Minutes of the 2nd mid-year NEAREST Meeting

Barcelona, May 8-9, 2008

Venue

Centre Mediterrani d'Investigacions Marines i Ambientals (CMIMA)
Consejo Superior de Investigaciones Científicas (CSIC)
Passeig Maritim de la Barceloneta, 37-49
Barcelona (Spain)

List of Participants

Organisation	Participant name
ISMAR	Nevio Zitellini
	Francesco Chierici
	Luigi Vigliotti
	Gabriela Carrara
	Maria Ana Baptista
	Lìvia Moreira
	Cesar Andrade
	Pedro Terrinha
	Filipe Rosas
	Vasco Valadares
	Conceiçao Freitas
CSIC	Juan Jose Dañobeitia
	Valenti Sallares
	Rafael Bartomolé
	Toni Bermúdez
	Marc Ambrós
	Sara Martínez
	Alexis Vizcaino
	Josep Gallart
	César R. Ranero
	Claudio Lo Iacono
AWI	Wilfried Jokat
	Wolfram Geissler
UBO	Marc-André Gutscher
	Boris Marcaillou
INGV	Paolo Favali
	Laura Beranzoli
	Davide Embriaco

UGR	José Morales Soto
	Jose Benito Martín
	Daniel Stich
	Flor de Lis Mancilla
IM	Fernando Carrilho
	El Mouraouah Azelarab
	Mohamad HAFID
	Toto El Arbi
	Abdelouahad Birouk
XISTOS	Herculano Caetano
ASTER	Maria Grazia Zucchini
ASTER	Alessandra Borgatti
ZDF (press)	Heike Schmidt

Day 1 - Thursday 8 May 2008

Opening Session

Presentations available on the Nearest website: *Barc_intro_Danobeitia*
Barc_intro_Zitellini

After a welcome address, Juan Jose Dañobeitia from the hosting organisation (CSIC) presented the Agenda of the Meeting and showed some pictures on the sea trial and the Spanish deep sea equipment. Some practical information were communicated to the partners attending the meeting dinner.

The project Coordinator Mr Zitellini provided an introduction of the meeting agenda, illustrating the structure and the scope of each meeting session. Each sessions was aiming at achieving a complete state of the art of the project, sharing results, discussing critical aspects and identifying corrective actions for a good prosecution of the project in the following months.

The Coordinator presented the results of the first year reports delivered to the European Commission as described in the Intermediate Payment Letter. He explained that the reports submitted were in accordance with the requirements of the contract and in about two weeks the payment of the Commission's pre-financing was expected.

Moreover, he provided an overview on the main steps of the following months of project activity, especially regarding the instruments recovery in August and the refraction campaign in November.

Some practical information on the meeting organisation were communicated to the partners.

Finally, the Coordinator provided a brief updating on some collaborations with the projects ESONET – LIDO and TRANSFER. The link to Euronews website suggested by the Commission officer was presented to the partners.

Presentation and discussion of the WP1 results

Presentations made by Pedro Terrinha – FFCUL, Filipe Rosas – FFCUL, Mohamad Hafid-CNRST

Presentations available on the Nearest website: *Barc_WP1_Terrinha*
Barc_WP1_Rosas
Barc_WP1_Hafid
Barc_WP1_ElArbi

The results of WP 1 were presented.
P. Terrinha presented the main geological results derived from the analyses of the whole reflection seismic lines and stratigraphical datasets acquired during the past years in the area of the Gulf of Cadiz. All the MCS lines were calibrated by the available stratigraphic data with the aim to characterize the active faults from geometric, kinematic and chronological point of view. The study area was divided in some tectonic domains and the interpretation of the MCS lines was used to correlate, where possible, these domains. Adjoining data from the literature like epicenter locations, velocity models, gps data, focal mechanisms and so on were integrated. On the basis of the interpreted tectonic framwework the main seismogenic structure of the area were individuated and, as foreseen by the project, the active tectonic structure map and a general tectonic model were produced.
In addition an analogic structural experiment (sand boxes) was shown by F. Rosas performed on the critical tectonic area evidenced by Terrinha in its presentation. Various

models spanning from simple shear deformation to low or high angle transpression were presented to explain the morphological and the tectonic evidences visible on the new bathy-morphologic map. The results of the experiment were very interesting and a discussion followed had the main argument the relationships among the tectonics, the faulting, the fault locations and the seismicity in that particular area.

