

METEOALARM: A multihazard warning system

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UN - ISDR Sendai Framework of Actions, 2015

Early warning criteria: **users**

To develop and strengthen:

people-centred multi-hazard forecasting and early warning systems,
tailor them to the **needs of users**, including social and cultural requirements
and broaden **release channels** for disaster early warning information

Sendai Framework of Actions 2015

Early warning criteria: **users**

To develop and strengthen:

people-centred multi-hazard forecasting and early warning systems,
tailor them to the **needs of users**, including social and cultural requirements
and broaden **release channels** for disaster early warning information

Imagine how your user thinks, feels and what she/he reacts on!

Definition of warnings

A rose by any other name . . .

What is a warning?

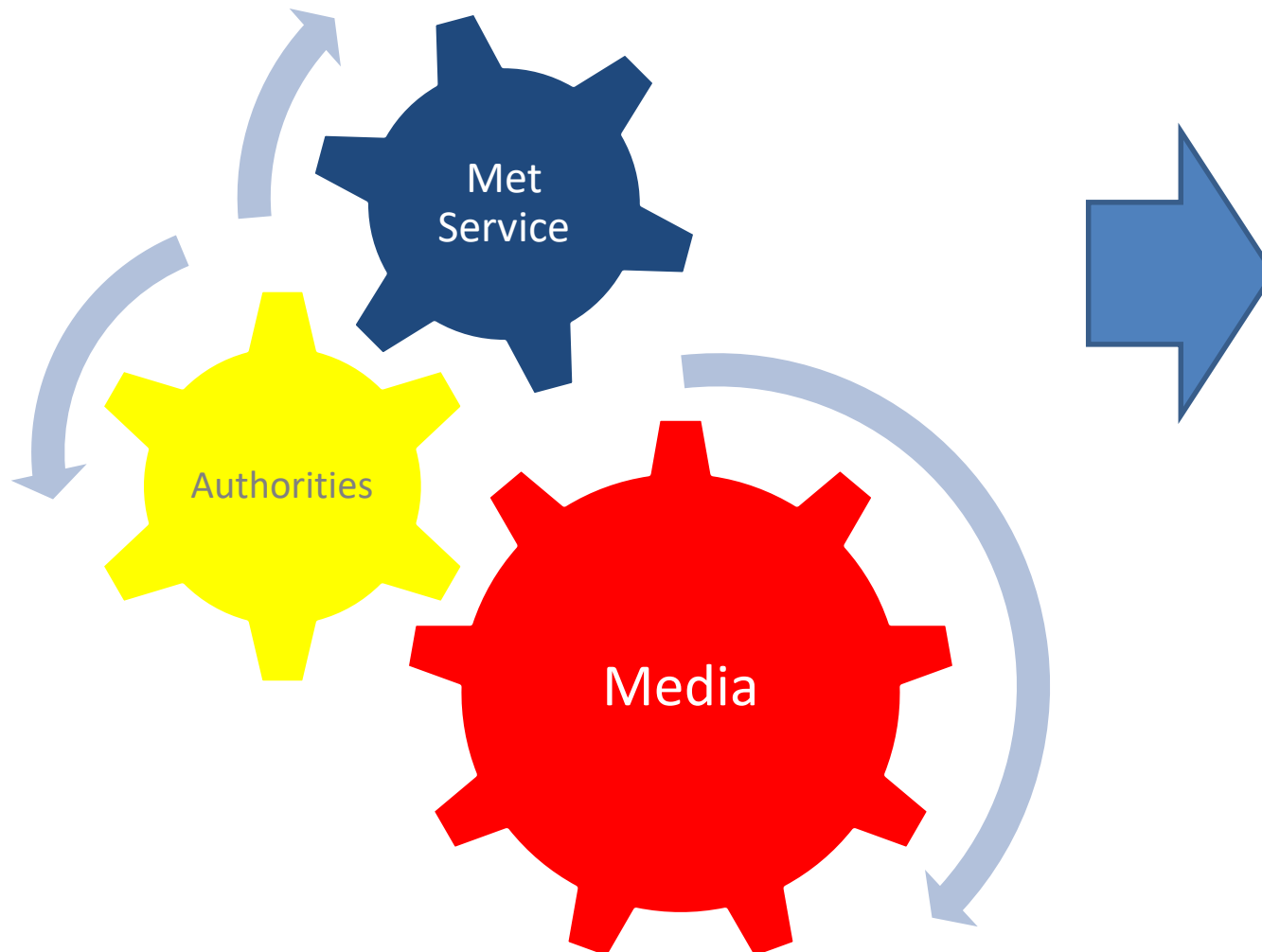
Tangible and understandable description of an expected damage scenario

