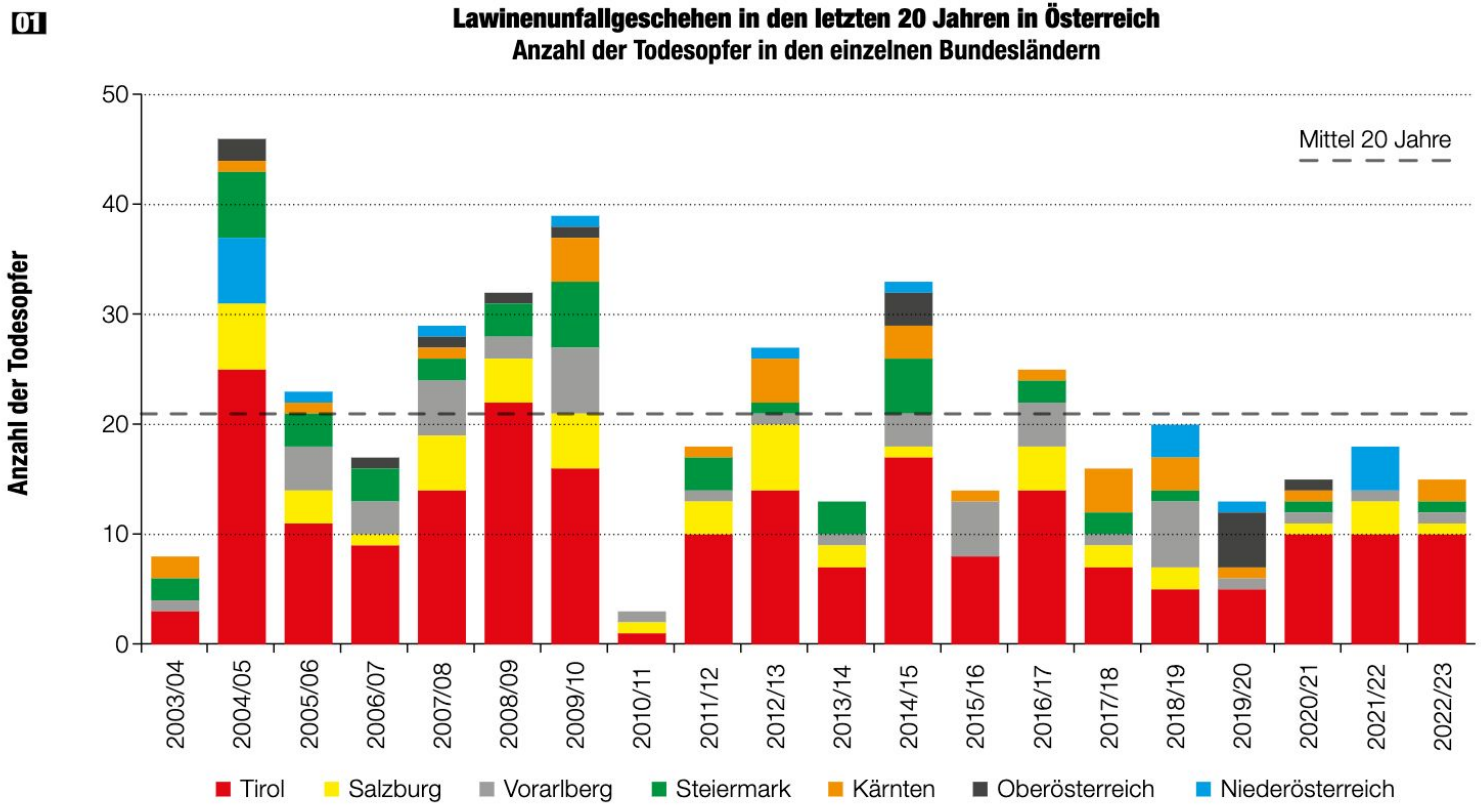
Snow, Code, and Safety: A Deep Dive into Avalanche.report

Engineering Kiosk Alps Meetup Innsbruck |
Simon Legner | 2024–01-18 |
github/simon04 | gitlab/simon04



https://static.avalanche.report/season_reports/AT-07/OeBericht_2022_2023.pdf

Avalanche.report

1. How it all started
2. European Standards
3. Boring Technology
4. Exotic Technology

Amt der Tiroler Landesregierung
Lawinenwarndienst
Abteilung III a 2

Lawinenwarndienst der Tiroler Landesregierung
Lageberich t von Donnerstag 22. Dezember 8.30 Uhr.

Die Schneefälle der letzten Tage bewirken eine mäßige Lawinengefahr in Nordtirol. Im Hochgebirge und an freien Hängen auch in Tallagen sind Lockerschneelawinen zu erwarten.
In Osttirol können durch die wesentlich ausgiebigeren Schneefälle größere Lawinen bis ins Tal abgehen. Vor Schitouren im Hochgebirge ist in Osttirol dringend abzuraten.

https://avalanche.report/more/archive?year=1960&month=12 – 1960-12-22

Landeswarnzentrale Tirol — LWD Tirol — **Lawinenwarndienst**

*** Lagebericht ***

vom Sonntag, den 14. März 1993

Allgemeines:
Gefahrenstufe 2 und 3 für Verkehrswege, Stufen 3 und 4 für Tirols Skitourengebiete.
Im Alpenraum dominiert weiter Hochdruckeinfluß. Die Berge sind großteils wolkenfrei, es ist nur schwach windig. Die Temperaturen in 2000m liegen um +1 Grad, in 3000m um -5 Grad.

Verkehrswege:
Für höhergelegene, exponierte Verkehrswege besteht eine geringe, ab dem späten Vormittag mäßige Gefahr der Selbstauslösung von Lawinen.

Tourenbereich:
Die Verhältnisse in den Tiroler Tourengebieten sind derzeit regional sehr unterschiedlich.
Die Schneebrettgefahr ist überwiegend mäßig. Auf Grund der starken Sonneneinstrahlung sinkt die Festigkeit ab den Mittagsstunden, die Lawinengefahr steigt. Sonnseitig sind auch einzelne Selbstauslösungen sowohl von Schneebrett- als auch feuchten Lockerschneelawinen möglich.

Regionale Abweichungen:
Erhebliche Schneebrettgefahr in den Kitzbüheler Alpen, im Raum Gerlos sowie allgemein in schattseitigen Steilhängen, Rinnen und Mulden. Hier ist die Verbindung des verfestigten Neuschnees mit dem teils ausgeprägten Schwimmschneeuntergrund sehr störanfällig.

Die aktuellen Wetterdaten:

Wind und Temperaturen

Zugspitze, 2960m	7 Uhr:	WNW	7 km/h	Böen:	-- km/h	T:	-8 Grad
Patscherkofel, 2247m	7 Uhr:	NNO	6 km/h	Böen:	-- km/h	T:	-5 Grad
Wendelstein, 1832m	7 Uhr:	NW	17 km/h	Böen:	-- km/h	T:	0 Grad
Sonnblick, 3106m	7 Uhr:	SSW	26 km/h	Böen:	-- km/h	T:	-9 Grad
Villacher Alpe, 2140m	7 Uhr:	WNW	19 km/h	Böen:	-- km/h	T:	-2 Grad

Den nächsten Lagebericht hören Sie im Telefontonband ab Montag, ca 8.00 Uhr

Mag. Rudi MAIR

https://avalanche.report/more/archive?year=1992&month=15 – 1993-03-14

Suche nach Zivildienst-Stellen

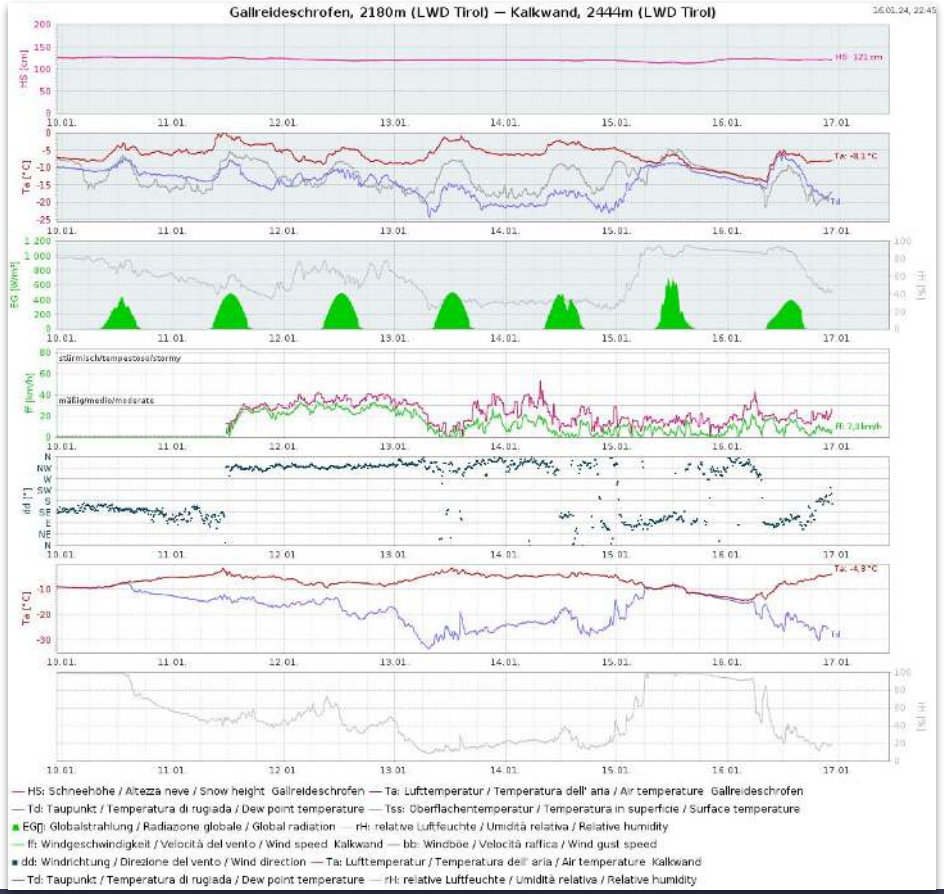
Hier können Sie nach **Einrichtungen und Antrittsterminen für das Jahr 2024** suchen. Ab Februar 2024 werden auch Antrittstermine für das Jahr 2025 online gestellt.

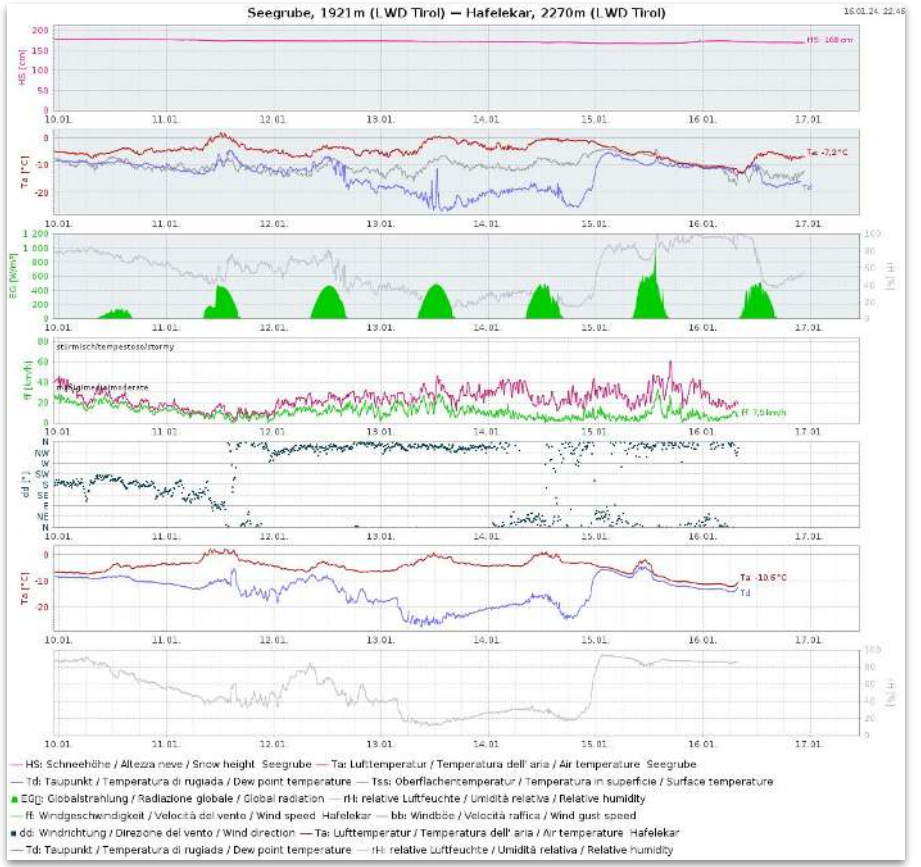
Für Suchergebnisse bitte nach unten scrollen.

