

# Feedback Session

12:00 – 13:00

# Session Agenda

1. Feedback from hands-on analysis
2. Agree configuration of EDERA products
3. Work during 15-month demonstration phase
  - a) Setting up notification service
  - b) Providing feedback

# Feedback from Hands-on Session

- Which products did you find useful?

Whiteboard exercise...

Useful	Somewhat Useful
<div>Product 1</div> <div>Product 3</div>	
Not useful	Not used
<div>Product 4</div>	<div>Product 2</div>

# EDERA Product Configuration

- What products are you most likely to use during the 15-month demonstration phase?
- How could these products be improved?
  - e.g. visualisation – spatial / temporal aggregation

# Guidance to Analysts - Checklist

What guidance can be given to analysts on how to analyse the products on the web viewer? – Checklist?

Load next forecast

Load Forecast  
Date

Load next forecast

<3 hours before  
**Storms & Pluvial Floods**

Storm Impacts –  
Load Storm Hazard

No — Does Storm Hazard show  
ellipses in area of interest?

Yes

Load Wind/Hail/  
Precip'/ Lightning  
hazard layers

Which hazards  
show ellipses in  
area of interest?

Load Storm Impact  
& Pluvial layers

Which areas are  
most at risk of  
impacts?

**River Flash Floods**

Load Flash flood  
forecast summary –  
sub-catchment layer

Are any sub-catchments  
highlighted? — No

Yes <6 hours before

Animated flash flood nowcasting

Load Precipitation  
nowcasting – how much  
rain is expected to fall?

Load Flash flood impact  
over river network & sub-  
catchment

Identify the areas  
& timing of  
flooding &  
Identify the  
severity level

# Stakeholder Participation during 15-month demonstration phase

# Demonstration Phase

**Duration: Now – Oct 2024**

During this time, we would like EDERA stakeholders to:

- Routinely check the realtime EDERA forecasts
  - **Notification service** can help tell you when to look at the platform
  - Or look after an event to see what EDERA would have shown
- Provide feedback to FMI/ ECMWF/ UPC about the products:
  - Accuracy, usefulness, lead time

**How can we encourage your analysts to routinely check the EDERA forecasts?**



# Viewing the Forecasts

How would your analysts prefer to view the EDERA forecasts?

- 1. Using the EDERA web viewer**
- 2. Using web services to visualise forecasts in their own platform – not really possible for now**

# When to Check Forecasts - EDERA Notification Service - Emails

During 15-month demonstration we can send notifications based on the EDERA flash flood catchment summary forecast product

## EFAS Flash Flood Notification\*

### NOTIFICATION DETAILS:

- Country(ies): **United Kingdom**
- Administration Region(s): **Bridgend and Neath Port Talbot, Derby**
- Likely start of event: **Friday, 13th of October 2023 - 06:00**
- Probability to exceed a 5-year flash flood return period threshold: **37 %**
- Probability to exceed a 20-year flash flood return period threshold: **17 %**

### ADDITIONAL INFORMATION:

- Forecast date: 2023-10-12 00 UTC
- Affected area susceptible to landslides: Very High: 15 km<sup>2</sup>, High: 15 km<sup>2</sup>, Moderate: 60 km<sup>2</sup>
- Forecaster Comments: -

**This is the only notification you will receive for this event!** Please follow the evolution of the event on [EFAS](#).

More information about the EFAS flash flood notifications is available on the [EFAS wiki](#)

These will be similar to EFAS Flash Flood Notifications

# When to Check Forecasts - EDERA Notification Service – Web Viewer

EDERA Platform

Flash flood forecast summary (0-120h)

Official warnings (1)

Official warnings

Meteorological layers (1)

Seamless precipitation accumulation

Flash flood impact layers (1)

Flash flood impact over sub-catchment

Storm Impact

Animated flash flood nowcasting

Flash flood past 24-h summary

Static layers

Exposure (1)

Exposure

Flood hazard and risk maps (3)

