

BRUIT-FM 2026 Annual Meeting

Note: these minutes were taken from the online transcripts, reformatted using ChatGPT and edited by Wayne

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Introduction

Participants

On site: Stephan Ker, Richard Dréo, Wayne Crawford, Véronique Farra, Mohammad-Amin Aminian, Sara Bazin,

Online: Guilhem Barruol, J-Y Royer, Eléonore Stutzmann

Opening Remarks

Wayne Crawford:

Welcome everyone to the annual BruitFM meeting, and thank you for coming.

Today's program should be shorter than in previous years because most project activities are now nearing completion. We are four years into the program and, originally, this would have been the final meeting. However, because of the delays caused by the iXblue situation, we received a one-year extension. I will come back to that shortly.

I would like us to consider requesting an additional one-year extension. There are still a few activities that will not be completed properly within the current schedule because the delays ultimately amounted to more than a year.

Program

Below is a copy of the meeting program.

11:00–11:30	Introduction	2025 overview 2026 plans
11:30–12:00	WP reports	WP1 : Admin (Crawford) WP2 : Transversal (Dreo) WP3 : Noise removal (Crawford) WP4 : Global noise (Stutzmann) WP5 : Soundscape (Barruol)
12:00–12:30	Questions and Discussion	
12:30–13:30	Lunch	
13:30–16:15	Scientific Presentations	
	13:30–14:00	Long-period seismic vibrations of the Astrolabe Glacier floating tongue (Barruol)
	14:00–14:30	The BRUIT-FM Challenge (Crawford)
	14:30–15:00	Whale/Boat tracking (Dreo)
	15:00–15:30	Monitoring a submarine eruption (Sara)
	15:30–16:00	Noise removal and Ocean Rayleigh Wave Tomography (L Cheng, Crawford)
16:00–16:15	Coffee Break	
16:45–17:45	Discussion	2026 Budget, actions...

Participant Introductions

Lisa Tomasetto:

Currently a postdoctoral researcher for 2 years at Ifremer, working with Fabrice Ardhuin, mostly on primary microseisms, using WaveWatch 3 and SWOT data. PhD at ISTERRRE, working on the retrieval of body waves using correlation function in the secondary micro-seismic peak. Supervisors were Pierre Wouet and Lawrence Stehly.

Wayne Crawford:

Marine seismologist specializing in long-period seafloor seismology. Work includes methods such as compliance studies, which examine seafloor motion induced by ocean waves. Coordinate the BruitFM project, which focuses on understanding noise processes across different frequency bands at the seafloor and how these signals are generated and propagated.

Sara Bazin:

Marine geophysicist based in Brest, working in marine acoustics for approximately ten years.

Richard Dreot:

Acoustician working with OBS and hydrophone data to detect and characterize whales, vessels, and environmental acoustic signals.

Stefan Ker:

From Ifremer. work in a team closely related to Lisa's research area, and attended her recent seminar.

Guilhem Barruol:

Seismologist working on microseismic noise, particularly primary and secondary microseisms in the Indian Ocean. More recently, my research has focused on cryoseismology and Antarctic glacier dynamics. Involvement in BruitFM stems from experiments that combine land-based and ocean-bottom observations in Antarctica.

Mohammad-Amin Aminian:

Obtained his PhD at IPGP, with Wayne and Eleonore as directors. Work on many of the same scientific questions involving seafloor seismic observations and ocean-generated signals.

Project Status

Presenter: Wayne Crawford

2025 Overview

One important development this year is that Zongbo Xu finished his postdoctoral appointment, which was funded through BruitFM. We would have preferred that he remain longer, but he completed both his contract and a publication before leaving. His departure also adds to the remaining available budget.

We still have an ongoing task involving a **global pressure-noise-level study**. The main remaining challenge is calibration, and I will propose a solution later in the meeting.

Another ongoing task is the **Bruit-FM noise reduction challenge**. I'll give an update on what's been done there and what's being done now.

There is also unspent funding at Ifremer. Stefan has proposed transferring part of that budget to IPGP, and we will discuss that as well.

Another major topic is the **rotational seismometer project**, which originally involved iXblue. After iXblue was acquired and the blueSeis department was shut down, the project experienced significant delays. I'll provide an update on where things currently stand.

Articles

During 2025, three BruitFM-related papers were published:

- [Zongbo Xu's paper](#) on modeling secondary microseisms.
- [Mohammad-Amin Aminian's paper](#) on Indian Ocean compliance.
- [Richard Dréo's paper](#) on volcanic acoustic and seismic observations.