Abteilung Krisen- und Gefahrenmanagement 0512/508-2252 lawine@tirol.gv.at https://www.tirol.gv.at/

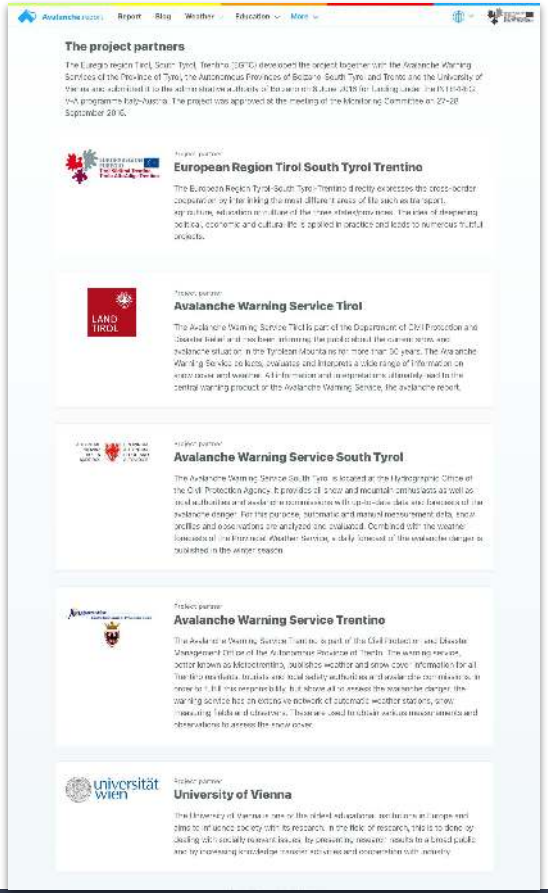
Tätigkeiten	Mithilfe bei Dokumentation eingehender Infos (zB. Datenbankbefüllung, Speichern von Schneeprofilen), bei Außendienstarbeiten (Wartung v. Wetterstationen, Materialtransport), Kontrolle d. Infoangebotes, in unterg. Ausmaß Bürodienste, Instandhaltungs- u. leichte Adaptierungsarbeiten bei Software von Wetterstationsdaten
Dienstbeginn	01.10.2024, frei: 1 Platz
Einsatzstellen	**1 Einsatzstelle** 6020 Innsbruck Wilhelm-Greil-Straße 17 Abteilung Krisen- und Gefahrenmanagement
Hinweis	Bewerbungen bitte bis zum 31. Oktober eines Jahres für Zivildienstbeginn 1. Oktober des Folgejahres
Rechtsträger	Land Tirol - Gruppe Tiroler Zentrum für Krisen- und Katastrophenmanagement

https://www.zivildienst.gv.at/zivildienst-stellen/ – 2008/2009





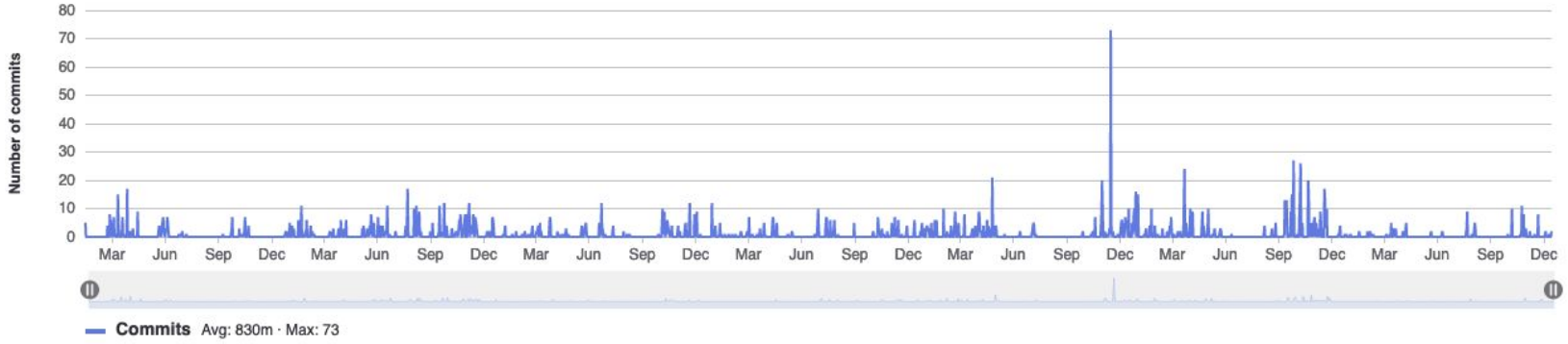
https://avalanche.report/weather/measurements – 2012 – https://tbbm.at/



https://avalanche.report/more/about |
https://www.tirol.gv.at/meldungen/meldung/startschuss-fuer-euregio-lawinenvorhersage/ – 2018-11-18

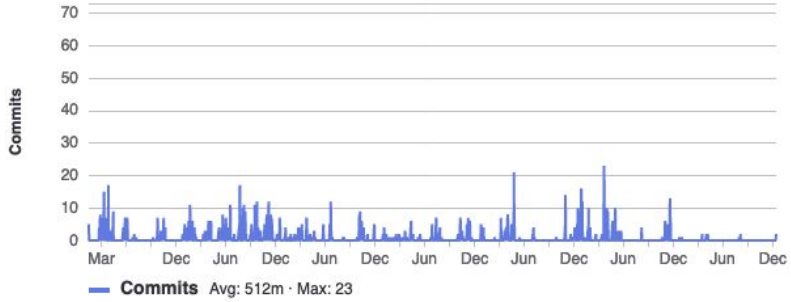
Commits to master

Excluding merge commits. Limited to 6,000 commits.



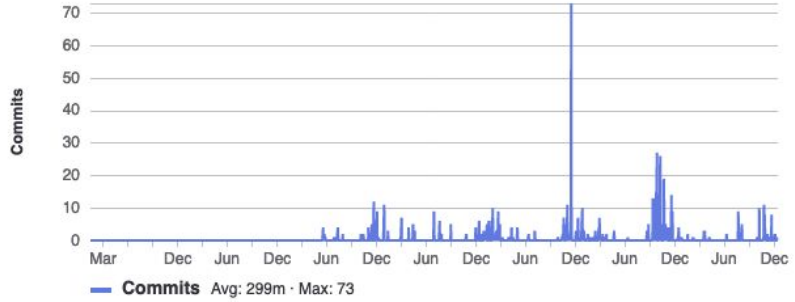
Norbert Lanzanasto

1293 commits (n.lanzanasto@gmail.com)



Simon Legner

756 commits (simon.legner@gmail.com)



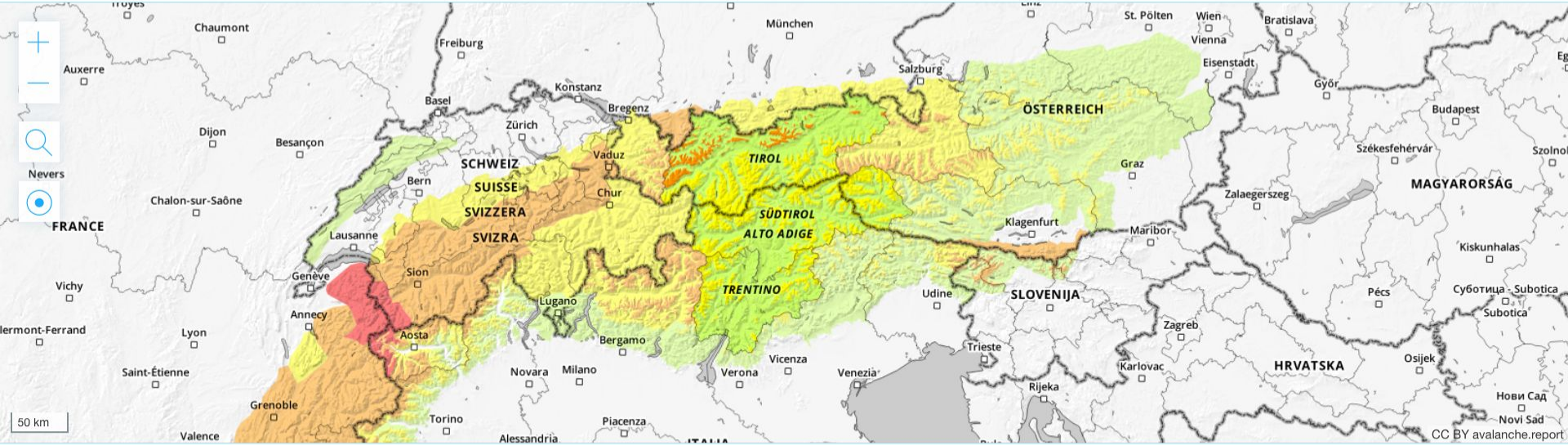
https://gitlab.com/albina-euregio/albina-server/-/graphs/master (2017–2024; 2019-06)

Thursday, 18/01/2024

⟵ 17/01/2024

Published 17/01/2024, 17:00

Archive



Highlight regions with particular **Avalanche Problem**

Danger Levels

1	2	3	4	5
low	moderate	considerable	high	very high

↑ Back to map

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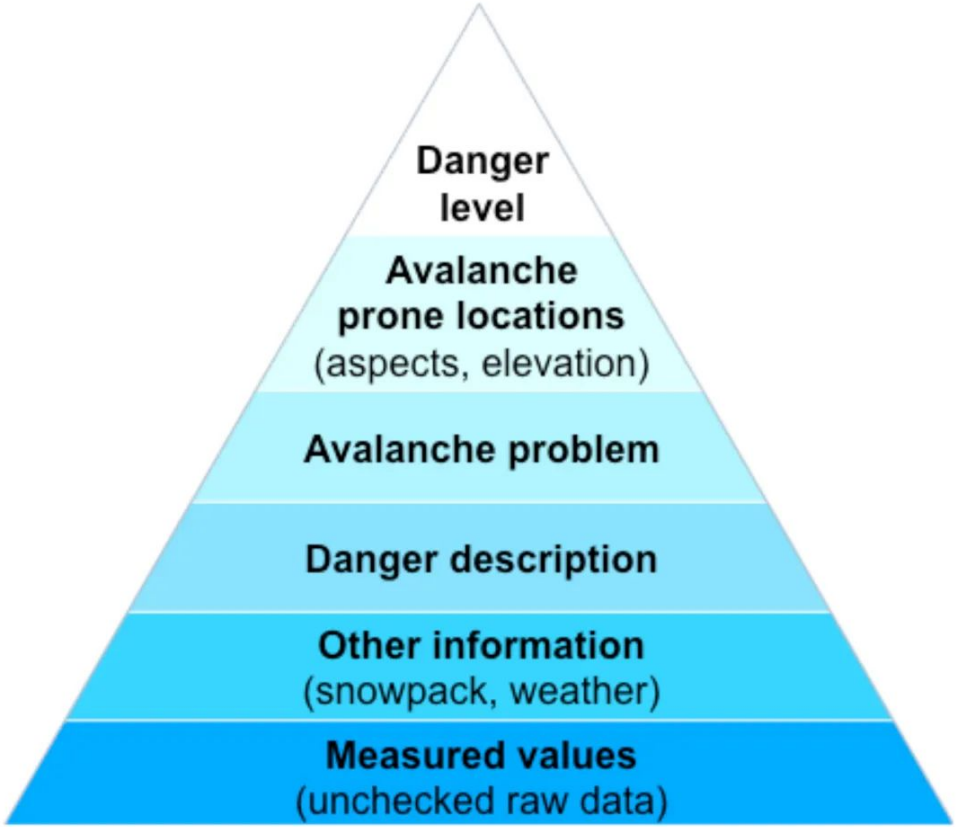
https://avalanche.report/bulletin/2024-01-18

European Standards

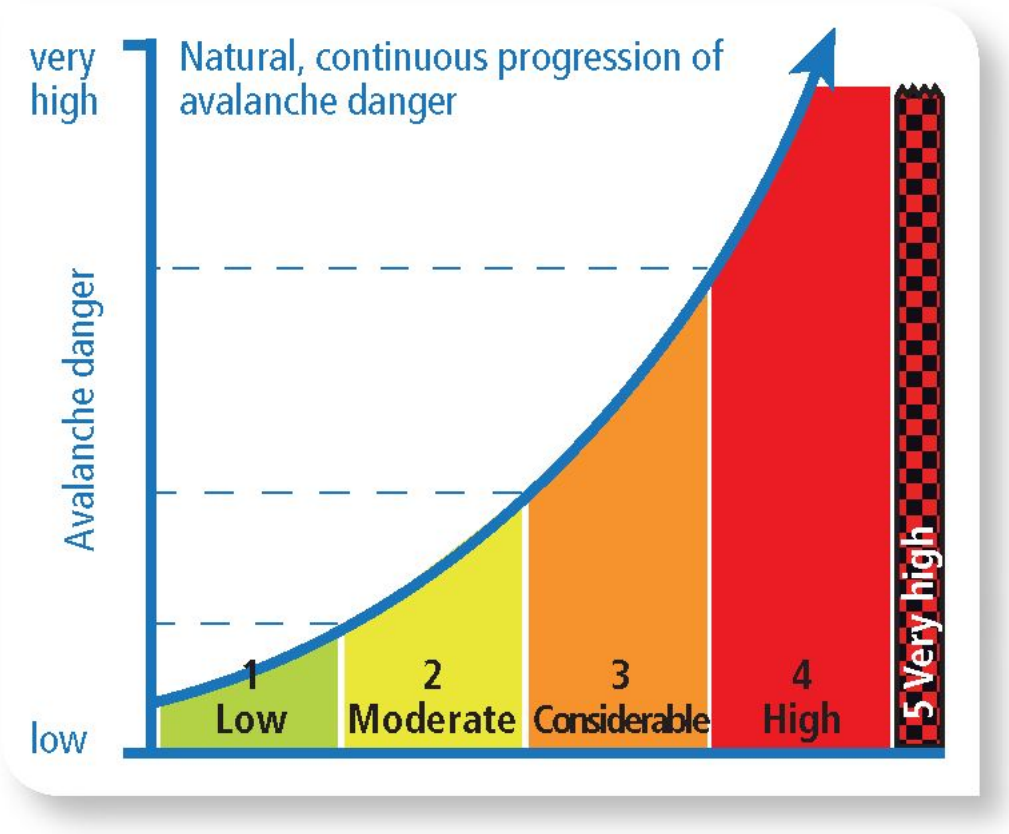
https://www.avalanches.org/eaws-general-assembly-davos-06-2022/ – 1983; 31 services



