

# BRAZILIAN SHIPBUILDING

*Brazil moves its shipbuilders back into the world spotlight.*



President Kubitschek  
(1956-1961)

Exuberant with newfound potential, Brazil is building ships again. Three decades ago there was such maritime activity in Brazil that its shipyards actually held the world's second largest ship orderbook for a time, amid wide speculation that the country would

become "the next Japan." But that bloom was not sustainable and, by the late 1990s, the country's shipyards had collapsed. Today, spurred by the offshore expansion of national energy company Petrobras and the fleet renewal program of Transpetro, its transport arm, the desert is blooming again and, once more, Brazil is one of the happier planets in the shipbuilding universe.

The 28 shipyard members of the Brazilian shipbuilders association, Sinaval, now have orders for about 400 vessels of all types, from supply boats to supertankers to offshore oil platforms. Together, these orders are worth about \$10 billion – including \$4 billion from Transpetro and about \$3 billion from Petrobras – with much more to come. About 90 percent of the building cost in these projects has been loaned through Brazil's Merchant Marine Fund and the Government Program of Accelerated Growth (PAC) that stands behind it.

Along with ships and offshore projects Brazil is building new infrastructure – ports, pipelines, refineries, terminals, roads, factories and even new shipyards – a long list of public projects that have helped some three million Brazilians leave poverty behind in the past six years.



# REBORN

Brazil shipbuilding Rio Grande do Sul shipyard under construction.



The building blocks of Brazil's miracle-in-progress were succinctly explained in 2008 by President Luiz Inacio Lula da Silva, during the launch of a 146-vessel order placed by Petrobras with Brazilian yards. Responding to criticisms of Brazil's national content policy, Lula excoriated the logic of expediency that had damaged the country's maritime sector and forcefully reminded the audience of President Kubitschek's policies.

"Everyone knows that he had a vision of the future, that he was a statesman who knew that 90 percent of what we buy and sell comes and goes in ships. The single most absurd thing that happened in this country was that, one day, some bright sparks decided we didn't need the merchant marine or the shipbuilding industry any more, as it would be cheaper to buy things out there," said Lula.

In continuing the response, he also gave a capsule definition of his goals: "this stupidity reached such a point that they didn't realize that by investing here we hire workers here... [the worker] will become a consumer, earn a wage, generate revenue and buy on the domestic market. That is, he will be a productive man, a citizen."

"President Lula saw that the country needed a strong merchant marine in order to be internationally competitive," recalls Franco Papini, Executive Vice President of Brazilian shipbuilder association Sinaval. "Sinaval was called in to advise. We performed several studies and concluded that our industry was,



Franco Papini,  
Executive Vice President,  
Sinaval





President Lula visiting drydock under construction.

Photo by Steferson Faria

basically, bankrupt. The shipyards were there but needed entrepreneurs with the cash, clout and collateral to obtain loans under the FMM. At the same time, the government recognized Petrobras' position that, in order to use offshore development to help the country, whatever components could be made in Brazil, should be.

"At the time, virtually all components for ships and offshore projects were imported," he adds. "With Petrobras, we studied the realities of our human resources and shipbuilding situations. We charted everything Petrobras planned to accomplish over the next ten years – this was before the pre-salt discovery – and discovered Brazil would need about 70,000 more trained workers if all these projects were to be done here. With pre-salt, that number jumped to about 160,000. We concluded it was time to roll up our sleeves and get to work."

This heightened activity and the Transpetro program attracted the attention of two major Brazilian construction conglomerates, Camargo Correa and Queiroz Galvão, which proposed a joint venture to build a new shipyard dedicated to energy needs. This facility, the Atlântico Sul shipyard, is now taking shape in the Northeastern state of Pernambuco. Transpetro has ordered 10 suezmax and five aframax tankers there, the first of which is now under construction. Partnering with the builders to make

Atlântico Sul a reality are PJMR, holding 10 percent voting capital, and Samsung Heavy Industries, the yard's technology supplier, also with a 10 percent stake.

Sinaval, meanwhile, worked in a tripartite committee with labor and government to rewrite construction codes and labor laws so as to accommodate the specifics of shipbuilding – a long overdue action, says Papini. "The norms in force in 2003 dated to 1949 and took no account of the special needs of vessel and offshore platform construction," says Papini. "The inspectors would make all kinds of trouble and cause delays in the shipyards because they had inappropriate rules in their checklists." After rewriting some 20 laws, the codes now address offshore and marine construction, he says.

