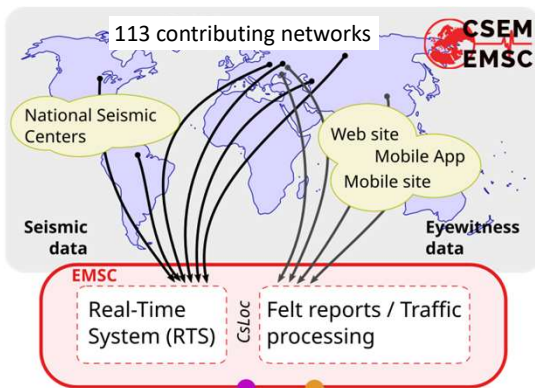


Abstract

The EMSC provides real-time information services on earthquakes and their effects for the seismological community and the public. Although we remain focused on the Euro-Mediterranean region, we now offer coverage that is de facto global, although not complete or homogeneous. **These services are part of EPOS' Thematic Core Service Seismology** (European Plate Observing System). The year 2024 was a year of consolidation of our services. The number of contributors continued to grow **with five new contributors** (and two others temporarily stopped for technical reasons). Despite the absence of destructive earthquake sequences in our coverage, **the number of reported earthquakes remained above 100 000**, illustrating the ever-increasing rate of contributions. Our principle of not relocating reliable and precise locations was maintained and **only 12% of locations were determined by the EMSC**.

The number of felt reports collected decreased from 470 000 in 2023 to **270 000** in 2024. This decrease was linked to the absence of devastating earthquakes in our reporting. The visibility of the services to the public (websites, applications, social networks) was **9.7 million views per month**. The use of web services exploded with an average of **1.5 million requests per day**. **The FDSN events web service alone accounting for 96% of those requests**, which seems to indicate a use well beyond the scientific community (e.g. application developers). We should highlight the growing success of three web services aimed at the scientific community: the **Felt Reports web service**, with 63k users (estimated from unique IPs) and a request count that has multiplied by 3.4 in one year; the **Moment Tensor service**, with 59k users and a request count that has doubled; and finally the **EventID service**, with 2.2k users and almost five times more requests. Finally, the total number of webservice users has grown to 4 million, compared to 1.6 million in 2023, and usage is becoming increasingly global, with 49 countries having more than 10 000 users.

Schematic representation of the collection and processing of data and the distribution of information and services. The EMSC does not operate any seismological stations; its services are based on seismic data provided by monitoring networks and crowdsourced data from witnesses.



Service targeting the public

9.7 M visits per month
Websites

Social Networks



LastQuake App



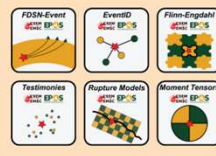
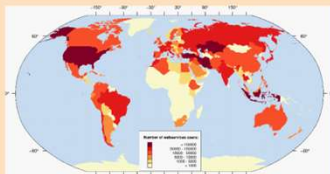
Services for the seismological community

4 M users with 49 countries with more than 10 000 users

SeismicPortal

website

webservices



With 1.5 M requests per day, the FDSN event webservice accounts for 96% of the requests. The felt reports and the EventID webservices each account for more than 15 000 requests per day.

Highlights

- Creation of a corporate membership
- New app for Android smartphones (released in July 2024)
- Detection of a meteorite from eyewitness reports on 20 June 2024
- Fast earthquake locations for efficient crowdsourcing: The 2024 April 5th New Jersey earthquake

Current developments

- Publication of the European Shakemaps on the EMSC website
- Deployment of a prototype of our frontend in the cloud (AWS)
- Data FAIRisation

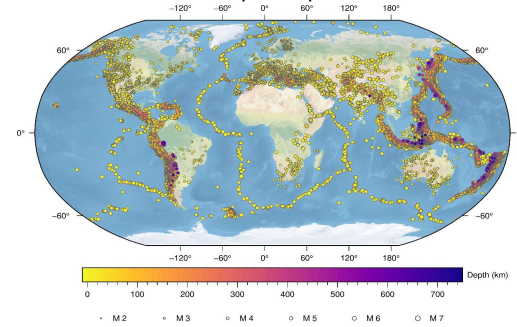
Acknowledgements

The services are being used more and more by the scientific community, but this success is first and foremost due to **our contributors, members and partners**, without whom nothing would be possible. **Thank you for your support!**

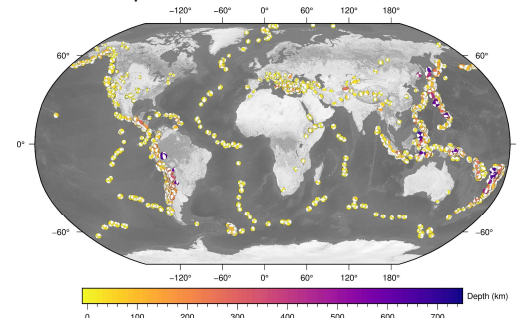
Seismic data collection

The EMSC collects seismic data from 113 contributors. A total of 114 000 earthquakes were been published in 2024, of which 47 000 were in the Euro-Mediterranean region. 88% were published unchanged. The median publication time of the first location was 16 minutes.

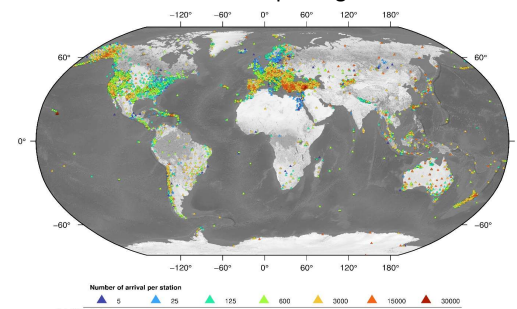
114 000 earthquakes published



2 074 earthquakes with moment tensor solutions



9 433 stations reporting data



Felt reports collection

The EMSC collected 270 000 felt reports associated to 2 736 earthquakes with a median collection time of 7 minutes.

	2012	2014	2016	2018	2020	2022	2023	2024
# of felt reports	12 388	24 490	78 945	106 462	502 676	248 809	469 249	270 062
# felt reports by platform	Desktop 85%	Desktop 62%	Desktop 18%	Desktop 10%	Desktop 1%	Desktop 2%	Desktop 1%	Desktop 4%
	Mobile 15%	Mobile 26%	Mobile 27%	Mobile 25%	Mobile 11%	Mobile 37%	Mobile 29%	Mobile 24%
	App 0%	App 12%	App 55%	App 65%	App 88%	App 61%	App 70%	App 72%
Median time	41min 17s	29min 39s	17min 10s	12min 59s	9min 45s	7min 57s	8min 30s	6mn57s
# felt events	479	809	1 629	1 940	4 164	2 863	5 186	2 736

Download our 2024 activity report

