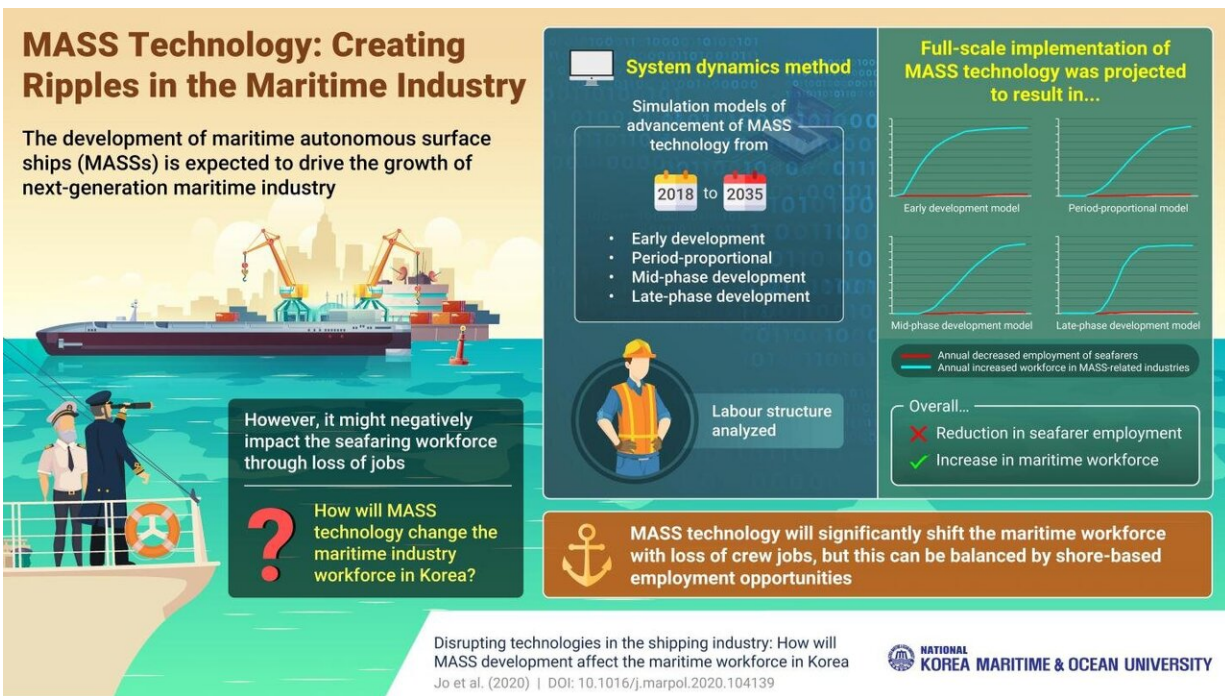


How will seafarers fare once automated ships take over? Scientists predict the future

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Disrupting technologies in the shipping industry: How will MASS development affect the maritime workforce in Korea Credit: Korea Maritime and Ocean University

Artificial intelligence and automation are changing the world, one industry at a time! Whatever humans can do, machines are learning to also do effectively, with lower costs and fewer errors. The maritime shipping industry is no different. Ships are now increasingly automated

(called maritime autonomous surface ships or MASSs), reducing the need for human input. While this bodes well for labor and fuel costs, the question naturally raised is, what happens to the jobs of seafarers, the chief workforce of the shipping industry, once MASSs take over.

To find out, researchers from Korea used complex mathematical models and simulations to determine the effect of MASS technology on [jobs](#) lost and gained over time. In their study published in *Marine Policy*, Assistant Professor Sohyun Jo from Korea Maritime and Ocean University—the lead scientist on this study and a former navigation officer—simulated four possible scenarios depicting varying speeds of growth of MASS technology. The projected outcomes in all the scenarios were consistent; in all examined scenarios, the number of seafarer jobs decreased, but at least fifty times as many shore-based jobs as the lost seafarer jobs were newly created.

These findings are encouraging, but not the endpoint, believes Dr. Jo "This indicates an overall increase in the number of jobs, but we need to nevertheless be prepared; specific and dynamic education, training and development of human resource policies for skills development should be introduced," she says. Other countries that provide manpower for the maritime industry can benefit from this study by introducing "political willingness and technical ability" to adapt to the changing employment sphere. Technology development and timely training internationally competitive human resources is also essential.

"Moreover, to ensure that the marine industry grows sustainably in a new business ecosystem, preemptive efforts to create new business opportunities incorporating ICT technologies are needed," Dr. Jo suggests.

Technology is changing the marine industry for the better, but people can also grow with it, by find their place in this new automated world.

More information: Sohyun Jo et al, Disrupting technologies in the shipping industry: How will MASS development affect the maritime workforce in Korea, *Marine Policy* (2020). [DOI: 10.1016/j.marpol.2020.104139](https://doi.org/10.1016/j.marpol.2020.104139)

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