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

Co-funded by the European Union

INLINE project

Marc Berenguer

Centre de Recerca Aplicada en Hidrometeorologia
UNIVERSITAT POLITÈCNICA DE CATALUNYA
ECMWF
ILMATIETEEN LAITOS METEOROLOGISKA INSTITUTET FINNISH METEOROLOGICAL INSTITUTE
aemet Agencia Estatal de Meteorología
IPMA Instituto Português do Mar e da Atmosfera
EMA Agencia de Emergencias de Andalucía
Junta de Andalucía
GOBIERNO DE ESPAÑA MINISTERIO DEL INTERIOR
DIRECCIÓN GENERAL DE PROTECCIÓN CIVIL Y EMERGENCIAS
EMERGÊNCIA E PROTEÇÃO CIVIL AUTORIDADE NACIONAL

Project summary

Integrated pan-European rainfall and floods Impact forecasts for cooperation in Emergency Management

- **Duration:** 01 Mar 2025 - 28 Feb 2027 (24 months)
- **Call:** KAPP-2024-UCPM
- **Budget:** 1,173,954.78€ (grant: 997,861.55€)
- **Partners:**

Universitat Politècnica de Catalunya (ES)

European Centre for Medium-range Weather Forecasts (INT)

Finnish Meteorological Institute (FI)

State Agency of Meteorology (ES)

Institute for Sea and Atmosphere (PT)

Environment and Water Agency of Andalusia (ES)

Directorate-General for Civil Protection and Emergencies (ES)

National Authority of Emergency and Civil Protection (PT).

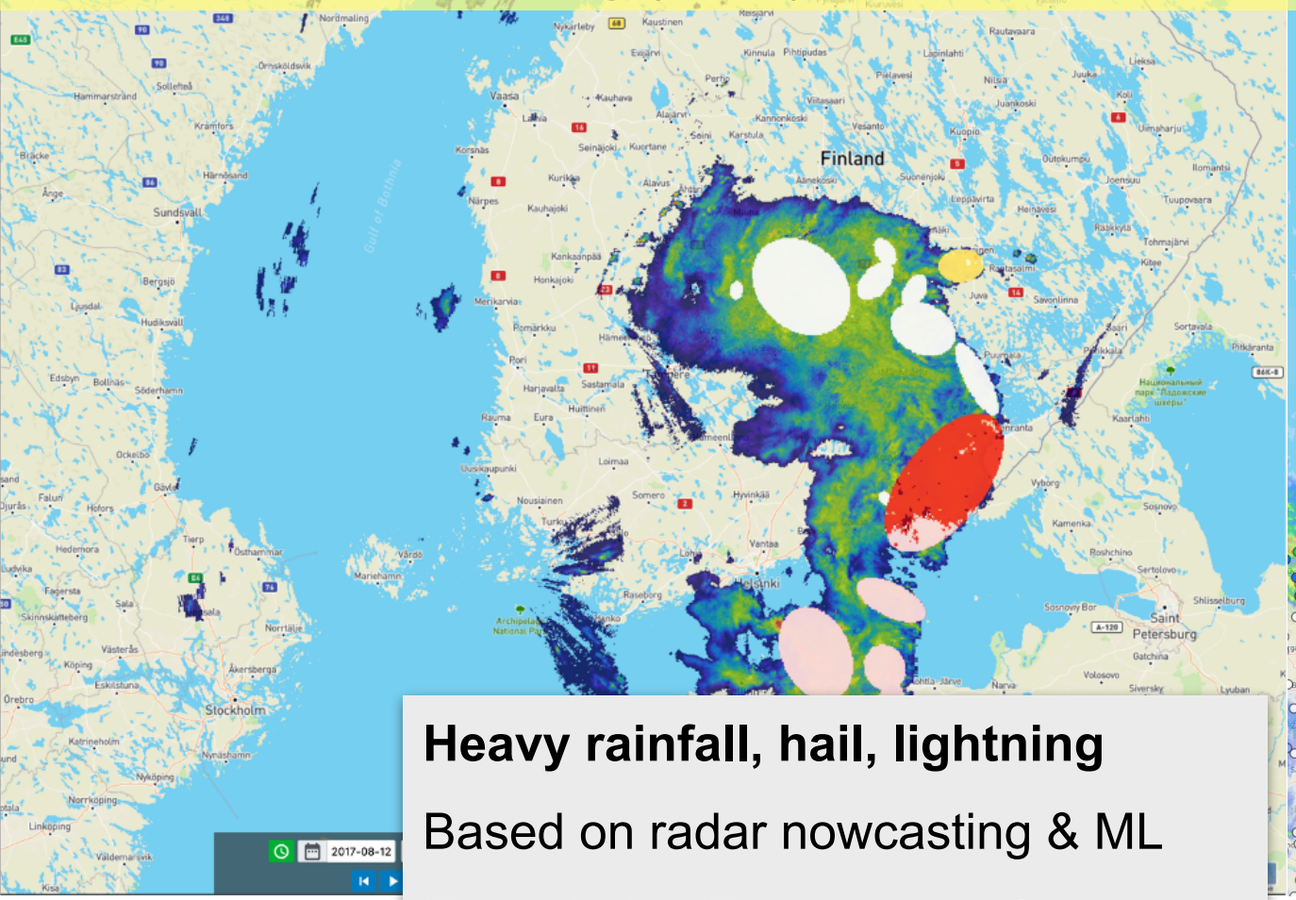
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the European Union

Main objective

Advance on the capabilities of EWS with tools to anticipate the impacts caused by storms, heavy rain and floods, to support the decision-making workflows of various levels of Civil Protection Agencies (CPAs), including their coordination and cooperation.

Impact forecasts for storms and heavy rainfall

Storm impact nowcasting (0-3 h).



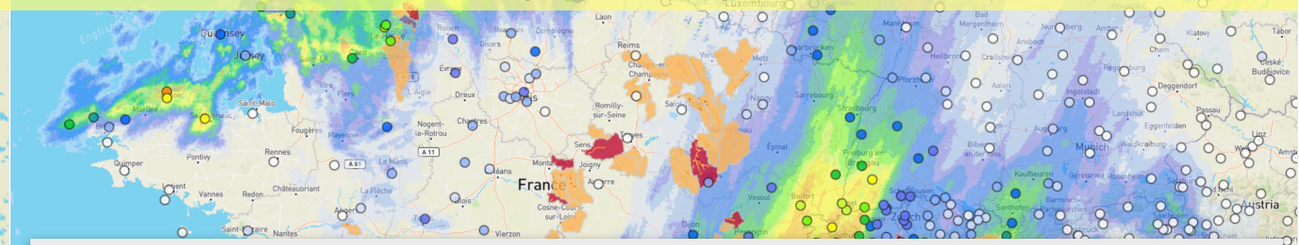
Heavy rainfall, hail, lightning

Based on radar nowcasting & ML

Extended to European scale

European-wide exposure.

Flash flood impacts (0-120 h).



Flash floods (basins 10 - 2000 km²)

Resolution: 1 h, 1 km - Update: 1 h

Blended precipitation forecasts → Flash flood hazard → Flash flood impacts

- Using probabilistic nowcasting & NWP.
- Seamless blending in the first 6 hours

- Basin-aggregated precipitation on the drainage network (1 km).
- Hazard assessment by comparison with climatological thresholds.

- By combining hazard with exposure.

Specific objectives and expected outputs

- **Improved precipitation estimation for hydrological forecasting.**
- **Enhanced pan-European impact forecasting products with the use of AI**, applying a strategy to provide compound impact forecasts, and implement configurable user-defined notifications.

→ *more reliable and longer storm probabilistic hazard nowcasts*

→ *improved impact forecasts by combining the hazard with multiple exposure datasets*

- **Local adaptability of multi-hazard storms and compound floods forecasting** for improved preparedness and response management during flood events.

→ *New/more flexible notification functionalities*

- **Demonstration of the impact forecasts with end users** at European scale and in the pilot site.

→ *Assessment of the added value of the integration for CPAs*

- **Creation of an INLINE Community of Interest** to promote the adoption of the developed impact forecasting products and functionalities.

→ *Uptake of developed functionalities for storms and floods forecasting*

→ *Sustainability of the products*

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INLINE demonstration

- September 2025 – November 2026.

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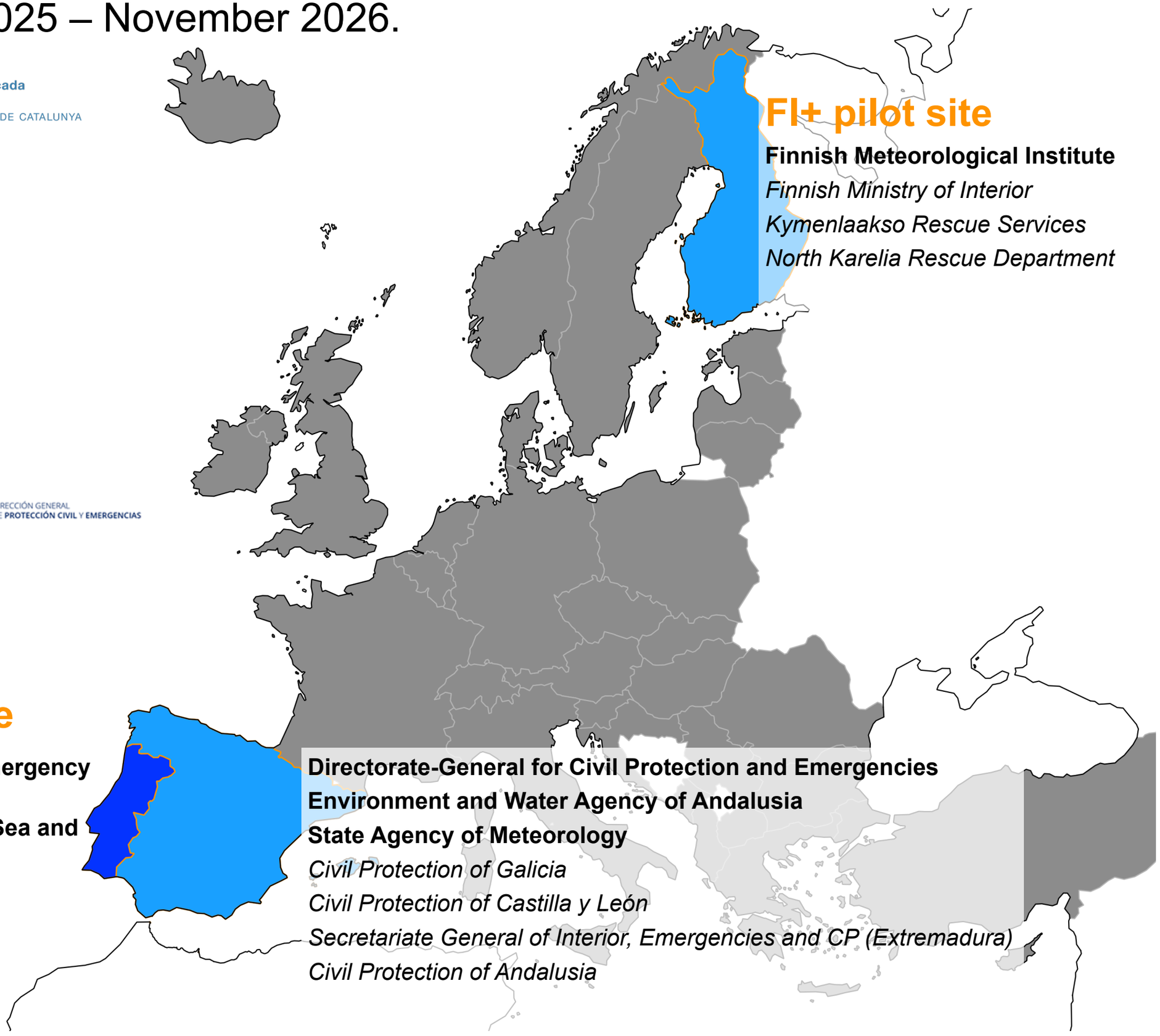
aemet
Agencia Estatal de Meteorología

IPMA Instituto Português do Mar e da Atmosfera

Agencia de Medio Ambiente y Agua de Andalucía
Consejería de Agricultura, Pesca, Agua y Desarrollo Rural
Consejería de Sostenibilidad, Medio Ambiente y Economía Azul

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AUTORIDADE NACIONAL EMERGÊNCIA E PROTEÇÃO CIVIL



FI+ pilot site

Finnish Meteorological Institute
Finnish Ministry of Interior
Kymenlaakso Rescue Services
North Karelia Rescue Department

ES-PT pilot site

National Authority of Emergency and Civil Protection

Portuguese Institute of Sea and Atmosphere

Directorate-General for Civil Protection and Emergencies
Environment and Water Agency of Andalusia
State Agency of Meteorology
Civil Protection of Galicia
Civil Protection of Castilla y León
Secretariate General of Interior, Emergencies and CP (Extremadura)
Civil Protection of Andalusia

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INLINE demonstration

- September 2025 – November 2026.

INLINE COMMUNITY OF INTEREST

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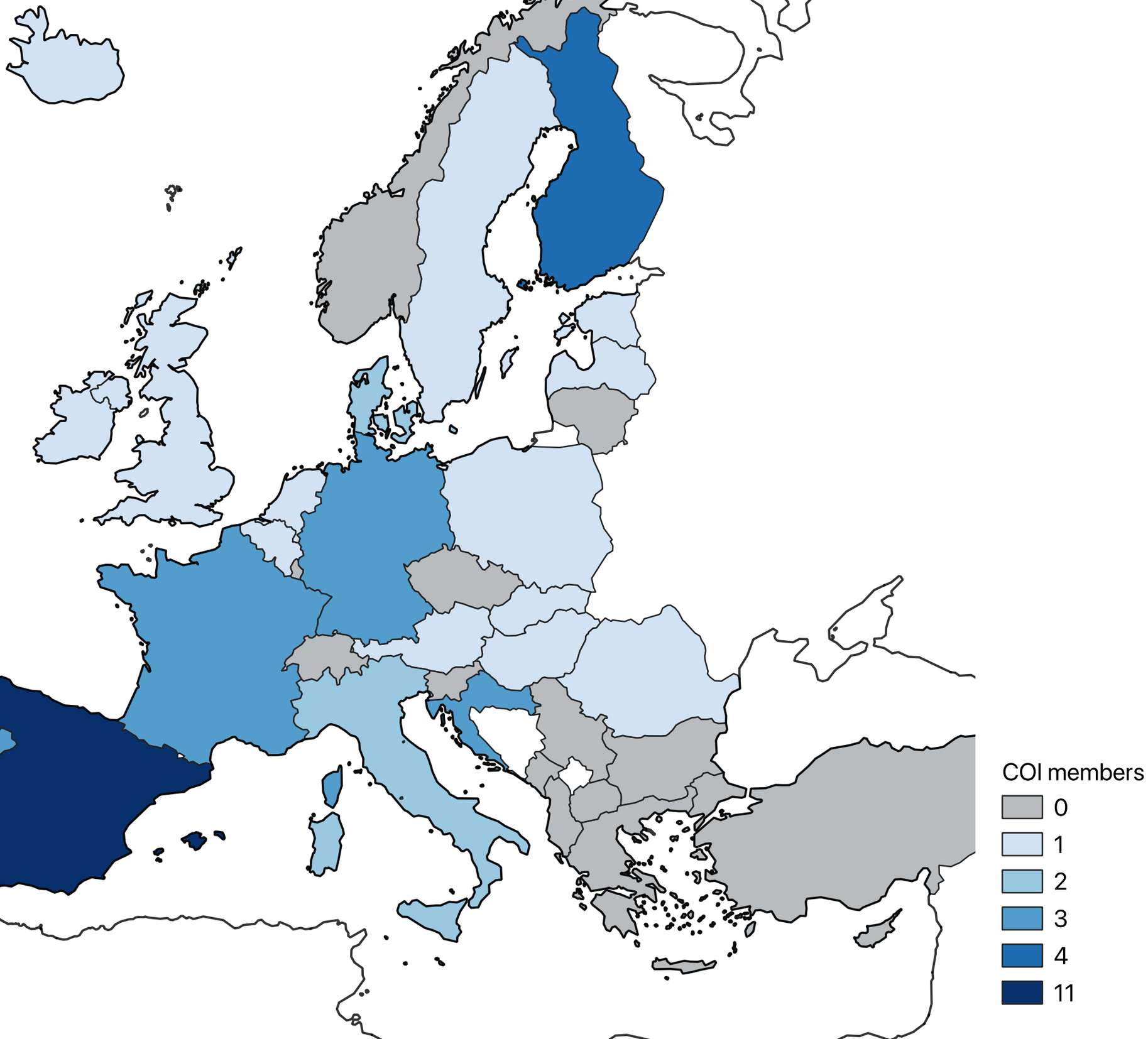
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EMERGÊNCIA E PROTEÇÃO CIVIL · AUTORIDADE NACIONAL ·



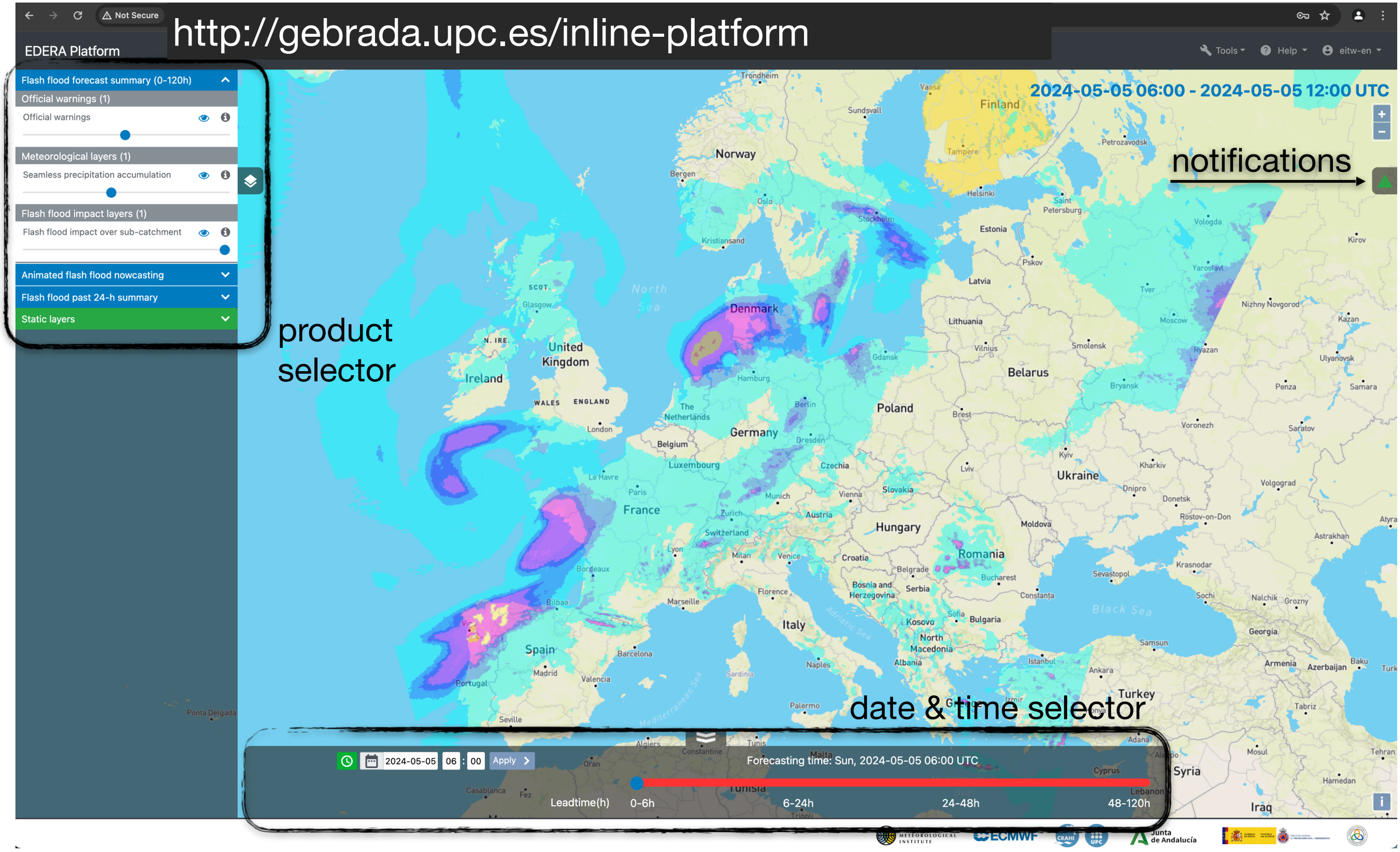
INLINE

INLINE demonstration

- September 2025 – November 2026.
- With the participation of end users.
- Access to the products in real time through
  - + INLINE web-based platform.
  - + WMS
- Integration of *local* products/information (exposure, vulnerability, obs…)
- Notifications adapted to the end user.
- Contribution to the evaluation (feedback about the products, functionalities and results during events).

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EDERA/INLINE web-based platform



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Real-time compound impact forecasting for CPAs

Combining hazard and impact forecasts, official warnings and exposure and vulnerability datasets for compound impact forecasting to support coordination and cooperation of CPAs.

Integrated through tailored notifications

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Notifications

Combining hazard and impact forecasts, official warnings and exposure and vulnerability datasets for compound impact forecasting to support coordination and cooperation of CPAs.

- Summarised over territorial units (depending on the level of CPA).
- Displayed in the list of notifications.
- Trigger of automatic messages (based on the thresholds and frequency defined by the user).

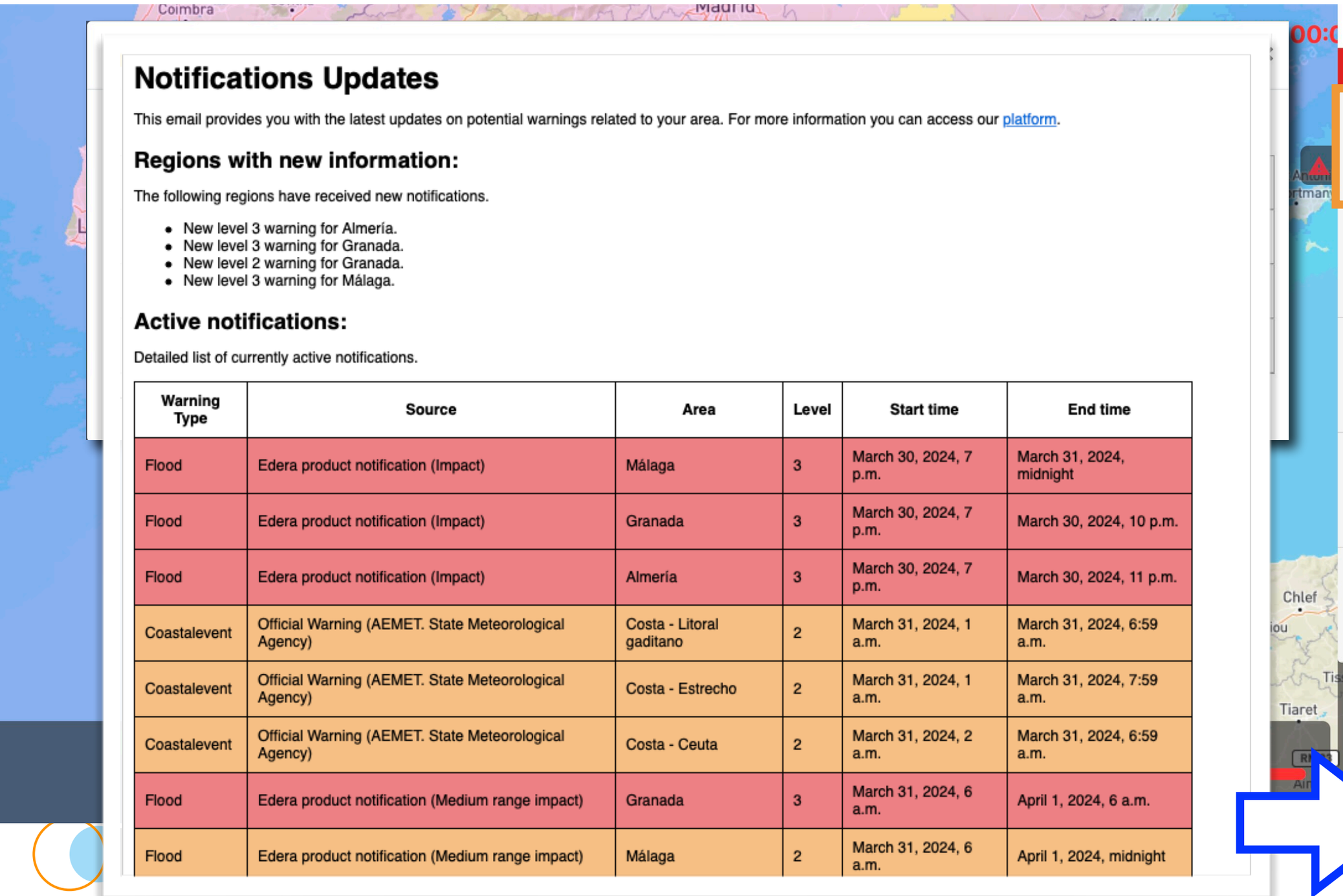
Examples:

- Official warnings (issued by the NHMs authorities).
- Directly based on the available real-time products.
- By dynamic combination of products and exposure datasets (e.g. significant flood hazard near a Seveso).

