

## CENTRO DE INVESTIGAÇÃO CIENTÍFICA E INOVAÇÃO – CITIP

### ABOUT THE IMPLEMENTATION OF SONANGOL RESEARCH AND TECHNOLOGY CENTER

#### 1. BACKGROUND

**2011-2015:** The publication of the Presidential Decree (PD) No. 243/11 dated 7 September, reinforced by DP 179/15 of September 28, approved the general strategic basis for the pre-salt exploration in Angola. This Decree establishes that investors and contractors' groups that were interested in the exploration of the Angola pre-salt oil basins, should contribute to the creation of what was called "*Centro de Investigação e Tecnologia*" Research and Technology Center" (CITEC). The main rationale was that oil exploration in the pre-salt layer constituted a strategic basis for the development of the country, which should be supported by technological development through scientific research capable of promoting the substantial growth of the O&G sectors.

**2016-2017:** This period was characterized by the development and formulation of the foundations for the establishment of the Center. The general proposal for the constitution of the institution called "CITEC" was presented. However, there was a change of designation when the Center went to register the institution at the National Registration Authority, due to the existence of an entity with the same name. A new designation, CITIP, was proposed and approved as an abbreviation for the Oil Industry Research and Technology Center (*Centro de Investigação e Tecnologias da Indústria Petrolífera*).

**2018-2019:** Period marked by several reforms in the hydrocarbons sector, especially the separation of the National Concessionaire from Sonangol and the consequent creation of ANPG, and, in parallel, the beginning of the expected Restructuring of Sonangol, actions which conditioned the timely creation and implementation of CITIP.

**2020:** As part of the Restructuring process, Sonangol approved the creation of the "Centro de Investigação Científica e Inovação" Scientific Research and Innovation Center (CITIP) as part of the implementation of the New Macro Structure, integrating the Shared Services Center, in June 2020.

## 2. GENERAL OBJECTIVES OF CITIP

The key objectives of CITIP are to contribute to the scientific, technological and sustainability development of Sonangol and the national oil sector, through scientific research, innovation and technical assistance, provided across its Business Units and External Customers. At the same time, as part of its duties, it should store, manage and integrate data from Sonangol's Business Units and external entities to foster scientific research and technological development, and guarantee the registration and management of intellectual property resulting from innovation and research projects carried out.

## 3. CONTRIBUTIONS RECEIVED FOR THE IMPLEMENTATION OF CITIP

Sonangol holds in its custody the contributions received under the contractual obligations for the operation of pre-salt blocks. It is also Sonangol's responsibility to make proper use of these funds as set out in the conditions with pre-salt block contractors.

## 4. CITIP SCIENTIFIC RESEARCH LINES

In order to contribute to scientific development, and consequently, the country's Oil and Gas sector, through scientific, technological and innovation research, CITIP aims to develop, build and consolidate knowledge in the various areas of the Oil & Gas, and Energy sectors, within the research areas, but aligned with the enhancement of Sonangol's business value chain and the national oil sector:

- a. Exploration;
- b. Development;
- c. Production;

- d. Refining and Petrochemicals;
- e. Renewable Energies and Sustainable Development.

## 5. IMPLEMENTATION OF CITIP IN THE POLE/PARK OF SCIENTIFIC AND TECHNOLOGICAL RESEARCH IN CITY OF SUMBE

### a. PROPOSED IMPLEMENTATION PHASES AND FACILITIES

As part of the implementation program of the Center in recent months, it has been discussed and analysed the relevance to deploy the CITIP to be part of the Pole/Park of Scientific and Technological Research of Sumbe City, Kwanza Sul Province. To this end, the CITIP Coordination initiated the necessary technical, administrative and legal démarches to fulfil an ambitious goal of starting the construction of the Center in 2021 and ending in 2022, for the effective start (administrative and operational) in 2023.

The construction of CITIP at the Sumbe Park will go through several phases, from conception, design, engineering studies, among other assumptions for the launch of a Public Tender and Adjudication for the Beginning of the works in 2021. As of other similar institutions, CITIP will include all infrastructures considered necessary for its proper functioning, including the following facilities

- Administrative area;
- Various types of laboratories;
- Study Areas;
- Computing and Data Center;
- Warehouse for storage and conditioning of products;
- Conference/Meeting Rooms;
- Water and waste treatment stations;
- Telecommunications and Support Infrastructures.

Furthermore, in an initial phase, some lines of research were identified in the various areas of engineering and geosciences, which will be carried out in the current infrastructures of the Sonangol Group, on a basis of complementarity with the Central

Laboratory of Sonangol, Educational Institutions (ISPTEC and National Universities), CFMA, among others.

