

valstad
reviving american shipbuilding

mission

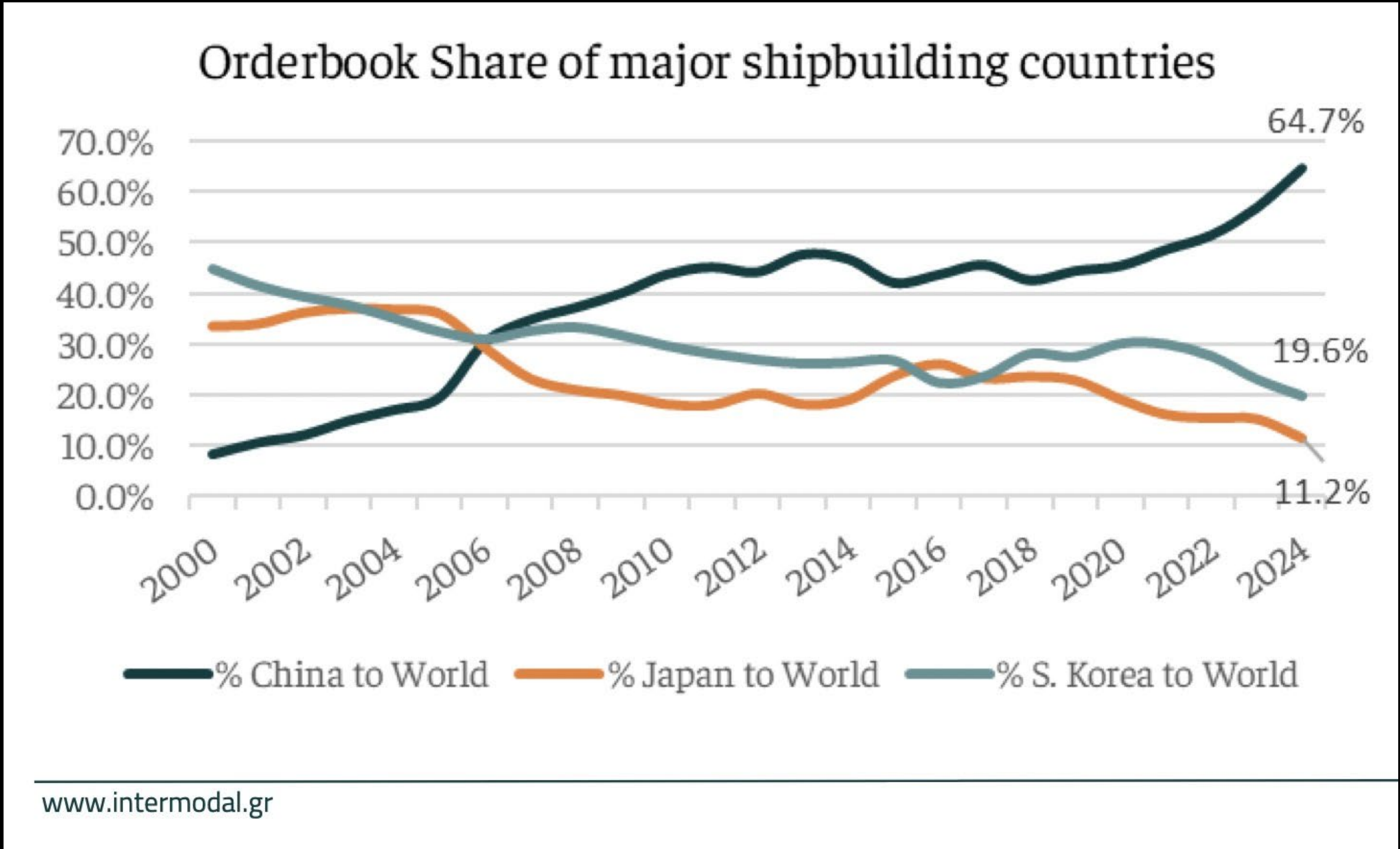
the future of shipbuilding in america

1. build the machine that builds the ships.
2. rebuild the world's fleet on nuclear energy.

