FOI Office	
From: Sent: To: Cc: Subject:	Paul Younger 19 November 2014 14:59 Jacqueline Brennan; Karen Phillips  @five-quarter.com)  RE: Five-Quarter Energy Ltd
Follow Up Flag: Flag Status:	Follow up Flagged
	ipal on Monday and my understanding of that is that the matter is now resolved and five- payment. However, I am copying this to so he can confirm.
Paul Y	
From: Jacqueline Brennan Sent: 19 November 2014: To: Karen Phillips; Paul You Subject: Five-Quarter Ene	14:06 unger
Hi Karen/Professor Younge	er -
Please see email below re	reason for non-payment of
Are you able to confirm if i	t has been agreed that the university will fund this studentship for the foreseeable future
Thanks	
Jacqui Brennan Research Support Office Finance Office University of Glasgow Jacqui.Brennan@glasgow.ac. Tel: 0141 330 3624	<u>uk</u>
From: Karen Mclean On B Sent: 12 November 2014 : To: Subject: FW: Customer Ac	

1

Afternoon

Please refer to email below relating to invoice above. Can you advise? Karen Karen Mclean **Finance Office** Credit Control Department University of Glasgow Glasgow G12 8QQ Tel: 0141 330 2230 Fax: 0141 330 6503 karen.mclean@glasgow.ac.uk [mailto: @five-quarter.com] From: **Sent:** 12 November 2014 14:22 To: Finance Sales Ledger Subject: Re: Customer Account Dear Karen and your Vice-Chancellor concerning this I believe there has been discussion between studentship. I believe the result of these discussions is that our sponsorship of this research has been suspended for the is due to meet with the Vice-Chancellor next week, though I do not believe they will time being. I know that be discussing this matter further at this time. It is my understanding that the Vice-Chancellor has agreed that the university will fund this studentship for the foreseeable future. Can I suggest that you contact the Vice-Chancellor's office in the first instance for clarification? Kind regards

Five-Quarter Energy Limited

Rotterdam House

116 Quayside

Newcastle upon Tyne NE1 3DY

United Kingdom

T +44 (0) 191 206



F +44 (0) 191 206



E info@five-quarter.com

From: Finance Sales Ledger < finance-salesled@glasgow.ac.uk >

Date: Tuesday, 11 November 2014 16:44

To: @five-quarter.com>

Subject: RE: Customer Account

Afternoon

Can I enlist your help with the invoice above. Can you review the attached invoice and advise what date we can expect payment?

Karen

Karen Mclean Finance Office Credit Control Department University of Glasgow Glasgow G12 8QQ

Tel: 0141 330 2230 Fax: 0141 330 6503

karen.mclean@glasgow.ac.uk

From:

On Behalf Of

**Sent:** 18 October 2012 13:47 **To:** Finance Sales Ledger

Subject: Re: Customer Account

[mailto

Dear Chris

Thanks for the e-mail and for the copy invoice.

I am sending a cheque today so I will mark it for your attention and I will ensure the account number is on the reverse.

Please note this is my Five-Quarter e-mail address for your reference in case you need to contact me in future.

Kind regards

From: Finance Sales Ledger < finance-salesled@glasgow.ac.uk >

Date: Thursday, 18 October 2012 12:55

To:

**Subject:** Customer Account

Hi

Please find attached copy of invoice as requested.

Can you please confirm the payment details so we can ensure your payment is allocated accordingly?

If you require any further information then please do not hesitate to contact me on the details below.

Kind Regards, Chris

Mr Chris Thomson Finance Office University of Glasgow University Avenue Glasgow G12 8QQ

Tel. 0141 330 3936 Fax. 0141 330 6503

Email. finance-salesled@glasgow.ac.uk

The University of Glasgow, charity number SC004401

From:

Paul Younger

Sent:

17 November 2014 17:47

To:

Cc:

@five-quarter.com;

Juan Antonio Alvarez Vazquez

Subject:

RE: DRAFT PROGRAMME AND VENUE FOR THE NEXT CRF COAL CONVERSION

DIVISIONAL MEETING.

