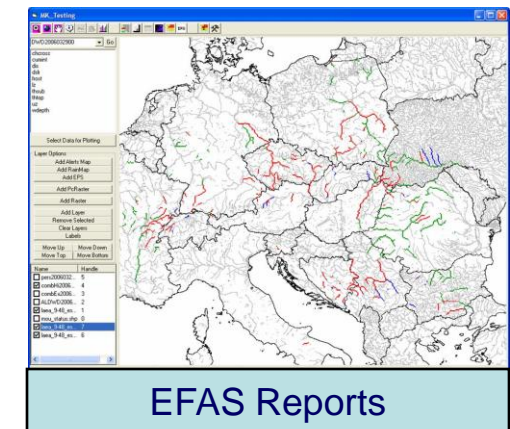
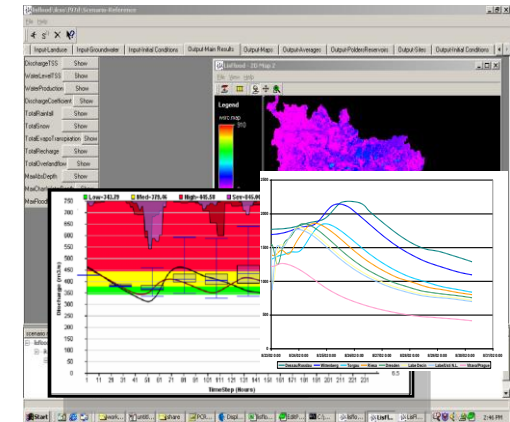
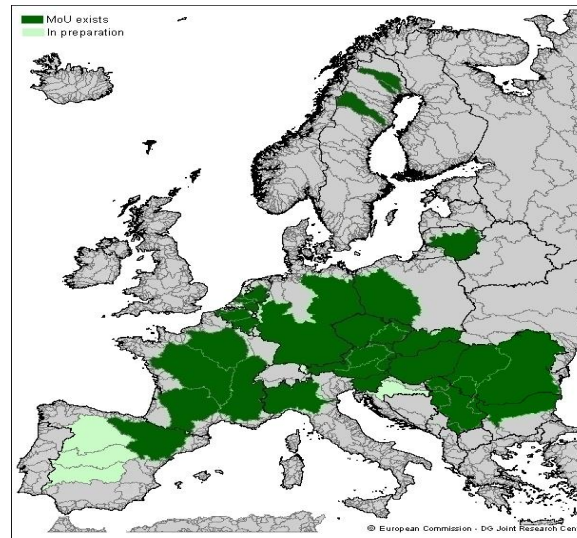
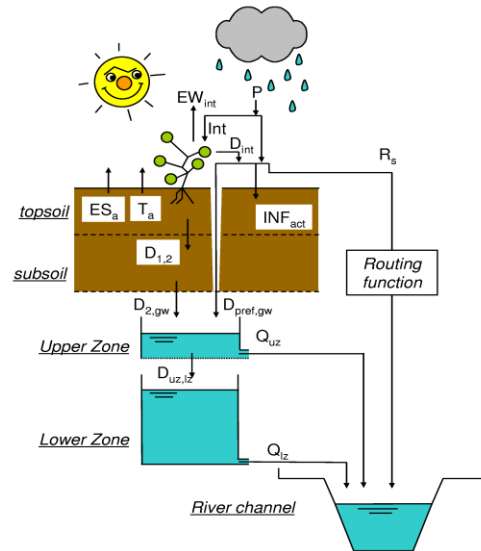
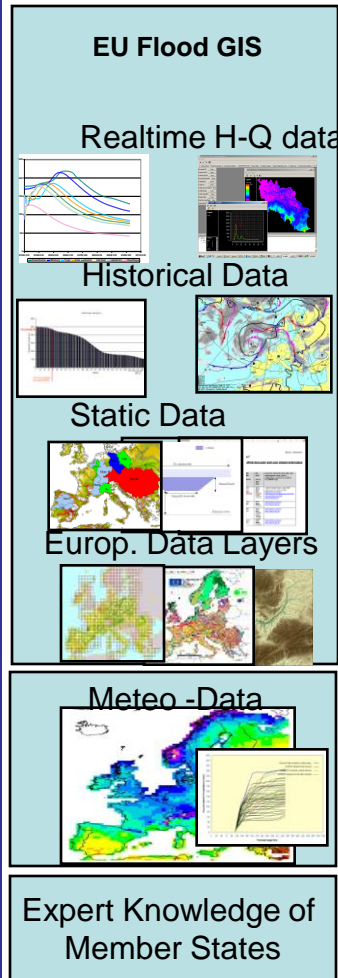


