



CENTRE FOR DOCTORAL TRAINING (CDT) IN OIL & GAS

MANAGEMENT BOARD MEETING MINUTE (DRAFT)

3rd November 2015, 14:00 p.m. – 16:30 p.m.

Seminar Room, Enterprise Building, Heriot-Watt University

ATTENDEES:

Management Committee Members

John Underhill (HWU; Chair, CDT Director)	(JU)
Andy Aplin (Durham)	(AA)
Joe Cartwright (Oxford)	(JC)
Al Fraser (Imperial)	(AF)
Jonathan Redfern (Manchester)	(JR)
Nick Schofield (Aberdeen)	(NS)
Keith Gerdes (Chair, Industry Advisory Board)	(KG)

INVITEES:

Anna Clark (HWU; CDT Training Academy Officer)	(AC)
Lorna Morrow (HWU; CDT Manager)	(LM)

1. Welcome and Apologies

JU welcomed everyone to the meeting and outlined the HSE provision.

Apologies had been received from Bob Gatliff (BGS) and Vicki Norton (NERC) and neither organisation had been able to provide a deputy on this occasion.

2. Approval of Minute of the Management Committee meeting on 26th May, 2015 and review of actions

The minute had been circulated previously and amendments made in the light of members' comments and the minute was therefore unanimously approved.

Update on Actions

Action	Agent(s)
<p>LM to liaise with LF re follow up data release issue within NERC via Mark Thorley</p> <p>LM to liaise with RG discussions with Malcolm Fleming from CDA re data release to Management Committee members to ensure feedback from academia is provided to the review</p>	<p>LM - This item relates to the issue of the release of a wider range of data than the usual seismic and oil well information, first raised at the Management Committee meeting on 16/17th April 2014. Malcolm Fleming of CDA had been seconded to DECC to conduct a thorough review of data availability and MC members wanted to take the opportunity to influence data release policy to create more PhD projects opportunities using current data sets. MC members were not aware of any specific policy changes having been notified.</p> <p>JU/LM to liaise with LF, MF and via new Oil & Gas Authority (OGA) to find out status and report to next Management Committee Meeting.</p>
<p>JU to continue to liaise with BIS regarding CDT renewal</p>	<p>JU – JU confirmed he has liaised with BIS, NERC and the Scottish Government since the May meeting. He confirmed that Scottish Government officials had made visits to the CDT and these had led to the Scottish Minister, Fergus Ewing visiting and agreeing to attend & present at the Annual Conference on 2nd November 2015.</p>
<p>Members to suggest suitable environmental contacts/companies as sponsors, and from academia, for membership of committees. Senior managers at partner universities should also be encouraged to meet with BIS where possible</p>	<p>All – Kate Gormley (HWU) had provided some contacts and KG had initiated contact between the CDT management team and Shell's Environment and Impact Assessment Manager who is currently based in Iraq. JU reported that HWU had added a new Fort William-based visit to the Underwater Centre there in Week 2 of the Environmental Impact & Regulation course, the first residential course undertaken by the incoming student cohort.</p>
<p>Development Committee to consider and address the issue of developing greater links with the environmental community within the oil & gas sector</p>	<p>Development Committee – This group has not yet met. Draft terms of reference and remit were sent to the Chair on 22nd July for comment prior to circulation to the Committee members but a response is still outstanding.</p>
<p>JU to follow up on approach from CDT in Carbon Capture & Storage, based at University of Nottingham, to explore possible synergies for shared training provision/exchange and to build a wider base</p>	<p>JU – The groups have agreed in principle to allow access to each other's courses, and dialogue has started about a Memorandum of Understanding (MoU) governing interaction. However, it is clear that the delivery format of the EPSRC CDT courses (attending MSc modules on a weekly basis) is not a good match for the CDT in Oil & Gas model. At this stage, it appears that the closest match would be for students to attend the other group's annual conference, although for the EPSRC CDT, this is a one week residential course, usually held overseas.</p>