Importance:

High

Follow Up Flag:

Follow up

Flag Status:

Flagged

Dear

I have just been appointed to the governing body of the University and it has a meeting scheduled on Weds April 15<sup>th</sup> which I cannot miss.

I will therefore not be able to attend CRF after all. I am not sure if Juan is still available then – I am copying him in to check – but if not, then sadly we won't be able to field a speaker after all.

Best wishes

**Paul Younger** 

Professor Paul L Younger FREng Rankine Chair of Engineering, and Professor of Energy Engineering School of Engineering James Watt Building (South) University of Glasgow GLASGOW G12 8QQ, Scotland

Tel. 0141 330 5042 Mob. 07711 391 066

Email: paul.younger@glasgow.ac.uk

Web: http://www.gla.ac.uk/schools/engineering/staff/paulyounger/

From:

[mailto:

Sent: 07 July 2014 22:06

To: Paul Younger

Cc:

@five-quarter.com;

Juan Antonio Alvarez Vazquez

Subject: DRAFT PROGRAMME AND VENUE FOR THE NEXT CRF COAL CONVERSION DIVISIONAL MEETING.

Dear Paul,

Thanks for agreeing to give a presentation at this seminar, which is now almost certainly going to be on Wednesday 15<sup>th</sup> April 2015.

Is the proposed title OK?

Best regards,

From: Paul Younger [mailto:Paul.Younger@glasgow.ac.uk]

Sent: 07 July 2014 10:28

To: Juan Antonio Alvarez Vazquez

Cc: @five-quarter.com;

Subject: RE: DRAFT PROGRAMME AND VENUE FOR THE NEXT CRF COAL CONVERSION DIVISIONAL MEETING.

Dear

I am not sure what happened to it first time.

Anyway, thank you for thinking of us. Of the two dates you mention, there is a distinct likelihood that I will be teaching on the morning of Weds 25<sup>th</sup> March, and as it will be the final revision class of the semester, it's not a session I could easily delega te. Hence all other things being e qual, I could commit now to April 15 <sup>th</sup>, but could not do so for 15 <sup>th</sup> March. While Juan could, in principle, likely cover either date, I cannot commit him, though I suspect he would not be keen to talk on wider hydro-geological issues (which are my forté) given the focus of his work on near-field thermodynamic and related geo-mechanical processes.

Best wishes

Paul Younger

Professor Paul L Younger FREng Rankine Chair of Engineering and Professor of Energy Engineering School of Engineering Room 623, James Watt Building (South) University of Glasgow Glasgow G12 8QQ SCOTLAND

Tel. 0141 330 5042 Mob. 07711 391 066

Web: http://www.gla.ac.uk/schools/engineering/staff/paulyounger/

Email: paul.younger@glasgow.ac.uk

From: [mailto:

Sent: 07 July 2014 09:06

To: Paul Younger; Juan Antonio Alvarez Vazquez

Subject: DRAFT PROGRAMME AND VENUE FOR THE NEXT CRF COAL CONVERSION DIVISIONAL MEETING.

Dear Prof. Younger,

Did you receive my E-mail message below? I attach above an up-dated version of the Programme.