Three additional manuscripts were submitted:

- Guilhem Barruol and colleagues on cryoseismic activity and the dynamics of Astrolabe Glacier.
- Wayne Crawford and colleagues on the BruitFM Open Noise Challenge.
- Liqun Cheng and colleagues on improving Rayleigh Wave cross-correlation through tilt and clock correction.

Presentations and Videos

Available at the [RESANA BRUIT-FM workspace](#), under Meetings/2026.YearFive/Presentations/ and Meetings/2026.YearFive/Videos/

Administrative information

- Actions
 - Yearly report **needs to be written**, put on website
 - Consortium agreement with Ifremer signed
 - Wayne wrote letter of interest to MAAGM, MAAGM preparing offer.
 - Zongbo Xu left in October
 - Website changes:
 - Noise reduction challenge put in front
 - Large map of datasets near top.
- Budget
 - 2025 spent: 9.132k€ missions, 1.29k€ articles, 0.263k€ external payments, 68.75k€ salary (9 months postdoc Xu, 12 months IE Dreo)
 - 2026 remaining: 7,1k€ missions, 55 k€ external work, 35,3k€ salaries, 26.98k€ other.
 - 18k€ should come from Ifremer (19.643 total, IPGP administration takes 10%)
- Wayne will request a 2nd 1-year no-cost extension to allow rotational seismology, BRUIT-FM Noise Challenge and noise level work to finish

Future expenditures

The remaining budget is 124k€, +18k€ if we get the money from Ifremer

2026

74.9 k€ programmed for 2026, requesting 62.5k€ plus (mostly salary). The total (137.4k€) exceeds our current funds by ~13k€: hold off on requested missions, 1 article, challenge workshop extension and data archival until Ifremer transfer is approved.

Description	Prog	Req	Total	Type	Explanation
Salary R Dreo (IE)	14,400	15,000	29,400	Salaries	Prog 6 mo, req 6 mo
Rotational OBS design	45,000		45,000	External	
Challenge workshop	8,000	2,000	10,000	External	
Yearly meeting	1,500		1,500	External	2026 meeting
Conference ECS Dreo	2,000		2,000	Missions	
Articles		5,000	5,000	External	
Mission EGU Stutzmann	1,500		1,500	Missions	Article Xu
Stages	2,500	2,500	2,500	Operating	M1 Crawford + 1 open

IR pressure noise levels		30,000	30,000	Salaries	6 months
Other missions?		3,000		Missions	
Data archival		5,000		Operating	More hard disks
TOTAL	74,900	62,500	137,400		

After 2026

~ 5k leftover (if Ifremer money transferred)

Could recover 6k from MAAGM study (set aside 45 k€, quotation is 39 k€)

Yearly meetings (2027, 2028) will cost ~3k€

2026 Plans

Global Pressure Noise Level Study

Presenter: Wayne Crawford

Motivation and Methodology

The objective of the pressure-noise study is to establish reference noise levels for ocean-bottom pressure observations in the same spirit as the widely used seismic low-noise and high-noise models.

Wayne reviewed previous work based on hydroacoustic observations from the CTBTO network, particularly the methodology developed by [Brown et al. \[2014\]](#). That work provides an important benchmark because it characterizes global ocean acoustic noise using a well-calibrated instrument network. But it is clearly limited by their hydrophone's frequency range at periods beyond ~10 s. And it is based on only 5 hydroacoustic stations.

Our study faces a more difficult problem because, instead of relying on a single calibrated network, the project draws data from numerous ocean-bottom seismometers and pressure sensors deployed by different groups around the world. Instrument responses, calibration quality, and metadata completeness vary considerably between datasets.

As a result, the key challenge is not compiling observations but ensuring that all instruments are calibrated consistently enough to permit meaningful global comparisons.

Calibration Challenges

Several quality-control tests have already been identified for evaluating sensor calibration. These include comparisons between pressure and acceleration measurements and other consistency checks designed to identify improperly calibrated stations.

These procedures need to be automated before they can be applied systematically across the large archive of available observations. Because calibration issues can significantly bias noise estimates, Wayne suggested that the work would benefit from a dedicated specialist, potentially an engineer or postdoctoral researcher focused specifically on the pressure-noise project.

Discussion

Guilhem Barruol:

Guilhem asked for clarification regarding the project's scientific objective. Was the goal to define both low- and high-noise reference levels for pressure observations only, or for both pressure sensors and seismometers?

