



**H.F.R.I.**  
Hellenic Foundation for  
Research & Innovation

**Description of the funded research project**  
**1st Call for H.F.R.I. Research Projects to Support Faculty**  
**Members & Researchers and Procure High-Value**  
**Research Equipment**

**Title of the research project:**  
**Digital Evolution as a Leverage of Transformation business model Approaches in Shipping**

**Principal Investigator:**  
**Professor Ioannis Theotokas**  
**Reader-friendly title:**  
**DELTA-S**  
**Scientific Area:**  
**Social Sciences**  
**Institution and Country:**

**Host Institution:**  
**University of Piraeus**  
**Collaborating Institution(s):**  
**1. Danaos Shipping Co. Ltd**  
**2. Moore Stephens**  
**3. XRTC Business Consultants Ltd**  
**Project webpage**  
**(if applicable):**



**Budget: 143.600**

**Duration:36 months**

### Research Project Synopsis

The main aim of DELTA-S is to provide the framework, methodologies and tools for furthering and enriching the shipping business model. In this effort, a key enabler to the development of such a business model will be Digital Business. Ocean going Shipping is a globalized business, with the main interest of research being competition in global shipping markets. In this context, it focuses on Greek-owned shipping, a par excellence internationalized industry, which has been at the top of the global shipping league for decades. Thus, research efforts focus on analyzing and proposing methodologies and tools, which will respond to the needs of Greek-owned shipping companies for the achievement of the next competitive advantage.

### **Project originality**

**The new business environment increases the need for the maritime industry to shift from the traditional model of selling capacity to a model, which will offer higher value to users. Until today, capacity is dealt as a commodity and like any commodity when demand is high revenues increase and vice-versa. The fact that demand dynamics move at a much faster pace compared to those of supply, makes the industry vulnerable to revenue fluctuations from an operating perspective. The changes in the external environment bring into fore factors not considered as important under the existing business paradigms. Enriching these business models, especially for those companies active in the traditional bulk shipping markets, via introducing an Enriched Business Paradigm, which will take into account several of the factors that are currently neglected, is the challenge for DELTA-S. These factors are grouped under the below three pillars**

## **Expected results & Research Project Impact**

**The overall goal will be achieved through the accomplishment of the below specific goals:**

- Analysis of the effects of technological innovations, methodologies and tools, in the organization of shipping companies both ashore and on-board ships.**
- Analysis of the aforementioned in the supply chain context and in the role of shipping companies within it.**
- Analysis of the role of human resources, on-board and ashore, and the skills and knowledge needed for supporting the companies' strategic direction in the new competitive landscape.**
- Enrich the knowledge on shipping companies' operations and the way these need to support business strategies.**

**The aforementioned will be achieved via a number of objectives with actionable results, which are expected to have a spillover effect. The project will be implemented in two pillars, each one leading to a PhD thesis.**

**The first pillar will focus on the conceptualization and development of resilient Business Models based on the future needs of the industry.**

**The second pillar will examine the management of human resources in need to serve the new enriched business models.**

**Other results include:**

**Publications presented in international conferences and published in high quality academic journals will be used for the dissemination of this work.**

**Workshops for the dissemination of the results at academic and industry level.**

**Development of stand-alone methodologies and tools.**

### **The importance of this funding**

**DELTA-S aspires to create knowledge useful for shipping management companies, which will increase their internal integration and external adaptation, assisting them to remain competitive in the dynamic digital global business environment. The Greek maritime cluster is expected to increase its attractiveness through the new digital mind-set resulting in new business opportunities and creation of highly skilled jobs**

***Delta-S focuses on assisting shipping management companies active in bulk sectors to achieve the Next Competitive Advantage. This will be enabled with the creation of an Enriched Business Model, which will be developed based on the:***

- Identification of Digital Business Capabilities in need for the seamless operation of the organization within the supply chain management concept.***
- Identification of the future role of Human Capital, along with the systems in need for its management, based on the skills and capabilities required.***



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