifications you have already set up, click on the cogwheel icon in the menu bar at the top right to open the settings. Then click on 'Push notifications'.
2. Here you will find an overview of all your push notifications.
3. By clicking on the pencil icon alongside the entry, you can adjust the warning level at which you receive a push notification.

   By clicking on the bin icon you can delete the push notifications for individual locations, parameters or all push notifications.

Push notifications are possible on the following browsers and devices:

Desktop:	Edge, Chrome, Firefox, Safari
Mobile Android:	Chrome, GIN app (free of charge in the Google Play Store). (Push notifications are not possible via Firefox and Edge.)

Mobile iOS: Only via the GIN app (free of charge in the Apple Store).

Note on the speed of push notifications:

Browser-specific services are responsible for delivering the push notifications. These first check that your device is online and then deliver the push notification. As delivery is not always immediate, it may take longer for the notification to arrive on your device. The GIN platform has no influence over the speed of delivery.

Use of devices by multiple users

GIN sends the notifications per user and device. If several users use the same device (with their own personal login), GIN behaves as follows:

- Each user manages their own subscriptions.
- All users of this device receive all push notifications of all users, i.e. those of their own subscriptions and also those of other subscriptions.
- If several users of the device subscribe to the same products, push notifications may arrive several times on the device.

11 Contact office

For feedback on the GIN app, please contact the office:

Ada Consolo
+41 58 462 87 81
ada.consolo@bafu.admin.ch

12 Glossary

Definitions

View	Diagrams, tables, maps, bulletins and images. These can be assigned to a dossier.
Images	Available as views in GIN. There are several different products (see chapter 6.3).
Bulletin	Bulletins contain the measured and predicted data as interpreted by experts. Here, the experts describe the current situation and how they expect it to evolve. A lot of experience goes into drawing up a weather report of MeteoSwiss, drought bulletin of FOEN or avalanche bulletin of SLF, so they are generally more reliable than pure model calculations. GIN offers various weather reports from MeteoSwiss and the avalanche bulletin from the SLF.
ICON-CH1-EPS	ICON-CH1-EPS comprises an ensemble that is calculated eight times a day. The 11 forecasts of the ensemble have a mesh size of 1.1km. ICON-CH1-EPS claims to be more precise (local scale) than ICON-CH2-EPS.
ICON-CH2-EPS	For ICON-CH2-EPS, 21 forecasts are calculated as an ensemble four times a day. These have a mesh size of 2.2km. The particular strength of ICON-CH2-EPS lies in assessing long-lasting events, as it extends 120 hours into the future. It is not possible to make a general statement as to which model is best for which weather conditions. However: ICON-CH1-EPS • is usually more precise, in terms of both time and space, for local phenomena such as thunderstorms and the Foehn wind • has some shortcomings, especially in the case of extreme events • often shows excessively high maximum values for accumulated precipitation on account of the topography • tends to underestimate 10m wind ICON-CH2-EPS • is particularly suitable when assessing uncertainties with the use of probability data, especially for extreme events • is less suitable for thunderstorms
Diagrams	Data from measuring stations or areas can be displayed as diagrams and exported as a PNG file.
Dossier	User-defined selection containing different views (diagrams, tables, maps, bulletins and images)
Event product	Products that can occur at all coordinates (avalanches, observations and earthquakes)
Area product	Products that are applicable to an area (lakes, new snow forecasts)

Hazard scale

The Confederation uses a uniform five-level hazard scale to warn the population of natural hazards.

Hazard level 1	no or minor danger
Hazard level 2	moderate danger
Hazard level 3	considerable danger
Hazard level 4	high danger
Hazard level 5	very high danger

The hazard levels give an indication of the intensity of the event, the possible impacts and behavioural recommendations. Level 4 and 5 warnings can be declared for mandatory public dissemination, which means they must then be published by all licensed radio and TV broadcasters.

Some natural hazards are classified into fewer than five hazard levels. The thresholds in each case have been determined by the relevant expert agencies:

Earthquakes (only measured data, no predictions)	1	2	3	4	5
Frost	1	2	3	4	5
Thunderstorm	1	2	3	4	5
Heatwave	1	2	3	4	5
Flooding – national	1	2	3	4	5
Flooding – regional	1	2	3	4	5
Avalanches	1	2	3	4	5
Rain	1	2	3	4	5
Snow	1	2	3	4	5
Slippery roads	1	2	3	4	5
Forest fire	1	2	3	4	5
Wind	1	2	3	4	5

For more information on hazard levels, warnings and alerts, see: http://www.naturgefahren.ch

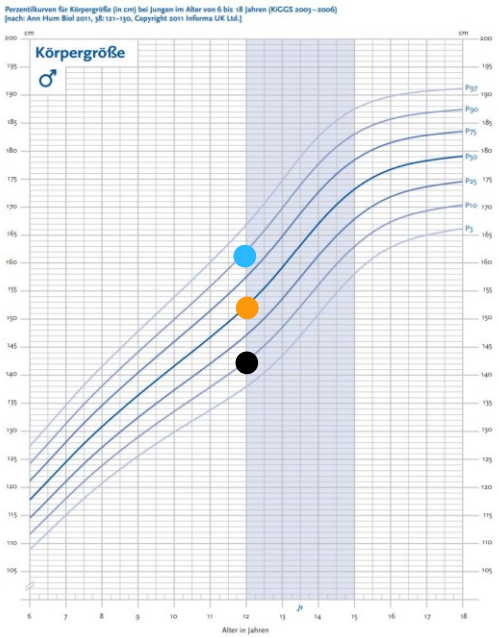
Maps

In GIN you can choose between three background maps. You can select these in the map settings (see chapter 7.5).

Percentile

Percentiles are a way of classifying a measured value with a comparative quantity.

Example: A 12-year-old boy is 152cm tall. Compared to other 12-year-olds, he is right in the middle (orange dot), i.e. half of all 12-year-olds are shorter than him, the other half taller. This value is called the 50th percentile (P50) or the median.



If the boy is shorter than 143cm (black dot), this would mean he is among the shortest 10% for his age. 143cm is the 10th percentile (P10) in this case. If, on the other hand, the boy is taller than 162cm (blue dot), this places him among the tallest 10% for his age. This means that 90% of all 12-year-olds are shorter than him. 162 cm is thus the 90th percentile for 12-year-old boys.

The same principle can be used to classify the current runoff of a watercourse. The reference quantity here is the long-term monthly average for the current month (the water flow is also dependent on the season). If the current value is among the lowest 5% of the monthly mean values (i.e. it is below the 5th percentile), GIN colours the station symbol dark brown. If it is higher than the lowest 5% but still among the lowest quarter (i.e. the value is between the 5th and the 25th percentile), the station symbol is a lighter shade of brown, and so on.

Point product	A data product that is collected at a fixed coordinate (e.g. a station).
Raster data	Data from a measuring station always apply to a specific point. However, some data apply to a specific area. Such data covering a specific area are called raster data because a raster is laid over the map of Switzerland. Each cell in this grid has a value, which then determines the colour of the grid cell. For example, data from a precipitation radar are shown this way.
Threshold value	Threshold values exist for certain parameters, for example GIN thresholds or federal thresholds. They are used to classify situations or dangers.
Tables	Data from measuring stations or areas can be displayed as a structured table and exported as a CSV file.
Warning map	The federal warning map is generated semi-automatically. If a measured or predicted value exceeds the defined threshold, an expert checks this and decides which warning level to issue, e.g. in the case of avalanche warnings.