Early warning for floods

Development of a European Flood Alert System (EFAS)

Joint Research Centre

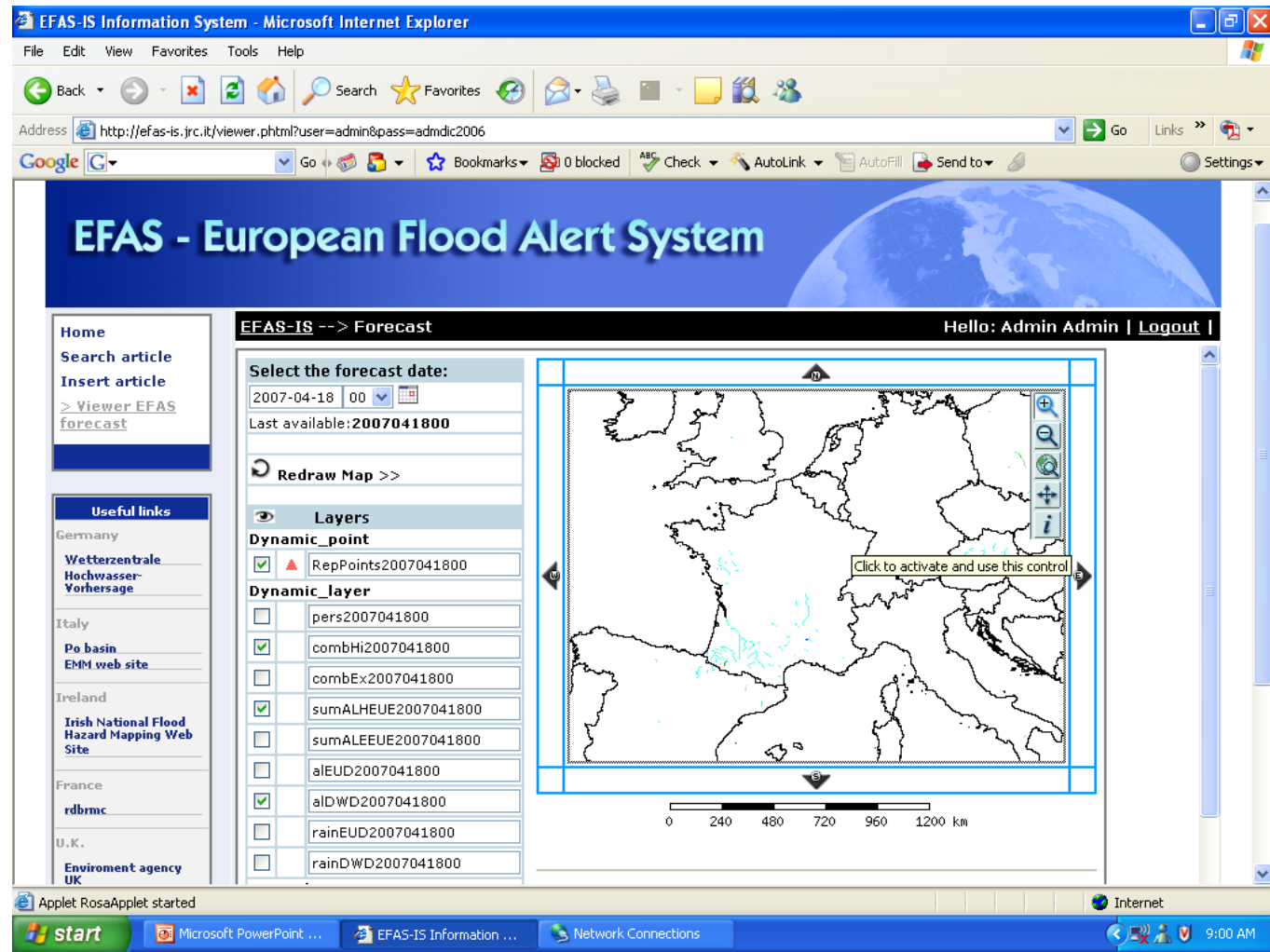


EFAS Reports

25 organisations

EFAS on-line

- web-based user interface
- password protected
- access any time
- different user access rights
- simplified EFAS warnings