problem

china is taking over shipbuilding

U.S.	VS	CHINA
<200 U.S. Flag Oceangoing Vessels	 Fleet	>7,000 Chinese Flag Oceangoing Vessels
<5 Orders (2023)	 Shipbuilding	>1,700 Orders (2023)
<153,000 U.S. Workers	 Shipbuilding Workforce	>600,000 Chinese Workers
<12,000 Merchant Mariners	 Mariners/ Seafarers	>1.7 Million Seafarers

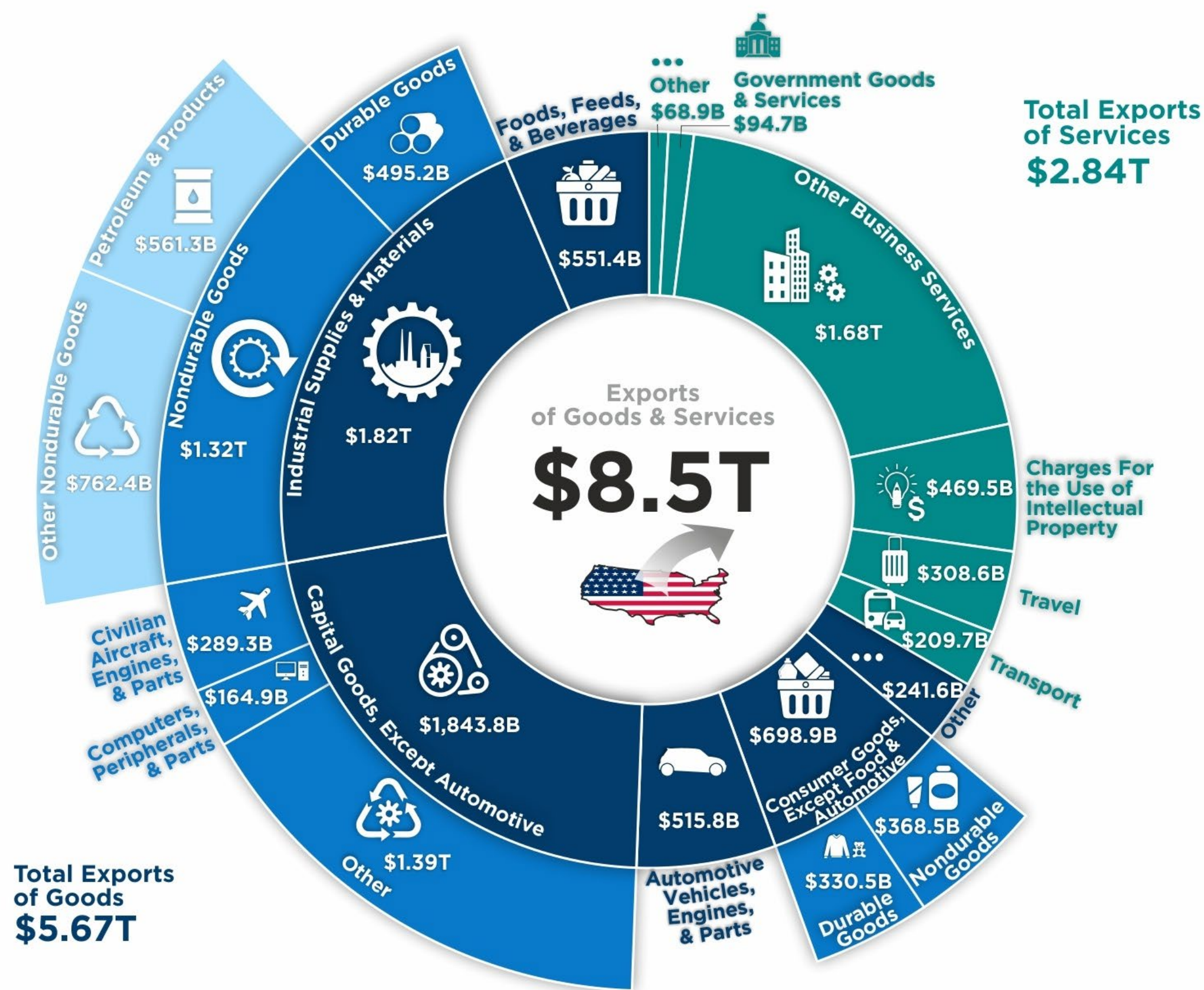