Wayne Crawford:

Wayne explained that BruitFM's primary objective concerns pressure measurements.

For seismometers, reference noise models already exist and have been extensively studied. Although seafloor seismic noise differs from land-based noise because of processes such as compliance effects and oceanic forcing, the scientific community already has well-established frameworks for interpreting seismic noise levels. The pressure side, by contrast, lacks an equivalent global reference model and therefore represents a more significant gap in current knowledge.

The Bruit-FM Open Noise Reduction Challenge

Presenter: Wayne Crawford:

Status of the Challenge

Wayne presented the latest status of the BruitFM Open Noise Challenge.

The benchmark dataset has now been completed and published [on Zenodo](#), and the companion manuscript has been submitted to *Seismica*. The dataset represents one of the most significant new scientific resources produced by the project and is intended to provide a common benchmark for evaluating seafloor-noise-removal methods.

The challenge was created after delays associated with the iXblue/eXail restructuring made it necessary to develop alternative scientific outputs. Considerable effort was invested in constructing realistic synthetic and observational datasets suitable for objective algorithm comparison.

Remaining Tasks

The next steps are:

- Publicize the challenge broadly within the seismological community.
 - Briefs in EOS (and EGU? And signal processing journal?)
 - Directly contact specialists
 - Other conferences?
- Recruit participants from different research groups.
- Evaluate submitted methods.
- Organize a dedicated workshop to discuss results and lessons learned (2027 if extension is granted).

These activities remain among the most important unfinished tasks within BruitFM and are a major reason for requesting an additional project extension.

Rotation-based noise removal

Presenter: Wayne Crawford:

Wayne also presented ongoing work on rotational-noise removal.

He noted that he had discussed preliminary results during an earlier BruitFM meeting but had not yet completed the corresponding publication. That paper is now actively being written and forms part of the project's remaining publication effort.

A second manuscript (Cheng et al.) has been submitted examining how noise-removal procedures influence seismic signal quality and related analyses. The work demonstrates that careful removal of tilt and rotational contamination can significantly improve downstream measurements.

Rotational Seismometer Specification

Presenter: Wayne Crawford:

Rotational Seismometer Development

Design Requirements

Wayne reported that a detailed requirements document had now been completed. The technical specifications define the expected capabilities of the instrument and provide a basis for discussions with potential manufacturers.

Administrative Delays

A substantial amount of time had been spent clarifying procurement procedures.

The consortium initially did not know whether a formal public tender would be required. After several months of discussions, it was determined that the planned contract value was below the threshold requiring a competitive tender process for this type of small enterprise. This clarification removed a major administrative obstacle and allowed direct discussions with MAAGM to proceed.

MAAGM Proposal

Wayne Crawford:

MAAGM had indicated that a quotation would be delivered before the annual meeting, but it had not yet arrived. Follow-up discussions were therefore still required. (offer received after meeting: 39k€)

Despite the delay, the consortium remained optimistic that the project could be completed if sufficient time were available. The anticipated schedule remained tight, reinforcing the argument for an additional project extension.

Issues

Transfer of Ifremer money to IPGP

Ifremer can't spend 19 689€ remaining because of restrictions on number of temporary workers, but can transfer to a partner.

If transfer is approved, we will touch ~18k€ (90%), have enough money to pay all requested 2026 Expenditures

Extension Request

Two of the major remaining activities—the BruitFM Challenge and the rotational seismometer project—are both consequences of the post-iXblue reorganization.

We effectively lost between 18 months and two years due to those delays, in addition to several months lost at the beginning of the project because of late notifications. For that reason, I believe there is a strong case for requesting another one-year extension.

An extension would:

- Allow completion and payment of the MAAGM rotational seismometer work.
- Reduce scheduling pressure on the BruitFM Challenge.
- Provide time to complete and submit the pressure-noise-level study.
- Allow proper wrap-up and publication of remaining project results.

While most of the additional year would involve finishing papers and final project deliverables rather than launching new activities, I think it would significantly improve the quality of the project's conclusion.

Work Package reports

Work Package 1 – Administration

Mostly covered in the previous section. An additional point is:

- T1.4: Need to write M30 version of Open source Guidelines, removing rotational OBS dataset and adding BRUIT-FM challenge.

Work Package 2 – Cross-Frequency Analysis and Seafloor Noise Spectrum

Presenters: Richard Dreio and Wayne Crawford:

Work Package 2 serves as the project's transversal work package. Whereas Work Packages 3, 4, and 5 were originally organized around different frequency bands and scientific themes, WP2 was intended to connect them and provide a common framework across the full spectrum of seafloor noise observations. Richard coordinates this activity.

