

Saankhya Labs



Premier Semiconductor and Wireless Communication Solutions Company



- ❑ **India's 1st Fabless Semiconductor Company**
- ❑ **World's 1st Production SDR**
- ❑ 2 chips designed with first pass success and in volume production



- ❑ 500-man-years experience from "Antennae to Bits", from "Systems to Chips"
- ❑ ISRO's technology partner



- ❑ **~70 International Patents** :- SEP pool of about 5 patents covering next-gen "6G" RAN and Convergence
- ❑ Field deployed Broadband and Sat-IoT Systems
- ❑ Global Customer Base



- ❑ Over \$20 M investments in R&D
- ❑ Growing at 25% Year on Year

Next Gen Communication Solutions, Technologies and Platforms

5G

Open RAN / vRAN

5G 

BROADCAST



Satcom-IoT

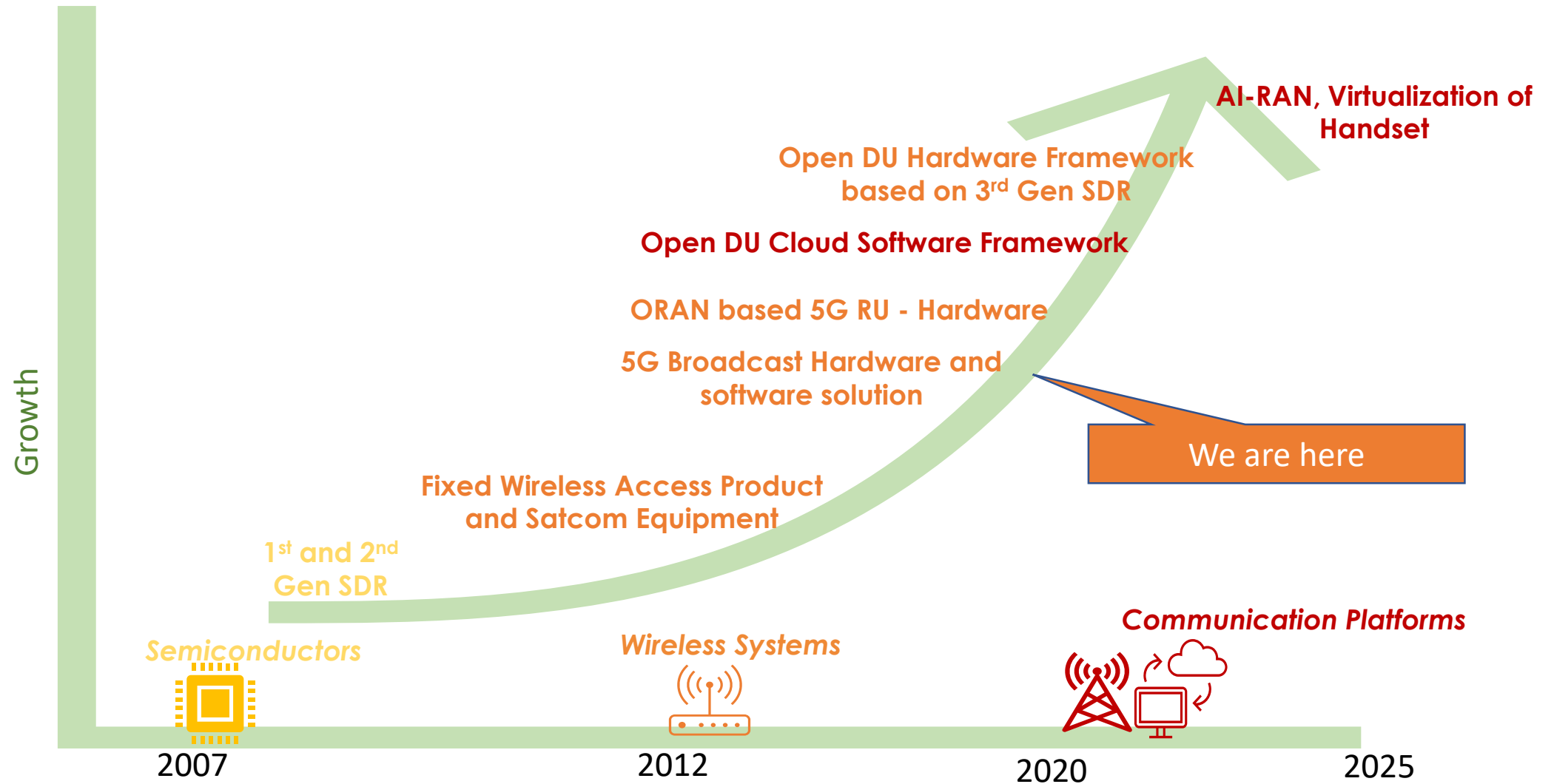
Powered by Saankhya's SDR Chipset



Awards and Recognition



Saankhya Labs Evolution



Management



PARAG NAIK
FOUNDER & CEO

- Previously co-founder & CTO Smart Yantra technologies
- Co-founder Vayavya Labs
- Managed large dev. teams at Ishoni Networks and Philips