problem

us imports & exports rely on ships

Exports of Goods & Services by Type of Product

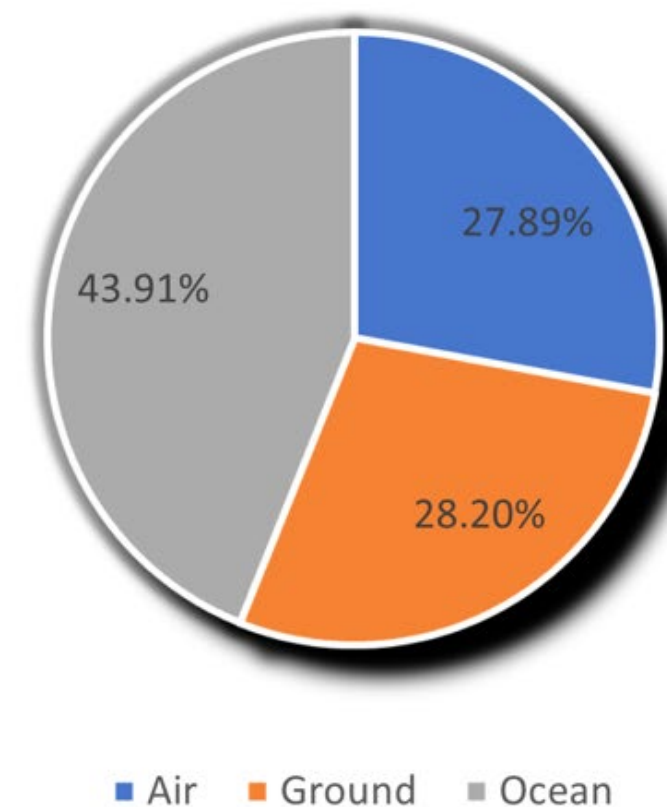
Total Value of the U.S. Exports in 2020



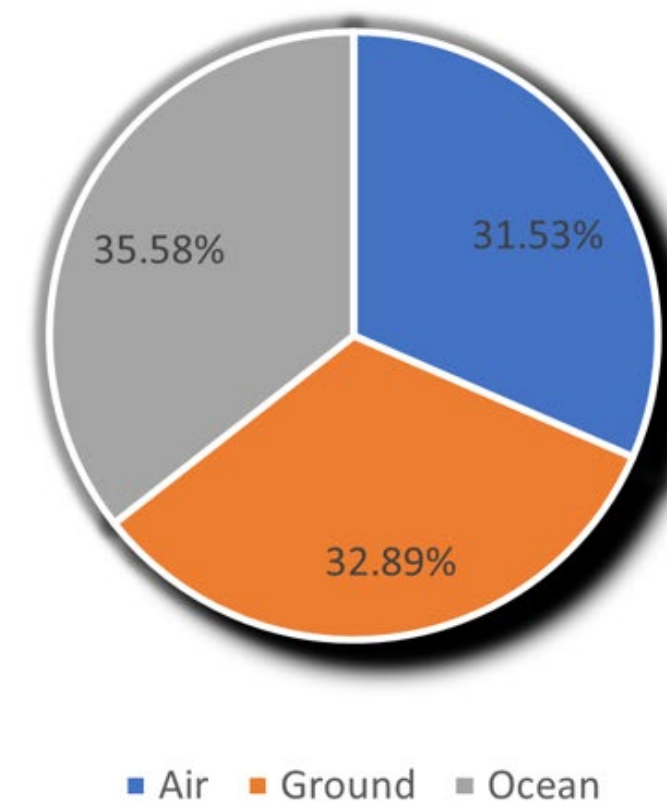
Article & Sources:
<https://howmuch.net/articles/us-exports-imports-of-goods-and-services-by-type-of-product>
Bureau of Economic Analysis - <https://www.bea.gov/>

