



NERC Centre for Doctoral Training (CDT) in Oil & Gas

Industry Advisory Board Meeting

31st October 2014, 10:15 a.m. – 13:15 p.m.

Conference Lounge, Leonard Horner Hall, Heriot-Watt University

MINUTE OF THE MEETING

ATTENDEES:

Industry Advisory Board Members

Keith Gerdes (Shell; Chair)	(KG)
John Underhill (HWU; CDT Lead)	(JRU)
Jonathan Turner (BG Group)	(JT)
Mark Burchell (BP)	(MB)
Nigel Evans (ConocoPhillips)	(NE)
Raheleh Ehrlich (OMV)	(RE)
Knut Staale Eriksen (Statoil)	(KSE)
Van Thang Nguyen (Total)	(VTN)

INVITEES:

Liz Fellman (NERC)	(LF)
Lorna Morrow (HWU; CDT Manager)	(LM)

Welcome and apologies

JRU welcomed everyone to the meeting. Outlined the HSE provision and proceeded to thank companies for their support and attendance before handing the Chair to KG.

KG welcomed all members to the first full meeting of the NERC CDT in Oil & Gas Industry Advisory Board. He thanked LF for having the initial concept for the CDT in Oil & Gas, NERC for their support of the initiative and praised JRU for his vision, drive and enthusiasm in making the CDT a reality and congratulated him and HWU on the undoubted success of the Launch. Apologies had been received from Nick Hocking (Maersk).



Contract status

LM advised that signed contracts had been received from BG Group, BP, ConocoPhillips, OMV and Statoil. Maersk Oil and Total had received final versions of the contract, signed by Heriot Watt University and had returned email confirmation of acceptance but final signed copies are still awaited. A final version of the contract, signed by HWU, had been sent to E.On on 6th October 2014, but no further correspondence has been received. LM advised that as a result of this lack of contact, E.On was not in attendance. *(Note subsequent to meeting: LM has followed up this contract and the final signed version was received by HWU on 24th November 2014)*

Overview of the NERC CDT in Oil & Gas

JRU gave a comprehensive presentation of the history, establishment and model of the CDT (slides attached). He underlined the fact that HEIs and NERC affiliates have pledged £5.3M of new money to the scheme for 31 PhDs, which together with the £2.7M (10 PhD) NERC investment meant that 93 Four-year studentships formed part of the scheme.

He outlined the Training Academy concept that the industry sponsor money was pledged towards. He described how that allowed the 20 week Training Academy programme to be delivered, spread out during the first three years' study.

The Training Academy model is based on the research topics within the four main CDT themes to ensure the CDT focus remains relevant and topical. He welcomed offers from industry to deliver some of the bespoke modules and acknowledged the offers that had so far been made by Shell, Nautilus, Neflex and ffa.

JRU indicated that industry sponsors are free to engage in greater depth with individual PhD students and to part-fund the projects themselves where the student's PhD topic is of particular relevance to their operations, but emphasised that this was in addition to rather than instead of the Training Academy commitment.

JRU commented on possible internationalisation opportunities, mentioning the recently established CDT led by University College Dublin, and links to Brazil through that country's new research funding scheme, Science Without Borders and the Newton Fund.

Financing

LM outlined the process for HWU invoicing of industry sponsors in respect of the annual NERC CDTG subscription amounts; members present are requested to provide LM with the contact details and purchase order number for their company, HWU will then issue an invoice and company payment is then made against that invoice number.



Whilst the 2014/15 payments need to be made as soon as possible, it was proposed that the 2015/16 subscription would be invoiced in August 2015 with the intention of payment being received by 1st October 2015.

LM confirmed that the NERC grant covering the research studentships is managed by the University's central Research Grants Office. The industry subscription fees that fund the Training Academy will be held in a separately coded account and administered by the Finance Manager of the School of Energy, Geoscience, Infrastructure and Society. This will ensure the clear separation of the two strands of CDT financing and provide a distinct reporting facility for the Training Academy activities which are solely financed by industry subscription.

Criteria for NERC CDT success

MB stated that BP's recruitment showed there is a lack of young geologists who can demonstrate actual field work and rock analysis experience. KG and others supported the suggestion.

