

INLINE – Integrated pan-European rainfall and floods impact forecasts for cooperation in emergency management

Impact Forecasts and Notifications Ready for Demonstration

Milestone 8

15 July 2026

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1 Introduction and scope

This milestone report sets out the how the developments undertaken during work package 3 have been integrated into the INLINE platform to be ready for the demonstration period between months 6 to 24 of the project. These developments include a new set of forecast products and a user configurable notification service.

2 Integration of new forecast products

During tasks 3.1 and 3.2, a new set of storm hazard and risk forecast products, based on a convolutional neural network (CNN) nowcasting algorithm, were developed. Details about the methodology are given in deliverable 3.1 (Pulkkinen *et al.*, 2025). Based on this work, one new product showing the radar reflectivity nowcast created using the CNN method was integrated into the INLINE platform. This will be shown alongside the current equivalent nowcast product created by pure advection of the observed gauge-adjusted reflectivity map. Users can therefore compare the two methods to see if the CNN method can better represent the temporal evolution of a storm system. The storm hazard and risk products (for lightning, wind and precipitation) have also been updated to reflect the new method to calculate them. Previously, the products were displayed as ellipses, they will now be displayed as gridded products (Figure 1).

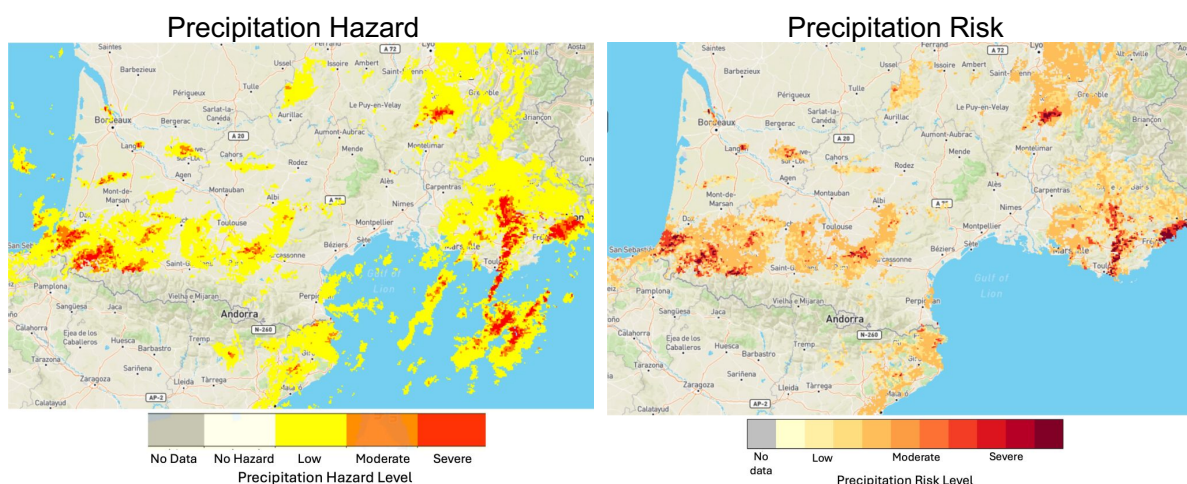


Figure 1 Examples of the new precipitation hazard and risk products which have been integrated into the INLINE web platform.

These new storm hazard and risk nowcasting products are being generated in real time (every 15-minutes) by FMI and disseminated by FTP (File Transfer Protocol) to UPC who ingest the data into the INLINE web platform.

3 INLINE user configurable notification service

A user-configurable notification service within the INLINE web platform has been developed. It allows users to specify their criteria for receiving notifications about events forecasted in the INLINE web platform. Users can specify the following criteria:

- Products of interest
- Area of interest
- Minimum warning level
- Frequency of receiving email notifications

The notification has been implemented within the INLINE web platform. It can be accessed through an icon available on the right-hand side of the web platform. A user is presented with a menu where they can specify their criteria for receiving notifications (Figure 2).

When a forecast meets the user's specified criteria, they will receive an email notification (Figure 3).

The notification service has been demonstrated to members of the INLINE Community of Interest (CoI) through CoI meetings and during the International Demonstration Workshop held in Lisbon (Portugal) between 26 and 28 May 2026. Training materials, including a video, have been produced to accompany this service (<https://mistral.upc.es/inline-platform/how-tos/>).