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Notifications

Combining hazard and impact forecasts, official warnings and exposure and vulnerability datasets for compound impact forecasting to support coordination and cooperation of CPAs.



Notifications Updates

This email provides you with the latest updates on potential warnings related to your area. For more information you can access our platform.

Regions with new information:

The following regions have received new notifications.

- New level 3 warning for Almería.
- New level 3 warning for Granada.
- New level 2 warning for Granada.
- New level 3 warning for Málaga.

Active notifications:

Detailed list of currently active notifications.

Warning Type	Source	Area	Level	Start time	End time
Flood	Edera product notification (Impact)	Málaga	3	March 30, 2024, 7 p.m.	March 31, 2024, midnight
Flood	Edera product notification (Impact)	Granada	3	March 30, 2024, 7 p.m.	March 30, 2024, 10 p.m.
Flood	Edera product notification (Impact)	Almería	3	March 30, 2024, 7 p.m.	March 30, 2024, 11 p.m.
Coastalevent	Official Warning (AEMET. State Meteorological Agency)	Costa - Litoral gaditano	2	March 31, 2024, 1 a.m.	March 31, 2024, 6:59 a.m.
Coastalevent	Official Warning (AEMET. State Meteorological Agency)	Costa - Estrecho	2	March 31, 2024, 1 a.m.	March 31, 2024, 7:59 a.m.
Coastalevent	Official Warning (AEMET. State Meteorological Agency)	Costa - Ceuta	2	March 31, 2024, 2 a.m.	March 31, 2024, 6:59 a.m.
Flood	Edera product notification (Medium range impact)	Granada	3	March 31, 2024, 6 a.m.	April 1, 2024, 6 a.m.
Flood	Edera product notification (Medium range impact)	Málaga	2	March 31, 2024, 6 a.m.	April 1, 2024, midnight

Filter (ex: Litoral gaditano)

Severe (2) | High (5) | Medium (20)

Cádiz
Source: Edera
Type: Edera event notification
Hazards:

Costa - Estrecho
Source: MeteoAlarm (AEMET)
Type: Official warning
Hazards:

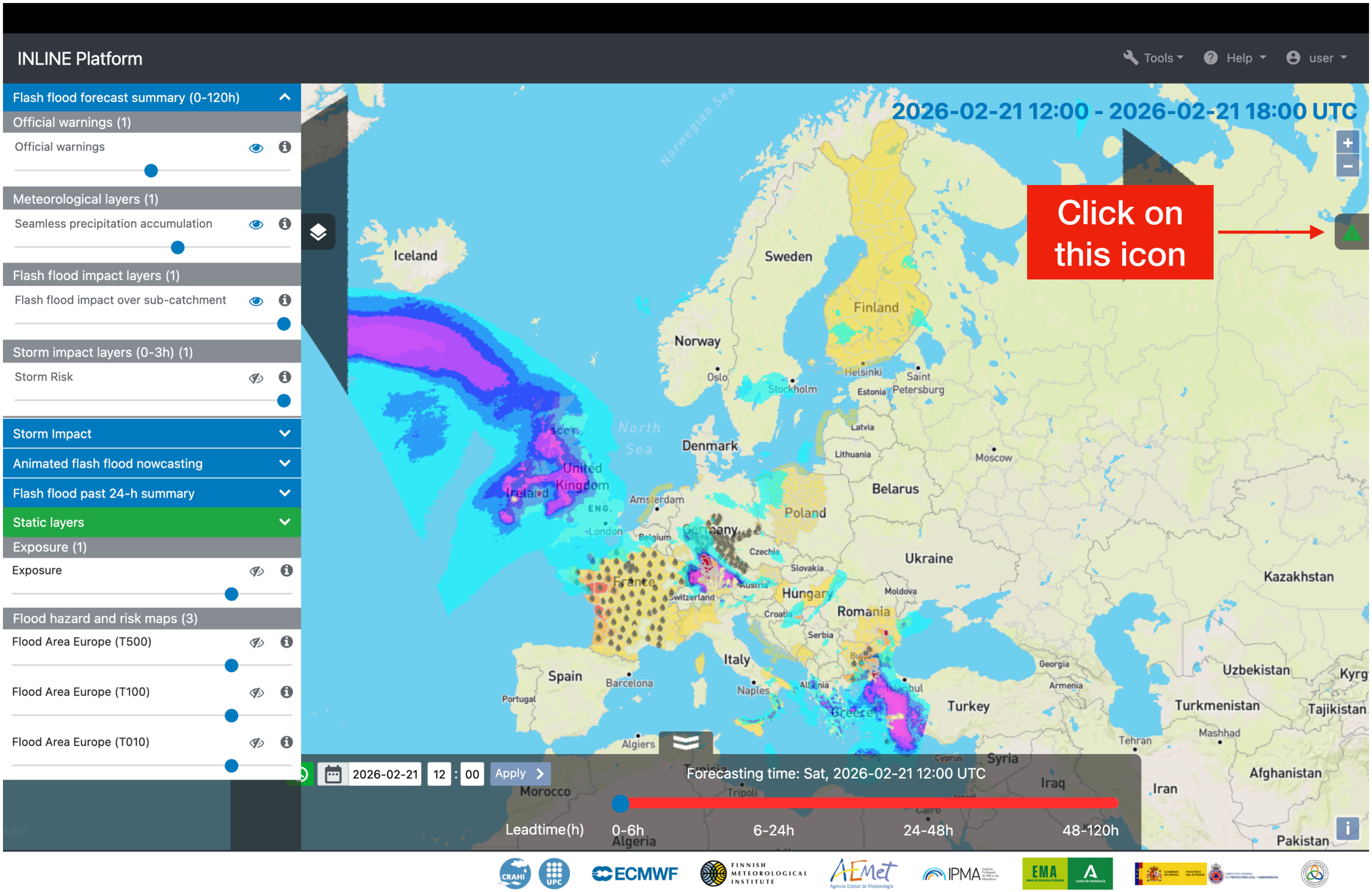
Costa - Litoral gaditano
Source: MeteoAlarm (AEMET)
Type: Official warning
Hazards:

Almería
Source: Edera
Type: Edera event notification
Hazards:

Córdoba
Source: Edera
Type: Edera event notification
Hazards:

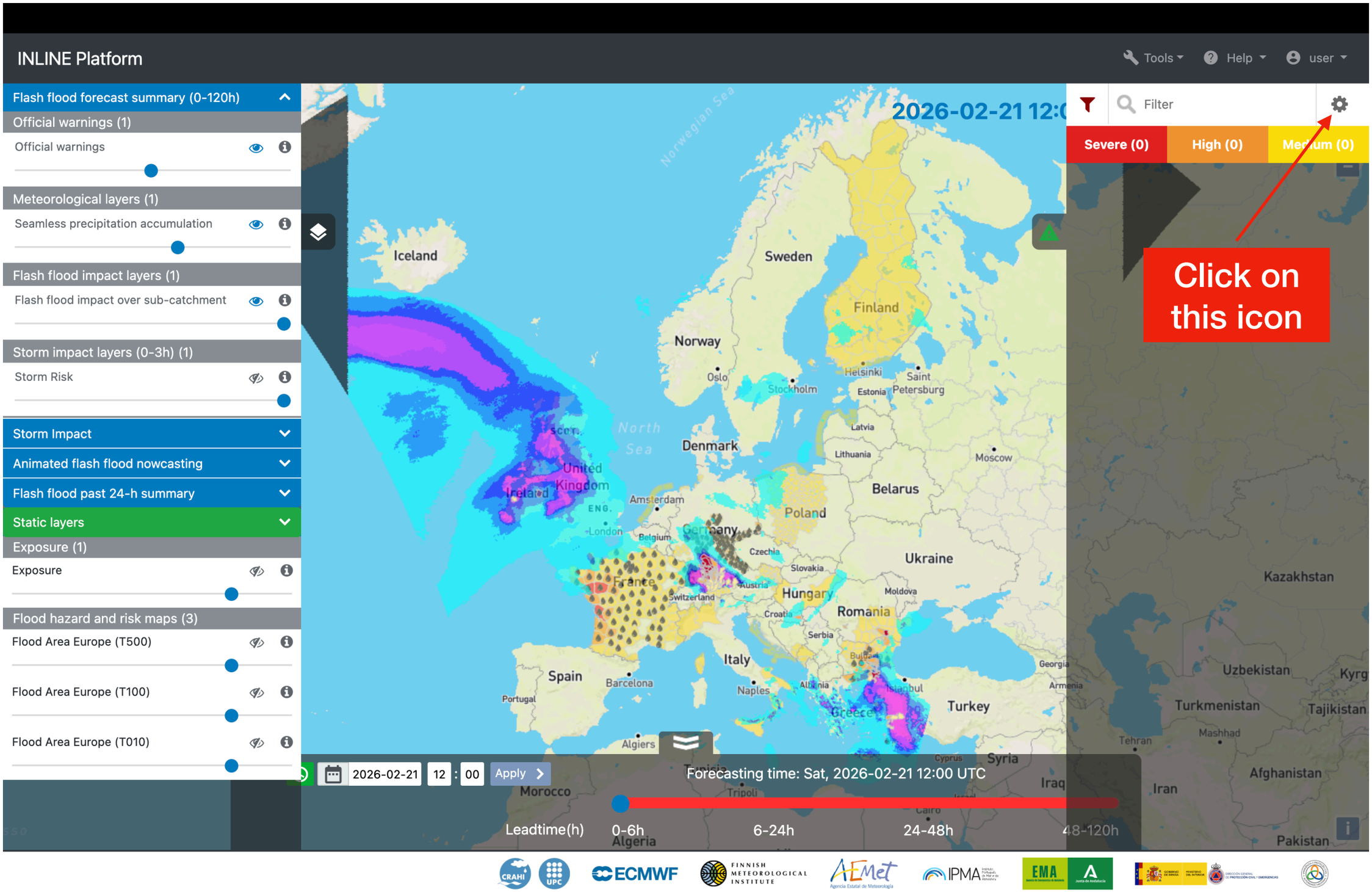
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Notifications - Domain configuration



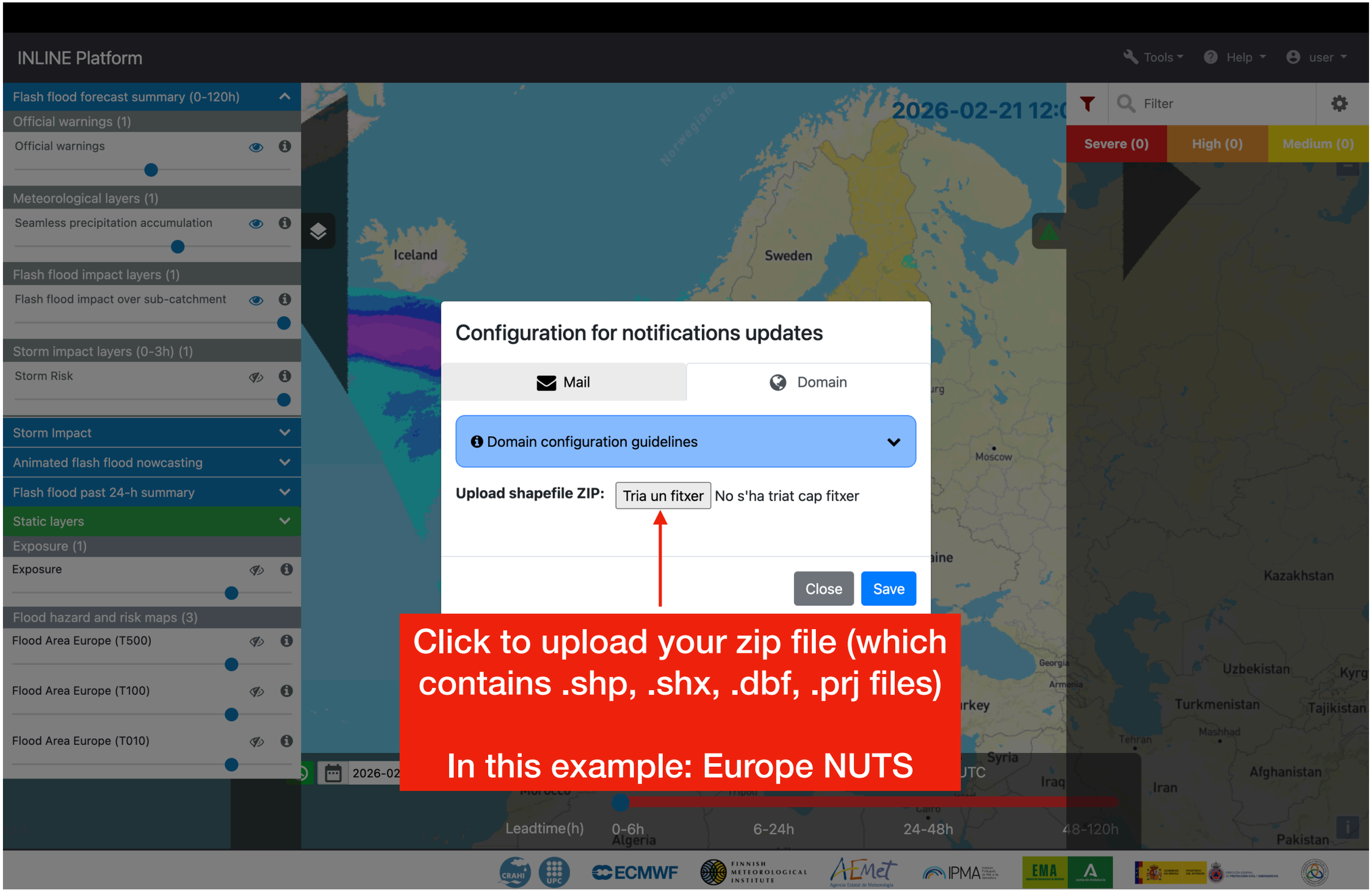
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Notifications - Domain configuration



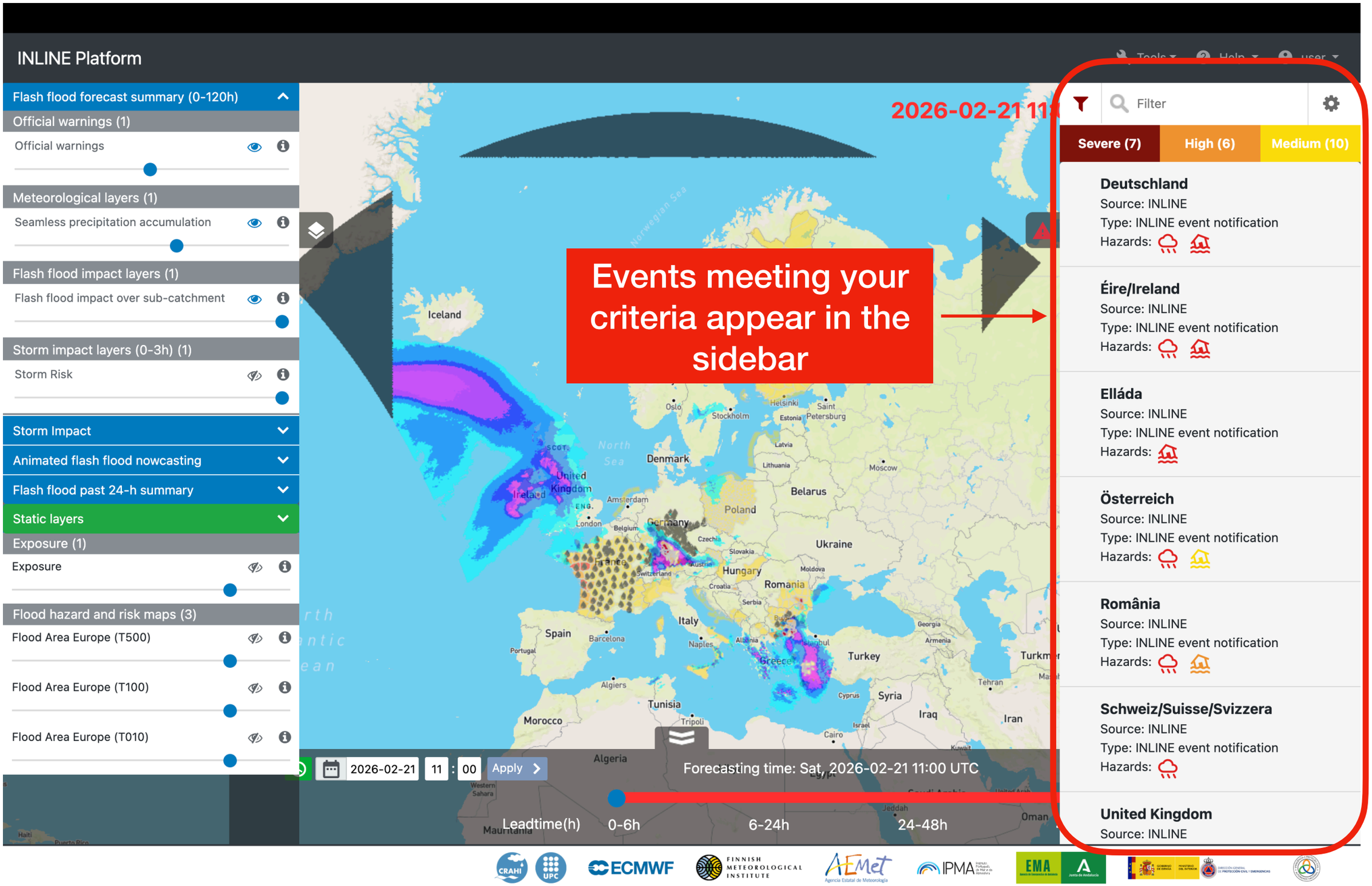
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Notifications - Domain configuration



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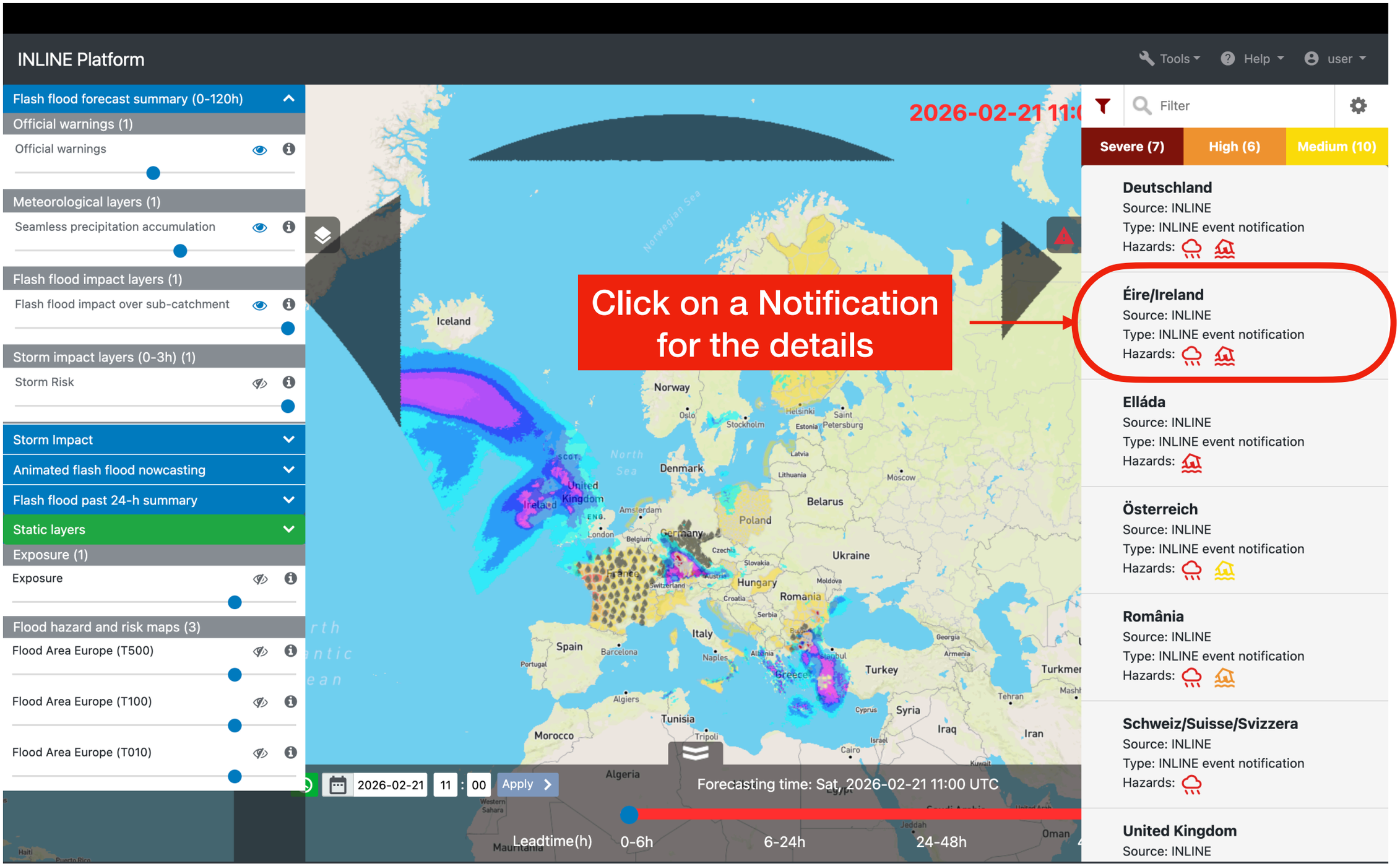
INLINE notifications - Notifications in the platform



