

2010-12-28 Rio becomes the research hub for petroleum industry

If California has its Silicon Valley, a region that brings together high-tech companies, Rio moves to create a Pre-Salt Valley or Valley Energy. This hub, which brings together the experts of oil, is under development in the technology park at the Federal University of Rio de Janeiro (UFRJ), in Fundão Island, where Petrobras inaugurated the new building, expanding its research center. There are technologies being studied for electromagnetic characterization of deep reservoirs, nuclear magnetic resonance and special equipment to drill the pre-salt in a safe and fast.

In the first instance, 12 companies are setting up in the technology park of UFRJ, Segen Estefen predicts, director of technology and innovation Coppe). "The Island [Fundão] is configured as a large cluster of pre-salt technology, just as Silicon Valley was to the area of computing," says Estefen. The companies say that settling will be motivated with the opportunity to partner with UFRJ, and also with the prospect of working with Petrobras. "It is a tripartite interaction," he says. The latest companies to announce the construction of research centers in the technology park UFRJ were Halliburton, provides services in the offshore area, and Tenaris, a maker of steel tubes. The two will build research facilities to develop new technologies for the sector. Before them, Schlumberger, FMC, Baker-hughesi Usiminas made similar announcements. Schlumberger research center opened in November, investing US\$48 million.

There are also cases of companies that have signed memorandums of understanding with Petrobras for future cooperation in technological research and development projects, as in the case of GE. The American company will be setting up in an area next to the technology park, and at the moment is negotiating to purchase 100% of Wellstream, a manufacturer of flexible pipelines to transport oil and gas. Others are still under negotiation with the state to sign cooperation agreements, such as Weatherford, Cameron, Wellstream and IBM itself.

Petrobras' goal is to maintain closeness to companies developing technology. Carlos Tadeu Fraga, executive manager of Petrobras Research Center (Cenpes), says that investments in research and development (R & D) made by the Petrobras have grown fivefold in the decade - about US\$800 million per year.

According to Fraga, Brazil will be a technological center for oil and gas in the next decade. Petrobras has a contractual obligation with the National Petroleum Agency (ANP) to invest at least 1% of gross revenue of fields to pay in special participation in R & D projects. Half of this percentage is invested in universities (US\$ 400 million per year).

One focus of the studies are carbonate rocks, which are deposited the oil tanks of the pre-salt. These studies include other universities. Professor Dimas Brito, Universidade Estadual Paulista (UNESP), Rio Claro (SP), cites the initiative to create a Unespetro, a center for geosciences applied to petroleum-based university.

The center will be composed of teachers, researchers, undergraduate and graduate students and industry professionals, the country and abroad. The Unespetro will focus on the study and teaching of carbonate rocks. Approximately \$ 10.5 million is being invested in structuring the center, considering the building and equipment. Almost 90% of this is investment made by Petrobras. In view of Brito, among the main challenges of Unespetro the next ten years will be the monitoring of geoscientific and technological demands in the oil. (CS and FG)