The Hafid's presentation shown the field work on the netoctonic structure present on the Moroccan onshore. The aim were to correlate the onshore and offshore tectonic structure and mapping of the potential onshore active faults in the surrounding of Lalla Mimouna hills in order to Install a mobile seismological network by the CNRST-UIT team.

E. Toto presented the results of a geophysical survey performed near Lalla Mimouna village. The aim of the survey was the study of the recent activated fault and the reconstrution of its geometry and its seismic potential at depth. The applied geophysical tomography methods efficiently captured the main structures of the investigated site revealing the presence of thrust sheets that characterize the Moroccan chain. The faults are displacing also the superficial unit rocks, which point to very likely recent activities along these structures.

Per each scientific workpackage (WP2 to WP8) an ad hoc session has been organized.
Each session has been opened by a brief report from the WP leader, outlining activities carried out during the third semester of the project, main goals achieved, deliverables produced and criticalities met (including deviations to original time schedule).
The second part of each WP session has been devoted to planning the activities to be carried out - task per tasks- in the following period, and in particular in the fourth semester of the project. A proposal was presented by the WP leader and discussed at project level, pointing out the main critical tasks to be faced.
Specific problems to be put at the attention of the Steering Committee was pointed out as well.

WP2 Analysis and planning: Tsunami source characterization
Presentations made by WP 2 Leader: Valenti Sallares – CSIC, Marc-André Gutscher – UBO
Presentations available on the Nearest website: *Barc_WP2_Sellares*
Barc_WP2_Gutscher

The activities of the WP2 were described with an overview of the objective and the starting point, the workplan and its goals. Before a detailed presentation of each tasks started, a list of the staff engaged, meetings, papers produced and research stays were presented.

CSIC activities concerning to processing of MCS legacy data have mainly concentrated on the processing of the SWIM-06 data acquired in June 2006. In particular, Rafael Bartolomé and Sara Martínez from CSIC have PSDM a total of 10 MCS profiles. The contributions of all partner involved (UBO, Ismar and FFCUL) was presented.

As for the Wide-angle reflection/refraction acquisition experiment, the task will actually start with the seismic refraction cruise. The cruise has been slightly delayed due to vessel over-commitment. It will definitively take place between October 27th and November 13th, 2007. The starting and final port have also changed: it will be Cartagena instead of Cadiz, so transits to and back from the study area will be 48 hours longer in total. This has significantly modified the initial plans, so only 2 out of the 3 initially planned profiles can be most probably shot. The number of OBS available will be 36.

Deviations from the project workprogramme
No significant deviations with respect to the initial schedule has been overseen.
Deliverable D4 (PSD-migrated MCS profiles) was planned to be delivered in month 19 instead of 18 to fit with the 18 month meeting. This extension will not affect development of the other tasks since the WA seismic cruise will not occur until month 24.

As for the refraction campaign, during the Steering Committee the logistic and participation will be discussed.

In order to discuss and decide the exact positioning of the OBS during the planned cruise, Marc-André Gutscher gave details on his presentation on the SW Iberia region: seismicity and active faults. A geological discussion occurred among the partners about the mapping of some gravitational structure and their eventual seismogenic role.

WP3 Analysis and planning Seismological monitoring
Presentation made by WP3 Leader: Wolfram Geissler -AWI
Presentation available on the Nearest website: *Barc_WP3_ Geissler*

The speaker reminded some details on the main goals and activities foreseen in WP3. In particular, one of the milestone was the deployment of 24 broadband ocean-bottom seismometer (OBS) for 12 months in the Gulf of Cadiz. This allowed to have a good data set for seismicity. A map of the deployed OBS was showed.

