
Unprecedented study by Wilson Sons finds 528 startups in the maritime and port industry worldwide

Big Data and Artificial Intelligence are the two main technologies used. The study will be presented at Intermodal South America 2023 in São Paulo

Today, worldwide, there are 528 startups in the maritime and port sector, some of which offering solutions directly targeting this industry. They are based in 45 countries on five continents, according to an unprecedented study carried out by Wilson Sons, Brazil's largest maritime and port logistics operator, supported by Cubo Maritime & Port, an initiative of Cubo Itaú in collaboration with Wilson Sons, Porto do Açu and Hidrovias do Brasil, to promote an alliance with major corporations, startups, investment funds and other stakeholders in the port ecosystem. The United States leads the ranking with 81 startups, followed by Israel, with 67. Brazil ranks eighth, with 22 startups, ahead of France (19), Spain (17) and Norway (12), for example.

According to the study "Overview of Maritime and Port Startups," 214 of the shiptechs (more than 40% of the total) develop solutions using Big Data & Analytics. Artificial Intelligence/Machine Learning, involving 85 startups, ranks second among the top technologies, ahead of Internet of Things (IoT), Sensors & Monitoring (83).

"The economic relevance of the sector, combined with its well-known operating challenges in the management, coordination and safety of shipping and berthing operations, has been drawing the attention of startups and entrepreneurs around the world. This is shown by the proliferation of technological shipping solutions in recent years," says the company's CEO Fernando Salek, who added: "There are currently about 20 innovation ecosystems across all continents, involving more than 500 startups, mostly from the USA, the Netherlands, Israel, United Kingdom and Singapore. However, despite the relevance, the economic potential and the strong demand for technological solutions in our sector, we believe that the number of startups may increase significantly."

According to the study, presented at the 27th edition of Intermodal South America 2023 in São Paulo, data from the World Trade Organization (WTO) indicate that 80% to 90% of global trade uses sea and river transport, while the goods transported are worth about US\$ 5 trillion in added value. Large-scale

changes now taking place will transform the global scenario, with four main trends: proliferation of shiptechs with integrated solutions; regulatory changes focused on decarbonization; collaboration and crowdsourcing; and remote or autonomous operations of ships and port equipment.

As for the startups, most companies mapped out by the study offer fleet management and monitoring solutions (155). In second place (147) are those that support freight and international trade. Another four categories were identified: specialised services (93), port and terminal management (64), cybersecurity and sustainability (50) and shipbuilding and maintenance (18).

Regarding technologies, in the Tech Clusters ranking, Big Data stands out, with 214 startups (more than 40% of the shiptechs). It is applied in predictive maintenance, route optimization, document management, automation of operations and shipbuilding. Then, with 85 startups, are Artificial Intelligence, which is used to optimise ship arrival dates by shipping companies, and Machine Learning, a subset of AI, to predict fuel consumption and plan optimal shipping routes. Internet of Things, Sensors and Monitoring (83) can be used to predict fuel consumption and plan optimal shipping routes. In addition to these, Robotics & Drones (42 startups), Blockchain (20) and Virtual Reality & Augmented Reality (12) were identified in the Tech Clusters ranking.

“We are experiencing an unprecedented moment in the industry, in which the adoption of new technologies will make port operations and shipping increasingly more efficient, safer and sustainable. We need to seize this opportunity and translate this moment into efficiency gains and more sustainable operations, while promoting the emergence, development and proliferation of startups, with impacting solutions for our industry,” Wilson Sons Digital Transformation director Eduardo Valença said. He added: “We decided to release this study because we believe that consistent transformation requires vigorous pursuit of innovation, new technologies and cooperation with our stakeholders and society in general.”

To strengthen the innovation agenda in the industry, in 2022, Wilson Sons teamed up with Cubo Itaú, the most relevant centre for innovation and promotion of technological entrepreneurship in Latin America, Porto do Açu, Hidrovias do Brasil and Radix, to set up the first hub dedicated to port and maritime solutions in Latin America: Cubo Maritime & Port.

Wilson Sons is also a minority investor in three other startups that provide relevant digital transformation technologies and solutions in our industry. The Israeli DockTech (which scans the seabed of ports to make shipping and dredging more efficient), the Brazilian Argonáutica (with the dynamic draft tool that optimises ship loading and berthing at terminals) and the British AIDrivers (conversion of vehicles and conventional machinery, such as trucks, into autonomous equipment).

In 2022, Wilson Sons was the first in Latin America to join TIC 4.0, a global port terminal innovation committee for port industry innovation that includes global

terminal operators and manufacturers and suppliers of state-of-the-art port equipment and technology.

“Innovation and technology play an important role in the sustainability of ports, including in tugboat manoeuvres. Our new investments in more sustainable tugboats go in that direction. Wilson Sons is currently building six tugboats, two of which were delivered in 2022 ("WS Centaurus" and "WS Orion"), and four others will be delivered between 2023 and 2024. In this project, we have launched in Brazil the first International Maritime Organization's Tier III standard tugs with an innovative hydrodynamic design that improves efficiency by allowing up to 14% reduction in greenhouse gas emissions,” says Eduardo Valença, adding that the company also considers new fuels and energy sources for tugboats and port equipment.

See the full study “Overview of Maritime and Port Startups”: ([Overview of Maritime and Port Startups 2022 — Wilson Sons](#))

About Wilson Sons

Wilson Sons is the largest integrated port-shipping logistics operator in Brazil, with over 185 years of experience. The company operates across Brazil and offers complete solutions to more than 5,000 clients, including shipowners, importers and exporters, offshore energy industry, renewable energy projects, agribusiness corporations, and other players in different businesses. Learn more at: wilsonsons.com.br

About Cubo Maritime & Port

Set up in July 2022, Cubo Maritime & Port is an initiative of Cubo Itaú in collaboration with Wilson Sons, Porto do Açu, Radix and Hidrovias. It provides an integration between the different ends of the ecosystem to boost innovation in the maritime and port sector in Latin America, a market with great potential, in addition to welcoming international shiptechs to work and share their experience with Brazil. Startups with industry solutions in the growth stage, and corporations interested in attracting a greater number of businesses, obtaining efficiency gains and market performance, promoting digital culture and greater socioeconomic impact, can apply throughout the year. For further information, visit: <https://cubo.network/hub/maritime-port>

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