



PETRUS-III PROJECT

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Project meeting minutes

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[PETRUS-III]

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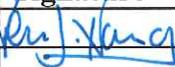
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Signatures

	Name	Signature	Date
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PETRUS III
CARDIFF MEETING 11-12 March 2014
MINUTES

For a list of attendees please refer to the separate document LIST OF PARTICIPANTS. Participating members are first referred to in the Minutes by their full name and subsequently by their initials, except in the cases of Tommy Claesson and Tom Clarijs who share the same initials.

Welcome

Hywel Thomas, Cardiff University.

Introduction and Agenda Review

(powerpoint presentation: PETRUS3_Cardiff_Agenda.ppt)

Behrooz Bazargan-Sabet, Université de Lorraine.

Behrooz Bazargan-Sabet (BB-S) explains there is only one change to the agenda: there will be no presentation by **Georges Van Goethem** as he is unable to attend the meeting. It is agreed, however, that Wednesday's meeting (12th March) will, nevertheless begin at 9.00 a.m. as originally scheduled.

He briefly summarises the Project Management aspects to be discussed. There will be two pitches for inclusion in the project. The first will be by Claudia Vivalda from Italy, representing CVS and who requests membership, the second will be by Waclaw Gudowski from Sweden, who hopes to collaborate with PETRUS III by offering practical teaching for the Master's programme using the Äspö laboratories.

Project Management

(powerpoint presentations:

Petrus3_cardiff_Financial.ppt,

Petrus3_cardiff_Management.ppt)

Behrooz Bazargan-Sabet

Finance (cf. PowerPoint presentation).

Slide 2 The consortium contributes around 33% of the total project budget.

In order to fill in the forms, members must now directly upload the necessary information on the use of resources with the related explanation onto form C which is available on-line. This is new in the database (replaces the earlier excel tables). A timesheet of work hours spent may be required and members should bear this in mind – it is not, as yet, mandatory, but could become so.

The guarantee fund has already been deducted from the prefinancing.

Slide 3 The University of Lorraine made all the prepayments in December 2013, **BB-S** asks for confirmation from all members present. Most confirm, some need to check, **BB-S** reminds partners he has a report to write on this to the EC.

Rosa Lo Frano (RLF) asks for news on the electronic signature.

BB-S replies that while the e-signature procedure has been announced by the EC, it is not yet in full operation, the hard copy signature as well as the e-signature are both in force for the moment.

Marjatta Palmu (PMP) explains that if only one member is not able to use the e-signature system this blocks its use by all other members. This system first needs to be validated by all the legal departments (LEARs – Legal Entity Appointed Representative)/CEOs concerned (LEAR's have received the paperwork). She encourages partners to get this done as soon as possible in each partner organisation.

BB-S responds that for some educational institutions the problem is rather a system block.

RLF concurs that many documents are required to allow the use of the e-signature.

BB-S says it is unlikely the system will be fully functioning for use by this PETRUS III project.

Management (cf. powerpoint presentation).

A need for a clarification of terms/roles of the various groups in the project became apparent during the Kick-Off meeting. **BB-S** advises members not to pay too much attention to the language itself, but rather to the explanation provided for each group/body within the project.

Slide 3 A General Assembly is needed to make any decisions regarding a change within the project.

PMP points out that most of the different companies and institutions involved in the project do not have an official representative participating in project meetings with decision-making powers on legal matters of budget, the consortium agreement and so on. Those present at the meetings are for the most part the project technical/scientific contacts (as she defines herself). Neither is it possible for there to be two representatives as this would not be economically viable for the partners in the project. Members should inform the relevant person of their company/institution after a meeting of any such decisions to be made and then report the partner's decision back to the project leader (**BB-S**).

Joaquin Farias (JF) agrees and says that the situation is precisely the same for ENRESA.

BB-S says a modification to the Consortium Agreement is, therefore, necessary. It must be stipulated that the decision-making process is in two phases. Phase 1 = deliberation among members who then report to their LEARs and then inform the consortium of their organisation's position. Phase 2 = the decision is made.

PMP suggests this can be done via email, as waiting until the next meeting would cause unnecessary delay and slow progress considerably.

Phil Vardon (PV) suggests a "decision pending" situation, which will then be confirmed by a vote.

PMP agrees and reminds partners that this does not in any way refer to normal decisions regarding work within the project, purely decisions on legal/budget matters.

Pedro Dieguez (PD) suggests a second option. He repeats the idea of a discussion between members in a General Assembly with a subsequent vote by email within a stipulated deadline, but recommends the "supervisory board" be made up of working members of the project, while the "General Assembly" should be made of representatives with legal decision-making powers.

BB-S confirms that this is the EC requirement.