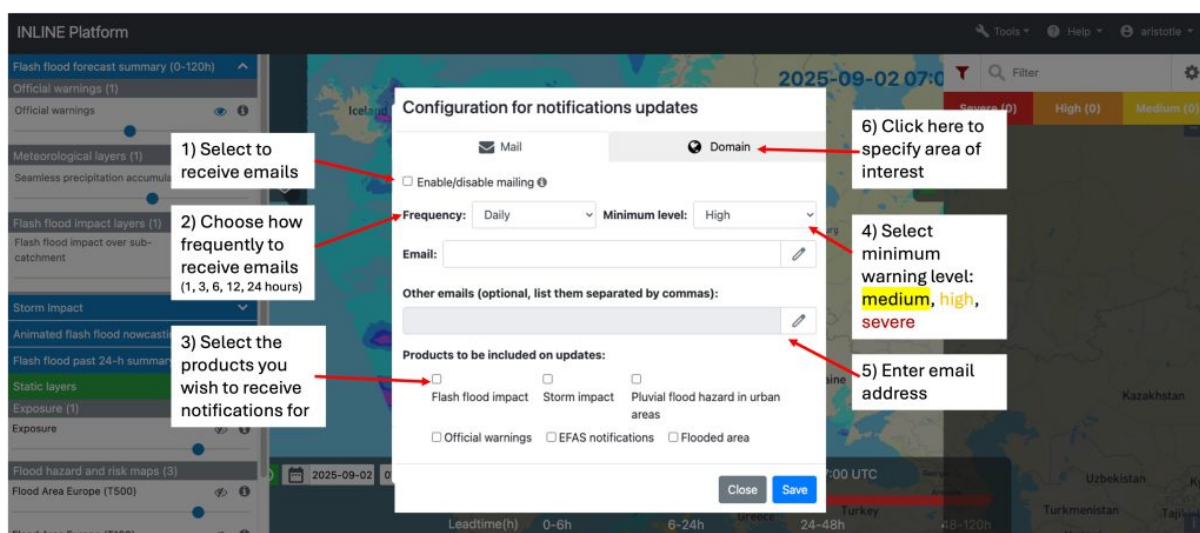
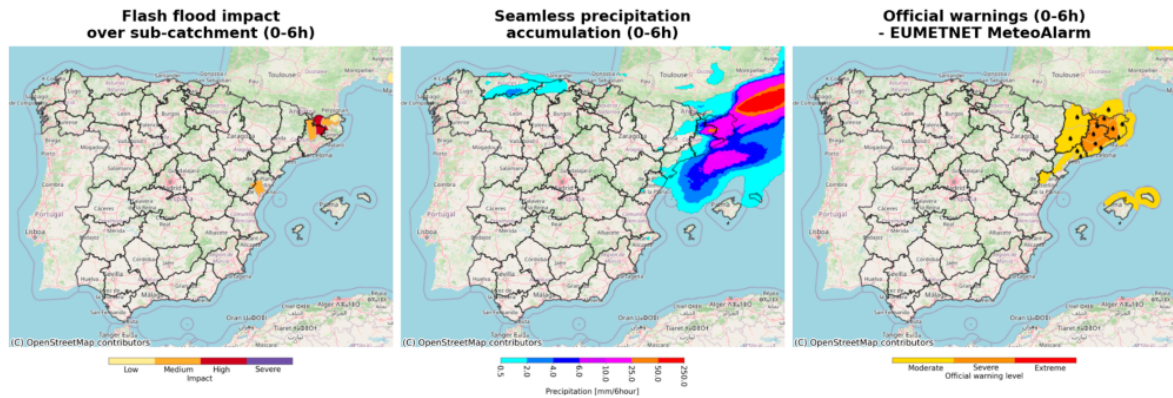


Figure 2 User configurable notification service available within the INLINE web platform.



Notification ID	Type	Source	Area	Level	Start time	End time
60206665	Flood	Edera product notification (Flash flood impact)	Barcelona	3	2026-06-04 19:00 UTC	2026-06-05 01:00 UTC
60206664	Flood	Edera product notification (Flash flood impact)	Girona	2	2026-06-04 19:00 UTC	2026-06-05 01:00 UTC

Figure 3 Example of an email notification which a user will receive if a forecast within the INLINE web platform meets their specified criteria.