



Schweizerische Eidgenossenschaft
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Lenkungsausschuss Intervention Naturgefahren LAINAT
Comité de direction Intervention dangers naturels
Commissione direttiva Intervento pericoli naturali
Steering Committee Intervention against Natural Hazards

Gemeinsame Informationsplattform Naturgefahren GIN

GIN – a professional joint information platform for natural hazards in Switzerland

Geneva, 22.5.13



Overview

- What is GIN?
- Why GIN?
- The Web-browser-based platform and its visualization/contents
- Operation
- Conclusions, Outlook



Why GIN?

Avalanche



Landslide



Rock fall



Debris flow



Dynamic inundation

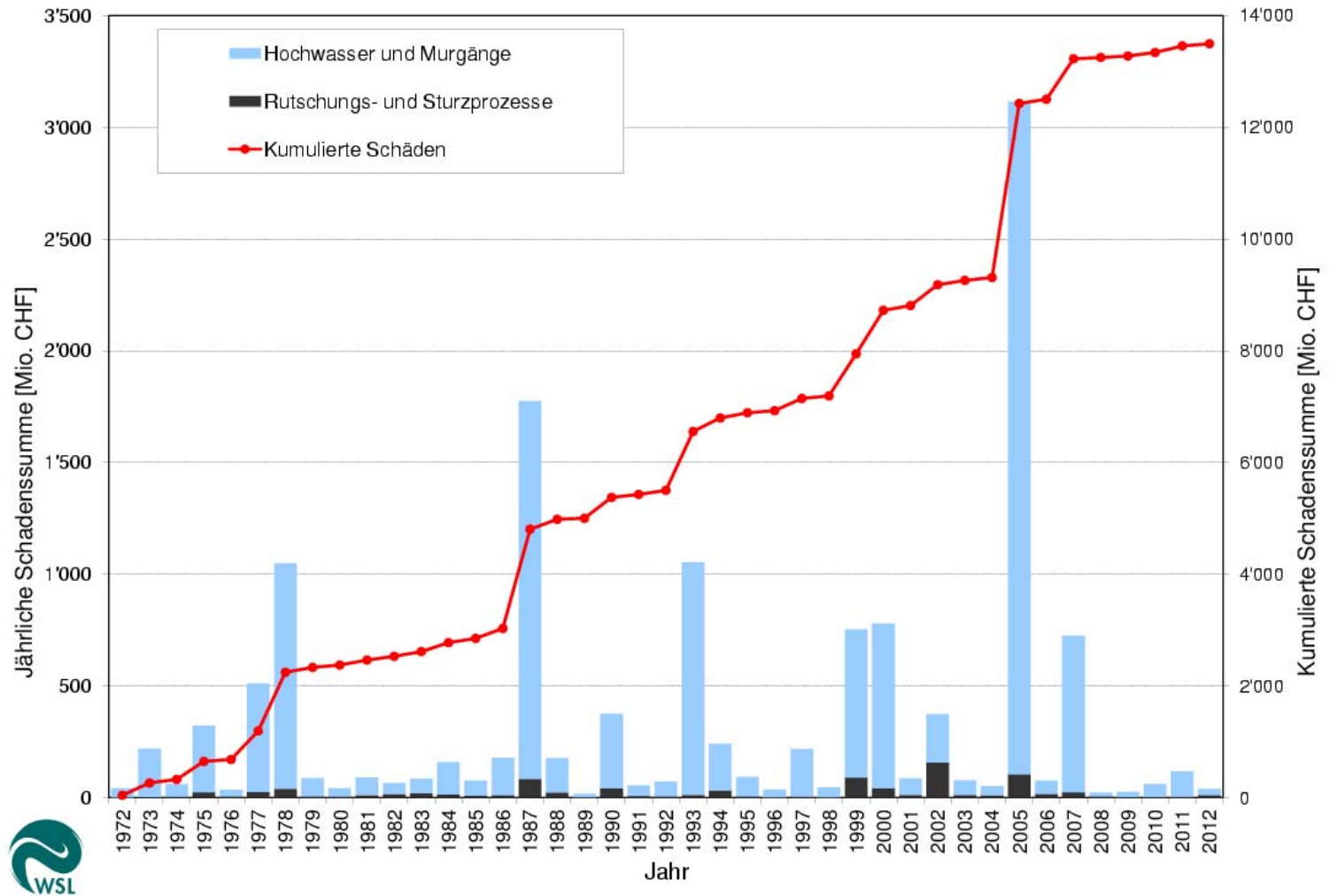


Alpine hazards
predominant, Federal
responsibility

Further hazards:
Storm, earthquake



Why GIN?





