



**DCU Business School**  
**Post-Doctoral Researcher in Real Options Analysis**  
**Fixed Term Contract up to 24 Months**

An innovative and dynamic Business School, DCUBS offers an extensive range of research and taught programs at undergraduate, postgraduate, executive and doctoral levels. DCU Business School is recognized nationally and internationally for the outstanding quality of its business education programs. Our teaching, learning and research activities are strongly influenced by the core guiding principles of relevance and excellence.

**Background and Role Overview**

The DCU Business School (DCUBS) requires a suitably qualified post-doctoral researcher to join a collaborative research project between the DCUBS and the School of Chemical Sciences at DCU. Under the Irish Research Council New Horizons Scheme, funding has been secured for an innovative two-year funded research project entitled “A real options analysis approach to appraising CO<sub>2</sub> recycling technology investment”. It is internationally recognised that converting CO<sub>2</sub> to usable products will greatly reduce the introduction of further CO<sub>2</sub> into the atmosphere. Mobilising investment into CO<sub>2</sub> recycling technologies is imperative if the EU is to meet its ambitious targets for GHG emissions reductions. However, a deficiency of know-how among businesses and financial institutions in these new and innovative technologies, and in the return potential and associated risks, is constraining the level of investment in R&D and deployment. This interdisciplinary research project will combine leading CO<sub>2</sub> recycling technology expertise with state-of-the-art investment appraisal techniques with the stated aim of filling this knowledge gap.

As the associated post-doctoral researcher, you will work closely with the DCU Business School Principal Investigator and lead research into the real options analysis (ROA) of the latest innovations in CO<sub>2</sub> recycling technologies. Your research will contribute to the following key objectives: (i) mapping identified technology risks to investment flexibility from a corporate perspective and designing a framework for embedding optionality in CO<sub>2</sub> recycling technology investments; (ii) applying ROA techniques to value the spectrum of CO<sub>2</sub> recycling technologies from a corporate investment perspective, with and without public support schemes in place; and (iii) informing public policy debate and design to encourage the adoption of CO<sub>2</sub> recycling technologies, making recommendations on appropriate public support schemes.

### **Principle Duties and Responsibilities**

Reporting to the DCU Business School Principal Investigator (PI), the Postdoctoral Researcher will:

- Contribute to the research project under the general guidance of the PI and/or members of the interdisciplinary research team;
- Participate in the production of project related deliverables on time and in full;
- Develop or contribute to research proposals in line with the research project in collaboration with the PI;
- Lead and collaborate in the production of dissemination material (i.e. high-quality scientific publications, reports);
- Lead and assist with meetings with academic and industrial partners as required;
- Develop and assess research outputs towards policy design;
- Translate knowledge of advances in the subject area into research activity.
- Carry out administrative work associated with the programme of research as necessary.

### **Minimum Criteria**

Applicants for the position will have a PhD in Finance, Financial Mathematics, Economics or related quantitative discipline, such as Mathematics or Engineering. The successful candidate will ideally have experience of energy markets and energy policy. The successful candidate will demonstrate that they are developing a research profile and will ideally be already publishing in high impact peer-reviewed international journals. The successful candidate will be expected to demonstrate good organisational abilities, time management skills, excellent communications skills and the ability to develop and maintain good working relationships with a variety of different stakeholders. The successful candidate will have the ability to work on her/his own initiative when necessary and also to operate as part of a team.

**Salary:** €35,488 - €46,255

Appointments will be commensurate with qualifications and experience.

**Closing date:** 31<sup>th</sup> March 2017

**Informal Enquiries:**

Informal enquiries can be made to Dr. Mark Cummins, Principal Investigator and Senior Lecturer in Finance, DCU Business School, Dublin City University. *Email:* [Mark.Cummins@dcu.ie](mailto:Mark.Cummins@dcu.ie).

*Please do not send applications to this email address, instead apply as described below.*

**Application Procedure**

Application forms are available from the DCU Current Vacancies (open Competitions) website at <http://www.dcu.ie/vacancies/current.shtml> and also from the Human Resources Department, Dublin City University, Dublin 9. Tel: +353 (0) 1 7005149.

Please clearly state the role that you are applying for in your application and email subject line: Job Ref 508 Postdoctoral Researcher in Real Options Analysis, DCU Business School.

Applications should be submitted by email to [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie) or by Fax: +353 (0)1 7005500 or by post to the Human Resources Department, Dublin City University, Dublin 9. Human Resources Department, Dublin City University, Dublin 9. Tel: +353 1 700 5149; Fax: +353 1 700 5500 Email: Insert [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie)

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