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CheatSheet for using seismological data

Jonathan Schaeffer, Patrick Arnoult, Philippe Bollard, Wayne C. Crawford,
Fabien Engels, Marc Grunberg, Christophe Maron, Constanza Pardo,
Jean-Marie Saurel, David Wolyniec

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CheatSheet for using seismological data

J. Schaeffer⁽¹⁾ (presenting author), P. Arnoult⁽²⁾, Ph. Bollard⁽¹⁾, W. Crawford⁽³⁾, F. Engels⁽⁴⁾, M. Grunberg⁽⁴⁾, C. Maron⁽⁵⁾, C. Pardo⁽³⁾, JM. Saurel⁽³⁾, D. Wolyniec⁽¹⁾

(1) Observatoire des sciences de l'univers de Grenoble (OSUG)

(2) CEA, Direction des applications militaires, Département analyse, surveillance, environnement (CEA/DASE)

(3) Institut de physique du globe de Paris (IPGP)

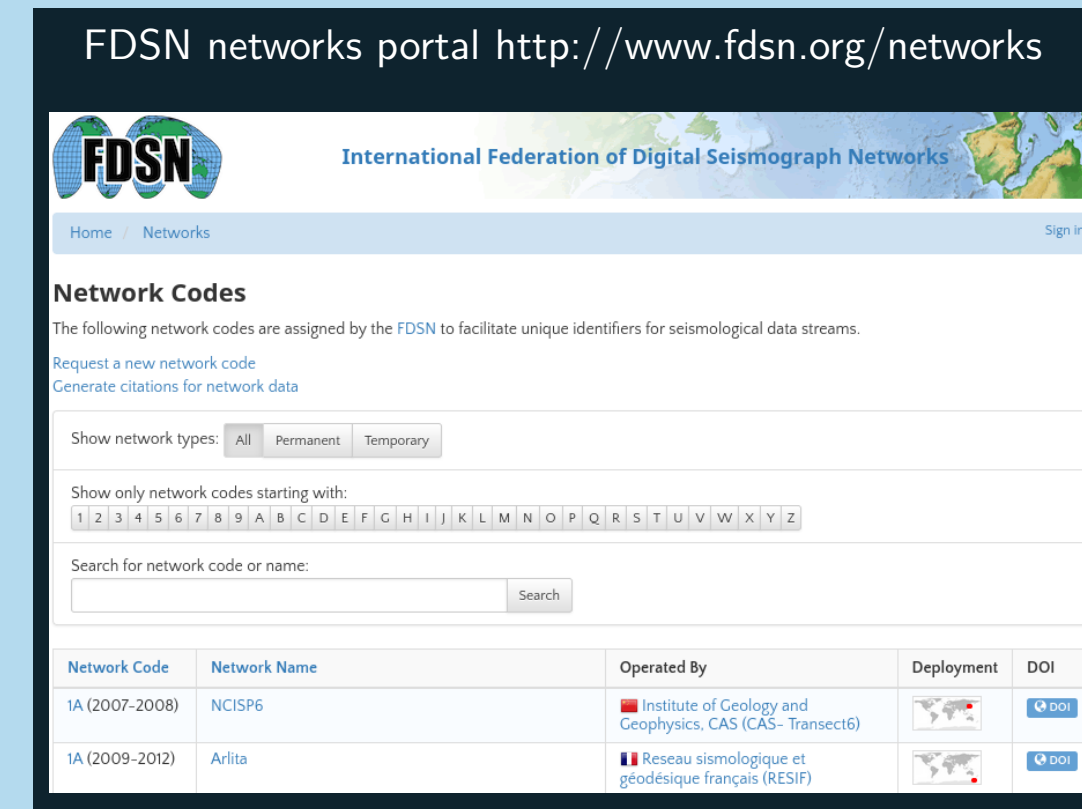
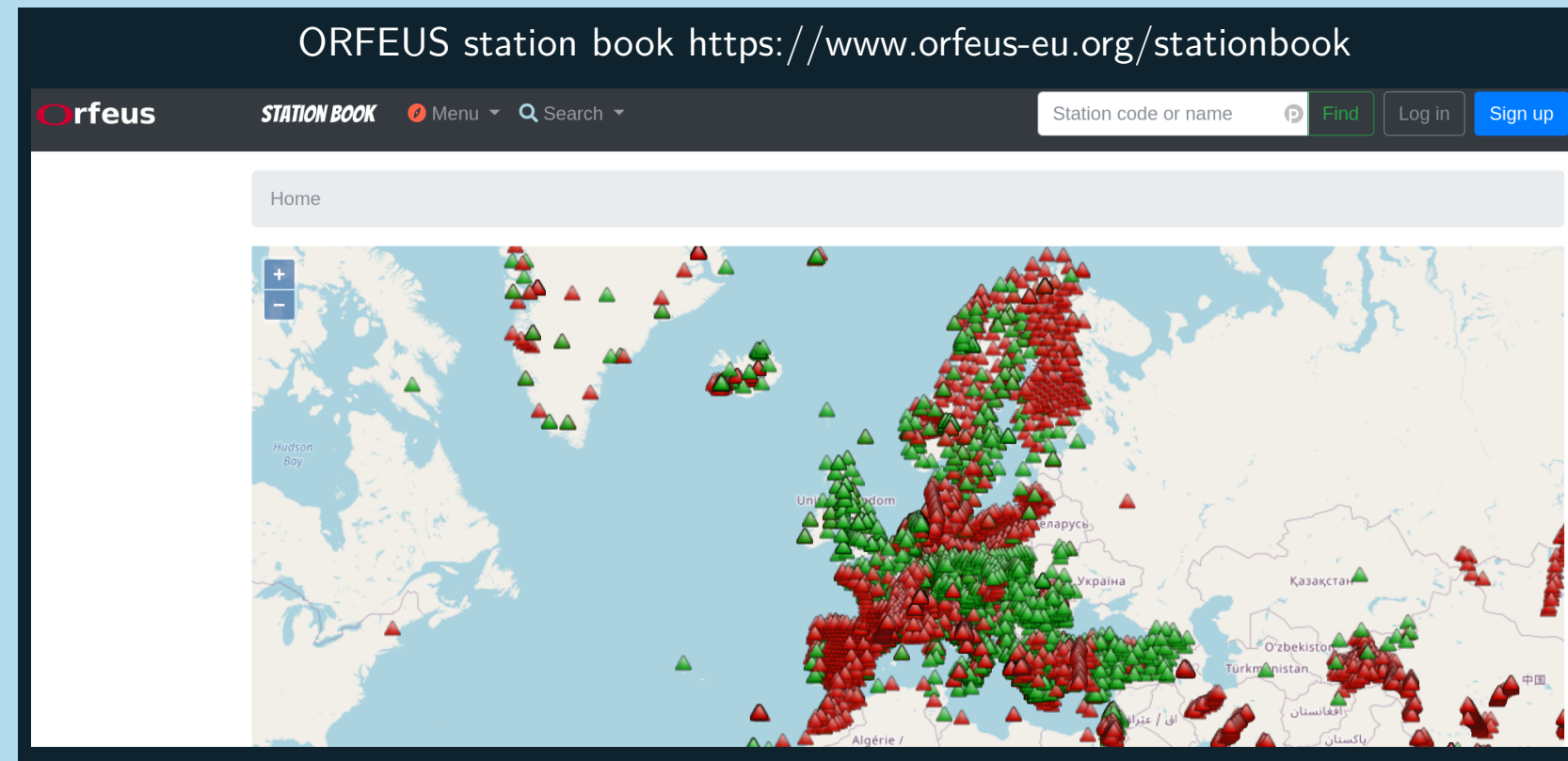
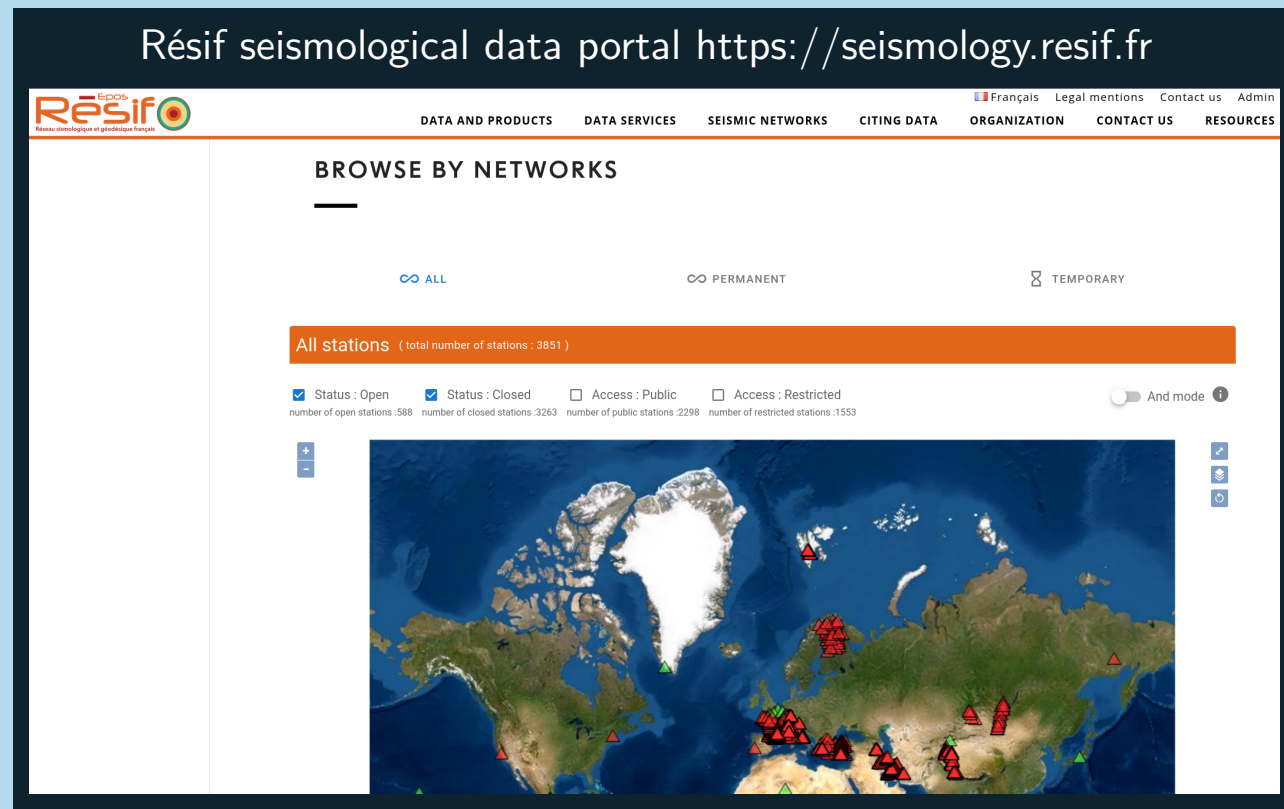
(4) Ecole et observatoire des sciences de la terre (EOST)

