



PROJECT DIVEST Dismantling of Vessels with Enhanced Safety and Technology

DIVEST is a Research and Technology Development collaborative project funded by the European Community as part of the 7th Framework Programme for Research, Technological Development and Demonstration (FP7: 2007-2011), under Grant Agreement N° SCP-GA-2008-218695-DIVEST.

DIVEST – A holistic understanding of ship dismantling.

The aim of DIVEST is to provide a **holistic understanding of ship dismantling** through the combination of requirements and impacts (with associated procedures and processes) from pertinent social, technical, economic and environmental drivers into a **single, integrated and validated decision support tool (database)**.

Project deliverables will be as follows:

1. A set of validated risk and economic models that will cover the entirety of the ship dismantling space,
2. A set of policy recommendations on the optimum recycling / dismantling facility and process,
3. A suite of tailored training programmes tested and validated in situ (in India for example).
4. An information exchange accessible to the stakeholder community.

DIVEST – Benefits

- DIVEST will provide a **core, validated and practical definition of ship dismantling** that will be **common to** and **useable by all stakeholders**.
- With business and operational risks and value drivers better defined and understood, DIVEST will also make an **immediate and positive contribution to business practices globally**.
- Through practical on the ground case studies (collection of environmental data in India and Turkey undertaken over a full twelve-months period) and training, as well as through the involvement of non-European partners into the Project Consortium, DIVEST will facilitate **technological improvement** and the **betterment of human and environmental conditions** in countries involved in the study (broad public engagement and international dialogue through active dissemination of knowledge are fundamental tenets to the project).

DIVEST – Salient facts

DIVEST officially started on August 1st, 2008. It is scheduled to last **36 months**, until July 31st 2011. Project budget is €3.4m for a contracted **funding level of €2.5m**.

The Project is being delivered by an international Consortium of **twelve partners** (a mix of universities, research institutes and industrial players) from **nine different countries** (France, Germany, Greece, Romania, Sweden, Holland, India, Turkey and Great Britain) led by the French marine services consultancy V.Navy.

DIVEST – www.divest-project.eu - Point of contact: Project Coordinator

Emmanuel LE HENAFF, V.Navy, 130 rue Victor Hugo, 92300 Levallois-Perret, France. Tel: +33 1 4127 2929. Email: emmanuel.lehenaff@vships.com. url: www.v-navy.com.



COMPLEMENTARY INFORMATION

| | |
|--|----------|
| DIVEST - CONTEXT | 1 |
| DIVEST – STRUCTURE OF THE PROJECT | 2 |
| DIVEST – SCIENTIFIC OBJECTIVES | 3 |
| DIVEST - CONSORTIUM | 4 |



*DIVEST is a leap forward towards a **risk-intelligent and economically viable, responsible “green” ship dismantling** achieved through the **integrated and innovative management of worker health and safety** but also the **environmental, technical and economic drivers** that characterize end-of-life vessels.*

DIVEST - Context

From 2007 to 2013, the main instrument for funding research in the European Community will consist of the 7th Framework Programme for Research, Technological Development and Demonstration (FP7).

This €50.5bn programme is structured around four main blocks of activities: cooperation, ideas, people and capacities.

“Cooperation” is the largest of the four blocks with €32.4bn of allocated funding to be spent on research projects aimed at promoting growth, sustainable development and environmental protection, including addressing the problem of climate change.

One of the ten constituent chapters of the Cooperation block, the “Transport” theme supports the EC’s priority for developing an *integrated safer, “greener” and “smarter” pan-European transport system for the benefit of all citizens and society and climate policy, respecting the environment and natural resources.*

Project DIVEST answers a call on “end of life strategies for vehicles/vessels and infrastructures” within the “Sustainable Surface Transport” sub-theme.

DIVEST – Structure of the Project

DIVEST is structured around eight inter-dependent Technical Work Packages and one Project Management Work Package organized around four main phases as presented in Figure 1 below:

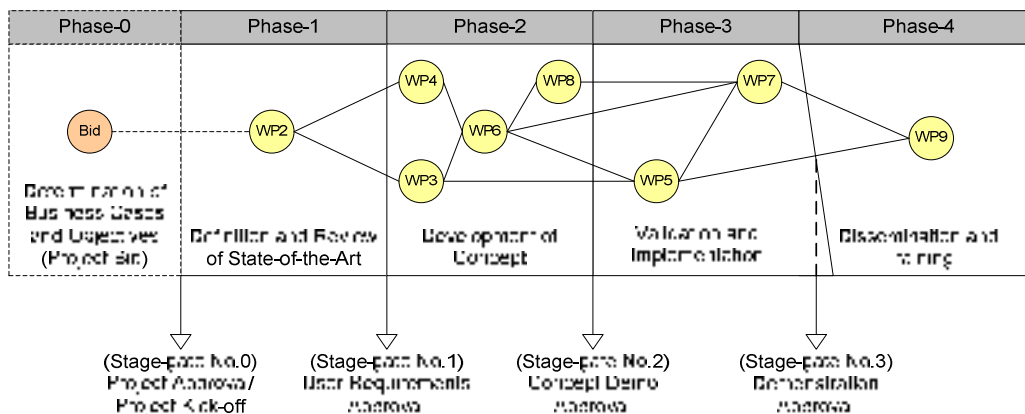


Figure 1 – Project Life Cycle

The main phases of the Project are distinctive groupings of one or more Work Packages, which were created to provide clearly defined review and decision points for enhanced levels of control over the Project.

