



Expression of Interest – ETI seeks partners to develop and support the commercial deployment of Marine Vessel technology modelling system

Introduction to the Energy Technologies Institute

The Energy Technologies Institute (ETI) is a public-private partnership between global industries – BP, Caterpillar, EDF, Rolls-Royce and Shell – and the UK Government.

Public sector representation is through the administration of the Department for Business, Energy and Industrial Strategy with funding channelled through Innovate UK and the Engineering and Physical Sciences Research Council.

The ETI's role is to bring together and invest in engineering projects that accelerate the development, demonstration and eventual commercial deployment of a focused portfolio of affordable energy technologies, which will increase efficiency, reduce greenhouse gas emissions and help meet energy and climate change goals.

Further information can be found on our website at www.eti.co.uk.

Introduction to the HDV Marine Programme

The ETI has shown that a 30% reduction in Green House Gas (GHG) emissions from Heavy Duty Vehicles / Vessels (HDVs) can be achieved using systems engineering approaches and the integration of technologies aimed at enhancing a vehicles / vessels efficiency and operational performance. To demonstrate that this target can be achieved the ETI has invested in the Heavy Duty Vehicle Efficiency Programme, which comprises of two sub-programmes:

- Heavy Duty Vehicle Efficiency Programme Land Vehicles Programme
- Heavy Duty Vehicle Efficiency Programme Marine Vessels Programme

Further details regarding the overall programme can be found at:

<http://www.eti.co.uk/programmes/transport-hdv>.

This Project is part of the Marine sub-programme and will be closely linked to the other projects within the sub-programme, further details of which can also be found by following the link above.

The ETI's mission (within its HDV Marine sub-programme) is to achieve a material reduction in the greenhouse gas (GHG) intensity of shipping worldwide with a particular focus on fuel efficiency.

Project Background

One of the major challenges that the ETI HDV Marine sub-programme faces in achieving its mission is to get vessel financiers to invest in technologies that will make (existing and future) vessels more fuel efficient and have a lower GHG footprint.

A number of fuel efficient technologies already exist, however, these technologies are not being preferentially chosen in the marketplace today. There are a variety of factors that are involved in the design and selection of technologies for a vessel, however, as the market is mature and financially driven, clear and transparent information has the ability to influence financing decisions.

It is the ETI's intention to develop and procure a Project in which a variety of data sources are combined to develop a tool which can provide accurate and transparent data regarding vessel performance to stakeholders involved in the shipping industry. The ETI wishes to establish the best approach to take to achieve the Project aims. Therefore, it is using this Expression of Interest to consult with active and interested parties prior to finalising the exact scope and approach for the proposed Project.

Project Aims

The overarching aim of this Project is to effectively and positively influence the key stakeholders involved in the vessel procurement process, in such a way that appropriate consideration is given to fuel efficient technologies.

Further to the above, the Project aims to:

- establish the best metrics / presentation approach to communicate with Stakeholders
- identify and assess third party data relating to various fuel efficient vessel technologies
- develop an accurate and transparent vessel model using suitably verified data
- exploit this developed capability available to Stakeholders through either new or existing commercial routes (i.e. via the creation / use of a business model to achieve this specific aim)

Possible Project structure

The ETI is open to other approaches on how to effectively achieve the Project Aims as stated above. The ETI currently believes that there are at least three critical areas / work packages that are considered as key to the Project and the following outlined structure could work effectively:

- Requirements Gathering

Gathering Stakeholder needs and setting the requirements for the modelling, measurement, financial metrics and delivery method to market (considering the full range of Stakeholders) is an important part of the Project. This information is also vital in selecting an appropriate business model and delivery mechanism.

- Vessel Performance and Technology Modelling

Computer models of vessels and major systems provide many of the required outputs. Therefore, this Project seeks to determine the modelling capability necessary, compare it to current state-of-the-art and develop new capability where gaps exist. The Project needs an approach to educating the industry and gaining buy-in that the approach is trustworthy and valid. This buy-in is fundamental to the success of this Project.