As expected for a project entering its final phase, there has been relatively little new activity during the past year. Most tasks that were not affected by the iXblue delays are already complete or nearing completion. The principal remaining activity is the pressure-noise-level study. Aside from that, most effort is now focused on final analyses, publications, and project wrap-up.

Previous deliverables related to Task 2.2 and pressure-noise-bound studies are documented.

Work Package 3 – Generation of Global Seismic Noise

Wayne Crawford (reporting on behalf of Eleonore):

The principal update this year is the publication of [Zongbo Xu's article in JGR Solid Earth](#). The publication appropriately acknowledges BruitFM support and represents one of the major scientific outputs associated with the project. Eleanor will also present this work at the upcoming EGU meeting.

Beyond this publication, most planned WP3 objectives have now been completed, and the remaining effort is focused on dissemination and final reporting.

Work Package 4 – Seafloor Signal Separation and Noise Removal

Wayne Crawford:

Mohamed-Amin Aminian's paper was [published in GJI](#).

The major ongoing activities under this work package are the **BruitFM Open Noise Challenge** and the **Rotational Seismometer Specification**, both of which emerged after the disruption of the original rotational-seismometer effort.

Work Package 5 – Marine Mammals, Anthropogenic Noise, and Cryoseismic Signals

Presenter: Guilhem Barruol

Whale Monitoring and Migration Studies

Richard Dreo published [an article in JASA](#) this year. Significant progress has been made on whale-call characterization and detection methods. Work has focused on identifying characteristic call intervals and frequency content that can be used for whale detection and classification.

Additional analyses have examined seasonal and long-term variations in whale-call properties, as well as whale migration patterns observed across the REROM network in the southwest Indian Ocean. Further details were expected to be presented during the afternoon scientific session.

Noise Pollution and Ship Noise

Progress was more limited in the noise-pollution component of the work package because collaboration with the researcher leading that activity was lost during the project period.

Similarly, the ship-noise study that had begun with Alistair Trabatoni did not advance substantially during the past year. As a result, these tasks remain less developed than originally envisioned.

Antarctic Cryoseismic Studies

The cryoseismic component has been highly productive.

The work is based on OBS deployments conducted during the CEISA/Adélie Antarctic experiments, focusing on high-frequency signals generated by ice dynamics. Tiffany Labrousse completed her doctoral thesis on this topic during the past year and produced several important scientific results based on the OBS observations.

A paper published in *JGR* analyzed microseismic noise and icequake activity recorded by the OBS network. A second manuscript, submitted to *Seismica*, presents the broader Antarctic experiment and combines both terrestrial and ocean-bottom observations to provide a more complete picture of cryoseismic processes.

Future Directions

Guilhem highlighted several ongoing developments:

- Improved methods for orienting OBS instruments using ambient seismic signals.
- Analysis of sea-ice properties using combined OBS and near-surface sensor deployments.
- Continued integration of ocean-bottom and terrestrial observations in Antarctic environments.
- Further exploitation of the unique geometry of the Antarctic deployments, which combined seafloor instruments with nodes deployed within or beneath sea ice.
- Whale detection in Antarctic data
- Infragravity wave studies

Discussion

Wayne proposed to put the intern report on OBS-based ship location from the Ecole Navale on the worksite.

Wayne also proposed to send information on the Ocean Sound meeting, and on the Orfeus mobile seismology forum to the mailing list

End-of-morning discussion

Guilhem Barruol:

What could we envisage for the data archival? Richard has made a lot of backups on different SSDs. Could we envisage to have some shared platform, or will it stay on the SSDs?

Wayne Crawford:

I don't know. Richard, how much total disk space does all the data you've downloaded take up?

Richard Dreo:

20 to 24 terabytes.

Wayne Crawford:

And how much space is on the disk that we bought initially?

Richard Dreo:

The problem is that that disk is hard to read, and everything is slower over 6 terabytes. I lost data several times, so I stopped working with it.

Wayne Crawford:

At the time you were using it, were you working with this Apple computer, or were you working with your Linux computer?

Richard Dreo:

The disk was APFS originally, but reformatted to ExFAT for Linux compatibility.

Wayne Crawford:

I'd like to recover that disk and try to put as much data as possible and see whether we can store it there, but that's maybe not the long-term solution. There are online cloud solutions, but I don't know how much they cost and what they're worth.