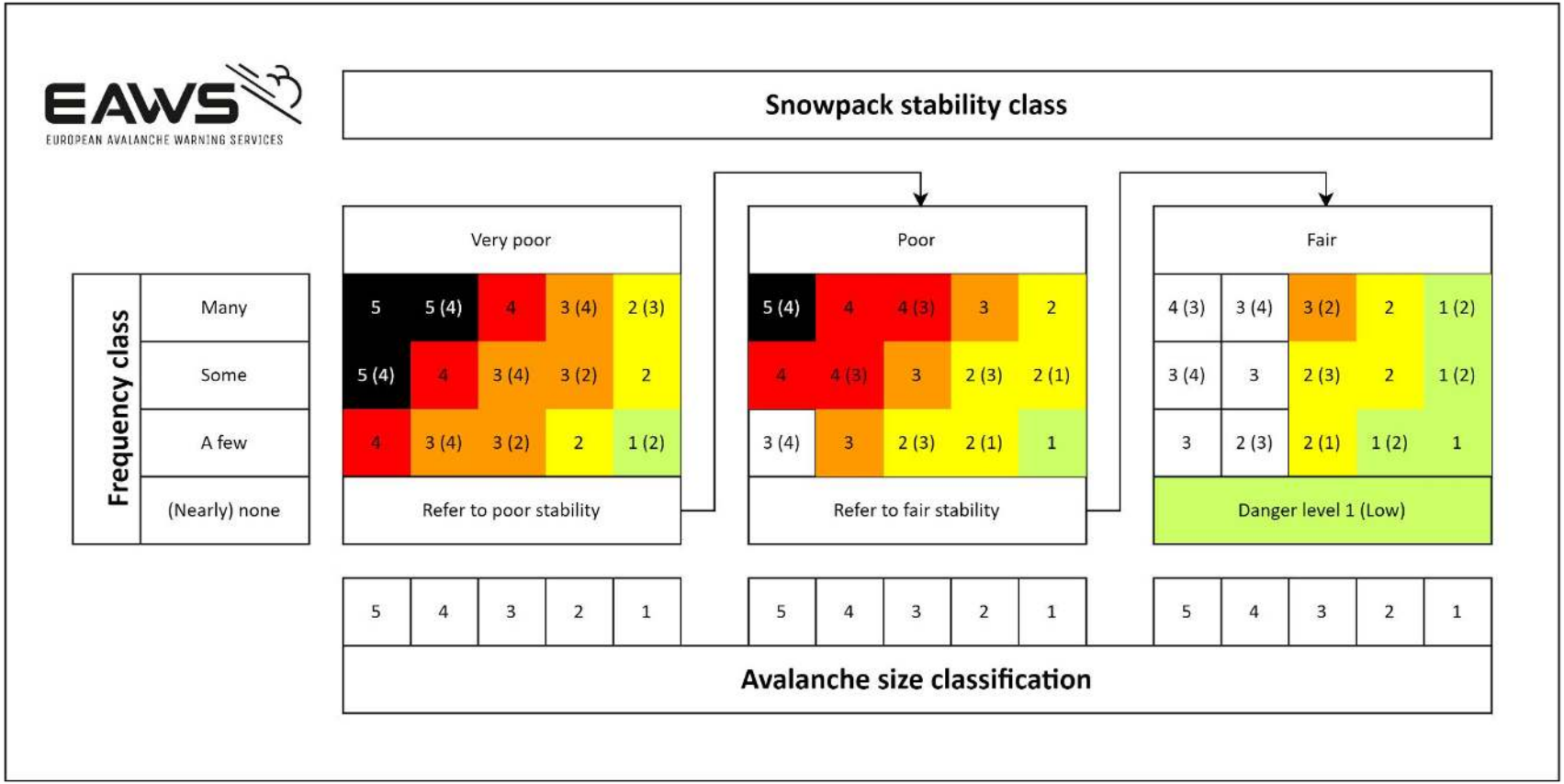
https://www.avalanches.org/standards/information-pyramid/ – inverted pyramid – 2009

European Avalanche Danger Scale (2018/19)				
	Danger level	**Icon**	**Snowpack stability**	**Likelihood of triggering**
5	very high		The snowpack is poorly bonded and largely unstable in general.	Numerous very large and often extremely large natural avalanches can be expected, even in moderately steep terrain*.
4	high		The snowpack is poorly bonded on most steep slopes*.	Triggering is likely, even from low additional loads**, on many steep slopes*. In some cases, numerous large and often very large natural avalanches can be expected.
3	considerable		The snowpack is moderately to poorly bonded on many steep slopes*.	Triggering is possible, even from low additional loads**, particularly on the indicated steep slopes*. In certain situations some large, and in isolated cases very large natural avalanches are possible.
2	moderate		The snowpack is only moderately well bonded on some steep slopes*; otherwise well bonded in general.	Triggering is possible, primarily from high additional loads**, particularly on the indicated steep slopes*. Very large natural avalanches are unlikely.
1	low		The snowpack is well bonded and stable in general.	Triggering is generally possible only from high additional loads** in isolated areas of very steep, extreme terrain*. Only small and medium natural avalanches are possible.

https://www.avalanches.org/standards/avalanche-danger-scale/ – 1993



https://www.avalanches.org/education/avalanche-danger-scale-2/



https://avalanche.report/education/matrix – 2003/2022

Snowpack stability classes

Stability class	How easy is it to trigger an avalanche?
very poor	natural / very easy to trigger
poor	easy to trigger (e.g., a single skier)
fair	difficult to trigger (e.g., explosives)
good	stable conditions

Frequency classes

Frequency class	Description	Evidence (e.g., observations)
many	Points with this stability class are abundant.	Evidence for instability is often easy to find.
some	Points with this stability class are neither many nor a few, but these points typically exist in terrain features with common characteristics (i.e., close to ridgelines, in gullies).	
a few	Points with this stability class are rare. While rare, their number is considered relevant for stability assessment.	Evidence for instability is hard to find.
none or nearly none	Points with this stability class do not exist, or they are so rare that they are not considered relevant for stability assessment.	

Avalanche size classes

Size	Name	Destructive potential
1	Small	Unlikely to bury a person, except in run out zones with unfavorable terrain features (e.g., terrain traps).
2	Medium	May bury, injure, or kill a person.
3	Large	May bury and destroy cars, damage trucks, destroy small buildings and break a few trees.
4	Very large	May bury and destroy trucks and trains. May destroy fairly large buildings and small areas of forest.
5	Extreme	May devastate the landscape and has catastrophic destructive potential.

https://avalanche.report/education/matrix

AVALANCHE SIZE 1

SMALL AVALANCHE (SLUFF)

POTENTIAL DAMAGE

- Unlikely to bury a person, except in run out zones with unfavourable terrain features (e.g. terrain traps)
- In extremely steep terrain, the danger of deep falls prevails the danger of burials.

RUN OUT

- Stops within steep slopes.

TYPICAL DIMENSIONS

- Length: 10-30 m
- Volume: 100 m³

https://www.avalanches.org/standards/avalanche-size/

AVALANCHE SIZE 2

MEDIUM AVALANCHE

POTENTIAL DAMAGE

- May bury, injure or kill a person
- Size 2 corresponds to the typical skier-triggered avalanche

RUN OUT

- May reach the end of the relevant steep slope

TYPICAL DIMENSIONS

- Length: 50-200 m
- Volume: 1'000 m³

https://www.avalanches.org/standards/avalanche-size/

AVALANCHE SIZE 3

LARGE AVALANCHE

POTENTIAL DAMAGE

- May bury and destroy cars, damage trucks, destroy small buildings and break a few trees.
- When skiers are caught by avalanches of this size, probability for severe consequences are very high.

RUN OUT

- May cross flat terrain (well below 30°) over a distance of less than 50 m

TYPICAL DIMENSIONS

- Length: several 100 m
- Volume: 10'000 m³

https://www.avalanches.org/standards/avalanche-size/

AVALANCHE SIZE 4

VERY LARGE AVALANCHE

POTENTIAL DAMAGE

- May bury and destroy trucks and trains
- May destroy fairly large buildings and small areas of forest.
- Very large avalanches may occur at danger level 3-Considerable and are typical during periods with danger levels 4-High and 5-Very High.

RUN OUT

- Crosses flat terrain (well below 30°) over a distance of more than 50 m
- May reach the valley floor

TYPICAL DIMENSIONS

- Length: 1-2 km
- Volume: 100'000 m³

https://www.avalanches.org/standards/avalanche-size/

AVALANCHE SIZE 5

EXTREMELY LARGE AVALANCHE

POTENTIAL DAMAGE

- May devastate the landscape and has catastrophic destructive potential
- Typical for danger level 5-Very High