As for the expected results, the most important are:
- enhanced monitoring of seismicity of offshore fault zones
- completion of existing geoscientific data
- better insight into the seismic risk of the Gulf of Cadiz
- location reliability of future early warning system

The instrument used was the Lobster (Longterm Ocean Bottom Seismometer for Tsunami and Earthquake Research) and some technical details and recording parameters were reminded. As regards the seismic monitoring in the Gulf of Cadiz area, the FFCUL partner CGUL, in collaboration with IGIDL, pursued the continuous data collection on land stations. For the purpose of NEAREST two new BB stations were installed in 2007, one in Messejana and the other in Pedrogao. The UGR partner carried on some other activities such as: the study of seismic anisotropy by using teleseismic phases SKS recorded at 16 seismic stations of South Spain and north of Africa, the receiver functions study to define the crustal and upper mantle structure in the Gibraltar arc region, the revision of the seismicity in the Gulf of Cadiz in the period between October-2007 to March 2008 and a detailed study of the January 11th, 2008 Mw=4.4 earthquake. The data recorded illustrated the spectrograms of possible local earthquakes in the time period. A seismogram example was showed.

<u>Progress toward the objectives:</u>
Tasks 3.1 (Application for the broadband OBS), 3.2 (Preparation of the cruises) and 3.3 (Cruise for deployment of the broadband OBS) were already done before the Marrakech meeting. Only the last OBS were deployed in November 2007.

Next activities concern:
Task 3.4 – Cruise for recovery of the broadband OBS
- Planning/scheduling of recovery cruise in work by ISMAR

- Ordering of sub-contracted technicians for recovery by AWI
- Ordering of mobilisation, demobilisation, transportation and insurance by AWI

Task 3.5 – Pre-processing and database compilation
- Evaluation of seismic velocity (sedimentary) structure beneath the OBS-sites
- Evaluation of seismological onshore station distribution (also contribution also to WP5), which were not deployed within the current project – agreements of data exchange !
- Verification of access to digital data
- Preparation of scripts/lists for a fast pre-processing after the recovery of the instruments (OBS) in August/September 2008

Task 3.6 – Processing and interpretation of the OBS data
- Task will start in 2008/09

The distribution of the IberArray TopoIberia was showed and a detailed table on the scheduling of the future activities was presented. The speaker anticipated the main issues to be discussed during the Steering Committee with regard to the recovery cruise. These are: the time limit of the OBS insurance, the time for transit between stations, the time at each station, the data transfer within project, the data analysis for local seismicity and teleseismic events and the data exchange with other projects.

WP4 Analysis and planning Tsunami signal detection

Presentations made by WP4 Leader Laura Beranzoli – INGV and Francesco Chierici- ISMAR
Presentations available on the Nearest website: *Barc_WP4_Beranzoli*
Barc_WP4_Chierici

The presentation started with a general overview on the objectives of the WP which is aimed at carrying out geophysical and oceanographic measurements on the seafloor and in the water column in the nearby of near-shore tsunamigenic sources for the identifications of tsunami signals. The seafloor and water column measurements will be performed by means of a deep seafloor multiparameter observatory of GEOSTAR type, developed in previous EC projects and will be transmitted to shore in real-time (some essential parameters).

The tasks 4.1 to 4.3 were already completed, while task 4.4 was at that time running. The task concerns the preparation planning and implementation of a long-term (about 1 year) mission and cruises for deployment and recovery. Next task will be about the data back-up, the quality checks and the preparation of the data base to be integrated with other data and the pre-analysis of ‘parent’ tsunami signals.

An image on the experiment was showed and described and the collaborations with the other partners involved was underlined. In particular, GEOSTAR includes a prototype of tsunameter developed within a collaboration between ISMAR and INGV. The tsunameter is based on three coupled sensors: a three comp. broad–band seismometer, an accelerometer and an absolute pressure gauge.

The status of the deliverables was showed and the next ones were described: D15a recovery cruise of the deep-sea platform and data quality checks and D15b cruise report both scheduled at month 24.