Best regards,

From: [mailto: Sent: 17 June 2014 15:05] To: 'paul.younger@glasgow.ac.uk'; 'j.alvarez-vazquez.1@research.gla.ac.uk' Cc: [mailto: Sent: 17 June 2014 15:05]  To: 'paul.younger@glasgow.ac.uk'; 'j.alvarez-vazquez.1@research.gla.ac.uk'  Cc: [mailto: Sent: 17 June 2014 15:05]  To: 'paul.younger@glasgow.ac.uk'; 'j.alvarez-vazquez.1@research.gla.ac.uk'  Cc: [mailto: Sent: 17 June 2014 15:05]  Subject: DRAFT PROGRAMME AND VENUE FOR THE NEXT CRF COAL CONVERSION DIVISIONAL MEETING.
Dear Prof. Younger,
The Coal R esearch Forum is currently planning its 2015 Annual Meeting and Co al Conversion Divisional seminar for either W ednesday 25 <sup>th</sup> March or Wednesday 15 <sup>th</sup> April 2015 at the University of Leeds. I am assisting with the programm e for this event and we have prepared an early draft Programm e for th is event, as attached abov e. We would be most pleased if you would be able to give a presentation at this event. Please note t hat all of the titles and speakers are provisional at this stage and most of the speakers are only being approached for the first time through E-mail messages today. Although we have plenty of time to organise this event, an early response, confirming the speaker and a title, would be helpful.
Thanks and best regards,

From:

Paul Younger

Sent:

14 November 2014 15:07

To:

@five-quarter.com);

Cc:

Karen McIlvaney; Ian Watson

Subject: Attachments:

FW: Energy Storage\_Employer.doc; Energy Storage course specification.docx; Energy

Storage\_support.docx

Follow Up Flag:

Follow up

Flag Status:

Flagged



We are trying to rush through regs a new course on energy storage being put together for delivery in the New Year by Ian Arbon. Would you mind completing the attached "employer" proforma (send back "reply all") with your evaluation (hopefully positive!) of the course as proposed? This needs to be sent in on Tuesday so a really quick turnaround would be gratefully received.

#### Paul Y

----Original Message-----From: Karen McIlvaney

Sent: 14 November 2014 14:30

To: Paul Younger Cc: Ian Watson

Subject:

Dear Paul,

Can you ask your industrialist pal for a few words on the proposed course- I attach the proforma (Employer). I have cobbled together a rationale for the course that you/Ian may like to alter.

Many thanks

Karen Mc

### **University of Glasgow**

### **Course/Programme Approval Process**

### **Employer Consultation Proforma**

Course/Programme Name: Energy Storage
Principal School Engineering
College: Science and Engineering
(Note to proposed course/programme co-ordinator: The employer should be given a copy of the completed PIP documentation and any other relevant documentation. They should then be asked to complete Section 1 of this form. Thereafter Section 2 should be completed by the School.)
Please provide your views on the proposed course or programme, particularly in terms of preparing graduates for employment and developing their graduate attributes (please see <a href="http://www.gla.ac.uk/media/media_183776_en.pdf">http://www.gla.ac.uk/media/media_183776_en.pdf</a> ):
Name, Designation and Company/Organisation of Employer
Signature
Date

Name of Proposed Course/Programme Co-ordinator	
Signature	
Date	



## Course Specification<sup>1</sup>

1. Course Code: Do not complete. This field is auto-populated.
2. Course Title: ** Please insert the name of the course and level identifier e.g. French 1 or French 2 etc. Titles should be mixed case (e.g. Drugs and Disease 2). If this course is collaborative or taught anywhere other than at the University of Glasgow, please ensure you include the name of the collaborative/teaching institution(s) in brackets at the end of the title.
Energy Storage
3. Short Title: ** Please enter a title of no more than 30 characters which will be used when searching the course catalogue. It is recommended that the first word of the Short Title should be the same as the Course Title above; this will ensure the course sorts as expected.
Energy Storage
4. Academic Session: ** Please select the academic session in which this new course / changed course will start from the list.
2014-15
5. Level: ** Please select the level at which this course is taught from the list. Note: Levels 4 and 5 replace levels H and M respectively.
Level 5 (SCQF level 11)
6. Credits: ** Please enter the number of credits allocated to this course. Normally the allowed values are 10, 15, 20, 30, 40 or 60.
10
7. Independent Work (course can be used to meet the generic Honours requirement to achieve a grade D3 or better in a piece of independent work worth at least 20 credits): ** Please select Yes or No from the list.
No
8. Subject: ** Please select the appropriate value from the dropdown list. The Subject will be used for searching/browsing the course catalogue.
Engineering
9. Location(s): ** Please indicate the location(s) at which this course is normally taught.
Glasgow