#### **b. IMPLEMENTATION AREA FOR THE INFRASTRUCTURES**

With the due support of our ministerial tutelage body (MIREMPET), assisted by the National Agency for Petroleum, Gas and Biofuel (ANPG), an area was identified for its implementation in the vicinity of the *Instituto Nacional de Petróleos* and *Instituto Superior de Petróleos* (under construction), in the city of Sumbe, Kwanza-Sul Province. This place foresees to host, as part of a “Pole/Park of Scientific and Technological Research” several other institutions (Universities, Professional Centers and Business Incubators), see Fig. 1.

Initially, the planned area for the construction of the initial infrastructure of CITIP, in Sumbe, is 50,000 m<sup>2</sup> or 5 hectares, in which we plan to start the first facilities that will nucleate the normal growth of this center.

However, similarly to the areas covered by analogous institutions in other geographies, belonging to the main international oil companies (IOCs), CITIP has a medium and long-term growth projection to cover about 20 hectares, depending on the sector's viability and requirements. However, this does not disregard the possibility for CITIP to build or nucleate other branches in other areas at the national level.

In the past month of July, Sonangol sent a letter to the General Director of Equinor Angola, giving the status of the implementation of the Center by Sonangol. Sonangol in cooperation with its Ministerial entity were preparing a guided visit to the site and was counting with the participation of representatives of the Norwegian Embassy in Angola and Equinor. Such invitation for a visit to the future locale where the Center will be built in the Sumbe's Scientific Research and Technology Park has been

postponed due to the actual world travel restrictions forced by the COVID-19 pandemic.

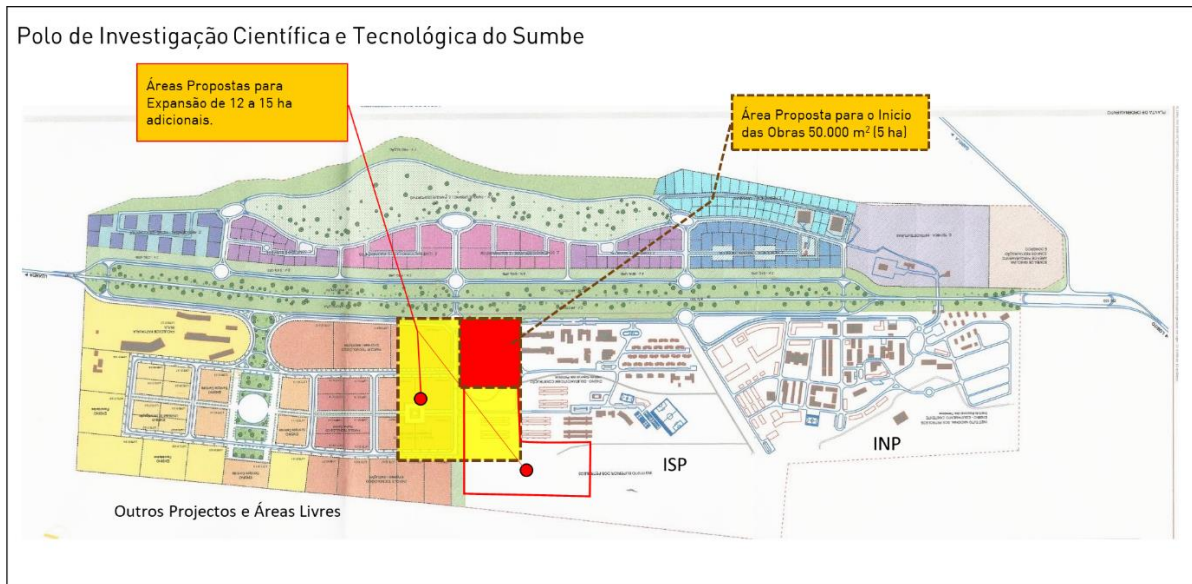


Fig. 1 Location map of the Scientific Research and Technology Park, located in the vicinity of Sumbe City, Cuanza Sul Province, where the CITIP infrastructures will be built.

## 6. COSTS OF THE IMPLEMENTATION OF CITIP IN THE CITY OF SUMBE

The studies necessary to survey the assumptions that will culminate in the budgeting of the project are still in progress, so it is not possible, now, to specify the cost for the implementation of CITIP in Sumbe.

## 7. FINAL REMARKS

We take this opportunity to inform that Sonangol remains firm and committed to the fulfilment of the commitments assumed for the creation and implementation of the Scientific Research and Innovation Center (CITIP).