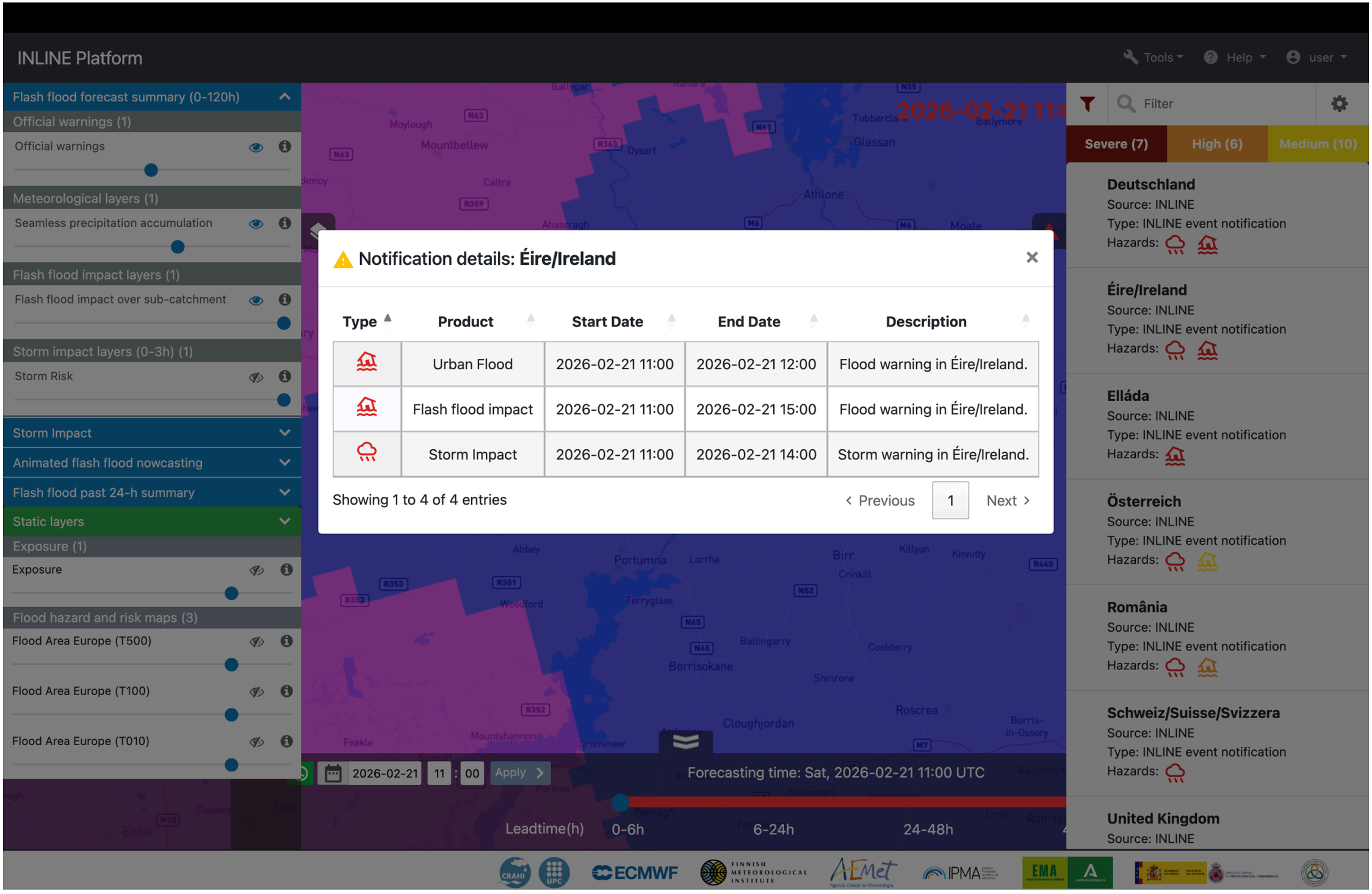
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INLINE notifications - Notifications in the platform



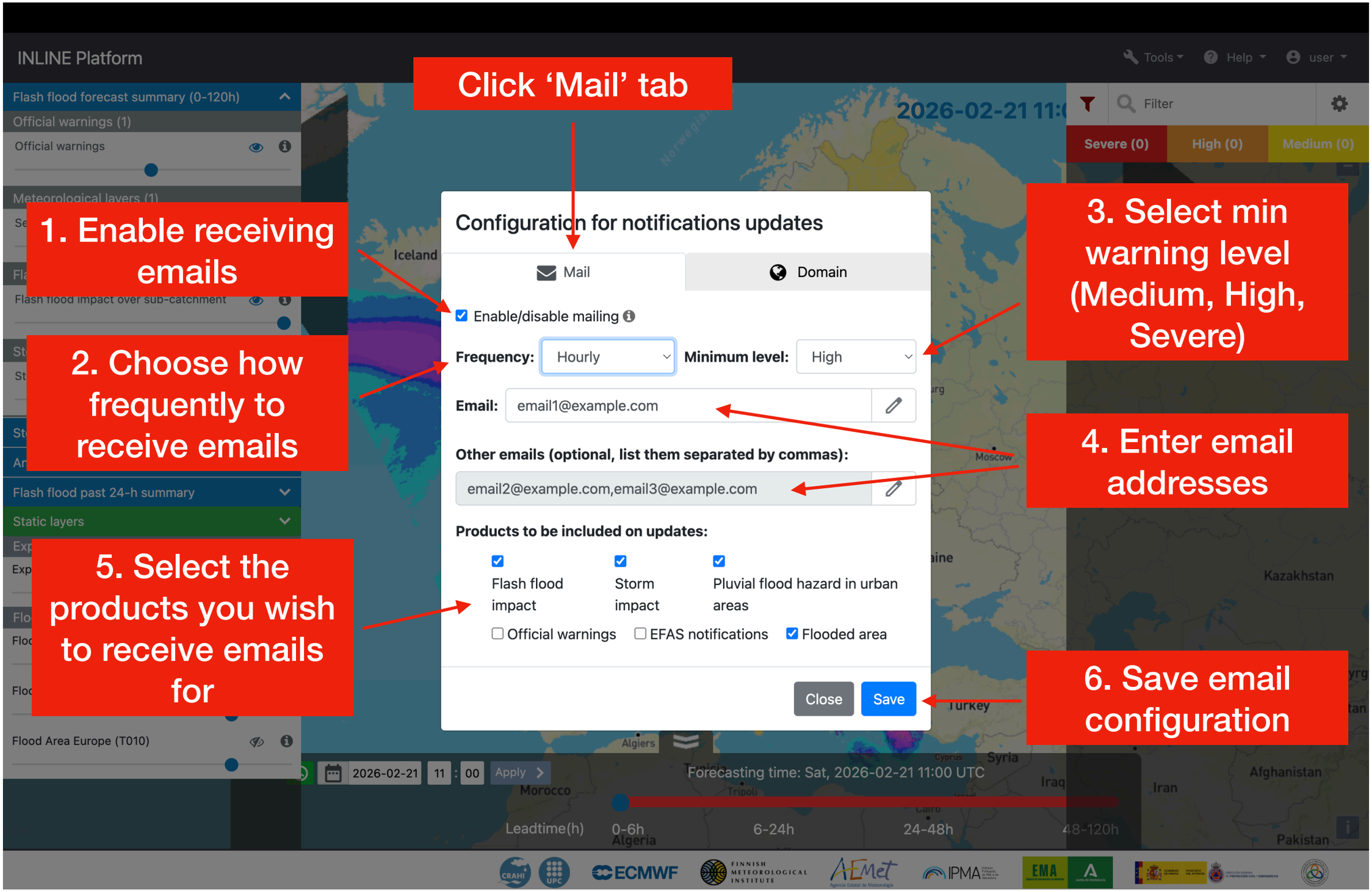
INLINE notifications - Notifications in the platform



INLINE

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INLINE notifications - Email configuration



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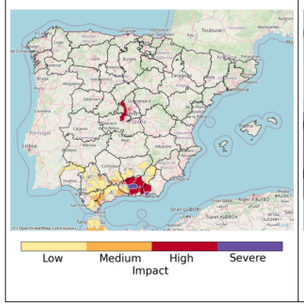
INLINE notifications - emails

inline@crahi.upc.edu notificaciones 4 de febrer del 2026, 3:53
[INLINE] - Notifications update
Per a: edera-esp-warnings@crahi.upc.edu, A/c: gonzalez@crahi.upc.edu Details

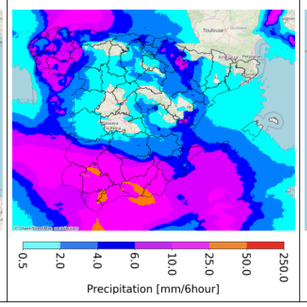
Notifications Update (forecasting time: 2026-02-04 at 02:00 UTC)

This email provides you with the latest INLINE notifications related to your area. For more information you can access our platform.

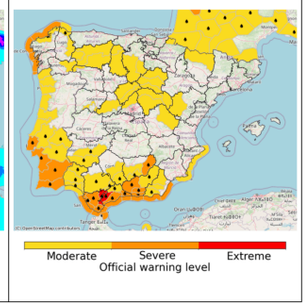
Flash flood impact over sub-catchment (0-6h)



Seamless precipitation accumulation (0-6h)



Official warnings (0-6h) - EUMETNET MeteoAlarm



Regions with new information:

The following regions have received new notifications.

- New level 3 notification for Cádiz.
- New level 2 notification for Córdoba.
- New level 3 notification for Sevilla.
- New level 2 notification for Jaén.

Regions with updated information:

Followings regions have been notified of a raise in the warning level.

- Increased level for Impact notification at Toledo to level 3.
- Increased level for Impact notification at Almería to level 3.

Active notifications:

Detailed list of currently active notifications.

Notification ID	Type	Source	Area	Level	Start time	End time
27739419	Flood	Edera product notification (Flash flood impact)	Málaga	3	2026-02-04 02:00 UTC	2026-02-04 13:00 UTC
27739420	Flood	Edera product notification (Flash flood impact)	Granada	3	2026-02-04 02:00 UTC	2026-02-04 13:00 UTC
27739422	Flood	Edera product notification (Flash flood impact)	Madrid	3	2026-02-04 03:00 UTC	2026-02-04 12:00 UTC
27739421	Flood	Edera product notification (Flash flood impact)	Toledo	3	2026-02-04 03:00 UTC	2026-02-04 13:00 UTC
27738911	Flood	Edera product notification (Urban Flood)	Málaga	3	2026-02-04 03:45 UTC	2026-02-04 04:30 UTC
27739423	Flood	Edera product notification (Flash flood impact)	Almería	3	2026-02-04 04:00 UTC	2026-02-04 13:00 UTC
27739424	Flood	Edera product notification (Flash flood impact)	Cádiz	3	2026-02-04 04:00 UTC	2026-02-04 13:00 UTC
27739426	Flood	Edera product notification (Flash flood impact)	Sevilla	3	2026-02-04 06:00 UTC	2026-02-04 13:00 UTC
27739425	Flood	Edera product notification (Flash flood impact)	Córdoba	2	2026-02-04 06:00 UTC	2026-02-04 13:00 UTC
27739428	Flood	Edera product notification (Flash flood impact)	Jaén	2	2026-02-04 07:00 UTC	2026-02-04 13:00 UTC
27739010	Flood	Edera product notification (Flash flood impact)	Málaga	2	2026-02-04 18:00 UTC	2026-02-06 00:00 UTC
27739005	Flood	Edera product notification (Flash flood impact)	Badajoz	2	2026-02-04 18:00 UTC	2026-02-06 06:00 UTC
27739006	Flood	Edera product notification (Flash flood impact)	Córdoba	3	2026-02-04 18:00 UTC	2026-02-06 00:00 UTC
27739007	Flood	Edera product notification (Flash flood impact)	Almería	3	2026-02-04 18:00 UTC	2026-02-05 12:00 UTC
27739008	Flood	Edera product notification (Flash flood impact)	Cádiz	3	2026-02-04 18:00 UTC	2026-02-06 00:00 UTC
27739009	Flood	Edera product notification (Flash flood impact)	Jaén	3	2026-02-04 18:00 UTC	2026-02-06 06:00 UTC
27739012	Flood	Edera product notification (Flash flood impact)	Murcia	2	2026-02-04 18:00 UTC	2026-02-05 18:00 UTC
27739013	Flood	Edera product notification (Flash flood impact)	Granada	3	2026-02-04 18:00 UTC	2026-02-06 00:00 UTC
27739015	Flood	Edera product notification (Flash flood impact)	Ciudad Real	2	2026-02-04 18:00 UTC	2026-02-06 06:00 UTC
27739011	Flood	Edera product notification (Flash flood impact)	Sevilla	3	2026-02-04 18:00 UTC	2026-02-05 18:00 UTC
27739023	Flood	Edera product notification (Flash flood impact)	Cuenca	3	2026-02-05 12:00 UTC	2026-02-06 12:00 UTC

EFAS notifications:

Forecast Date	River	Basin	Country
2026-02-03 00:00	Genil	Guadalquivir	Spain
2026-02-03 00:00	Ardila	Guadiana	Spain
2026-02-02 12:00	Barbate	Barbate	Spain
2026-02-02 12:00	Guadalquivir	Guadalquivir	Spain
2026-02-02 12:00	Andarax	Andarax	Spain
2026-02-02 12:00	Velez	Coastal	Spain
2026-02-02 12:00	Fardes	Guadalquivir	Spain
2026-02-02 12:00	Genil	Guadalquivir	Spain
2026-02-02 12:00	Segura	Segura	Spain
2026-01-31 12:00	Cacín	Guadalquivir	Spain
2026-01-29 00:00	Rivera de Huesna	Guadalquivir	Spain
2026-01-28 12:00	Cabriel	Jucar	Spain
2026-01-28 12:00	Guareña	Douro	Spain

Please provide us feedback about these notifications with this link.

INLINE Team

Configuration for notifications updates

Mail | Domain

Enable/disable mailing

Frequency: Hourly **Minimum level:** Severe

Email: cenem@proteccioncivil.es

Other emails (optional, list them separated by commas):

Products to be included on updates:

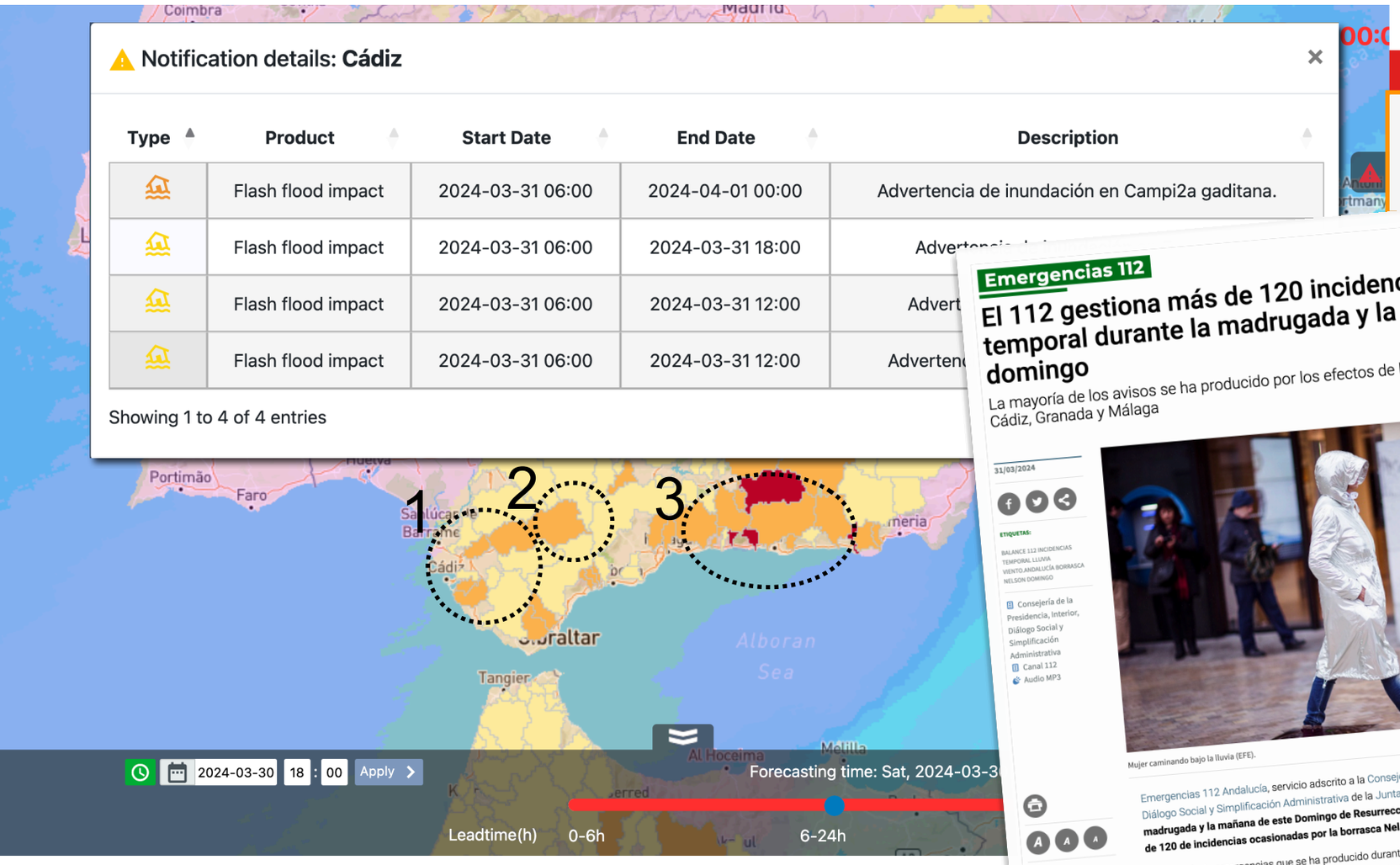
- [x] Flash flood impact
- [x] Storm impact
- [x] Pluvial flood hazard in urban areas
- [ ] Official warnings
- [x] EFAS notifications
- [x] Flooded area

Close Save

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Evaluation

Combining hazard and impact forecasts, official warnings and exposure and vulnerability datasets for compound impact forecasting to support coordination and cooperation of CPAs.



Emergencias 112

El 112 gestiona más de 120 incidencias por el temporal durante la madrugada y la mañana del domingo

La mayoría de los avisos se ha producido por los efectos de la lluvia en las provincias de Cádiz, Granada y Málaga

31/03/2024

ETIQUETAS:

BALANCE 112 INCIDENCIAS TEMPORAL LLUVIA VIENTO ANDALUCÍA BORRASCA NELSON DOMINGO

Consejería de la Presidencia, Interior, Diálogo Social y Simplificación Administrativa

Canal 112

Audio MP3

Mujer caminando bajo la lluvia (EFE).

Emergencias 112 Andalucía, servicio adscrito a la Consejería de la Presidencia, Interior, Diálogo Social y Simplificación Administrativa de la Junta, ha gestionado **durante la madrugada y la mañana de este Domingo de Resurreccion** -hasta las 13.00 horas-, **más de 120 de incidencias ocasionadas por la borrasca Nelson** a su paso por Andalucía.

La mayoría de emergencias que se ha producido durante el día de hoy se ha debido a los efectos de la lluvia, especialmente en las provincias de **Cádiz, Granada y Málaga**, donde los avisos por lluvia activados por la AEMET eran naranjas; los requerimientos atendidos en el 112 han sido, en su mayor parte, por anegaciones parciales de viviendas, locales y


1

2



ONLINE

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Event-based evaluation

Notification evaluation survey

After event

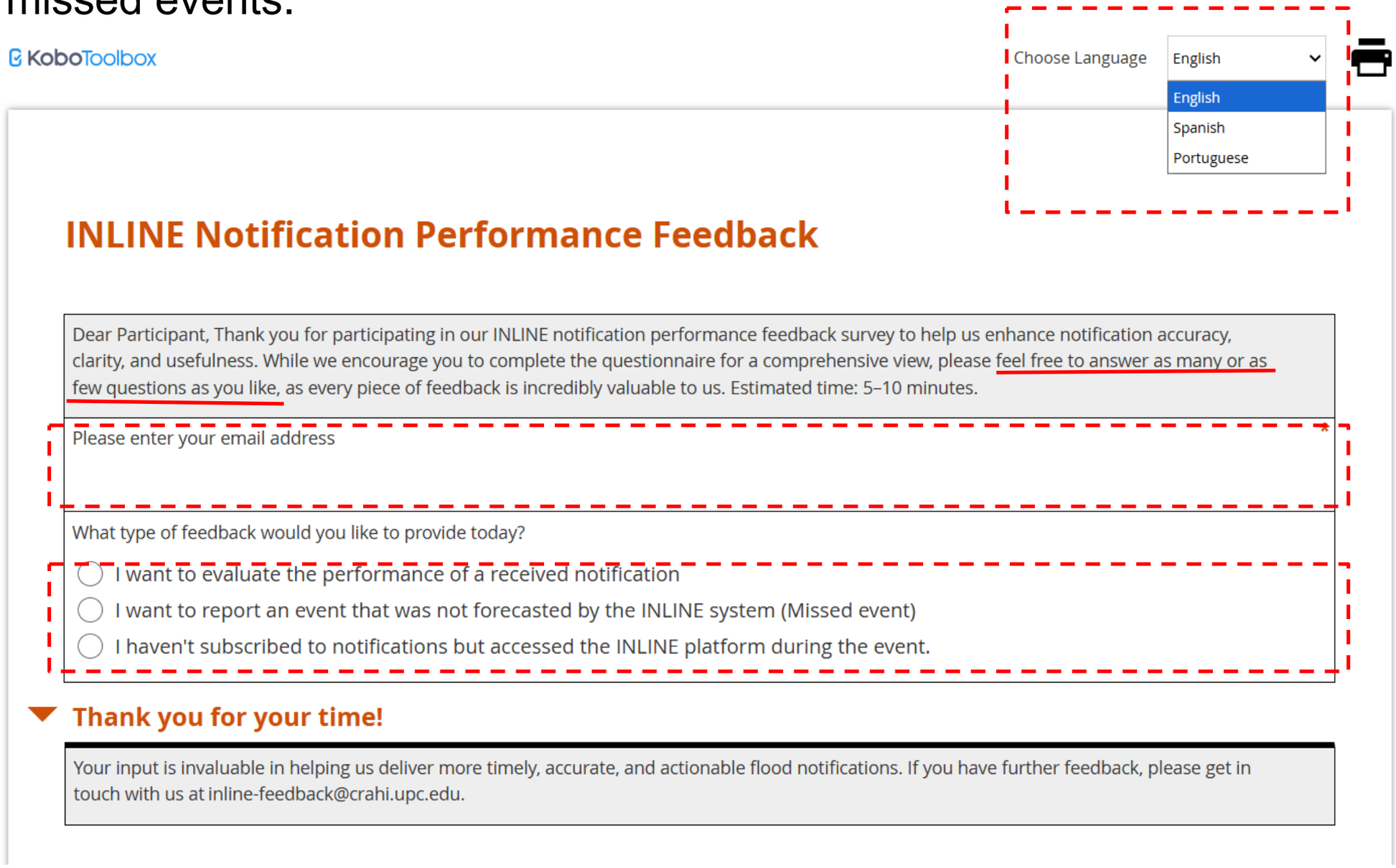
Emergency management chain

COI meeting

International Workshop

Notification Evaluation Survey

A notification-based evaluation survey has been launched for INLINE users, allowing them to provide feedback on forecasts and report missed events.



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Event-based evaluation

Notification evaluation survey

After event

Emergency management chain

COI meeting

International Workshop

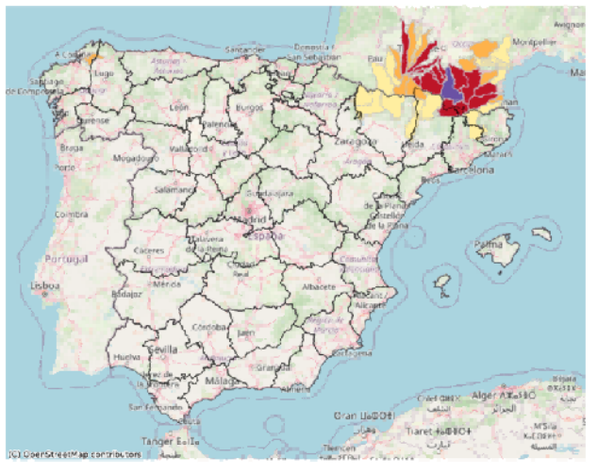
Notification Evaluation Survey

Access to the Survey:

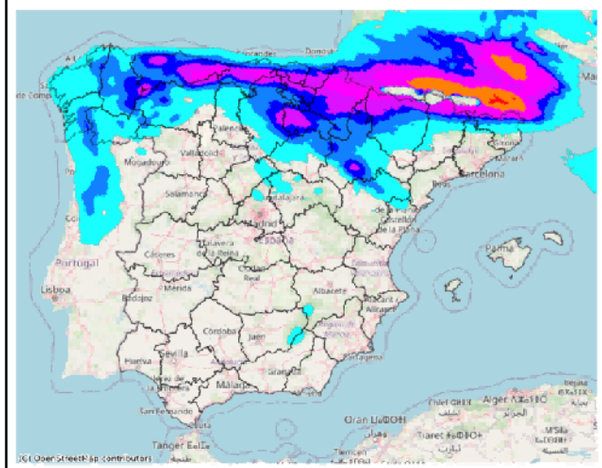
Notifications Update (forecasting time: 2026-02-16 at 16:00 UTC)

This email provides you with the latest INLINE notifications related to your area. For more information you can access our platform.