As for the status of GEOSTAR, the main steps were that in October INGV was able to query GEOSTAR status and download some data. The number of events recorder by the observatory revealed a good working of the event detecting system during September (no anomalous reboots of the central unit, some tenth of seismic events, good state of acoustic battery level). GEOSTAR observatory is presently working autonomously storing all sensor data on board. All data will be obtained after the observatory recovery.

Deviations from the project WorkProgramme

The main deviations were:

1. *Bouy Acoustic communications malfunctioning* which occured immediately after the GEOSTAR deployment
   Remedial action: the acoustic modem and the electronics of the buoy were removed and shipped to laboratory in order to set up again the communication chain. The system was restored and re-configured.
   On 17 October a new cruise took place in order to rebuild the communication on the buoy.
2. After the setup of the buoy electronics and the reconfiguration of GEOSTAR via acoustic communications (17 October 07), the acoustic system of the abyssal observatory hang up revealing a *problem of the seafloor acoustic modem*.
   Remedial action: Contacts with the acoustic communication supplier (SERCEL) started soon in order to programme an upgrade of the modem communication system to a new and more stable release of the hardware and software configuration to be used in the next deployment.
3. *Buoy drift and ARGOS alarms emission to INGV* (19 October)
   Extraordinary cruise for the buoy recovery (19-22 October) Buoy mooring cut and mooring cable at sea

Some pictures of the buoy were showed and the status of the mooring line was described.

Since the events occurred (acoustic instability, buoy drift) call for a revision of the WP4 activity according to the available resources, a proposal to find additional resources for a Demonstration Mission was presented within ESONET a Network of Excellence funded by the European Commission and to which some Nearest partners participate. The proposal was accepted. Its name is LIDO - LIstening to Deep Ocean and the participating partners are: CSIC, FFCUL, INGV and ISMAR.

Another proposal concerned a new deployment after the recovery planned in next August: GEOSTAR will be refurbished and newly deployed (tentative time: spring 2009) for a new mission in order to fulfil the original project objectives. The place will be R/V Sarmiento de Gamboa.
To sum up the next activities will be:

- GEOSTAR recovery (August r/v Urania)
- Recovery of the buoy mooring
- Restoration of the buoy and new deployment (next year)
- Integration of seismic data in the marine data-base of the OBS data (WP3 – seismological monitoring)

F. Chierici presented ISMAR-INAF work developed for the WP4 and WP7. In particular was described a 2-D physical-mathematical model for the coupling between water column and sea bottom. The water column was treated as inviscid fluid with local compressibility, while

the sea bottom was considered as porous media whose dynamics was governed by the Darcy equation.

The hypothesis of small amplitude waves with respect to the water column height was introduced . This lead to linear hydrodynamics equations. The analytical solutions of this model found were in terms of the Fourier and Laplace inverse transform and a numerical code for the integration of these operators was developed. In particular a stability criteria was adopted for the numerical integration of the inverse Laplace transform. The analysis of the output results showed the key role plays in the tsunami generation by the local compressibility which introduces acoustic signal overlapped on the incompressible tsunami trend. Moreover the simulation results showed the low pass filter effect (with respect to the x-horizontal spatial coordinate) of the porous sea bottom on the free surface signal.

WP5 Analysis and planning – Data integration / Integrated Tsunami Detection Network

Presentations made by WP5 Leader: Josè Morales – UGR, Daniel Stich – UGR and Abdelouahad Birouk - CNRST
Presentations available on the Nearest website: *Barc_WP5_Morales*
Barc_WP5_Stich
Barc_WP5_Birouk