<p>JU/LM to draw up a 'strawman' document showing different renewal scenarios e.g. NERC do not renew, NERC renew with same/increased funding but with reduction in academic partners' match-funding</p>	<p>JU / LM – JU continued to press NERC for information regarding the renewal process throughout the summer and in the past week NERC has requested an 'evidence of need' submission to the December 2015 meeting of its Training Advisory Group which will consider the general question of whether CDT's should be recommissioned. It was agreed that the CDT Director, HWU-based admin team and the Management Committee take charge of this process rather than it being within the remit of the Development Committee.</p>
<p>Members to provide comment on SWOT document to LM by end of June 2015</p>	<p>All – No comments were received.</p>
<p>KG to liaise with LF re NERC's winter 2014 call re sustainable gas and with Anna Korre re Canadian contacts</p>	<p>KG – these issues are unrelated to the CDT and were referred to tangentially in other discussion linked to possible CDT training provision.</p>
<p>Members to forward suggestions for possible contacts at associate partner universities as representatives on the Management and Development Committees</p>	<p>All – Maggie Cusack at Glasgow and Lisa MacNeil at Southampton were approached to be members of these committees but unfortunately both were unable to join due to other work commitments at the time.</p>
<p>KG to provide LM with average speaker day rate for inclusion in Training Academy costing model to reflect Full Economic Costing of this provision</p>	<p>At the meeting on 03/11/15, AF and KG suggested £1,500 speaker day rate with £200 (UK) and 500 Euros (EU) travel and £150 hotel costs in order to be able to show RCUK funders and others the true cost of the contribution being made by industry and others to the CDT training programme. LM will factor in these costs for comparison with actual spend.</p>
<p>Members to provide comments to LM on the draft Travel Policy and Guidance to students and supervisors on the use of the individual RTSG allowance by end of June 2015</p>	<p>All – No comments had been received and documents have been circulated to students, supervisors, administrative contacts and CDT lead contacts at all universities.</p>
<p>Members to provide comment to LM on the Roles and Responsibilities of Students and Supervisors document by end of June 2015</p>	<p>All - No comments had been received and documents have been circulated to students, supervisors, administrative contacts and CDT lead contacts at all universities.</p>
<p>AC to circulate open access course portfolio and listing of optional courses to members</p>	<p>AC – A full list of offerings and suggestions for optional courses had been sent to the Chair of the Training Academy Committee which had met earlier on 03/11/15. Students had been sent the list of open access courses offered by Nautilus and around half have notified their preferences. The deadline for student responses is 13/11/15.</p>
<p>Management Committee members to utilise opportunities with associate partners to promote understanding of the CDT and to encourage the submission of a wider range of PhD project titles. LM to circulate CDT A4 flier for use at conferences and other events.</p>	<p>All / LM – LM circulated a double-sided A4 flier on the progress of the CDT in May 2015. Members present did not give any updates on contacts they have had since the previous MC meeting. KG reported that there had been an improvement in the quality of projects submitted by</p>

	academic associate partners with a greater representation of niche and environmental topics.
LM to circulate Committee members with monthly update on contracts distributed, signed and sponsor payments received	LM – Final copies of the academic partner agreement had been distributed by HWU's legal officer in July. However, Oxford noted that although they had signed the contract, they had yet to receive the final copy with HWU's signature and so had been unable to follow up on the purchase order to invoice for their share of the NERC studentship grant. LM will clarify the status of contracts with HWU legal section.
GH to make a discreet approach to NOC Steering Committee to pass on the CDT Management Committee's concern about NOC ring-fencing its match-funding to Southampton/NOC projects.	GH – LM had provided GH with some additional background on the NOC/Southampton link but GH had felt he was insufficiently briefed to have this discussion.
GH to send LM written confirmation of the tabled proposal and Oxford's commitment to move to the agreed CDT funding model of 1 NERC studentship and 2 institutionally match-funded studentships by cohort 3, to include a re-wording of the source of Myanmar-linked scholarship. Upon receipt of this letter, LM will circulate it to members of the Management Committee for ratification.	GH / LM – GH had supplied the requested information which LM will circulate with the draft of the minute of the current meeting.
GH to investigate opportunities for Oxford to offer a course to the CDT Training Academy programme	GH – JC had agreed to give his course on 3D seismic interpretation as an optional 2 nd /3 rd year offering. AC/AA/JC to liaise on best timing and venue for delivery.
GH to investigate the possibility for Oxford to host the Spring 2016 CDT Management Board meeting and will liaise with LM regarding date, venue and logistics	GH / LM – JC reiterated Oxford's commitment to holding the Spring 2016 MC meeting.
JU to write to Shell inviting early renewal of further 3 year sponsorship (as per Statoil).	JU / KG – Discussions are progressing regarding Shell's renewal but in the meantime, Shell, along with Statoil, provided additional funding to support the French Alps field trip in September 2015.
KG to send details of appropriate contact in Shell's environmental division for the CDT secretariat to pursue. AC to contact IAB representatives to request contact details for appropriate individuals in industry sponsors' environmental departments	KG – KG initiated contact between Shell's Environment and Impact Assessment Manager, currently based in Iraq, and the CDT management team AC – Outstanding
AF to approach Anna Korre re her joining the Development Committee	AF – Anna Korre agreed to join the Development Committee and AF replaced her as a member of the Awards Committee
JU/RB/LM to develop a draft remit and responsibilities document for the Development Committee and circulate to	JU / RB / LM – Discussions took place and a draft remit was sent to the Chair for comment but as discussions had lapsed