PMP states that the "General Assembly" has always been considered as the technical/scientific contacts of the project who meet to discuss work and decisions. The "supervisory board" is a new addition.

BB-S realises there has been a basic misunderstanding. The terms “supervisory board” and “general assembly” do not refer to different groups of people, but to different moments/purposes within a meeting and, therefore, an amendment needs to be made to clarify this.

PMP suggests the following (still in reference to the wording in [slide 3](#)):

- “official representative” should be replaced by “scientific representative” of each partner
- the board makes those decisions which are within the authority of each scientific representative to do so, on any issues where this is not the case, the scientific rep. must refer back to the home company/institution
- “General Assembly meeting” = a full meeting of the supervisory board.

All members present agree to this and **BB-S** says these changes will be made.

[Slide 4](#) Project Management Team will be changed to Management Support Team as in the DoW.

BB-S stresses the importance of the roles as listed in this slide.

[Slide 6](#) **BB-S** explains the Steering Board is dedicated to ensuring the education programme and its quality. He insists on the need for this board to coordinate not just at the 6-monthly project meetings, but also between meetings.

Tommy Claesson is suggested as one of the two extra members – he agrees.

BB-S leaves the decision to WP4 regarding the two supplementary Steering Board members and asks them to do this rapidly.

[Slide 7](#) Due to the presence of CMET members within PETRUS III, it had been agreed not to have an end-user group within WP3, however, the EC has made this a requirement. It has, therefore, been reintroduced with a specific task list. The IAEA will be represented by Stefan Mayer who has accepted to become an observer-member. Unfortunately, however, he needs a minimum of three months’ notice of the exact meeting dates in order to be present. Due to this, he is not present at the Cardiff meeting.

BB-S would like to know who will lead the End-user council. Due to her exemplary work during the PETRUS II project and her CMET role, **BB-S** had suggested **PMP** during the kick-off meeting, but she has declined.

PMP states an End-user council was not foreseen when conceiving the project and had Posiva been aware of this, they would not have participated. She continues by saying this has been included in ARAO’s budget and recommends they take on this responsibility. She adds that the task list needs revision.

Bojan Hertl (BH) clarifies that he was not aware this had been included in ARAO’s budget (part of the planned budget for ARAO was transferred to REC - Nadja Železnik to support WP4 activities) and that he agrees it is a logical part of WP4. He believes the End-user council should provide the bridge/meeting point between CMET and the Steering Board.

PMP gives her consent to being an active member and expresses her desire for this council to have a broader vision.

BB-S requires the leader to be a member of CMET and, preferably, to have experience of the PETRUS II project.

Based on consent, **BB-S**’s suggestion is accepted that Nadja Železnik – REC will lead the End-user council.

(presentation: NIDIA EoI PETRUS III Project Cardiff 2014 03 11)

Claudia Vivalda, Nidia.

Two years ago, as a member of the IGD-TP and now also as a member in its CMET, **Claudia Vivalda (CV)** often heard PETRUS II project mentioned in discussions, which aroused her interest and current hopes to be of use to the PETRUS III project.

She particularly concentrates her activity on Risk Management due to her experience working with large companies in this area. Her background is a PhD in Nuclear Safety and her company began in Italy, where she is from, but there is now also a branch in France. She has been involved in training modules for the Écoles des Mines and Écoles Centrales in France. **CV** believes she can be of concrete use to WP1 as well as playing a role in WP4 due to her involvement in CMET.

No funding is being asked for, as **CV** understands that this form of membership is now closed. As CMET meetings are intended to coincide with PETRUS III meetings, this should not be an issue.

BB-S supports **CV's** contribution to the project. In his opinion **CV** has substantial previous experience and he particularly appreciates her involvement with large companies. He confirms the impossibility of any funding, membership would be under clause 9 (refer to annex2) of the agreement. However, he will ask the EC if it would be possible to cover some of her travel expenses.

If members agree to her inclusion in the project an amendment will be necessary.

PMP would heartily welcome **CV** to the project. **CV** has given her full support to CMET and been a valuable member. It is also an opportunity to strengthen ties with an SME (Small & Medium Enterprise), which is important within the context of Horizon 2020. She suggests that if there is no funding available, it may be better for **CV** to join as a third party member, however, if it is possible to shift funding from the project coordinator's budget, then it would be advisable for her to become a full-member.

BB-S repeats that full-member status is closed except under clause 9 of the agreement, while third-party membership is somewhat specific. He feels the preferable solution would be an agreement with the EC allowing **CV's** expenses to be declared under the coordinator's budget. He asks members if there are any objections to **CV's** participation in the project.

CV leaves the room while members discuss her possible contribution and future involvement in the project.

