

Subject | Minutes of the Third Management Committee Meeting (MC3) of the COST Action TD1407 - NOTICE: Network on technology-critical elements - from environmental processes to human health threats

*Universidade do Algarve, Campus das Gambelas. Faro (Portugal)
11th May 2016 (14:00-16:00)*

1. Welcome to participants

The participants were welcomed and the meeting is started and chaired by Antonio Cobelo-García (Action Chair) and Montserrat Filella (Action Vice-chair).

2. Approval of minutes of MC2

The minutes of the second Management Committee meeting (Cluj-Napoca, September 2015) are approved (**Annex I**)

3. Adoption of the agenda

The agenda for the MC3 meeting is adopted (**Annex II**)

4. Status of the Action. Participation of NNC and IPC

The chair informs that there are currently 22 countries involved in the Action, and 19 countries are represented in this MC meeting by their respective MC members (PT, ES, IE, DK, FR, BE, DE, CH, AT, IT, NL, LU, EE, RO, PL, MK, SE, UK, RS). Participants list in **Annex III**

The chair gives a description of the list of near-neighbour countries (NNC) and international partner countries (IPC) and what type of involvement researchers from those countries can carry out under the COST framework (including reimbursement restrictions for meetings, training schools, STSMs, etc.).

5. Action Budget for the New Grant Period 2 (01/05/2016 – 30/04/2017)

The chair explains the modifications associated with the change from the two 2-year Grant Periods to four 1-year Grant Periods, as demanded by the COST Office. Informs that from the initial Grant Budget (2 years) of 205171.50 euros, 40701.20 were spent during the first year. Therefore, a budget of 164470.30 is available for this second GP.

The chair suggests several changes to the current WBP (which was prepared following the original 2-year GP WBP) in order to better accommodate the needs for this year, as follows (**Annex IV**):

- Remove the MC and WG meeting planned for April 2017 and pass it to May 2017 (corresponding to GP3).

- Increase the budget initially allocated for the TS and WS in Tel-Aviv (January 2017) to 65000 euros.

- Allocate 7500 euros for the co-organization of sessions in external conferences

- Decrease the OERSA budget from 3000 to 1000 euros

The MC approves these modifications

The chair indicates that there has been two applications for attendance at dissemination meetings. The first was done by Natalia Ospina-Álvarez (MC, PL) for her attendance to the ISEAC conference (<http://www.iseac-conferences.org/index.php/home/iseac39-hamburg>) in July (Hamburg, Germany). A budget of 700 euros is approved by the MC for this purpose. The other application was done by Montserrat Filella (MC, CH) for her attendance to the SEGH conference (<http://segh-brussels.sciencesconf.org/>) in July (Brussels, Belgium). A budget of 900 euros is approved by the MC for this purpose.

The chair also indicates that there has been an application for a co-organization of a session in an external conference by Montserrat Filella (MC, CH) (ISSP17, The International Symposium on Solubility Phenomena and Related Equilibrium Processes; <http://issp17.unige.ch/>). The

budget requested (3500 euros) will be for the expenses of two invited speakers. This is approved by the MC.

5. Website and Twitter

The MC decides that Ronen Zhang (MC, ES) will take care of the updating of the Action's website, as well as preparing specific webpages for the forthcoming TS and WS. Natalia Ospina-Alvarez (MC, PL) will continue with the management of the Action's Facebook and Twitter.

6. Location and Date of Next MC and WG meeting

The MC decides to hold the next MC and WG meeting in Belgrade (Serbia) during the 9th and 10th of May 2017, with Tatjana Trtic-Petrovic (MC, RS) acting as host.

7. Promotion of gender balance and of early career investigators (ECIs)

MC composition is more or less balanced. With respect to the Action's activities (e.g. workshops, STSMs) the committee will pay attention to gender balance (to avoid that any gender is underrepresented) and to foster the active involvement of early career researchers.