As for Task 5.1 Establishment of 3 data collectors for real-time automatic processing of data, the 3 collectors has been set up: one in Portugal, the other in Spain and a 3rd one in Morocco. This will involve: Waveform sharing between data collectors, integration of seismic data including OBS's; Integration of tide gauge data; Integration of multiparameters data from seafloor observatory.
A prototype of a data collector is already running in the each centre. It is based on SEISCOMP (2.5 and 3.0) / SEEDLINK technology implemented on a Intel/Linux platform, and it is already concentrating data, in real-time, from broad-band, short period seismic stations in Portugal Mainland, South west and Centre of Spain and Morocco. Details on each Dataconcentrators were provided.
Some efforts have been taken in order to integrate data from three tide gauges located at Cascais, near Lisbon on the western coast of Portugal Mainland, Lagos, in the southwestern coast of Algarve, and Sines, located between San Vincent cape and Lisbon.
Some details on the software, the automatic and interactive tools and the data processing were provided:
Seismic anisotropy in southern Iberia and northern Africawas investigated using shear waves splitting of teleseismic SKS phase. The anisotropy parameters for the upper mantle of the region is retrieved. 16 permanent broad band stations distribuited in the region were used in the analysis. Three different methods were used to analyze the data: cross-correlation between radial and transverse component (rotation correlation), minimum energy and minimum eingenvalue. Results were divided in three different classes (good, fair and poor) depending of the quality of the seismogram, signal/noise ratio of the phase, energy of the transversal component

Daniel Stich presented the source estimated in the Gulf of Cadiz. While Birouk gave an overview of the CNRST contribution to the WP5 activities as for the Seismic Data sharing

and integration with details on the Rabat station, the data acquisition and processing system and the acquisition and installation of near real time digital tide gauge.

WP7 Analysis and planning: Modelling of tsunami impact in SW Portugal
Presentation made by the WP 7 Leader: Maria Ana Batipsta – FFCUL
Presentation available on the Nearest website: *Barc_WP7_Batipsta*

The tasks 7.1 and 7.2 were completed, so the presentation was mainly concentrated on tasks 7.3 to 7.5 and on the results presented in deliverable 25.
Tsunami hydrodynamic modeling was performed with an adopted version of the COMCOT code named COMCOT-Lx. The code solves both linear and non-linear shallow water equations on a dynamically coupled system of nested grids using finite difference numerical schemes. The simulation domain covers the eastern part of the Atlantic Ocean offshore Morocco and the Gulf of Cadiz, for the most prone tsunami generation area.
Some details are showed on the moving boundary scheme, the benchmark testing and the model earthquake. In particular, the speaker showed and described pictures from the simulation of the 1755 tsunami in the “Boca do Rio” area and along Algarve. Comments on some different modelling of tsunami impact in Casablanca were provided.

As for the Implementation of a numerical tsunami model for SW Portugal, the model performs well and results for the test areas agree with historic data. Both coastal areas in SW Portugal and Morocco are susceptible to tsunami wave inundation. All rupture mechanisms tested produce inundation of Casablanca harbour on an extension of approximately 1 km inland. Tsunami flow depths are from 2 to 8 meters at Casablanca with a maximum flow depth of about 10 meters obtain to model 2 which has a source slip of 20 metre, while the others have slip values of 10-13 meters. In all cases the maximum run up is compatible with the value of the slip of the rupture mechanism.

WP6 Analysis and planning – Paleotsunami and Paleoseismic records
Presentations made by Cesar Andrade – FFCUL; Luigi Vigliotti – ISMAR, Alexis Vizcaino – CSIC and Azelarab El Mouraouah - CNRST
Presentations available on the Nearest website: *Barc_WP6_Andrade*
Barc_WP6_Vigliotti
Barc_WP7_Vizcanio
Barc_WP7_ElMouraouah

The speaker presented the objectives of the WP. They are in particular:
- to map locations in Portugal, Spain and Morocco with high potential for preservation of records of past tsunamigenic inundation; surveying and sampling of onshore deposits;
- to locate submarine deposits in the Gulf of Cadiz eventually related with tsunami activity; coring and sampling of the sedimentary record;
- to characterise deposits using geological proxies to improve criteria for recognizing tsunami deposits and reconstruct parameters of inundations /tsunami waves
- to constrain the age of the tsunamis/earthquakes recorded on sediments using radiometric and luminescence methods;
- to propose a model of recurrence interval for Holocene large earthquakes and tsunami events occurred in Gulf of Cadiz with implications for the assessment of seismic and tsunami hazards in the SW Iberian Margin.

