



Reino dos Países Baixos

MATRIX OF BUSINESS OPPORTUNITIES IN BRAZILIAN PORTS

THEME/ACTIVITIES	OPPORTUNITIES	START	PUBLIC PORTS & LEASED AND PRIVATE TERMINALS
1. Direct investments Area Development Port and Port Terminals Management	1.1 Port Terminal Rental/Lease opportunities 1.2 Leadership or Partnership in Port and Port Terminals administration 1.3 Participation in Public Port privatization 1.4 Partnership with private port terminals 1.5 Process Integration 1.6 Supply Chain Management	First quarter 2021	CODESA – Port authority – 2 nd Semester 2021 CDSS – Port Authority – 1 st Semester 2022 Port of Itajaí – Port Authority – 1 st Semester 2022 Port of Santos – Port Authority – 2 nd Semester 2022 Bidding of Port Terminals in public ports – general cargo, container, grain bulk cargo, liquid bulk cargo, cruise terminal - 7 in the 1 st Semester 2021 - 8 in the 2 nd Semester 2021
2. Design/Engineering R&D	2.1 Port Terminal infrastructure expansion – berths, quays, warehouses and storage yards 2.2 Dredging, Truck roadways, Rail manoeuvring facilities and Cargo operation management tools 2.3 Physical planning	First quarter 2021 - continued	Leased terminals in public ports – grain bulk cargo, liquid bulk cargo, LNG and container terminals Private terminals – <i>greenfield and brownfield</i> Internal railroad of Port of Santos to be leased - 2 nd semester 2021
3. Traffic control	3.1 VTMS – vessel traffic management and information system 3.2 Management Tools for truck and rail traffic control	First quarter 2021 - continued	10 top Public Ports and Private Terminals

THEME/ACTIVITIES	OPPORTUNITIES	START	PUBLIC PORTS & LEASED AND PRIVATE TERMINALS
4. Consultancy	4.1 Navigation Channel Management 4.2 Environmental Impact Assessments 4.3 Environmental Policy Assessments 4.4 Sustainable Port Development 4.5 Quantitative Risk Assessments 4.6 Consultation and Communication 4.7 Public port and Private Terminals Infrastructure Development 4.8 Strategic Planning 4.9 Terminal Operations and Optimization 4.10 Security	First quarter 2021 - continued	10 top Public Ports and Private Terminals
5. Traffic Control and Management	5.1 Vessel Port Traffic Management 5.2 Cargo and Ship Operational Performance and Efficiency 5.3 Cargo Safety and Dangerous cargo handling/storage 5.4 Port Community System implementation 5.5 Single window and Customs procedures	First quarter 2021 - continued	10 top Public Ports and Private Terminals

THEME/ACTIVITIES	OPPORTUNITIES	START	PUBLIC PORTS & LEASED AND PRIVATE TERMINALS
6. Passenger and Material Handling – Cruise Terminals	6.1 Luggage handling systems 6.2 Automation H2M 6.3 Known Traveller Digital Identity	First quarter 2021 - continued	Cruise terminal – Port of Santos, Rio de Janeiro, Salvador, Natal, Fortaleza, Recife
7. Safety & Security	7.1 Terminal Security 7.2 Incident management 7.3 Drug security	First quarter 2021 - continued	10 top Public Ports and Private Terminals
8. Sustainable Technologies	8.1 Solar, Wave and Wind powered plants. 8.2 Water treatment 8.3 Environmental pollution control – air and water	First quarter 2021 – continued	10 top Public Ports and Private Terminals
9. Training & Capacity Building	9.1 Recruitment 9.2 Posting & Project Management 9.3 Technical training cargo handling operators 9.4 Terminal Staff training	First quarter 2021 - continued	10 top Public Ports and Private Terminals

ACRONYMS

CODESA Espírito Santo Dock Company – Port Authority

CDSS São Sebastião Dock Company – Port Authority

H2M Human to Machine

VTMIS Vessel traffic management and information systems

TOP 10 PUBLIC PORTS AND PRIVATE TERMINALS

Position	Port/Terminal	Public/Private	Cargo Handling (MM ton - 2019)	Location
1	Port of Santos	Public Port	106,2	Santos (SP)
2	Port of Paranaguá	Public Port	48,5	Paranaguá (PR)
3	Port of Itaguaí	Public Port	43,2	Itaguaí (RJ)
4	Port of Rio Grande	Public Port	25,8	Rio Grande (RS)
5	Port of Itaqui	Public Port	25,2	Itaqui (MA)
6	Port of Suape	Public Port	23,9	Recife (PE)
7	Port of Vila do Conde	Public Port	13,6	Barcarena (PA)
8	Port of Santarém	Public Port	12,5	Santarém (PA)
9	Port of São Francisco do Sul	Public Port	11,2	São Francisco do Sul (SC)
10	Port of Rio de Janeiro	Public Port	7,1	Rio de Janeiro (RJ)
1	Terminal Ponta da Madeira (Vale)	Private Terminal	190,1	Itaqui (MA)
2	Terminal Tubarão (Vale)	Private Terminal	76,4	Vitória (ES)
3	Terminal TEBIG (Petrobras)	Private Terminal	51,9	Angra dos Reis (RJ)
4	Terminal TEBAR (Petrobras)	Private Terminal	43,2	São Sebastião (SP)
5	Terminal Porto do Açú Minério	Private Terminal	23,0	São João da Barra (RJ)
6	Terminal Ilha Gaíba TIG (Vale)	Private Terminal	21,0	Itaguaí (RJ)
7	Terminal TPET/TOIL (Açú Petróleo)	Private Terminal	19,3	São João da Barra (RJ)
8	Terminal do Pecém	Private Terminal	18,1	São Gonçalo do Amarante (CE)
9	Terminal Madre de Deus (Petrobras)	Private Terminal	16,6	Madre de Deus (BA)
10	Terminal Porto Sudeste do Brasil	Private Terminal	16,4	Itaguaí (RJ)