The meeting agrees to accept CVS as a partner in any form acceptable to the EC and that her role be detailed subsequent to the EC's decision and recommendations.

BB-S informs **CV** who returns to the meeting, he will continue the discussion with the EC and keep everyone informed.

PETRUS III Information Access and Contact List

(Internet website used for demonstration)

Radek Vasicek, CTU.

There is no real change for PETRUS II partners regarding the document sharing system tool – the II just changes to III.

Basically, there are two tools for common storage.

www.petrus3.eu - the user is redirected the ENEN page.

www.petrus3.eu/DOCM/ - be careful the address is case sensitive and the final forward-slash is necessary. The user is redirected to the document management system.

Users must trust the system, it is entirely safe. They will then find themselves on a page requiring their username and password (for former members - the same as for PETRUS II). If any problems are encountered, do not hesitate to contact **Radek Vasicek (RV)**. Please put the request in the title of the email, so that **RV** can quickly recognise there is a problem and prioritise.

Everyone is able to upload and download documents and files. Problems may occur and members should not hesitate to contact **RV**. He also warns members that when uploading material this can take time and warns members to be patient.

Despite there being various projects on this website, PETRUS III members only have access to PETRUS materials.

There is also **a separate tool** - the common emailing list: petrus3@petrus3.eu

RV will check this has been satisfactorily up-dated.

Consortium Agreement

(powerpoint presentations: Petrus3_Cardiff_CA.ppt)

Behrooz Bazargan-Sabet

The first draft of the Consortium Agreement (which was more or less the same as the PETRUS II Consortium Agreement) was sent out in July 2013 and was expected to come into force just after the Kick-Off meeting in October. However, by the end of November various comments and requirements had been received from consortium members. While **BB-S** had asked members to address their comments to everyone, this request was not respected and, unfortunately, the process became extremely time-consuming and caused considerable delay.

BB-S prepared a document in accordance with members' requests and discussed it with the Université de Lorraine legal department. Requests and responses to the legal team had to be made in French – another time-consuming aspect. The amendments were included in the document sent out in January, nine months after the first draft and time is now of the essence and there should be no further consultation. Sixteen members have signed this amended document, but five members still have valid requests (for example, one article is in contradiction with Swedish law). It must be remembered that it takes three months to receive the EC's replies to any amendments. Then it is wise to compile several subjects in one request for amendment.

The slides in the powerpoint presentation explain the different corrections required and the partner making the request.

Slide 4. The sentence in red needs to be added in order to respect Swedish law and ownership rights.

PMP informs **BB-S** that slide 5 is now obsolete and that she emailed the latest Posiva's lawyer's response the previous day. As **BB-S** was in transit the whole day, he did not have access to his emails. **PMP** continues by explaining all this has been amended by Posiva's lawyer and a text proposal has been included.

Slide 6 PMP points out that some changes are essentially for the sake of clarity and do not change the original content. She tells members that among the changes requested by Posiva there are three major points that need to be taken into account, the rest are simply clarifications.

BB-S confirms this, but members still need to know what these clarifications are in order that they may point them out to their legal teams.

JF remarks that some members, such as ENRESA, have already signed the agreement even though certain articles were not fully acceptable, but they have taken into account the size of the project and multi-nationality of its members. However, if others refuse to sign and insist on modifications then the former will start regretting their decision and insist on their own modifications too. These endless demands regarding minor details need to come to an end.

BB-S agrees emphatically and adds this is the position of fourteen other members too. He suggests the latter simply sign a document to say they agree to these amendments.

PMP repeats there are three points in the agreement that need modification and which are non-negotiable as far as Posiva's involvement in the project is concerned.

BB-S assures **PMP** that these points will be corrected. The final Consortium Agreement must respect each member's national law.

Slide 8 shows one of the three non-negotiable points to which **PMP** is referring. It is also a legal requirement for Linnaeus University. The amendment will be made.

Pedro Dieguez (PD) informs **BB-S** that ENEN has no problems with the actual content, but there are numerous typing errors and he will send the complete list of corrections to **BB-S** immediately.

PMP asks **BB-S** to send a quick version of all the changes to members immediately after the meeting.

Slide 10 PMP says this can now be ignored as there are no third parties, it should, however, be included if third parties are envisaged.

Slides 11 & 12 explain the EC rules regarding third parties. **BB-S** confirms there are no such third parties included in the PETRUS III project. Posiva has an affiliated agency – TVO – which is not a third party, but a clause needs to be added regarding confidentiality with regard to this agency and Posiva's other owner Fortum. He underlines that this is not critical where PETRUS III is concerned as everything the project produces is public material. Nothing is produced for exclusive, private use. The clause will be added, though, for the sake of clarity.