Some pictures of the Portuguese coastal section of Portimão - Ferragudo are showed.

Luigi Vigliotti presented the paleomagnetic analysis of the sediments collected in Boca do Rio. This analysis proved to be very important although quite difficult because of the uncertainty to recognise the tsunamigenic deposits. The work was focused on different characterisations explained and discussed during the presentation.

Azelarab ElMouraouah summarized and commented the Workshop that took place in Rabat in March 2008. The field trip was devoted to the presentation of new observations relevant to the Moroccan Atlantic coast as well as sampling in two potential sites (for details see the Minutes of the Rabat Workshop on the nearest web site, section workshops).

Alexis Vizcaino presented the off-shore paleoseismic studies (Turbidite paleoseismology) with details on the different sediments, measures, new depth model approaches and regional correlations.

From a managing point of view, due to the temporary absence of Eulalia Gracia WP leader the need of a coordination between the partners involved in this WP has been asked by the Coordinator in order to collect the different contributions needed for the reporting. Cesar Andrade from FFCUL agreed on being in charge of the collection of the reports.

WP8 Analysis and planning – Feasibility study and prototype for an EWS
Presentation made by Herculano Caetano - XISTOS simulation

The speaker presented the main progresses made with regards to the simulator. The simulator was showed with its objectives: training, validation data and as a rescue service able to manage a catastrophic situation. A description of the main characteristics of the simulator were provided: independence from the application, ease to use and openness of the system.
Images and some simulations with different parameters were illustrated to show the different effects on people, buildings, industrial areas, etc.
During the discussion, the need to translate the language of the simulator in English has been stressed and agreed.

Closing remarks (definition of the list of issues to be discussed by the Steering Committee on Friday 9th May)
(Nevio Zitellini -ISMAR)

WP9 Analysis and Planning: Circulation of project information to end-users
Presentation made by WP9 Leader: Nevio Zitellini – ISMAR and Gabriela Carrara - ISMAR
Presentation available on the Nearest website: *Barc_WP9_Carrara*

As for the progress towards objectives, the task 9.1 Project communication was completed in the previous period so as task 9.2 Project web site which is anyhow maintained periodically. The speaker underlined that a new section dedicated to the dissemination was created. This will be developed and improved during the next months with the contributions of all partners.
A brief remark on the Contact database was reported from the Steering Committee session reminding the commitment from the PIs to assure a larger cooperation between the partners.

The diffusion plan, as foreseen, includes two different actions: the first one is the diffusion of the knowledge inside the scientific community and in the second one the knowledge dissemination is addressed to a non specialistic public. The contribution to the diffusion comes mainly from:

- the NEAREST partners participation to the national and international scientific congresses;
- the production of various scientific papers published on international journals and thematic volumes (i.e. Marine Geology , Journal of Marine and Petroleum Geology, Tectonophysics, etc) or on not SCI journals.

The dissemination toward a non specialistic public has been done, in each NEAREST partner country, by radio interviews and TV appearances, internet newsletters and newspaper articles.

As for ISMAR activity, the main actions were addressed to very young people. For this purpose:

- ISMAR is participating in educational projects in schools that include the visit to the ISMAR Institute, brief lessons or talks on tsunami and the Nearest project and distribution of dissemination materials tailored on the age of the audience.
- some Italian scientific museums have been contacted in order to perform “permanent” exhibitions (for a period that can span from one week to some months) about tsunamis argument and the related NEAREST project.

Following the suggestion by NOOA and UNESCO organizations, a kit of tsunami dissemination materials were prepared to be used (some posters on tsunami meaning and behaviour written in clear, simple and impressive language; colouring albums for primary school, booklets for secondary school students, ect.). Some examples of these materials were showed. The speaker solicited translations of the documents so they will be available to a wider public.
The presentation has been concluded with a brief mention to the participation of ISMAR and INGV to the congress Geoscience Congress 2008 in Oslo with a stand and exhibition of audiovideo material and dissemination materials at different levels.