<sup>&</sup>lt;sup>1</sup> This specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if full advantage is taken of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each course can be found in course handbooks and other course documentation and online at <a href="http://www.gla.ac.uk">http://www.gla.ac.uk</a>

College of Science and Engineering
11. Lead School/Institute: ** Please select the school/institute to which the course belongs from the list. If more than one school/institute is involved in the delivery of the course, then please record only the lead school/institute.
Engineering [REG30300000]
11.1 Cost Centre: ** Please select the cost centre relevant to this course.
ENG - Systems Power and Energy [30304000]
<b>12. Collaborative:</b> ** Is this course collaborative with any other institutions? Please select either Yes or No from the list.
No
<b>13. Teaching Institutions:</b> If the answer to 12 is yes, then please add the names of the other teaching institutions. University of Glasgow should normally be included.
University of Glasgow
14. Short Description: ** Please enter a short description for this course (no more than two sentences).
This course covers all types of currently-available energy storage systems, which are, or can be, used in the electricity, heat and transport sectors. The various technologies discussed may be categorised as mechanical/kinetic, thermodynamic, electrical, electro-chemical or thermal processes.
<b>15. Requirements of Entry:</b> ** Please enter the Requirements of Entry, both mandatory and recommended, and describe any special arrangements for visiting students. This text will be used to code Enrolment Requirements in MyCampus. If none, enter "None".
Mandatory Entry Requirements None
Recommended Entry Requirements None
16. Co-requisites (courses that must be taken in the same year as this course as a condition of enrolment): Only include other courses which MUST be taken by all students (including visiting students). It is not necessary to list other compulsory courses for a programme that a student would take at the same time.
None
17. Excluded Courses: Please enter courses that are mutually exclusive to this course, i.e. other courses with similar content such that a student cannot gain credit from them along with this course. Examples might include withdrawn courses being replaced by this course. If none, enter "None".
None
<b>18. Associated Programmes:</b> ** Please enter the degree programme(s) for which this is a compulsory course and the main programme(s) for which this is an option, indicating whether the course is compulsory or optional for each programme. If none, enter "None".

10. College: \*\* Please select the college with responsibility for approving the course.

Sustainable Energy MSc H213-5200 Electronics and Electrical Engineering MSc HH56-5200 Electronics and Electrical Engineering MEng HH56-2204
19. Typically offered: ** Please select from the list when the course is normally taught.
Semester 2
20. Timetable (if known) and length and frequency of teaching sessions: ** If none, enter "None".  Detailed information should be given for courses where students must coordinate timetables across several Schools (e.g. Level 1 and Level 2 courses).
2 lectures per week,
<b>21. Minimum Requirement for Award of Credits:</b> ** The minimum requirement for the award of credit applicable to all courses is detailed in the Code of Assessment and included by default below. Please append additional requirements, e.g. attendance.
Students must attend the degree examination and submit at least 75% by weight of the other components of the course's summative assessment.
Students must attend the timetabled laboratory classes.
Students should attend at least 75% of the timetabled classes of the course.
Note that these are minimum requirements: good students will achieve far higher participation/submission rates. Any student who misses an assessment or a significant number of classes because of illness or other good cause should report this by completing a MyCampus absence report.
22. Available to visiting students: ** Can this course be taken by visiting students? Please select either Yes or No from the list.
No
23. Available to Erasmus students: ** Can this course be taken by Erasmus students? Please select either Yes or No from the list.
No
24. Taught wholly by distance learning: ** Please select either Yes or No from the list.
No
25. Open Studies Credit Bearing: ** Is this course part of the Open Studies CertHE accredited programmes?  Please select either Yes or No from the list.
No
26. Represents a work placement or period of study abroad: ** Please select a value from the list.
No
27. Course Aims: ** Please specify the aims of the course. Guidelines are available on the Senate Office website at www.gla.ac.uk/services/senateoffice/qae/progdesignapproval/progdesign/ilosguidelines/

This course aims to enable students to identify the optimal (appropriateness, cost and sustainability) solutions(s) to any potential energy storage application, whether in the electrical, heat or transport sector.

