



**Management Committee (MC)
and Working Group (WG) Meeting**

Centro Cívico y Térmica, Málaga (Spain), 5th-6th October 2015

Minutes

5th October 2015

10:00 Opening by local host (Juan-Tomás Vazquez) and chair (Klaus Wallmann)

Juan-Tomás Vazquez welcomes the participants to the 1st MC/WG Meeting of MIGRATE at the “Centro Cívico y Térmica”. Klaus Wallmann takes over and also welcomes the participants of the meeting.

10:20 Presentation by the COST Science Officer Ms. Deniz Karaca

Deniz Karaca gives a short overview of COST Association. She explains that it was founded in 1971 and that it is the oldest and widest European intergovernmental framework for transnational cooperation in science and technology. It counts 35 member countries but it is also open to all countries.

10:25 Introduction by the chair Klaus Wallmann

Klaus Wallmann explains the motivation of MIGRATE: unburnable reserves should maintain temperature rise below 2°C before 2050 (2011-2050: emissions \leq 1100 Gt CO₂). He poses the question what measures could be taken to receive a max. growth under the 2°C target? Energy extraction of gas hydrates in order to protect the environment. The goal will be to receive research funding on EU level.

Klaus Wallmann then presents Mr. Koji Yamamoto (JOGMEC) who will give a presentation on the Japanese gas hydrate program. He did the 1st offshore production test and is the best scientist. After him he presents Mr. Tim Collett who will give a presentation on the US gas hydrate program. He will talk about how to find gas hydrates, how to explore them and he will explain the drilling of gas hydrate technology.

Klaus Wallmann also explains the budget period which runs from 1st June 2015 until 30th April 2016. He points out that he hopes that young scientists come up with proposals about how to invest the money. MIGRATE now counts 15 countries – and started with 12. The most funding will be given to the WG meetings that will be planned. WG1 is expected to compile information in MIGRATE hydrate occurrences. At the end of November there will take place the WG1 meeting at Southampton which goal is: “What is the direction? / What do we want to do?” For March 2016 it is planned to have an industry workshop in Brussels. WG2 will deal with the open questions research needs. Mr. Tim Minshull will give a presentation in Malaga as well. Moreover it is planned to prepare a working paper until February 2016. The presentation to the plenum is planned for tomorrow morning. All WG’s reports will be published on the MIGRATE homepage. The main task of WG3 will be to outline mayor risks when it comes to gas hydrate exploration. Maybe a list will be ready by the beginning of February 2016. WG3 will meet in Rome mid-November 2016.

Klaus Wallmann continues that the main idea for this day will be to get to know to each other and that everybody explains what he is working at.

10:40 Parallel working group meetings (WG 1–4)

- WG1: “Resource assessment“, leader: Tim Minshull
- WG2: “Exploration, production and monitoring technologies“, leader: Assaf Klar
- WG4: “Integration and dissemination”
WG4 participants are attending the other WG meetings.
- WG3: “Environmental challenges“, leader: Umberta Tinivella
Umberta Tinivella welcomes all WG3 participants and starts with the explanation of the aims of WG3:
 1. Assess how slope stability may be compromised by gas production from hydrates under different geological boundary conditions.
 2. Identify suitable precursors for slope failure to be targeted in a monitoring program.
 3. Develop a generic strategy for environmental baseline studies and the environmental monitoring of gas production from hydrates.

Regarding point 1, Nieves Lopez-Gonzales, Desiree Palomino Cantero and Olga Sanchez Guillamon have three points of interest: fluid seepage, mass-movements and stability of sediments. The work field is the Gulf of Cadiz.

Presentations:

1. Fátima Nunes de Cavalho
“Research area: water and waste water technology – development of easy and low cost treatments by chemical precipitation (study area: Beja)”
2. Gavin Collins and Cindy Smith
“Gas hydrates: microbial community, complexity, challenges and opportunities”
3. Chris Rochelle
“Hydrate research at the BGS”
4. Kate Thatcher
Presentation of her company – a scientific and mathematical consultancy
5. Atanas Vasilev
“Gas hydrates – modelling”
6. Anna Lichtschlag
“In situ quantification of bio-chemical processes at cold seeps (MPI, Bremen)”
7. Regina Katsman
“Modelling” (University of Haifa)
8. Livio Ruffine
“Geophysics, geophysics chemistry, geophysics techniques” (Ifremer)
9. André Burnol
“CO₂ storage capacity as sediment-hosted gas hydrates in the area of the Celtic Sea and the bay of Biscay (in collaboration with Ifremer)”
10. Baptiste Bouillot
“Crystalization – Kinetics- Upscaling/Sizing – Thermodynamics” (Saint-Etienne School, Lyon)
11. Thomas Mosch
Presentation of Kongsberg

13:00 Lunch

14:00 Parallel working group meetings (WG 1-4)

12. Roberto Cianella

“Directive 2013/30/EU (12th June 2013) of the EP and of the Council on Safety of offshore oil and gas operations”

Summary of Umberta Tinivella for the first meeting day of WG3:

During the WG 3 meeting, all participants introduce themselves and their research topics related to MIGRATE.

