"TO ATTAIN SELF-RELIANCE IN DEFENCE COMMUNICATION, KEY BUILDING BLOCKS NEED TO BE IDENTIFIED UPFRONT AND ADEQUATE FUNDS FOR TECHNOLOGY AND IP CREATION GRANTED"

In conversation with ***Raksha Anirveda***, Vivek Kimbahune, Executive Vice President – Sales & Business Development, Saankhya Labs spoke about its new product offerings and contribution to Make in India.

What is Navdoot - Vessel Tracking System and how is it going to strengthen Coastal Security?

▶ Navdoot enables real time tracking and monitoring of Deep-Sea Fishing vessels via Satellite transponders fitted on sub 20 meter mechanized (trawler) boats. The MSS terminals operate on ISRO satellite

a. The data transmitted is secured and cannot be accessed by foreign agencies.
b. All maritime security agencies can be connected to the network. A common platform that enables better tracking, monitoring, co-ordination and search and rescue operations
c. The network is also integrated with other governmental agencies offering data on preferential fishing zone, weather alerts and enables fishermen safety by two-way communication from Ship-to-shore and vice versa.

▶ The two-way MSS terminals offer an accurate assessment of traffic and assist the multi-layer security apparatus to identify and distinguish un-registered boats, a key requirement in assessment of friend or foe in deep sea. Currently only boats over 20m in length are mandated to be fitted with AIS, the rest do not carry any tracking device as it is not mandated by law.

▶ All the boats are registered with the department of fisheries. Each MSS terminal mounted on the boat will have a unique identification number mapped to the boat owner and fishermen who are authenticated by the local government agencies and permitted to do deep-sea fishing. The agencies can track the movement on real-time basis and monitor for any suspicious activity along the long maritime border

▶ Fishermen can report any suspicious activity from Deep-sea to the shore

▶ Report illegal fishing in Indian zones

Vivek Kimbahune

Navdoot installed on deep sea fishing vessel

▶ Alert fishermen when they are entering restricted zones

How Navdoot is different from other VTS products available in the market? Kindly elaborate on its unique features that make it standout from others..

- The two-way MSS terminals operate on ISRO satellite making it the most secure form of tracking and communication system for strategic applications.
- The MSS network for coastal security provides unified access to India's maritime security agencies i.e. Indian Navy, Coast Guard, Coastal Police etc
- Navdoot is the only solution powered by indigenous chipsets
- Multi-lingual SDR support
- Low-power, affordable equipment, designed, developed and manufactured in India
- Two-way MSS terminals developed in partnership with ISRO, approved for deployment
- No monthly subscription charges to the fishermen

Give a detailed account of Saakhya Labs SDR based product offerings that's specifically relevant for Indian Armed Forces. How its fool proof from enemy interception and monitoring?

Despite India's prowess in IT, Saankhya Labs is the only company in the country today that builds and delivers end solutions to customers based on its indigenous, patented, SDR chipsets.

The chipsets are conceived, architected, designed & developed by Saankhya Labs without licensing any DSP cores from overseas IP providers. The Instruction Set Architecture is designed ground up and is patent protected. All the IP ownership is created and rests within India.

One of the key components in any communication system is the waveform. All the waveforms are designed and developed indigenously and implemented on Saankhya's baseband processors. Since these are developed in-house, the IP rests within the country and there is no risk. Saankhya's indigenously designed and developed SDR based communication systems have unique ability to support non-standard waveforms based on India specific requirements of Indian Armed Forces. The waveforms are not only secure from IP standpoint but also challenging to intercept and decipher by the unintended users.

"Self-reliance in technology is the hall mark of a great nation. Since inception, Saankhya Labs has been in pursuit of excellence in indigenous technology. We are well poised to compete with the best in the business but to unleash the full potential, proactive support from the government is key to success especially in defence and strategic communication. All the major defence equipment suppliers in the world have had the support from their government as a state policy and India cannot be an exception if it aspires to be a powerful country with self-reliance in defence technology..."

PARAG NAIK
CEO, Saankhya Labs

The Make in India initiative hasn't yielded the result as expected. In your opinion why it has fallen short of expectations, what are the blind spots that needs special look into for course correction?

Initially, Make in India was broadly focussed on manufacturing, without equitable incentives for indigenous technology and IP creation. Given the long gestation cycles, it is difficult for MSME's to stay invested on building products and technologies specifically for defence, without preferential access to market.

The policy has to be broad-based taking holistic,long term view of what is required by the defence forces over the next couple of decades. To attain self-reliance in defence communication, key building blocks need to be identified upfront and adequate funds needs to be granted. The L1 based approach for R&D funding has the potential to derail the initiative as undeserving players may sneak in resulting in serious delays and associated cost and security implications with it.

Is Saankhya Labs currently executing any project / having projects in pipeline from the government under Make in India specific to the defence requirement?

Yes, there are multiple projects in pipeline specifically addressing the Defence Communication requirements. They are at various stages of engagement from concept proposals to field trials and for obvious reasons are not meant for public consumption.