2. View today's forecast ...



EFAS - European Flood Alert System

EFAS-IS --> Forecast

Select the forecast date:
 2008-02-25 12
 Last fully available: 2008022512

Redraw Map >>

Layers

Static_layer

- ☒ laea_9-48_esri_eu_country
- ☐ laea_9-48_esri_eu_urban

Dynamic_point

- ☒ DynPoints2008022512
- ☒ FixPoints2008022512

Dynamic_layer

- ☒ probGT48h2008022512
- ☒ probLT48h2008022512
- ☐ combHi2008022512
- ☐ combEx2008022512
- ☐ sumALEEUE2008022512
- ☐ sumALHEUE2008022512
- ☐ alEUD2008022512
- ☐ alDWD2008022512
- ☐ rainEUD2008022512
- ☐ rainDWD2008022512

Background_layer

- ☐ laea_9-48_esri_eu_water
- ☐ Topography

Java Mode Disabled
Click to Enable

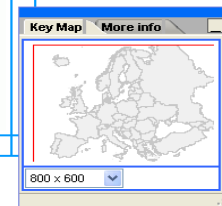
0 280 560 840 1120 1400 km

Zoom In Zoom Out Full View Recentre Query Print 2 Zoom Factor

By default: latest available
Choose information to be displayed

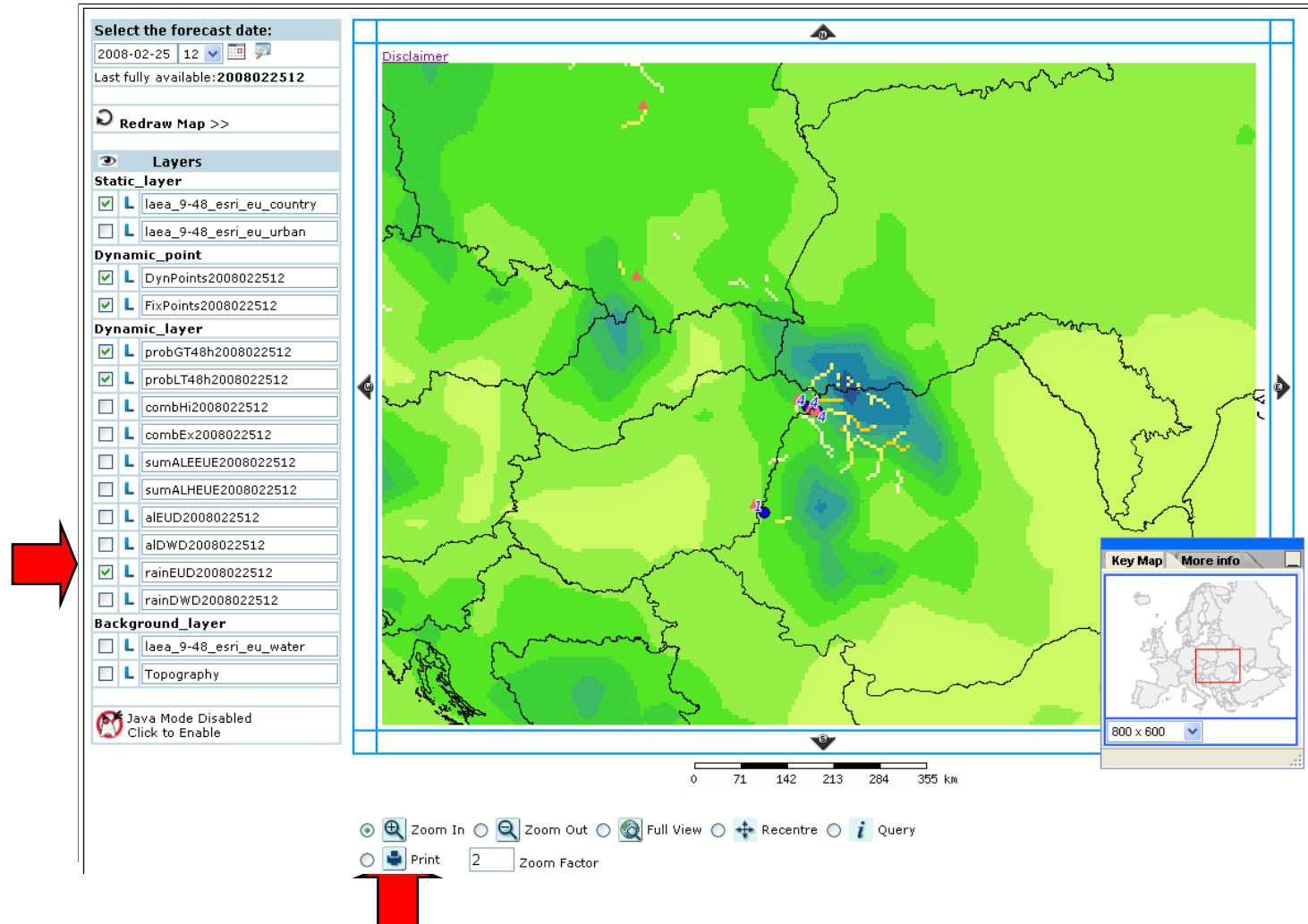
-Rainfall inputs from German national weather service (DWD) and the European Centre for medium Range weather forecasts (ECWMF)