RUN OUT

- Reaches the valley floor
- Largest known avalanche

TYPICAL DIMENSIONS

- Length: > 2 km
- Volume: > 100’000 m³

https://www.avalanches.org/standards/avalanche-size/

https://avalanche.report/education/avalanche-problems – 2015

https://avalanche.report/education/avalanche-problems – 2015

NEW SNOW	WIND SLAB	PERSISTENT WEAK LAYERS	WET SNOW	GLIDING SNOW

https://avalanche.report/education/avalanche-problems – 2015

Boring Technology

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Version 3, 29 June 2007

Preamble

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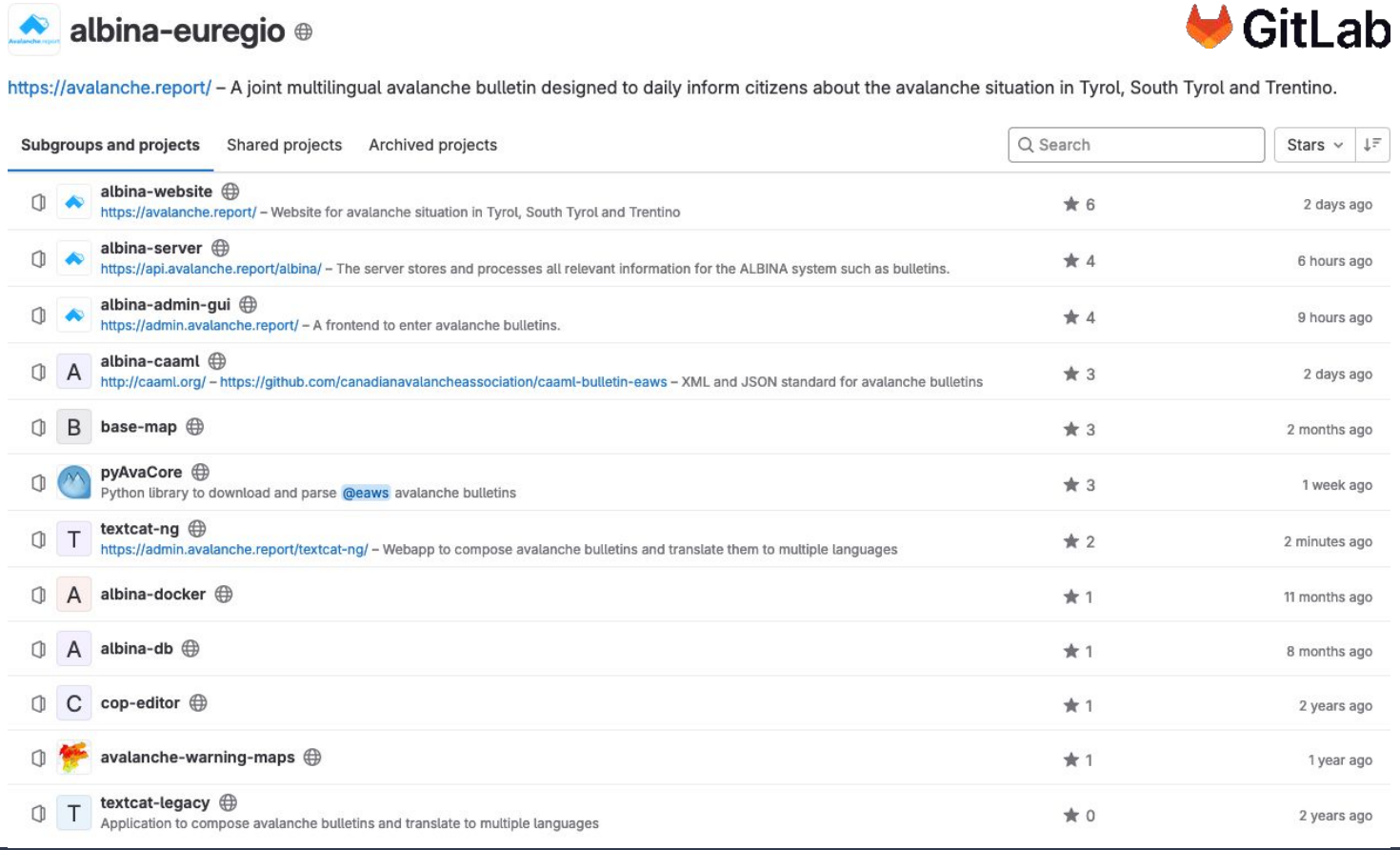
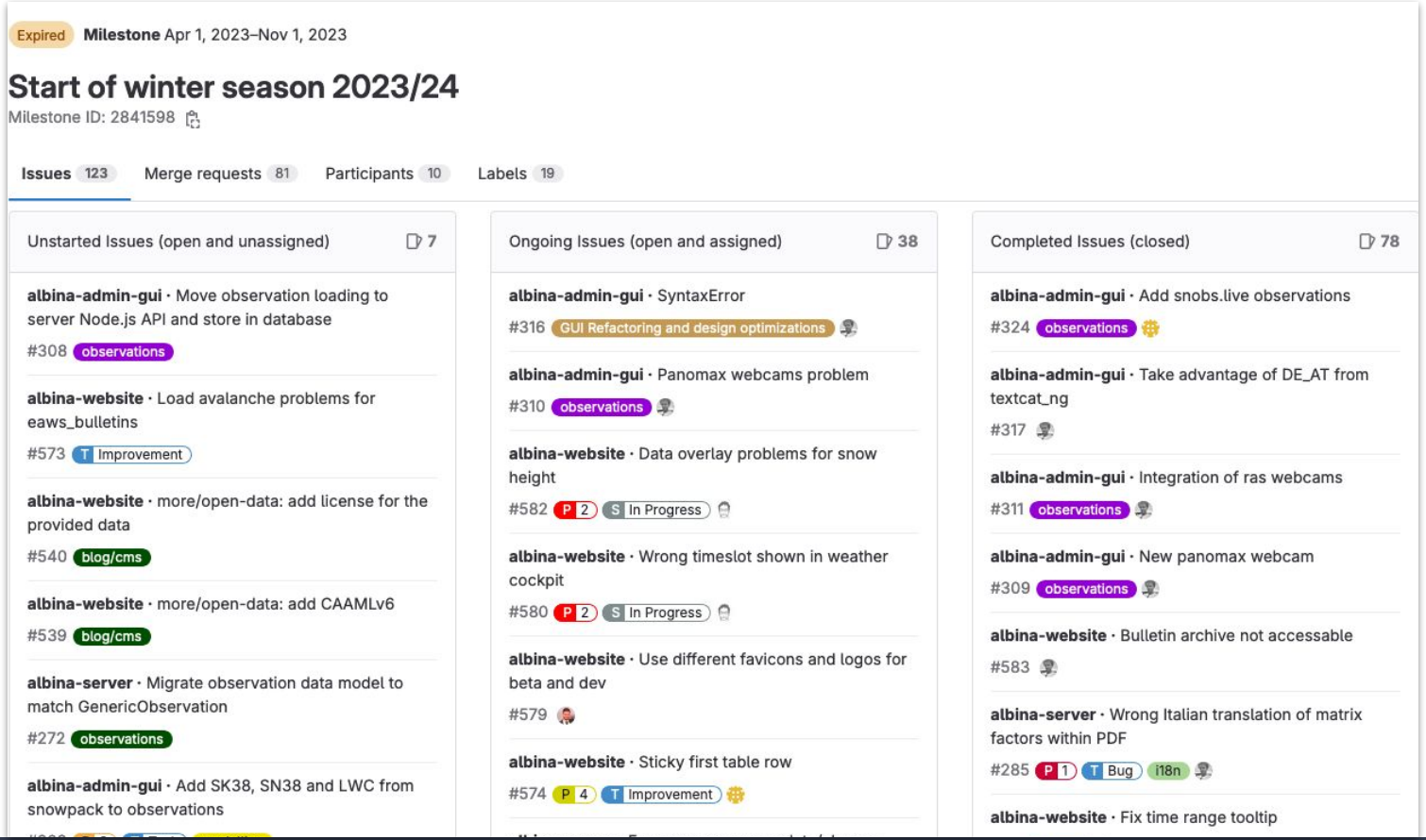
https://gitlab.com/albina-euregio/albina-website/-/blob/master/LICENSE



https://gitlab.com/albina-euregio



https://gitlab.com/groups/albina-euregio/-/milestones/10

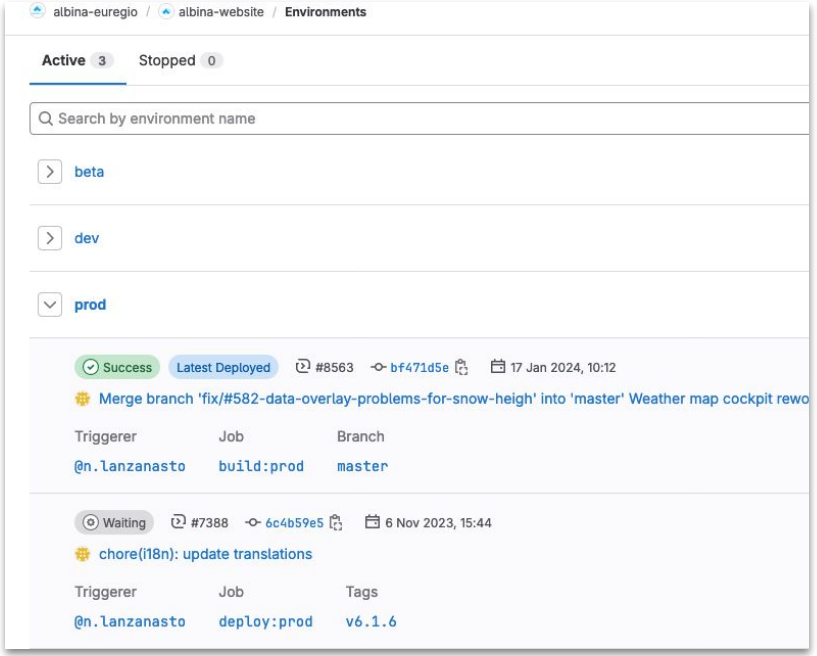
```yaml
stages:
  - build
  - deploy

.build:
  image: node:18
  stage: build
  before_script:
    - yarn install --frozen-lockfile --no-progress
  script:
    - yarn test
    - yarn build-$CI_ENVIRONMENT_NAME
  artifacts:
    paths:
      - dist/

build:beta:
  extends: .build
  environment:
    name: beta
```

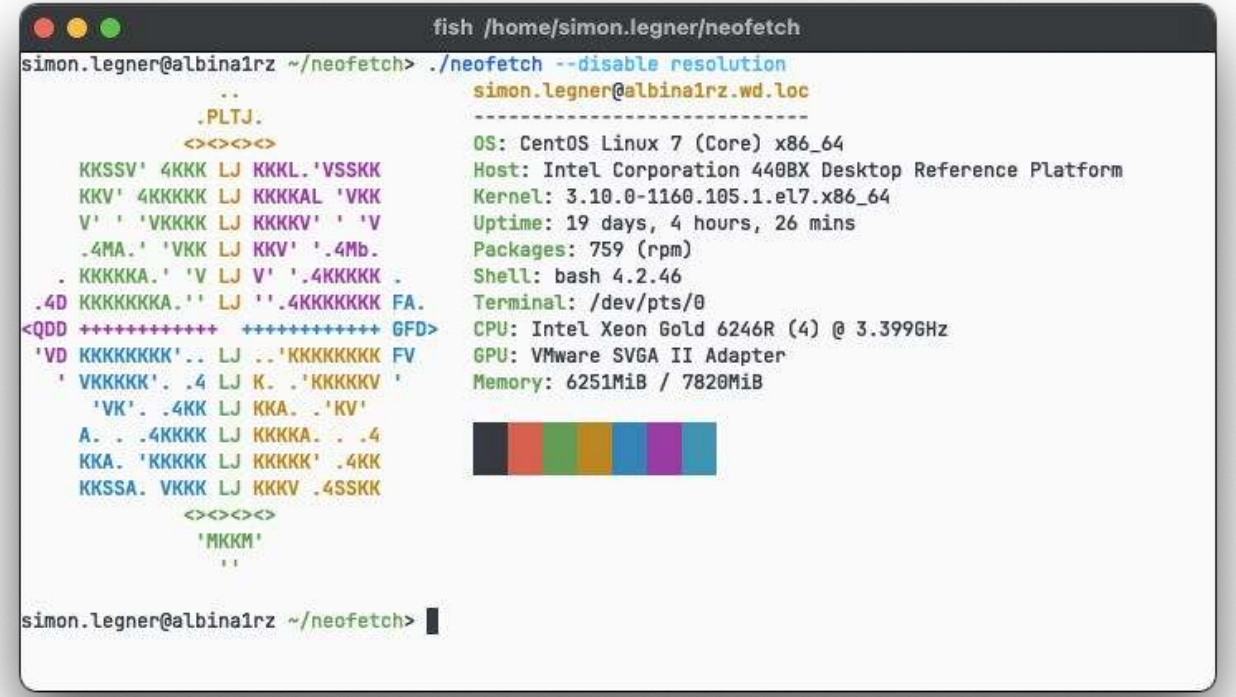
```yaml
.deploy:
  stage: deploy
  image: alpine:latest
  script:
    - apk add openssh-client rsync
    - eval $(ssh-agent -s)
    - echo "$SSH_PRIVATE_KEY" | tr -d '\r' | ssh-add - > /dev/null
    - mkdir -p ~/.ssh && chmod 700 ~/.ssh
    - echo "$SSH_KNOWN_HOSTS" > ~/.ssh/known_hosts
    - rsync -avz -e 'ssh -p2201' --delete dist/ $SFTP_SERVER

deploy:beta:
  extends: .deploy
  environment:
    name: beta
  needs:
    - build:beta
  only:
    - master
```

https://gitlab.com/albina-euregio/albina-website/-/blob/master/.gitlab-ci.yml

GitLab CI + GitLab Ultimate :-)

- /dev/ – git master + development data
- /beta/ – git master + production data
- / – git tag + production data





CentOS Linux 7.9.2009 (EOL 2024-06-30)

albina-euregio

- www.avalanche.report – albina-website
- admin.avalanche.report – albina-admin-gui
- admin.avalanche.report – textcat-ng
- api.avalanche.report – albina-server
- blog.avalanche.report – WordPress

- No cookies
- MariaDB database
- Caddy web server
- Website serves static content only

albina-website

- React 18
- Leaflet 1.9
- TypeScript
- Prettier
- Vite
- Sass
- I18n: ca, de, en, es, fr, it, oc

Grad de perilh per **Saturday, 06/01/2024**

Grad de perilh 2 – moderat

Limit deth bòsc

Tendencia: Perilh de lauegi en tot aumentar
en Sunday, 07/01/2024

Límit deth bòsc

Estabilitat deth celh de nhèu: **Praube**
Frecuéncia: **quauqui**
Mida de lauet: **mejan**

En cors dera jornada leugèr aument deth perilh de lauegi. Eth problèma de nhèu ventada recenta requerís atencion.

Damb era nhèu recenta e eth vent en aument progressiu , pendent era tarde , per dessús deth límit deth bòsc se formaràn plaques de vent a viatges inestables. Precaucion sustot apròp des crestes enes conques, canaus e ath darrèr de cambis abruptes de pendent. Es endrets perilhosi son de mau reconéisher damb pòga visibilitat.

Ath delà i a un perilh latent de lauegi d'esguitlament basau, especiaument enes pales arribentes orientades a èst, sud e oèst per dejós des 2600 m aproximativament. Es lauegi d'esguitlament basau son de manèra isolada en generau de mida grana. Açò se da enes sectors damb fòrça nhèu. Precaucion enes zònes damb henerècles d'esguitlament basau.

Celh de nhèu

Patrons de perilh pp.6: nhèu heireda, sense coesion e vent | pp.2: esguitlament basau de nhèu

En ua zòna grana queiràn de 10 a 30 cm de nhèu. Tarde: En quauqui sectors eth vent serà moderat. Es plaques de vent mès recentes repòsen ath dessús de coches trendes en altitud. Aguestes en quauqui casi se pòden desencadenar damb facilitat.