PMP explains that Posiva uses TVO's legal services and their affiliation means Posiva cannot limit the information TVO receive and there must be a clause in the agreement that makes this clear.

BB-S suggests either of two solutions: to include an amending sentence to which all members agree, or to add a general statement including all partners who may find themselves in a similar situation. He underlines and repeats that there can be no problem regarding confidentiality where this project is concerned for the reasons mentioned above.

PMP reads the new text proposal put forward by Posiva:

“The confidentiality obligations under this Consortium Agreement and the EC-GA shall not limit disclosure of Confidential Information to the owners of the Party and/or to licensing authorities in connection with licensing of their encapsulation plants and underground disposal facilities. To the extent possible, when such information is submitted to the authorities, the Party submitting the information shall request that this information is kept confidential.”

BB-S agrees that this would be a satisfactory amendment.

Slide 14 PMP disagrees with the Université de Lorraine's response regarding the official text.

BB-S says he cannot comment. This is the official response by the University's legal team.

BB-S tells members he will send everyone a copy of the amended agreement that will include all these corrections and the typing corrections referred to by **PD**. There will also be a deadline for remarks.

BH asks if everyone can work on one draft document and use the track changes function.

PMP says she understands the problem and it is one the members have already encountered, but if this method is followed, multiple suggested changes on one, same document means that the clarity of the original is lost.

RV suggests using a Google shared document.

PMP says Posiva will not allow the use of any US document sharing servers.

RV says he will check the technical possibilities of OWL for this purpose.

BB-S suggests members simply send those articles they revise.

PMP reminds everyone that she will need a complete, revised document to show to the company lawyer.

JF asks if it would be possible to use a system of classification/ranking regarding the importance of the amendment.

BB-S summarises by saying he will send out the modified agreement using a colour-coding system ranking the importance/type of correction as fast as possible and members will have a two-week deadline for their lawyers' approval. He asks members to please complete all four attachments to be included in the final document as required by Cardiff University.

WP5 Sustainability, external collaboration and link with ENEN

Pedro Dieguez, ENEN.

BB-S explains that the objective is to incorporate the PETRUS initiative into the ENEN association and thus benefit from their organisational approach. The project also expects ENEN to provide information on the possible services the organisation can offer. An element that has already been discussed (and an EC requirement) is amalgamating organisations so that there is one centralising body.

PD confirms he has understood there is a need for continuation and ENEN is expected to, and can, play an important role in this. Many members of PETRUS III are also members of ENEN and its other projects and ENEN provides the common meeting ground.

ENEN has many members in a vast variety of nuclear fields.

Funding from the EC will be limited in the future. The EC desires an umbrella from which activities should be coordinated. Fewer, but much larger, more ambitious, projects are envisaged. ENEN would provide the point of coordination and this would avoid multiple competing, overlapping projects.

A number of EC funded projects have asked for it to be possible to declare ENEN membership fees within their projects as eligible costs and this has been accepted.

PD explains that he is new to ENEN and his approach is one of being both active and open. He stresses there are sixty members, fifty of whom have voting rights, eleven of them belong to PETRUS III. An organisation is its members. Members should contact him with their ideas and plans and he will help to concretise them.

BB-S adds that the EC wishes to open the project beyond Europe (China and Russia), not merely in terms of collaboration, but to offer the initiative to other countries. As ENEN is well known outside of Europe this would be a means for the project to establish contacts with these countries.

PD says ENEN is currently in talks with Russia, China, USA, Japan and Korea.

BB-S continues by saying that by having ENEN as an umbrella structure would be a means towards the sustainability of the project as ENEN is a permanent structure.

PD points out that ENEN can also help in interpreting the requirements of the EC.

PMP adds that ENEN provides a constant information flow between projects.

PD confirms this.

BB-S stresses the importance of the collaboration within WP5 as it concerns not only the future of the project, but also its links with the bigger nuclear picture.

PD emphasises the openness of ENEN and their desire to work with PETRUS III. He encourages members to list their needs and requests, nothing within the organisation is fixed or static, the whole point is their common interest and the need to find common solutions.

WP1 Elaboration of PD programme using ECVET model

(powerpoint presentation: WP1-Abdelouas (1).ppt,

+ document: WP1 - Abdelouas (2))

Abdesselam Abdelouas, Ecole des Mines de Nantes.

Abdesselam Abdelous (AA) stresses the necessity for close collaboration with WP4 (*Think-tank activities and link with IGDTP*) and this meeting is the time and place to make decisions.

Slides 3-9

AA shows a template for a Learning Agreement and asks members if all the relevant information is listed. He explains that the assessment of practical skills is particularly complicated as different countries use different tools and there are many different scenarios.

BH points out that constructing a safety case is not one job, but rather a team effort. One person cannot possess all the skills required.