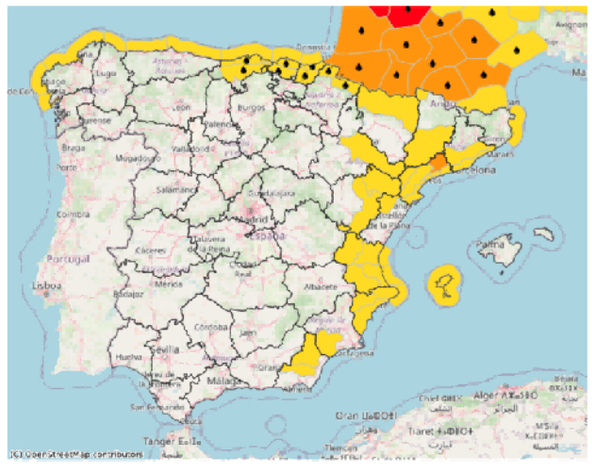
Flash flood impact over sub-catchment (0-6h)



Seamless precipitation accumulation (0-6h)



Official warnings (0-6h) - EUMETNET MeteoAlarm



Regions with new information:

The following regions have received new notifications.

- New level 3 notification for Girona.

Active notifications:

Detailed list of currently active notifications.

Notification ID	Type	Source	Area	Level	Start time	End time
33034558	Flood	Edera product notification (Flash flood impact)	A Coruña	3	2026-02-16 16:00 UTC	2026-02-16 23:00 UTC
33034559	Flood	Edera product notification (Flash flood impact)	Girona	3	2026-02-16 20:00 UTC	2026-02-17 01:00 UTC

Please provide us feedback about these notifications with this link.

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Event-based evaluation

Notification evaluation survey

After event

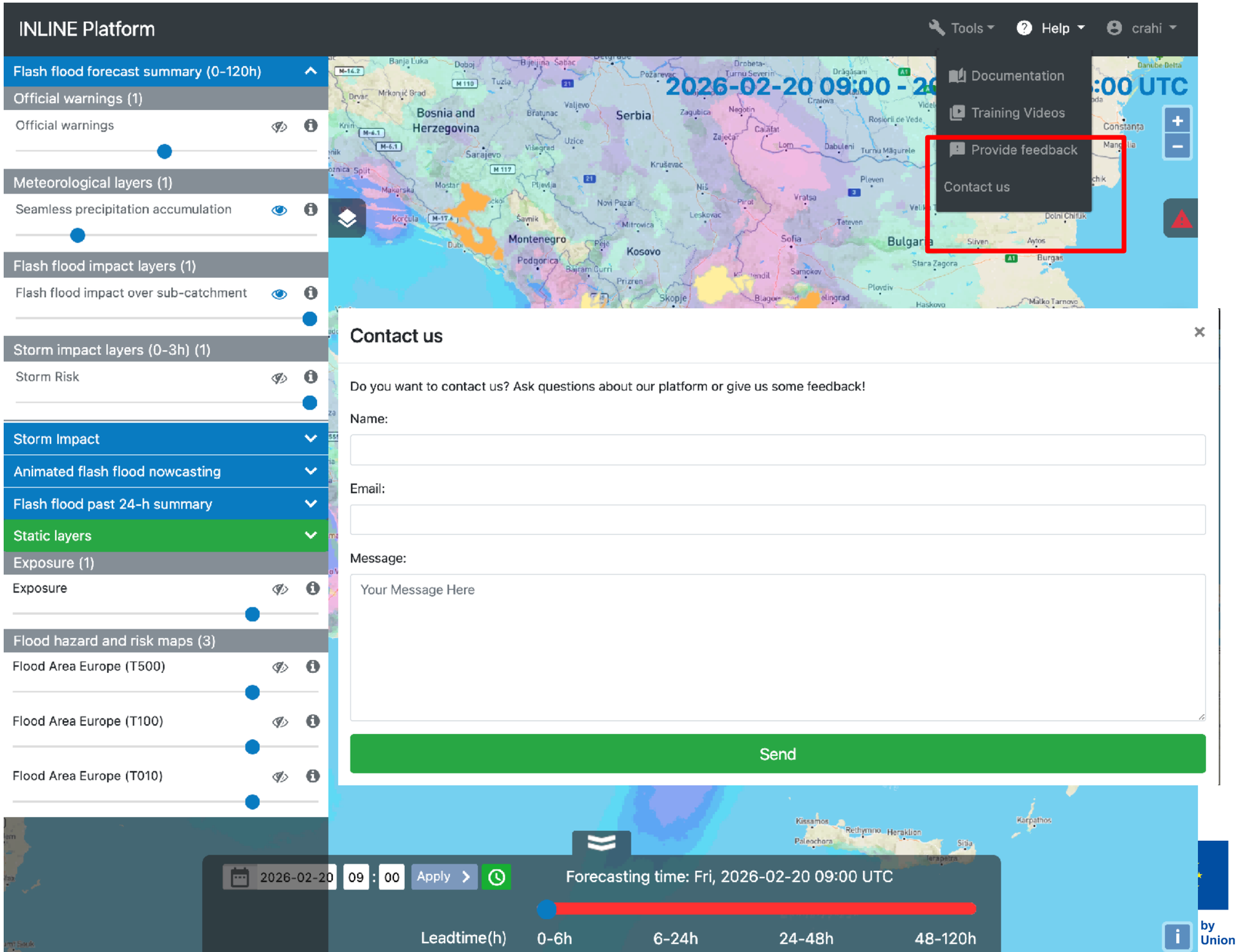
Emergency management chain

COI meeting

International Workshop

Notification Evaluation Survey

Access to the Survey:



Event-based evaluation

Notification evaluation survey

After event

Emergency management chain

COI meeting

International Workshop

After-event feedback collection

Following significant events, relevant cases are identified through news monitoring and social media sources.



Analysis

Weather tracker: Spain and Portugal hit by third deadly storm in two weeks

Alice Fowl, Claire Jones and Morgan Thomas for MetDesk

Storm Marta sweeps Iberian peninsula just days after Storms Kristin and Leonardo brought deadly flooding and major damage



ONLINE

Co-funded by the European Union

Event-based evaluation

Notification evaluation survey

After event

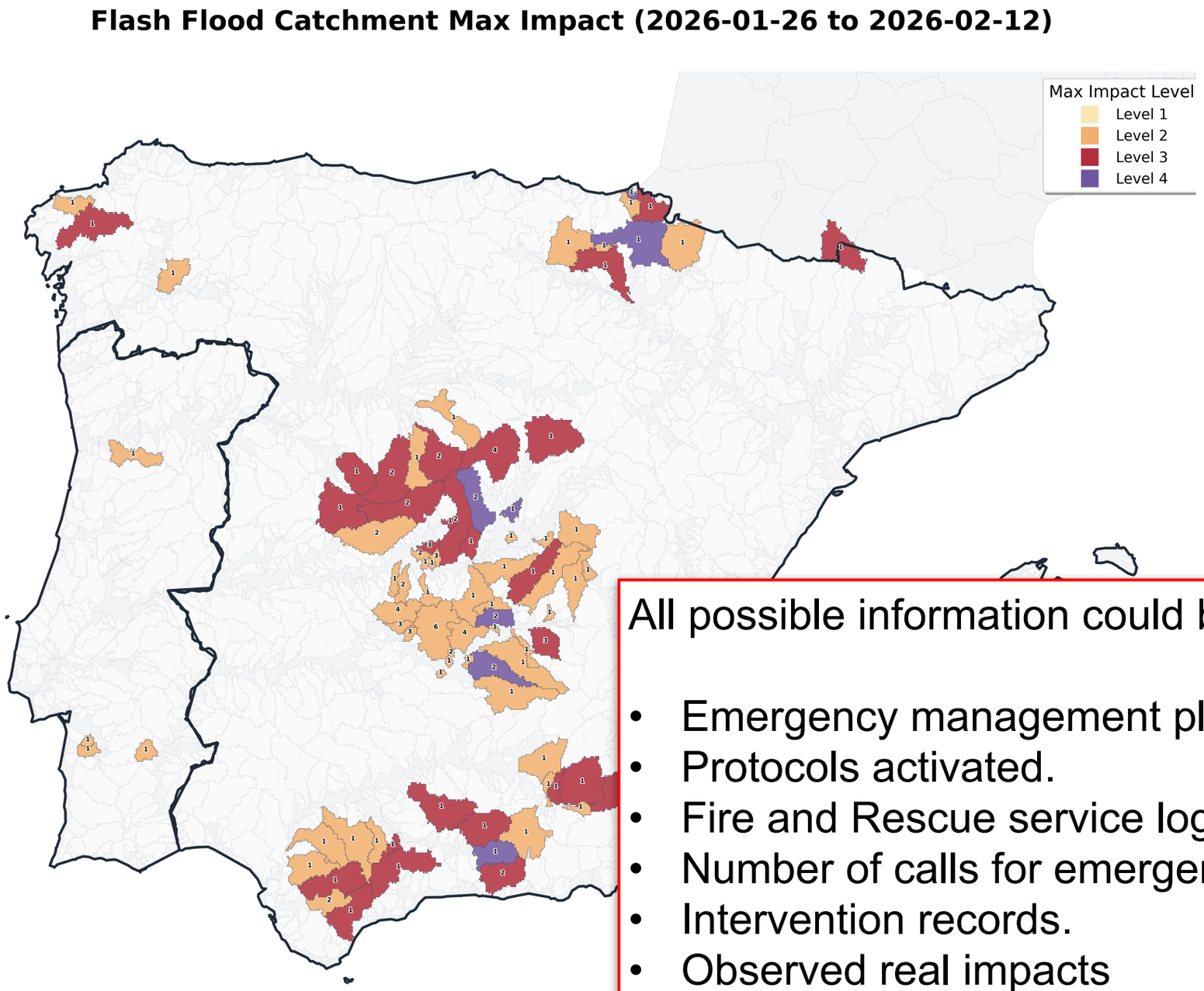
Emergency management chain

COI meeting

International Workshop

After-event feedback collection

INLINE outputs are analysed to identify potentially affected areas, focusing on locations where flash flood impacts exceed impact level 2.



All possible information could be useful!

- Emergency management plans
- Protocols activated.
- Fire and Rescue service logs
- Number of calls for emergency
- Intervention records.
- Observed real impacts
- … …

INLINE

Co-funded by the European Union

Event-based evaluation

Notification evaluation survey

After event

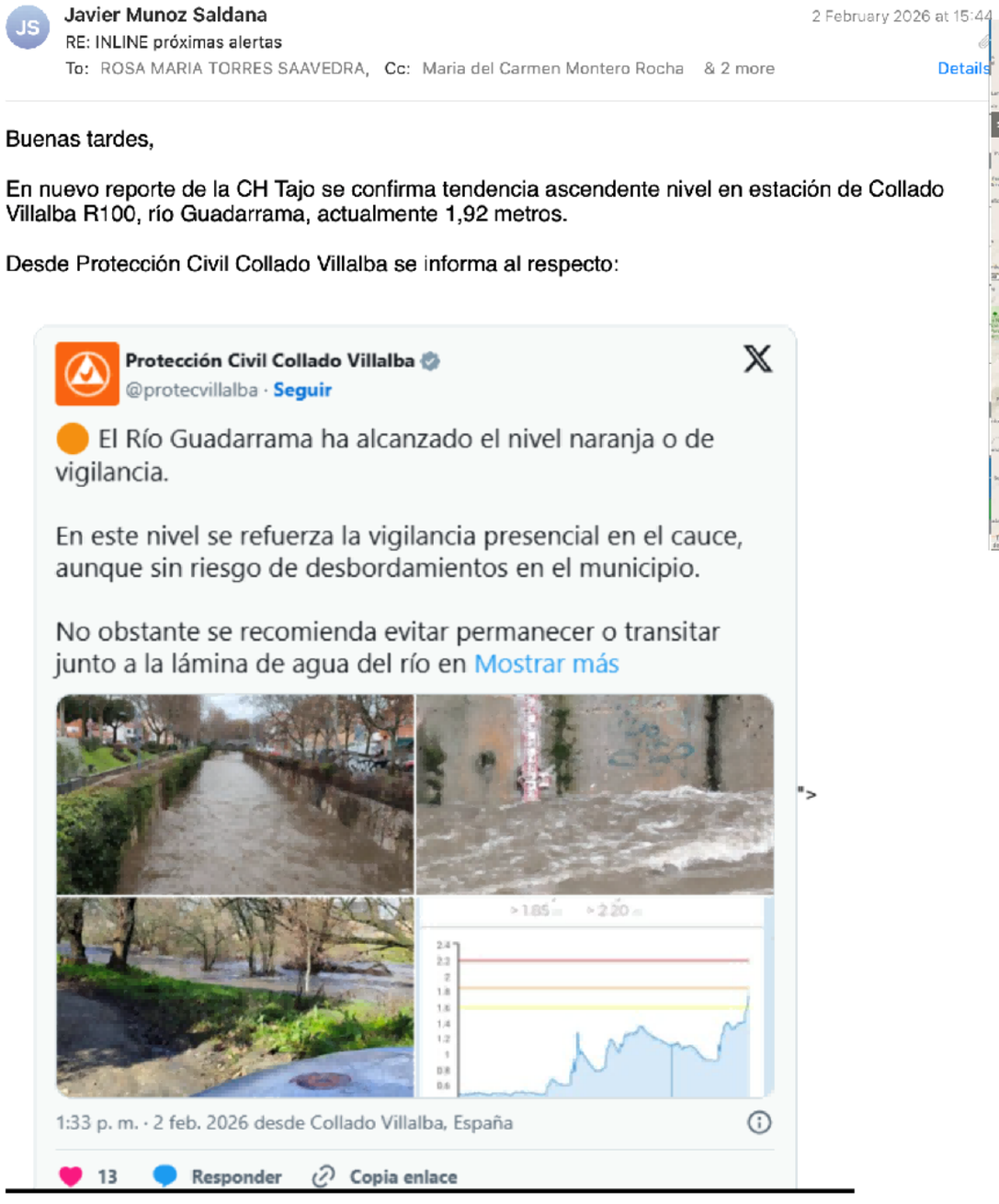
Emergency management chain

COI meeting

International Workshop

Integration into Emergency Communication Chains

This allows the project team to follow operational discussions and gather first-hand information as events unfold. It also helps users better understand INLINE products and make effective use of the platform.



Javier Munoz Saldana — 2 February 2026 at 15:44
RE: INLINE próximas alertas
To: ROSA MARIA TORRES SAAVEDRA, Cc: Maria del Carmen Montero Rocha & 2 more — Details

Buenas tardes,

En nuevo reporte de la CH Tajo se confirma tendencia ascendente nivel en estación de Collado Villalba R100, río Guadarrama, actualmente 1,92 metros.

Desde Protección Civil Collado Villalba se informa al respecto:

Protección Civil Collado Villalba
@protecvillalba · Seguir

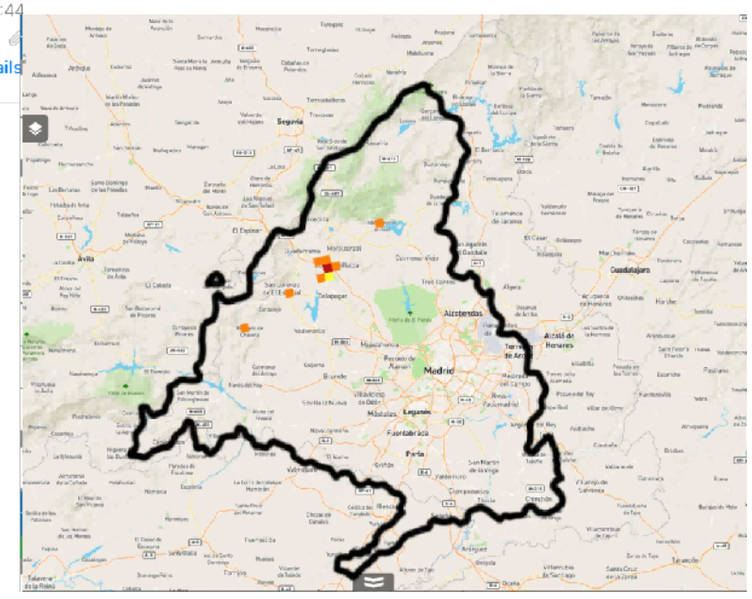
El Río Guadarrama ha alcanzado el nivel naranja o de vigilancia.

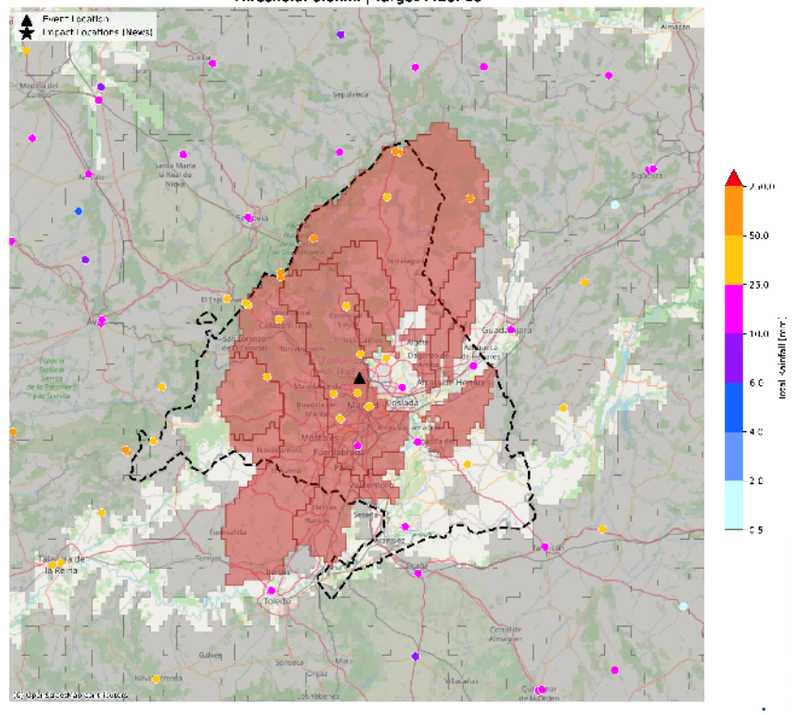
En este nivel se refuerza la vigilancia presencial en el cauce, aunque sin riesgo de desbordamientos en el municipio.

No obstante se recomienda evitar permanecer o transitar junto a la lámina de agua del río en Mostrar más

1:33 p. m. · 2 feb. 2026 desde Collado Villalba, España

13 Responder Copia enlace





Event-based evaluation

Notification evaluation survey

After event

Emergency management chain

COI meeting

International Workshop

Community of Interest (COI) meeting

We organise Community of Interest (COI) meetings every 6 weeks, and invite members to present a recent flood event from their region.

📢 Are you **interested to present 5-10 minutes on a flood event in your region** in the upcoming COI meetings? Contact us via email coi-inline@crahi.upc.edu

📍 In your presentation, you can include:

- Description of the flood event (location, date, key impacts)
- Which national/local forecast systems you used to anticipate the event and what impacts were reported
- How you used INLINE products / notifications
- How INLINE supported your decision-making & complemented existing forecasts
- Key results or visuals (maps, graphs, etc.)

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Event-based evaluation

Notification evaluation survey

After event

Emergency management chain

COI meeting

International Workshops

International Workshops & Hands-on Exercises

Lisbon, PT (26-28 May 2026)
Brussels, BE (Jan 2027)



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Demonstration Period Evaluation

Surveys

Interviews

INLINE Surveys

The evaluation includes two surveys: one conducted at the beginning of the project to establish a baseline, and another at the end to measure progress and final outcomes.

Initial Survey of the INLINE Project https://ee-eu.kobotoolbox.org/x/ui5sMOrd

Final Survey of the INLINE Project

Dear Participant, Thank you for participating in the final comprehensive evaluation of the INLINE project. This questionnaire is designed to assess the final outcomes of the INLINE project systematically. We aim to thoroughly measure its actual performance in terms of forecast quality, decision support, added value, and the effectiveness of cross-border cooperation, and to gather valuable feedback for future development. Your feedback is crucial for objectively measuring the project's achievements. All collected data will remain anonymous and be kept strictly confidential. Estimated completion time: 25–30 minutes.

Section 1: Background Information and Overall Satisfaction

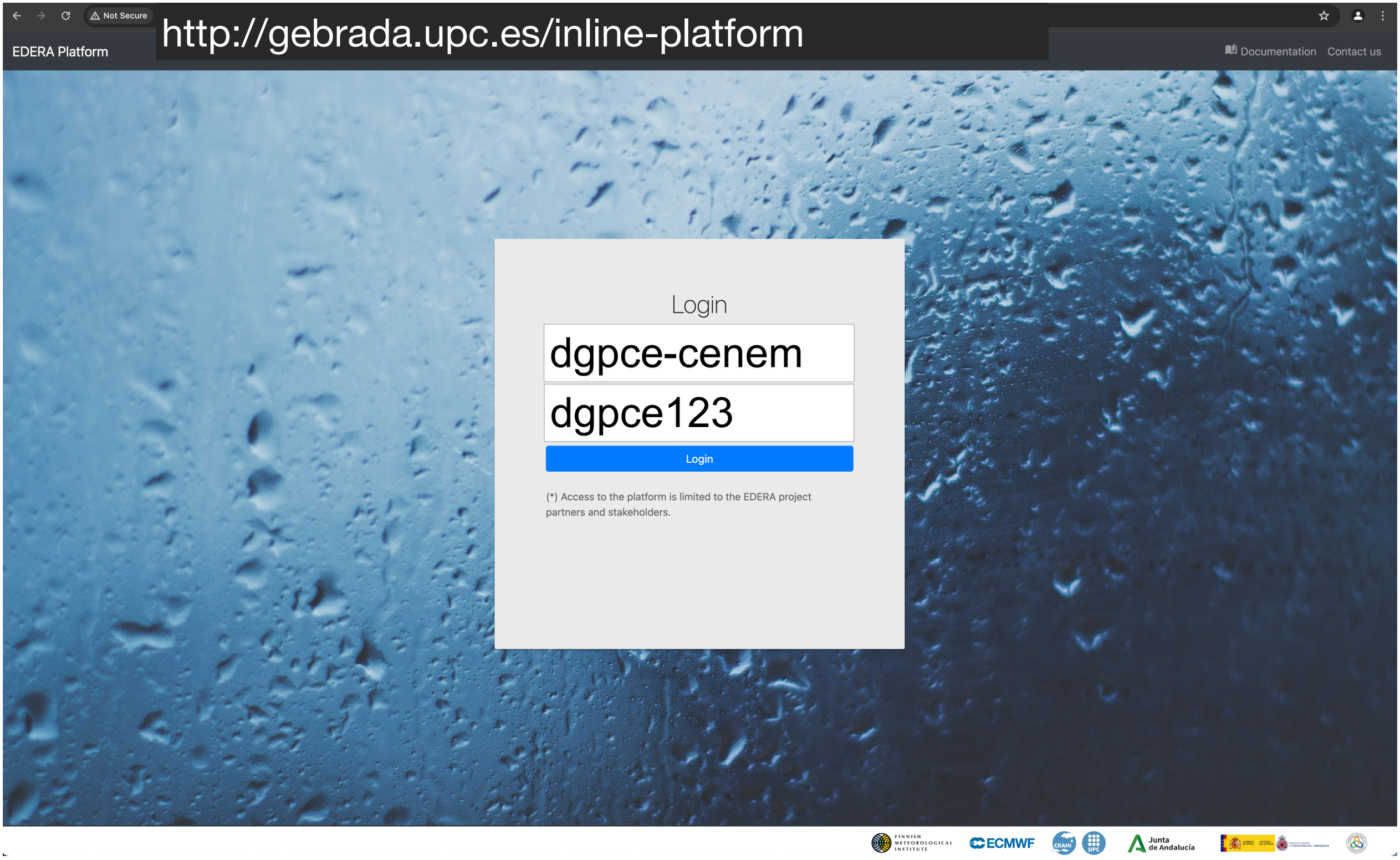
1.1 What is your role in the INLINE project?