-EFAS outputs for single runs and ensemble runs (51 weather forecasts from ECWMF)



Zoom into area of interest

Choose other variables, e.g.
rainfall



Select the forecast date:
2008-02-25 12
Last fully available: 2008022512
Redraw Map >>

Layers

Static_layer

- ☒ laea_9-48_esri_eu_country
- ☐ laea_9-48_esri_eu_urban

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- ☐ alDWD2008022512
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- ☐ rainDWD2008022512

Background_layer

- ☐ laea_9-48_esri_eu_water
- ☐ Topography

Java Mode Disabled
Click to Enable

Disclaimer

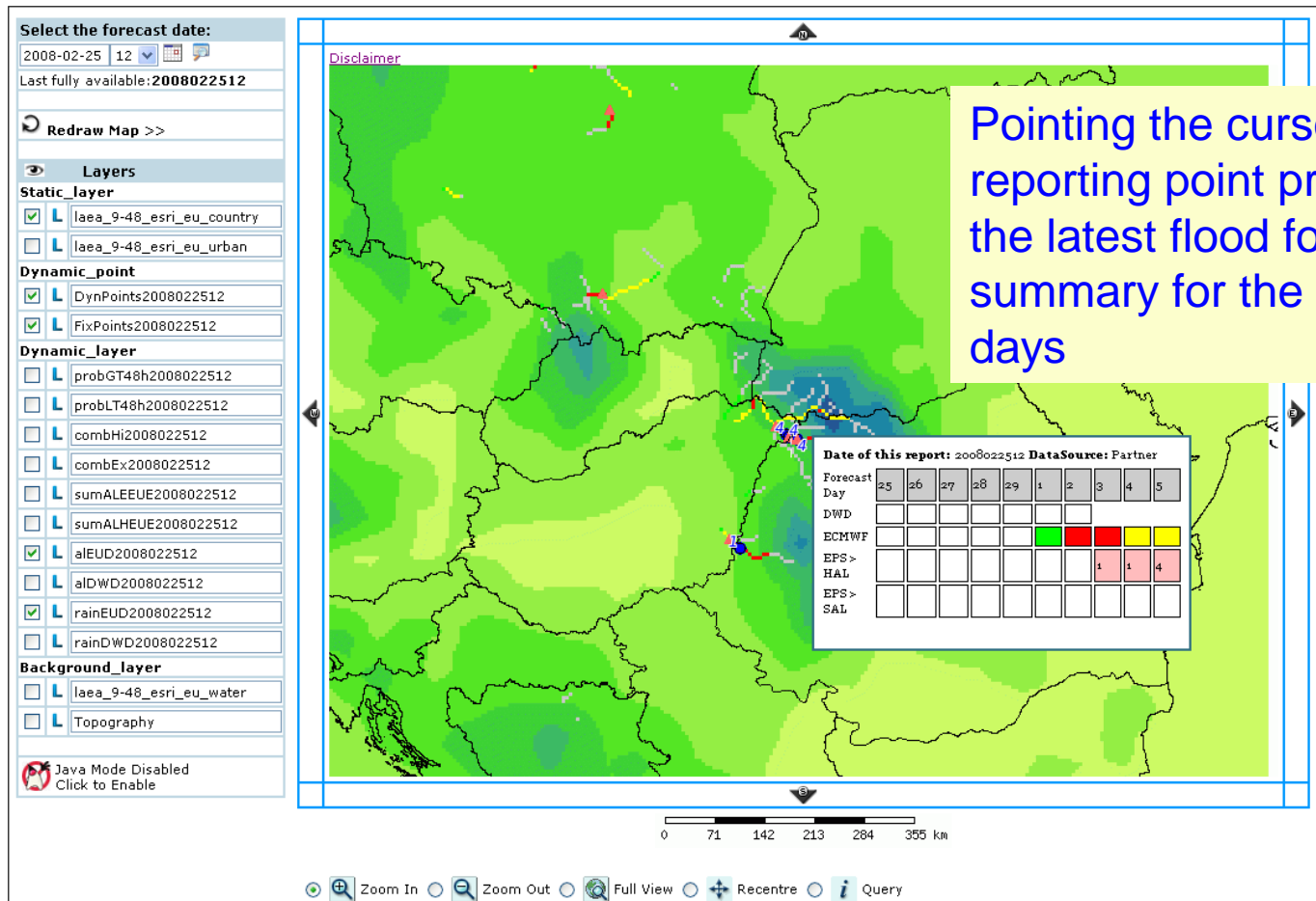
Key Map More info

800 x 600

0 71 142 213 284 355 km

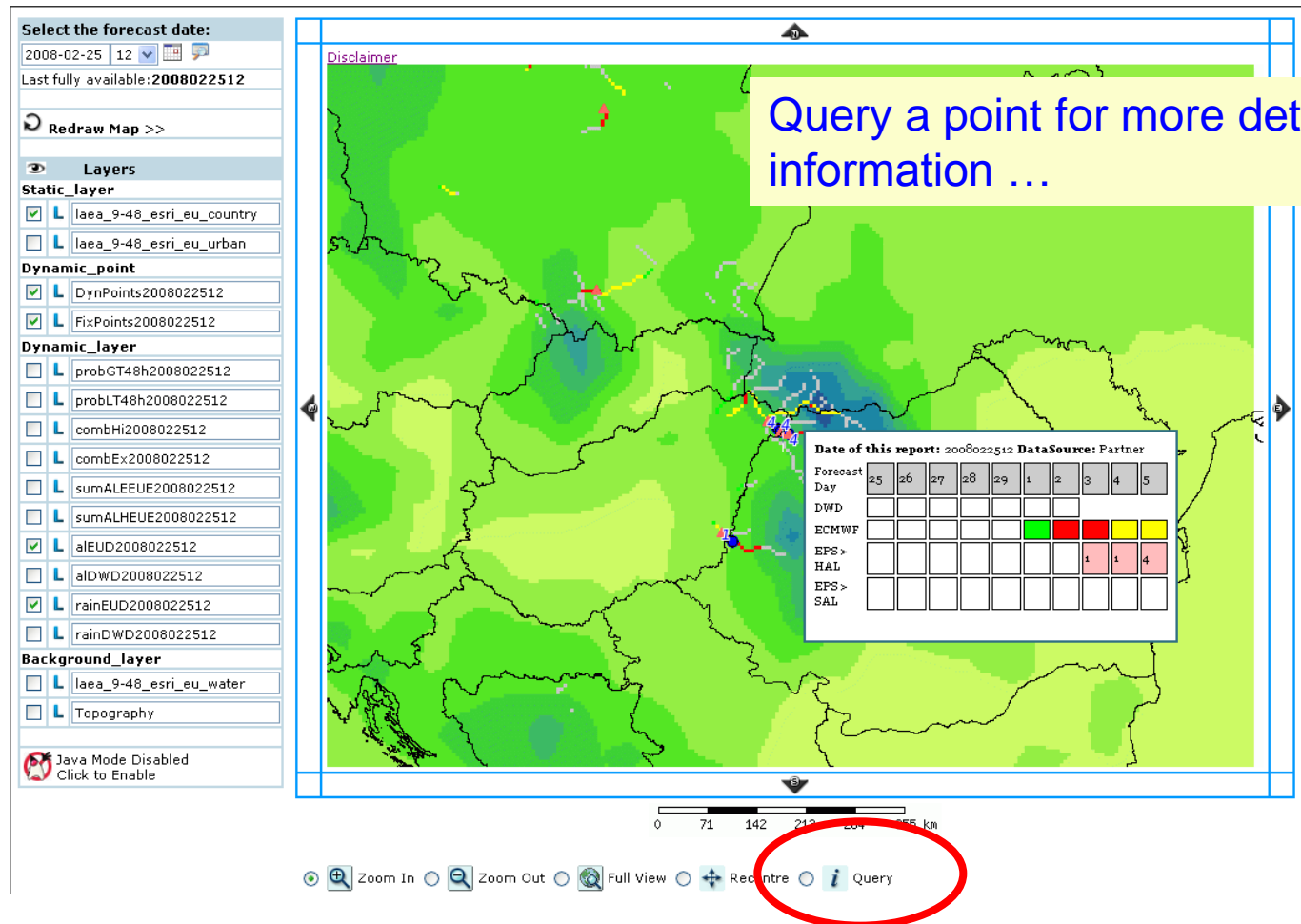
Zoom In Zoom Out Full View Recentre Query Print 2 Zoom Factor

Exceedance of flood thresholds over the next 10 days...