Management Committee membership for approval	thereafter, the document had not been circulated to MC members.
RB / AA to approach Jon Gluyas re membership of the Development Committee	RB / AA – Jon Gluyas agreed in principle to join the Development Committee
LM to circulate members with Doodle poll for meeting dates in late May 2016	LM – Outstanding, but scheduling would now be easier as more of the Training Academy course dates for the 2015/16 have been scheduled.

3. Legal Framework

(a) Update on partner contracts and grant disbursement: LM reported that final copies of academic partner contracts had been circulated by Heriot-Watt’s Research Enterprise Services department in June 2015 for signing. JC noted that Oxford had signed and returned this agreement, but is still waiting for a signed copy to be returned by Heriot-Watt and has therefore been unable to invoice for its share of the NERC studentship grant. LM will investigate this further with Heriot-Watt’s legal officer to determine the number of academic partner contracts still outstanding. Aberdeen, Cardiff, Dundee, Glasgow, Imperial, Manchester, Newcastle, Royal Holloway and Southampton have all commenced invoicing for the 2014 student cohort. Birmingham, Exeter, Nottingham and Strathclyde did not recruit NERC-eligible students in this cohort and their grant allocation was deferred to later cohorts. A decision is still awaited from BGS regarding the distribution of their two BUFI scholarships for the 2015 cohort before the final allocation of the NERC studentship grant for the 2015 entry cohort can be determined.

4. Industry sponsorship

(a) Update on partner sponsorship: JU was delighted to report that Cairn Energy and Woodside Energy have both joined the CDT since the summer on a retrospective, one year rolling review basis. Unfortunately however, BG Group had notified at the end of last week that they would be unable to renew their subscription due to changes in status resulting from ongoing merger talks with Shell.

Statoil decided to bring forward its 3 year rolling review as a result of the success of the CDT to date and has agreed to commit for a full six years. KG reported on recent staff changes at Shell which have left responsibility for renewal negotiations unclear at present. KG also advised members that although E.On is currently on the market, the company’s representative attending the Industry Advisory Board earlier in the day had confirmed that the company’s commitment to the CDT is clearly included in any acquisition agreement.

JU reported that things continue to go well with other partnership opportunities. As well as the discussions with the EPSRC CDT in CCS, he had provided input to the NERC CDT in Robotics and Autonomous Systems (NEXUSS) bid, led by Southampton/NOC, which had recently been approved by NERC, and with whom our CDT will seek to find synergies as they develop their training programme. In addition, the Irish i-CRAG partnership is widening and deepening with the County Clare fieldtrip now a reality.

5. Reports from NERC CDT Committees

JU informed members of the request from the Industry Advisory Board that Chairs of CDT Committees supply a single page report as pre-reading for that group before its meetings and MC members agreed this would be useful for this committee too. It was agreed that each of the Committee Chairs will in the first instance, provide the MC with a 2-page report summarising their activities, main achievements and outstanding actions for the first year of operation (2014/15) by December. LM will write to Committee Chairs accordingly.

(a) Training Academy Committee (TAC): AA reported on the Committee's meeting that had taken place that morning at which the major topic was consideration of the various offerings of courses that had been received or collected since the committee last met in Manchester in April. KG reported on recommendations from the IAB's meeting that morning for the training programme to prioritise acquisition and processing of geophysics, non-seismic geophysics, reservoir modelling/description and numerical modelling. Micro-seismic, remote sensing, LIDAR, time lapse and AVOs had been recommended as optional courses. JU suggested that a sub-surface course should be sourced from Nautilus to satisfy their commitment to provide one course exclusively to the CDT cohort.

AA noted that an introduction to geology and a numeracy course should be included in the Induction programme for the 2016 entry cohort. He also confirmed that an acknowledgement of thanks had been sent to Total for their training course portfolio and the access they have agreed to give to these courses as options for CDT students. The Alps trip had been successful but members agreed that a field trip to the Wessex Basin to cover the Challenging Environments mandatory course would be more manageable and would keep costs within the standard agreed budget for field trips. Al Fraser agreed to lead this week-long course, building in some Environmental Impact Assessment teaching material as well. The French Alps trip could be offered as an optional 2nd or 3rd year course depending on demand and this would also make it easier to timetable. With the Alpine trip moving to optional status in a later year, JU pointed out that there was a need for a precursor to the Wessex Basin trip so as to fulfil the 10-week first year training allocation. It was agreed to investigate whether the ongoing Biostratigraphy and Petroleum Systems course would be an appropriate transfer to the mandatory 1st year programme, subject to positive student feedback. If it proved to be the best substitute, AC would investigate whether the course could be delivered in Southern England to dovetail with the Wessex Basin trip.