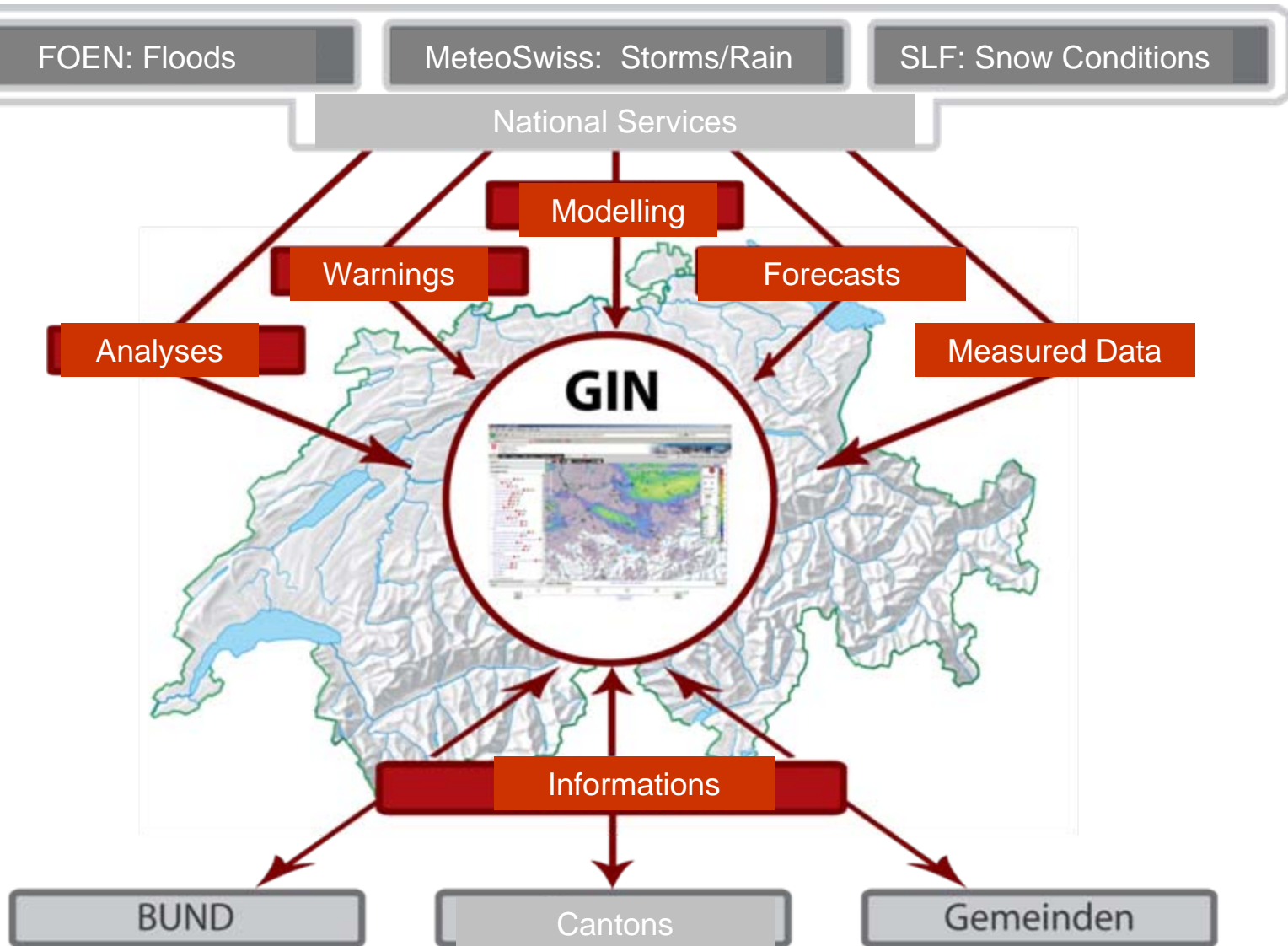
Why GIN? Floods in 2005

- Floods with immense damages and consequential costs
- Different provisions to improve the forecast and information systems