The work Packages are:

- WP 1 : Management and Coordination,
- WP 2 : Review and analysis of legal, policy and market dimensions of ship dismantling,
- WP 3 : Review and selection of risk assessment methodologies,
- WP 4 : Value-base analysis,
- WP 5 : Analysis of HSEQ,
- WP 6 : Development of the integrated risk and value-base framework,
- WP 7 : Case studies and implementation,
- WP 8 : Development of the Knowledge Exchange Platform,
- WP 9 : Dissemination and training.



DIVEST – Scientific Objectives

Project objectives will be achieved by identifying and analyzing the various social, technical, economic and environmental drivers using a combination of risk-based analysis and economic modelling (also referred to as value-base analysis).

Project activities will follow three main steps as follows:

1. The review of various risk and economic analysis methodologies and the selection of those which best fit the needs and constraints of the ship dismantling activity,
2. The validation of the applicability of the methods selected using modelling and actual case studies,
3. The organization of the research data and output into a readily accessible database.

DIVEST - Consortium

The twelve members of the DIVEST Consortium are as follows:

| Partner Name | Partner Country | Company description |
|--|-----------------|--|
| V.Navy | France | Marine Services Consultancy with four main fields of expertise: (1) Marine environmental services, including ship dismantling, (2) Security of ships, offshore platforms and other marine infrastructures, (3) Innovative financing (PPP/PFI), and (4) Through life support of naval vessels. V.Navy is affiliated to V.Ships, the world's largest ship management company. |
| University of Strathclyde (Technical Coordinator) | United Kingdom | The University of Strathclyde is amongst the UK leading Universities with international reputation for teaching and research. |
| BVT Surface Fleet Limited | United Kingdom | BVT Surface Fleet was established in early 2008 and brings together the surface warship building and through-life support operations of BAE Systems and VT Group, including their joint venture Fleet Support Limited. BVT employs over 7000 people. It is the largest warship company in Britain. |
| Dokuz Eylul University, Izmir. Boat Building Research Centre (BBRC). | Turkey | The BBRC was created by Dokuz Eylul University (DEU) in 2006. The main research area for the centre is in the field of naval architecture, marine engineering and mechanical engineering. |
| Germanischer Lloyd AG | Germany | As one of the world's leading technical service providers in the maritime sector, Germanischer Lloyd offers a broad spectrum of high quality services tailored to the demands faced during the different phases of a ship's lifetime. |
| Indian Institute of Technology Bombay (IITB) – Centre for Environmental Science and Engineering. | India | IITB was set up by an Act of Parliament in 1958. It is established in Powai, a northern suburb of Bombay and it is recognized across India for its academic excellence. |
| Swerea IVF AB | Sweden | Swerea IVF is the research organization of the Swedish engineering industry. It is a subsidiary of the Swerea Group, which is a conglomerate of Swedish institutes focusing on manufacturing and engineering processes. Together, these institutes create, refine, supply and implement R&D results from the technologies of materials, process, product and production according to the needs of Swedish manufacturing companies. |
| MediMetal SA | Sweden | MediMetal is a consultancy and R&D company founded in 1994 in Uppsala, Sweden. Its primary area of interest is the environmental impact caused by industrial pollution, as well as occupational safety and health issues related to technical and medical factors. Today, MediMetal is one of the most active Swedish companies in the field of Ship Recycling. |

| | | |
|--|----------------|---|
| Navalink ROM SRL | Romania | Navalink ROM is a ship repair company established in Constanta, Romania. Employing around 100 technicians, the company offers the full spectrum of ship repair activities. |
| The Netherland's Organization for Applied Scientific Research (TNO) | Netherlands | TNO is an independent not-for-profit research organization active in all knowledge intense areas of the Dutch society. TNO was established by law in 1930 to support companies and governments with innovative, practical knowledge. The mission of TNO is to stimulate the innovative power of government and industry. |
| TWI Limited | United Kingdom | TWI Limited is one of the world's foremost independent research and technology organizations. With headquarters near Cambridge since 1946, TWI provides industry with engineering solutions in structures incorporating joining and associated technologies through information and technology transfer; consultancy; contract R&D and training. TWI operates a number of UK research centres together with various offices and training facilities around the world. |
| Univeristy of Patras – Department of Mechanical Engineering and Aeronautics | Greece | Founded in 1964, the University of Patras is the third largest Greek university. The Department of mechanical Engineering and Aeronautics is well recognized worldwide for its high-level research activities in the field of structural analysis, structural reliability, health monitoring of structures and the development of new manufacturing technologies in various industrial sectors. Industrial Management and Information Systems (knowledge based systems) are an additional area of research. |