8. AOB

Due to the leave of Pascal Salaun (MC, UK) as WG1 co-leader, the MC approves that Birgit Daus (MC, DE) will be the co-leader for this group. This had been already approved during the WG1 meeting held the day before.

9. Closing

The MC Chair thanks the participation of all the MC members and closes the meeting.

List of Annexes

- Annex I:** MC2 Minutes
- Annex II:** Meeting (MC3) Agenda
- Annex III:** List of Participants
- Annex IV:** Changes to the Current WBP

List of MC Decisions

- MC DECISION 1:** Approval of minutes of the MC2 meeting
- MC DECISION 2:** Changes to the current WBP suggested by the chair and detailed in **Annex IV** are approved
- MC DECISION 3:** Applications for attendance to dissemination meetings (**Annex V**) are approved
- MC DECISION 4:** Application for co-organization of a session in an external conference (**Annex VI**) is approved
- MC DECISION 5:** Ronen Zhang (MC, ES) will take care of the update of the Action's website
- MC DECISION 6:** The next MC & WGs meeting will be held in Belgrade (Serbia) during 9th and 10th of May 2017
- MC DECISION 7:** Birgit Daus (MC, DE) will replace Pascal Salaun (MC, UK) as WG1 co-leader

Subject | Minutes of the Second Working Group 1 (Analysis and Intercalibration) Meeting of the COST Action TD1407

*Universidade do Algarve, Campus das Gambelas. Faro (Portugal)
10th May 2016 (09:00-15:00)*

This is the first time that the WG1 meeting is accessible to all NOTICE members, given that there is no time overlap with other WG meetings in the agenda.

- 1) P. Croot presents changes in WG1 composition and leadership:
 - Co-leader P. Salaun has resigned from co-co-leadership and WG1 participation
 - B. Daus has accepted the WG1 co-leadership
 - P. Croot presents 3 new WG1 members (Ilia Rodushkin, Eduardo Moreno and Hasmin Haberl) and their main interests
- 2) WG1 meeting agenda adopted

Item I

- 3) P. Croot recalls the main objectives of the WG1 (analytical procedures, cookbook, etc.)
 - database on CRMs with/without TCEs certified (user values)
 - GEOREM <http://georem.mpch-mainz.gwdg.de> (database on user values for many elements including TCEs)
 - GEOTRACES / SAFe intercalibrations to obtain consensus-based TCE values for seawater
 - M. Filella adds that this is not possible for freshwater (too heterogeneous)
 - Dropbox folder for CRM information (TCEs certified values), open to all NOTICE members upon request
 - EXCEL spreadsheet for CRM use in the NOTICE community; P.Croot calls for participation in 'intercalibration' exercises for user consensus-based TCE values in various commercially available CRMs not (yet) certified for TCEs.
 - discussion about availability of clinical samples for the community
 - suggestion of sharing aliquots of the same CRM between NOTICE groups to increase the number of different labs producing values for the same CRM (without necessarily buying all CRM); even consider sharing digestates of CRMs between different groups (less work overall and a better information on measurement (because free of digestion-induced differences)
- 4) Cookbook of SOPs for TCEs following the example of the GEOTRACES cookbook for seawater
 - draft outline started by element – looking for people from TD1407 to contribute
 - invite scientists from outside Europe to contribute (eg Alan Shiller – Gallium; etc)
 - a main problem may be the number of variables (number of different elements x number of different sample types)
 - Montserrat suggest more focus on some specific elements (TCEs = a generic name), need to identify people able to produce more concrete information for some target elements
 - Cookbook is a living document (P. Croot),
- 5) Review paper on analysis of TCEs
 - Focus on a few elements in selected sample matrices with emphasis on new techniques and where advances may be made in the future
 - list common problems
 - perspectives: 1 paper on REE, 1 paper on PGE, perhaps 1 on TI, other elements: lo small number of groups with real analytical expertise