One of the biggest steps on the road to revitalization came in July 2004, when the government succeeded in getting the Merchant Marine Fund (FMM) back in action. The FMM exists under the Transport Minister but its budget decisions are under the Planning Minister and its disbursements follow the orders of the Treasury Minister. Their inter-Ministry conflicts and roadblocks were resolved under new Law 10893, which designates the FMM "a fund of an accounting nature, intended to provide resources for development of the Merchant Marine and the Brazilian shipbuilding and repair industry."



The following December, Transpetro opened bidding on the first 26 of an eventual 49 tankers. In September 2008, the FMM received backup from a new shipbuilding loan guarantee fund (FGCN) established under law 11786. By January 2009, Brazil, which only a few years earlier had not seen a big ship order in two decades, found itself Number Ten on the world shipbuilding orderbook list.

## TO NURTURE THE SECOND FLOWERING

"In the 1970s, Brazilian shipyards employed 40,000 people directly," says Papini. "Today we have reached those levels again and expect even further growth, to perhaps as high as 60,000 direct employees by 2015."

"This is a great period in Brazilian history," he adds. "We are building a national industry, in cooperation with foreign partners, that will be able to supply local content for all Brazilian projects and that will also be internationally competitive. We once had three factories manufacturing propellers and four factories building big marine diesel engines. Now there is nothing. But it is coming back, and we are close to 70 percent of the local content levels we achieved in the 1970s."

For Nobuo Oguri formerly Executive Vice President of Ishibras, who came to Brazil at the age of two in 1928 and has truly seen it all, there is also cause for faith in his country's second flowering. "I am optimistic for our shipping and shipbuilding sectors," he says. "Brazil has its own cargos to transport and workers to employ and, therefore, needs its own ships and shipowners; there is great opportunity in this.

We have great natural resources; we just have to use them well. God was good to Brazil. Our problem has always been ourselves."

He also believes that industry and government have learned enough from the past to do it well this time. "In general, history shows that people fail to learn from history, and repeat the same mistakes," he observes. "In Brazil, we have to avoid the mistakes of the past, which means planning – and assuring that resources are inserted into the national budget differently than in the past. I believe we are doing this.

"We are in a new era, with new technical and management tools, but the tools are not really what's most important," he says. "What's most important is imagination. In our industry we have to be creative and innovative, and in the government we need more people with vision, decision and action."

As a witness to history, however, his most important advice regards the individual's responsibility to society. "As individuals we must remember our flag. Many people today don't even know what Flag Day means any more; they forget why you show the flag outside the house. If we forget the flag, we forget the country," he explains. "We have a saying in Brazil that 'the head was not made just to hold a hat.' In the same way, the flag was not made just to wave in the football stadium."

"Of the things we must do to sustain this revitalization," he says, "the most important is to remember the flag, remember the country and remember that what we do, we do not just for ourselves, but also for Brazil."





# A HISTORY UNDAUNTED BY PROBLEMS



Irineu Evangelista de Souza,  
Baron of Mauá

Brazil is undergoing the second rise of its maritime-industrial complex. Its first boom came in the mid-1800s, largely through the work of Irineu Evangelista de Souza, Baron of Mauá. Brazil's first industrialist, Mauá established transport, communication and other businesses throughout the country and in 1846 founded Mauá Shipyard, building 72 ships before his empire was declared bankrupt in 1876. While others shared the dream of an industrial Brazil, it would take eight decades for that vision to be fully resurrected.

Brazil's shipbuilding and heavy industries were reawakened through the industrialization program begun during the administration of Juscelino Kubitschek de Oliveira, President of Brazil from 1956 to 1961. His development plan, entitled "50 years of progress in five years," used a "program of targets" to develop many sectors of Brazilian industry, placing special emphasis on power, transport, construction and heavy engineering sectors. In particular, Target 11 specified "Renovation of the Merchant Marine" and Target 28 addressed "Establishment of Shipbuilding." These programs were to be financially sustained through a new law proclaimed in 1957 (Law #3381) establishing the Merchant Marine Fund and the import tax that would fuel it.