**28.** Intended Learning Outcomes of Course: \*\* Please specify the ILOs of the course. Guidelines are available on the Senate Office website at <a href="https://www.gla.ac.uk/services/senateoffice/qae/progdesignapproval/progdesign/ilosguidelines/">www.gla.ac.uk/services/senateoffice/qae/progdesignapproval/progdesign/ilosguidelines/</a>

By the end of this course students will be able to: identify and explain the working principles of all types of commercially-available energy storage system, ranging from utility-scale systems (e.g. pumped hydro) to personal equipment systems (e.g. Li-ion batteries); they will also have an understanding of the relative costs and sustainability of each technology.

29. Learning and Teaching Methods: \*\* Please indicate the number of formal contact hours for each learning and teaching method listed below as well as the estimated notional learning hours associated with each method. The notional learning hours include the contact hours so should always be equal to or greater than the formal contact hours. Note that 100 notional learning hours correspond to 10 credits (an average student should devote approximately 100 hours in total on a 10-credit course). To ensure automatic totalling, use the Tab key to exit each number field. See HESA guidance on definitions for each method (activity):

http://www.hesa.ac.uk/component/option.com\_studrec/task,show\_file/Itemid,233/mnl,12061/href,Calculations\_methods.h

tml/.

Method	Formal Contact Hours	Notional Learning Hours (including formal contact hours)
Lecture	20.00	40.00
Seminar	0.00	0.00
Tutorial	0.00	0.00
Project Supervision	0.00	0.00
Demonstration	0.00	0.00
Practical Classes and Workshops	0.00	0.00
Supervised time in studio / Workshop	0.00	0.00
Fieldwork	0.00	0.00
External Visits	0.00	0.00
Work Based Learning	0.00	0.00
Guided Independent Study	Not Applicable	60.00
Placement	0.00	0.00
Year Abroad	0.00	0.00
TOTAL	20	100

**30. Summative Assessment Methods:** \*\* Please enter the total weighting for each category of assessment in the table and describe the assessment in the text box in 29.1 below. Each category can only appear once in the table. Further breakdown of the categories may be detailed in the text box. It is important that course delivery is consistent with these details and any changes are approved. To ensure automatic totalling, use the Tab key to exit each number field. See HESA guidance on definitions for each method (activity):

http://www.hesa.ac.uk/component/option.com\_studrec/task,show\_file/Itemid,233/mnl,12061/href,Calculations\_methods.h

tml/.

Method	%
Written Exam	100%
Written Assignment, including Essay	0%
Report	0%
Dissertation	0%
Portfolio	0%
Project Output (Other than dissertation)	0%
Oral Assessment & Presentation	0%
Practical Skills Assessment	0%
Set Exercise	0%
TOTAL	100%

**30.1 Description of Summative Assessment:** \*\* Describe the assessment below. List the components of assessment, e.g. examinations, in-class tests, essays, lab reports etc. (these may be grouped as a single component) and their relative weightings.

and their relative weightings.			
100 Examination			

30.2 Are reassessment opportunities normally available for all summative assessments in this

**course:** \*\* The Code of Assessment requires that a candidate achieving a grade below D3 for a non-honours course, or below C3 for a taught postgraduate course, will normally have the opportunity to be reassessed in any of the summative assessments in the course, unless it is not possible to replicate the coursework for the purpose of reassessment (see Code of Assessment § 16.9). If reassessment is not available in any assessment, please select No below then indicate the assessments for which reassessment is not available. If the course contributes to the final Honours classification, select Not Applicable below, unless the course also contributes to a Masters programme (which are usually expected to offer reassessment opportunities).