- P. Croot calls for 'champions' able and willing to write specific parts, he is ready to do the compilation/editing job
- 6) Wiki – TCE analysis and speciation (with WG2 ?)
 - call for 'champions' able and willing to manage the wiki activity by element (gather the info from other colleagues):
 - i.e. provide background information on each element and upload to wiki (assign tasks)
 - i.e. as SOPs become available, provide links

Item II

- 7) update workplan and deadlines
 - review paper draft for April 2017
 - cookbook: first compilation by end of 2016,
 - hand in existing SOPs as soon as possible (before the end of June)
 - points to be addressed (not exhaustive): sample handling, filter materials, labware materials, labware cleaning procedures, digestion protocols, analytical procedures, standards, CRMs,
 - contact people outside NOTICE to collect as much information as possible
 -

Action 1407 TCE training school and workshop 11:35 – 16:00, chair: Montserrat Filella

Tel Aviv: 16 – 19 January 2017; (training school 16/17 Jan; workshop 18/19) the site and the period have been voted at the first meeting in Brussels, but some concerns on this choice have been raised in the meantime

- 1) Discussion on the following issues: Price? Security issues? Open to a wider community ?
 - travel costs are cheap (lowcost airlines and hotel pre-reservations etc. exist, no cost difference with Faro)
 - money available for 25 student participants (including PhD students); student participation is covered by COST
 - Training school (TS) = advanced course on TCEs, supported by COST, oriented towards environmental issues
 - Ishai has booked conference rooms and labs, accommodation ok,
- 2) Decisions for the **WS**
 - students who come for the TS also may participate in the workshop
 - in case of more student applications than mobility grants a selection will be necessary: open competition. Possible criteria: geographical origin, CV motivation letter referring to their own research progress on TCEs, willingness to present own research at the WS, "preference will be given to students who "
 - OR
 - state that "the workshop will take place the following 2 days and TS participants are encouraged to participate using their own funding for the 2 additional days"
 - check if the period between the flights can be longer than 2-3 days
 - people who teach in the TS should be covered by the action
 - preliminary budget: max 780€ per person: flight 400€ max (even less if lowcost) + 5 nights (250€) + food 130€ for 4-5 days is ~13€ per meal (2 per day)
 - need to prepare a budget at the end of the Faro meeting to fix the precise number of participants to be covered (preliminary estimate: 25 students (?) for TS and 25 Notice members and external colleagues for WS)
 - chairmen to organize the WS: Birgit Daus, Jörg Schäfer, Ishai ???

- discussion on the WS title: Natural Cycles, Anthropogenic Sources, Environmental Impacts
 - call for abstracts: first announcement 1 June
 - abstract submission deadline: end of September
 - scientific acceptance by the chairmen, in case of doubts they may come back to the authors for more information
 - call for suggestions for invited speakers (Ilia Rodushkin?, Bernhard Peucker-Ehrenbrink?, Andrew Turner? .)
 - workshop participation is free (no participation fees)
 - call for national lists on colleagues working on TCEs
 - use the next meetings/sessions to advertise the workshop
 - all action members should contact colleagues working on TCEs to advertise the action and the WS
 - Natalia deals with facebook and Twitter, the problem is the maintenance of the website in Vigo (separate, regularly updated webpage : Ronen Zangi will ask for access to the Vigo website)
 - all action members should send a list of national/international colleagues working on TCEs to Birgit Daus (birgit.daus@ufz.de) and Jörg Schäfer (jorg.schafer@u-bordeaux.fr) by the 20 May 2016. These addresses will be used to advertise the workshop
 - Abstracts of WS communications set on the Action website
 - Special Issue for the workshop?? Rather not focus more on discussions (Gordon conference style?).
 - STSM grant holders are supposed to present at the workshop.
- 3) Training School: Analytical aspects in TCE research
- Kevin Francesconi will co-organize the TS
 - lectures (no practical work)
 - Skype “demonstration practicals” could be an alternative to practicals
 - focus on TCE specific problems/protocols/methods
 - insist on the importance of analytics for all the other sciences using concentrations, speciation, exposure, toxicity effects, etc.
 - TS programme should be based on the cookbook, but this is not available yet
 - Montserrat suggests points to address:
 - o chemical frame on PGE; REE and “other TCEs” 1h
 - o Legislation for TCEs
 - o CRMs
 - o Total element analysis (sampling, pretreatment) for different concentration levels from traces to high concentrations; screening methods, solubility limits
 - o PITFALLS in analytical techniques !!! (“complete” list with examples)
 - o Mapping in soils (digestion methods involved, matrix separation and/or pre-concentration techniques)
 - o Total Dissolved TCEs
 - o Speciation analysis (intro: inert vs labile; sampling, preservation, storage, hyphenated techniques for inert species; voltammetry and DGT etc for labile fractions); solid state speciation (EXAFS, etc)
 - o limitations in existing analytical know-how
 - o clearly define prerequisites (basic theoretical knowledge on ICP-MS), set specific questions and communicate to the students prior to the TS, then they obtain “answers/solutions” during the TW and may ‘restitute’ their new knowledge at the end by “*virtually analyzing a virtual sample*”