(5) Observatoire de la Côte d'Azur (OCA)

1. Find the data

Résif-DC is one of the 19 FDSN compliant seismological data repositories. The data is hosted in one of them, but which one? There are interfaces for human and for machines or software.

Human being



Machine

- Routing services : FDSN, EIDA
 - EPOS DCAT-AP description
- Used by obspy or smart clients or other software.

2. Get the metadata, evaluate the data quality

Human being

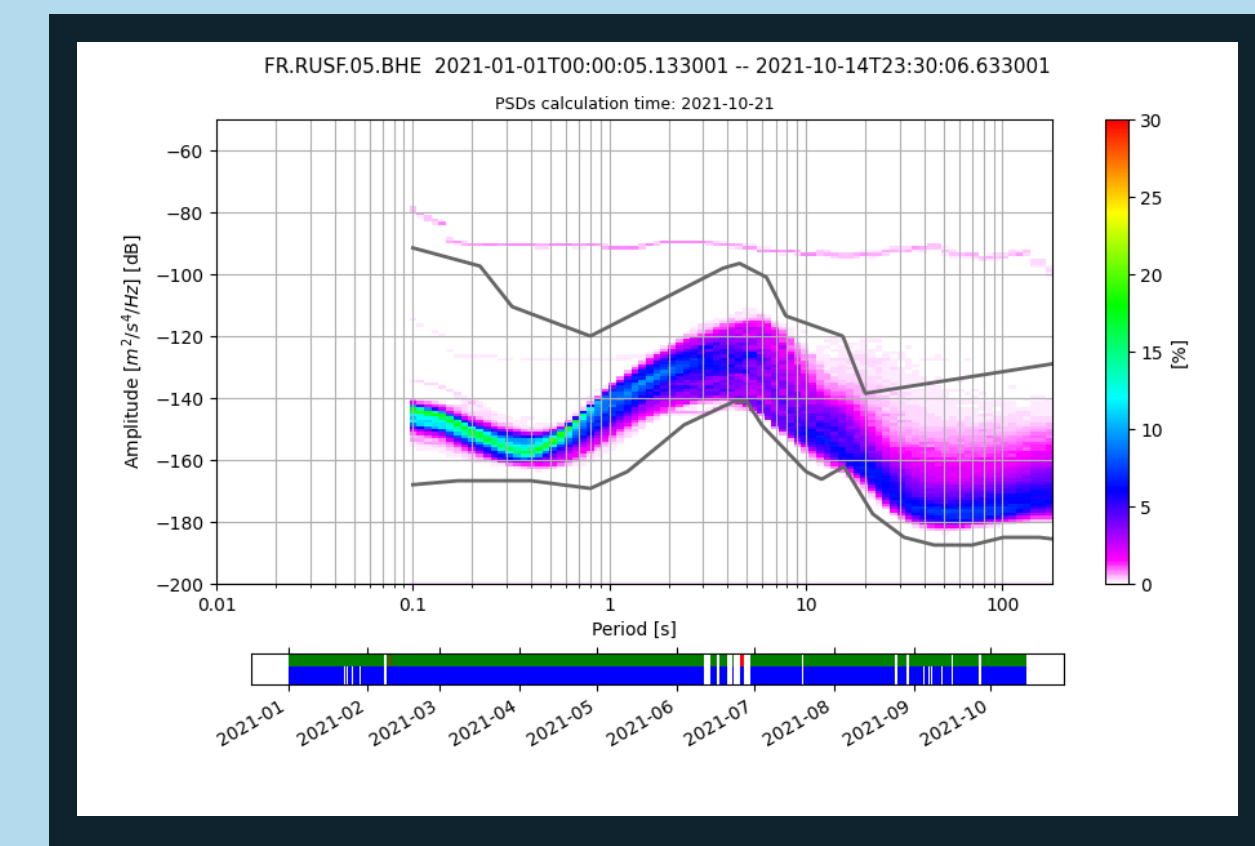
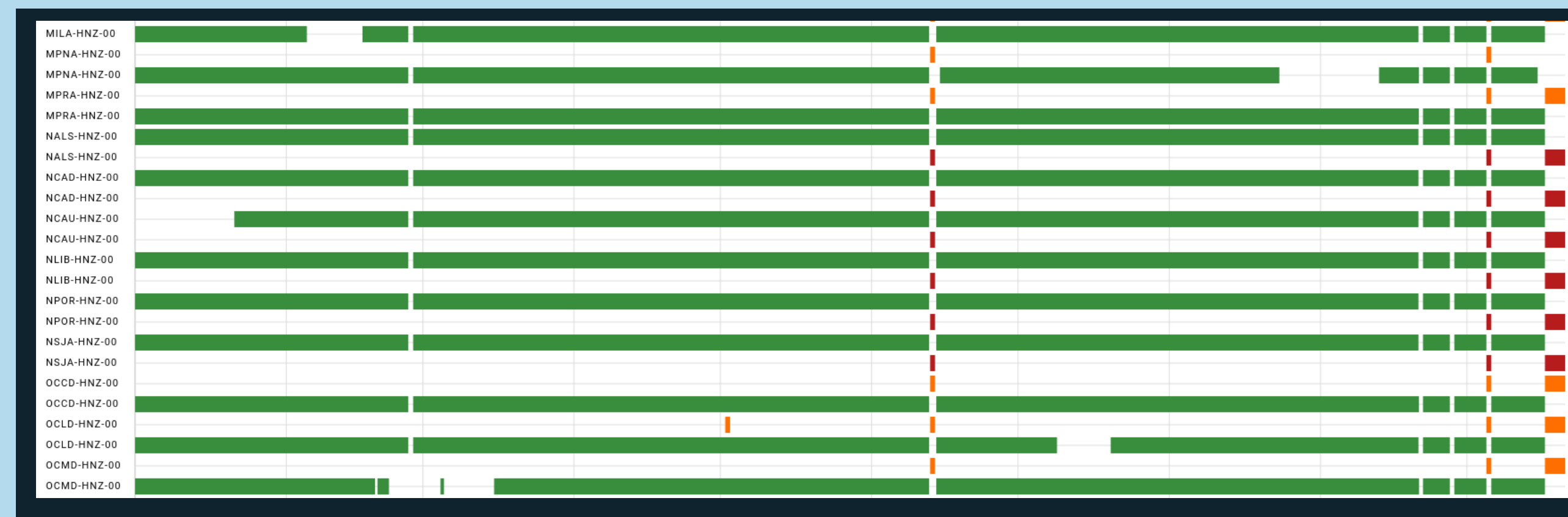
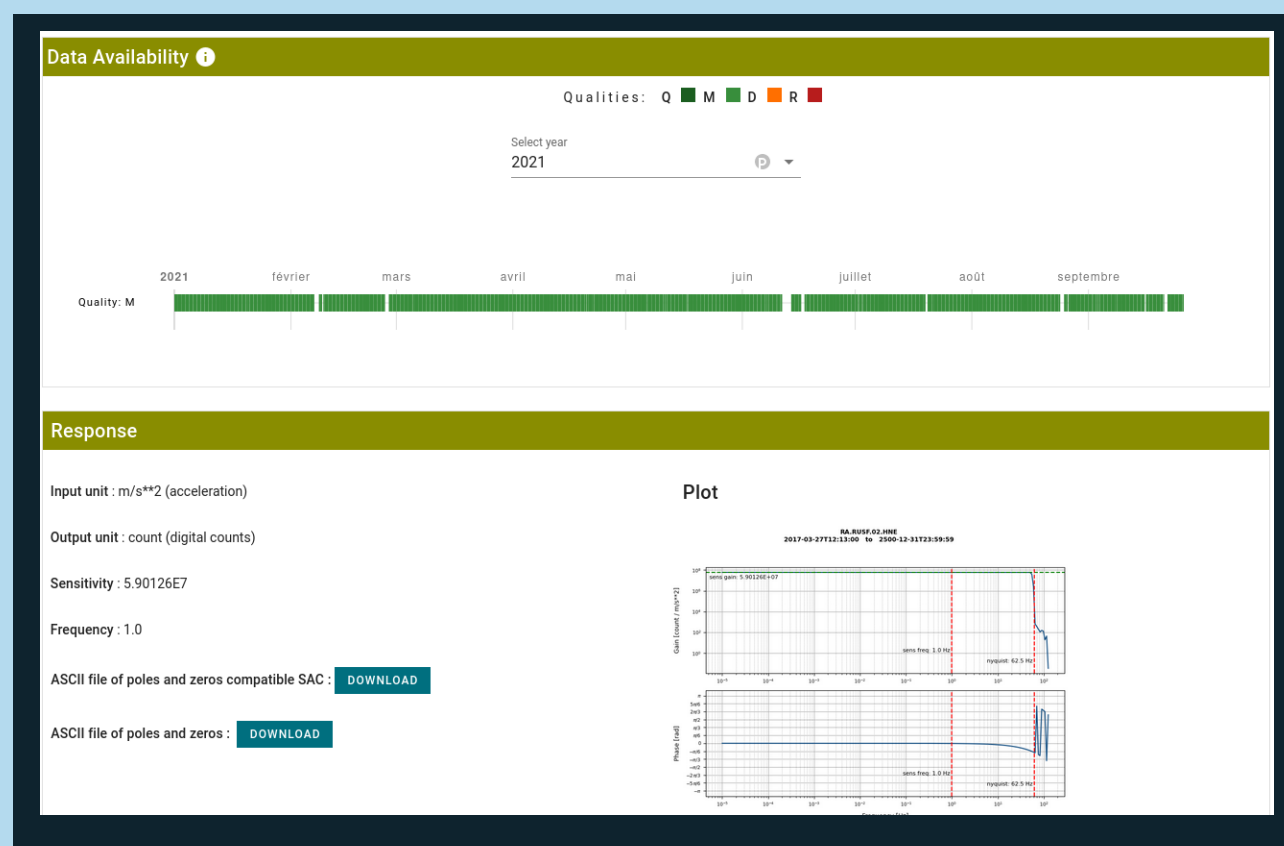
Résif-DC offers a user-friendly view of the metadata at network, station and channel level.

