

List of oil and gas projects funded before the start of the IPOG programme

To explore potential themes and opportunities for the development of the Innovation Programme, partnerships and collaborations between researchers and the oil and gas industry, NERC invested over £1.5 million, in 2013 and 2014, in 23 oil and gas innovation pump priming projects (project details below).

NERC has also funded three Knowledge Exchange fellowships in the oil and gas area (details below).

NERC also contributed £250,000 towards four projects that will explore new techniques for monitoring and technologies for well drilling and design under the Innovate UK-led call: 'Developing technologies for safe and responsible exploitation of shale gas'.

NERC also invested in Phase 1 of ReFine an independent research consortium led by Durham University, in conjunction with Newcastle, Heriot-Watt and Keele universities. The consortium focuses on the issue of shale gas and oil exploitation using fracking methods and its potential risks. Phase 1 of the consortium is funded by NERC, Shell, Total and Chevron with the Environment Agency, DECC and the European Commission Joint Research Centre participating in an advisory-stakeholder capacity.

Applicant/ Grant holder	Research Organisation	Title	Project Partners <i>(IPOG members in bold)</i>
Oil and gas pump priming projects 2014 call – Projects now complete			
Professor Richard Worden	University of Liverpool	Reservoir quality database (for enhanced prediction and risk reduction)	BP exploration Operating Company Ltd., Nexen Petroleum UK Ltd., BG Group plc (now Royal Dutch Shell plc)
Professor Michael Lovell	University of Leicester	A guide to petrophysical models for shale gas reservoirs based on sensitivity analysis of key variables	
Professor Michael Lovell	University of Leicester	Embedding a petrophysical vocabulary and petrophysical concepts within the petroleum geoscience community; towards a virtual learning capability	
Professor J Murray Roberts	Heriot-Watt University	Advanced environmental monitoring solutions for the oil and gas industry in the Atlantic Frontier	BGS, BP Exploration Operating Company Ltd., Oil & Gas UK, NOC

Dr Ekaterina Popova	National Oceanography Centre	GOBLIN (Global Ocean modelling Builds Links with INdustry)	Oil Spill Response Limited (OSRL)
Dr Matthieu Cartigny	National Oceanography Centre	Developing the UK national centre of excellence for geohazards through quantification of field-scale turbidity current hazard	Chevron Energy Technology Company, Fugro Geoconsulting Ltd.
Dr Clare Bond	University of Aberdeen	Improving Interpretation Outcomes: quantifying biases and designing workflows for better seismic interpretation	BP Exploration Operating Company Ltd., ConocoPhillips Company
Professor William McCaffrey	University of Leeds	Knowledge to application: meta data approaches to improved geological model conditioning in petroleum industry workflows	
Professor Alastair Lewis	University of York	Improved understanding of accidental releases from oil and gas industries offshore	
Professor Kevin Taylor	University of Manchester	CASCADE - UK Carboniferous Shale Resource Assessment, Characterization and Development Evaluation	Cuadrilla Resources Ltd., IGas Energy plc

Oil and gas pump priming projects 2013 call – Projects now complete

Professor Michael Kendall	University of Bristol	Microseismic impact assessment for shale-gas stimulation (MIA)	Cuadrilla Resources Ltd.
Professor David Selby	University of Durham	Commercial development and application of the Re-Os geochronometer and tracer to petroleum systems	Chemostrat Ltd., ConocoPhillips UK Ltd., Petroleum Systems International UK, Statoil (UK) Ltd., Statoil Petroleum ASA, Total SA
Dr Ekaterina Popova	National Oceanography Centre	OCTOPUS (Ocean Circulation & Transport for Oil Propagation from Underwater Spills)	

Dr Matthieu Cartigny	National Oceanography Centre	New industry consortia with novel laboratory facilities that forms a UK national centre of excellence in submarine geohazards research	Fugro Geoconsulting Ltd.
Professor J Murray Roberts	Heriot-Watt University	North Sea Interactive: A decision-support tool to guide environmental monitoring by the oil and gas industry	British Geological Survey, National Oceanography Centre, Oil and Gas UK, Scottish Government
Mr David Long	British Geological Survey	North Sea Interactive: A decision-support tool to guide environmental monitoring by the oil and gas industry	National Oceanography Centre, Oil and Gas UK, Scottish Government
Professor Ursula Witte	University of Aberdeen	The natural capacity for oil degradation of marine environments: Towards developing DNA-based biosensors for monitoring low-level oil pollution	
Dr Emily Shuckburgh	British Antarctic Survey	Submesoscale currents from buoyant seismic streamers (SCR-BAS)	Schlumberger Gould Research
Professor Ian Main	University of Edinburgh	Hydrocarbon reservoir analytics using high-frequency pressure data	
Dr Stuart Gilfillan	University of Edinburgh	Applying natural tracer technologies in the environmental monitoring of unconventional gas extraction	Cuadrilla Resources Ltd., Dart Energy (now Ineos shale), Scottish Funding Council, Scottish Environmental Protection Agency
Professor Finlay Stuart	Scottish Universities Environment Research Centre	Applying natural tracer technologies in the environmental monitoring of unconventional gas extraction	Cuadrilla Resources Ltd., Dart Energy (now Ineos shale), Scottish Funding Council, Scottish Environmental Protection Agency
Dr Simon Mathias	University of Durham	CO ₂ -EOR ranking and screening tool	RPS Group plc
Professor Jon Gluyas	University of Durham/British Geological Survey	Squeezing the barrel: Knowledge exchange adds value to oilfields in decline	Southampton District Energy Scheme (Cofely District Energy), Wytch Farm partners (Summit

			Petroleum, Premier Oil and Perenco).
Jonathan Imber/Dr Howard Armstrong	University of Durham/University of Newcastle	Jurassic shale analogue study: From resource to reserve (JARR)	Cuadrilla Resources Ltd., ConocoPhillips UK Ltd., Dart Energy (Europe) Ltd.
Professor Anton Ziolkowski	University of Edinburgh	Transformation of CSEM data for determination of resistivities by seismic data processing methods	

Knowledge Exchange Fellowships

Dr Kate Gormley (2014-2018)	Heriot-Watt University (now at Aberdeen University)	NERC Oil & Gas Knowledge Exchange Fellowship
Professor W McCaffrey (2011-2014)	University of Leeds	Exploiting NERC-funded research to beneficially impact upstream workflows in the petroleum industry
Professor RE Holdsworth (2010-2013)	University of Durham	Development of opportunities for co-financed research with industry, and Knowledge Networks/Clubs within area of hazard and Risk, and Energy