AA then reported on a TAC proposal to shift one week of the 20 week programme to year 4 as a careers week covering CV, presentation and networking skills. MC members agreed that moving from 10 to 9 weeks of training in Year 1 is sensible and would be appreciated by students who have found the current front-loading quite onerous given the competing demands of settling in to a new environment and working pattern. This is to be considered in conjunction with the proposal regarding the extension to the Wessex Basin trip above. Suggestions of approaches to be made to Dundee regarding Decommissioning, Andy Leonard and Nigel Banks for an overview of the petroleum industry, Nick Schofield for an Introduction to Geology and the need for a course on the Future for Renewables were also tabled. It was proposed that AA contact Justin Dix at Southampton regarding joint training opportunities with the new EPSRC/NERC CDT in NEXt generation Unmanned System Science (NEXUSS).

AA reported that TAC is aiming to meet in early December 2015 to finalise the training programme for years 2 and 3 and would consider the re-distribution of training weeks to accommodate a week in Year 4.

(b) Graduate Committee: NS stated that his committee is delighted that their feedback has been enacted upon to improve the excellent first year modules yet further. NS reported that student feedback continues to be collated after each residential course, with separate surveys for the various elements of some courses e.g. Manchester comprised a classroom element, Derbyshire field visit and BGS site visit so three surveys were undertaken. The MC complimented AC on her work in chasing, complimenting and reporting of the feedback, both in the form of spreadsheets giving granular detail and the summary document. KG stated that the IAB has been extremely pleased to receive this information. This feedback is reviewed by all CDT committees and proposed alterations to future courses reported back to the student cohort. MC members agreed that there should continue to be a single Graduate Committee with representatives from each entry cohort rather than separate committees for each one. NS will contact the current student representatives to advise that only 3 of the 5 current members will continue (the other two can remain as deputies in case of non-attendance by members). The new cohort will be asked to vote for 3 representatives from their group, with the possibility of deputies as above.

(c) Awards Committee: RB was praised for the very useful summary sent to academic partners at the conclusion of the 2015 project approval process in November 2014 which had resulted in better prepared, more focussed projects being submitted for entry in October 2016, especially from associate partners. AF and KG reported on the recent successful completion of the 2016 project approval process and LM confirmed that the final approved list will be distributed at the Geology Society's Careers Fairs at BGS Keyworth on 18th November and Edinburgh's Dynamic Earth on 25th November as the CDT has taken a stand at both events. The list of currently approved projects had been distributed at the CDT conference on 2nd November, but it is expected that a few more projects will have met the Committee's criteria for inclusion by 18th November.

(d) Development Committee (DC): The committee has not yet met and members asked that LM circulate the remit and terms of reference document that had been discussed with the Development Committee Chair for their comment. It was agreed that the remit of the DC is to consider and propose international opportunities to the CDT Management Committee, how best to encourage more Environmental Regulation & Impact engagement and the worth and nature of Industry Associate status. It was agreed that options for renewal in the light of NERC recommissioning should remain the responsibility of the CDT Director, CDT admin team and MC.

6. Forward Planning

(a) Report on process for extending NERC funding of CDT and discussion on extension/renewal of the CDT model: JU reminded members that DTP/CDT's were originally envisaged by UK Research Councils as one-off investments to address a skills gap or research & training need that had been identified by NERC and their Training Advisory Group (TAG). However, JU stated that NERC have reconsidered and are now willing to look at recommissioning some of their existing CDTs and DTPs subject to TAG approval and the formulation of a review process. He stated that TAG had already identified five other CDT themes and it would be important to demonstrate that the CDT in Oil & Gas is still needed and more essential to continue than starting a new CDT in an area that NERC sees as having a more vital strategic need. JU said that all this would be discussed at the next TAG meeting in December, but it was already evident that the key criteria will be on the basis of such things as successful and timely PhD

submission, employment rates, publication, citation and impact. Since our CDT is funded for three entry cohorts, the last of which is in 2016), and none of the first years will have graduates before 2018, JU has been pressing NERC for an extension of the current scheme in the first instance in order to capture data on completion and employability to inform a meaningful recommissioning review of the model.