- Intensification of the Cooperation





What is GIN?



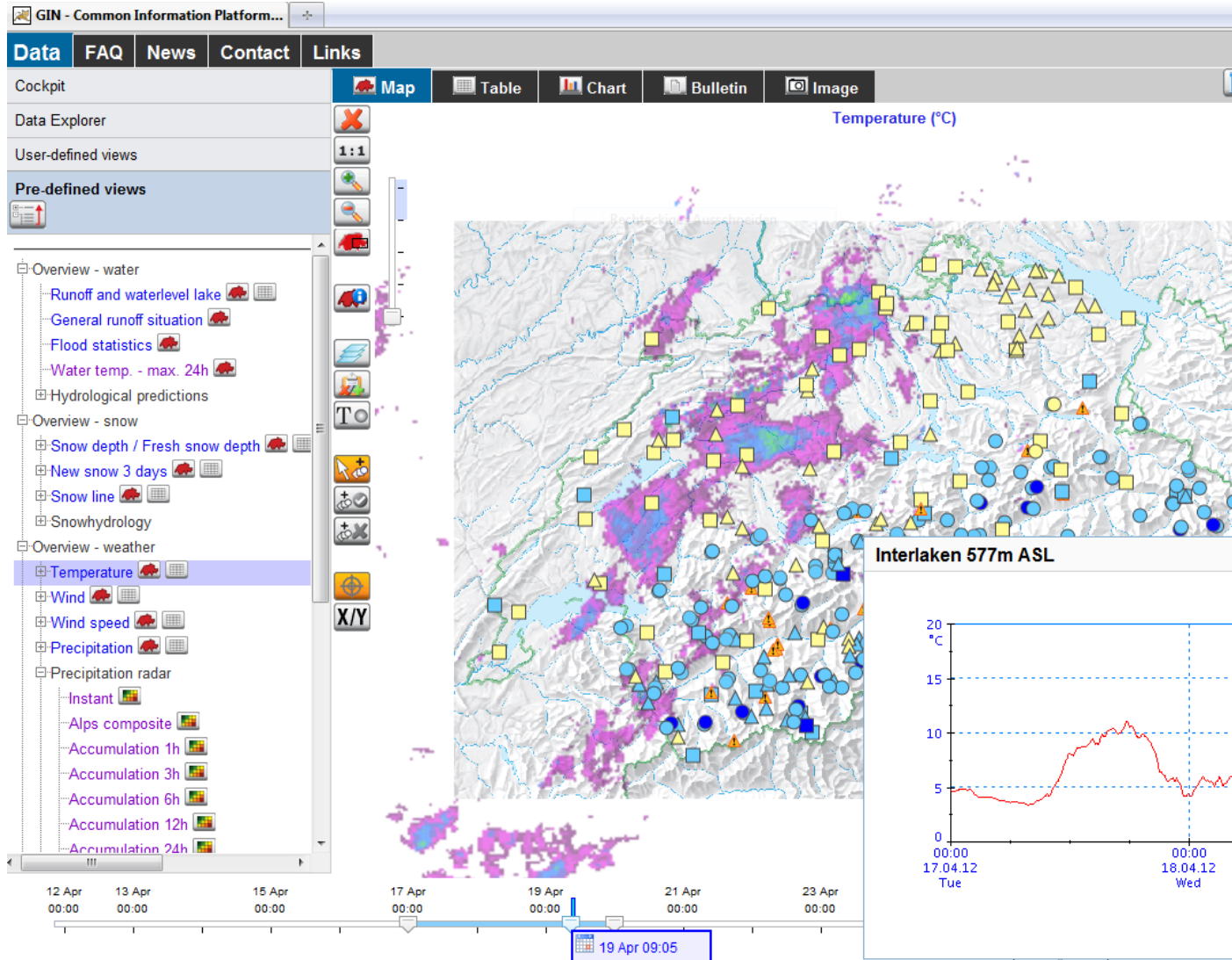
GIN – joint information platform for natural hazards in Switzerland

