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## Co-designing a Checklist for Analysing the EDERA Forecast **Products**



Centre de Recerca Aplicada en Hidrometeorologia JNIVERSITAT POLITÈCNICA DE CATALUNYA







tura, Pesca, Agua lio Ambiente v Economía Azu







### **Session Aim**

#### To start thinking about <u>how</u> to use the EDERA forecast products

- Go through each section of products on EDERA platform and think how they could be used
- Eventual output: A checklist which could explain to analysts how to use the EDERA forecast products...

Steps		EDERA Forecast Product(s)	Actions
1.	Forecast overview	<ul> <li>Flash flood summary</li> <li>Flash flood impact over sub-catchment</li> <li>Seamless precipitation accumulation</li> </ul>	<ul> <li>Select latest forecast date</li> <li>Are any sub-catchments showing risk of flash flooding over next 0-6 hours in your area of interest?</li> <li>Is any heavy rainfall expected in your area of interest over the next 0-6 hours?</li> <li>If no = no further action</li> <li>If yes = follow next steps</li> </ul>
2.	River flash flood risk	<ul> <li>Animated flash flood nowcasting:</li> <li>Flash flood impact over river network</li> <li>Flash flood impact over sub-catchment</li> </ul>	<ul> <li>Use the time slider to view each hourly timestep</li> <li>Identify the catchment(s) and timestep(s) when river flash flooding is possible</li> </ul>
3.	Pluvial flash flood risk	Storm Impact: <ul> <li>Storm Impact EDERA</li> <li>Hourly precipitation</li> </ul>	<ul> <li>Use time slider to view each hourly timestep</li> </ul>





# Are you already familiar with some of the EDERA products?

- Have you used any of the products in the TAMIR project?
- Have you used them since the TAMIR project?
- How have you used them?





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### 1. Flash flood forecast summary (0-120h)

#### Can give an overview of the situation in the next few days

• Is there anything to worry about in my area?





### 2: Storm Impact layers

These can be used to show areas at risk of convective hazard impacts e.g. pluvial flooding



### 3. Animated flash flood nowcasting layers

#### Shows impacts due to flooding in smaller rivers (<2000km<sup>2</sup>)



### 3. Animated flash flood nowcasting layers

Urjala

EDERA Platform

Storm Impact

Official warnings (1)

Flash flood forecast summary (0-120h)

Animated flash flood nowcasting

#### Pluvial flood hazard layers

Can be used with Storm Impact layers to get more spatial detail about affected areas



eenlinna

ahti



### 3. Animated flash flood medium range layers

#### EFAS layers can show longer forecast lead times – 5-10 days

- Show potential for river flooding in large rivers over next 10 days
- Forecasts only available twice per day (00 & 12 UTC)
- Forecasts do not include radar information – so limited use for flash floods

ERIC layers don't cover Finland EDERA



### 4. Flash flood past 24-h summary layers

These could be useful to show recent past, gives additional context to forecast products

e.g. if lots of rain has fallen in past 24h then more vulnerable to flooding

Sub-catchment layer may show flooding but no forecast rain – due to earlier rainfall

**EDERA** 



### **5. Static Layers**

within the

floodplain

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#### Can give additional context



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### **5. Static Layers**

exposure of

critical

vulnerable

#### Can give additional context



EDERA

### **Suggested Checklist**

- 1. Check summary layers to get situation overview
- 2. If catchments highlighted at risk:
  - Analyse Animated flash flood nowcasting layers
- 3. Check storm impacts to assess risk of urban flooding
- 4. For additional contextual information
  - Analyse summary past 24h layers for antecedent conditions
  - Static layers to identify areas prone (and vulnerable) to flooding

Discussion: Would it be useful to design a checklist to provide to your analysts?





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### **Draft Checklist**

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2.	River flash flood risk	<ul> <li>Animated flash flood nowcasting:</li> <li>Flash flood impact over river network</li> <li>Flash flood impact over sub-catchment</li> </ul>	<ul> <li>Use the time slider to view each hourly timestep</li> <li>Identify the catchment(s) and timestep(s) when river flash flooding is possible</li> </ul>
3.	Urban flash flood risk	Storm Impact: <ul> <li>Storm Impact EDERA</li> <li>Hourly precipitation</li> </ul>	Use time slider to view each hourly timestep





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