- ○ Scientist or Researcher
- ○ Project developer: IT, management, etc
- ○ Stakeholders: National hydro-meteorological institutes, etc
- ○ End-user: CPA (civil protection agencies), etc
- ○ other

1.2 Which organization/company/institution are you affiliated with?

Co-funded by the European Union

The INLINE platform

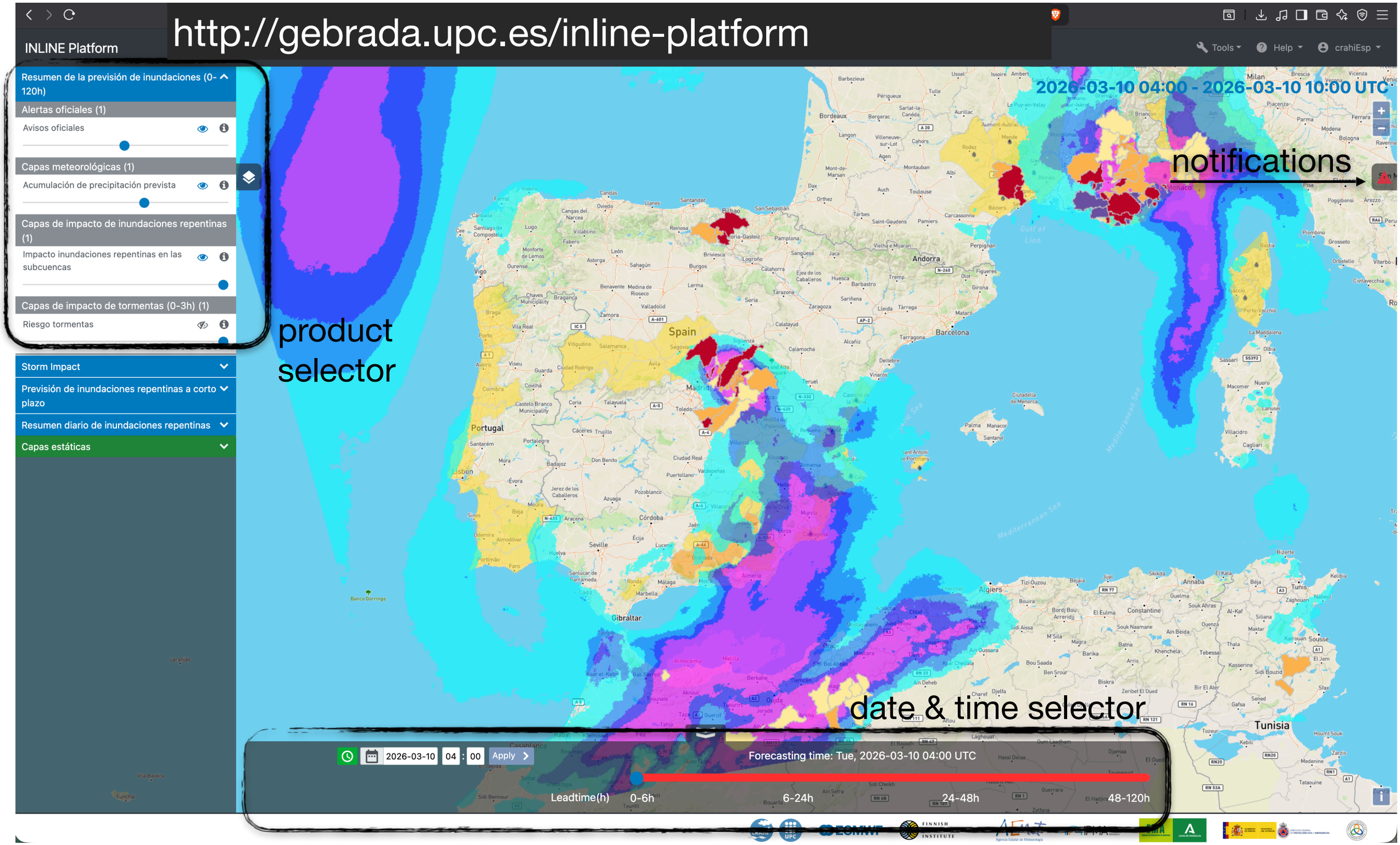


FINNISH METEOROLOGICAL INSTITUTE · ECMWF · CRAHI · UPC · Junta de Andalucía

INLINE

Co-funded by the European Union

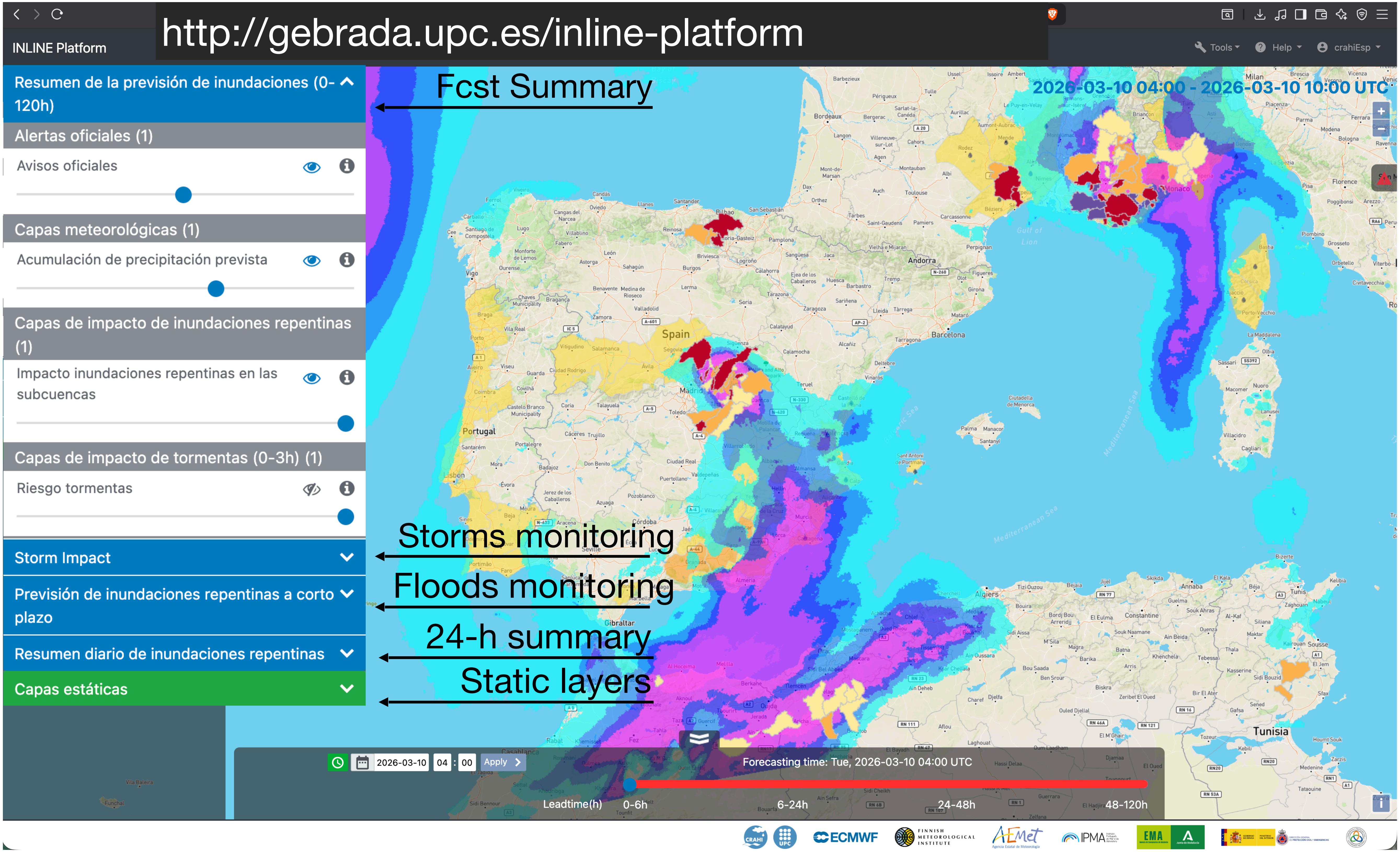
The INLINE platform



INLINE

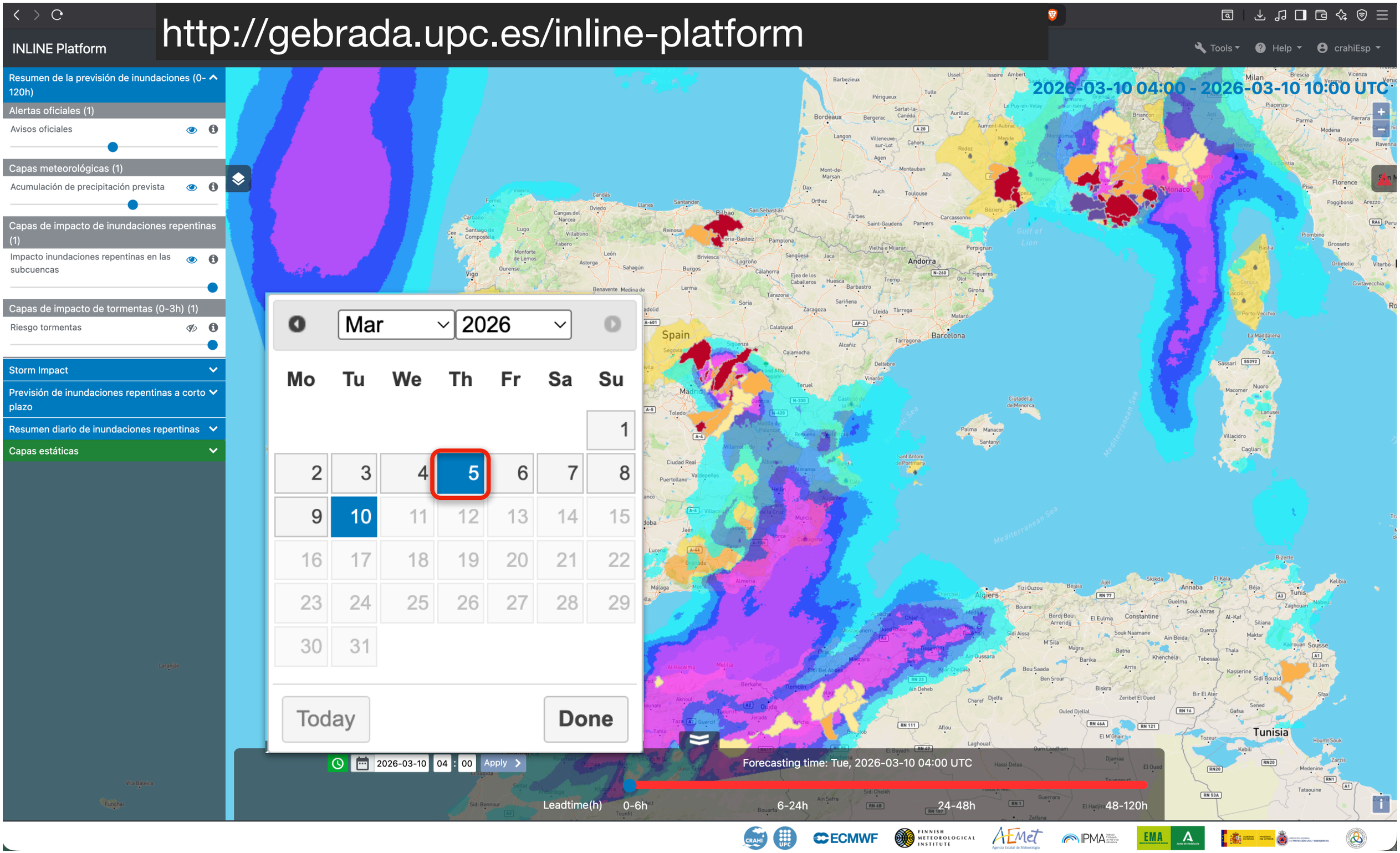
Co-funded by the European Union

Product selector



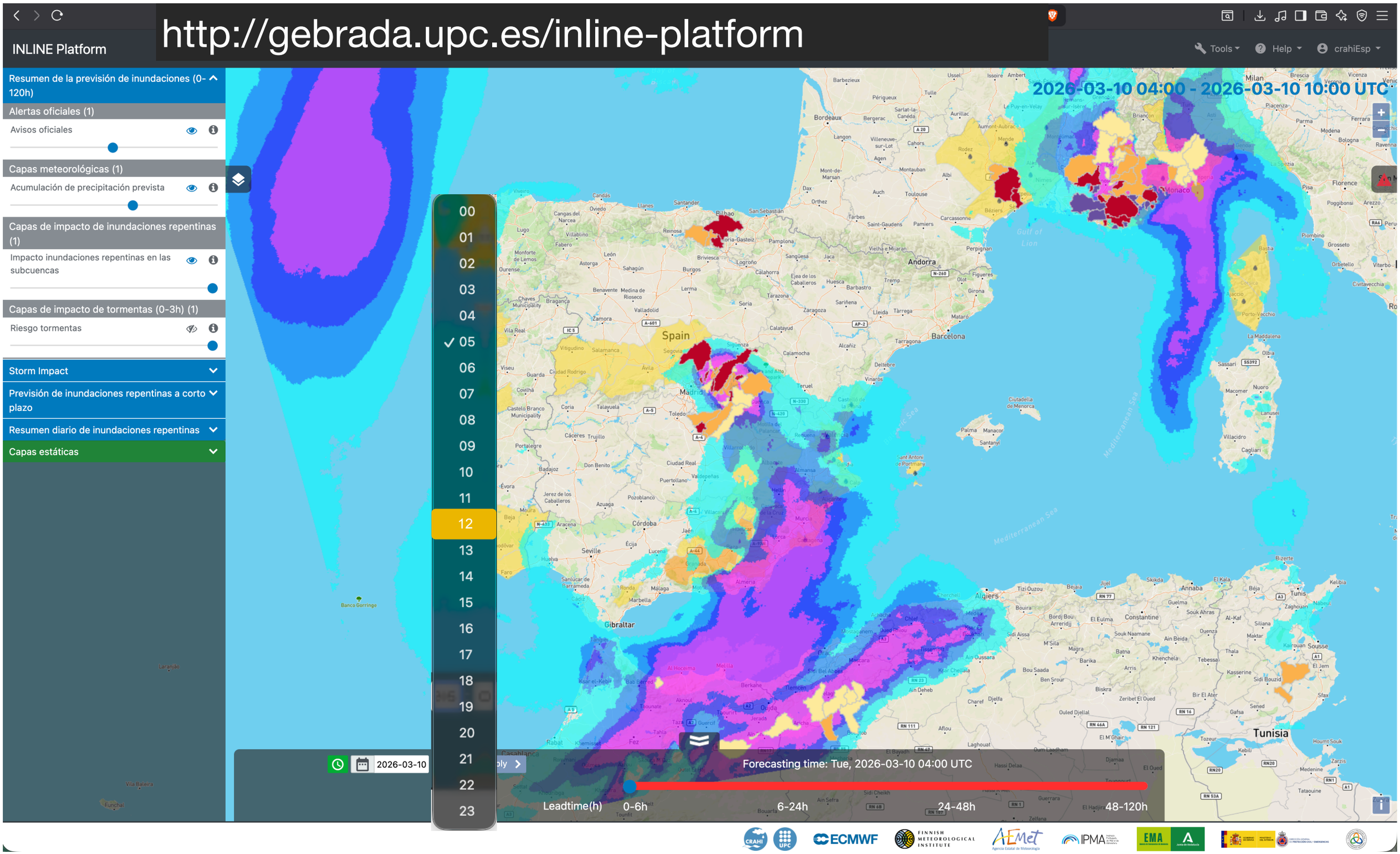
Co-funded by
the European Union

Date & time selector

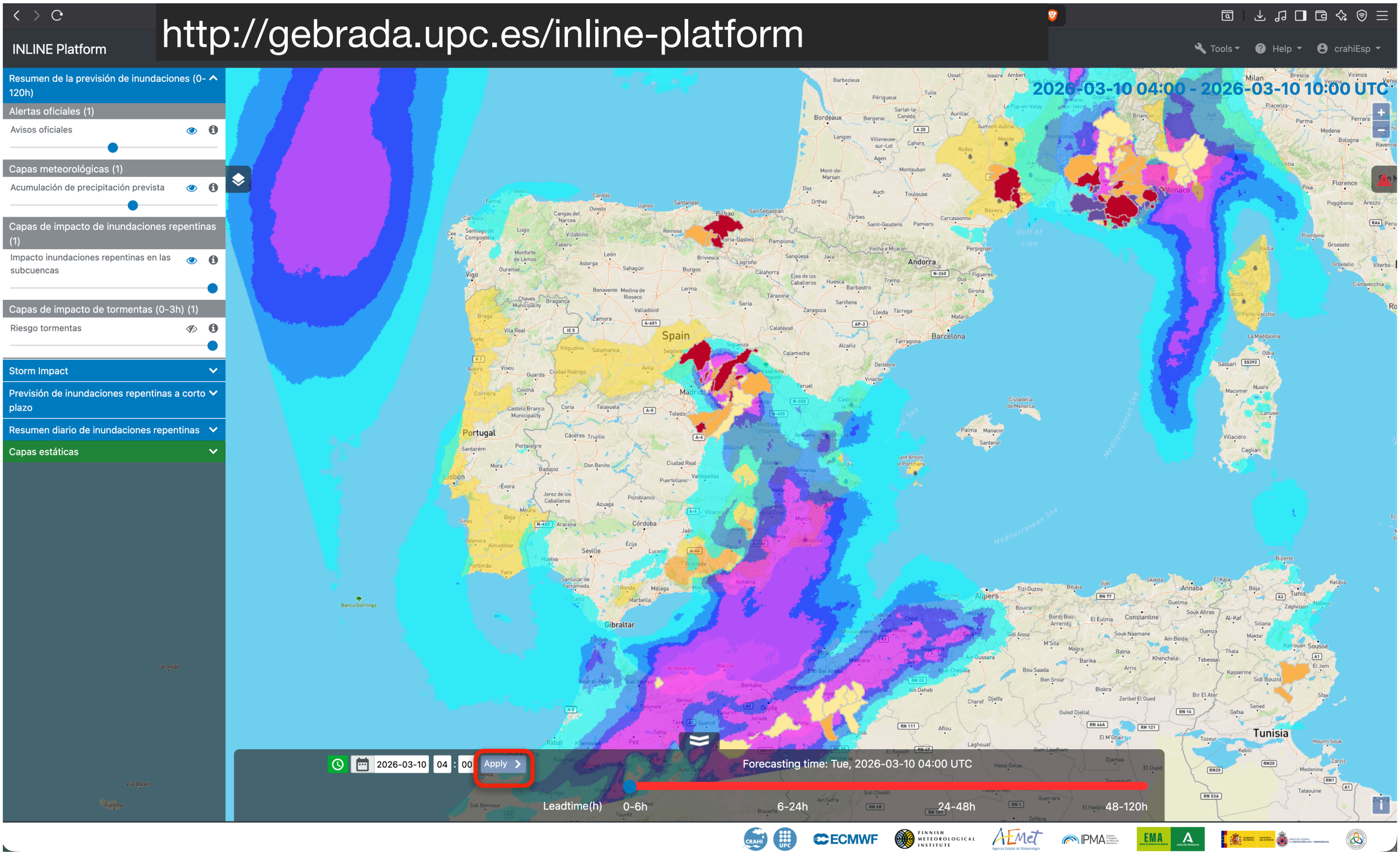


Co-funded by the European Union

Date & time selector



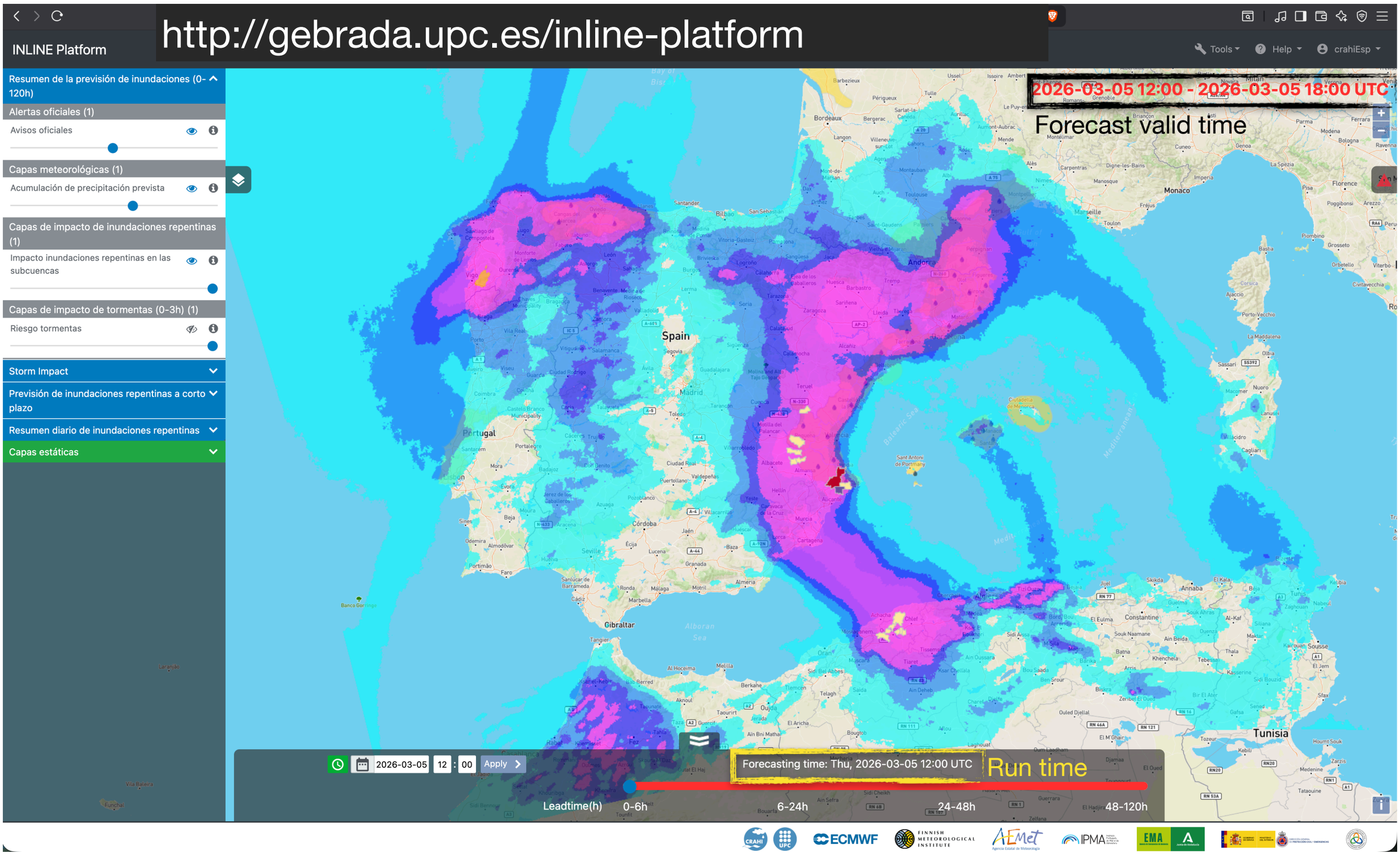
Date & time selector



INLINE

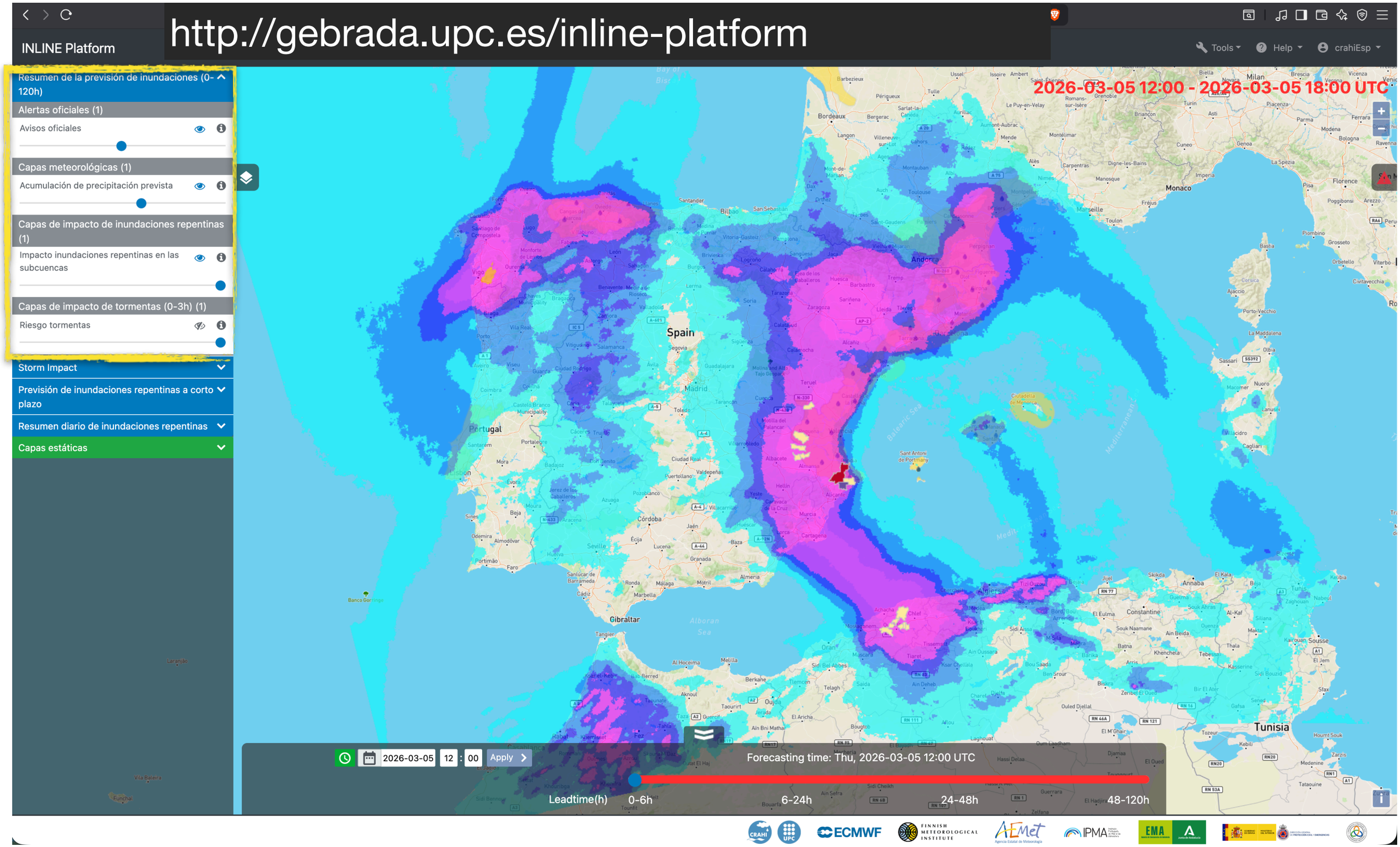
Co-funded by the European Union

Date & time selector



Co-funded by the European Union

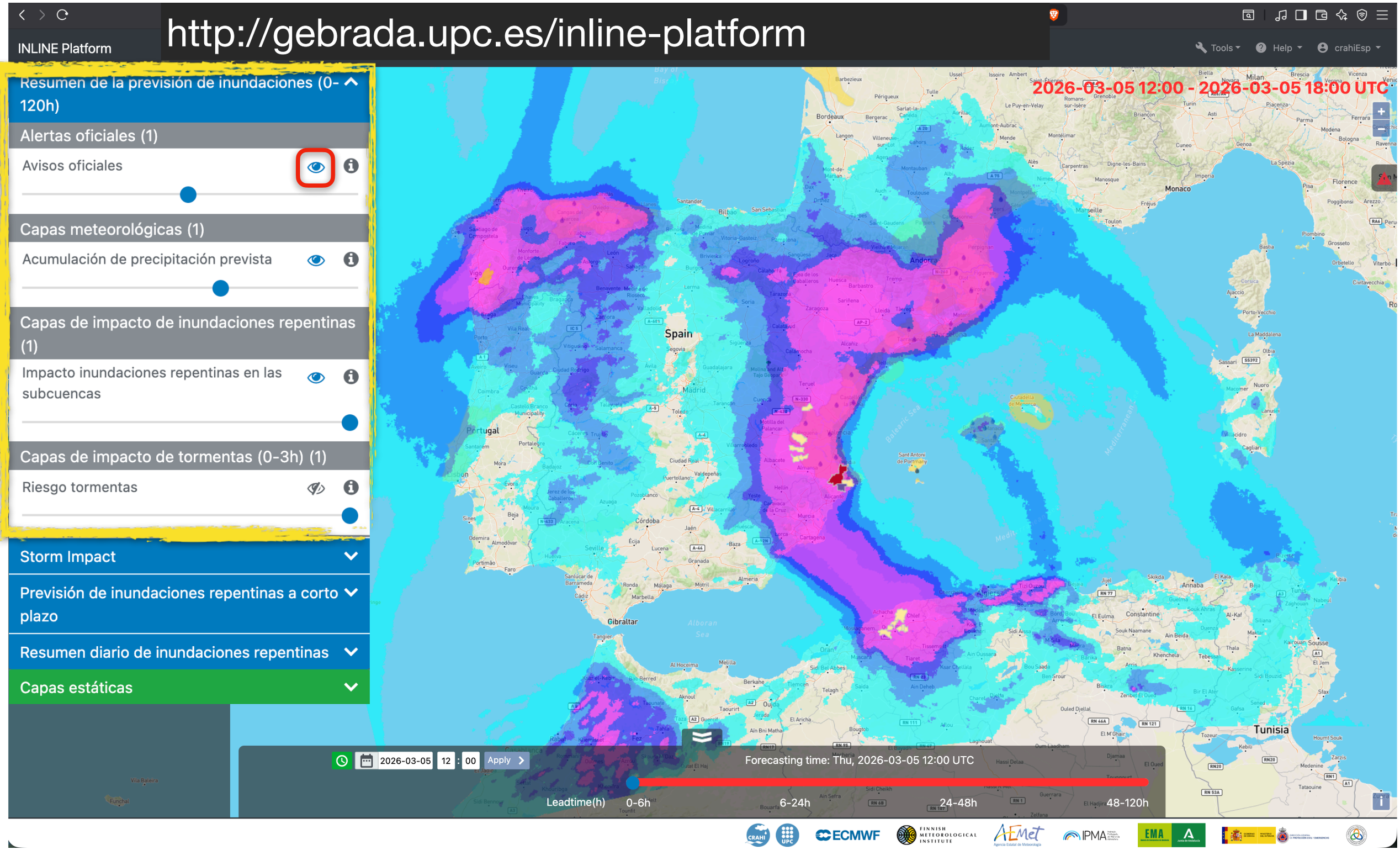
Block 1: Forecast summary (0-120 h)



INLINE

Co-funded by the European Union

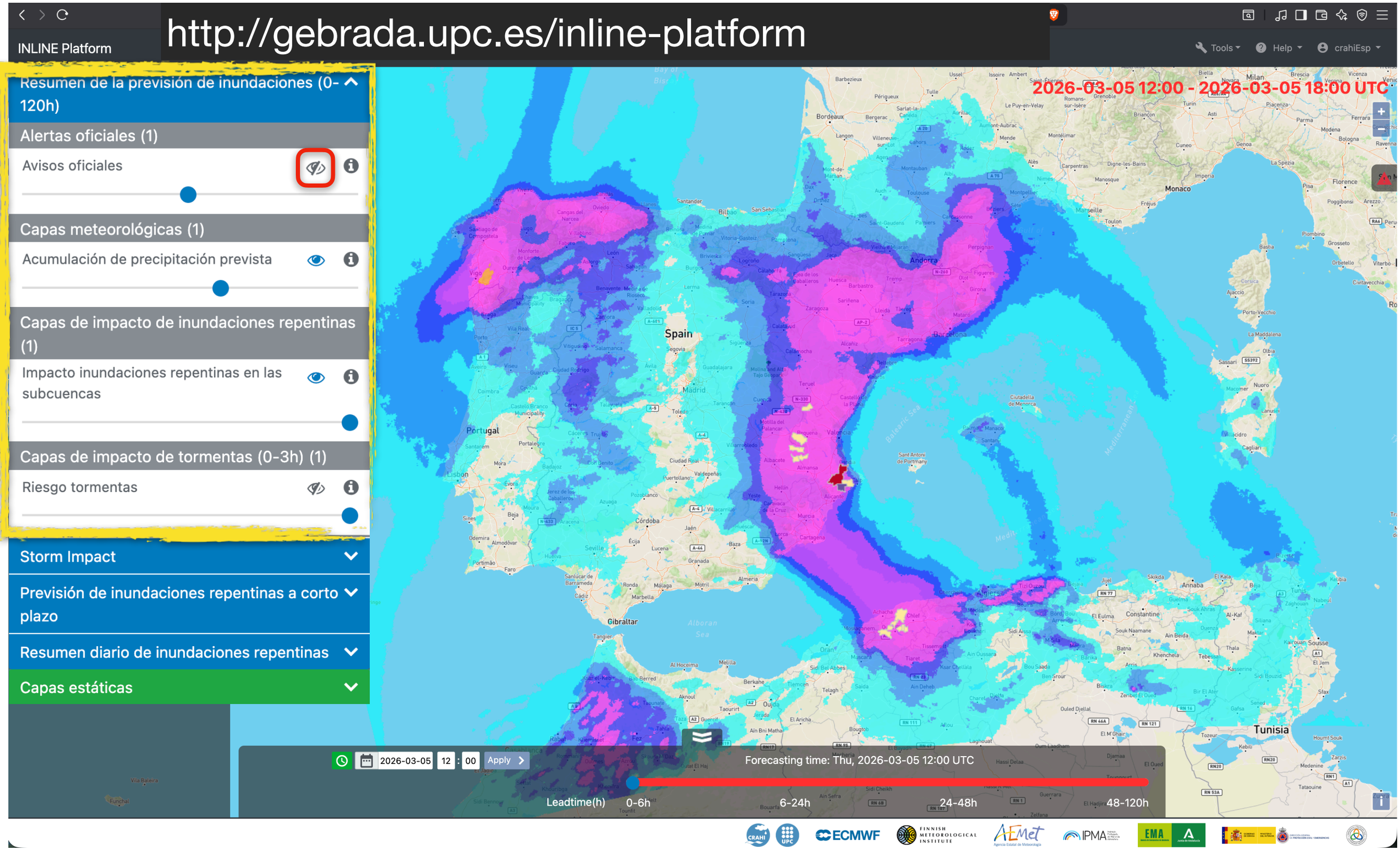