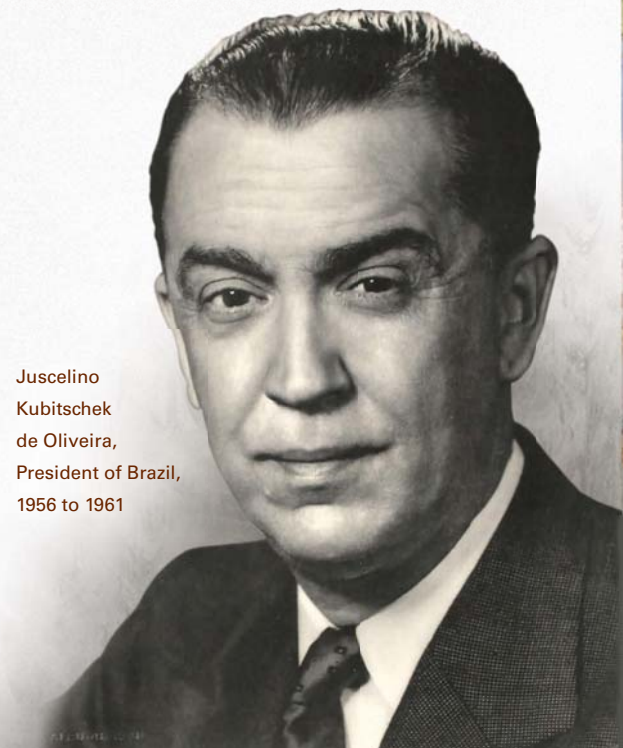
Under Target 28, six shipyards were established by local and international partnerships: Caneco, CCN, EMAQ, Ishibrás, Só and Verolme. As incentives attracted major international manufacturers, factories went up and the country experienced an industrial boom, the vitality of which invigorated its literature, art and science worlds as well.

"Kubitschek was a unique president who started out with a plan for every sector," recalls Eng. Nobuo Oguri, formerly Executive Vice President of Ishibras. At the age of 83, Oguri is a venerable figure who has had a

major role in the development of Brazilian shipbuilding and been a witness to the entire trajectory of modern Brazilian industry – from dream to hope to glory to despair and now back towards glory again. The lowland farm country of his youth has transformed into the posh Rio suburbs of Copacabana, Ipanema and Leblon, and the industry that flowered in his middle years is starting to bloom again.

"One of the great things government did at that time was establish naval engineering courses in São Paulo and Rio de Janeiro universities," says Oguri. "These laid the foundation for the future. They were all-important to the re-start of the industry today because the universities and shipyard remnants maintained the knowledge, so the country didn't lose the technology."

By the late 1970s, Brazilian yards could claim the second largest orderbook in the world. The big drivers for this success were fleet-building orders from Petrobras, Vale do Rio Doce, Lloyd Brasileiro and domestic owners. As national orders dried up in the 1980s, a world shipping crisis struck and the main Brazilian builders, unable to compete, closed. The exceptions were Ishibrás, which had become a merger of troubled yards named IVI, and EMAQ, renamed EISA. Although inefficiency, poor management and lack of vision certainly had a role in the shipyard collapse, the disaster wasn't entirely the yards' fault, says Oguri.



Juscelino  
Kubitschek  
de Oliveira,  
President of Brazil,  
1956 to 1961



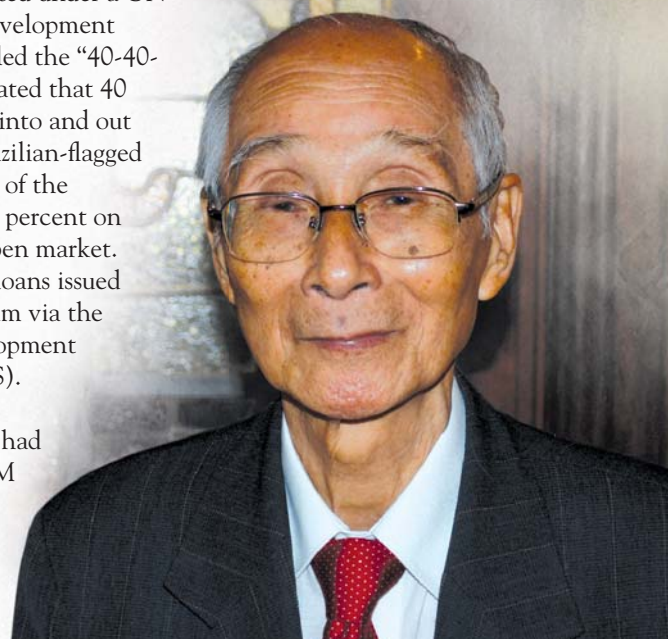
“The shipbuilding sector made some of its own problems; many yards did not plan well and did not see that they needed to improve their management to be competitive,” he says. “Also, some manufacturers started to build machinery, without the necessary experience, which caused schedule delays and higher costs for the yards. But even those able to meet the strict shipyard and classification rules suffered. At the same time, the industry’s government funding suddenly dried up. The yards were totally unprepared for this.”