Global Platform for disaster risk reduction, Geneva, 2013

S. Steiner



What is GIN?



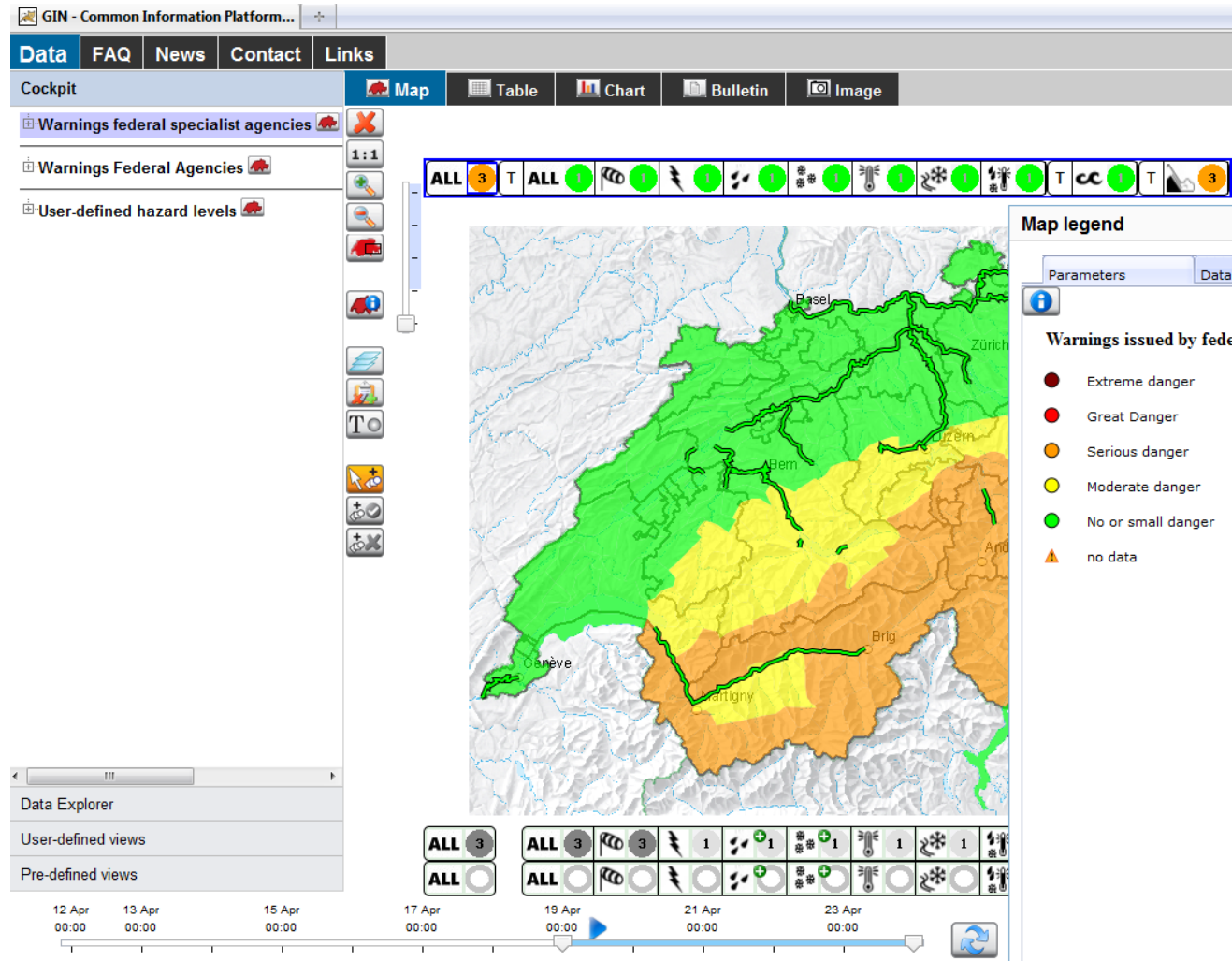
GIN – joint information platform for natural hazards in Switzerland