&

a clear advice what to do

Crisis management – from Science to users

Flow of information



users:

- Local responsables
- Public
- Companies

Warnings – From science to the user

Flow of information – real world

users:

- Local responsables
- Public
- Companies

Warnings – From science to the user

Structured & trusted ways of communication

users:

- Local responsables
- Public
- Companies

Meteoalarm

Eumetnet mandate

1. Make warnings visible in an easily understandable way >> **impacts**
2. Harmonize warnings systems across Europe
3. Integrate additional partners countries
4. Reach out to „European“ users (ERCC . . .) and re-users

Meteoalarm

meteoalarm
alerting europe for extreme weather

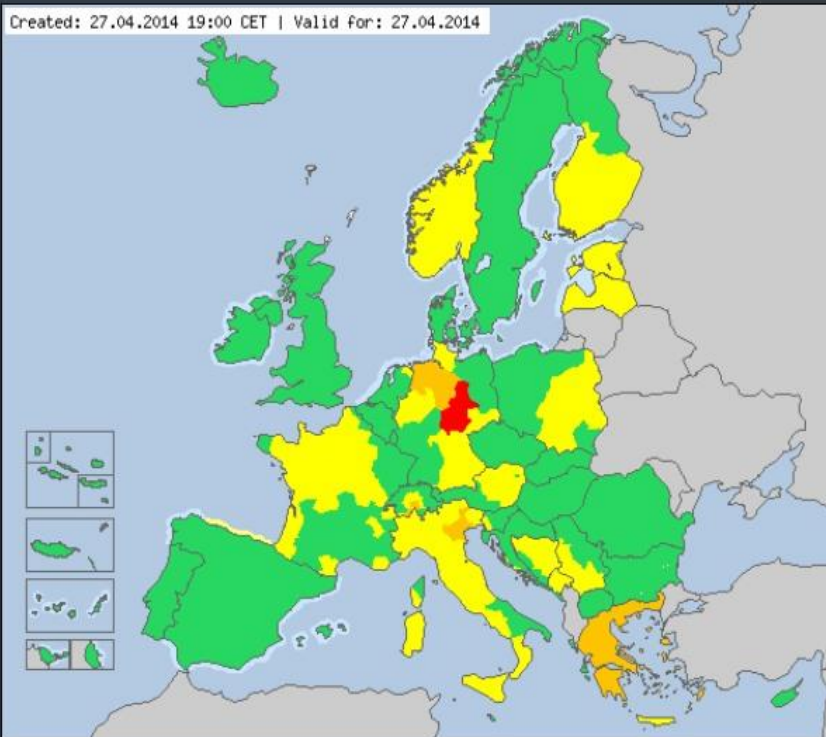
EUMETNET
The Network of European Meteorological Services

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english ▼

» Europe:

Created: 27.04.2014 19:00 CET | Valid For: 27.04.2014



Weather warnings: Europe

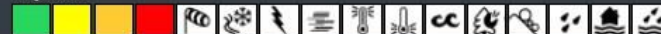
Awareness Reports - You can find detailed information about the warnings in the awareness reports issued for each country. Select the relevant country.

AT			
BA			
BE			
BG			
CH			
CY			
CZ			
DE			
DK			
EE			
ES			
FI			
FR			
GR			
HR			
HU			
IE			
IS			
IT			
LU			
LV			
ME			
MK			
MT			
NL			
NO			
PL			
PT			
RO			
RS			
SE			
SI			
SK			
UK			

awareness types:



Display:

Caption:



Meteoalarm

National level

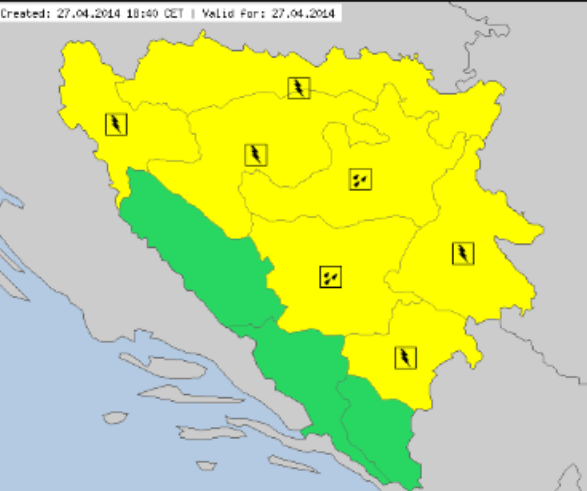



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[Europe](#) » [Bosnia-Herzegovina](#)