Pointing the cursor to a reporting point provides the latest flood forecast summary for the next 10 days

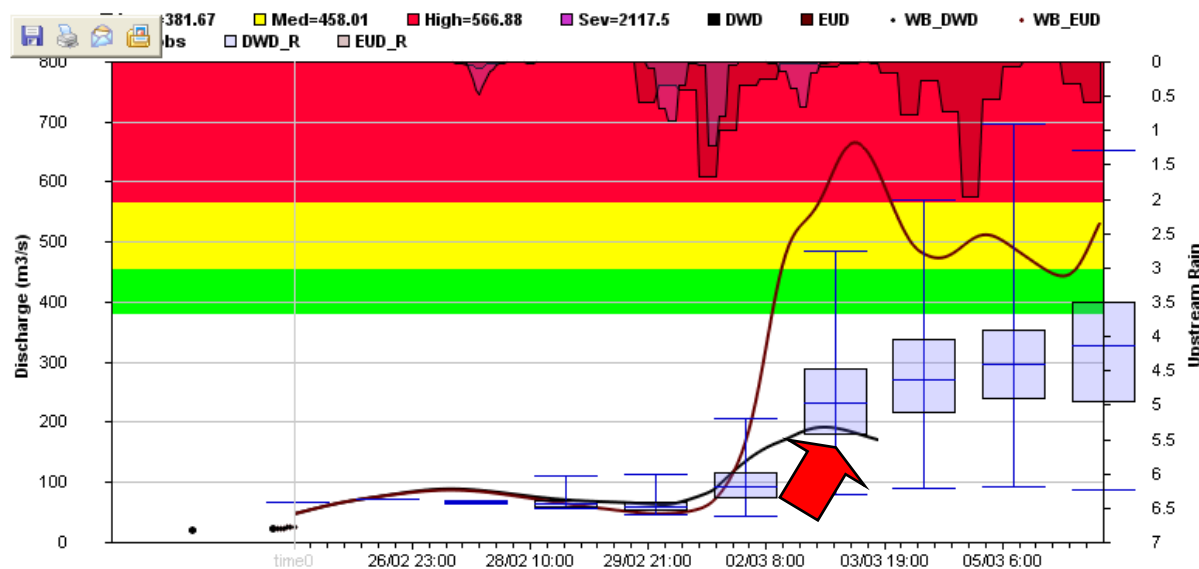
Exceedance of flood thresholds over the next 10 days...



Exceedance of flood thresholds over the next 10 days...

Country: Hungary
[MoU Status](#) MoU_Status
 River: Somes Basin: Danube/Tisza
 Upstream Area: 16475
 Probability Tendency:
 Probability value: 28
 PointID: 1001 Lat: 47.8 Long: 22.6

Detailed flood forecasts for the next 10 days based on all meteorological inputs



[Homepage](#)[On-line press articles](#)[EFAS forecasting](#)**Network reliability**

DG JRC is first and foremost a research institution, and as such the provision of operational services is not its primary role. Therefore network and server connections cannot be completely guaranteed 24 hours a day.

[>>](#)

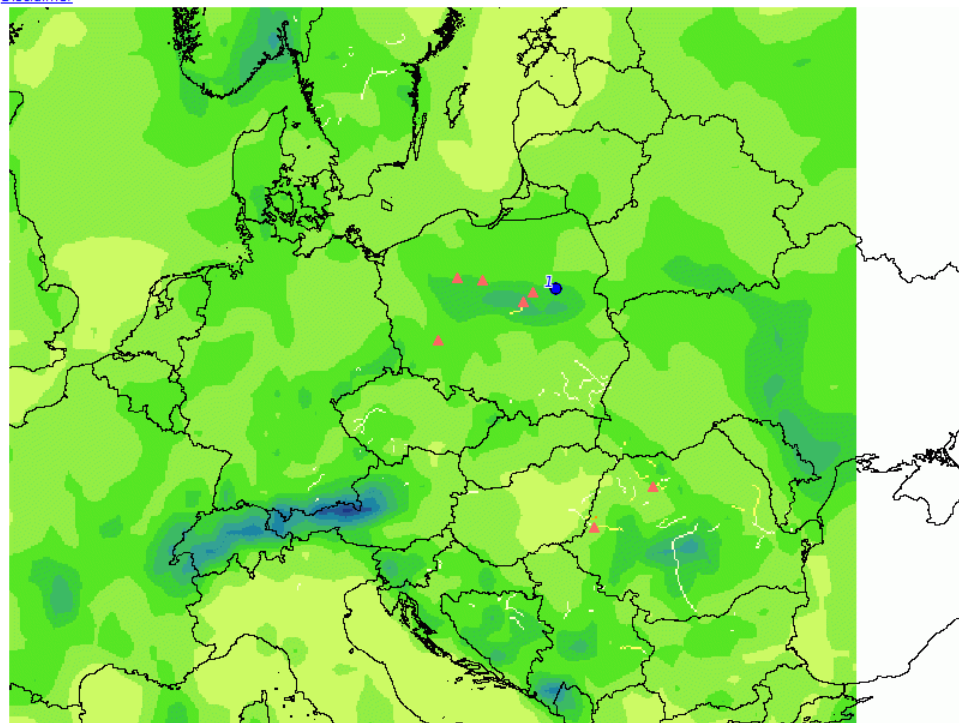
EFAS-IS --> Forecast

Hello: Ad De Roo | [Logout](#)**Forecast date**

2008-03-30 12

Last fully available: [2008033012](#)