RLF confirms this and adds that even with regard to the use of the different tools, there is not one person who masters them all, but various specialists.

BB-S feels there is a misunderstanding, as a head of service needs to be familiar with the basis of the broad spectrum.

Nadja Zeleznik clarifies that it is not the actual procedure that is being referred to but the content.

PMP offers that there is a template in the EHRO-N report, which has been published since the last meeting, and it may be useful to compare the two. She adds that agreement on this cannot be reached on the spot, as members need time to read the template carefully and think about it. She would like it to be sent to all members.

AA and BB-S both agree.

Philip Vardon (PV) would like confirmation that the Learning Agreement is individual to each learner and would like to know how it is organised to make a formal qualification.

AA replies that the latter needs to be discussed and decided upon. As yet, this is totally flexible. The template will be uploaded onto the project website and he would welcome contributions.

Slides 10-15

The professional and trainee profiles are based on communication with ANDRA, specifically a Safety Engineer who is both Head of Service and a visiting lecturer.

AA explains that his approach has been reviewed by ANDRA and, if he has time, he would like to interview the whole service. However, he would welcome contributions from members.

PMP congratulates **AA** on his work and asks if it would now be possible to go into even more detail. She would like e.g. identified processes and main equations that need to be mastered, specified.

AA agrees emphatically, saying that this has not yet been done due to a lack of time.

Karsten Pedersen (KP) stresses that it is extremely important to complete the details, especially on the bio level. This needs to be established properly right from the start when filling in the details.

AA agrees entirely, having worked extensively in this area.

KP adds that microbiological processes must be clearly visible due to their massive impact. If they are merely a subheading on an extensive list there is a grave danger of them being overlooked, which would be a serious mistake.

PMP confirms this and the tendency to forget this highly important issue and their interaction with the repositories. She requires visibility within the modules, e.g. Bio- needs to be split from geochemistry as a separate item.

AA asks **KP** if he would add this to the teaching modules lists as required.

KP agrees.

BB-S agrees that microbiology, while being fundamental, is, nevertheless, often overlooked by engineers in this field.

AA feels this is no longer the case.

BB-S disagrees.

AA reminds members this is just the beginning of the work and it will be completed for the next meeting, without forgetting microbiology.

BB-S ends the discussion due to time restrictions, but reminds members to peruse the documents and send their comments and contributions directly to **AA**.

NZ appreciates that time is limited, but expresses a desire for more time to be allocated to this type of work (ideas collection) in meetings. She reminds members that they are making decisions about what is to be someone's lifelong learning programme; there are many priorities and it is the project's duty to get this right.

WP 2 Actual Implementation of the Professional Development Training Programme

(powerpoint presentations: Aalto_WP2.ppt)

Jussi Leveinen, Aalto.

Jussi Leveinen (JL) would like to organise Adobe-connect conferences with WP1. **AA** agrees.

JL also needs end-user input. He underlines the conservatism not only of academic institutions, but also students and end-users, who have a tendency to recognise only the training methods that were used when they were students themselves.

Slides 20 & 21

These tables are in Finnish, but the purpose of their inclusion is to point out to members **JL's** need for such tables as guidelines. He believes they exist in other universities and he needs them to use as examples.

JL would like to take the opportunity of this meeting to draw up a schedule for Adobe-connect conferences with WP1.

BB-S supports this idea.

AA asks if any progress has been made on assessment.

JL replies in the negative.

BB-S says a framework document was produced in PETRUS II.

JL says that assessment has to be considered on two levels, not necessarily how it should be done, but how it *can* be done.

AA reminds him this has to be applied to both courses and training.

BB-S advises him to take the programme and apply the existing framework and from this create a new document.

PMP reminds **BB-S** that the PETRUS II framework did not incorporate the latest ECVET developments.

Tom Clarijs asks that generalisations be avoided. It is important to be concrete so that skills can be checked easily. Verbs such as “understand” are not sufficiently specific, more detail is required. It is preferable to use vocabulary such as “describe”, “demonstrate” and so on.

WP3 Addressing the Challenge of Multi-disciplinary Skills at PhD Level

(powerpoint presentation: WP3 UPM Cardiff.ppt

+ document: PETRUS III-WP3_Questionnaire Existing Education v0.doc)

Francisco Javier Elorza Tenrerio, UPM.

The questionnaire is on the website and **Francisco Javier Elorza Tenrerio (FJET)** needs partners' responses.

Once the results of the questionnaire have been collated a complete list of course descriptions and corresponding details will be drawn up and placed on the ENEN web page (using the system previously described by **RV**).