[mstaudinger](#) [english](#)

Created: 27.04.2014 10:40 CET | Valid For: 27.04.2014



Weather warnings: Bosnia-Herzegovina

Awareness Reports - You can find detailed information about the warnings in the awareness reports issued for each area. Select the relevant area.

Banja Luka	
Bihac	
Foca	
Livno	
Mostar	
Prijedor	
Sarajevo	
Trebinje	
Tuzla	
Visegrad	

awareness types: [all awareness types](#)

Display: [today](#) [tomorrow](#)

more information:


FHMZ

Federalni hidrometeorološki zavod Bosne i Hercegovine

RHMZ RS

Republički hidrometeorološki zavod Republike Srpske

Caption:



Meteoalarm

Subnational level

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english ▼

» Europe » Serbia » Cpem:

Weather warnings: Cpem



valid from 05.09.2015 00:00 CET Until 05.09.2015 23:59 CET
Thunderstorms

Awareness Level: **Orange**

en: Local thunderstorms with hail

IMPACT: The risk of thunder stroke, endangered lives of people and animals, operation problems for all electrical devices, the risk of fire initiation and flash flooding, telecommunication problems, possible major damage to the property and in agriculture, especially in combination with strong wind and intensive rainfall.

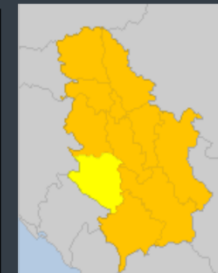
sr: Lokalna pojava grmljavine sa gradom

UTICAJ: Rizik od udara groma, opasnost poživot ljudi i životinja, problemi u radu svih uređaja koja koriste električnu energiju, rizik od izazivanja požara, problemi u telekomunikacijama, moguće veće štete na pokretnoj i nepokretnoj imovini i u poljoprivredi, naročito u kombinaciji sa jakim vetrom i intenzivnim pljuskovima.

[Back to Europe:](#)



[Back to Serbia:](#)



valid from 05.09.2015 00:00 CET Until 05.09.2015 23:59 CET
Rain

Awareness Level: **Yellow**

en: Rain - at least 20 mm (l/m²) within a 12-hour period

IMPACT: Causing flooding, problems in all agricultural production activities, traffic problems, possible risk of landslides and mudslides. Indirect impact on the safety of people and animals.

sr: Kiša sa količinom padavina većom od 20 l/m² za 12 h

UTICAJ: Izazivanje poplava, i prouzrokovanje šteta u vezi sa poplavama, problemi u svim aktivnostima poljoprivredne proizvodnje, problemi u saobraćaju, moguća pojava odrona i klizišta. Indirektni uticaj na bezbednost ljudi i životinja.

Display: [today](#) [tomorrow](#)

Change Language: | BG | BS | CZ | DA | DE | EE | EN | ES | ES | ES | FI | FR | GR | HR | HU | IS | IT | LT | LV | ME | MK | MT | NL | NO | PL | PT | RO | RS | SI | SK | SV | VA

Harmonization - Priorization

What to do?

usual phenomena

caution with exposed
activities

keep informed in detail,
follow advice of
authorities

**follow order of
authorities under all
circumstances!**

**be prepared for
extraordinary
measures!**

Harmonization - Priorization

What to do?	Colour
usual phenomena	Green
caution with exposed activities	yellow
keep informed in detail, follow advice of authorities	orange
follow order of authorities under all circumstances! be prepared for extraordinary measures!	red

Harmonization - Priorization

What to do?	Colour	One word
usual phenomena	Green	Weather report
caution with exposed activities	yellow	Be aware!
keep informed in detail, follow advice of authorities	orange	Be prepared!
follow order of authorities under all circumstances! be prepared for extraordinary measures!	red	Take action!