During the 1980s, Brazil became desperate for dollars and government told shipyards there was no FMM money to disburse, directing them to get financing from international banks in dollars. The National Superintendent of Merchant Marine (Sunamam) would then assure the banks, in writing, that the Brazilian Government underwrote the loans. In the oil crisis that followed, Brazil defaulted on its loans.

“The government needed dollars and forced the shipbuilders to take foreign loans and, in order to build, obtain parallel loans to reinforce the treasury,” Oguri recalls. “Then, during these hard times, it did not put the tax money into the FMM as it was supposed to. All this contributed to the ultimate collapse.”

By 1998, while Brazil’s shipbuilders were feeling themselves on the cusp of either renovation or destruction, its shipowners were doing barely better. For years, Brazilian shipping had been protected under a UN Council on Trade and Development (UNCTAD) program called the “40-40-20 scheme”, which mandated that 40 percent of goods shipped into and out of Brazil be carried by Brazilian-flagged ships, 40 percent by ships of the receiving country, and 20 percent on vessels drawn from the open market. The program was tied to loans issued by the FMM and Sunamam via the Brazilian National Development and Social Bank (BNDES).

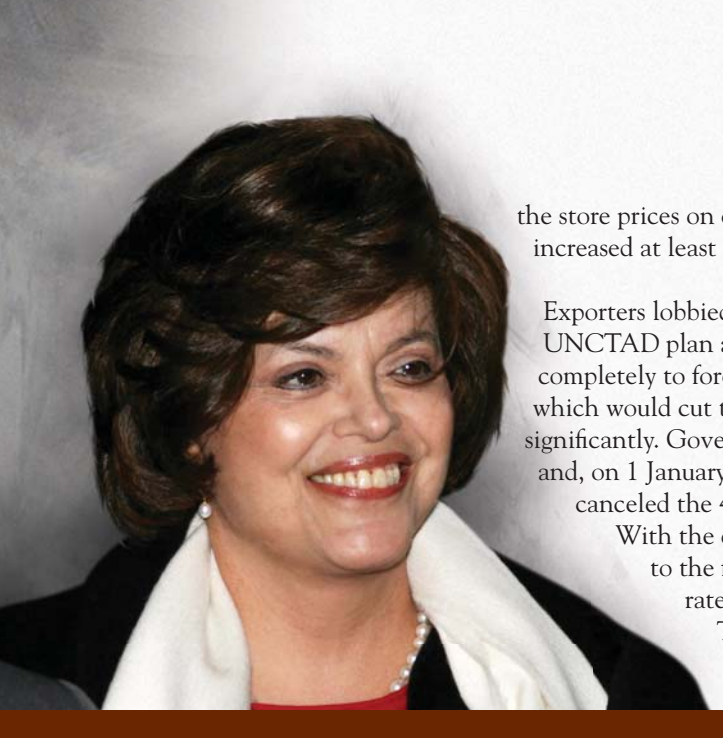
Shipping companies that had taken loans from the FMM were bound to retain the Brazilian flag until the loan was repaid. This meant enduring very high social costs demanded by law (for example, an added 72 percent on top of crew salaries) as well as bearing the country’s inflation burden. Over a period of years, the government tried to “correct” the value of its currency in the midst of inflation that, at one point, was so



Eng. Nobuo Oguri,  
Former Executive Vice President,  
Ishibras







Dilma Vana Rousseff Linhares,  
Energy Minister,  
Brazil

the store prices on consumer goods increased at least once a day.

Exporters lobbied to discard the UNCTAD plan and open Brazil completely to foreign shipping, which would cut their costs significantly. Government yielded and, on 1 January 1991, suddenly canceled the 40-40-20 program. With the doors thrown open to the free market, freight rates plummeted.

The shipowners saw slow death in their future because the government,

while allowing a “free market” for exporters, still tied them and the builders to the burdens of the controlled markets of the past.