- multi-element analysis vs single element (eg precision issues)
- modelling for different matrices, problem: time limits (should give an overview not a specific training on one model)
- external lecturers are also possible (Ilia Rodushkin?,)
- clearly state that the number of places is limited
- deadline call for applications: 1 June 2016
- student application deadline : mid-September 2016
- decision and notification 1 October (time enough for visa issues)

Subject | Minutes of the Second Working Group 2 (Environmental Impact and Cycling) Meeting of the COST Action TD1407

*Universidade do Algarve, Campus das Gambelas. Faro (Portugal)
10th May 2016 (15:00-18:00)*

- 1) Agenda adopted
- 2) S. Rauch recalls the WG2 objectives
 - thermodynamic data inventory (not a deliverable)
 - sources identification (underway)
 - stakeholder communication
- 3) Tasks of WG2
 - synthesis of scientific literature (gaps, forecasts, list of priority TCEs; joint publication → review) not necessarily as a publication, maybe a report but this point is a deliverable of the action
 - action required: compile information, require more information, working document
 - possibility of sharing information between the different work groups?
 - Publication based on contributions, orientation to be defined more specifically (“focus on a specific item”)
 - integrate the information on “who does what” from the posters in the hall
 - a reminder calling for contributions will be sent to the whole group of action participants
 - need for an update of action members on the website
 - people wanting to be involved in WG send an email to Montserrat
- 4) book publication by month 36 (?)
 - Publisher: Springer
 - Open Access (5000 €)
 - E-book in Open Access could also be an alternative (price? 700-1000 € per chapter?), e.g. *Frontiers in ******
 - Chapter for each element or group or individual contributions?
 - possibility to merge different WG?
- 5) Additional publications
 - deadlines to be set
 - more specific topics:
 - o trends in TCE in the environment
 - o sources of TCEs July 2017
 - o others?
 - strategy: start with one, see how it works
 - Special Session at ICOBTE, Zurich, CH, 16-20, tentative title Biogeochemistry of emerging trace elements in aquatic and terrestrial systems, deadline for abstract submissions: 2 January 2017
 - Special Session 5-7 July 2016, SEGH, Brussels, “biological orientation”
 - Special Session 24-29 July Geneva, organized by Montserrat focused on chemistry
 - ICHMET early September 2016, Ghent, Belgium,
 - Ishai prepares a Special Session at AGU
 - we need to discuss the strategy for Special Sessions to find a balance between dissemination activity and the capacity of the action members to follow