Block 1: Forecast summary (0-120 h)



INLINE

Co-funded by the European Union

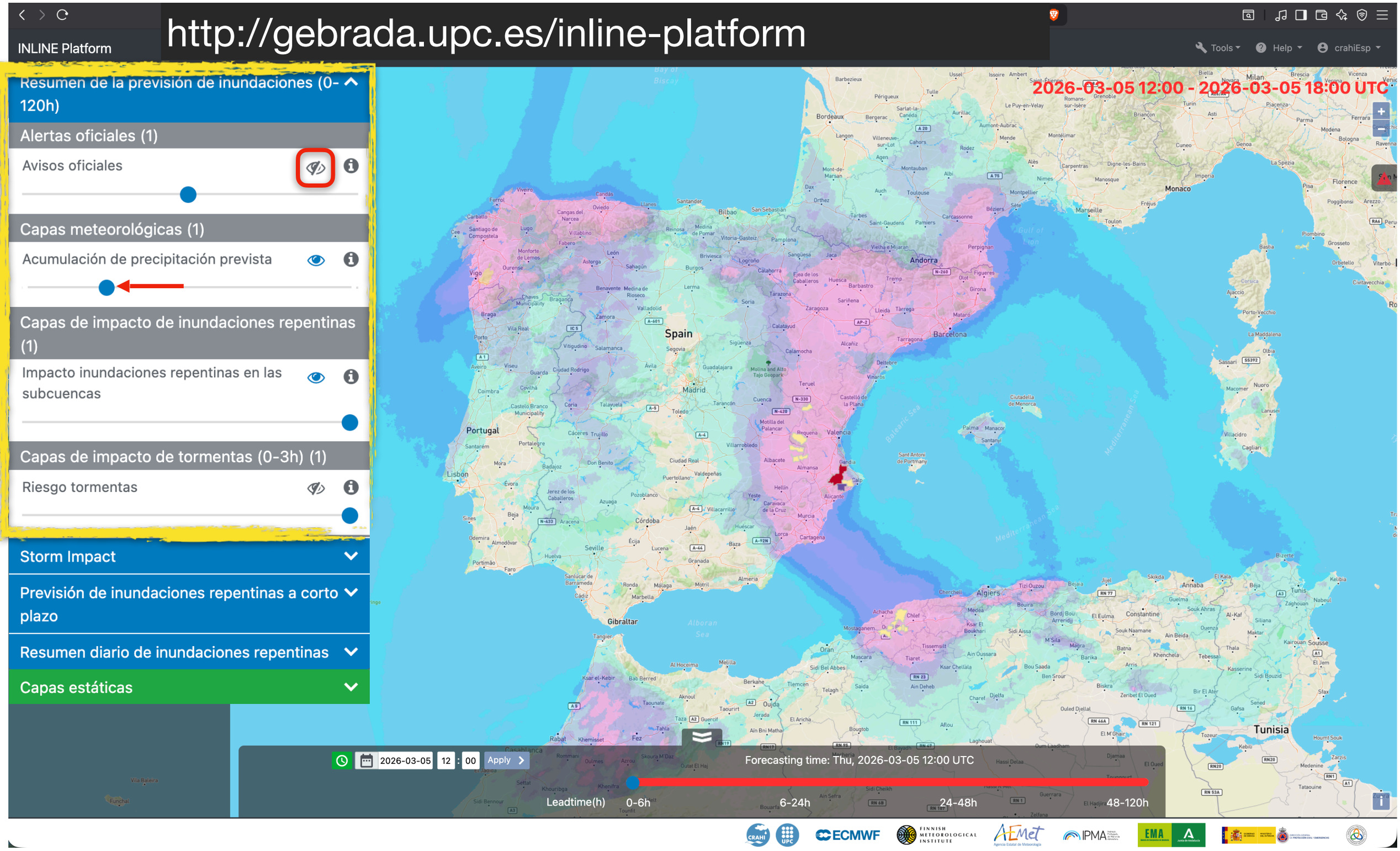
Block 1: Forecast summary (0-120 h)



INLINE

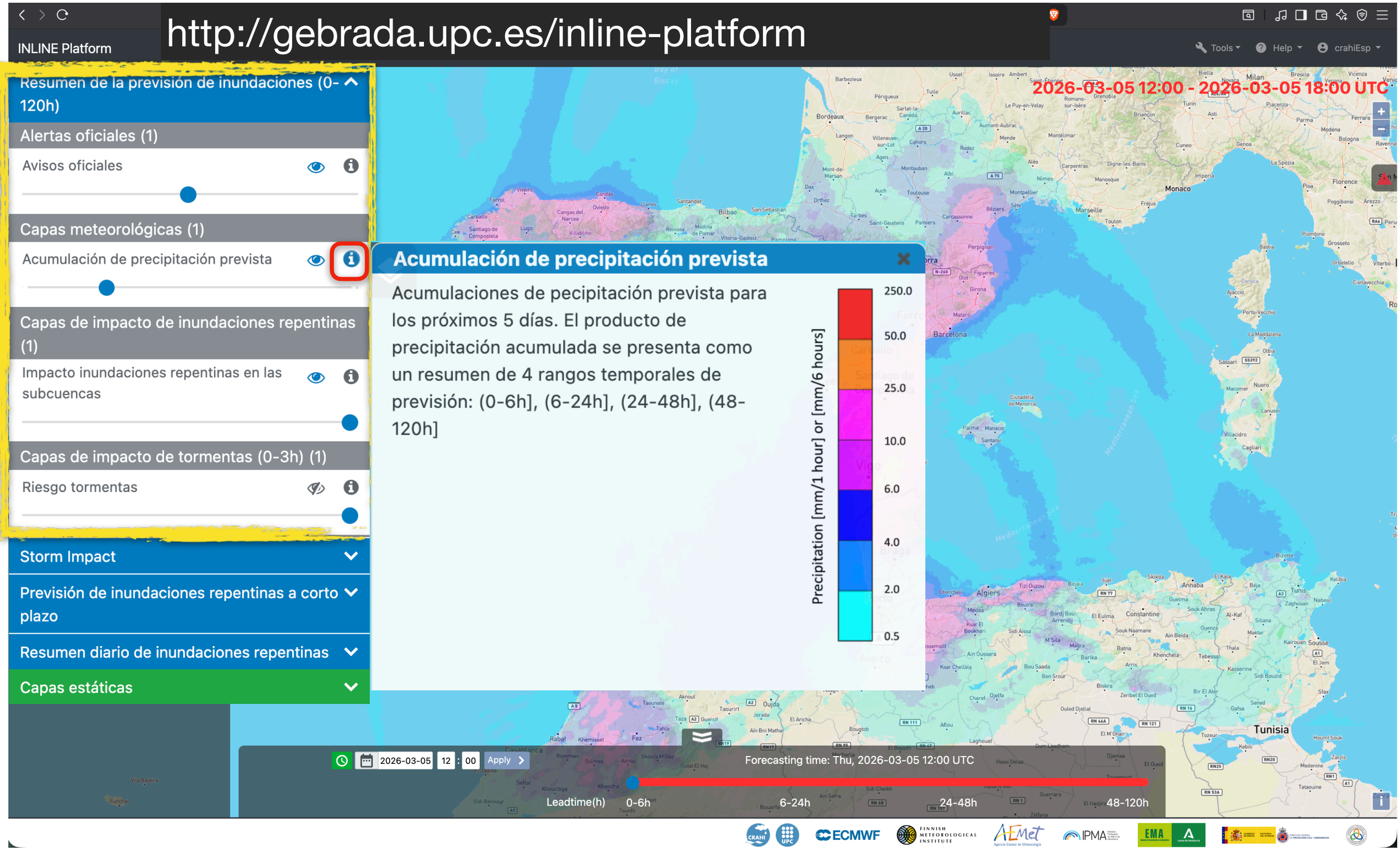
Co-funded by the European Union

Block 1: Forecast summary (0-120 h)



Co-funded by the European Union

Block 1: Forecast summary (0-120 h)



Co-funded by the European Union

Block 1: Forecast summary (0-120 h)

http://gebrada.upc.es/inline-platform

INLINE Platform

Tools Help crahiEsp

Resumen de la previsión de inundaciones (0-120h)

Alertas oficiales (1)

Avisos oficiales

Capas meteorológicas (1)

Acumulación de precipitación prevista

Capas de impacto de inundaciones repentinas (1)

Impacto inundaciones repentinas en las subcuencas

Capas de impacto de tormentas (0-3h) (1)

Riesgo tormentas

Storm Impact

Previsión de inundaciones repentinas a corto plazo

Resumen diario de inundaciones repentinas

Capas estáticas

2026-03-05 12:00 - 2026-03-05 18:00 UTC

2026-03-05 12 : 00 Apply

Forecasting time: Thu, 2026-03-05 12:00 UTC

Leadtime(h) 0-6h 6-24h 24-48h 48-120h

Spain Portugal Andorra Monaco Tunisia Gibraltar

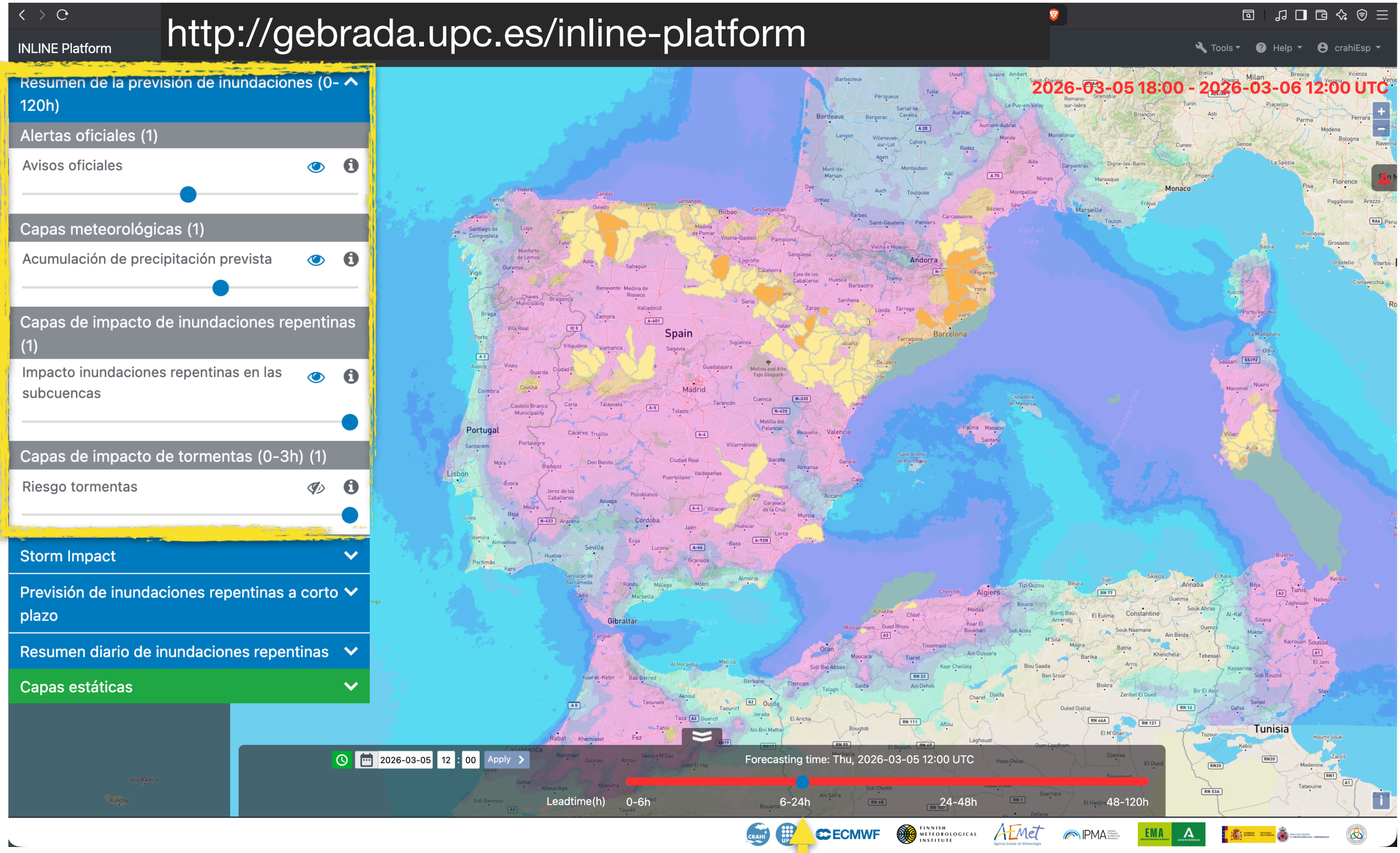
Bordeaux Barcelona Madrid Lisbon Algiers Marseille