Flood Area (T1000)

Flood Area (T050)

Flood Area (T010)

Official warnings

Red warnings 21

Helsinki

Product: Urban Flood

Type: Flood

Start: 2023-08-31 00:45

End: 2023-08-31 02:00

Espoo

Product: Urban Flood

Type: Flood

Start: 2023-08-31 00:45

End: 2023-08-31 02:00

Porvoo

Product: Urban Flood

Type: Flood

Start: 2023-08-31 01:00

End: 2023-08-31 02:00

Vantaa

Product: Urban Flood

Type: Flood

Start: 2023-08-31 01:00

End: 2023-08-31 02:15

Lappeenranta

Product: Urban Flood

Type: Flood

Start: 2023-08-31 01:15

2023-08-31 00:00

Apply

Forecast

Leadtime(h)

0-6h

Official warnings

Red warnings 21

Helsinki

Product: Urban Flood

Type: Flood

Start: 2023-08-31 00:45

End: 2023-08-31 02:00

Espoo

Product: Urban Flood

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End: 2023-08-31 02:00

Vantaa

Product: Urban Flood

Type: Flood

Start: 2023-08-31 01:00

End: 2023-08-31 02:15

Lappeenranta

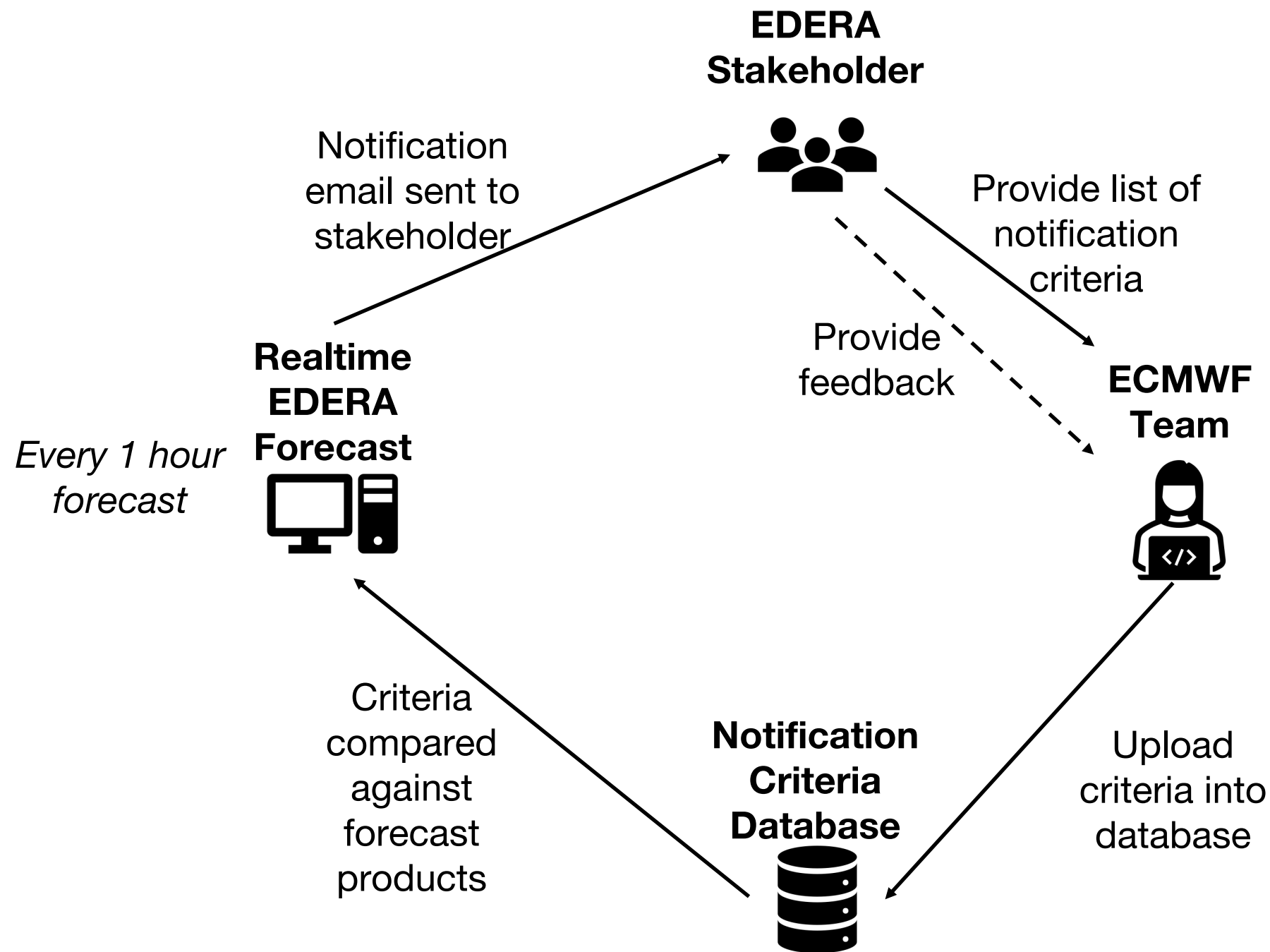
Product: Urban Flood

Type: Flood

Start: 2023-08-31 01:15

EDERA

# EDERA Notification Service



# EDERA Notification Service - Criteria

You can provide us (by email) with criteria for sending notifications:

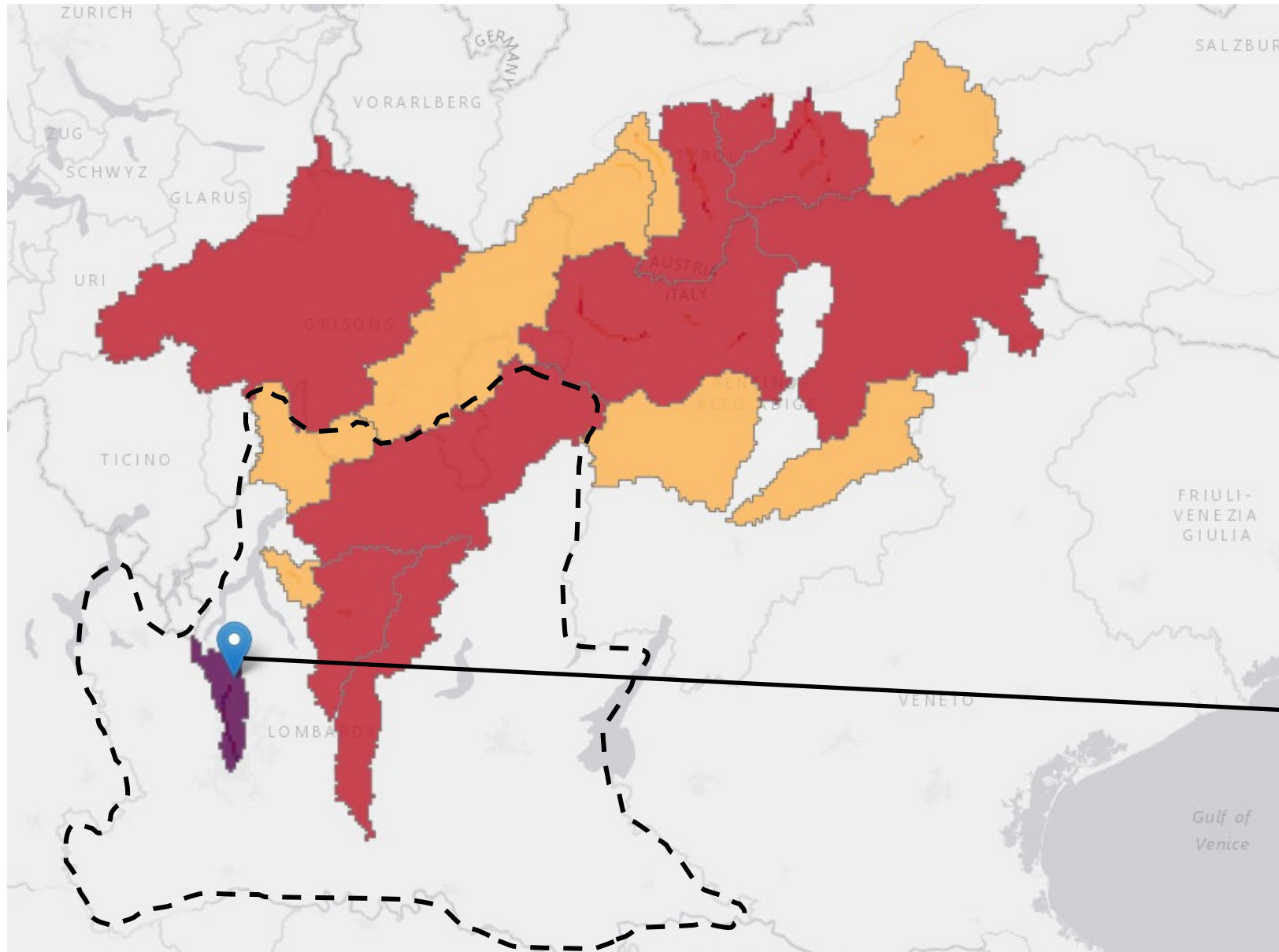
- Mandatory criteria**
- *Area of interest* – specific regions/rivers, or provide a shapefile
  - *Lead time of interest*
    - e.g. 0-24 hours
- Optional:**  
Choose 1 or more of these
- *Exceedance probability*
    - x% probability of exceeding 2 year return period
  - *Impact category*
    - Only send notifications for red/purple catchments
  - *Population affected*
    - y number of people potentially affected in your area of interest