VISHWAKUMARA KAYARGADDE
FOUNDER & COO

- Previously co-founder & CEO Smart Yantra technologies,
- Led R&D teams at Genesis Microchip and Philips Consumer Electronics



HEMANT MALLAPUR
FOUNDER & EVP ENGINEERING

- Previously managed DTV and Monitor SoC dev. teams at Sage, Genesis Microchip
- Led IP teams at Synopsys, Paxonet



ANINDYA SAHA
CTO

- Previously led DSL SoC development teams at Texas Instruments
- Architected MIPS-based subsystem for Ethernet switch at Broadcom



PREETHAM UTHAIAH
EVP MARKETING & STRATEGY

- Previously 2 decades of senior leadership roles in multinational companies including Tech Mahindra, L&T, Alcatel-Lucent
- Experienced Technical and Business development



VIVEK KIMBAHUNE
EVP SALES & BUSINESS DEVELOPMENT

- Previously head sales for European region at Genesis Microchip
- Led sales and business dev. at Smart Yantra technologies

Board of Directors and Advisors



Board of Directors



MARK AITKEN

- SVP Advanced Technology of Sinclair Broadcasting Group

Board of Advisors



Mariam Sorond

- Chief R&D Officer, Cable Labs



AMAR MALETIRA

- Executive Vice President and CFO at Rackspace



KIRAN DESHPANDE

- Co-founder & President of Mojo Networks



ABHAY KARANDIKAR

- Director Indian Institute of Technology Kanpur

Investing in high growth technology sectors



5G RAN

- Open and Virtual RAN based 5G Infra and Device Solutions
- Hyper-scalable, elastic and portable Open DU Solutions based on Software Defined Radio Elastic RAN chipsets



5G BROADCAST

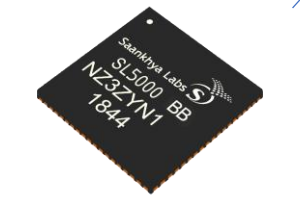
- Next Gen, Direct-to-Mobile, Broadcasting solution
- Broadband broadcast converged solution with dynamic spectrum sharing



SATCOM SOLUTIONS

- Sat-IoT and Satellite communication solutions
- SDR based Hub-Side and Terminal side communication solutions operating in multiple frequency bands

True SDR Technology



SDR Chipset



5G
RU + DU*



Fixed Wireless
Access

Base Station & CPE



Broadcast

Radio and Receiver



Satellite IoT

Trackers, Phone, Modem
& Demodulator

Software Defined Radio (SDR) Platform



P1 - 1st Gen

- 40 nm
- Heterogenous multi-core DSP
- Consumer grade
- Support for 23 waveforms
- SDK – C & Assembly