howmuch.net

U.S. Imports , By Transportation Mode



U.S. Exports, By Transportation Mode



xinneng shipyard

china is ahead

1700+ acres

can produce 400 vessels/yr

\$700M+ USD equivalent

(claimed) 80% automation



video link: https://www.youtube.com/watch?v=RXr03aRF_p8&t=174s

xinneng shipyard

focused on china's inland market

90m (295ft) LNG Transporter

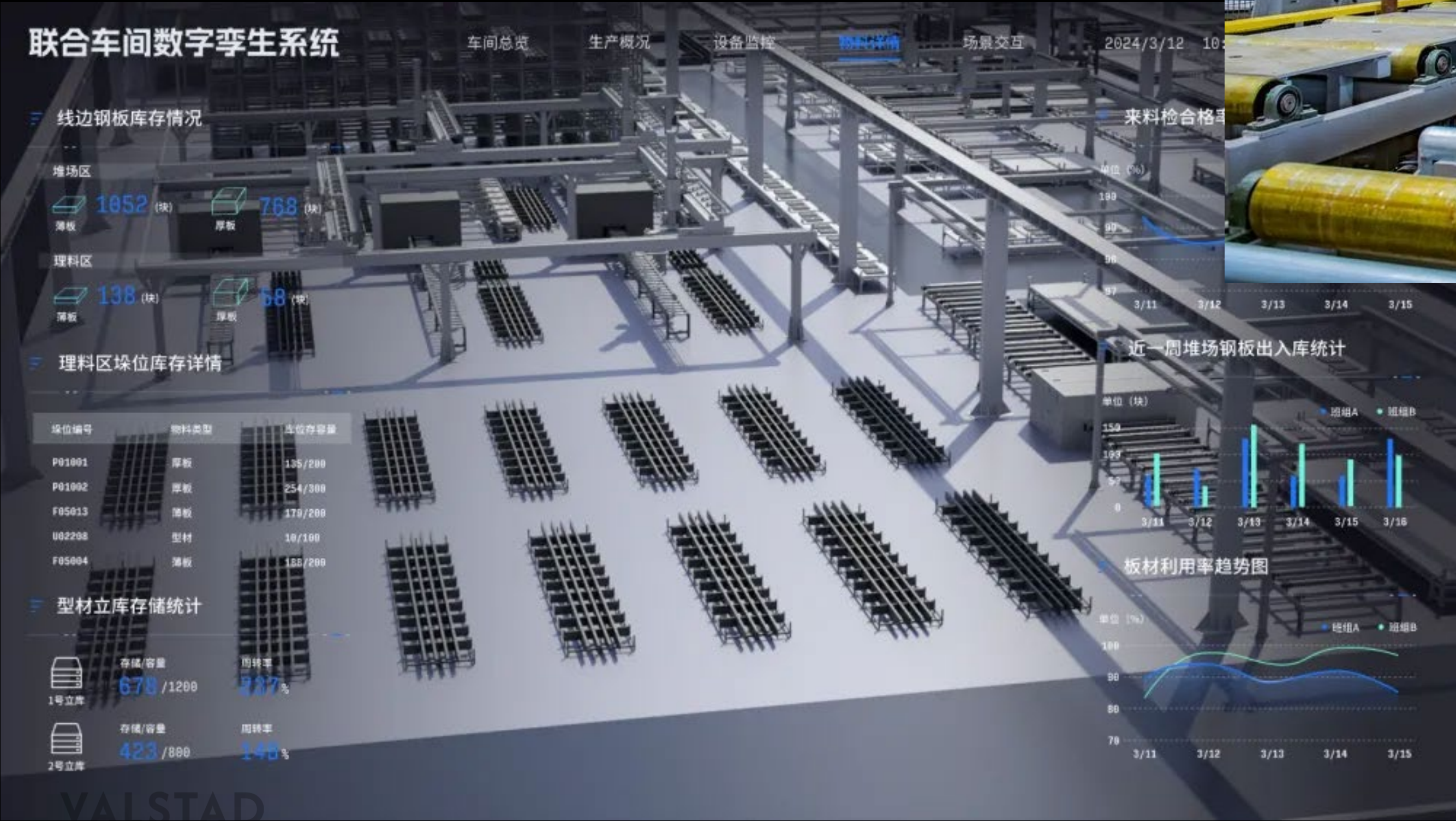


67.6m (222ft) Electric Transporter - 4MWh



xinneng shipyard

integrated software & robotics



xinneng shipyard

advanced material handling

vision-based pick and place
palletizing strategy for cut parts
robotic gantry cranes



xinneng shipyard

sophisticated warehousing

vertical warehousing strategy
agv's to transport and store parts
similar to amazon warehouse (bottom right)