JRU welcomed BP's commitment to field work, stated that this was in keeping with the aspirations of the CDT and commented that the Training Academy aspiration is to take students into a variety of field situations, both in the UK and Europe given the finances and stringent safety provision required to do so.

LF advised that NERC's mandatory reporting requirements highlight:-

- Collaboration with industry and government
- Leveraged funding
- Industry/project partner collaboration
- PhD student success stories

LF also commented that the UK Government, through BIS and UK Trade & Investment, has a list of preferred countries with whom engagement should be prioritised, but the NERC itself will not specify how the CDT develops any international partnerships

RE asked that companies be circulated with a list of 2014 students and projects and Training Academy themes/programme so that each company can contribute expertise in their particular areas to the CDT. LM agreed to do this.

Each member agreed to provide a short statement of intent regarding the level of involvement they expect to have with the CDT before the CDT Management Board meets on 7th November 2014.



JT noted that a criteria of success for BG Group would be the number of CDT students entering industry employment upon completion of their studies. BG is also interested in international development, particularly with Brazil, and the involvement of overseas students and exchanges would be important.

In addition to the increased recruitment of PhD rather than MSc students, KSE highlighted a desire to have the training programme accredited. The CDT model is very promising and can be a model for training of high quality G&G competence in other regions e.g. Norway, as well as provide an opportunity to develop partnerships. JT stated that it could be a good model to deploy in Brazil too.

VTN stated that eventual recruitment figures to industry from the CDT is important, but that Total would also like to see future leaders in academia coming from this venture. He highlighted a desire to see innovation created through research that goes into areas that industry has not yet thought of. International recognition of the CDT is also vital.

NE advised that ConocoPhillips was looking for innovation that addresses future challenges, accreditation of the training programme, successful recruitment to the industry from the CDT cohort and the ability of the IAB to influence the CDT model and demonstrate collaboration between industry and academia

RE agreed that recruitment is a benchmark of success for OMV and that the amount of practical training and the broad scope of their experience of industry is important. RE mentioned a possible link with Austrian BA/MSc programmes already sponsored by OMV. JRU explained the desire to keep the CDT student numbers within a manageable level to maintain the quality of the student experience.

KG reiterated the general view that recruitment and the provision of students with greater practical and field work knowledge and skills are also the important factors for Shell. He stated that Industry approval of the PhD project titles is a further indicator of success and that he was delighted with the manner in which the CDT's PhD topic review had been handled.

Members also discussed the industry-wide issue regarding staff demographics which indicate that many companies will experience a significant loss of experienced staff through retirement in the next 5 to 10 years. Companies are looking for ways to fill this likely five year recruitment gap.

IAB members noted that the next opportunity for engagement with the students could be the annual conference in October 2015 and that they would welcome further engagement between times.

The IAB unanimously agreed that the CDT was far more than the research and stressed that supervisors need to be aware of the importance of the Training Academy activities and desire of industry to engage with the students.



JRU provided an overview of the academic perspective where success is measured by successful completion of a thesis, usually in a 3 ½ year timeframe, the number of published papers and the number of citations. He also noted the student gender balance as being an important determinant of success as it is the desire to make the CDT as attractive an option to women as possible. He advised that 13 of the 29 students in the first cohort are women, and this was warmly welcomed by IAB members.

Interaction of IAB with NERC CDT Training & Development Committee/Awards Committee

KG asked members if they wanted to specify a process by which the IAB could input to the composition of training events. His view is that companies are as interested in future recruitment from the CDT as in the research undertaken.

MB confirmed that BP would be amenable to requests to contribute staff time to the Training Academy, but that it is difficult to commit too much in advance, and that there needed to be a significant lead time of at least 3 months so as much notice as possible of future Training Academy events is requested.

KSE advised that Statoil have their own training facilities and are interested in sharing field trips and data sets in cases where the companies jointly agree on areas of common interest. However, he also thought that taking advantage of ad hoc offers of courses within the four key topics in the CDT programme adds variety and can raise the quality of the overall training programme.

JT noted that new recruits to the industry often did not demonstrate the softer project framing and management skills required by the increasingly complex ventures and operations being undertaken. JRU replied that these skills are expected to be provided by the students' HEIs, LF added that NERC runs courses in these topics, and if a specialised course is not being offered, it can be specifically requested. Given that at present only students in receipt of a minimum 50% funding from NERC are eligible for these courses, JRU asked LF to consider allowing all CDT students access to these courses irrespective of the source of their funding.