FJET will be involved in the ENEN PhD event in Burgos, Spain and will learn from this experience with the organisation of the PETRUS III PhD event in view. More details regarding the PETRUS III PhD event will be discussed in tomorrow's meeting (12 March – cf. below).

Another questionnaire is needed concerning inter-university collaboration. An Industrial Doctorate is an entirely new concept.

BB-S stresses this is an extremely ambitious programme for PhD students, but entirely necessary if progress is to be made in this area. It is important to be the starting point of such a programme, even if this project does not manage to entirely accomplish the work necessary to launch such a programme.

WP4 Think-tank activities and the link with IGDTP

(presentation: Hertl ARAO WP4 PETRUS III Cardiff koncna.pdf)

Bojan Hertl, ARAO.

After **Bojan Hertl's (BH)** presentation **PMP** underlines that CMET is a joint activity within the IGD-TP and it is not directly part of the PETRUS III project. She fears there is a danger of producing identical deliverables in two different projects.

PMP adds the content of the workshop (cf. **slide entitled "List of deliverables"**) should be considered early 2015.

BB-S clarifies that CMET has wider objectives than PETRUS III. The content of the WP4 minutes must be selected from the CMET meeting and be only those parts relating directly to PETRUS III.

PMP expects PETRUS III to provide work on learning outcomes to help CMET to proceed.

BB-S agrees, stating that work within the PETRUS III project will be for use by CMET. Due to the project providing discussion points for CMET it would be more efficient, both in terms of work and costs, to schedule coinciding meeting dates. He promises to work with **PMP** on the meeting schedule.

NZ asks for the composition of the CMET working group.

PMP explains there are around thirty members in total, including PETRUS III members and others. About thirteen of these will be present at the following day's meeting (12 March), most of who will be PETRUS III members.

BB-S stresses the importance for PETRUS III members to be present at CMET meetings in order to discuss PETRUS III interests.

WP6 The Newsletter

(powerpoint: Newsletter.ppt

+ documents: newsletter_1, newsletter_bleu2)

Petra Norroy, Mines Nancy.

There will be an edition of the newsletter every six months (this is a deliverable). The first one is now scheduled for June 2014. During the presentation **Petra Norroy** shows two suggestions for its layout (another is forthcoming) on which members are invited to give their opinions (cf. documents).

Slide 3

PMP asks for a disclaimer with regard to the editorial (that the piece presents only the opinions of the author and not of the project consortium members).

BB-S agrees to this.

Slide 5

FJET suggests all WP leaders send an initial draft to **PN** (within the next 6 weeks – by the end of April – for the first edition) who in turn may make possible amendments and send it back for approval before publication.

All participants agree to this suggestion.

Slide 7

PMP refuses to contribute to the CMET-IGD-TP space in the first newsletter and disagrees with a permanent column for the CMET.

BB-S points out that this project directly concerns geological disposal and that there is now a platform for this matter (IGD-TP). The newsletter does not intend to report on their work, but to supply news from them. CMET is, obviously, the element of the IGD-TP closest to PETRUS III work and, therefore, the logical source of this news.

PMP replies if PETRUS III wishes to supply information from IGD-TP then consent should be sought for inclusion of the official logo from the Secretary General of the platform.

BB-S agrees to this.

BH says as WP4 leader he will mention the collaboration in his summary (cf. [slide 5](#) and comments above), but that he is not authorised to manage a “CMET-IGD-TP space”.

BB-S simply requires a go-between.

BH responds that if IGD-TP gives authorisation then **PMP** as leader of CMET may report.

PMP repeats her refusal to contribute to the first edition of the newsletter.

BB-S states that there needs to be someone in charge of each column. This person is responsible for gathering the necessary contributions for the column or finding people who would like to use the space.

BH says this is clear and gives his consent.

Majid Sedighi (MS) asks if each institution needs to supply a few lines about who they are and what they do.

BB-S tells members that first-time readers, who are not informed about PETRUS, need to be able to easily pick and choose what they read, so different parts should be clearly visible. If there is information included on the different partners, this information needs to be a permanent element.

PMP points out that PETRUS III is not particularly well-known and so such information would be ideal content for the first newsletter so that others know who is behind the project.

NZ reminds everyone that the newsletter is simply a dissemination tool in electronic format, there should be a link back to the PETRUS III website where the descriptions of partners already appear.

BB-S agrees and suggests a full list of partners appear at the end of the newsletter with their own website addresses.

MS feels this is an excellent solution.

BH asks if **BB-S** will apply for the necessary IGDTP approval.

BB-S confirms that he will contact the IGDTP and keep **BH** informed.

Master's courses, potential collaboration with Sweden
(presentation: Petrus III _2014-WG.ppt)

Waclaw Gudowski, KTH.

