



## Minutes for the FDSN closing plenary

26 July 2021

IUGG 2023, Berlin (M4)

### **Attendees:**

Michelle Salmon (ANU, Australia)	Jose Antonio (ICGC, Catalonia)
Reinoud Sleeman (KNMI, Netherlands)	Luciz Margheriti (INGV, Italy)
Xyoli Pérez-Campos (UNAM, Mexico)	Fernando Carrilho (IPMA, Italy)
Johannes Schweitzer (NORSAR, Norway)	John Clinton (ETH, Switzerland)
Wen-Tzong Liang (Inst. Earth Sciences, Taiwan)	Juan Cantavella (IGN, Spain)
Jerry Carter (IRIS, USA)	Dmitry Storchak (ISC)
Nikolaus Horn (ZAMG, Austria)	Chad Trabant (IRIS, USA)
Carlo Cauzzi (ORFEUS, Europe)	Michelle Grobbelaar (CGS, South Africa)
Peter Danecek (INGV, Italy)	Tim Ahern (EarthScope-Oceans, USA)
Javier Quinteros (GFZ, Germany)	Timo Tiira (Univ. Helsinki, Finland)
Jurij Pahor Slovenia (SNS, Slovenia)	Marcelo Bianchi (Brazil)
Philip Crotwell (SCSN, USA)	Ryan Gallagher (ISC)
Mark Chadwick (GNS Science, New Zealand)	Ludek Vecsey (IG CAS, Czech)
George Fromaca (USP, Brazil)	Marcelo Assumpcao (USP, Brazil)
Jerome Salichon (GNS, New Zealand)	Jonathan Hanson (GNS, New Zealand)
Angelo Strollo (GFZ, Germany)	Jonathan Bathgate (GA, Australia)
Will Yeck (USGS, USA)	Martin Vallee (IPGP, France)
Bjorn Lund (Uppsala Univ., Sweden)	Peter Voss (GEUS, Denmark)

### **Minutes:**

Michelle Grobbelaar chaired the meeting

#### **1. Opening**

Michelle welcomed everybody to the closing plenary of the FDSN.

#### **2. Adoption of the agenda**

The agenda was adopted by the representatives attending the meeting.

#### **3. Executive Committee Election**

The following people were unanimously voted (no objections and no abstentions) into the corresponding positions:

**Chair** Michelle Grobbelaar  
**Secretary** Nick Ackerley  
**WG 1 Chair:** Wen-Tzong Liang



Vice-Chair: Ludek Vecsey

**WG 2** Chair: Javier Quinteros  
Vice-Chair: Philip Crotwell

**WG 3** Chair: Chad Trabant  
Vice-Chair: Marcelo Bianchi

**WG 4** Chair: Spiro Spiliopoulos  
Vice-Chair: Steven Myers

**WG 5** Chair: Joel Simon  
Vice-Chair: Yinshuang Ai

#### **4. Working Group reports and recommendations**

**4.1 WG I:** Wen-Tzong reported on the meeting which they had on Friday, 14 July @ 12:00-13:30. The action items from the meeting are as follows:

- There is a need for a FDSN webpage to archive the candidate list and station QC reports.
- Emails should be sent to encourage all members to contact operators, whose networks are not in the federated data centers. The FDSN community would be able to provide necessary technical assistance.
- Notify multiple members to upload metadata for their networks.
- There is a proposed session for JpGU where FDSN can be advertised.
- Discuss in WG1 metrics applicable for QC.
- Prepare QC report for the FDSN backbone stations.
- Before publishing the station report, associated operators should be informed and asked for verification.

**4.2 WG II:** Javier reported on the meeting which they held on Saturday, 15 July @ 12:00-13:30. There were a few action items from 2021 that have been carried over for the next 1-2 years: QuakeML, GNSS integration, event types.

The action items from the meeting are as follows:

- Metadata for legacy datasets - Form a(n advisory) team to review the future proposal for the implementation.
- Miniseed3: vision for the future and steps after approval - Update all documentation and resources related to this in the FDSN site.
- DAS metadata: the DAS RCN group. What can we expect at the FDSN level? - Keep a closer contact to their developments and coordinate future steps.
- Controlled Vocabularies for seismology - First a technical solution, and in parallel a discussion about the content.



- Best Practices and automated checks for metadata in StationXML - Include some of the material from WG5 members, but also Structural Monitoring, and automated checks to metadata.
- Reproducibility: what is the next step into this direction? - Present a solution to cope with the need from users/Editors to reproduce a dataset used for a paper.
- XML to JSON conversion (WG2-WG3 joint effort) - Will come back to members to ask for opinions and collaboration.

**4.3 WG III:** Chad reported on the meeting which they held on Sunday, 16 July @ 12:00-13:30. Retained a number of action items from the 2021 meeting: (a) Survey to start development of QoS standards for FDSN centers, (b) QA service API coordination between EIDA and EarthScope, (c) Call for an ad hoc team to investigate the potential for a standard to adopt or develop for JSON output from fdsnws-event including station metadata.

The new topics are as follows:

- Investigate IANA media type (MIME) registration of StationXML and review of the description of the registration for miniSEED.
- Call for team to review web service specification changes, draft revisions and report to WG.
- Many suggested clarifications and changes have accumulated in the specification repositories, and thus the WG Chair will call for an ad hoc team to review the issues, draft changes and propose specification revisions for WG review.