Era nhèu recenta se depositarà locaument ath dessús de gibra de superficia apròp deth límit deth bòsc. Era nhèu recenta des darrèri dies arrepòse ath dessús d'ua crosta en totes es orientacions per dejós des 2600 m aproximativament. Eth mantèth de nhèu vielh ei estable en fòrça endrets.

Tendéncia

A conseqüéncia dera nhèu recenta e eth vent, aument deth perilh de lauegi. Enquia dimenge queiràn en una àrea extensa de 20 a 40 cm de nhèu per dessús des 1000 m aproximativament, locaument mès. Es naues acumulacions de nhèu ventada se pòden desencadenar damb facilitat.

Grado de Peligro para **sábado, 6/1/2024**

Grado de Peligro 2 – limitado

Límite superior del bosque

Tendencia: Grado de Peligro en aumento
en domingo, 7/1/2024

Límite superior del bosque

Estabilidad del manto nivoso: **pobre**
Frecuencia: **algunos**
Tamaño de alud: **mediana**

En el transcurso de la jornada ligero aumento del peligro de aludes. El problema de nieve venteada reciente requiere atención.

Durante la tarde , con la nieve reciente y el viento en aumento progresivo , se formarán placas de viento en algunos casos inestables por encima del límite del bosque. Precaución sobre todo cerca de los cordales en las cubetas, canales y detrás de los cambios abruptos de pendiente. Los lugares peligrosos son resultan difíciles de reconocer con poca visibilidad.

Además hay un peligro latente de aludes de deslizamiento basal, especialmente en las laderas inclinadas orientadas a este, sur y oeste por debajo de los 2600 m aproximadamente. Los aludes de deslizamiento basal son de manera aislada de tamaño en general grande. Esto se da en los sectores con mucha nieve. Precaución en las zonas con grietas de deslizamiento basal.

Manto nivoso

Patrones de Peligro pp.6: frío, nieve suelta y viento | pp.2: aludes de deslizamiento

En una zona amplia caerán de 10 a 30 cm de nieve. Tarde: El viento soplará moderado en algunos sectores. Las placas de viento más recientes descansan encima de capas blandas en altitud. Estas en algunos casos pueden desencadenarse fácilmente.

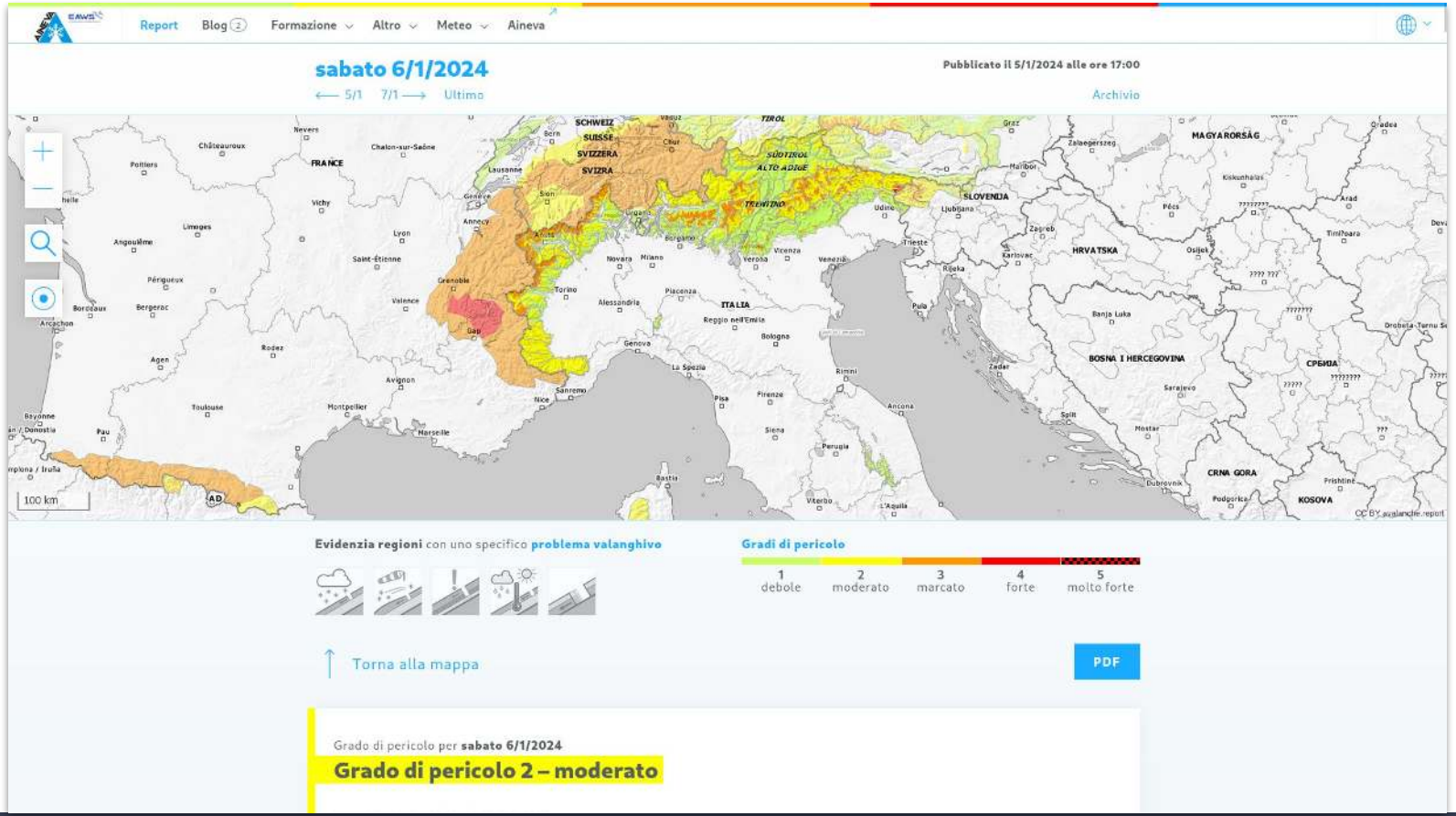
La nieve reciente se depositará localmente encima de escarcha de superficie cerca del límite del bosque. La nieve reciente de los últimos días descansa encima de una costra en todas las orientaciones por debajo de los 2600 m aproximadamente. El manto de nieve antiguo es estable en muchos lugares.

Tendencia

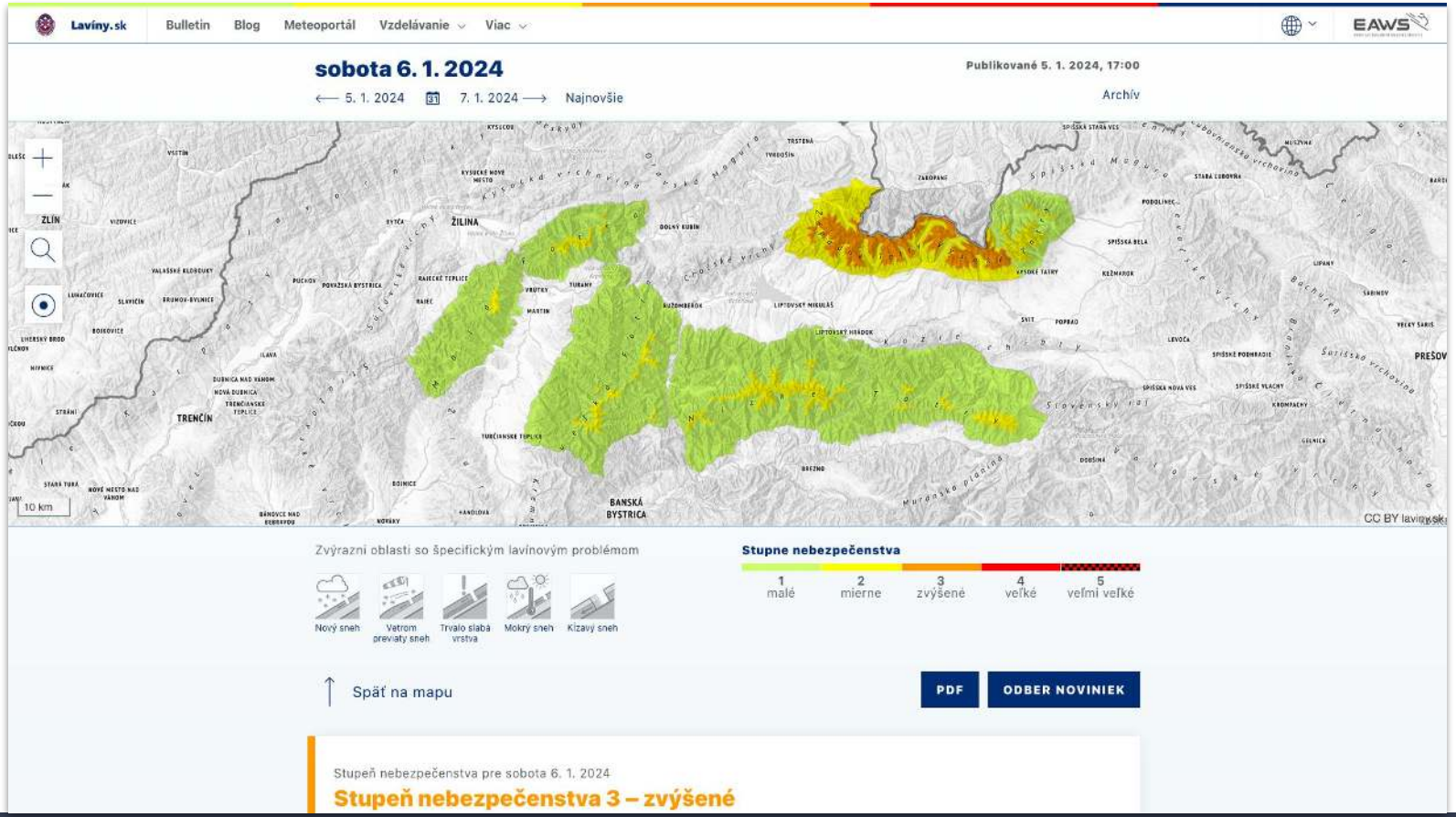
A consecuencia de la nieve reciente y el viento, aumento del peligro de aludes. Hasta el domingo caerán en una zona extensa de 20 a 40 cm de nieve por encima de los 1000 m aproximadamente, localmente más. Las nuevas acumulaciones de nieve venteada pueden desencadenarse fácilmente.

https://oc.avalanche.report/bulletin/2024-01-06 | https://valanghe.report/bulletin/2024-01-06

https://lauegi.report/bulletin/2024-01-06 | https://gitlab.com/maladetastudio/lau-gi/albina-website



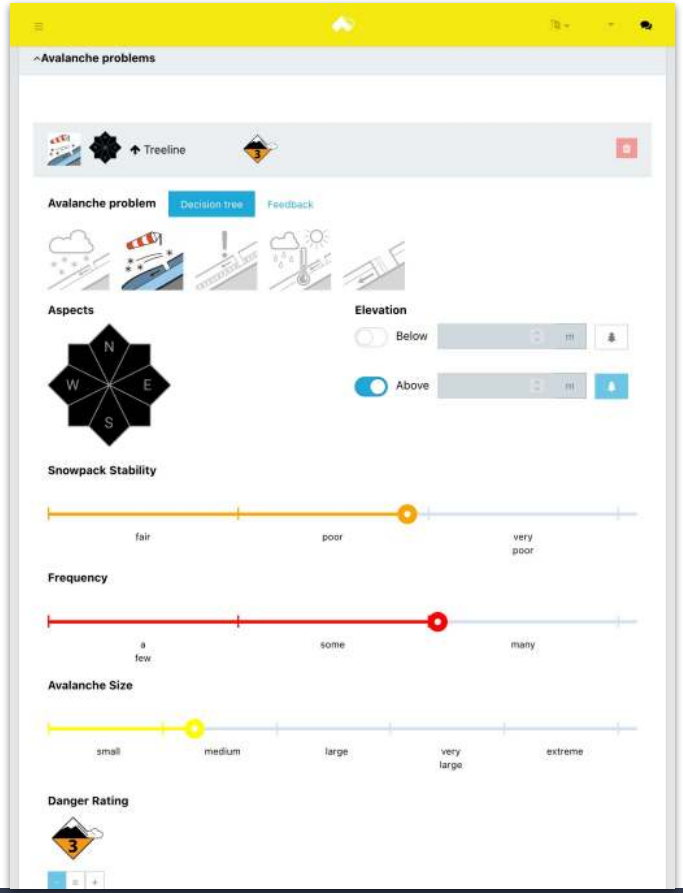
https://bollettini-it.aineva.it/bulletin/2024-01-06 | https://gitlab.com/aineva/albina-web-site-test