Harmonization - Priorization

What to do?	Colour	One word	Damage / Impact
usual phenomena	Green	Weather report	- - -
caution with exposed activities	yellow	Be aware!	exposed objects (avoidable)
keep informed in detail, follow advice of authorities	orange	Be prepared!	general damages (not avoidable)
follow order of authorities under all circumstances! be prepared for extraordinary measures!	red	Take action!	extreme damage and / or casualties extreme damage (mostly) on large areas, threatening life and properties (not avoidable, even in otherwise safe places)

Harmonization - Priorization

What to do?	Colour	One word	Damage / Impact	Used how often? (Area approx. 300 000 km ²)
usual phenomena	Green	Weather report	- - -	usual phenomena
caution with exposed activities	yellow	Be aware!	exposed objects (avoidable)	> 30 per year
keep informed in detail, follow advice of authorities	orange	Be prepared!	general damages (not avoidable)	2 to 30 per year
follow order of authorities under all circumstances! be prepared for extraordinary measures!	red	Take action!	extreme damage and / or casualties extreme damage (mostly) on large areas, threatening life and properties (not avoidable, even in otherwise safe places)	less then 1/ year + large (5000km ²) scale phenomena

Harmonization - Priorization

What to do?	Colour	One word	Damage / Impact	Used how often? (Area approx. 300 000 km ²)	Meteo Treshholds e.g. Rain (area + impact related)
usual phenomena	Green	Weather report	- - -	usual phenomena	Examples
caution with exposed activities	yellow	Be aware!	exposed objects (avoidable)	> 30 per year	> 54 mm/12h
keep informed in detail, follow advice of authorities	orange	Be prepared!	general damages (not avoidable)	2 to 30 per year	> 80 mm/12h
follow order of authorities under all circumstances! be prepared for extraordinary measures!	red	Take action!	extreme damage and / or casualties extreme damage (mostly) on large areas, threatening life and properties (not avoidable, even in otherwise safe places)	less then 1/ year + large (5000km ²) scale phenomena	> 140 mm/12h