Yes

Reassessments are normally available for all courses, except those which contribute to the Honours classification. For non-Honours courses, students are offered reassessment in all or any of the components of assessment if the satisfactory (threshold) grade for the overall course is not achieved at the first attempt. This is normally grade D3 for undergraduate students and grade C3 for postgraduate students. Exceptionally it may not be possible to offer reassessment of some coursework items, in which case the mark achieved at the first attempt will be counted towards the final course grade. Any such exceptions for this course are described below.

**31. Formative Assessment:** \*\* Please describe briefly the assessment methods used to provide feedback to the student but not contributing towards the final grade. If none, enter "None".

None		

**32. Grading Basis:** \*\* Please select the appropriate grading basis which will be used for the overall course grade. If not Schedule A or B, you must get permission.

Schedule A

33. Examination Diet: \*\* Please specify the diet in which formal exams take place. If none, select None.

April/May

of-course exams from the list below. If there is no example set out in the Code of Assessment ( <a href="http://www.gla.ac.">http://www.gla.ac.</a> prescribed by the assessment weight of the exam(s) a	tests): ** Please select the total duration (in minutes) of any end- m, enter "0 minutes". Maximum durations for course exams are uk/media/media 205314 en.pdf#page=7&view=fitH.615) and are and the course's level and credit value. The total exam duration 10, 90, 120, or (only in the spring exam diet) 180 minutes in
120 minutes	
16.14 - 16.21 and Schedule D of the Code of Assessn	must be made and approval sought from the Senate Office.
35. Additional Relevant Information: Please reco	ord any further explanatory information relevant to the course.
36. Intended Student Numbers—Max:  ** Please enter the maximum class numbers.	100
	100
** Please enter the maximum class numbers.  37. Intended Student Numbers—Min:	



### **Proposal Support Document C1**

### For New Courses and Changes to Courses

### Section A — to be completed by the proposer

A1. List of Proposed Courses: This field will be automatically populated when this document is entered into PIP.				
Code	Title			
A2. Rationale for changes.	the proposal: ** Please	explain the reason for introd	ducing the new course(s) or mak	ing the
In April this year, II UK's energy comm report was publish renewable energy important energy- of energy storage of focus has wrongly Over the past few develop workable Scottish energy de A few universities focussing on storag despite Scotland h	itments"; The propose ed at this time because commitments for 2020 related topic of the prefor heat and transport sbeen placed.  years, IMechE has been strategies for both Enemand) and these sector in England are catching for electricity) but waving, by far, the greater	ed lecturer of this coursely it has become apparent are likely to be realised we sent time. The report was sectors, not just for election working closely with the rgy Storage and Heat Eners are considered vital to gon to the importance of eare not aware of any Scest need for the application.	nergy Storage - the missing linerary storage - the missing linerary that he lead author of the repethat neither the UK's nor Scowithout it, so it is probably the salso the first to give a detacticity, where most of the UK's ne Scottish Government's Energy (heat alone represents 5. Scottish energy strategy.  Fenergy Storage (although the cottish university yet offering on of this technology. This is the such a course and continuation	oort. The otland's le most liled account is existing ergy Team to 5% of total ey are this course, an
resources already av	ailable to the school, e.g.	teaching staff, support staff,	r this proposal that are in additio accommodation, equipment, co enter "No additional resources".	n to the nsumables,
		ease check the box to co		
	urces are required, e name of the			
A4. Consultations the consultations req	: Please enter details of t	Senate Office website (www	regarding this proposal, if any. 0 w.gla.ac.uk/media/media_10738	
Consultation:	File Names:	: Please enter the name of ining consultation details.	Optional Comment: e.g. status of the consultant, or reason why consultation details are not available.	