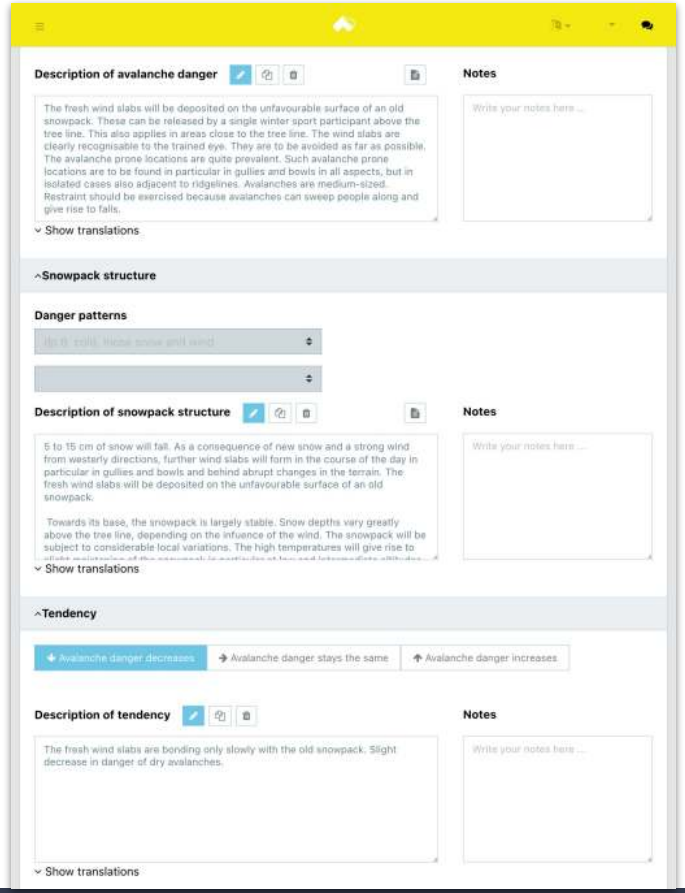


https://laviny.sk/bulletin/2024-01-06 | https://gitlab.com/hzs-sk/albina-website

albina-admin-gui

- Angular 17 :-(
  - @angular-devkit/build-angular
  - @angular-eslint/builder
  - @angular-eslint/eslint-plugin
  - @angular-eslint/eslint-plugin-template
  - @angular-eslint/schematics
  - @angular-eslint/template-parser
  - @angular/animations
  - @angular/cdk
  - @angular/cli
  - @angular/common
  - @angular/compiler
  - @angular/compiler-cli
  - @angular/core
  - @angular/forms
  - @angular/material
  - @angular/platform-browser
  - @angular/platform-browser-dynamic
  - @angular/router
  - @angular/upgrade
- ngx-bootstrap + @angular/material + primeng



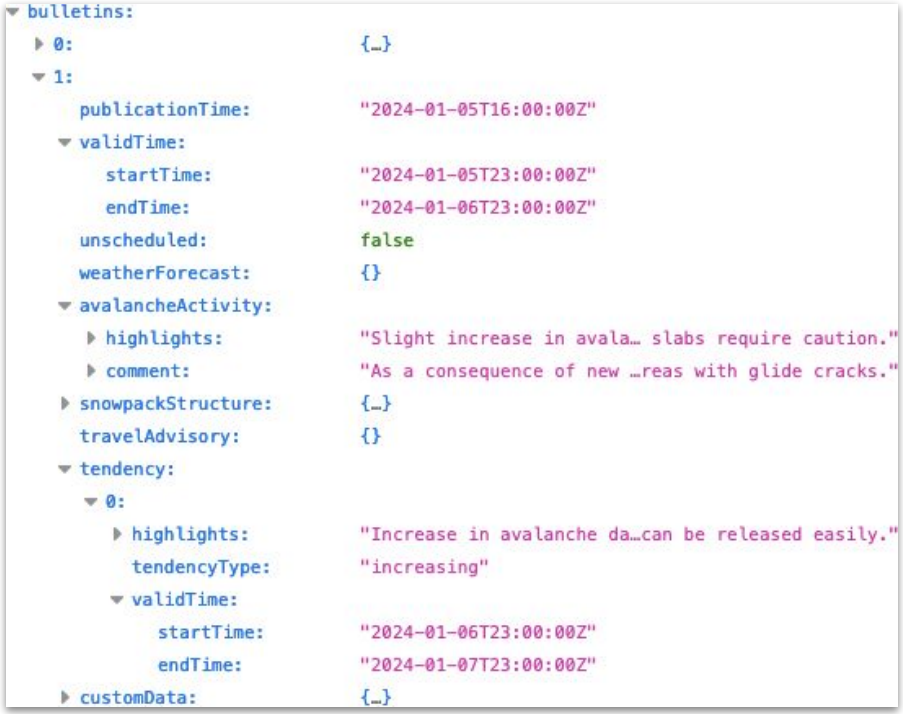


https://admin.avalanche.report/#/bulletins/new

albina-server

- Java 11
- Maven
- Tomcat 8.5 + Jersey 2
- MariaDB 5.5 + Hibernate 5
- Log4j 2.20
- Guava 30
- iText 7
- Mapyrus
- OpenAPI

- CAAML
- Email
- Telegram
- Web Push



https://static.avalanche.report/bulletins/2024-01-06/2024-01-06_EUREGIO_en_CAAMLv6.json

CAAML V6.0 Profile - Bulletin EAWS

CAAML / Bulletin EAWS

Introduction

The CAAML V6.0 Profile 'EAWS Bulletin' aims to facilitate the exchange of avalanche bulletin information among the European Avalanche Warning Services.

Status

Current Standard (published Jul. 28, 2023)

Other Versions

Previous version: 5.0
Next version: n/a

Available Files

Schema files

- XML: CAAMLv6_BulletinEAWS.xsd
- JSON: CAAMLv6_BulletinEAWS.json

Example files

- XML: 2019-01-16_avalanche_report_en.xml
- JSON: 2022-03-03_avalanche_report_en.json

http://caaml.org/Schemas/BulletinEAWS/

Exotic Technology

```ssml
<speak>
  <par>
    <media repeatCount="1" fadeOutDur="10s" end="10s">
      <audio src="https://storage.googleapis.com/avalnache-podcast-audio/intro_0_1.mp3"></audio>
    </media>
    <media begin="+5s">
      <s>Lawinenreport für Sonntag, den 03. Dezember </s>
      <p>
        <emphasis level="strong">
          <s>Nach einer langen Schlechtwetterperiode ist an diesem ersten sonnigen Tag Zurückhaltung angebr
        </emphasis>
      </p>
      <break time="1s" strength="strong"></break>
      <p>
        <emphasis level="strong">
          <s>
            Über 2000 Metern gilt große Lawinengefahr, also Gefahrenstufe 4, darunter erhebliche Lawinenge
          </s>
        </emphasis>
      </p>
      <break time="1s" strength="strong"></break>
      <p>
        <s>Über 2000 Metern müssen wir auf ein Altschneeproblem achten. Dies in allen Expositionen.
        </s>
        <s>Des Weiteren, Über der Waldgrenze müssen wir auf ein Neuschneeproblem achten. Dies in allen Expositionen.
        </s>
        <s>Des Weiteren, Unter 2400 Metern erwartet uns ein Gleitschneeproblem . Dies in allen Expositionen.
        </s>
      </p>
      <break time="1s" strength="strong"></break>
      <s>Achtung, eine spezielle Warnung: Die Verhältnisse für Schneesport abseits gesicherter Pisten sind kritisch.</s>
      <p>Wintersportler können sehr leicht Lawinen auslösen, auch große. Dies vor allem an steilen Hängen oberhalb der Waldgrenze sowie im Bereich der Waldgrenze.
      <break time="1s" strength="strong"></break>
      <p>
        <s>Und nun zur Schneedecke: </s>
      </p>
      <p>Es fielen verbreitet 30 bis 50 cm Schnee, lokal bis zu 80 cm. <break time="1s"/> Viel Neuschnee und Triebschnee überlagern eine schwache Altschneedecke.
        <s> Wir findenGefahrenmuster 4: kalt auf warm / warm auf kalt, Gefahrenmuster 2: Gleitschnee,
        </s>
      </p>
```

https://engineeringkiosk.dev/meetup/alps/slides/2312-christoph-stanger-automating-avalanche-reports.pdf

Fresh wind slabs represent the main danger.

The fresh wind slabs will be deposited on the unfavourable surface of an old snowpack. These can be released by a single winter sport participant above the tree line. This also applies in areas close to the tree line. The wind slabs are clearly recognisable to the trained eye. They are to be avoided as far as possible. The avalanche prone locations are quite prevalent. Such avalanche prone locations are to be found in particular in gullies and bowls in all aspects, but in isolated cases also adjacent to ridgelines. Avalanches are medium-sized. Restraint should be exercised because avalanches can sweep people along and give rise to falls.

In addition further individual gliding avalanches are possible, in particular on steep east, south and west facing slopes below approximately 2600 m. In isolated cases the gliding avalanches are quite large, in particular in the regions with a lot of snow. Areas with glide cracks are to be avoided.

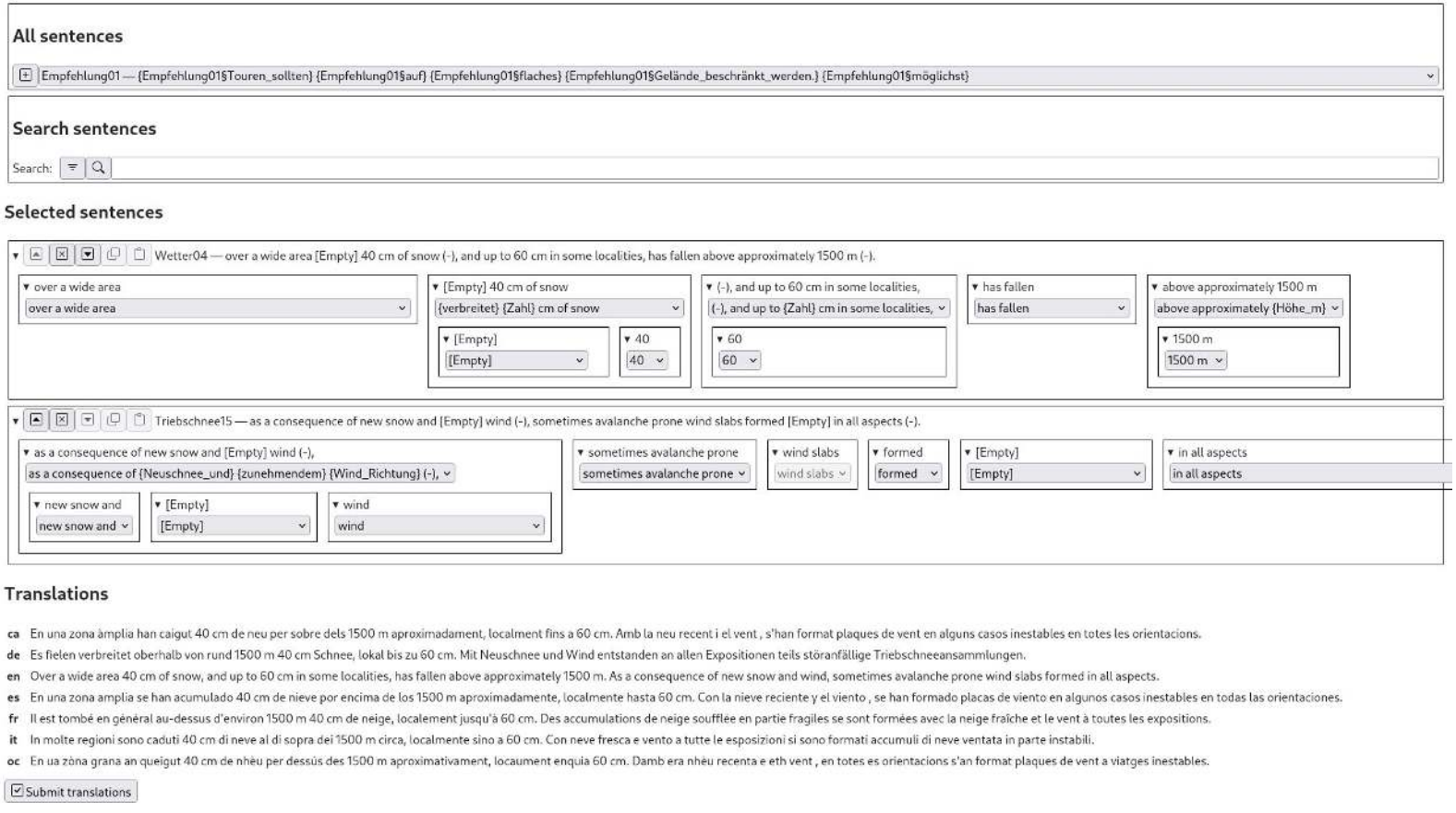
Snowpack

Danger Patterns dp.6: cold, loose snow and wind

5 to 15 cm of snow will fall. As a consequence of new snow and a strong wind from westerly directions, further wind slabs will form in the course of the day in particular in gullies and bowls and behind abrupt changes in the terrain. The fresh wind slabs will be deposited on the unfavourable surface of an old snowpack.