Development of Warnings

Simple threshold
warnings

Development of Warnings

Simple threshold
warnings

Climate based
warnings
thresholds

Climatology of
regions

Development of Warnings



Simple threshold
warnings

Climate based
warnings
thresholds

Impact based
warnings

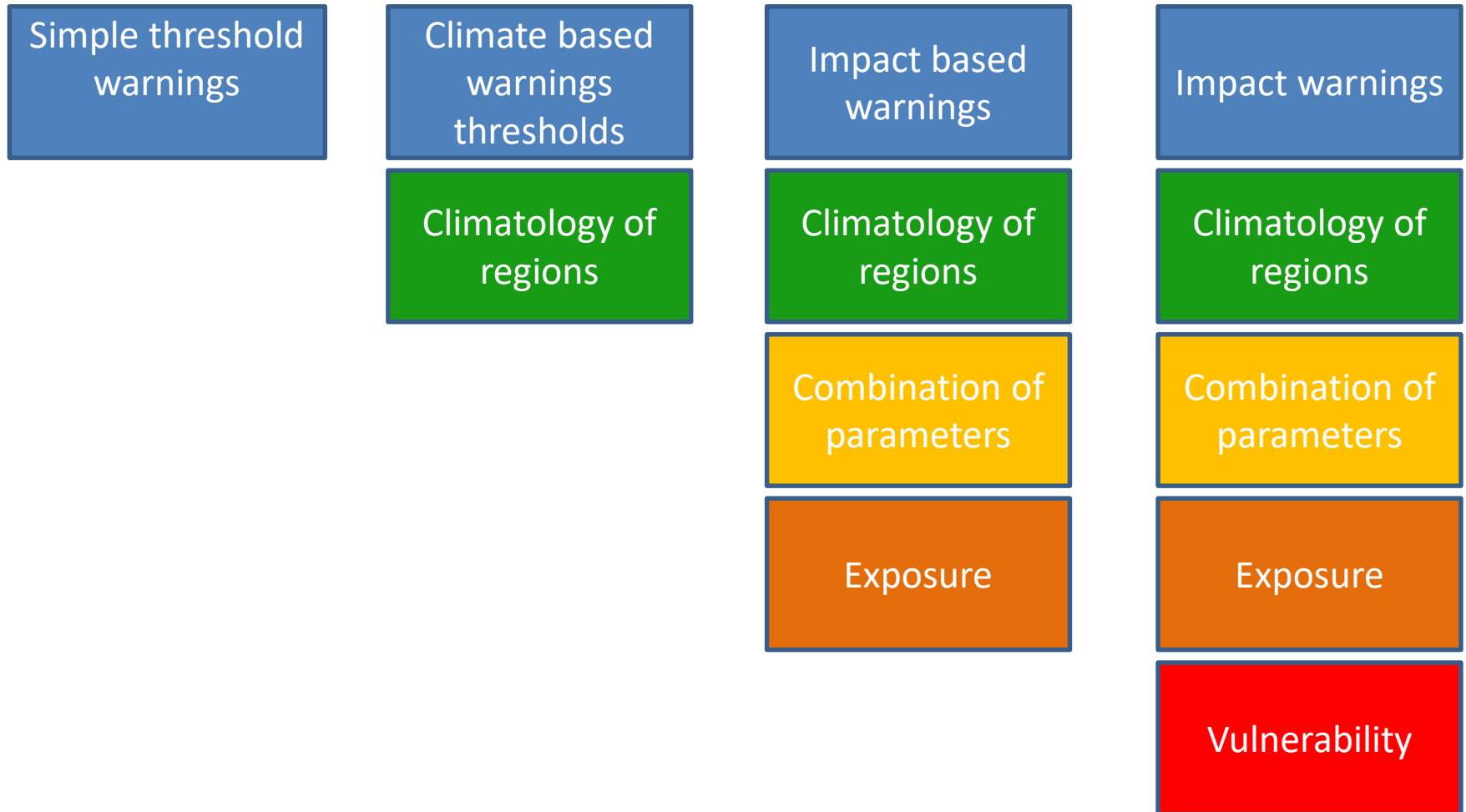
Climatology of
regions

Climatology of
regions

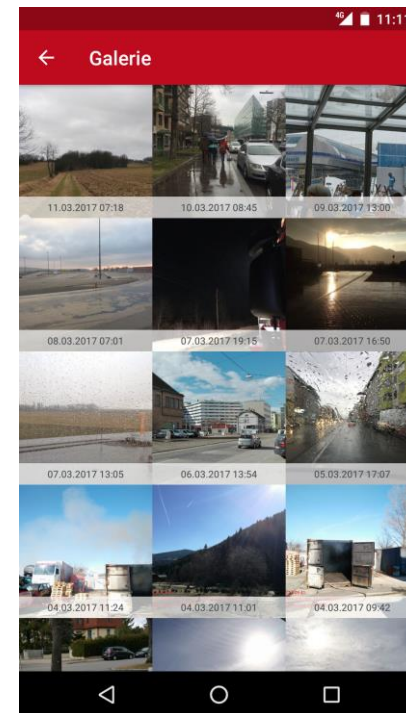
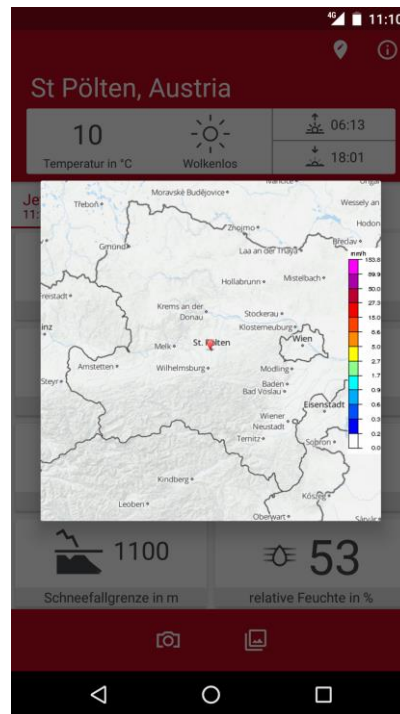
Combination of
parameters

Exposure

Development of Warnings



Crowdsourcing data



Meteoalarm – MHEWS: Flood warnings

Rain & flood situation

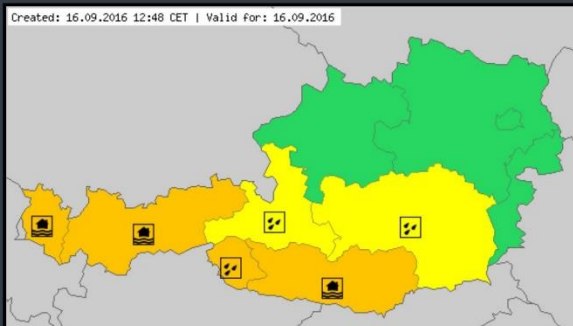
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» Europe » Austria:



Weather warnings: Austria

Awareness Reports - You can find detailed information about the warnings in the awareness reports issued for each area. Select the relevant area.