- **Project Commercialisation and Business Model**

A key aspect of creating a viable capability within the market is the development of an appropriate business model including the ability to fund the establishment of the proposed entity or business (it is the ETI's view that funding over and above the ETI's investment is likely to be necessary). The business model needs to cover both funding of the physical resources needed to deliver the services described above as well as obtaining the vital real world data, technology models and vessel modelling capability. Therefore, the labour intensity and data intensity of the proposed modelling approaches needs to be considered.

As part of the Expression of Interest, you will be required to explain the area(s) of expertise that your company has and relate this / these to the Project aims / activities. If an alternative approach has been suggested, please relate the expertise to the key aspects / activities for this approach.

Project Procurement Process

To express an interest in participating in the Project, please contact the ETI Project Manager (at your soonest convenience and prior to the 17th February 2017) at David.Butler@eti.co.uk.

Following informing us of your interesting in this Project, please generate your "Expression of Interest" using the form in section 1 and submit it before 14:00 on Friday 17th February 2017 (in accordance with the instructions in section 1). We look forward to receiving information on your organisation, your expertise and capabilities, your track record and your aspirations for future collaborative work.

Once the ETI have received all the Expressions of Interest, it will review these documents and "shape" (establish a detailed Project and technical scope / approach) the Project accordingly.

In parallel with this "shaping" activity, the ETI will hold a workshop in which it will look to bring potential partners together that can between them undertake the entire Project scope. It will also discuss the proposed Project scope / approach, to ensure that it is taking the best route to achieving the Project aims.

A formal "Request for Proposal" (RfP) document will be generated by the ETI, based on this "re-shaped" Project, and a selection of the parties that provided submissions in the "Expression of Interest" phase will be invited to respond to the RfP.

The RfP will require a more detailed and thorough submission and the requested information will cover a number of areas including:

- detailed and costed plan of the Project
- technical details of the Project approach and work packages
- information regarding the critical resources (i.e. Project Manager and Chief Technologist)
- details of the risk management and health, safety and environment approaches
- comments regarding the proposed Project contract (to be issued by the ETI as part of the RfP process)
- availability of key resources (technical, project and legal) to finalise and agree the Project contract within the required timescales

Following the receipt of the submissions associated with the RfP, the ETI will select a preferred respondent(s) to enter into negotiations with the ETI to shape the Project and finalise the terms of the Project contract.

1. Expression of Interest form

Responses must be received, using this form, by e-mail in Adobe PDF format to David.Butler@eti.co.uk no later than 14:00 on 17th February 2017

In no more than 1,000 words please provide:

- a summary of your organisation and its' capabilities and experience in Marine vessel modelling and stakeholder engagement;*
- a description of why you would consider your organisation as optimally placed to undertake (part or all) of this Project;*
- a description of the approach you would use and the key work packages, and;*
- a description of your specific contribution to current or very recent projects you have worked on in the Marine vessel and technology modelling domain.*

Details of organisation

Full Organisation Name:

Contact Details (name, job title, mailing address, e-mail address, phone number):

Type of Business (sole trader, limited company, partnership, etc):

Annual Turnover:

Summary:

Summarise your organisation, areas of (relevant) expertise and describe how you could contribute to this project.

Why would you describe your organisation optimally placed to undertake (part or all) of this Project:

What is your proposed approach to this Project and its key work packages / activities:

Expertise & Experience: Outline your organisation's significant current or recent experience		
Project description, location, outline scope and summary of your organisation's specific role.	Start / End Dates	Total Budget and Your % Share

For the avoidance of doubt, this Expression of Interest and any Response shall not constitute an offer and or an actual or implied agreement between the ETI and respondents to the Expression of Interest.

Project work is entirely dependent upon the ETI and a selected party (following a selection process) mutually agreeing the terms and conditions of a written contract.