WG3 is multidisciplinary; in fact, almost all expertises are included: laboratory, modelling, shallow gas, innovation technologies, geochemistry, biology, carbon capture and storage, geophysics, engineering, legal regulation.

All participants anticipate the scientific sessions, with the following presentation: “An overview of the Directive 2013/30/EU on safety of offshore oil and gas operations”.

After a short overview about the state-of-the art, WG3 point out that it is necessary to define a preliminary main hazard category related to gas hydrate production.

The preliminary list of the hazards contains: slope stability, marine ecosystem, gas in water column and atmosphere, leakage and operational risks during production. More discussions are necessary in order to define more clearly the environmental hazards, identifying the related factors. It was pointed out that the interaction is important with other working groups in order to be able to finalize the list.

16:00 Presentation by Koji Yamamoto (JOGMEC) on Japanese gas hydrate program

17:30 Presentation by Tim Collett (USGS) on US gas hydrate program

18:15 Meeting of Early Career Investigators with STSM presentation

STSM presentation by Judith Schicks

The STSM has

- to contribute to the scientific objectives
- to foster collaboration or build new participation

Judith Schicks refers to the COST Vademecum and adds that the max. fund is € 2,340.- per STSM. It is expected that up to three STSMs per year can be refunded.

Interested people should see: <https://e-services.cost.eu/stsm>.

ECI presentation by Georgia Sismani

Young scientists (Master and PhD students, young postdocs and professionals) working on gas hydrate R & D are invited to join MIGRATE. Young scientist have a lot of opportunities in MIGRATE: STSMs, travel grants to take part in working group meetings, networking, etc.).

She explains that a field trip (cruise) is planned with Elena Piñero but Deniz will have to decide.

Neill English would like to know a short description about what they can offer.

Georgia Sismani explains that young scientist would like to attend and Klaus Wallmann adds that they would like to change some aspects of refunds.

Klaus Wallmann asks Judith Schicks and Georgia Sismani to come up with ideas regarding workshops. Judith Schicks replies that he could forward a plan. Thus, Klaus Wallmann explains that three STSMs with a total funding of € 7,000.- are approved in e-COST until May 2016.

21:00 Conference dinner at Málaga organized by local host

6th October 2015

9:00 Parallel working group meetings (WG 1–4)

Continuation of presentations WG3

13. Chris Rochelle

“Detailed characterization of hydrate-rich core from Cascadia Margin (IODP Leg 311)” (British Geological Survey)

14. Livio Ruffine

“Geochemical contribution”

15. Regina Katsman

“Modeling methane bubble growth”

16. Thomas Mosch

“We detect to protect – Subsea monitoring”

17. Atanas Vasilev

“Potential zone of bottom stability on periphery of the GHSZ in the Black Sea”
(Institute of Oceanology)

11:30 Coffee break

12:00 Reports by working groups 1-4 to plenum

- WG1: “Resource assessment”, leader: Tim Minshull
Héctor Marín Moreno gives a summary on the work of WG1.
The IODP data set is important in Europe.
The WG1 meeting will be held in Southampton from 25th-26th November 2015.

- WG2: “Exploration, production and monitoring technologies”, leader: Assaf Klar
Goerge Deerberg gives a summary on the work of WG2:
“What is MIGRATE?/What is WG2?/What is missing?”
At the meeting in Haifa, taking place from 11th-12th November 2015 there will be discussed the state-of-the art. Key words need to be found.
Klaus Wallmann adds that the real challenge is to down-size technology and to get it on running with reasonable money. Maybe drilling experts of industry can be involved. The first aim however is to focus on existing technology.
The WG 2 report of Georg Janicki is enclosed.

- WG3: “Environmental challenges”, leader: Umberta Tinivella
The WG3 meeting will take place in Rome from 17th-18th November 2015.
The WG3 report of Umberta Tinivella is enclosed.

John Hopper points out that there will appear regular questions about that MIGRATE will be made responsible for different environmental issues.

Nick O’Neill suggests to create a document in order to spread confidence in people who have environmental questions.

Klaus Wallmann would like to know how this is in Japan.

Koji Yamamoto answers that some are dealing with environmental aspects but most people want the energy production by means of gas hydrates.

Yizhaq Makovsky thinks that the big issue is to protect the water so this point should

be a topic in WG3. There are oil and gas hydrate risks.

Nick O'Neill would like to know which group deals with the policy case of hydrates.

Klaus Wallmann explains that WG4 will deal with this matter. The meeting of WG4 will take place in Kiel from 4th-5th November 2015 and next year in Brussels on 26th May 2015. Everyone who is interested and is a member of MIGRATE is invited to join these meetings. However, only 7 people will be refunded for the next meetings.

- WG4: "Integration and dissemination"

WG4 participants were attending the other WG meetings.