**Send criteria to:** [edera@lists.ecmwf.int](mailto:edera@lists.ecmwf.int)



# EDERA Notification Service - Example

Notifications generated from Catchment Summary layers



## Criteria:

- *Area of interest* – dashed line
- *Lead time* – 0-6 hours
- *2 year exceedance probability: 60%*

**Catchment 1**  
Lead time = **2 hours**  
Exceedance probability = **90%**  
**= send notification email**

# EDERA Notification Service - Example

If one or more catchments within your area of interest meet your criteria, you will receive an email notification...

## Notification Details

- Country(ies): **Finland**
- Administration Region(s): **Kymenlaakso**
- River(s): **Kymijoki**
- Likely peak of event: **Friday 13<sup>th</sup> October 2023 – 06:00 UTC**
- Probability to exceed a 2-year return period threshold: **90%**

## Impact Information

- Total population potentially affected: **10000**
- Maximum impact category: **Severe**

## Additional Information:

- Forecast date: **2023-10-13 00 UTC**

**This is the only notification you will receive for this event!** Please follow the event on the EDERA platform

**What other information could be added to the notification email?**

# EDERA Notification Service – Discussion Points

**What extra information could be added to the emails?**

e.g. adding impact matrix?

## Notification Details

- Country(ies): **Finland**
- Administration Region(s): **Kymenlaakso**
- River(s): **Kymijoki**
- Likely peak of event: **Friday 13<sup>th</sup> October 2023 – 06:00 UTC**
- Probability to exceed a 2-year return period threshold: **90%**

## Impact Information

- Total population potentially affected: **10000**
- Maximum impact category: **Severe**

## Additional Information:

- Forecast date: **2023-10-13 00 UTC**

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



# EDERA Notification Service – Other Aspects

- What if multiple catchments within your area of interest meet your notification criteria? – summarise into single email?

## Notification Details

- Country(ies): **Finland**
- Administration Region(s): **Kymenlaakso** ← List all regions / rivers – order by severity, colour code by severity?
- River(s): **Kymijoki**
- Likely peak of event: **Friday 13<sup>th</sup> October 2023 – 06:00 UTC** ← Earliest peak?
- Probability to exceed a 2-year return period threshold: **90%** ← Maximum exceedance probability?

