

## **“Ship waste management and circular economy at the port of Piraeus”**

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### Abstract

The EU Ship Recycling Convention, signed in 2013, is gradually coming to force after the end of 2018 for all large sea-going vessels sailing under an EU Member State flag. A European List of designated recycling facilities will apply from 31 December 2018 and will prevent large commercial seagoing vessels trading in EU from being recycled anywhere other than a recycling yard that meets certain specific safety and environmental requirements. The application of this European List aims to facilitate safe and sound ship recycling, thereby reducing its negative impacts on human health and the environment. The European Commission has stated that to “ensure legal clarity and avoid administrative burden, ships covered by the [Recycling Regulation] will be excluded from the scope of the [Waste Regulation]. Chinese government recently announced an import ban on ship scrap imports, which will take effect from 31 December 2018. However, Chinese interests own and operate the port of Piraeus, where tons of hazardous ship industry waste is produced. The serious unemployment in the Piraeus shipyard area urgently demands long term strategic alliances among all stakeholders around the shipyard zone, i.e. SMEs, unions, ship owners, authorities and the local society, in order to improve the infrastructure of Greek ship repair and shipbuilding industry. This paper aims to explore the implementation strategy plan of the port, considering the views of its stakeholders. A survey was addressed to major labor and business associations, as well as to the Piraeus Port Authority. It proved that stakeholders are not engaged, increasing pressures, friction and negative reactions against the sustainability initiatives planned by the port. A campaign over the benefits of circular economy could alleviate differences and bridge the conflicting interests. Marine technology hubs in Greece may act as a proactive forum for the sharing of expertise, experience, and a ‘one-stop-shop’ for efficient ship repairs, retrofits and recycling of ship waste. The emerging challenge is to proactively implement a circular economy strategic plan for Piraeus port and shipyards, mitigating regulation risks and business assignments that disregard stakeholders’ views. In parallel,

regulatory efforts could reconsider the cost of enforcement ashore and divert funds and resources in research and development of circular economy systems, adequately standardized. Circular economy principles could be collaboratively adopted by the yards, retrofitters, and makers' communities. Partnerships may tackle above mentioned economic and social challenges (unemployment) and could make circular economy hubs a reality by building strong links with the inclusion of all technical repair companies of the area and not only with assigned intermediate waste sub-contractors of the port of Piraeus.

***Keywords:*** *ship waste management, port of Piraeus, circular, partnerships*

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