ECMWF FINNISH METEOROLOGICAL INSTITUTE AEMet IPMA EMA

INLINE

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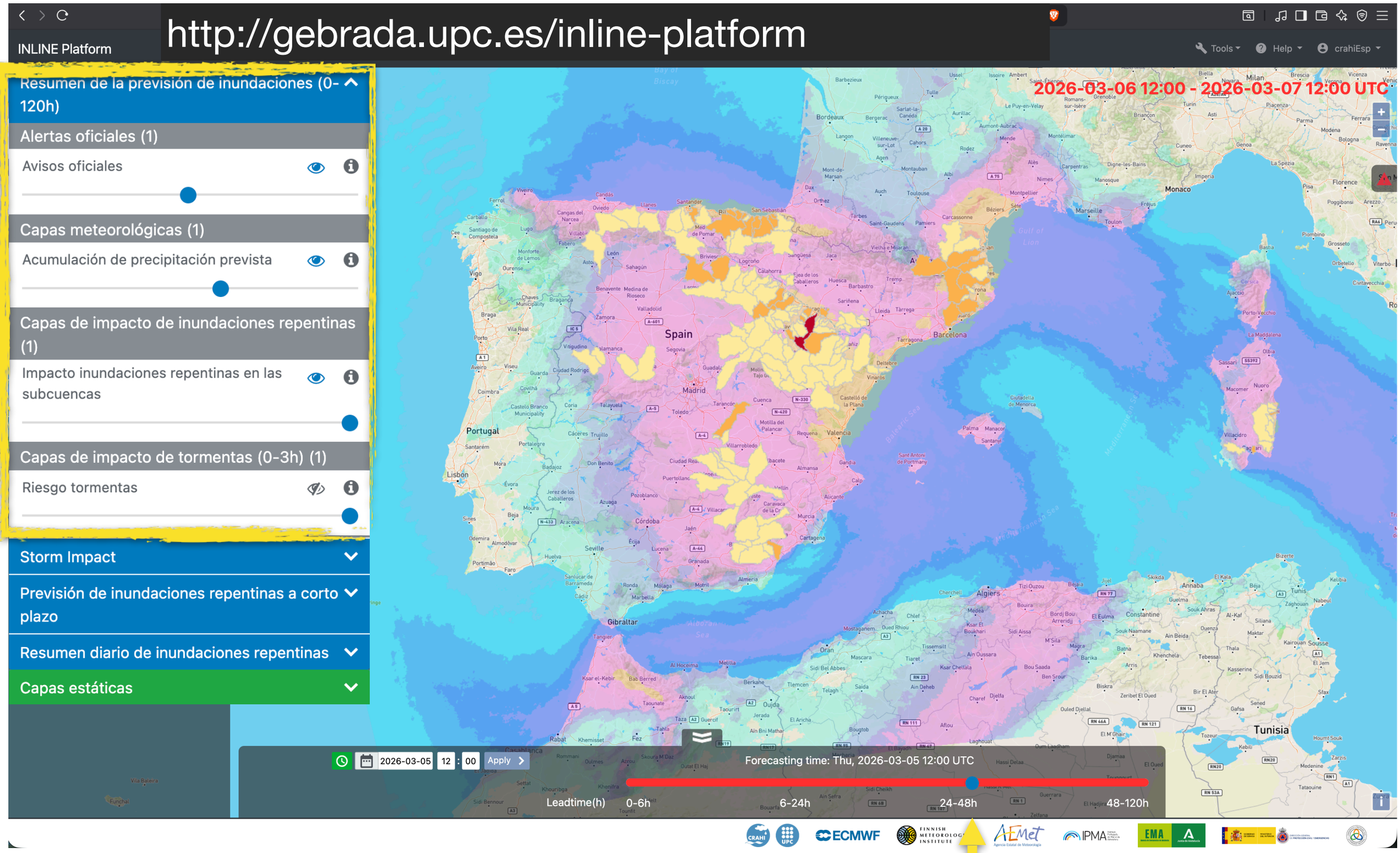
Block 1: Forecast summary (0-120 h)



INLINE

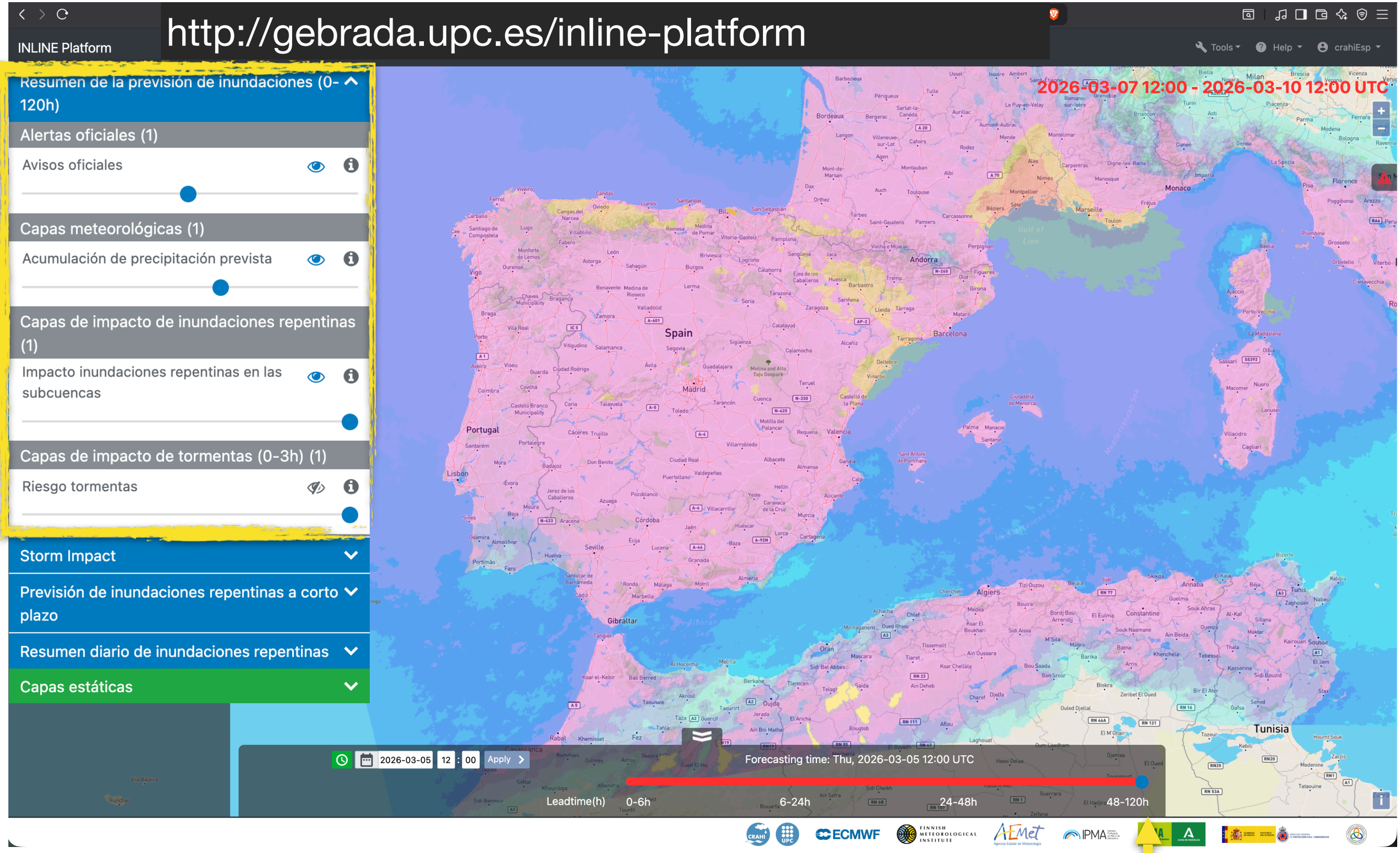
Co-funded by the European Union

Block 1: Forecast summary (0-120 h)



Co-funded by the European Union

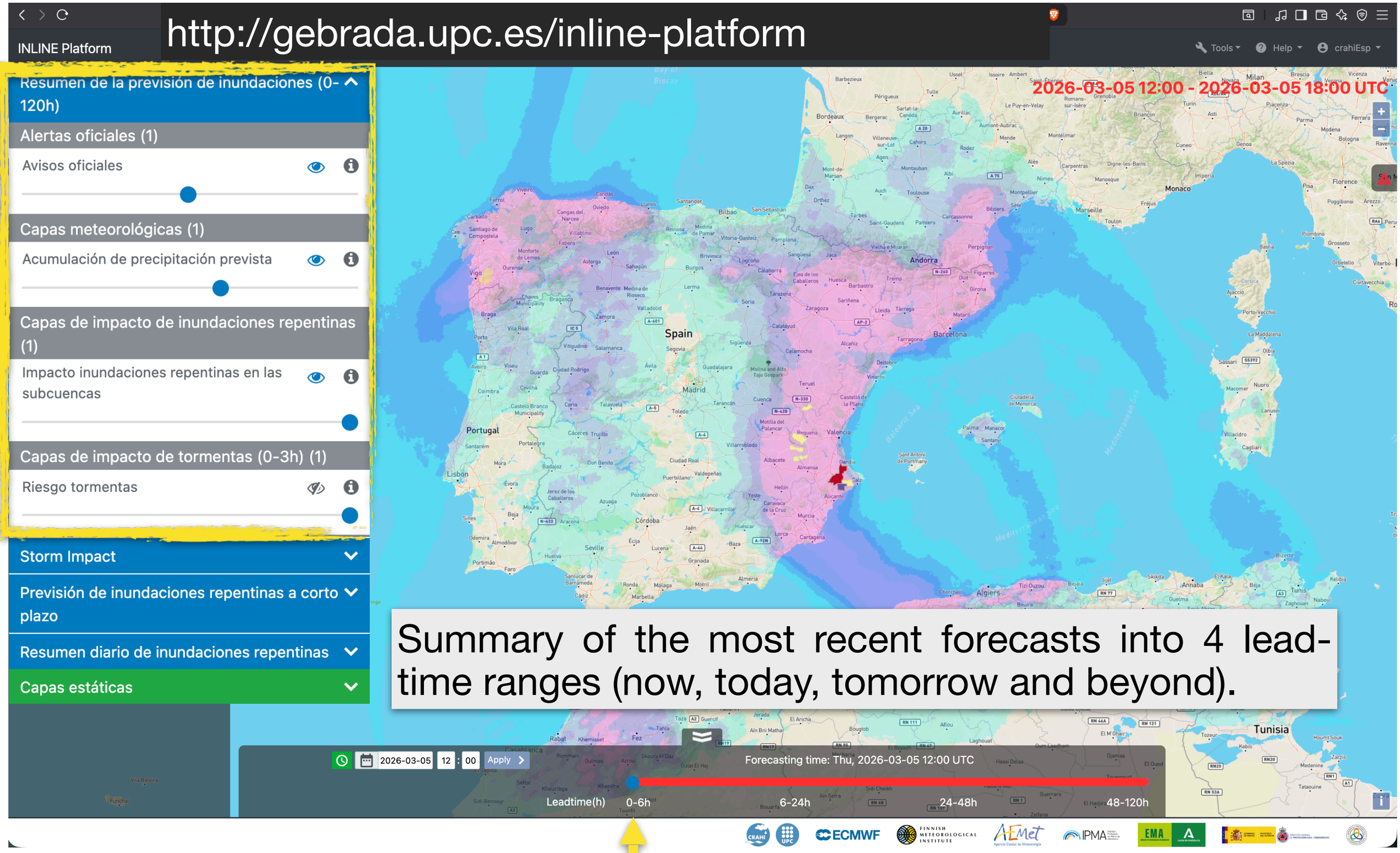
Block 1: Forecast summary (0-120 h)



ONLINE

Co-funded by the European Union

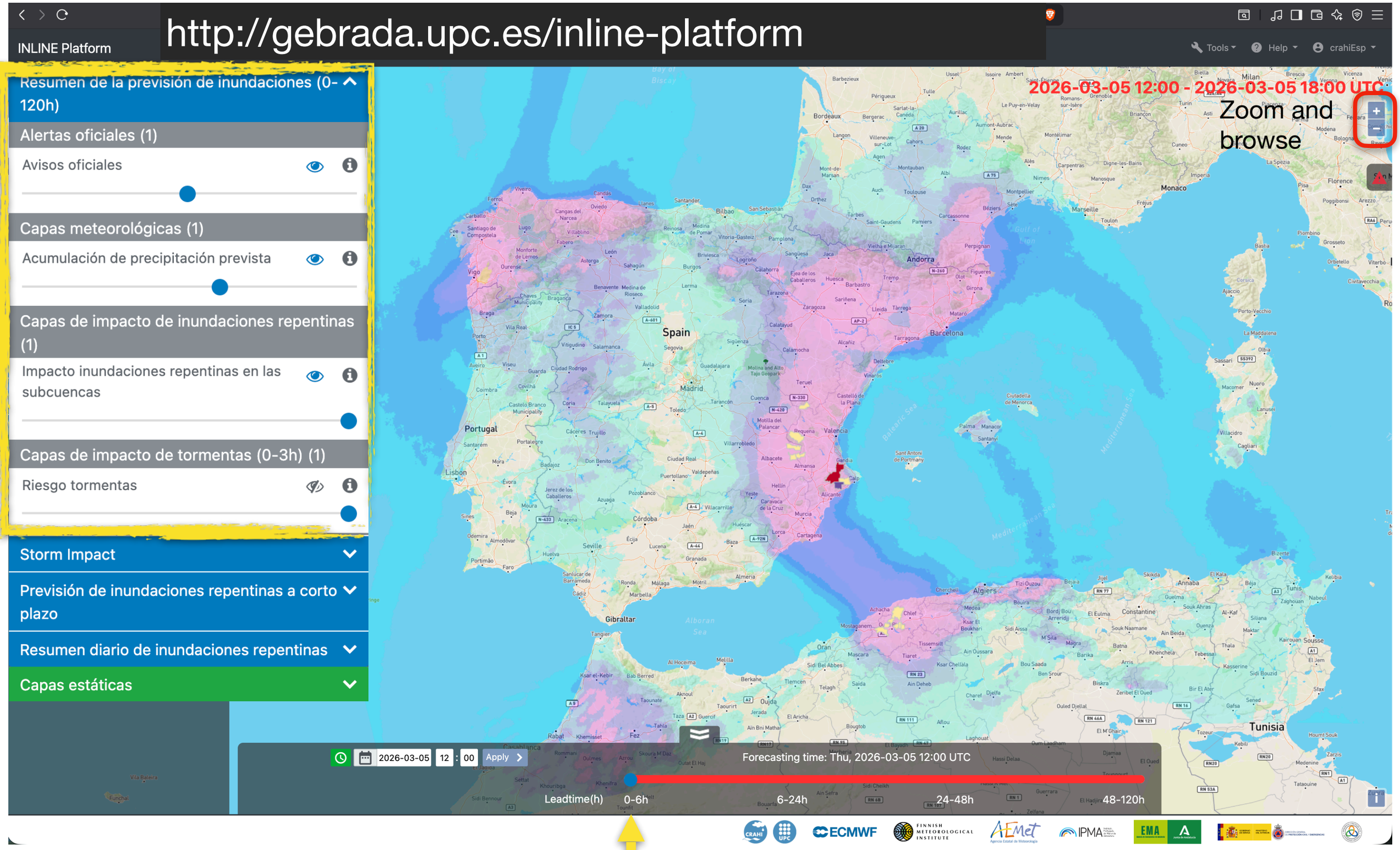
Block 1: Forecast summary (0-120 h)



Summary of the most recent forecasts into 4 lead-time ranges (now, today, tomorrow and beyond).

Co-funded by the European Union

Block 1: Forecast summary (0-120 h)



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Block 1: Forecast summary (0-120 h)

Selected feature information

Official Warnings | Flash flood impact over sub-catchment

Lat,Lon: 38.700197,-0.377683

Impact matrix

	Low Exposure	Medium Exposure	High Exposure
High Likelihood			
Medium Likelihood			✓
Low Likelihood			

Exposure information

	#
Total population affected	**3780**
Education facilities affected	**2**
Health facilities affected	**1**
Energy generation facilities affected	
Time of the event peak	**2026/03/05 12:00:00**

Capas de impacto de tormentas (0-3h) (1)

Riesgo tormentas

Storm Impact

Previsión de inundaciones repentinas a corto plazo

Resumen diario de inundaciones repentinas

Capas estáticas

2026-03-05 12 : 00 Apply

Forecasting time: Thu, 2026-03-05 12:00 UTC

Leadtime(h) 0-6h 6-24h 24-48h 48-120h

Gibraltar

Tunisia

Algiers

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Block 2: Storm impact nowcasting (0-3h)

http://gebrada.upc.es/inline-platform

INLINE Platform

Tools Help crahiEsp

Flash flood forecast summary (0-120h)

Storm Impact

Meteorological layers (2)

Radar reflectivity OPERA

Hourly precipitaton - radar nowcasting

Storm impact layers (6)

Storm Hazard

Hail Hazard

Wind Hazard

Precipitation Hazard

Lightning Hazard

Storm Impact

Flash flood impact layers (1)

Pluvial flood hazard in urban areas

Animated flash flood nowcasting

Flash flood past 24-h summary

Static layers

Meteorological

2026-03-06 03:00 UTC

2026-03-06 03 : 00 Apply

Fri, 2026-03-06 03:00 UTC

4h (past)

4 h (nowcast)

ECMWF

EMA

Co-funded by the European Union

Block 2: Storm impact nowcasting (0-3h)

http://gebrada.upc.es/inline-platform

INLINE Platform

Tools Help crahiEsp

Flash flood forecast summary (0-120h)

Storm Impact

Meteorological layers (2)

Radar reflectivity OPERA

Hourly precipitaton - radar nowcasting

Storm impact layers (6)

Storm Hazard

Hail Hazard

Wind Hazard

Precipitation Hazard

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Pluvial flood hazard in urban areas

Animated flash flood nowcasting

Flash flood past 24-h summary

Static layers

Meteorological

Storm impacts

2026-03-06 03:00 UTC

2026-03-06 03 : 00 Apply

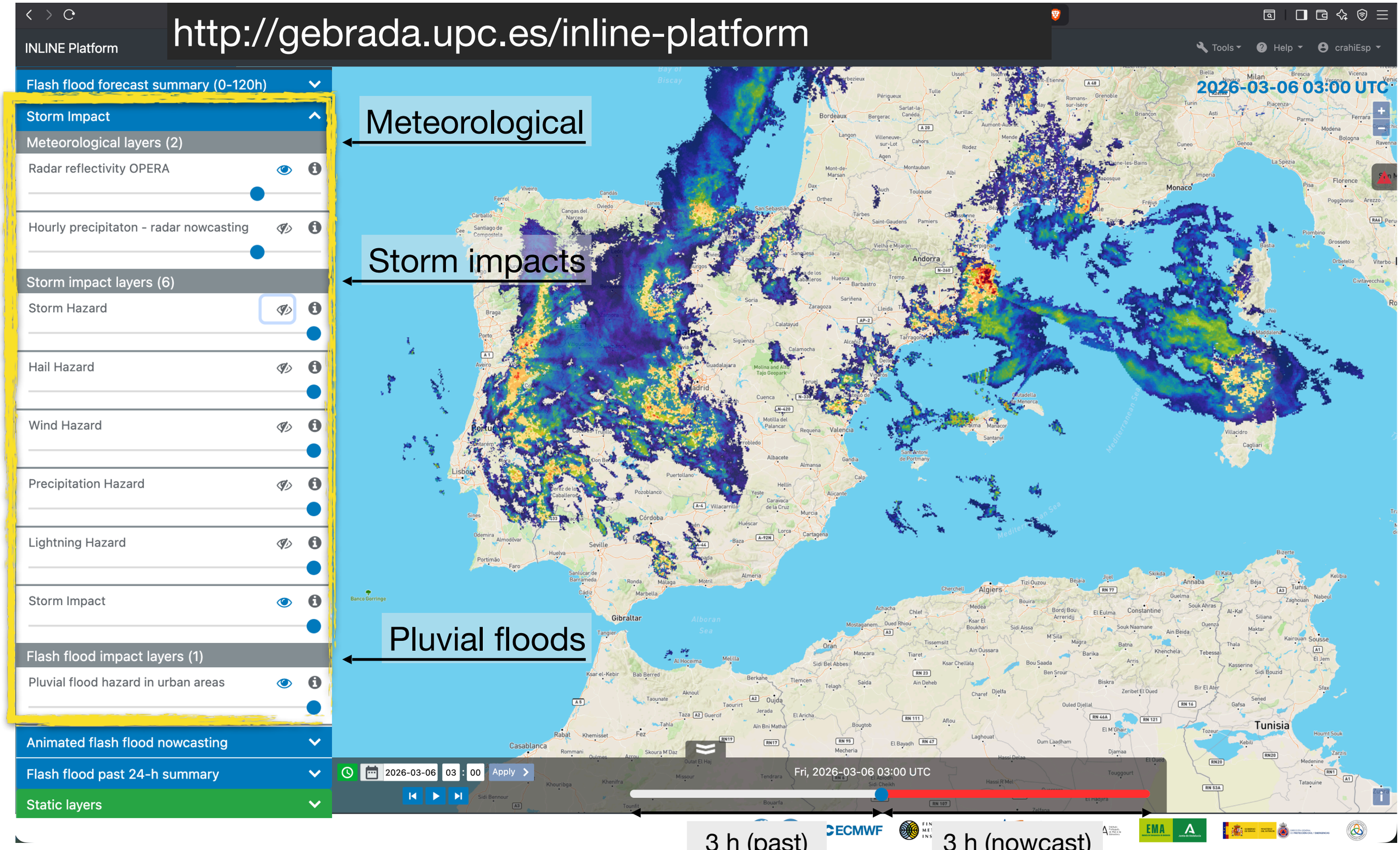
Fri, 2026-03-06 03:00 UTC

3 h (past)

3 h (nowcast)

Co-funded by the European Union

Block 2: Storm impact nowcasting (0-3h)



Block 3: Flash flood nowcasting (0-6 h)

ebrada.upc.es/inline-platform

Tools Help crahi

Resumen de la previsión de inundaciones (0-120h)

Storm Impact

Previsión de inundaciones repentinas a corto plazo

Avisos oficiales (1)

Avisos oficiales

Capas meteorológicas (3)

Precipitación horaria - percentil 80

Precipitación instantánea - radar AEMET

Precipitación horaria - nowcasting radar

Capas de impacto de inundaciones repentinas (4)

Impacto inundaciones repentinas en la red fluvial

Peligro de inundaciones pluviales en zonas urbanas

Zonas inundadas

Impacto inundaciones repentinas en subcuencas

Capas de impacto de tormentas (2)

Peligro precipitación

Riesgo precipitación

EFAS (4)

Puntos ERIC

Areas afectadas ERIC

Probabilidad inundaciones < 48h

Meteorological

2026-03-06 03:00 UTC

2026-03-06 03 : 00 Apply

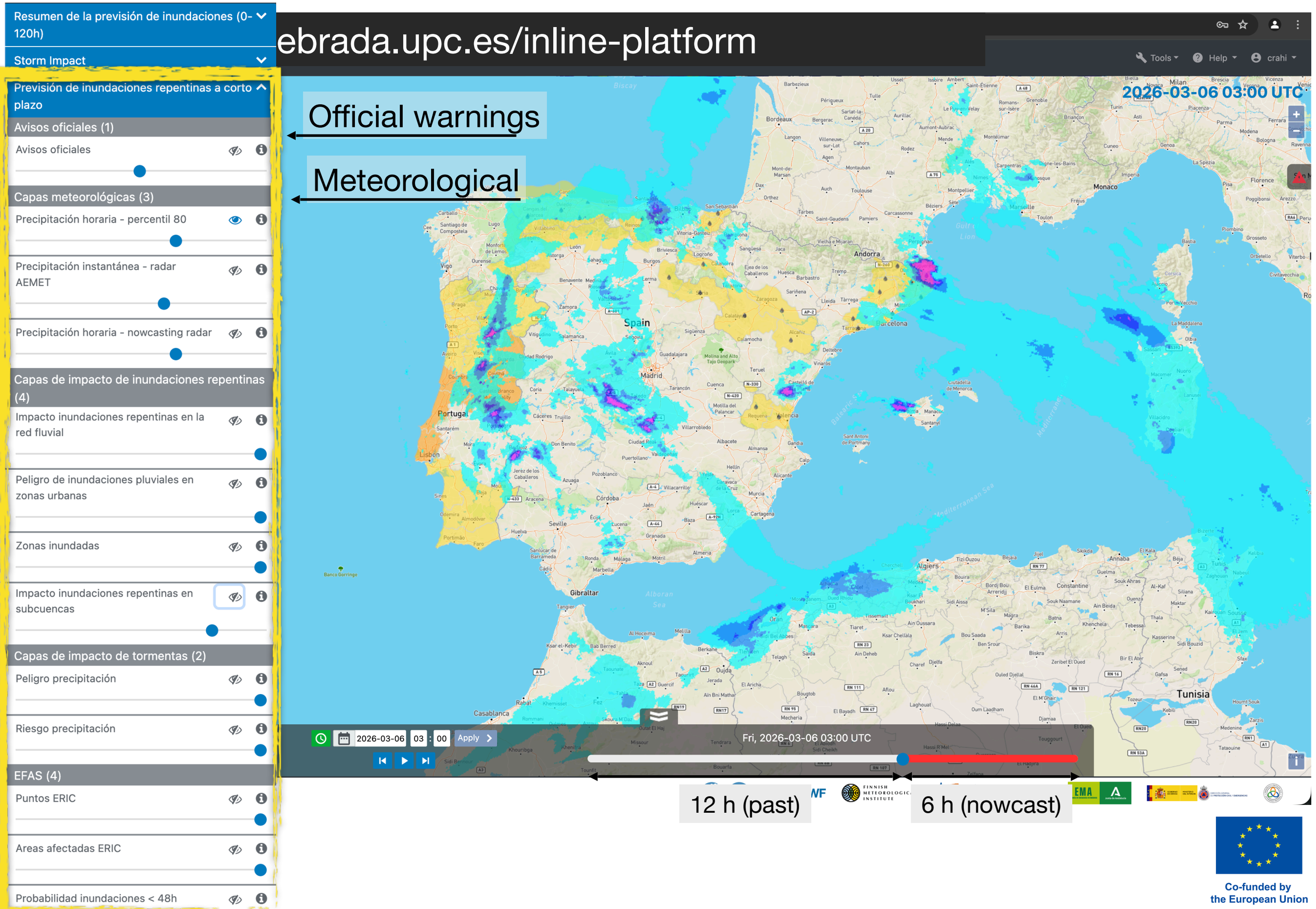
Fri, 2026-03-06 03:00 UTC

12 h (past)