Slides 1-16 contain general information on the Master's courses in which **Waclaw Gudowski (WG)** is involved.

Slide 6 KIC = Knowledge and Information Community, Paris = ParisTech, Grenoble INP = Institut National de Grenoble.

Slide 17 onwards deal with the summer course with which PETRUS III will hopefully collaborate. The course is registered with KTH and is university approved, validated and accredited. It is part of the TNEEM Master's programme. There are two intensive weeks.

WG is looking for more sustainability, in other words regular funding. Currently, the organisation of this training relies too heavily on financial input from SKB. The course leaders would be happy to place the course under the PETRUS III umbrella in return for co-funding. This includes free access to the Äspö hard rock laboratory in Oskarshamn.

BB-S asks about the evaluation procedures and how credits are awarded.

WG replies assignments are set at the end of the course and students are given three weeks to accomplish them.

BB-S explains PETRUS III students require information courses.

WG confirms the objective is to give an initial overview and then continue into further detail regarding risk due to water contamination. The core curriculum is the overview that leads to changeable modules. The aim is to rationalise the problem of geological disposal and deliver a broad picture.

Tommy Claesson offers to supply last year's detailed schedule.

BB-S asks for a general vision.

Tommy Claesson says the day begins at 8.00 a.m. and ends at 6.00 p.m.

Paul Livolsi asks for the proportion of lectures and practicals.

WG explains there are ten full days of seven hours per day and three to four days are spent underground.

Tommy Claesson further details the content distribution explaining it begins with surface mapping including predictions on the situation five hundred metres underground. The students then go five hundred metres below ground to put their predictions to the test. It is a two-week programme followed by three weeks of assignments.

BB-S asks how PETRUS members feel they can collaborate. He is particularly interested in the practical aspect of the course, in the days on site. However, with regard to the courses he needs members' comments. Their input is of the utmost importance on this matter.

Both BB-S and FJET feel this could be a compliment, however, the current programme uses a different system and costs around 1000€-1200€/student. The project pays for travel, but not tuition. The courses are free of charge. There is a mutualisation of courses offered and students between the different partner institutions - the costs balance each other. Fees could be considered for external students.

WG says he is confident of finding the financial support necessary, but he needs the right, partners who correspond well to their programme. The key issue is the use of the Äspö laboratory.

BB-S says that PETRUS III needs a complimenting Master's programme. The dates currently used are the last two weeks in June.

WG responds that this is a totally impossible period in June when absolutely nothing functions, it is the major public holiday period.

Tommy Claesson suggests shortening the five-week period of the course.

BB-S says the problem is the choice of period rather than the length. He will present the proposals for this year's course in the next part of the meeting, which will give a concrete view of PETRUS III Master's course content and organisation. Then everyone will have a clearer view to discuss the feasibility of the possible collaboration.

Organisation of 2014 Master's courses – proposals for improvement

(presentations:

Petrus3_Cardiff_Master_Courses.ppt

WORK PACKAGE 3 Petrus II Cardiff_v0.ppt

+document: PETRUS course juin 2014 (2).xls)

Behrooz Bazargan-Sabet & Francisco Javier Elorza Tenrerio

Overview of the PETRUS II Master's programme.

Students on the PETRUS II courses came from various study backgrounds and followed a PETRUS common curriculum. The major problem encountered was scheduling. There were no special costs except for transport to and around the sites. Students pay normal tuition fees to their home institutions when they enrol.

2014 Proposal – June sessions cf. document *PETRUS course juin 2014 (2).xls*

FJET asks members if this course content is satisfactory or whether it can be improved

BB-S feels this should be maintained along with the practical element this September. Any major changes should be made for 2015, but considered now so that they are well thought-out and seamlessly introduced.

The immediate question is to know who has students who wish to attend the courses and who is teaching what (a collaborative programme).

JL explains that his unit in Aalto is experiencing organisational upheaval and this will jeopardise his participation to run Petrus courses this year. With regard to future PETRUS courses, he is currently in negotiation, as these courses have to be a part of the current curriculum at the university. As he speaks, he does not know how things stand. A second, additional problem is that a significant number of the lecturers involved are at the retirement stage and he does not know who will be recruited to replace them.

BB-S replies that when **JL** has a more concrete view of the situation the problem must be discussed.

BB-S asks for at least three hours on radiation protection. He asks if the project can benefit from **Paul Livolsi's** (ENETRAP) participation. He would like something general and also addresses his question to **Phil Vardon** (TU Delft) and **Majid Sedighi** (Cardiff University).

PL replies he will address this question in the next presentation.

PV says TU Delft would like to offer a module.

BB-S expresses his thanks and asks the interested parties to contact **FJET** directly.

PV asks how assessment is dealt with.