not to forget: COST specific sessions need to fit with many requirements

- 6) News from WG2
 - new projects
 - new publications

- conference participations
- Guijs suggests a common action: providing inhalation-relevant samples (dusts) from all over Europe for an invited professor (July-December 2016) for experiments with lung fluids, common publication is the objective (COST- paper).
Action members need to know how many samples, sample volume/mass?, etc.
- need to centralize and present information on NOTICE-relevant action member activities
- publications: TCE trends by elements (PGE, REE, Tl, Te, In): are we facing increasing environmental concentrations in different compartments? lead author: S. Rauch
Sebastien gives different examples on historical records showing that resolution and other factors do not go in favor of increasing TCE levels (Pt, Os, Rh, Pd, Ir)
idea of the paper: emissions, air/atmospheric accumulation (ice, peat) terrestrial, water/sediments, biota (WG3)
identify: knowledge gaps? Link to Anthropocene?
Action: Sebastien prepares draft and emails WG2 members.
Submission date objective: October 2016
possibility to contact the BIOGEMON community who could have additional info on published datasets
- one output of the NOTICE action could also be the identification of unpublished datasets on historical records to be published by NOTICE members (instead of getting lost)
- second paper foreseen: TCE sources to environment (lead author: ???)
- other papers? Ideas are welcome!

ITN – Innovative Training Networks Programme 18:45 - : speaker Michael Eisinger, Managing Director

- 1) M. Eisinger presents the organization structure and shows that they have experience in ITN (already member of 3 ITN), already 3 application to pilot an ITN rejected, only best 5% get funded
- 2) M. Eisinger presents the H2020 structure and the position of Marie Curie Actions in the Excellence Pillar and ITN is one funding scheme therein
- 3) ITN is for Early Stage Researchers (mainly PhD students); funding 540 person.month maximum; duration 3-36 months, covers research costs, mobility, living, family allowance, supervisor gets training and networking costs, Management and indirect costs
- 4) M. Eisinger presents the (complex) rules including mobility requirements, limitations, exchange schemes, gives examples of a previous application (Summer Schools, lab training, complementary skills, etc.) given by different partners, international conference organized by the consortium

Subject | Minutes of the Second Working Group 3 (Human Exposure and Toxicology) Meeting of the COST Action TD1407

Universidade do Algarve, Campus das Gambelas. Faro (Portugal)
11th May 2016 (09.00-11:00)

Election of a keeper of the minutes

Laure Giamberini joins the WG3 as new member (subgroup C) and accepts to keep the minutes of the meeting.

Presentation of the WG3 workplan

WG3 Human exposure and (eco)toxicology						
ACTIVITY	TOOLS	INDICATORS	1th year	2nd year	3rd year	4th year
collection of available scientific literature	3 subgroups; excel file with tasks; ZOTERO database	use and filling of adopted tools				
Critical reviews by element	Google doc	use and filling of adopted tools		we are here	CHECK POINT	
Critical reviews by mechanism, by matrix, by public health topic, etc..	Google doc	use and filling of adopted tools				
Wiki						
identification/relations with stakeholders						
TS&WS		TS&WS				

Overview on the available scientific literature collected in the ZOTERO database

700 relevant items in the Zotero library were currently collected and made available for all WG3 members: Problems :

- duplication of items: If new items are added, members should avoid duplications
- Storage location of the item/pdf: members should upload the pdf files so that all WG3 member get access to the pdf (however, if the pdf is not available, the link and/or abstract is better than nothing)
- Items without bibliography data: Members are asked to check for Metadata, check in (e.g.) web of science and copy Metadata, then copy pdf, create parent item and fill in the fields

Presentation of the draft template for WG3 critical reviews by element

The overview of the “critical reviews by element” document (DOC) is given, with the provisional Title « *Current state of knowledge and gaps for risk assessment and management: available information under a One Health (environmental-food producing organisms-human health) view*”. The DOCs (one per element) will be posted on Google DOC and active WG3 members will receive an invitation to access and fill in. Content in the DOCs should have scientific standard with references available in ZOTERO.