**4.4 WG IV:** Istvan reported on the meeting which they held on Monday, 17 July @ 12:00-13:30. He reported on:

- There was a discussion on the progress on the implementation of FDSN web services at the CTBTO.
- It was agreed that the best solution to the authentication concerns would be the token-based access, discussed and recommended by WG3. This is expected to be agreed by the CTBTO, but we still need to engage them.
- Feedback on the GCI-based fdsn-ws could be provided at the next WGB Waveform Expert group meeting in August.
- The recommendation to include the internet fdsn-ws could be raised at the 2024 February Working Group B meeting at the earliest.

**4.5 WG V:** Wayne reported on the meeting which they held on meeting on Monday, 17 July @ 12:00-13:30. Reviewed the 2021 action items; (a) Review of the GeoCSV proposal – review was positive, but there was a request for an action group to finish specification and find funding for implementation, (b) Verify the SOH proposal - needs to be restarted, (c) Definition of digital filters for data decimation – the code has been written to implement decimation and inject response information into StationXML files



and would need an action group to evaluate the decimation filters, finishing with choice of best decimation filters and possibly scientific article, (d) Survey of OBS data/metadata creation - Survey undertaken in 2021 and a second survey is recommended with the same questions plus new ones proposed by 2021 responders to be sent to OBS facilities using Google Surveys and the summary of responses and implications will be sent to working group.

The new topics were:

- Create/publish OBS data/metadata standards – Draft “Guidelines for special datasets” on FDSN StationXML and miniSEED documentation, and include “Marine Seismology” information.

## 5. **Changes to the TOR**

It was agreed that the proposed changes be sent for comments to the entire steering committee before voting on the changes.

## 6. **Resolutions**

### **6.1 Action tracking list from 2021**

	Item	Status
1.	It was recommended that an adhoc committee/WG should be formed by Execom to: Formulate a concept/policy document which covers the reasons and background and how to implement licensing and redistribution. The committee should look internationally and should also decide on a time frame.	Javier, Florian, Jerry, John and Mohamed will discuss before the over the next few months
2.	The WG chairs and Execom have a responsibility to update website and contacting the webmaster ( <a href="mailto:webmaster@fdsn.org">webmaster@fdsn.org</a> ). Should share with all (Chairs and Execom) how to make changes. WG chairs are responsible for the content of WG pages and Execom is responsible for the rest. In addition, it was agreed that an email be sent out requesting suggestions to be sent to respective Chairs.	Ongoing
3.	Chair and Execom to work together with IASPEI secretary general to establish a practical solution and process for management of membership fees. Perhaps request members to also make suggestions. This could also lead to changes in ToR to introduce a treasurer. In addition, there should be a request to institutions to make a commitment to become contributing members.	IUGG in the process of opening an universal account that can accommodate the associations and their commissions. New information will be shared once received



There was a suggestion to also sensitise members to the fact that the memberships fees will come into effect soon and to remind them what the fees will cover.

- **6.2 Framework for adopting new proposals for WG's**

The WG chairs will work on the framework document and send it out for comments.

- **6.3 Multidisciplinary WG**

It was agreed that the need for an extra WG should be demonstrated by the WG's if there is no other platform.

- **6.4 ISO Standard for sensors**

It was agreed that the organisations and people that are known to be working on this aspect should be contacted in order to obtain a better understanding of where FDSN can contribute.

- 7. **Any other Business**

There was a request to consider longer time slots for some of the WG meetings. It was agreed that the SG of IASPEI and the LOC for 2025 meeting be contacted in November 2024 to request for time slots.

- 8. **The meeting was adjourned at 13:30**



**Action tracking list:**

	Item	Date
1.	It was recommended that an adhoc committee/WG should be formed by Execom to: Formulate a concept/policy document which covers the reasons and background and how to implement licensing and redistribution. The committee should look internationally and should also decide on a time frame.	Javier, Florian, Jerry, John and Mohamed will discuss before the over the next few months.
2.	It was agreed that there should be a committee of 3-5 people that is formed by Execom at about 6 months before the steering committee meeting and should have nominations approximately 6 weeks before meeting (it could be chaired by someone that used to be on Execom and is not interested in being re-nominated).	6 months before Lisbon meeting in 2025.
3.	The WG chairs and Execom have a responsibility to update website and contacting the webmaster ( <a href="mailto:webmaster@fdsn.org">webmaster@fdsn.org</a> ). Should share with all (Chairs and Execom) how to make changes. WG chairs are responsible for the content of WG pages and Execom is responsible for the rest. In addition, it was agreed that an email be sent out requesting suggestions to be sent to respective Chairs.	On going
4.	Chair and Execom to work together with IASPEI secretary general to establish a practical solution and process for management of membership fees. Perhaps request members to also make suggestions. This could also lead to changes in ToR to introduce a treasurer. In addition, there should be a request to institutions to make a commitment to become contributing members.	IUGG in the process of opening an universal account that can accommodate the associations and their commissions. New information will be shared once received.
5.	The proposed changes to the TOR be sent for comments to the entire steering committee before voting on the changes.	Before December 2023.
6.	Inform members that the memberships fees will come into effect soon and to remind them what the fees will cover.	Before January 2024
7.	Updated framework for adopting new proposals will be sent out by WG chairs for comments.	Before Lisbon meeting in 2025.
8.	It was agreed that the organisations and people that are known to be working on ISO standards for sensors should be contacted in order to obtain a better understanding of where FDSN can	Before December 2023.



	contribute.	
9.	There was a request to consider longer time slots for some of the WG meetings. It was agreed that the SG of IASPEI and the LOC for 2025 meeting be contacted in November 2024 to request for time slots.	November 2024