RE proposed that students be invited to company offices to gain direct work experience. VTN suggested 3 – 6 month internships and JRU confirmed that although internships were not an official element of the CDT programme, this could be accommodated by the student taking a Temporary Suspension of Study. MB noted that BP, in addition to its graduate recruitment programme, already has an active internship programme, taking students in their penultimate year of study, and which functions as an extended interview. KG advised that Shell has a similar internship programme, but that the latest opportunity for a student to engage in this is between thesis submission and viva. Members noted that students would require coaching on how to present themselves successfully for internships. KG



agreed to take the proposal to make internships an integral part of the CDT training to the next meeting of the NERC CDT Management Committee on 7th November 2014.

Members were asked to nominate an IAB representative for the CDT Training & Development Committee.

Members requested that the academic community be made aware of their desire to see more field-based projects in the 2016 list of PhD projects. The CDT Management Committee should consider the means by which industry feedback can be introduced at an earlier stage to the Awards Committee's deliberations.

Any Other Competent Business

JRU outlined the successful bid to the NERC Added Value and Innovation call, which has led to the 6 month fixed-term appointment of Anna Clark, who was appointed as Training Academy Officer as of 01/11/2014. JRU stated that he regards this role as one which safeguards industry sponsors' investment and IAB members agreed unanimously that the extension of this appointment using the Training Academy funds is entirely appropriate, within JRU's operational discretion and should be a component part of and priority for the industry investment to be protected.

JRU asked IAB members for their support to him in approaching NERC to provide greater financial support to the CDT. IAB Members agreed and stated that is a real need for NERC to demonstrate that they remain committed to supporting this important area of research and training activity. The IAB also underlined that it was important that the research is funded by RCUK and academia in the way it was now rather than being industry funded. IAB also felt that there is also a risk that if industry promulgates how successful the CDT is, RCUK may suggest that industry increases its contribution. LF suggested that other funding sources such as EPSRC could be approached.

IAB is keen to support the CDT in its attempts to leverage more support from NERC and noted that the Research Council's contribution is now c.25% of the scheme.

It was agreed that JRU would circulate a pro-forma letter to IAB members to sign and pass on to the Department of Business, Innovation & Skills and NERC.

Date of Next meeting

This was agreed for May 2015 to coincide with a Training Academy event to be held at HWU so as to maximise the opportunity to engage with the students too. IAB members also stated that they would like to meet members of the Awards and Training & Development Committees when the next TA event is held at HWU in May.

JRU passed a vote of thanks to the Chair, KG and to all participants in the meeting.



Actions and agents

ACTION	AGENT
Circulate JRU Powerpoint presentation with minute	LM
Circulate list of 2014 entry cohort and projects and full Training Academy curriculum to enable companies to decide which topics they can provide support to	LM
IAB members provide LM with contact details and purchase order reference for payment of annual subscription fee	IAB members
Provide statement of intent regarding level of expected involvement of company in CDT programme to JRU/LM by 7 th November	IAB members
JRU to circulate pro-forma letter to IAB members to be forwarded to BIS and NERC pressing for additional financial support to the CDT.	JRU
Nominate IAB representative to join CDT Training & Development Committee	IAB members
NERC to confirm if all CDT students can participate in NERC-run professional development courses irrespective of funding source (default position is minimum 50% NERC funding to be eligible for NERC training)	LF
KG/JRU to feed back to CDT Management Committee that industry sponsors would like individual PhD students to have the opportunity to visit company offices/sites	KG / JRU
KG/JRU to feed back to CDT Management and Awards Committees that more field-based PhD projects be submitted, and projects addressing niche skills. Also that there needs to be a process by which industry feedback is incorporated into the review process at an earlier stage for 2016 projects	KG / JRU
KG/JRU to feed back to Management Committee that industry would like to see internship opportunities in Year 2, Quarter 4 included in the CDT training programme	KG / JRU
JRU to arrange for IAB members to meet Awards and Training & Development Committee members @May 2015 when next TA event is held at HWU.	JRU