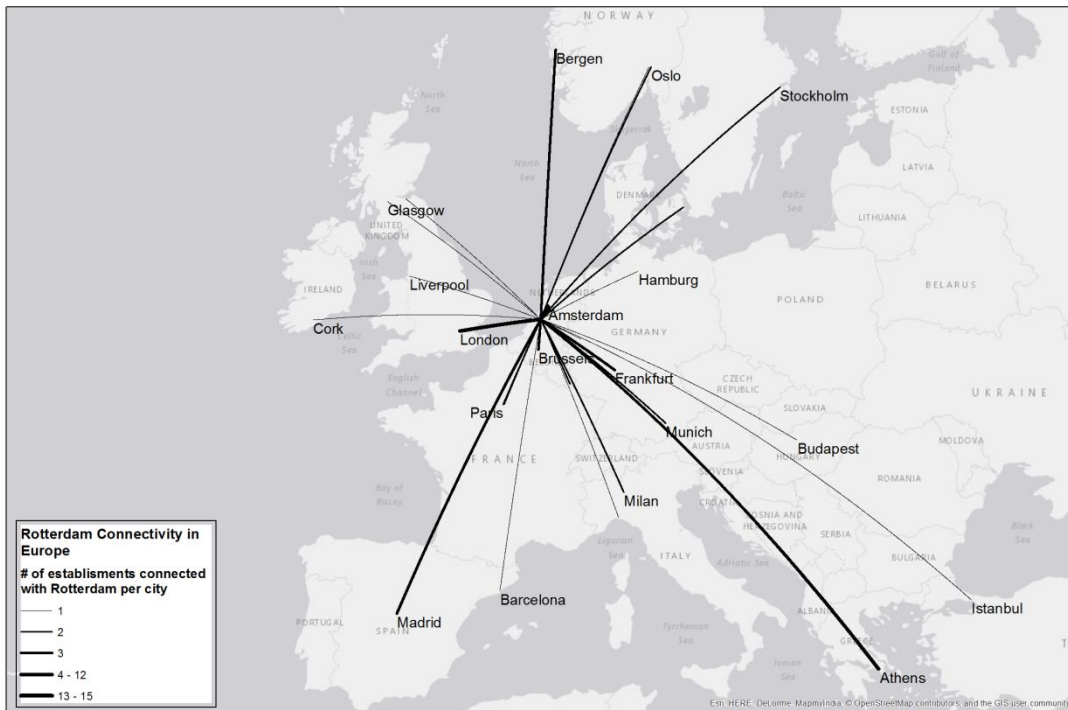
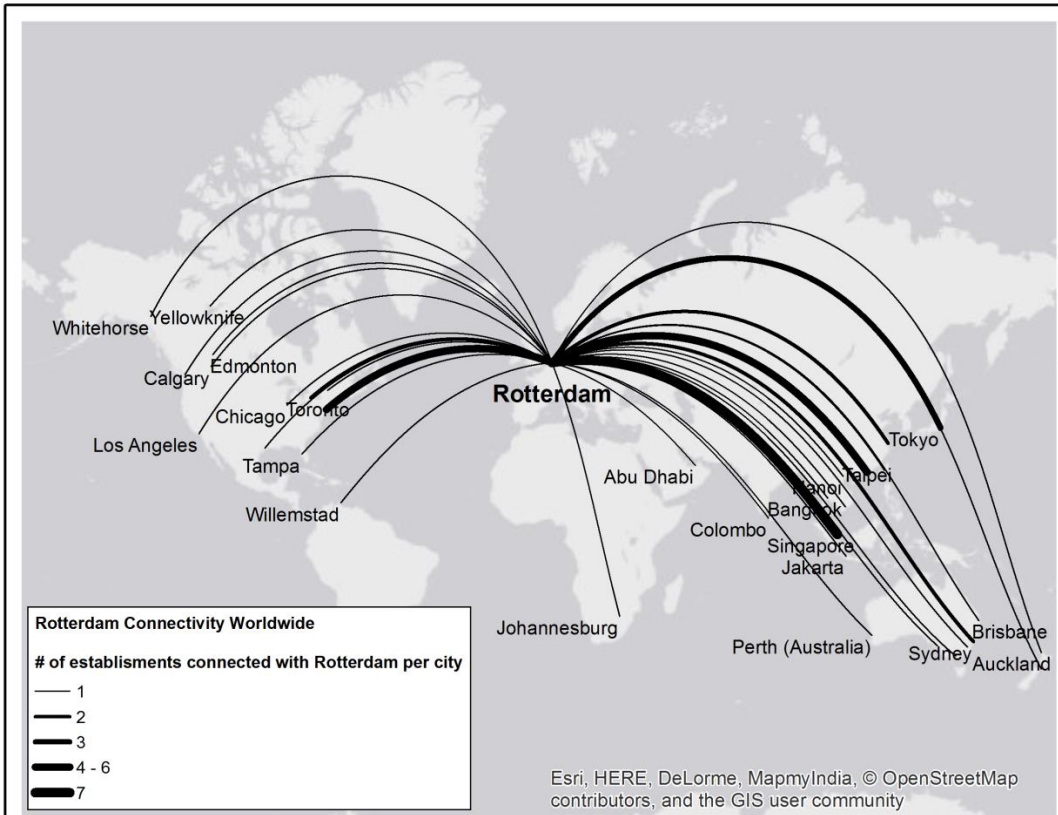