13:30 Lunch and end of meeting for non-MC members

15:00 MC meeting

Klaus Wallmann starts with the wish to organize rotation concerning the next meetings.

Tim Minshull would like to have more plenum time with talks.

Klaus Wallmann thinks that the next LOS should organize big tables for talking rounds, like for technological issues. Moreover the next LOS should organize a venue with the possibility to have lunch closer to the meeting facilities.

Deniz Karaca adds that more than € 20.- can be spent/person but in this case the LOS needs to keep the invoices.

Klaus Wallmann prefers to give the funding to a selection of young scientists. Maybe the rules could be changed. Two young scientists per country should be refunded. MC or MC substitute should receive reimbursement instead of three or four. Junior scientists should have priority.

Deniz Karaca explains that there is no max. limit for attendants, you just need to be a member country of COST. She explains that one to two MC members or MC substitutes will be reimbursed and max. two senior scientists/per country. Tim Minshull previously proposed that one senior scientist/country will be funded and after that junior scientists will be funded. This decision should be valid for all WGs.

Georgia Sismani would like to know whether an MC can take part in several meetings. Klaus Wallmann answers that this is possible. MIGRATE can change the amount of the 2nd phase if there is an additional meeting. The budget for Malaga is estimated of € 26,000 and the WG meetings of € 6,000 each.

Klaus Wallmann would like to know whether MIGRATE is allowed to overspend.

Deniz Karaca answers that they are not allowed to overspend. The Malaga budget has to be calculated by Astrid Poloczek-Freese and then there should go information to the WG leaders that a certain rest sum can be spent.

Decision about the next LOS for the MC/WG Meeting

Livio Ruffine suggests that Ifremer could be the next LOS so that the meeting could take place in Brest.

John Hopper also proposes that the meeting could take place in Copenhagen in September 2016.

Judith Schicks suggests to organise the next meeting in Potsdam.

Klaus Wallmann says that the next LOS should take care of the following details:

Round tables, lunch in the meeting venue and the dinner in the LOS cost.

Via lottery it is decided that the next MC/WG meeting will take place in Copenhagen.

Presentation of Georgia Sismani (ECI Manager)

Georgia Sismani explains that young scientists should be refunded. Moreover, it is planned to have various young scientists to organize training schools for interested scientists. STSMs should be offered by senior scientists if they are interested in hosting.

Deniz Karaca says that a dissemination meeting is limited to two persons per grant period. MIGRATE should offer dissemination meetings later as the project just started.

Any action result can be presented in any meeting.

COST should always be visible on a report.

Klaus Wallmann would like to know whether a cruise funding is possible within COST.

Deniz Karaca explains that it is possible in case of an STSM but it should be approved by COST before.

Nick O'Neill would like to know if the help of a student might be paid.

Deniz Karaca denies this question as any research salary cannot be funded by COST.

Klaus Wallmann proposes that he would like to host a young scientist for geochemical science for about two weeks.

Judith Schicks explains that he will then have to fill in the form that she will send to him. She will then check the form.

Klaus Wallmann says that according to COST procedures Japan could be part of MIGRATE as ICP country if they send an application for admission. Japan could join the action, like e.g. the US; otherwise they would have to pay for everything themselves.

Deniz Karaca adds that when planning an STSM in the US, it should be taken care of the time it takes to make a country member of MIGRATE if it is not within the EU. The admission process takes about six months.

Judith Schicks and Klaus Wallmann are both wondering whether it would be a good idea to fix deadlines. MIGRATE could ask potential countries for STSMs.

Judith Schicks asks Deniz Karaca what happens if not the whole money for STSMs will be spent.

Deniz Karaca replies that in this case the money will be gone.

Judith Schicks concludes that a deadline to spend all the money would be reasonable for STSMs.

Klaus Wallmann thinks about better overspending the money instead of losing it. Usually it adds up.

News

Klaus Wallmann announces that the WG4 meeting will take place in Kiel from 4th-5th November 2015. The main topic will be which European funding MIGRATE might target, which means to get more funding of the EU.

The Industry Workshop will meet in Oberhausen in April 2016. Nick O'Neill, Tim Minshull and Goerge Deerberg intend to take part.

Klaus Wallmann declares that Astrid Ulbrich will send out the invitations for Kiel. The estimated sum of € 6,000 will probably not be reached.

Deniz Karaca explains that in February 2016 MIGRATE should have budget ideas. The budget plan should be finalized in May 2016.

Klaus Wallmann explains that another MC/WG meeting might be planned in March 2016 but first the finances need to be checked.

Klaus Wallmann clarifies the meaning of the Core Group to which belong:

- The WG leaders
- The chair
- The vice-chair
- The administrative office manager

Klaus Wallmann concludes that the initial proposal will be sent to the core group first in order to agree on a proposal. Afterwards it will be sent out to the others. He plans to distribute it in March 2016.

16:30 End of MC meeting