WP2_Marrakech_11_07_CSIC
WP3_Marrakech_11_07_AWI
WP4_Marrakech_11_07_INGV
WP6_Marrakech_11_07_CSIC
WP6_1_Marrakech_11_07_CSIC
WP6_Marrakech_11_07_FFCUL
WP6_Marrakech_11_07_ISMAR

Day 2 - Friday 26 October 2007

Financial and administrative issues

The first session of the morning was addressed to project PIs, and their principal collaborators in the management of the project.

First of all, following the announcement made by N. Zitellini the day before, Aster provided details about the approval of the first year Nearest report from the Commission, enabling the second payment from the Commission, that is expected by the end of May 2008. The method of calculation of the amounts to be transferred to the partners was illustrated as well, pointing out different situations, but no criticalities.

Secondly, Aster presented the results of the updated forecast of expenses for year 2 requested to all partners in March 2008. Although 3 partners have not provided their forecast yet, the level of expenditure of the project is expected to reach the minimum amount necessary to obtain the last intermediate payment from the Commission, in spring 2009.
It was recommended for the next financial reporting, that will be prepared in October 2008, to respect exactly the procedure that will be prepared by Aster, making use of the specific template provided by Aster as well. The financial reporting procedure will be available from September 2008 also on the Nearest website.
Finally Aster illustrated the list of reports due to the Commission by 14 November 2008, which are presented in the following table, indicating the role of the different partner in the elaboration of the documents:

Acronym	WHAT	WHO
Report PAR	**Periodic Activity Report** Including	Coordinator and WP leaders
	⇒ Publishable executive summary	coordinator
	⇒ Core report	WP leaders for section 2
	⇒ Dissemination + use plan	coordinator with contribution from all partners involved in dissemination
Report PMR	**Periodic Management Report** Including: ⇒ List of activities performed per WP ⇒ Justification of resources ⇒ TABLE 3 – TABLE 4 ⇒ FORM C: Excel file and original signed cpy ⇒ ⇒ Summary financial report *(coordinator -Aster)* ⇒	ALL
Report CDR	**Periodic report on the distribution of the Community's contribution**	Coordinator

The prompt provision of the missing six-monthly reports was agreed with each interested PIs (CSIC, FFCUL, CNRST).

Steering Committee Meeting

The second session of the morning was addressed to the NEAREST Steering Committee meeting, involving only the responsible members for each project partner, plus some observer assistants. During the SC meeting the main critical issues of the forthcoming period were tackled.
The detailed report on the Steering Committee meeting is available in a separate specific file.

Tsunami warning and mitigation systems in NorthEast
Presentation made by Fernando Carrilho – IM
Presentation available on the Nearest website: *Barc_WP5_Carrilho*

The speaker presented the recent activities with regards to the NEAMTWS – Tsunami Warning and Mitigation System for the North-Eastern Atlantic, Mediterranean and Connected Seas. A description of NEAMTWS architecture was provided with details of the proposed seismic network.
The decisions and recommendations from the 4th ICG/Neamtws Assembly that took place in Lisbon has been:

- to improve seismic monitoring capability in North Africa
- to establish a Team-Task to define the RTWC architecture, prepare developing plans and evaluate costs and possible finantial contributions
- to harmonize methodologies and possibly software (Seiscomp 3.0 offered by Germany was accepted)
- to start a test-phase between the RTWC pre-candidates: INGV (Italy), NOA (Greece), KOERI (Turkey), BGS (UK), IM (Portugal), CEA (France) and IGN (Spain)
- and that the RTWC must have on duty sea level measurements expertise staff