Towards its base, the snowpack is largely stable. Snow depths vary greatly above the tree line, depending on the infuence of the wind. The snowpack will be subject to considerable local variations. The high temperatures will give rise to slight moistening of the snowpack in particular at low and intermediate altitudes.

https://avalanche.report/bulletin/2024-01-18



https://gitlab.com/albina-euregio/textcat-ng

```
ST_Header: Wetter04
ST_CurlyName: Wetter04
PA_Pos: 1
PA_PosGerman: 2
RS_CurlyName: Gebiet0
PA_Pos: 2
PA_PosGerman: 4
RS_CurlyName: Wetter04§wieviel_Schnee
PA_Pos: 3
PA_PosGerman: 5
RS_CurlyName: Wetter04§lokal_mehr.
PA_Pos: 4
PA_PosGerman: 1
RS_CurlyName: Wetter04§Es_fielen
PA_Pos: 5
PA_PosGerman: 3
RS_CurlyName: oberhalb_von_Höhe_optional
PA_Pos: 6
PA_PosGerman: 0
RS_CurlyName: Punkt
```

```
RS_Header: Gebiet0
RS_CurlyName: Gebiet0
Line: [Empty]
Line: {vor_allem} in {Exposition} {und_im_Exposition}
Line: {vor_allem} {im_Gebiet} {im_Gebiet2_optional} {und_im_Gebiet}
Line: {vor_allem} {vom_Gebiet} {über_das_Gebiet} {zum_Gebiet}
Line: {vor_allem} in the regions {des_Nordens} exposed to the foehn
Line: over a wide area
Line: in some localities
Line: in some regions
```

```
RS_Header: im_Gebiet
RS_CurlyName: im_Gebiet
Line: in all regions
Line: in the other regions
Line: in the regions {des_Nordens} that are exposed to the foehn wind
Line: along the border {zu_Italien}
Line: in neighbouring regions
Line: in the regions neighbouring those that are subject to danger level 1 (low)
Line: in the regions neighbouring those that are subject to danger level 2 (moderate)
Line: in the regions neighbouring those that are subject to danger level 3 (considerable)
Line: in the regions neighbouring those that are subject to danger level 4 (high)
Line: in the regions neighbouring those that are subject to danger level 5 (very high)
Begin: Switzerland
Line: on the northern flank of the Alps {ohne_Voralpen}
Line: in the western part of the northern flank of the Alps {ohne_Voralpen}
Line: in the western and central parts of the northern flank of the Alps {ohne_Voralpen}
Line: in the central part of the northern flank of the Alps {ohne_Voralpen}
Line: in the central and eastern parts of the northern flank of the Alps {ohne_Voralpen}
Line: in the eastern part of the northern flank of the Alps {ohne_Voralpen}
Line: on the northern flank of the Alps {östlich} {Ort_ANH}
Line: on the northern flank of the Alps {von_Ort_ANH} {bis_Ort_ANH}
Line: in the Prealps
Line: in the western Prealps
Line: in the western and central Prealps
Line: in the central Prealps
Line: in the central and eastern Prealps
Line: in the eastern Prealps
Line: on the northern Alpine ridge
Line: on the northern Alpine ridge {östlich} {Ort_NAK}
Line: on the northern Alpine ridge {von_Ort_NAK} {bis_Ort_NAK}
```

https://gitlab.com/albina-euregio/textcat-ng – 132 sentences; 21k lines of text; 7 languages

Fresh wind slabs represent the main danger.

The fresh wind slabs will be deposited on the unfavourable surface of an old snowpack. These can be released by a single winter sport participant above the tree line. This also applies in areas close to the tree line. The wind slabs are clearly recognisable to the trained eye. They are to be avoided as far as poss ons are quite prevalent. Such avalanche prone locations are to be found in particular in gullies solated cases also adjacent to ridgelines. Avalanches are medium-sized. Restraint shoul hes can sweep people along and give rise to falls.

In addition further individual gliding avalanches are possible, in partic st facing slopes below approximately 2600 m. In isolated cases the gliding avalanches are c ions with a lot of snow. Areas with glide cracks are to be avoided.

Tree line

The border of a forest, e.g. in the alps a maximum of 2.400m (Zermatt) the Pyrenees of Catalonia at 2400m, in SW Poland at 1600m.

(Source: EAWS ↗)

Snowpack

Danger Patterns dp.6: cold, loose snow and wind

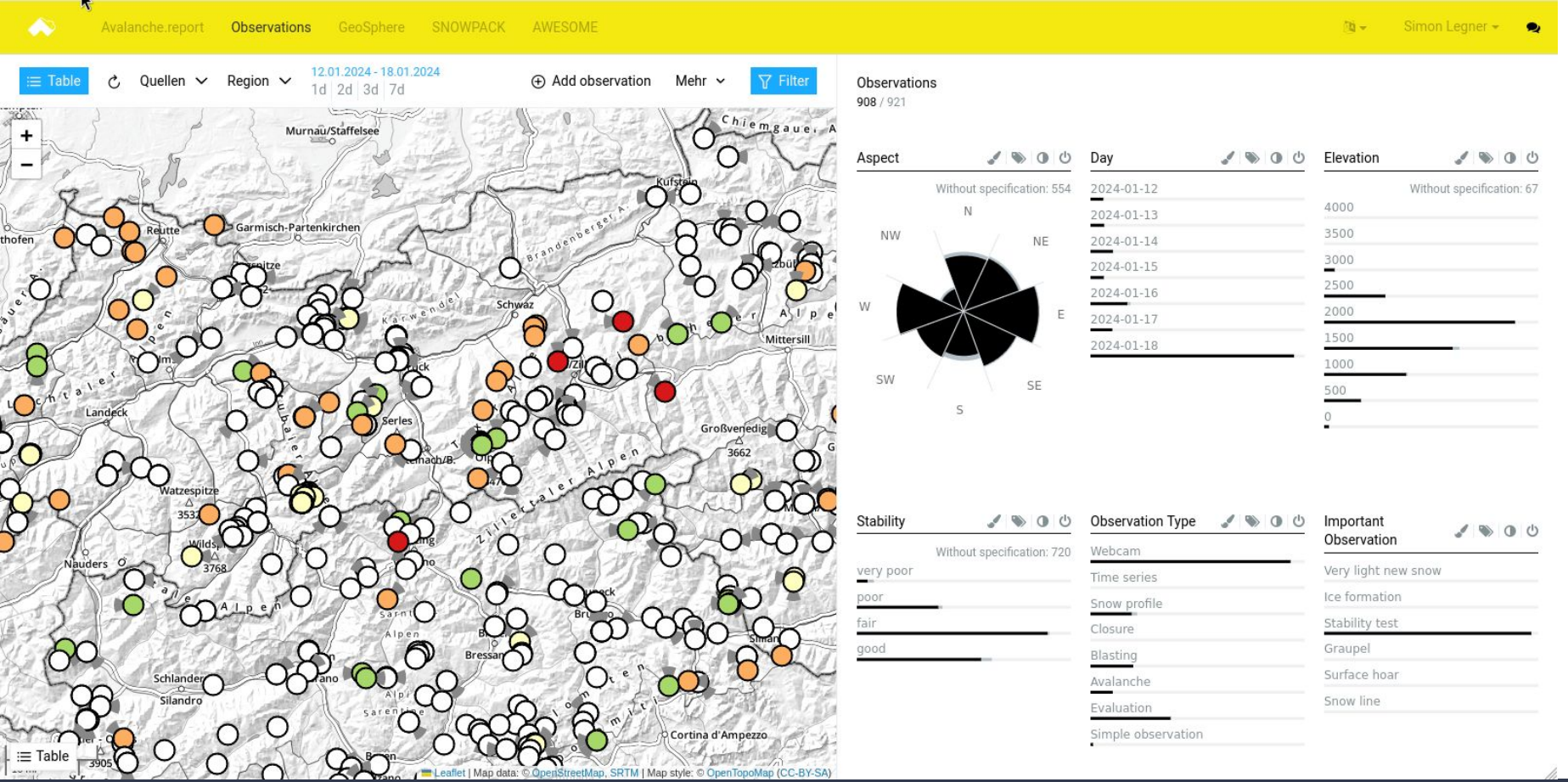
5 to 15 cm of snow will fall. As a consequence of new snow and a stro s, further wind slabs will form in the course of the day in particular in gullies and bowls and behind abrupt changes in the terrain. The fresh wind slabs will be deposited on the unfavourable surface of an old snowpack.

Towards its base, the snowpack is largely stable. Snow depths vary greatly above the tree line, depending on the infuence of the wind. The snowpack will be subject to considerable local variations. The high temperatures will give rise to slight moistening of the snowpack in particular at low and intermediate altitudes.

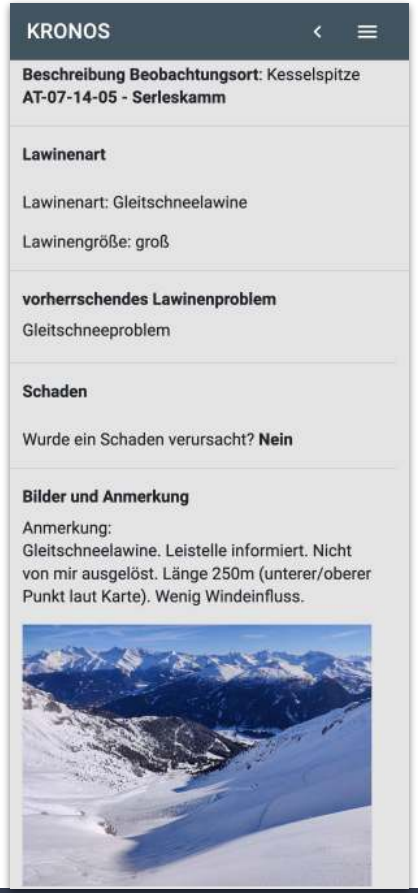
Tendency

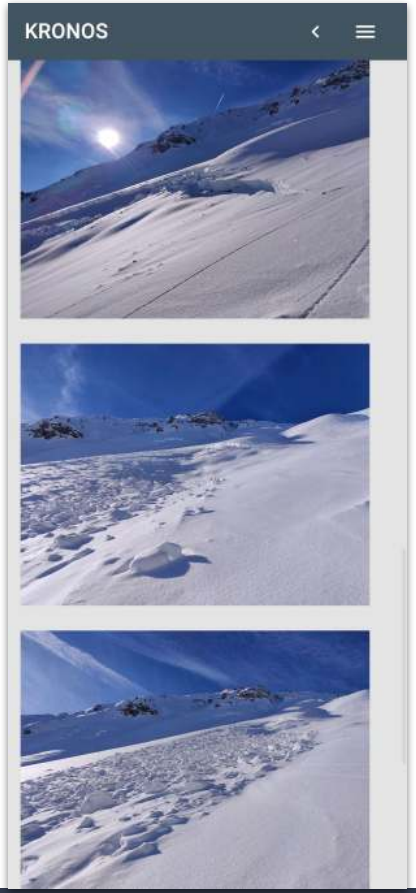
The fresh wind slabs are bonding only slowly with the old snowpack. Slight decrease in danger of dry avalanches.

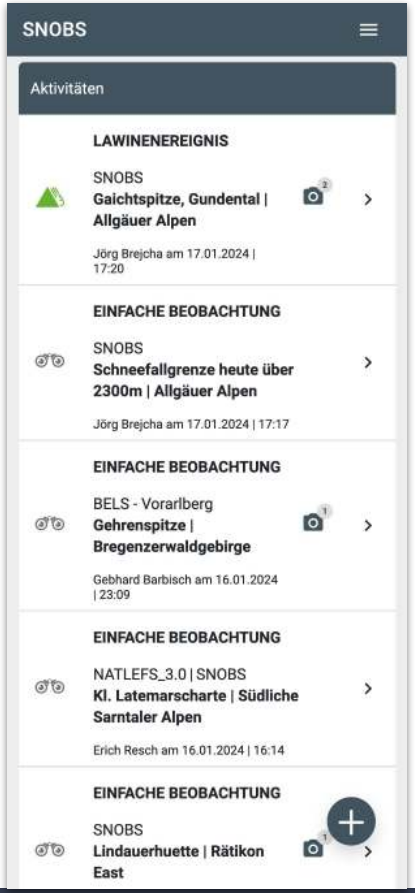
https://avalanche.report/bulletin/2024-01-18