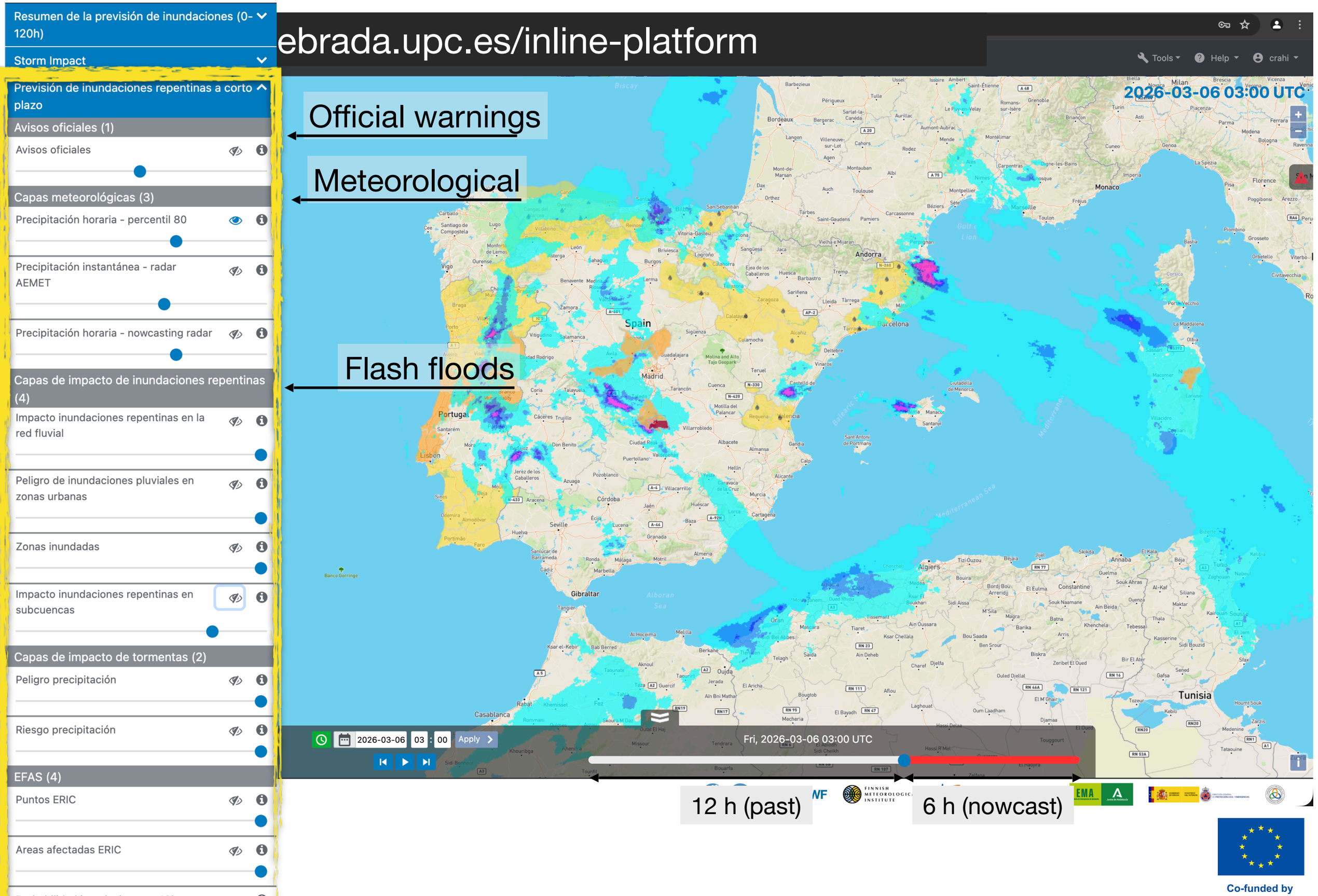
6 h (nowcast)

Co-funded by the European Union

Block 3: Flash flood nowcasting (0-6 h)

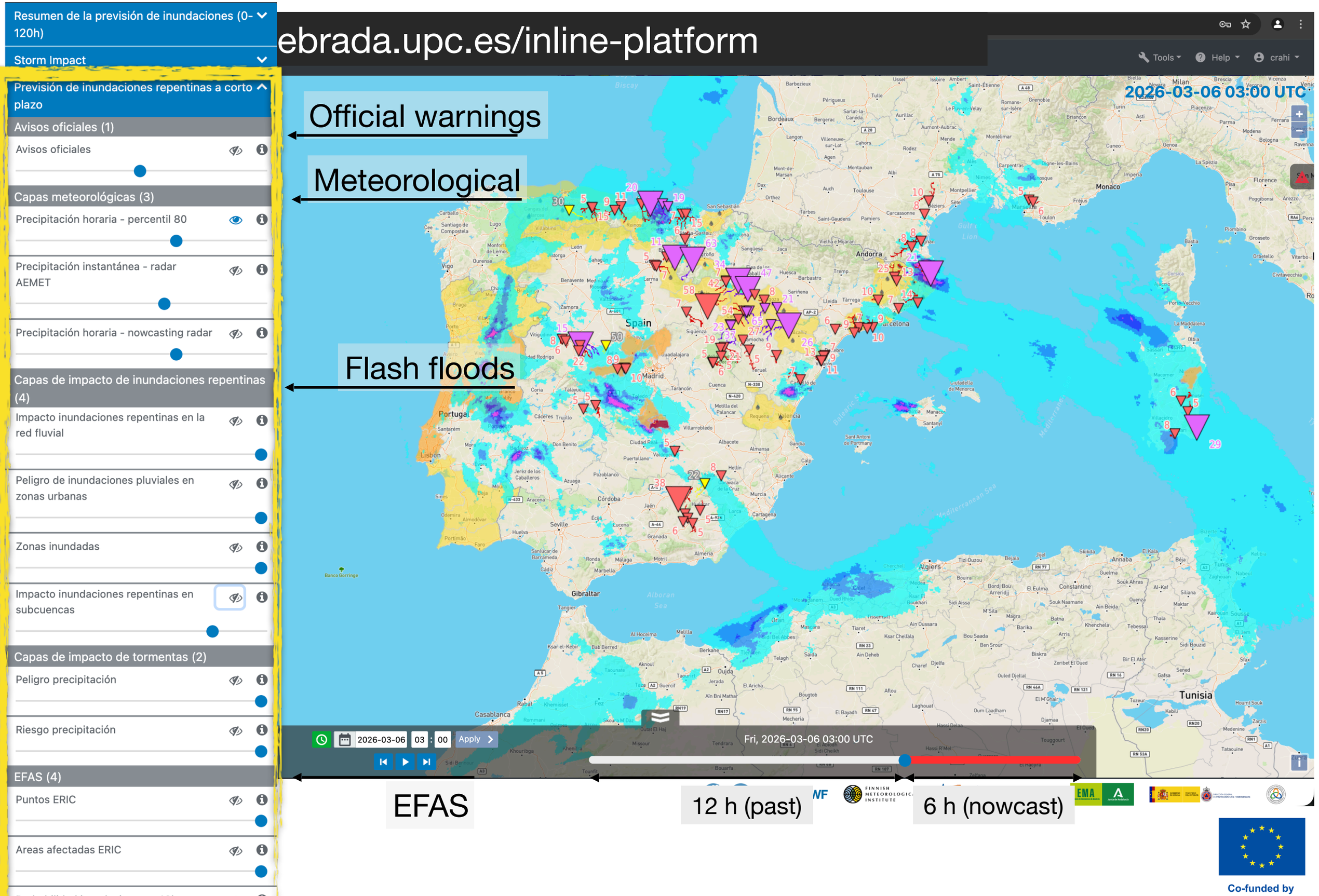


Block 3: Flash flood nowcasting (0-6 h)

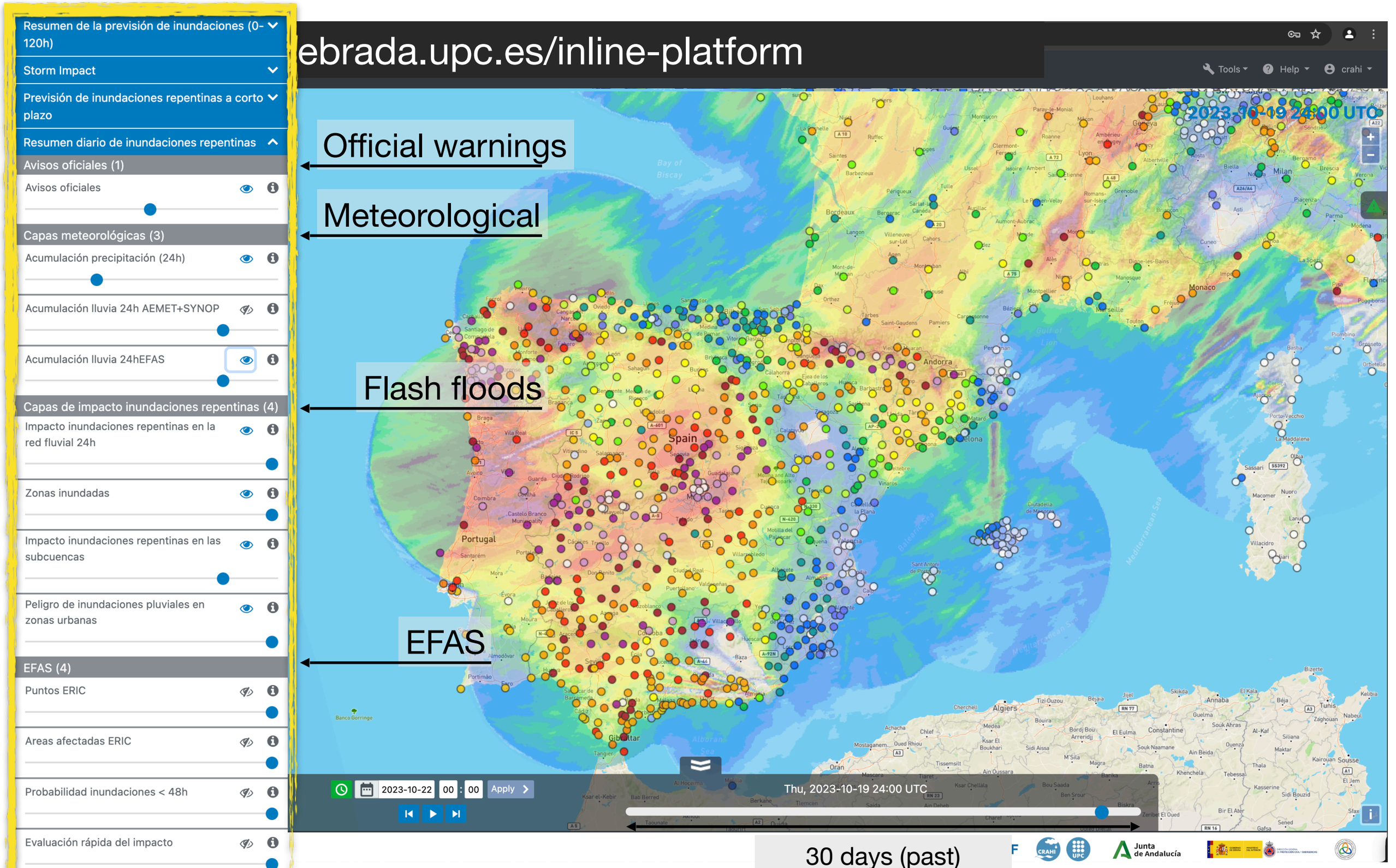


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Block 3: Flash flood nowcasting (0-6 h)



Block 4: Past 24-h summary (based on observations)



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Static layers

Not Secure http://gebrada.upc.es/inline-platform

EDERA Platform

Tools Help crahi

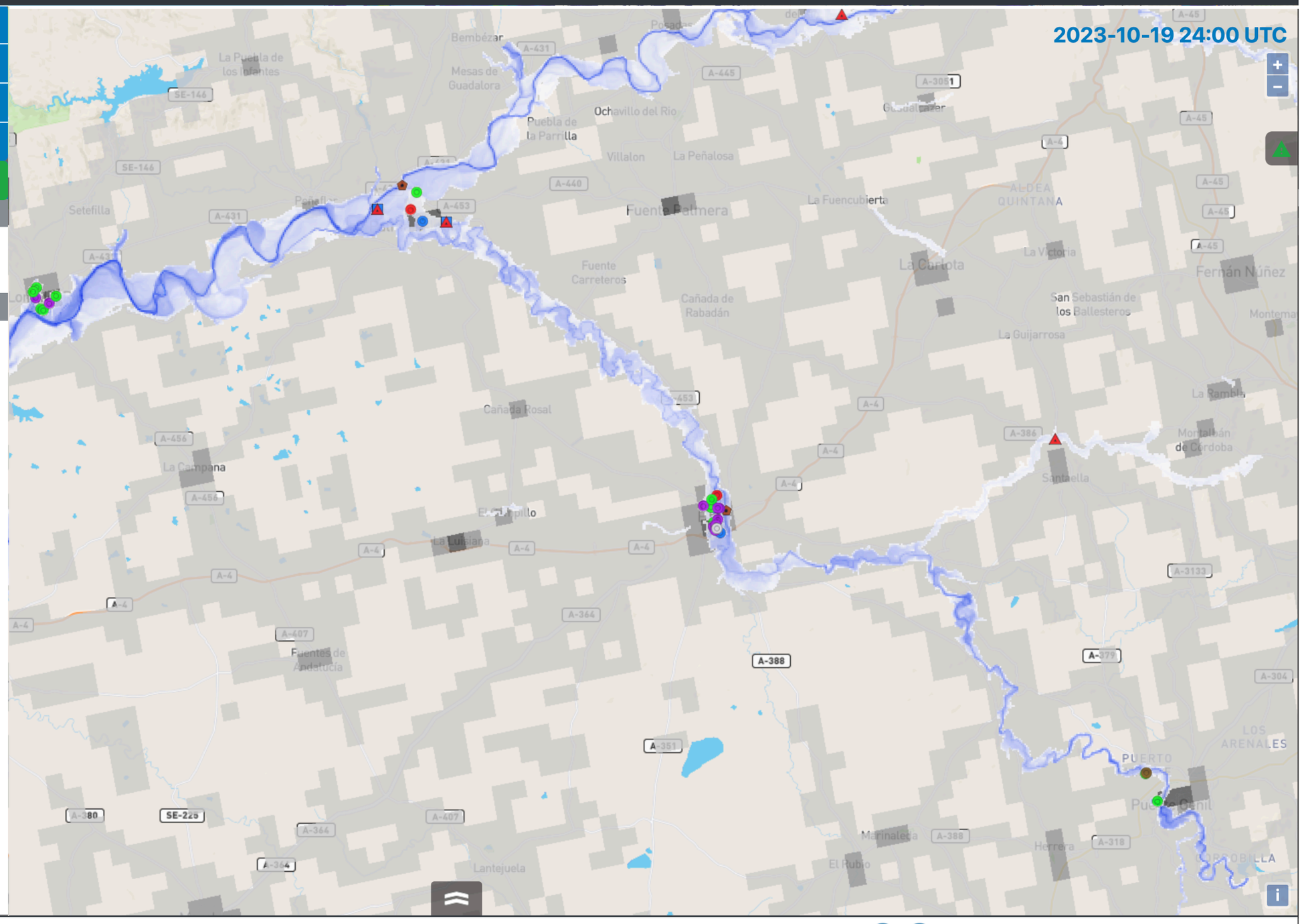
- Flash flood forecast summary (0-120h)
- Storm Impact
- Animated flash flood nowcasting
- Flash flood past 24-h summary
- Static layers

Exposure (1)

- Exposure

Flood hazard and risk maps (9)

- Flood Area (T500)
- Flood Area (T100)
- Flood Area (T010)
- MRIF RECON (T500)
- MRIF RECON (T100)
- MRIF RECON (T010)
- MRIF RPTOSMA (T500)
- MRIF RPTOSMA (T100)
- MRIF RPTOSMA (T010)

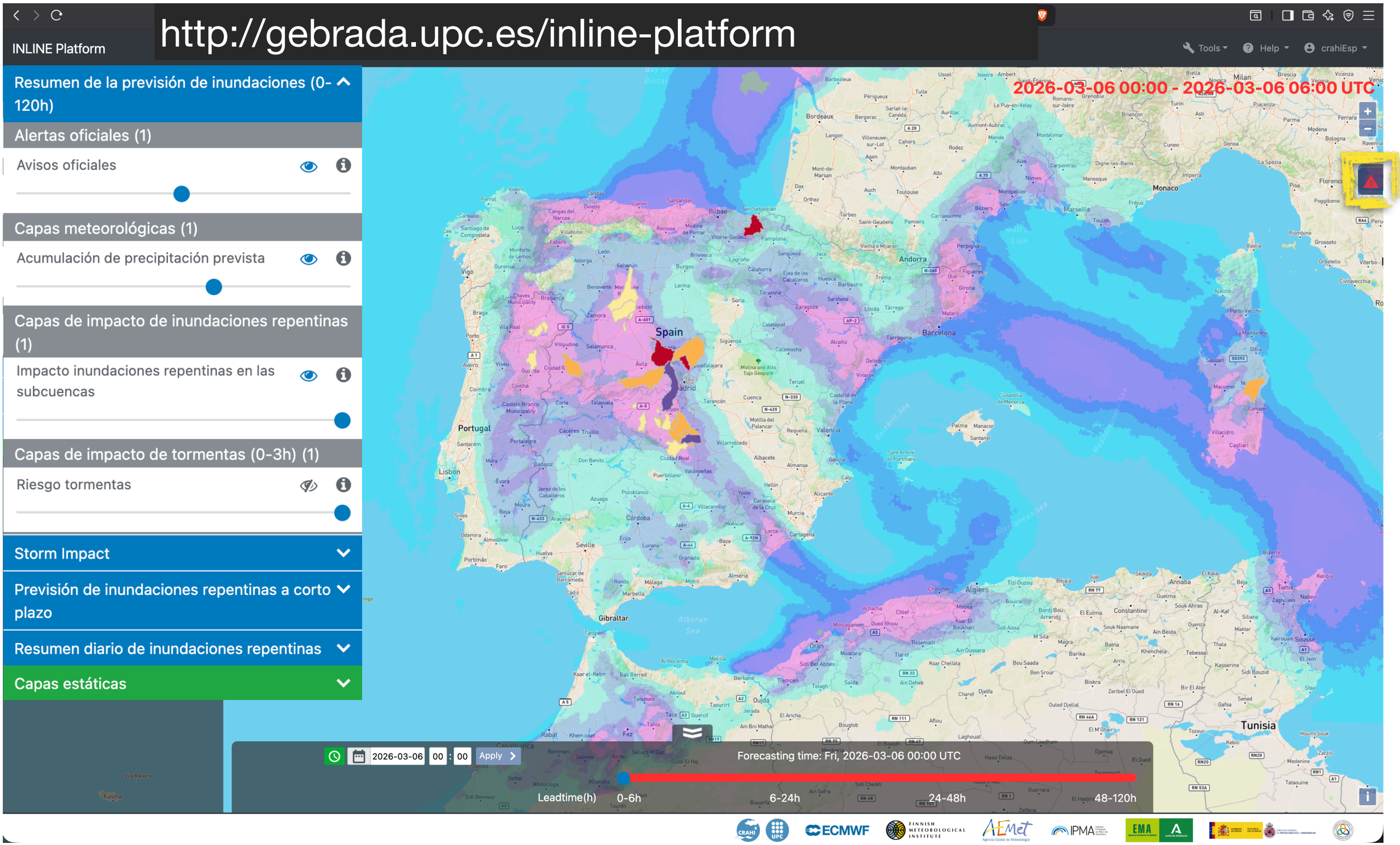


they can be shown together with the dynamic layers

INLINE

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Notifications



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Notifications

http://gebrada.upc.es/inline-platform

INLINE Platform

Tools Help crahiEsp

Resumen de la previsión de inundaciones (0-120h)

Alertas oficiales (1)

Avisos oficiales

Capas meteorológicas (1)

Acumulación de precipitación prevista

Capas de impacto de inundaciones repentinas (1)

Impacto inundaciones repe… subcuencas

Capas de impacto de to…

Riesgo tormentas

Storm Impact

Previsión de inundacione… plazo

Resumen diario de inund…

Capas estáticas

2026-03-06 00 : 00 Apply

Forecasting time: Fri, 2026-03-06 00:00 UTC

Leadtime(h) 0-6h 6-24h 24-48h

Filter

Severe (7) High (22) Medium (94)

Ávila
Source: INLINE
Type: INLINE event notification
Hazards:

Badajoz
Source: INLINE
Type: INLINE event notification
Hazards:

…event notification

…event notification

…event notification

Source: INLINE
Type: INLINE event notification
Hazards:

Valladolid
Source: INLINE
Type: INLINE event notification
Hazards:

Notification details: Ávila

Type	Product	Start Date	End Date	Description
	Flash flood impact	2026-03-06 01:00	2026-03-06 06:00	Advertencia de inundación en Ávila.
	Flash flood impact	2026-03-07 00:00	2026-03-07 06:00	Advertencia de inundación en Ávila.
	Storm Impact	2026-03-06 00:00	2026-03-06 03:00	Advertencia de tormenta en Ávila.
	Storm Impact	2026-03-06 00:00	2026-03-06 03:00	Advertencia de tormenta en Ávila.

Showing 1 to 4 of 4 entries

‹ Previous 1 Next ›

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Demonstration Period Evaluation

Surveys

Interviews

INLINE Surveys

The evaluation includes two surveys: one conducted at the beginning of the project to establish a baseline, and another at the end to measure progress and final outcomes.

https://ee-eu.kobotoolbox.org/x/ui5sMOrd

Initial Survey of the INLINE Project

Dear Participant, Thank you for taking the time to contribute to this survey on key features of flood and storm impact forecasting systems to gather your insights regarding the development and evaluation of the INLINE project. While we encourage you to complete the survey for a comprehensive view, please feel free to answer as many or as few questions as you like—every piece of feedback is incredibly valuable to us. This survey will be used to quantify users' understanding of INLINE products and to evaluate the overall success of the project. Estimated completion time: 25 minutes.

Section 1: Background Information

1.1 Please enter your Email address. *

1.2 Which organization/company/institution are you affiliated with?

1.3 What is your role there?

- ○ Emergency manager, Civil Protection operator
- ○ Weather or risk forecaster
- ○ Emergency first responder
- ○ Technical or Administrative Support Staff (e.g. IT, office coordinator, manager)
- ○ Scientist or Researcher

Co-funded by the European Union

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

Co-funded by the European Union

INLINE project

Marc Berenguer

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