## Impact Information

- Total population potentially affected: **10000** ← Total population?
- Maximum impact category: **Severe** ← Maximum category?

## Additional Information:

- Forecast date: **2023-10-13 00 UTC**

**This is the only notification you will receive for this event!** Please follow the event on the EDERA platform

# EDERA Notification Service – Other Aspects

How often do you wish to receive notifications?

- New forecasts produced every hour
  - But this could result in sending loads of notifications
- Limit number sent per day
  - For example, 1 email per day?

# EDERA Notification Service - Criteria

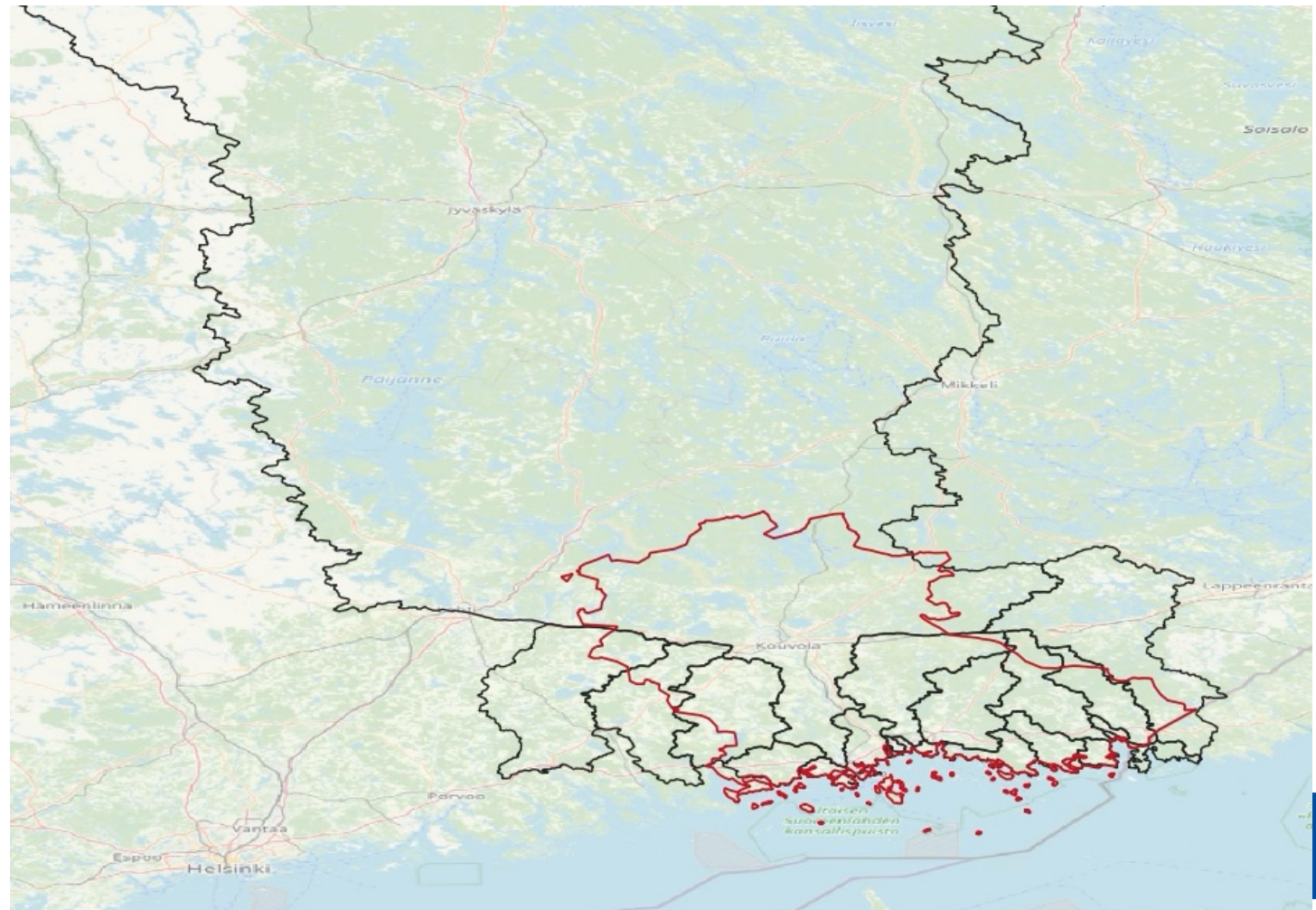
## Defining Area of Interest – example of Kymenlaakso