4.1 External Academic:					
4.2 Students:					
4.3 Central Room Bookings:					
4.4 Academic Services:					
4.5 Other GU Schools:					
4.6 Potential Employers:					
4.7 Learning & Teaching Centre:					
4.8 Other:					
A5. Additional Information	: Please enter any	additional	information re	elevant to this proposal.	
A5.1 Rationale for Exceptional Opt-Out of Reassessment of Coursework: Please enter coursework item(s) where reassessment opportunities will not be available and explain why it is not possible to offer reassessment of the coursework to students who fail to meet the satisfactory (threshold) grade in the overall course result.					
Coursework to Stagents who rail to meet the Satisfactory (threshold) grade in the Overall Course receive					
A5.2 Exemption from Standard Exam Duration (see 32.1 of course specification) If the total course exam duration exceeds the limits specified in 16.14 – 16.21 and Schedule D of the Code of Assessment please confirm that Senate Office approval has been obtained.					
A5.2.1 Comments on "No" response:					
A3.2.1 Comments on 140 response.					
A5.3 Are there any specific implications for a protected characteristic group (as defined in the Equality Act 2010) in this course? Tick all that apply.					
				vide details and indicat	e mitigation
Age					
Disability					
Gender reassignment					

Marriage and civil partnership		
Pregnancy and maternity		
Race		
Religion or belief		
Sex		
Sexual orientation		
Date of production/revision:		24/12/2014

# \*\* Section B — to be completed on behalf of the Board of Studies or Higher Degrees Committee

B1. Is the proposal in accordance with the current University guidelines (http://www.gla.ac.uk/services/senateoffice/qae/progdesignapproval/progapproval/ - d.en.87515)?	Select
B2. Is the proposal clear and consistent?	Select
B3. Is the proposal compliant with the Scottish Credit and Qualifications Framework?	Select
<b>B4.</b> Are notional learning hours and assessment methods appropriate to the level of, and number of credits assigned to, the course(s)?	Select
<b>B5.</b> Are examination durations consistent with Senate prescriptions set out in the Code of Assessment? [Colleges have limited discretion to allow examinations to exceed the normal prescription, and the rationale for such an extension should be indicated in field B11 below.]	Select
<b>B6.</b> Are Intended Learning Outcomes written according to the guidelines?	Select
<b>B7.</b> Is there adequate provision for, and monitoring of, the external supervision of project work, work placement, etc., where this is an integral part of the course(s)?	Select
<b>B8.</b> Has the Head of School approved any opt-outs for coursework reassessment (see A5.1)?	Select
B9. Have all required consultations taken place and responses considered by the College?	Select
<b>B10.</b> Is there evidence that any issues raised by consultees have been satisfactorily addressed?	Select

B11. Comments on any "No" answers:

•	
B12. Date of Board of Studies /	
Higher Degrees Committee Approval:	
The state of the s	
B13. Name of Convener of above:	
D 13. Maille of Collveller of above.	

From:

Paul Younger

Sent:

04 November 2014 10:11

To:

Sarah Fogarty; David Newall (Secretary of Court)

Cc:

Lee McClure

Subject:

RE: Meeting with Principal and

- Fossil Fuels

Follow Up Flag:

Follow up

Flag Status:

Flagged

Dear Sarah

That works for me, so I have put it in my diary.

Paul Y

----Original Message----

From: Sarah Fogarty

Sent: 03 November 2014 11:42

To: David Newall (Secretary of Court); Paul Younger

Cc: Lee McClure

Subject: Meeting with Principal and

- Fossil Fuels

Dear David/Paul,

Would you be available to meet with the Principal and

regarding fossil fuels on Monday the 17th

of November at 4.00 pm?

Kind regards,

Sarah.