Global Platform for disaster risk reduction, Geneva, 2013

S. Steiner



What is GIN?





What is GIN?

- GIN = Gemeinsame Informationsplattform Naturgefahren
- Developed from 2008 until 2010
- Operational, browser independent web-platform since 2010
- **Goal: Combination and visualization of real-time information from different providers to allow experts a better accomplishment of natural hazards**
- Opened for natural hazard experts on national, cantonal and municipal level
- Hydrological, meteorological and snow related data, earthquake data, forecasts and warnings



Visualization and contents

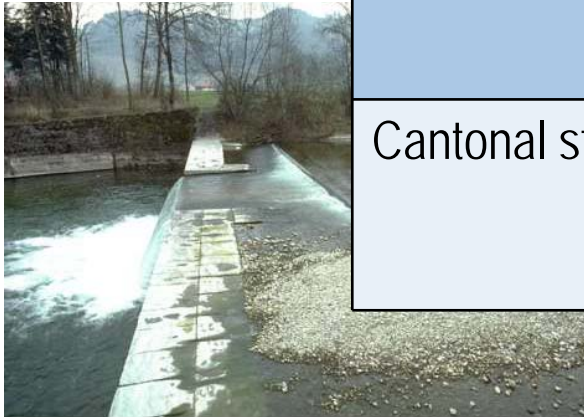
- Different data types (more than 130 parameters) numerical, raster image or text
- Different data sources (more than 800 data sources) spatial point (gauging stations), line (rivers) and area (regions)



Visualization and contents



FOEN	<ul style="list-style-type: none">▪ 220 gauging stations (incl. predictions)▪ Hydrological bulletin▪ Warnings
MeteoSuisse	<ul style="list-style-type: none">▪ 117 gauging stations (incl. predictions)▪ Precipitation radar, satellite images▪ COSMO-2 und COSMO-7 predictions▪ Bulletins (different weather forecasts)▪ Warnings
SLF	<ul style="list-style-type: none">▪ 186 gauging stations▪ Bulletins (national and regional avalanche bulletin)
Cantonal stations	<ul style="list-style-type: none">▪ Hydrological stations: 95▪ Meteorological stations: 94 <p>f.e. AG, BE, GL, SO, LU, TG, TI, VS, ZH</p>