Separate discussions in each WG3 subgroup

Members group in their respective subgroup (A: Human exposure and toxicology, B: Food (animals, plants, water), C: Eco-toxicology) to discuss, in particular, on 1) data gaps in the available scientific literature collected in the ZOTERO database, 2) improvement to the draft template for “critical

reviews by element”, 3) criteria for starting filling in the “critical reviews by element”, 4) how to handle with qualitative aspects, 5) how to handle/optimize overlapping with WG2, 6) other useful/feasible critical reviews based on the library (by mechanism, or by matrix, or by public health topic, etc..), 7) Wiki: what/when

WG3 Decisions

- Adoption of the new Work Plan/Gantt (including: work on wiki delayed to the 4th year, after publication of work done, preferably in open access; workshop and training school postponed to the 4th year)
- Adoption of the DOC with some minor revisions; methodology for starting the work on these docs is based on expertise/preferences of the members, thanks to the Google DOC platform allowing for simultaneous working.
- Publication of review papers: Arno will check the ZOTERO database for already existing reviews and will propose elements of interest with a ranking choice by July; Chiara suggested the European Food Safety Authority as first possible stakeholder, and will check the elements of interest for relevant EFSA Panel; WG2 will be invited to participate the papers on specific and overlapping topics
- Ideas for feasible critical reviews by mechanism, or by matrix, or by public health topic, etc.. will be circulated within WG3 (where reasonable also WG1 and WG2 will be included) and interested persons will create respective author groups
- Members of WG1 and WG2 could get access to the ZOTERO database on enquiry (-> Sonja)

Subject | Minutes of the Second Working Group 4 (Training and Capacity Building) Meeting of the COST Action TD1407

*Universidade do Algarve, Campus das Gambelas. Faro (Portugal)
11th May 2016 (17:00-18:30)*

Present: *Natalia Ospina-Alvarez (Leader), Gijs Du Laing (Co-leader), Antonio Cobelo, Peter Croot, Birgit Daus, Montserrat Filella, Sebastien Rauch, Sonja Zimmermann*

General

Six applications for STSMs were submitted, all of them as Regular. Two STSM applications involve action's members. They involve mobility from Poland to Spain, Belgium to Sweden, Austria to Israel, Portugal to Spain, Poland to France and Israel to UK.

Subgroup discussion

- In order to give flexibility to the applicants a 3rd call of STSMs will be opened in two weeks and will be permanently open. The WG4 agrees to carry out the evaluation of the application for STSMs every three months. The dates of the evaluations will be clearly highlighted on the action's web page. The evaluation of the applications submitted in each three-months period will be performed on-line, each member of the WG4 will submit the filled evaluation form to the leader and co-leader of the group.
- A new strategy for STSMs is discussed. During the next week will be sent to the members of the action a request for expression of interest to host visitors in their laboratories and/or research groups. A contact person, topic of research, and short description of the activities to be conducted will be included on the web page of the action in the STSMs section. The applicants interested in conducting a STSMs in those laboratories should contact directly with the contact person and the STSMs application should be prepared following the standard requirements. With this new strategy, in addition to the procedure followed until now, the applicants will have also a list of laboratories with defined topics of interest interested in receive research visitors.

Evaluation of STSMs

The STSM committee is conformed by NOA, PC, BD, MF, SZ. Three members left the room (GDL, AC, SR) and do not participate in the evaluation, because are directly involved in some of the STSMs to evaluate.

One proposal is not considered as eligible:

- COST-STSM-TD1407-33874: Not related to the action. The work plan doesn't include work with any of the TCEs.

After evaluation by the STSM committee, one STSMs was denied:

- COST-STSM-TD1407-32151: the work plan is not feasible within the timeframe.

and four STSMs were approved:

- COST-STSM-TD1407-33488 - Belgium to Sweden
- COST-STSM-TD1407-33702 - Austria to Israel
- COST-STSM-TD1407-33866 - Portugal to Spain
- COST-STSM-TD1407-33879 - Poland to France

Concluding remarks

STSMs call will be open permanently, with evaluation dates every three months to be performed on-line by the STSM committee.