

# EU SEE Dashboard – User Manual

## 1. Purpose of the Dashboard

The **EU SEE Dashboard** is an interactive analytical tool designed to monitor, explore, and analyze alert-based events across countries and regions. It enables users to:

- Track **alerts and events** by geography, time, and thematic attributes
- Distinguish between **Negative** and **Positive** alerts
- Analyze **actors, subjects, mechanisms, and events of repression**
- Identify **top patterns and relationships** using bar charts, heatmaps, Sankey diagrams, and maps
- Apply consistent **Top-N logic** across all visualizations for focused analysis

The dashboard is filter-driven and dynamically updates all visuals based on user selections.

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## 2. Dashboard Layout Overview

The dashboard consists of three main tabs:

1. **Overview** – High-level summary and distributions
2. **Negative Events** – Deep-dive analytical views for negative alerts
3. **Visualization Map** – Geographic distribution of alerts

A **global filter sidebar** applies to all tabs.

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## 3. Global Filters (Sidebar)

The sidebar on the left controls all data displayed in the dashboard.

### 3.1 Region Filter

- Allows selection of one or more regions:
  - Africa
  - The Middle East
  - Asia and the Pacific
  - Americas and the Caribbean
- Selecting **Select All** includes all regions.

### 3.2 Country Filter

- Dynamically populated based on selected regions

- Supports multi-selection
- Selecting **Select All** includes all countries

### 3.3 Nature of Event / Alert (Alert Impact)

- Filters alerts by impact type:
  - Negative
  - Positive

### 3.4 Type of Alert

- Filters by alert classification (e.g., legal, physical, digital, etc., depending on dataset)

### 3.5 Enabling Principle

- Filters alerts by one or more enabling principles
- Works on comma-separated values (an alert may match multiple principles)

### 3.6 Year and Month

- Filters alerts by year and month of creation
- Month options update dynamically based on selected years

### 3.7 Reset Filters

- The **Reset Filters** button restores all filters to **Select All**

## 4. Summary Cards (All Tabs)

At the top of each tab, summary cards display key metrics for the current filter state:

1. **Monitored Countries** – Number of unique countries in scope
2. **Total Alerts** – Total number of alerts
3. **Alerts Breakdown**
  - Count and percentage of Negative vs Positive alerts
  - Visual horizontal bar showing proportions

These cards always reflect the currently filtered data.

## 5. Tab I – Overview

The **Overview** tab provides a high-level analytical snapshot of alerts.

### 5.1 Alert Type × Alert Impact

- Horizontal stacked bar chart

- Shows how different alert types split between Negative and Positive alerts

## 5.2 Enabling Principle × Alert Impact

- Horizontal stacked bar chart
- Each enabling principle is broken down by alert impact
- Principles are automatically split and normalized

## 5.3 Region × Alert Impact

- Vertical stacked bar chart
- Compares Negative vs Positive alerts across regions

## 5.4 Country × Alert Impact

- Vertical stacked bar chart
- Highlights countries with the highest alert volumes

All charts update dynamically based on global filters.

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## 6. Tab 2 – Negative Events (Advanced Analysis)

This tab is dedicated exclusively to **Negative alerts** and provides advanced analytical tools.

### 6.1 Inline Filters (Negative Events Only)

These filters appear at the top of the tab and apply **only within this tab**:

- **Actor Type** – Who is responsible for repression
- **Subject Type** – Who is targeted
- **Mechanism Type** – How repression occurs
- **Event Type** – Classification of the event

Each supports multi-selection and Select All behavior.

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## 7. Top-N Configuration

A global **Top-N selector** controls the scope of analysis for charts, heatmaps, and Sankey diagrams.

### Options:

- Top 2
- Top 5 (default)
- Top 10
- All

**Behavior:**

- Top-N is calculated **independently per dimension** based on frequency
  - Only records that match **all selected Top-N dimensions** are included
  - Ensures consistency across all downstream visualizations
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**8. Bar Charts (Negative Events)**

Six bar charts show the most frequent items under the current Top-N selection:

1. Actor of repression
2. Subject of repression
3. Mechanism of repression
4. Type of event
5. Alert type
6. Enabling principle

**Key Characteristics:**

- Counts are absolute frequencies
  - Labels are automatically wrapped for readability
  - Charts automatically resize based on number of items
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**9. Heatmaps (Cross-Indicator Analysis)**

Three heatmaps visualize relationships between key dimensions:

1. **Actor** → **Mechanism**
2. **Subject** → **Mechanism**
3. **Actor** → **Subject**

**Key Features:**

- Uses consistent **Top-N filtering**
- Shares a **common color scale** for direct comparison
- Hovering displays exact counts
- Dynamically adjusts height based on number of rows

These heatmaps are intended to reveal **patterns of repression** and recurring relationships.

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## 10. Sankey Diagram (Flow of Negative Events)

The Sankey diagram illustrates flows between:

**Actor → Mechanism → Subject**

**Behavior:**

- Respects Top-N selection
- Link thickness represents number of alerts
- Nodes are color-coded by category

**Legend:**

- Red: Actor of repression
- Blue: Mechanism of repression
- Green: Subject of repression

This visualization is useful for understanding **end-to-end pathways of repression**.

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## 11. Tab 3 – Visualization Map

The map provides a geographic view of alerts.

### 11.1 Choropleth Map

- Countries shaded by total alert count
- Darker color indicates higher volume

### 11.2 Interactive Hover Cards

Hovering over a country displays:

- Total alerts
- Negative alerts
- Positive alerts
- Percentage of negative alerts

### 11.3 Dynamic Zoom and Centering

- Automatically adjusts based on filtered countries
  - Ensures optimal geographic focus
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## 12. Data Handling Notes

- Alerts without valid country, impact, or date information are excluded

- Countries missing ISO codes trigger warnings
  - Enabling principles are split from comma-separated values
  - Date fields are parsed defensively to avoid errors
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### **I3. Performance and Caching**

- Data loading is cached using `st.cache_data`
  - Filters are session-aware to preserve selections
  - Charts are rendered only on filtered datasets
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### **I4. Intended Use Cases**

- Monitoring trends in negative events
  - Identifying dominant actors or mechanisms
  - Comparing regions and countries
  - Supporting policy analysis and reporting
  - Exploratory data analysis for research
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### **I5. Interpretation Guidance**

- High counts do not imply severity—only frequency
  - Top-N views emphasize dominant patterns, not edge cases
  - Heatmaps and Sankey diagrams should be interpreted together
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### **I6. Footer and Attribution**

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