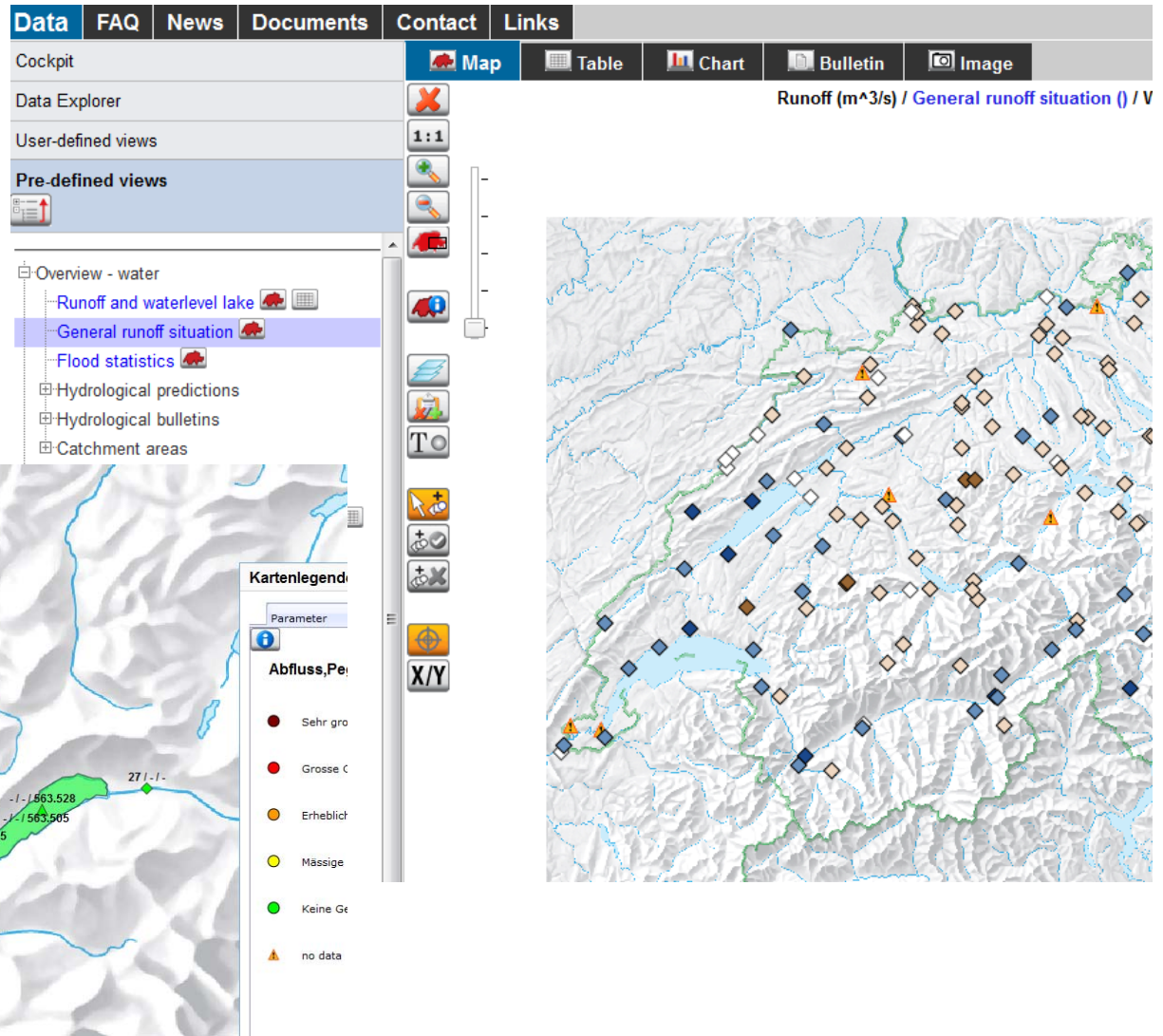


Visualization and contents

Navigation

Map

Time-Slider

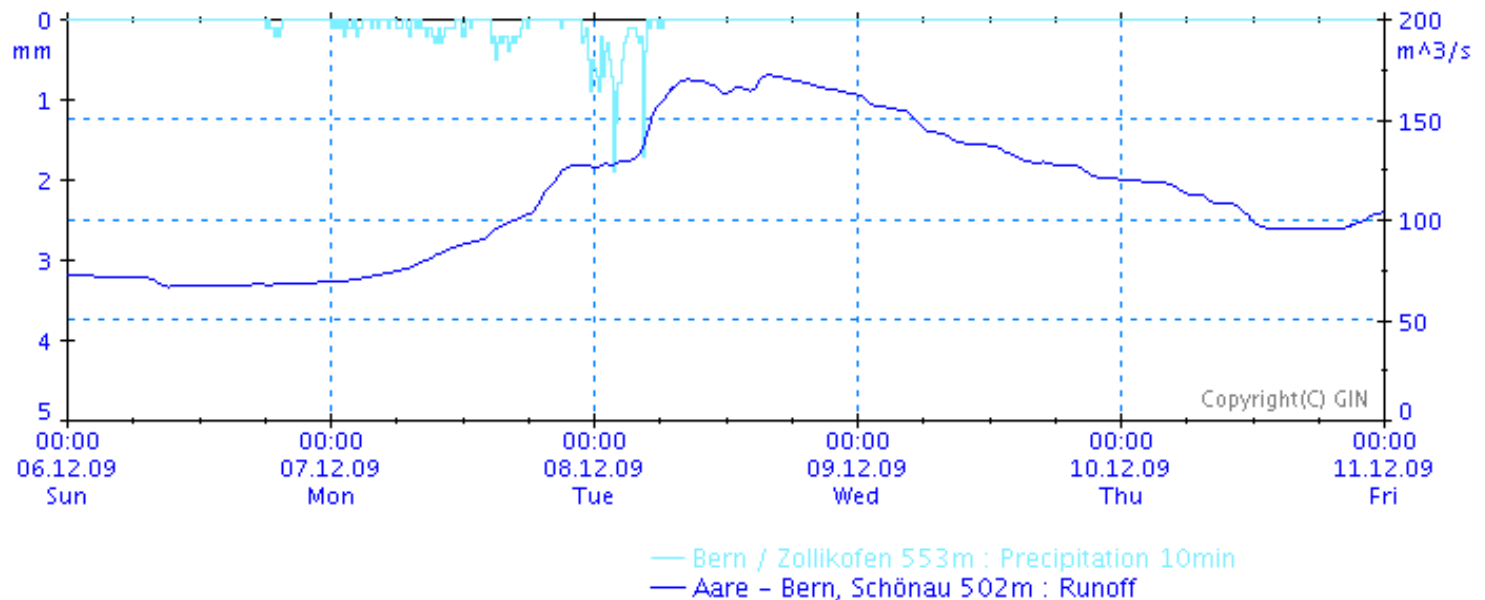




Visualization and contents

Interactive tables and diagrams

	New snow 24h (cm)	Snow depth (cm)	Ground temperature (°C)	Snow temp. at 25cm (°C)	Snow temp. at 50cm (°C)	Snow temp. at 100cm (°C)	Temperature (°C)
Chaussy, Pierres Fendues	0	229	0.3	-0.2	0	-0.1	-5.1
Jaun, Fochsen	0	239	0	-0.1	-0.1	-0.2	-1.8
Lauenen, Trüttlisbergpass	0	144	0.3	0	0	-0.1	-3
Lukmanier, Lai Verd	21	323	-0.1	-0.4	-0.4	-0.7	-7
Puzzetta, Schneestation	22	176	0.1	-0.6	-0.6	-0.7	-4.9
	New snow 24h	Snow depth	Ground temperature	Snow temp. at 25cm	Snow temp. at 50cm	Snow temp. at 100cm	Temperature





