



## A New Meteo-oceanographic and Environmental Monitoring Laboratory in Brazil

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The newer oil provinces in the pre-salt regions off the Brazilian Coast have raised the necessity of the creation of monitoring and observational centers, regarding the best comprehension on the ocean and atmosphere dynamics. The relation between industry and university is a concept based on collaboration, and it is an innovative social experiment in Brazil. The sustainability of that collaboration depends on the balance of mutual interests on private business and public academic institutions. The entrepreneur needs continuous accesses to the new academic researches, and the greatest benefit, for the academy, are funding complementation and personnel qualification. We need to establish a thread of new challenges, some of them based on disruption of paradigms in the Brazilian academic culture, and removal of obstructive clauses from the entrepreneur. Questioning and methods revalidation, in the oceanic environment areas, also requires a collaborative and interdisciplinary effort, congregating the physical aspects along with others compartments of the environmental monitoring. We proposed the creation of a Meteo-oceanographic and Environmental Monitoring Laboratory – LAMMOA (Portuguese acronym), which will be installed in a new facility funded by PETROBRAS (the Brazilian leading oil company) and ruled by USP, UNESP and UNICAMP, the state public universities in Santos (São Paulo State, Brazil). The new facility will be a research center in oil and gas activities, named CENPEG-BS (Portuguese acronym for Research Center of Oil and Gas in the Bay of Santos). Several laboratories and groups will work together, in a highly collaborative environment and so, capable of quickly respond to sudden demands on offshore activities and logistic operations, as well as in contingency situations. LAMMOA will continuous monitor oceanic regions where the pre-salt activities of oil exploitation occur. It will monitor meteo-oceanographic parameters like winds, waves and currents, providing suitable data for offshore and transportation activities. For such, LAMMOA will operate a system of moored acoustic current meters and others environmental sensors, applying analytical and numerical methods for improving comprehension of the oceanic environment. Oceanographic gliders, satellite measurements and newer observational technics should replace expensive hydrographic surveys, and enhance the efforts on the knowledge of oceanographic processes as those that occur in the Brazil Current. We hope these actions create a new culture on continuous monitoring the ocean, along and offshore the 8,000-km Brazilian coast, including its continental shelf and coastal regions.