xinneng shipyard

extensive use of robotics

automated micro-panel assembly

teach-free welding

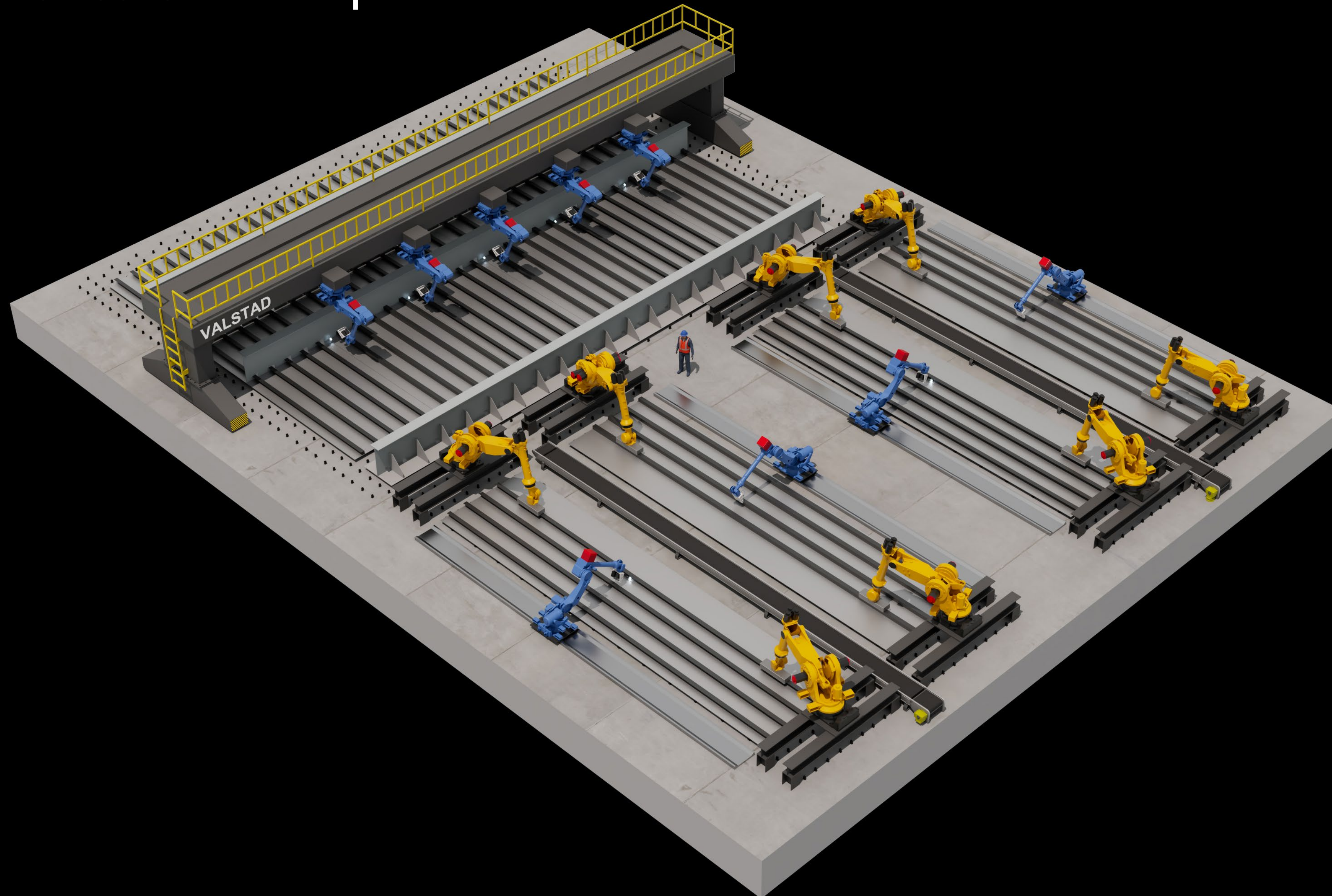
vision-based localization



Pioneering automatic alignment spot-welding technology.

replicator

the machine that builds the ships



autonomous from material offload to finished panel

modular design, buildable in ~6 months

up to 5x throughput vs. standard panel line

integrated material handling & prep

where this goes
building a gigafactory for ships