The most important stuff to store will be data that's not currently on FDSN data centers. Though, of course it takes a very long time to download a big dataset from an FDSN data center, so it's better to have the data directly with us.

Step one would be to see if we can copy as much data as possible to the big disk, or to buy another disk that's even bigger, but more secure, like a 60 terabyte RAID disk that that uses striping, so your 60GB system becomes a 30GB system, but with redundancy, hot-swappable disks, etc.

Richard Dreo:

SSD disks are quite stable and robust. The problem is more that they are expensive: 300-500 € for 4 Tb.

Wayne Crawford:

CNRS has storage plans, but the problem is accessing them. Will it be much quicker than recovering from FDSN?

Richard Dreo:

I think the non-FDSN stuff should be on disks that you can give to people. And the FDSN stuff, I don't know whether an online solution is any better than FDSN. I improved the way to download.

Wayne Crawford:

Is this a known solution? Maybe we could put it on the BRUIT-FM website

Guilhem Barruol:

In your data research, have you downloaded just pressure data from the OBSCs, or all the channels, including seismological ones?

Richard Dreio:

Until a few months ago, I downloaded all the channels, but now I limit to the pressure channels.

Guilhem Barruol:

And, the idea for the new engineer would be to work directly on this pressure data that has been already downloaded?

Wayne Crawford:

Yes. We're not going to work on stuff that we don't have with us. That's another reason for me to try to get the data onto the 16TB disk, so that the person could efficiently work on the data, separately from Richard.

[Community Access](#)

Participants discussed making documentation, download procedures, and processing workflows easier for external users to find. One suggestion was to place additional technical information on the BruitFM website (for example, links to archives) so that future users can more easily understand what datasets are available and how they can be accessed.

Wayne noted that some associated processing codes have now been published with a DOI through Zenodo and should be properly linked to the relevant work-package deliverables and project outputs.

Scientific Presentations

The scientific presentations are presented in separate slideshow documents . They are:

Scientific Presentation 1: Seismic Vibrations of the Astrolabe Glacier

Presenter: Guilhem Barruol

Scientific Presentation 2: The BruitFM Open Noise Challenge

Presenter: Wayne Crawford

Scientific Presentation 3: Whale and Vessel Tracking Using OBS and Hydrophone Networks

Presenter: Richard Dreo

Scientific Presentation 4: Monitoring Submarine Volcanic Activity Using Acoustic and Seismic Observations

Presenter: Sara Bazin

Scientific Presentation 5: Noise Removal and Ocean Rayleigh Wave Tomography

Presenter: Wayne Crawford

Workshop Closing Discussion

Wayne Crawford:

I'm going to put up the discussion points I presented at the beginning. Does anyone think there are other things that we should be focusing on or, doing in this last year or two. Or not be doing?

Guilhem Barruol:

For me, getting this engineer on the noise is quite important, it was one of the initial goals of the project. And it interests us, broadly, from the long period to the short period. It would be the priority, along with prolonging Richard's contract. So I fully agree with these two points. The problem is that it would be necessary to hire the new engineer rather quickly, if we want to have it finished before the end of the project, that is to say at the end of next winter.

Eléonore Stutzmann:

It will be longer than the end of next winter, because of the extension: I think it should be one year, all 2027, no?

Wayne Crawford:

The extension request will be for one year, to the beginning of February 2028.

Eléonore Stutzmann:

Which means there is plenty of time still.

Wayne Crawford:

But the idea is to hire the person quickly, so that they overlap as much as possible with Richard, whose (extended) contract will finish at the end of 2026.

Eléonore Stutzmann:

Will one of the engineer's tasks be to determine the instrumental response of OBS seismometers, like the one Guilhem is using?

Wayne Crawford:

No. We did a cellar test of the instruments that Guilhem is using against the reference seismometer in the Curie seismometer vault. So we should have verification of their response, when I have time to look at it.

Eléonore Stutzmann:

And then you can make StationXML?

Wayne Crawford:

Yes.

Eléonore Stutzmann:

Okay, because Zongbo started working on this data, and I also looked at it a bit, and we stopped because we did not have the response.

Wayne Crawford:

I can make you a stationXML file right now, I just won't know if it's right until I evaluate the vault data

Eléonore Stutzmann:

And I have no way to know whether it is right or not, so I would prefer to start with one that is fully checked/calibrated.

Guilhem Barruol:

The work I presented used the XML file that you provided me in autumn. I don't know if they are good or not, but there is some consistency between the LAND and OBS values: I compared the OBS with the LAND data, using the XMLs from the nodes and the broadband station.