BB-S replies he, personally, asks for a fifteen-page report.

PV asks who assess that – the course lecturer or the home institution.

BB-S continues by saying there is a fairly flexible approach to assessment and there is a range of assessed activities.

MS asks if the courses required are in the same time period.

BB-S confirms it has to be within this schedule. But a choice of modules can be offered, or some existing modules can be replaced.

FJET repeats that members with course proposals should contact him directly and he will adapt the existing programme. Proposals are required by the end of April for June and September sessions, (there is more flexibility in September).

MS agrees to this and feels it will make for a more interesting collaboration.

Proposals for improvement (cf. presentation: *Petrus3_Cardiff_Master_Courses.ppt*)

Slides 1-4

BB-S tells members that for the moment there is no harmonised assessment procedure, each institution sending students on the programme follows its own system. The number of participating students is also rather erratic; the first year there were four, the second year there were twelve. This makes the organisation extremely difficult. However, it depends greatly on the popularity of this field of engineering in any given year.

Thanks to feedback from participating students, **BB-S** has drawn up a list of proposals for improvement.

Slide 5-7

Video capture would allow for more courses while maintaining some interactivity. It would also help solve the scheduling problem. However, it does require more effort on the part of the lecturer in terms of preparation (technical aspects, communication, interactivity...) Lecturers can obviously be helped with the communication aspects. A repeat session can also be imagined if there is difficulty scheduling all students on a same date.

These proposals need to be debated by the Steering Board.

Organisation of the PETRUS III PhD event

(presentation: *Petrus3_Cardiff_PhD_event.ppt*)

Behrooz Bazargan-Sabet & Francisco Javier Elorza Tenrerio

There are to be two events, one scheduled in 2015 and the other in 2016.

Project members have several important decisions to make and these need to be made now.

For example:

Which topics (e.g. the transport of radionuclides)?

Who will be involved?

How long should activities be?

How long should the presentations by PhD students last? Should they be considerable, six per day for example, or flash presentations of five minutes, or a mixture of both?

Would this event be an opportunity for a CMET/ PETRUS III workshop?

Destination? Nancy is willing to host the event, but all offers/ideas are welcome.

BB-S urges members to think about this and to send their suggestions as soon as possible. If members foresee any problems, **BB-S** would also like to hear from them.

BH would like to know what exactly is expected of the IAEA.

BB-S answers where end-users are concerned, this is more than a PhD event; it is a forum. Attendees will not simply be academic institutions.

PMP suggests IAEA could sponsor PhD students from outside of Europe.

PV points out the second event coincides with the Dutch national research programme and that it may be an idea to combine the two. He offers to write a few lines on this and send it to members.

BB-S expresses his enthusiasm, adding this would attract a wider audience, which would be most welcome. He also envisages MICANS' participation, as this would be an ideal opportunity to open students' eyes to this vital area.

RV tells members the DOPAS course takes place in September 2015 and it is important the two events do not overlap. He adds that Prague would also be open to hosting the event in 2016.

BB-S says the presentation will be sent to members to solicit their vital reactions. A very precise idea of all these details is required by summer 2014.

Presentation of the ENETRAP project and collaboration with PETRUS III (presentation: enetrp3_PetrusmeetingCardiff.ppt)

Paul Livolsi, CEA (Michèle Coeck, SCK-CEN).

Paul Livolsi (PL) is replacing **Michèle Coeck** for the presentation, who is, unfortunately, unavailable.

BB-S is extremely interested in the way ENETRAP handle the use of ECVET and suggests WP1 and WP2 work closely with ENETRAP.

PL replies the project needs to wait for the development of the ECVET software. According to **Georges Van Goethem** eight European projects are working on this. It is highly necessary to coordinate all this work so that everyone agrees to and is using the same system. However, ENETRAP has an idea of how to describe which can be shared with the PETRUS III project.

BB-S reminds **PL** that there is also the practical requirement of offering courses.

Conclusion

Behrooz Bazargan-Sabet.

With regard to the future possible collaboration with Linnaeus University **BB-S** suggests **Tommy Claesson** write up a first proposal of courses and use of the Äspö facility, including fees/costs in order to ascertain whether these can be met by the project or the institutions. It may be possible to select courses/modules, it may also be possible to make an ERASMUS proposal.

Next Meeting – date and location.

It is important to fix this now in order to ensure Stefan Meyer's much desired participation.

Tommy Claesson would like to invite the project to Sweden and to a visit of the Äspö facility. However, before proposing specific dates he needs to check the availability of the laboratory in September. He promises to make a proposal within two weeks of specific dates for the next meeting in September 2014.

*Minutes compiled by **Petra Norroy***

Mines Nancy, Université de Lorraine.

24th March 2014.