Stakeholder provides their area of interest



**Option 2:** Receive notifications for flooding in any river catchment which intersects your region?

**Option 1:** Do you only want notifications within this area?



# EDERA Notification Service – Next Steps

- Each stakeholder to decide on their criteria for receiving notifications
  - Send these criteria to: **edera@lists.ecmwf.int**
- 
- Email address(es) of people to receive notifications
  - Area of interest
  - Lead time of interest
  - Optional: One or more of:
    - Exceedance probability of the 2-year return period threshold
    - Impact category
    - Total population affected



# Stakeholder Feedback

# Providing Feedback During Demonstration Phase

At the bottom of each notification email, will be a link to provide feedback via a form (based on EFAS feedback form)

## Notification Details

- Country(ies): **Finland**
- Administration Region(s): **Kymenlaakso**
- River(s): **Kymijoki**
- Likely peak of event: **Friday 13<sup>th</sup> October 2023 – 06:00 UTC**
- Probability to exceed a 2-year return period threshold: **90%**

## Impact Information

- Total population potentially affected: **10000**
- Maximum impact category: **Severe**

## Additional Information:

- Forecast date: **2023-10-13 00 UTC**

**This is the only notification you will receive for this event!** Please follow the event on the EDERA platform

Please provide feedback about this notification using the link below:

**Feedback Form**

# Notification Feedback Form

## EDERA Notification Feedback Form - mockup

This form aims to collect feedback on the EDERA notification you received for an event.

calum.baugh55@gmail.com [Switch accounts](#)



\* Indicates required question

Email \*

test@test.com

What organisation are you from? \*

Your answer

What was the date you received the notification? \*

Date

02/11/2023



Are you providing feedback to an EDERA notification you received? (select No to report a missed event) \*

☒ Yes

☐ No

Next

Page 1 of 4

Clear form

## EDERA Notification Feedback

This section aims to collect feedback on events identified by an EDERA Notification.

What was the location of the event? \*

Your answer

Did the location of the event match the area identified in the EDERA Notification? \*

- ☐ Yes - location of event was an exact match
- ☐ Yes - location of event was not an exact match but surrounding area(s) were affected
- ☐ No - location of event was incorrect

When was the observed peak of this event? (include Date, Time, and Timezone) \*

Your answer

How accurate was the EDERA Notification in forecasting the event peak? \*

Choose



This is a required question

What was the observed flood impact severity for this event? \*

Choose



What were the reported impacts of this event? \*

Your answer

Other comments? \*

# When to Provide Feedback

- As soon as possible after the event –
  - If you received a notification - complete the form (link at bottom of email)
- Missed events: If no notification received there is a separate form

How can we stay in regular contact with you to receive your feedback?

- What format?
  - Email reminder to provide feedback
  - Online catch up meetings



# What will Feedback be Used for?

- Revise notification criteria
  - e.g. if you receive too many notifications, we can increase the probability threshold
- Revise the product design
- Evaluate the accuracy of the forecast products
  - Hits, misses, false alarms

# Conclusions

With your continued feedback throughout the demonstration phase, the products/notifications can be iterated to make them as useful as possible to your analysts

**Any Questions?**

[edera@lists.ecmwf.int](mailto:edera@lists.ecmwf.int)