Wayne Crawford:

It shouldn't be wrong, because this is a GURALP system where they use their own a data logger, and we use their calibration data. The current test is to make sure that their values are correct. So, until we validate it, we're not very confident, but we're pretty confident that that this is close: every time we've created a stationXML based solely on the component specifications, such as the CUBI (the new OBS for the Antilles), then we compared it to the Curie vault reference, the PSDs matched perfectly.

Are there any other items? Travel items, or, internships that people want, or something else?

Eléonore Stutzmann:

Can the internship can be in one year? 2027?

Wayne Crawford:

Well, I would expect it to be. Is there an internship you're interested in?

Eléonore Stutzmann:

Yeah, there would be, because it's too late for this year. If it is a master from IPG, we don't have to pay, but if it is somebody from somewhere else, we have to pay for it.

Lisa Tomasetto:

I'd like to thank you for having me, and I guess the rest of the discussion is not what I'm focusing on, so thank you for the great talks, and now I know a bit better how Ifremer and IPGP are working together, as well as Grenoble. So, thank you for having me, and maybe see you next time.

Wayne Crawford:

Thanks a lot for coming. We enjoyed having you here.

Is there anything else to discuss?

Guilhem Barruol:

About the MAGM study, what is the plan? They should provide some report on the feasibility of this instrument in the next few months?

Wayne Crawford:

They should provide a physical plan for installing their instrument inside of our seismometer in one of the four configurations I asked about. And for each one, they should say what the expected rotational sensitivity they should be getting out of it, and what the energy consumption will be, so that we can decide on which one is the most appropriate for an instrument that can be deployed for a reasonable amount of time. I think for a first test, something that could be deployed one month would be fine. The goal in the end would be to have something that could be deployed a full year, but we're not going to get

to that right away. We need to make a deployment of a month and see how much we actually reduce the noise. And publish that. That's the goal for a new ANR project.

Guilhem Barruol:

When you speak about ANRs, is it a special, technical, call, or...

Wayne Crawford:

I don't know exactly. There have been special technical ones, I haven't looked at them recently. Even this one had one company in it. I would aim for something focused on this one issue. When we first submitted this proposal, the first year when it didn't get accepted, the reviewers were most positive about the rotational seismometer. And so, hopefully it will be a much smaller, more focused ANR than this one. It might be as much in money, because building an instrument costs something, and we want to make sure that we have the necessary resources, because BRUIT-FM was bare bones on building the rotational seismometer. We had engineers of ours that were working on it, so we had a lot of hidden costs. In the next proposal, we want to include paying engineers on our side to build and test the instruments. Anybody that's in this ANR is welcome to join that ANR. And it will depend on what we get back from MAAGM: it'd be hard to write another ANR proposal for something that doesn't improve things a whole lot

Eléonore Stutzmann:

Just to let you know, Jean-Philippe Metaxion is currently finishing the second phase of an ANR proposal with MAAGM. For an ocean bottom instrument related to tsunami warning in Indonesia.

Eléonore Stutzmann:

And it's a special call for, private company, collaboration, or something like this. I was told that it is easier to get.

Wayne Crawford:

Okay, I'll look at that.

Eléonore Stutzmann:

And you can ask Jean-Philippe about it, starting next week.

Wayne Crawford:

Okay. Anything else?

Eléonore Stutzmann:

I have something about, not exactly the same topic. I hope that you have received an email about the workshop that we organize in Aussoie, on DAS. It would be very good if Guillaume, who is working on DAS, could attend it, and anybody else who wants to learn more about DAS is welcome.

It's a very nice place, it's a CNRS center. It will be quite cheap, because we have a sponsorship from the fiber manufacturer, and because the site is not too expensive.

Wayne Crawford:

What are the dates?

Eléonore Stutzmann:

From 31 August to 3 September ([link](#)). Wayne, if you could present the DAS experiment in Mayotte, it would be great.

Wayne Crawford:

Arnaud Lemarchand was much more involved in that than I was.

Are there any other issues to discuss?

If not, Here is a list of things to do right away:

- Contact MAGAM,
- Write a brief about the Challenge
- Renew Richard
- Transfer money from Ifremer to IPGP.
- Extension request.
- Start recruitment of the engineer or postdoc for the work on noise.
- Put the intern report on boat location from the Ecole Navale on Resana.
- Send information on the Quiet Ocean Experiment meeting and the Orfeus mobile seismology forum to the mailing list