Those views aggregate metadata from several places:

- StationXML for seismology related metadata
- Data and services access instructions
- Citation and licences information
- Waveform availability
- Instrumental response evaluation graph
- Spectrograms and PSD

Machine

- `fdsnws-station` to get StationXML metadata
- `fdsnws-availability` to get waveform availability
- `DataCite DOI metadata` to get usage information (Licence)



3. Get the data

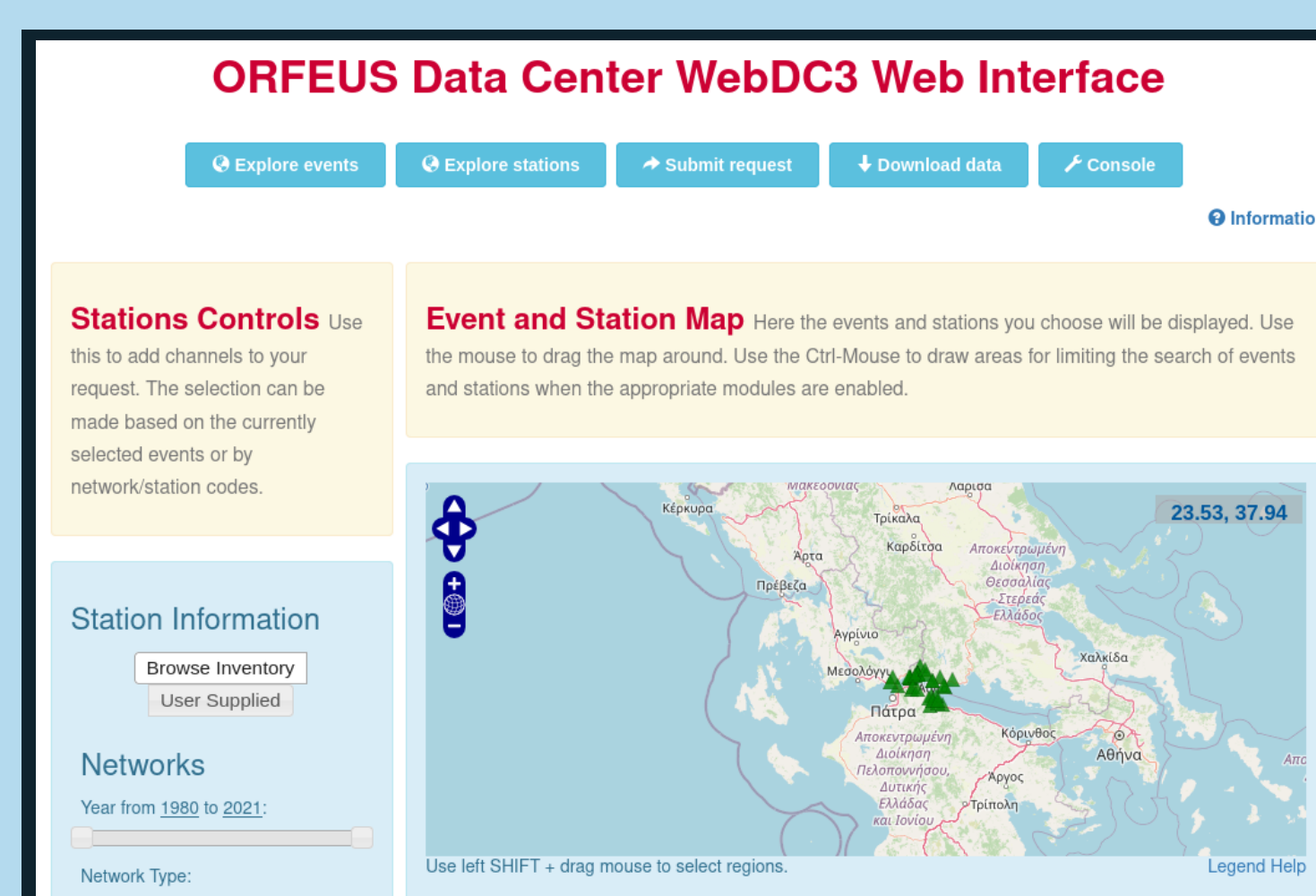
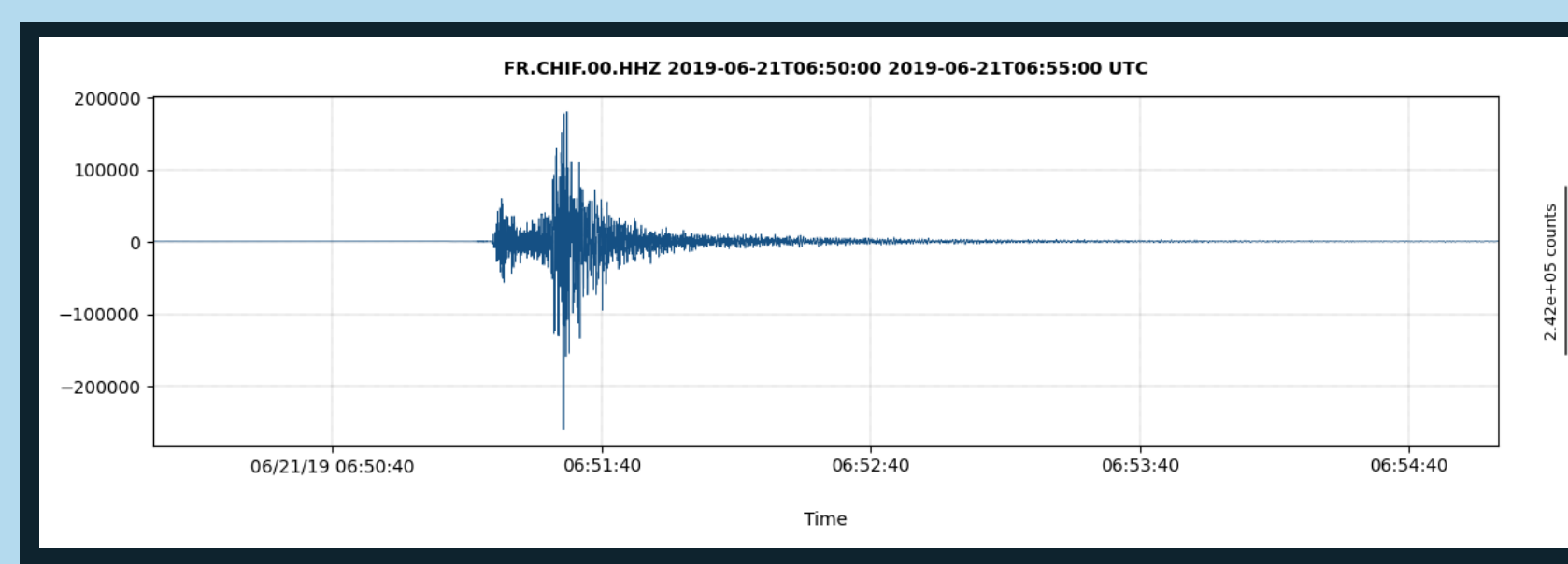
Human being

Data can be downloaded using :

- webdc3 online <http://orfeus-eu.org/webdc3>
 - `fdsnfetch` scripts
 - EPOS IC data portal (experimental)
 - plain `fdsnws-dataselect` HTTP queries.
- URL builder in <http://seismology.resif.fr> can help
- `resifws-timeseries`

Machine

- `fdsnws-dataselect` HTTP queries
- ObsPy Python library
- EPOS IP data portal
- EIDA federator



4. Do science

5. Publish your results

Very important : Cite the data in your references as a normal paper.

- Each seismological network has a unique identifier, pointing to its landing page. There you shall find the **citation** informations and guidelines.
- Use **DataCite's DOI Citation Formatter** to get references in various formats (bibtex) <https://citation.crosscite.org/>
- Use FDSN's network citation service to get references for complex data mix <http://fdsn.org/networks/citation/>

6. Need help ?

helpdesk: sismo-help@resif.fr

Documentation of all the webservice : <https://ws.resif.fr>