Redraw Map >>

Layers**Static layers**☒ ? Country Borders☐ ? Urban Areas**Flood Alert Points**☒ ? Dynamic Rep. Points☒ ? Fixed Rep. Points**Flood Alert Layers**☒ ? Flood Probability > 48h☒ ? Flood Probability < 48h☐ ? Combined Det. High Alert☐ ? Combined Det. Severe Alert☐ ? No. EPS Above Severe☐ ? No. EPS Above High☐ ? Det. ECMWF☐ ? Det. DWD**Meteorological Layers**☒ ? Acc. Precip. Det. ECMWF☐ ? Acc. Precip. Det. DWD**Background layers**☐ ? Major Rivers☐ ? TopographyJava Mode Disabled
Click to Enable[Disclaimer](#)

0 140 280 420 560 700 km



Zoom In



Zoom Out



Full View



Recentre



Query



Print

2

Zoom Factor

[Key Map](#) [More info](#)[EFAS-IS Help-Troubleshooting\(125 Kbytes\)](#)

EFAS - European Flood Alert System



Homepage

On-line press articles

EFAS forecasting

Network reliability

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EFAS-IS --> Forecast

Hello: Ad De Roo | Logout

Forecast date

2008-03-30 12

Last fully available: 2008033012



Redraw Map >>

Layers

Static layers

☒ Country Borders

☐ Urban Areas

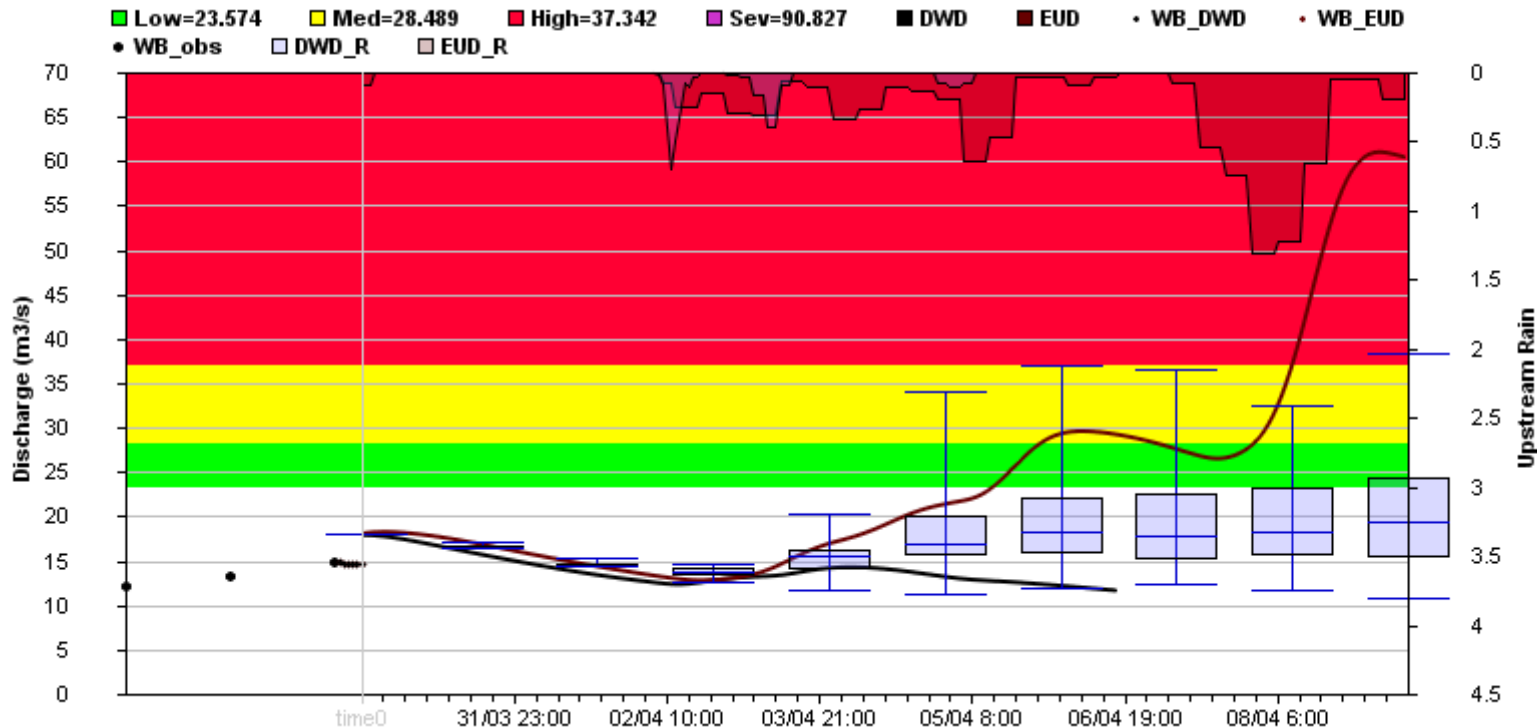
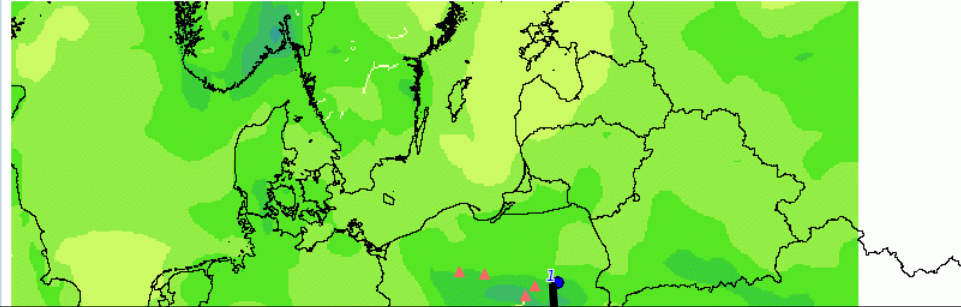
Flood Alert Points