P3 - 2nd Gen

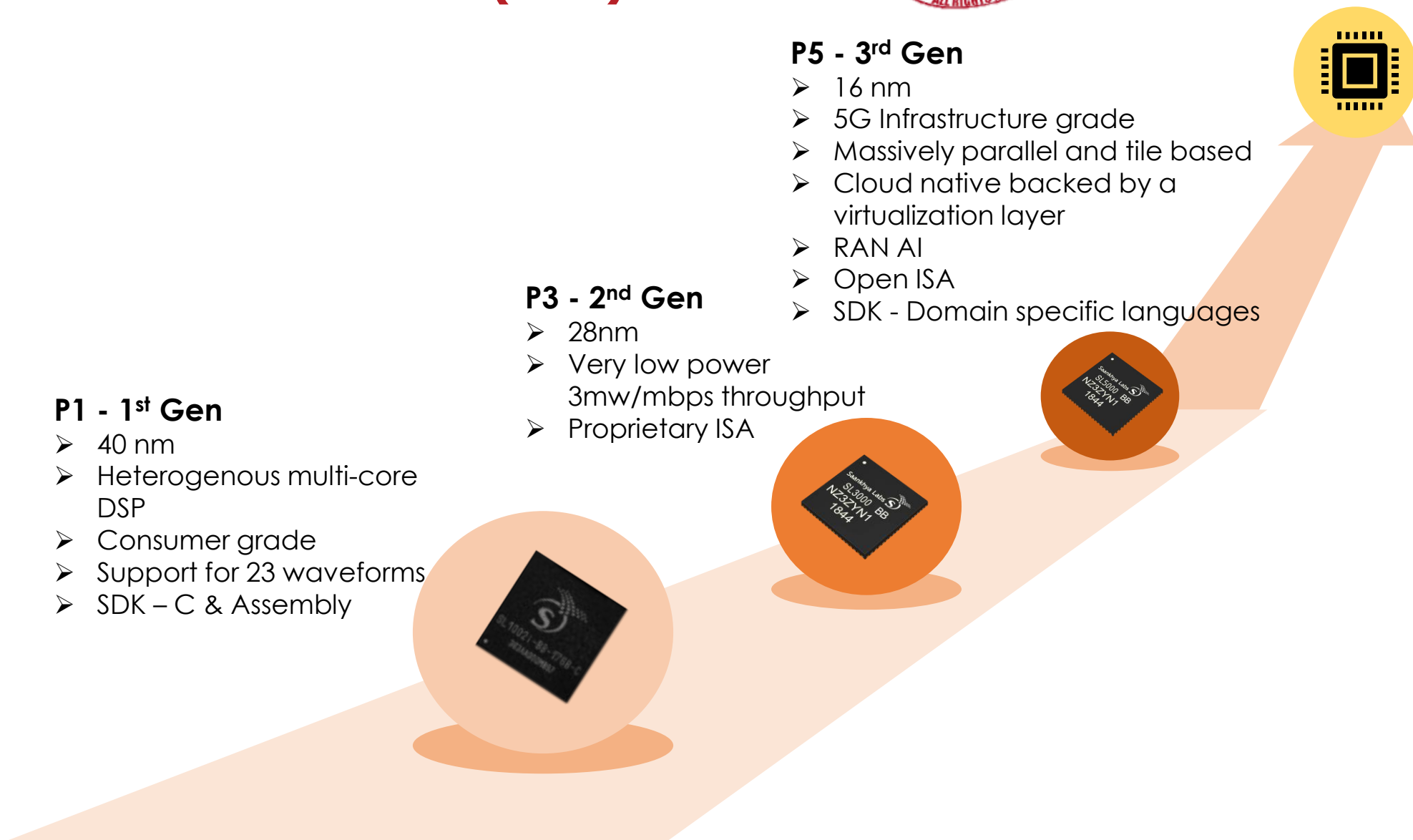
- 28nm
- Very low power
3mw/mbps throughput
- Proprietary ISA

P5 - 3rd Gen

- 16 nm
- 5G Infrastructure grade
- Massively parallel and tile based
- Cloud native backed by a virtualization layer
- RAN AI
- Open ISA
- SDK - Domain specific languages

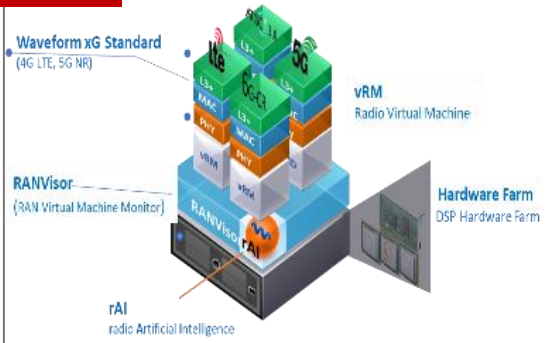
4th Gen

- Consumer Grade
- AI-RAN Compatible



5G Radio Access Network (RAN) Portfolio

Open - DU



Products:

- Hardware Abstraction Layer – Software Framework (2021)
- SDR based Open DU Hardware Platform (2021)

USPs:

- Lower Total Cost of Ownership
- Flexible architecture
- Open Platform

RU



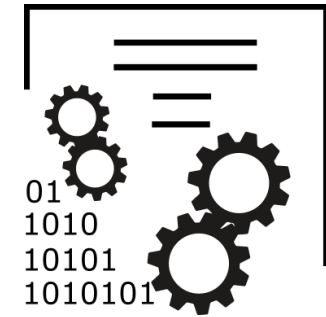
Products:

- Multiband 5G RU Equipment Hardware+Software (2021)
- SDR based RU Hardware Platform (2022)

USP:

- Lower Capex and Opex
- Differentiated Feature to provide Network Automation

RIC



Products:

- Radio Intelligent Controller Software Platform (2022)

USP:

- Dynamic AI Based Network Optimization through real time measurement and monitoring of network parameters

5G Broadcast Solutions

Broadcast Radio Head



Products:

- Low Power Broadcast Radio Equipment Hardware+Software (2021)

USPs:

- Hyper Local content delivery
- Uniform coverage indoors and Outdoors
- Direct To Mobile reception
- Data cast to multiple devices
- Emergency alert system

Broadcast Media Distribution Platform



Products:

- Broadband Convergence Software platform (2022)
- Broadcast Offload Core Software (2021)

USP:

- Decongest Mobile Networks
- Direct delivery of OTT content to mobile over broadcast

Mobile Receiver Devices



Products:

- Low power mobile chip for broadcast reception (2020)
- Android Phone with broadcast receiver (2021)

USP:

- Reception of Live TV Signals Direct on Mobile Devices
- Clear reception without picture/audio breakup even in fast moving trains or inside skyscrapers

Satcom Solutions



Asset Tracking



- Real time location tracking of fixed and mobile assets
- MSS terminals installed in assets for 2-way communication with the central location
- Asset tracking solutions for railways and fishing boats

Hubside Equipment



- Modulators and Demodulators installed in central location
- Multichannel, supporting multiple waveforms
- Modular system, customized to application requirement
- Hubside and User-side NMS

Satellite IoT

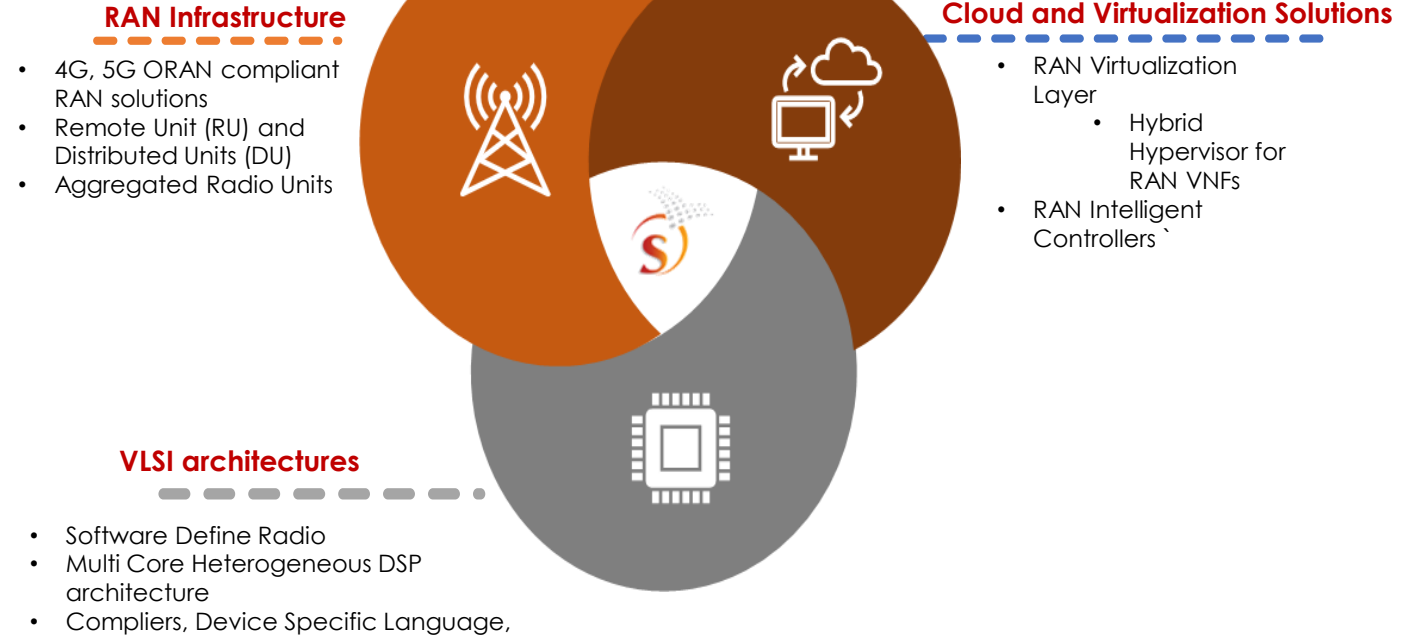


- 2-Way Satellite IoT Modem for remote IoT sensors
- Remote monitoring, control and configuration
- Low Power, Small Form Factor IoT Solutions

Why Saankhya Labs

- Pioneer in development of Software Defined Radio System on Chip
- Unique “Chips to Systems” expertise
- Disruptive innovations for future ready communication solutions powered by patented, indigenous, award-winning SDR Chipsets
- Full spectrum of next-gen communication products and solutions for diverse applications including broadband, broadcast and satellite communication
- Field deployed communication solutions with a global customer footprint

USPs



Growing Customer Base and Engagements



Major
Customers



Leading US
Operator



Customer
Engagements





Thank You

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