Visualization and contents

Bulletins and Images

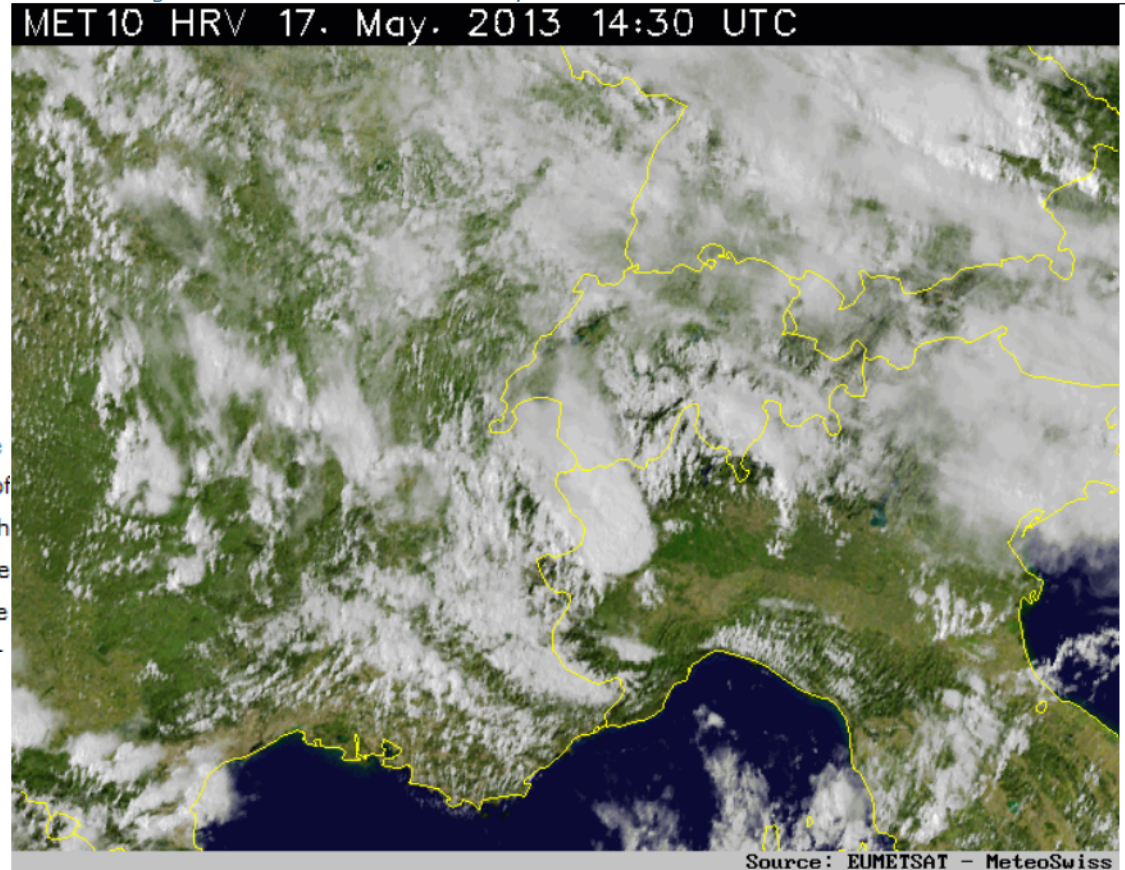
WSL Institute for Snow and Avalanche Research SLF
NATIONAL AVALANCHE BULLETIN NO. 146
for Thursday, 19 April 2012
issue date 18.4.2012, 18:30 hours

AVALANCHE DANGER IS CONSIDERABLE FAR AND WIDE

CURRENT CONDITIONS

On Wednesday it was predominantly overcast. During the night, snow fell in the southern flank of the Alps, there was 15 to 30 cm of snow; in high alpine regions more, from place to place. The wind was blowing predominantly at moderate strength, elsewhere at light strength. The layers of new fallen and newly drifted snow are prone to avalanching, especially where the snow is relatively shallow and the terrain is steep.

Satellite image in the visible channel - 17 May 16:30





Operation

- Requirements
- Geographical: Switzerland
- Number of users: ~ 10.000 (actually > 1500)
- Parallel access: ~ 1.000
- Parameters: > 130
- Stations: > 800
- Data provider: ~ 30
- Operation: 7*24h, 99.8% availability



Outlook

- > GIN fulfils many of the needs of the natural hazard experts, but not enough...
- > Further development planned until 2016



Contact, questions

www.gin.admin.ch – more information about GIN

sabina.steiner@bafu.admin.ch – the GIN secretariat



Questions?

Thanks to: Sepp Hess, Norbert Trommler, Christian Fallegger, Matthias Gerber....