☒ Dynamic Rep. Points

☒ Fixed Rep. Points

Flood Alert Layers

[Disclaimer](#)



EFAS info

- Key products:

- Is there a possibility for high or extreme flooding in Europe in the next 3-10 days? If so, where and when?;
- How large is the probability of this flooding;
- Was this flooding predicted 12, 24, 36 hours ago: is the forecast persistent?
- Is this flooding predicted using weather forecasts from different sources (ECMWF & DWD): is it consistent?

- Other:

- How much rainfall is predicted for the next days;
- How much snow is present in Europe, that potentially could lead to flood problems when melting starts
- Is there a possibility for high or extreme flooding in Europe in the next 2 days? If so, where and when?
 - NOTE: this is normally provided by the National Services, but not available for Europe at a single website
- Where is ongoing high or extreme flooding in Europe (available when ETN-R is ready)
 - NOTE: this is normally provided by the National Services, but not available for entire Europe at one site

EFAS added value

- First transboundary system for early flood warning
 - Information from upstream countries available to downstream countries;
- Provides national authorities of countries with 3 to 10 days to prepare for large floods (typically 5-6 days);
 - Earlier warning than possible in most countries;
- Could provide National Civil Protection via MIC with simplified info on major, large scale floods
 - Could serve to prepare crossborder assistance
- EFAS contains state-of-the-art hydrological and meteorological models and forecasting products;
 - Use state of the art weather forecasts (ECMWF, DWD, COSMO LEPS)
 - Directly benefits from research projects (EFFS, FLOODSITE, PREVIEW)
 - Contributes to information exchange on forecasting (EXCIFF)
 - JRC will continue to further develop EFAS-DANUBE to included the latest technologies

Current status EFAS

- Available on line to EFAS members
- Improved snow cover & melting calibration
- Ongoing: additional gathering historical data (EU-FLOOD-GIS + ETN-R)
- Ongoing: gathering near real-time discharge (ETN-R)
- Ongoing: gathering near real-time meteorological data (EU FLOOD-GIS)

Way forward

- Inclusion of further forecast products (PREVIEW):
 - COSMO LEPS high resolution weather ensembles
 - ECMWF VAREPS new weather ensembles
 - DWD new weather forecast model
- Training session foreseen in June 2008, in Hungary for Danube countries(co-organised with VITUKI & PREVIEW project); others foreseen for future
- EFAS will run at JRC until the transfer & operational status of EFAS is clear and finalised
- SK, NL, SE have offered to run EFAS-DANUBE in operational mode (2009/2010 onwards), IT still under discussion.
- Negotiations on this are ongoing between DG ENV and DG JRC