With all this in mind, JU/LM had been proactive and asked partners for an indication of the basis on which they would consider remaining with the CDT in the event of extension/renewal and all associates, apart from Glasgow, have confirmed their current ongoing status. As regards core partners, Aberdeen, Heriot-Watt and Imperial are prepared to continue on the 2:1 basis; Manchester and Oxford have indicated a 1:1 basis. Durham is keen to remain a core partner but requires a firm proposal to place before the relevant management group internally before making a decision. There was a general feeling amongst members that the group should be moving to greater parity between central and institutional funding e.g. on a 1:1 or 2:2 basis, and if they have a need for funding parity, that this might only be possible for Durham, Manchester and Oxford as associate partners. The NERC Research Centres had also been contacted and the BGS has yet to give an indication as to whether they are willing to continue to put in 2 British University Funding Initiative (BUFI) scholarships in the event that NERC approves an extension to the existing scheme. JU stated that there is a need to know where partners stand regarding their participation in a status quo model, or an alternative, before TAG meets in December and an extension on the current basis is offered. He asked MC representatives to follow up with their host HEIs; LM and JU will follow up with Glasgow, NOC and BGS.

JU noted that key staff at some partner universities have indicated that they will move to non-CDT universities and that they are interested in continuing their association with the CDT through PhD supervision and also in investigating the possibilities of their new HEI joining the CDT partnership. Aberdeen and Imperial commented that the connection with NERC through PhD projects was a key driver for their continued involvement.

As the extension/ renewal negotiations are crucial to the CDT's existence, members agreed that decisions regarding this issue should remain the responsibility of the Management Committee. JC proposed that JU continue as the CDT Academic Director in the event of extension/renewal and that he continue as principal negotiator with NERC and other funders. AF seconded this proposal and all members agreed.

7. Date of next meeting

JU proposed an Away Day in late Q1 or early Q2 2016 for the Management Committee to come up with specific proposals regarding extension/renewal depending on the result of the NERC Training Advisory Group meeting in December and any subsequent discussions with NERC. JC confirmed Oxford's previous offer to host a committee meeting in 2016 and LM will circulate members with a Doodle poll for possible dates and venue.

ACTIONS AND AGENTS

Action	Agent
Liaise with LF, MF and via new Oil & Gas Authority (OGA) to find out status of data release policy and report to next Management Committee Meeting	JU / LM
Investigate the status of academic partner contracts with HWU's Research Enterprise Services to allow all partners to invoice for their studentship grant allocation	LM
Liaise with JC regarding the timing and venue for delivery of optional 2 nd /3 rd year course on 3D seismic interpretation	AA / AC / JC
Chairs of CDT Committees to provide 2 page reports on the activities, achievements and outstanding actions from the 2014/15 first year of operation by December 2015. Committee Chairs to provide single page reports on their committee's activities as pre-reading for future Management Committee and Industry Advisory Board meetings	Chairs of CDT Committees following contact from LM
Subject to positive student feedback from the currently-running Biostratigraphy and Petroleum Basins course, TAC to investigate the possibility of dovetailing this course to be run in Southern England with the Wessex Basin fieldtrip. TAC also to take into account the direction to move 1 week of the mandatory training programme to Year 4 to cover careers preparation skills.	AA / AC
TAC to approach Dundee regarding Decommissioning, Andy Leonard and Nigel Banks for an overview of the petroleum industry and Nick Schofield for an Introduction to Geology	AA / AC
TAC to look at sourcing a course on the Future for Renewables	AA / AC
Chair of TAC to contact Justin Dix (Southampton) regarding joint training opportunities with the new EPSRC/NERC CDT in NEXt generation Unmanned System Science (NEXUSS).	AA
Composition of Graduate Committee to be amended to include representatives from the 2015 entry cohort. NS to contact 2014 student representatives to reduce to three with the other two remaining as deputies, unless they wish to step down. The 2015 entry cohort will be asked to provide representatives and a vote for a minimum of three representatives will be arranged by LM if required.	NS / LM
Circulate draft remit and terms of reference of Development Committee to Management Committee	LM
Core partner representatives to seek guidance from their respective University management regarding the basis on which they would continue with the CDT model in the event of extension.	All
Liaise with Glasgow, BGS and NOC regarding the basis on which they would continue with the CDT model in the event of extension	LM / JU
Conduct Doodle poll for MC Away Day, late Q1/early Q2 2016 to draw up detailed CDT extension/renewal options and models	LM