https://admin.avalanche.report/#/modelling



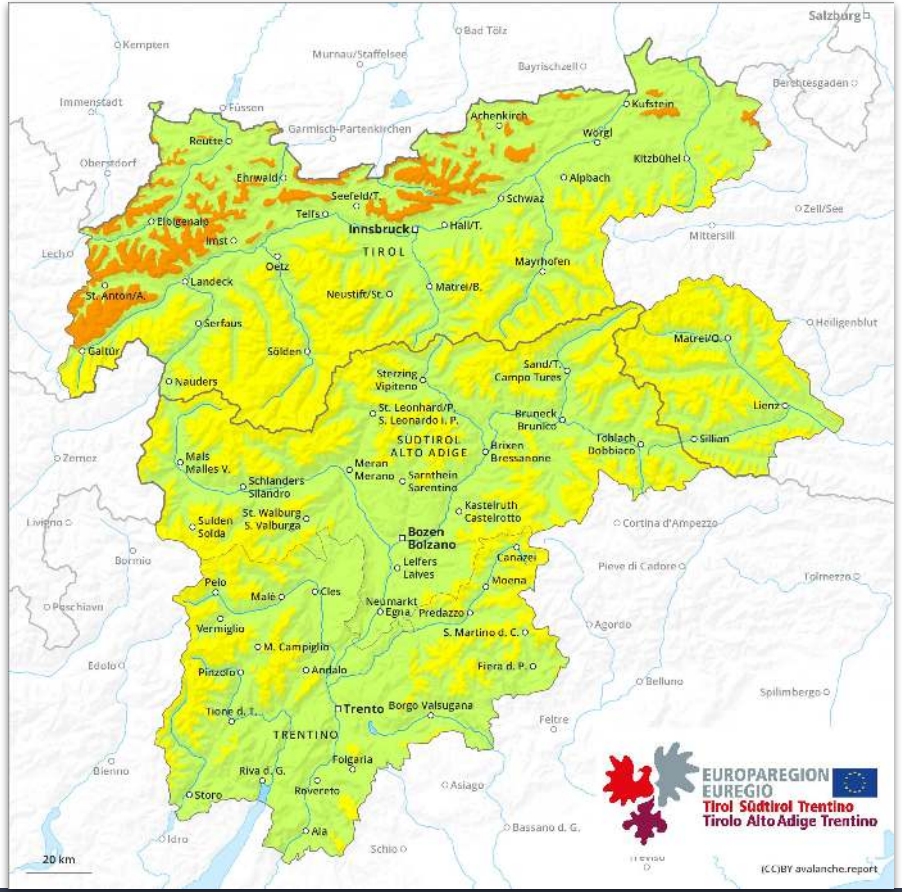


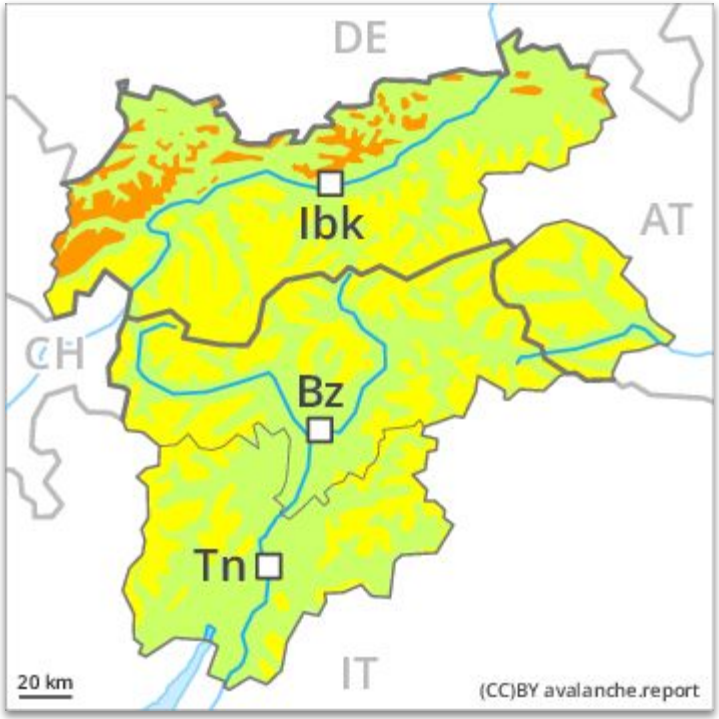


https://snobs.live/

Map rendering

1. Leaflet ImageOverlay (via Mapyrus)
2. Leaflet GeoJSON polygons
3. Leaflet Polyline
   `cxl_cBqwvnS|Dy@ogFyxmAf`IsnA|CjFzCsHluD_k@hi@ljL`
4. Leaflet VectorGrid (.pbf via tippecanoe)
5. Leaflet Protomaps (.pmtiles via tippecanoe)
6. OpenLayers VectorTileLayer

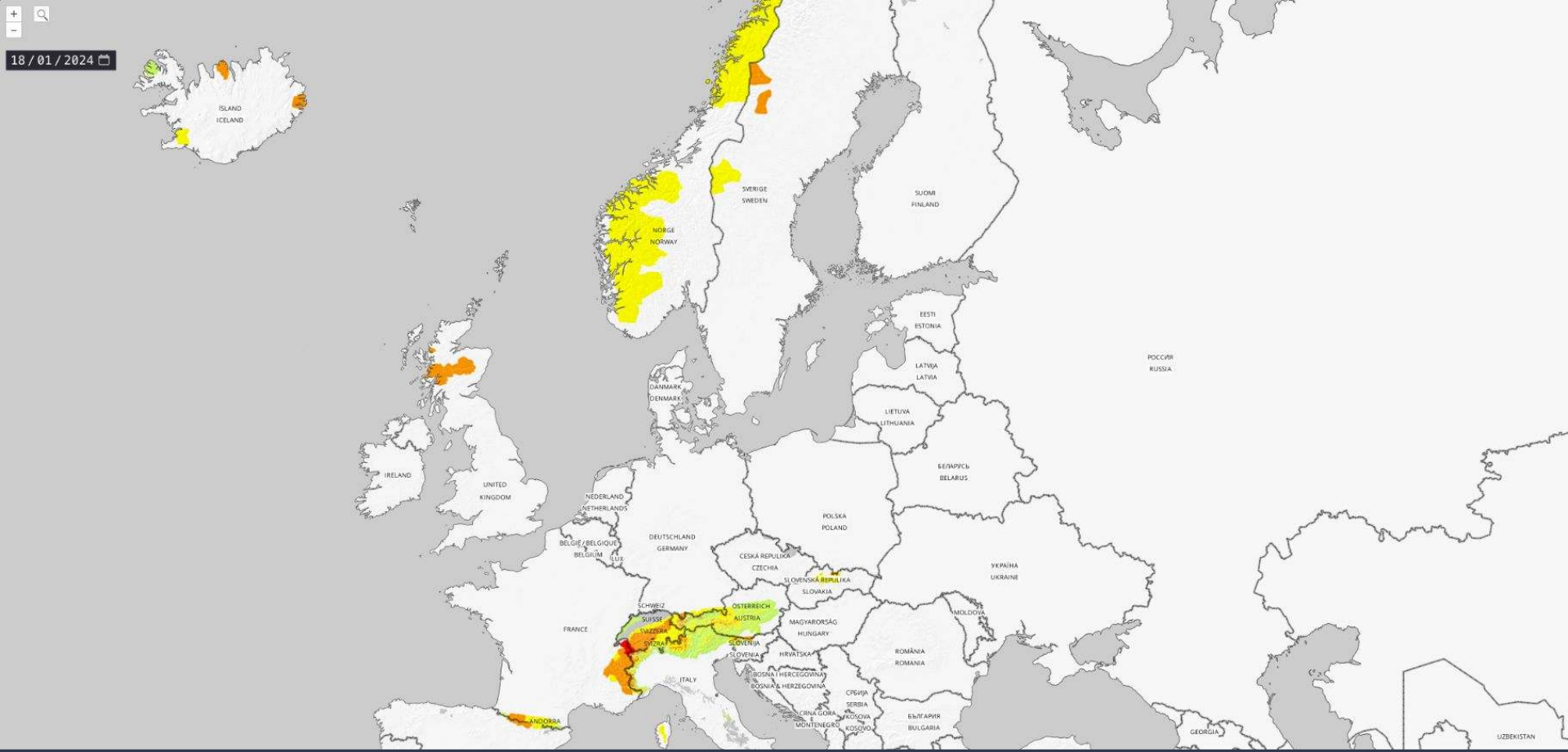




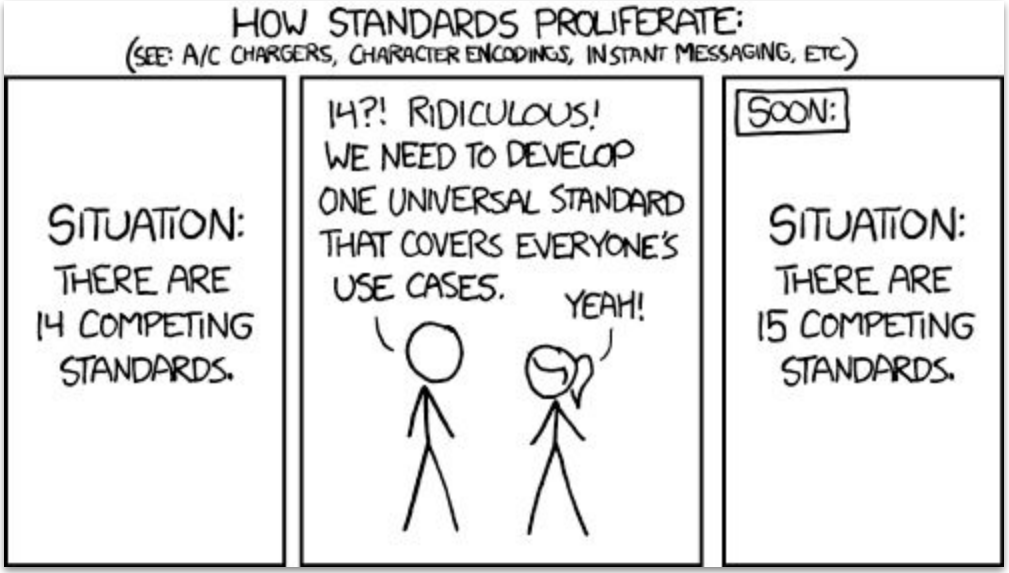
https://static.avalanche.report/bulletins/2024-01-18/fd_EUREGIO_map.jpg

```
# ------------------------------------------------------------------
# --- Danger Levels ---
# ------------------------------------------------------------------

begin polygon_feature_danger_levels file

        worlds xmin, ymin, xmax, ymax, mx1, my1, mx2, my2, "distortion=true"
        clip "inside"
        blend "Normal"
        if (map_level eq "standard" or map_level eq "overlay") and bulletin_id ne "overlay" and colormode ne "bw" then
                blend "Multiply"
        endif

        dataset "shapefile", file, ""
        while Mapyrus.fetch.more
                        do
                                fetch
                                clearpath
                                addpath GEOMETRY
                                eval reg_line
                                eval reg_line_color
                                if dynamic_region eq "one" and colormode eq "bw" then
                                        if bulletin_ids[ALB_ID] eq bulletin_id then
                                                stroke
                                        endif
                                endif
                        done

        dataset "shapefile", file, ""
        while Mapyrus.fetch.more
                        do
                                fetch
                                clearpath
                                addpath GEOMETRY
                                linestyle 0.01
                                if dynamic_region eq "all" then
                                        if (danger_h[ALB_ID] eq 1 and threshold >= elevation_h[ALB_ID]) or danger_l[ALB_ID] eq 1 then
                                                eval danger_color[1]
                                                fill
                                                if map_level eq "thumbnail" or map_level eq "overlay" then
                                                        stroke
                                                endif
```

https://github.com/simoc/mapyrus |
https://gitlab.com/albina-euregio/albina-server/-/blob/master/src/main/resources/mapyrus/albina_functions.mapyrus



https://eaws-bulletin-map.legner.me/?date=2024-01-18



processor.py	class HtmlProcessor	1 month ago
processor_ad.py	GitLab CI: run ruff	11 months ago
processor_caamlv5.py	Migrate CAAML to @dataclass	1 month ago
processor_caamlv6.py	Implement CAAMLv6 processor for SK	1 month ago
processor_catalunya.py	Migrate CAAML to @dataclass	1 month ago
processor_ch.py	Finalize CAAMLv6 JSON standard	1 month ago
processor_ch_zip.py	Migrate CAAML to @dataclass	1 month ago
processor_cz.py	Take API URLs from pyAvaCore.py.ini	1 year ago
processor_es.py	Migrate CAAML to @dataclass	1 month ago
processor_fi.py	Finalize CAAMLv6 JSON standard	1 month ago
processor_fr.py	Migrate CAAML to @dataclass	1 month ago
processor_is.py	Finalize CAAMLv6 JSON standard	1 month ago
processor_it_livigno.py	class HtmlProcessor	1 month ago
processor_it_meteomont.py	simpler replacement	3 weeks ago
processor_norway.py	Migrate CAAML to @dataclass	1 month ago
processor_pl.py	class HtmlProcessor	1 month ago
processor_pl_12.py	PL-12: avalanche problems	4 weeks ago
processor_ro.py	RO: add basic processor	4 days ago
processor_se.py	Migrate CAAML to @dataclass	1 month ago
processor_sk.py	Migrate CAAML to @dataclass	1 month ago
processor_uk.py	GitLab CI: run ruff	11 months ago
processors.py	RO: add basic processor	4 days ago
pyAvaCore.py	Set customData.ALBINA.mainDate for all bulletins	4 weeks ago
pyAvaCore.py.ini	RO: add basic processor	4 days ago

https://xkcd.com/927 | https://gitlab.com/albina-euregio/pyAvaCore/-/tree/master/avacore