Visualization and interpretation of natural hazards

The Enlighten Web server can be accessed through the following links:
http://epos-no.geo.uib.no:81/#/view/default
https://epos.webfarm.cmr.no/#/view/default
local Docker image: http://192.168.99.100

Experiment with plotting the various datasets, try out the "brushing and linking" feature and answer the following questions (or other questions you find more interesting):

Seismicity in the Arctic with focus on Svalbard:

1. Do you see a relation between topography/bathymetry, fault locations and seismicity?
   - Load following datasets/layers:
     - GeofysikkWMS2
       - Bathymetry NE Atlantic
     - NPD factmaps
       - Faults and boundaries
     - Seismic_EQ_ARCTIC
       - Add latitude to Y-axis, longirude to X-axis, depth as color code
2. Where are earthquakes located?
3. Where are large earthquakes located?
   - Add second plot (scatter) to the next tile
     - Plot seismic_EQ_ARCTIC
       - Add time to X-axis, add magnitude to Y-axis
     - Use "brushing & linking" to highlight only large magnitude events
       - Alt + draw rectangle in plot to create your selection box
     - You can simplify view by deselecting "Show points outside selection" (in "3-dot" menu in upper right corner of the whole window)
4. Do earthquakes occur along known faults and/or bathymetric/topographic structures? Is there correlation with geology?
   - Create new page (change layout to 1 tile)
   - Add WMS to map plot Svalbard-Geologi
     - Second item in list: Geological units
     - Add seismic events (as in point 3)
5. Is there difference in the locations of small, intermediate and large earthquakes? What does that tell us? (detection threshold)
   - Use page from exercise 3

- Use “brushing & linking” along Y-axis

6. Do you see any temporal patterns? (hint: zoom in at Storfjorden)
    - Similar to previous: use “brushing & linking” along X-axis
7. Can you identify any improvements in the monitoring capacity of the seismic networks over time?
    - Analyze magnitude-time plot
    - Add color coding by number of stations (nsta) to the map view

Natural hazards in the Arctic:

8. Is there correlation between topography/bathymetry/topographic slope and the locations of slope failures?
    - Add layer MarinGeofarerWMS
        - Undersjøiske ras
    - Add layer GeofysikkWMS2
        - Bathymetry NE Atlantic
9. Are there areas with many and/or large earthquakes and a high potential for slope failures (Svalbard)?
    - Add WMS layer from Svalbard-Skredfaresoner
    - Add WMS SkredUstabileFjellparti
    - Add seismic_EQ_ARCTIC
        - Add latitude to Y-axis, longitude to X-axis, magnitude as color code or size code
    - Plot seismic_EQ_ARCTIC
        - Add time to X-axis, add magnitude to Y-axis Add
    - Use “brushing & linking” to select e.g. large magnitude events only
10. Can you identify vulnerable infrastructure in areas prone to slope failures and/or earthquakes?
    - Plot infrastructures from NPD factmap (e.g. Pipelines)
    - Add layer MarinGeofarerWMS
        - Undersjøiske ras
    - Add seismic_EQ_NNSN
        - Add latitude to Y-axis, longitude to X-axis, magnitude as color code or size code

Please provide your feedback about the Enlighten-web tool:

https://goo.gl/forms/ILqZWXPtlNB3G7eA2