The difficulties continued in mid-1994 as the government accelerated a currency correction with a “reference tax” (the TR) and a variable interest rate on loans (the TJLP). As a result, when the currency stabilized in September 1995, Brazilian shipowners found their debts to the FMM and BNDES inflated by 40 percent. Their income, however, had not adjusted accordingly.

Amid this darkness a little light was showing, as activity was stirring in the small vessel sector. But the shipbuilders and shipowners still had to wait for the government to repair its maritime policies before any real hope could return. Things remained so until the late 1990s or when Petrobras began looking at renewing its fleet of tankers and expanding its offshore search for oil and gas.

## SECOND WIND, SECOND TIME

Today’s revival of maritime Brazil can be traced to 1997’s Petroleum Law (Law #9478), which reorganized the energy sector, put Petrobras on the stock market and led to the creation of Transpetro. Invigorated by foreign investment, Petrobras began expanding its offshore exploration and production, discovering many big oil fields and, ultimately, the immense pre-salt oil and gas reserves that now, through its national content program, are the foundation of plans for national transformation.

The first sparks of rebirth were struck back in 1998, when Petrobras began looking for the Platform Supply Vessels (PSVs) it would need for developing Brazil’s deepwater offshore oil fields. Boats came to Brazil from

all over the world and foreign companies began dominating what had potential to be an important local industry.

Around this time, the head of local supply boat operator CBO, Luiz Mauricio Portela (a former EMAQ engineer), proposed the formation of a Brazilian supply boat operators association. Named ABEAM, the association would offer Petrobras a modernization plan for its supply boat fleet and prove that local shipyards could build good PSVs.

Although no merchant ship newbuilds had been registered for 15 years (apart from barges and tugs), the country remained rich in its most important asset: human capital. The veteran experts from the booming 1970s, though perhaps a bit grey, were still fit and fiery. In addition, some shipyards were still there – neglected, abandoned and obsolete, but just waiting to be awakened. The few that had not closed were eking out a living in repair.

Seeing opportunity develop, three ex-Mauá executives, Ariovaldo Rocha, Paulo Ferraz and Waldermiro Arantes, joined with entrepreneur Paulo Hadad to form PJMR Enterprises. They leased a dock at the old Mauá yard and began repairing supply boats. As business grew, they moved to the Rio suburb of Niteroi Island and opened the Promar 1 facility, later bought by Aker and renamed Aker-Promar. CBO ordered three new supply boats from Promar 1, which did prove that local shipyards could build quality PSVs at competitive prices and with on-time delivery. Petrobras then confidently launched its Program for the Modernization of the Supply Vessel Fleet in 2001 with a directive in all calls and tenders that its supply boats must fly the Brazilian flag. As a result, owners began ordering at local yards.

Supply boats were a nice start but Brazil needed more. Sensing the potential, the Rio de Janeiro State Government created a new ministry in 1999: the Energy, Shipbuilding and Oil Secretariat. Headed by Secretary Wagner Victor, its job was to bring foreign partners back to Rio and effect the resurrection of its shipyards.

“Wagner Victor was a very dynamic secretary,” recalls Oguri. “He traveled around developing international



relationships for our maritime sector and helped bring Norwegian shipbuilder Aker and Singaporean offshore builders Keppel FELS and Jurong to Brazil.”

Keppel took the old Verolme shipyard and Jurong the former Mauá facility. Within a few years the federal government, through new Energy Minister Dilma Vana Rousseff Linhares, began examining Brazil’s industrial fundamentals. Rousseff became Energy Secretary in 2003, an early appointee in the new administration of President Luiz Inácio Lula da Silva, who had been elected in 2002.

“Another extremely important figure to our revitalization was the Energy Minister at the time, and now Chief of Staff, Dilma Rousseff,” says Oguri. “She organized a diagnostic study of Brazil’s ports and shipbuilding sector in a joint effort with Petrobras and the shipbuilders association, Sinaval. They concluded that no drydock was sufficient for the projected tasks

and no single facility offered exactly what future energy development required.”

Another study led to approval in late 2003 of Petrobras’ Program to Mobilize the Petroleum Industry (Prominp) and Transpetro’s Fleet Modernization and Expansion Program (Promef). The studies led to decisions to develop a large facility for offshore platforms in Rio Grande do Sul and to build the Atlântico Sul shipyard in the north, which brought in Samsung and has, in turn, inspired other Asian Yards to take an interest in Brazil.

President Luiz Inácio  
Lula da Silva,  
Brazil