Sarah Fogarty Principal's Diary Manager Principal's Office University of Glasgow Main Building 0141 330 5995

From:

Paul Younger

Sent:

04 September 2014 18:26

To: Cc: @five-quarter.com)
@five-quarter.com)

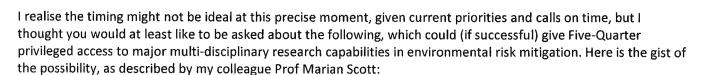
Subject:

Centre for Doctoral Training (CDT) in Environmental Risk and mitigation; using Big Data

Follow Up Flag: Flag Status:

Follow up Flagged

Dear



The University of Glasgow is developing a network of partners in support of our current proposal to host a Centre for Doctoral Training (CDT) in Environmental Risk and mitigation; using Big Data. We have been invited to interview by NERC in September, and therefore have a real chance of securing funding. We would like to ask if you would be interested in joining the network. This will be an excellent opportunity to get involved in an initiative that will deliver training to address the skills of graduates that could benefit your organisation.

#### Background:

The Natural Environmental Research Council (NERC) has committed to fund a CDT in Environmental Risk and mitigation; using Big Data, and will support the centre for 3 years, with 10 Studentships per annum. In the call, NERC particularly emphasized how society and the environment are increasingly susceptible to changes associated with increasingly limited resource, natural hazard events and rapid climate change. They recognized that there is an urgent need for tools to help decision makers assess risk from these increasingly complex interconnected hazards, to understand and communicate risk and to support decision-making under uncertainty.

#### Our proposal

We propose to create a multi-disciplinary doctoral research-training programme that has a focus on: developing analytic skills essential to generate, design, develop and maintain systems to process, store, analyse and extract information and knowledge from big, complex, and diverse environmental data streams linked to environmental hazards and population health risks. Our proposal integrates research over the following schools, research institutes and centres within Glasgow University: Engineering; Geographical & Earth Sciences; Mathematics & Statistics; the Adam Smith Business School; Physics and Astronomy; Computing Science; Biodiversity, Animal Health and Comparative Medicine; and the Boyd Centre for Population and Ecosystem Health.

The CDT is built around a number of environmental themes that span the NERC science remit. These include: environmental change (e.g. sea level rise, flooding, extreme weather, climate change); space weather; ecology and the life sciences (e.g. invasive species, environment and heath, ecology of disease vectors); managing human-wildlife conflicts (reflecting legislation changes in fisheries and agricultural policy); and priorities for development of renewable energy installations. However, the CDT also has a strong social science theme around the management of risk and resilience and the incorporation of uncertainty into the policy making process. A particular focus has been on the manner in which traditional models of risk management are challenged by the scale of large data sets and their analytical tools. Under the big data heading, Computing Science and Mathematics and Statistics will provide training, projects and supervision.

The Economic and Social Research Council will fund 2 of the studentships and there is also a strong link to environmental risks in the developing world.

All students will be supervised jointly between at least two schools as appropriate to maximise the benefit of the CDT and to ensure that students are immersed in multi-disciplinary research that has clear practical value for policy

makers, organisations, and society. Our goal is to develop a range of scientifically-excellent doctoral projects with our stakeholders, and that these are closely aligned to our research strengths.

To strengthen our proposal we are keen to show that we have a strong commitment from industry and partner organizations as this will demonstrate that the Centre will deliver relevant training. For this reason we are seeking partners to contribute the activities of the Centre.

#### Possible contribution to the project

We would welcome your input, and have identified a broad range of potential activities:

- Shaping the training to ensure we cover the skills that are important for your business
- Provision of data, or specification of relevant challenges faced in your organization/sector
- Help us articulate to the funder skill gaps you are currently experiencing and that the centre can address
- Support the CDT through sponsorship of PhD students, but also in kind support through active participation in the running of the centre (e.g. advisory board), delivery of training courses/projects, etc.
- Defining real life projects for students
- Hosting students for short term placements, providing them with the opportunity to develop their networks and transferable skills whilst working on a real life project.

If this opportunity is of interest I am sure that Prof Scott would be delighted to discuss this further with you. Her email is: <a href="mailto:Marian.Scott@glasgow.ac.uk">Marian.Scott@glasgow.ac.uk</a>

Best wishes

Paul

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