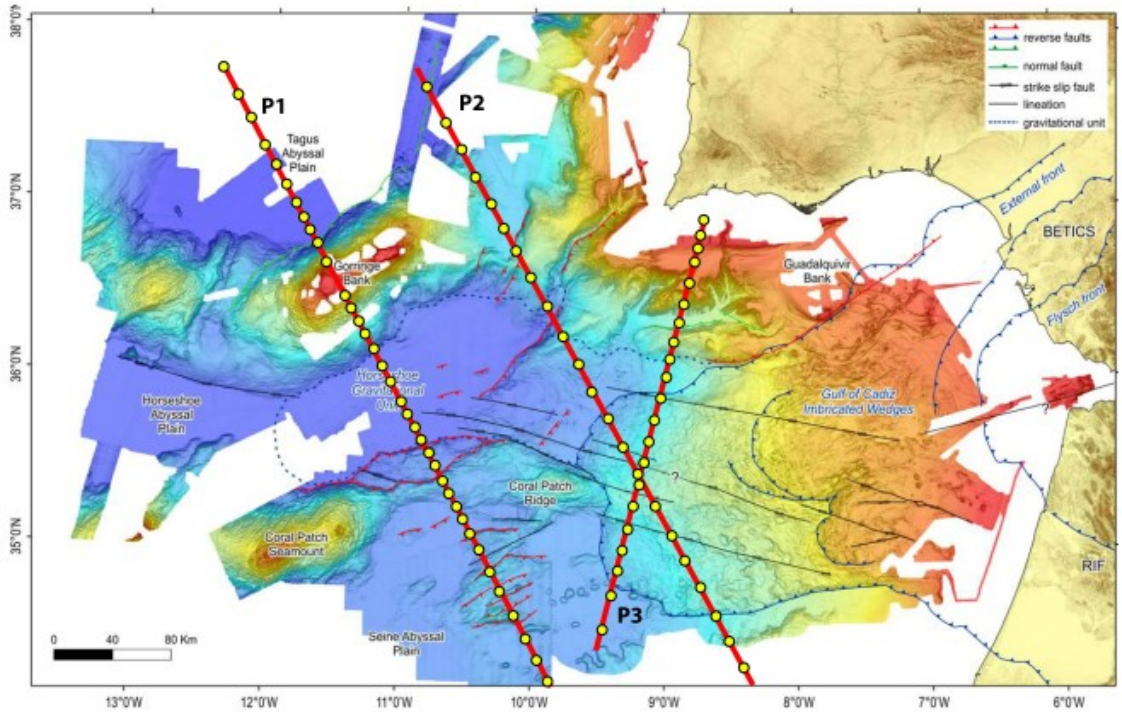
Nearest-Seismic Refraction Survey
Session coordinated by Valenti Sallares –CSIC, Toni Bermúdez- CSIC
Presentations available on the Nearest website: *Barc_SeisRefraSurvey_Sallares*
Barc_obs_Bermudez

The presentations were mainly focused on:

- description of the vessel and its potentiality
- description of the instruments (OBS from the French group by Boris Marcaillou and from Spainish one by Toni Bermúdez)
- definition of the priority scientific objectives/seismic lines
- issues such as navigation permits (Portugal/Morocco representatives), TV permits/logistics, possibility of changing port and scientific/technical crew

The definition of the refraction lines has been postponed to a restricted meeting scheduled in the afternoon. The participant were:
Nevio Zitellini
Valenti Sellares
Marc-Andrè Gutcher
Wilfried Jokat
Wolfram Geissler
Pedro Terrinha

The main decision taken were:
- The acquisition of two main refraction seismic lines located in the Gulf of Cadiz and their priority (as shown in the following figure).



- There was consesnus in that the more important line is line P1.
- The deployment of all available OBSs (36) along the line P1.
- After the acquisition of line 1 will be decided the next one (either line P2 or P3). No order of preference yet between these 2 lines. And the number of OBS along these lines will also depend on the time available and the whether conditions.

Closing remarks by Nevio Zitellini - ISMAR

The coordinator communicated to the general assembly the dates for the next meeting which has been scheduled for the October 9th and 10th 2008, taking into consideration dates of the Nearest cruises, availability of the hosting organization and in general of all partners, and need to carry out a detailed assessment of the second year results in view of the reports to be issued at the beginning of November. The meeting will take place in Berlin, and will be arranged in collaboration with TFH.