## The Evolution of Maritime Business Service Centers

Over the last years renewed attention is paid to the important role that specialized business services (finance, legal, insurance and risk management) play in global shipping. Indeed, the OECD study of 2014 on Rotterdam highlighted the strategic importance of linking these services with the port and shipping clusters to create port-city synergies and strengthening competitiveness. Other international studies (e.g. Menon (commissioned by Nor-Shipping and Oslo Maritime Network), 2012 and the Baltic-Xinhua, 2015) have benchmarked the world's leading maritime business centers. In these studies it became clear that Rotterdam is an important international centre, however other places such as London, Hamburg and Singapore in some aspects do indeed still outperform Rotterdam. What is less clear is how these maritime centres are connected with each other through company networks, how they have performed over time and what factors have shaped their evolution. The lack of such studies can be largely explained by the lack of accessible, historical data on the location of maritime business services worldwide.

In partnership with the RMSC and with support of Smartport, the Erasmus University has begun to analyze deeper the evolution of these centres worldwide. With our research we are aiming on **Mapping, Exploring and Explaining** the global maritime hubs, the networks that their services create worldwide and the factors that affect their position. In order to do so, enormous amount of data from the Lloyd's Maritime Directory has been compiled over the last months, which provides information on the location of all types of businesses involved in maritime shipping since the 1950s and now for the first time it has been digitised and made ready for analysis..

So far, we have mapped the present connections between maritime hubs worldwide, took a more detailed look into the Hamburg – Le Havre range and specifically check the connections and the network of the maritime business services that are located in the Rotterdam area. The overall connectivity of Rotterdam with other cities in terms of the companies' networks can be shown on the following maps.



Rotterdam's main connections worldwide are with Singapore, Hong Kong and New York and with a closer look to Europe Amsterdam and London are the strongest overall connections. This network is built taking

into consideration the advanced maritime services of maritime insurance, financial and legal services, since they are three of the strongest sectors of the maritime industry.

How these connections are created and affected from different factors is the question that we would like to answer in this second part of our research. In this part we will collaborate with Sorbonne University in Paris that under the World Seastems project led by Dr. Cesar Ducruet has collected all vessel calls of ports and liner networks between ports since 1890. In the next step we will analyze various factors that affect and promote the position of the maritime service centers (port calls, population, employment, governance, education etc.), create a Rotterdam based analysis and dataset for further monitoring and promotion and providing different scenarios to showcase the evolution of maritime centers.



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