Kärnten	 	Osttirol	 
Salzburg	 	Steiermark	 
Tirol	 	Vorarlberg	 

Caption:



awareness types: all awareness types 

Display: today tomorrow

more information:



Meteoalarm – MHEWS: Flood warnings

Rain & flood situation

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» Europe » Austria » Tirol:

Weather warnings: Tirol



valid from 16.09.2016 10:00 CET **Until** 17.09.2016 16:00 CET
Flood

Awareness Level: **Orange**

deutsch:

Kleinräumig besteht vor allem bei Gewittern Starkregenpotenzial mit lokal auch höhere Niederschlagsmengen. Damit sind stellenweise Muren oder kleinräumige Überflutungen möglich! Bei Aktivitäten im Freien und in der Nähe von Gewässern achten Sie auf die neuesten Wetterinformationen.

english:

Increased water levels in major rivers, but only local risk of flooding in small catchments. In areas with heavy rain, local flooding and flash floods are possible. Be aware and pay attention to the latest weather updates, especially if you carry out activities exposed to weather or close to a stream.



valid from 16.09.2016 17:00 CET **Until** 17.09.2016 17:00 CET
Rain

Awareness Level: **Orange**

deutsch:

Regenmengen von 35 bis 80 mm sind zu erwarten.

english:

Total rain amounts between 35 and 80 mm are expected.

Back to Europe:



Back to Austria:



more information:



Display: today tomorrow

Collaborative Decision Making (CDM)

In case of “red” warnings

CDM will lead to more balanced decisions on warnings

involve experts:

Within the institute from outside the shift:

On hydro – meteo relation

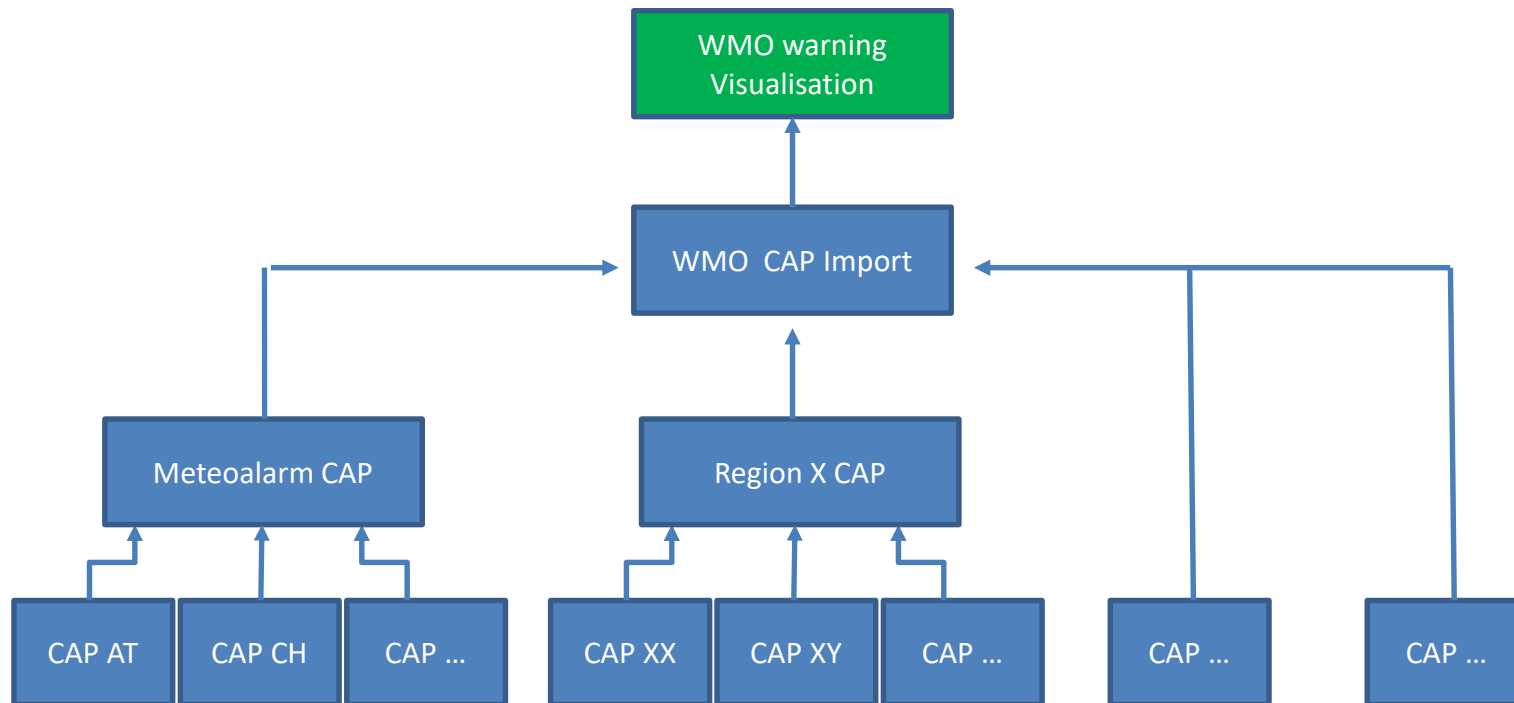
Media experts

Model experts


Training – training – training ! ! !

Co-operation on a global scale


Common warning philosophy







Re- use of the meteoalarm information


World > Europe > Latvia > Rīga > Rīga

ENGLISH (US), °C




Rīga, Latvia


Follow us on





Latvia Weather


Rīga, Latvia
15°C


Allergies: Low

Severe Weather Alerts
Radar
Watch News


Orange Warning for Forest Fire 16.09.2018 in the central regions ...

Severe Weather Alerts - Rīga, Rīga




Orange Warning for Forest Fire

Orange Warning for Forest Fire in effect until Monday, 12:59 AM EEST.
Source: Latvian Environment, Geology and Meteorology Centre

16.09.2018 in the central regions of Latvia and also in Rīga very high risk of forest fires is expected.

Time delays between this website and the www.meteoalarm.eu website are possible, for the most up to date information about alert levels as published by the participating National Meteorological Services please use www.meteoalarm.eu



Weather Data Portal

AccuWeather Global is the simplest way to get AccuWeather's Weather Data around the world.

Re- use of the meteoalarm information

KATWARN

Public- and non public warnings



In responsibility of Civil Protection



Private enterprises: tailored warnings



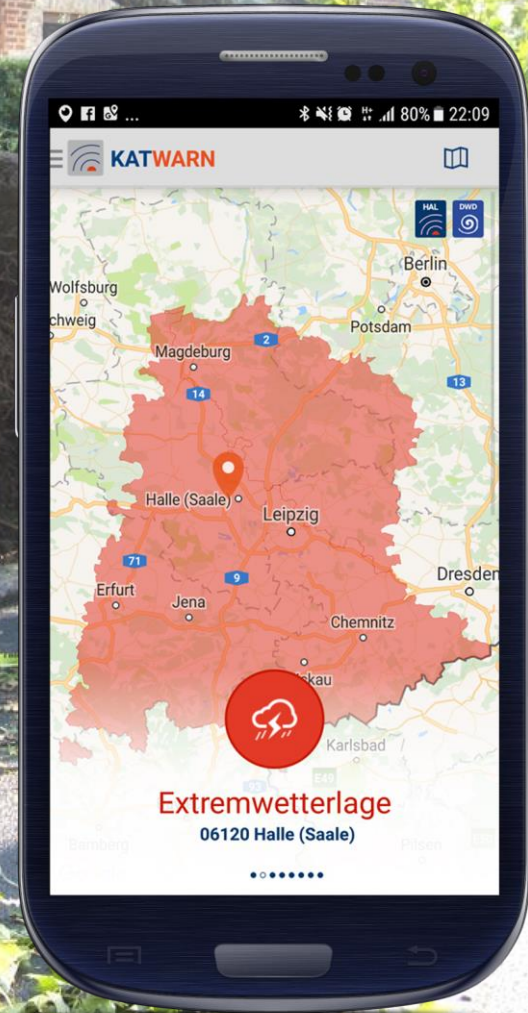


KATWARN

> 500.000 Messages

**Storm *Friederike* January 2018
(Smartphone-App)**

(Hintergrund: Symbolbild)



© pixabay

Geodynamik

Meteoalarm

Txs for the attention!