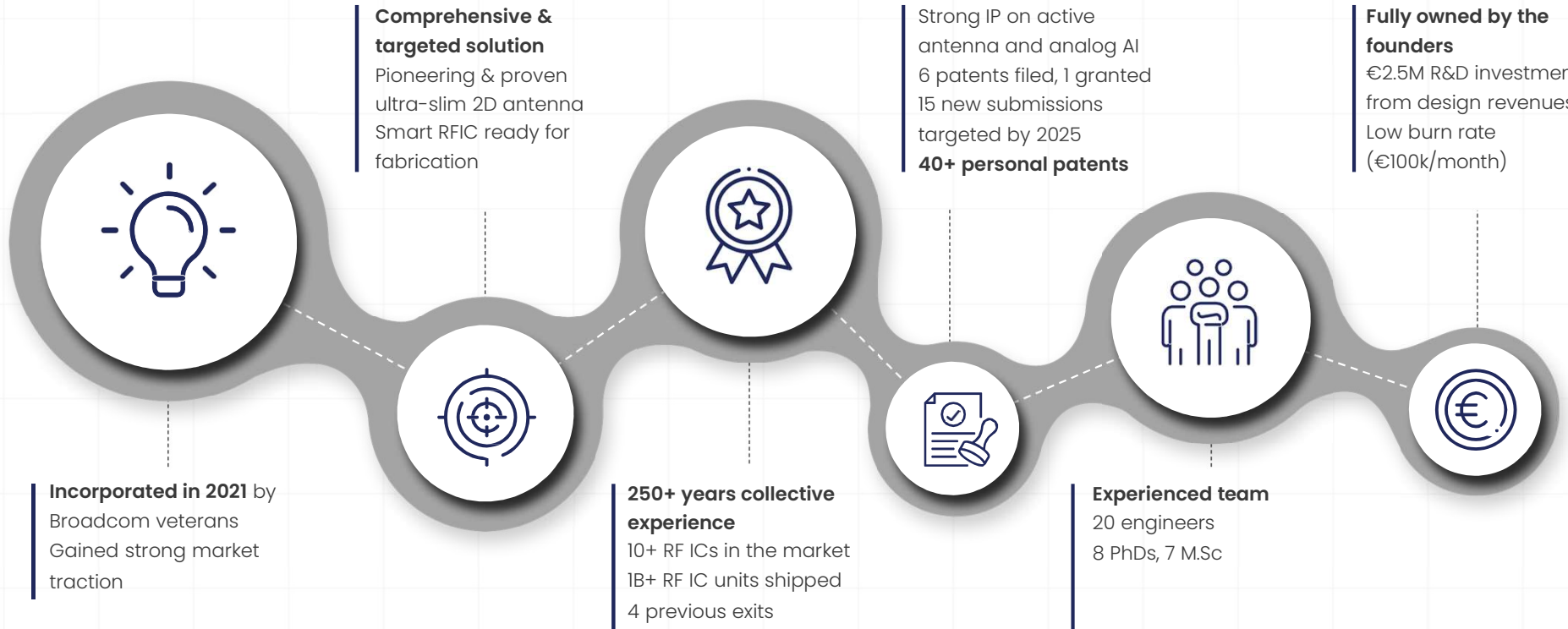


Argo Active Antenna
to Revolutionize sub-10GHz Radio-Units
in 5G Cellular and Beyond

At a Glance



Mission: Disruptive radio solutions for 5G NR and beyond that enable superior mobile services

The Core Team

Experienced founder-led team with over 1bn units shipped over 12 products, a combined 250+ years industry experience at Broadcom, Nokia, Ericsson and Lucent and 4 previous exits



Manolis Frantzeskakis
CEO

PhD, Univ. of Maryland, USA
20+ years in telecom & semiconductors

10+ patents

Previous: Broadcom, Intracom Telecom

Previous exits: 1



Georgios Sfikas
CTO

PhD, Univ. of Surrey, UK

20+ years in design engineering and management

10+ patents

Previous: Broadcom, Lucent



Meir Doron
VP of Business Development

BS, Haifa Technion Institute, Israel 20+ years marketing in high tech

Previous : Broadcom, Nokia-Siemens

Previous exits: 3



Konstantinos Vryssas
VP of Engineering

PhD, National Technical U. of Athens, Greece

RF expert, Wi-Fi, 2G/3G/4G/5G cellular

20+ years RF & mmWave

Previous: Broadcom, Ericsson



Harry Contopanagos
Director/ Antenna Tech

PhD, U. of Michigan at Ann Arbor, USA

25+ years antenna design

20+ patents, 80+ journal publications

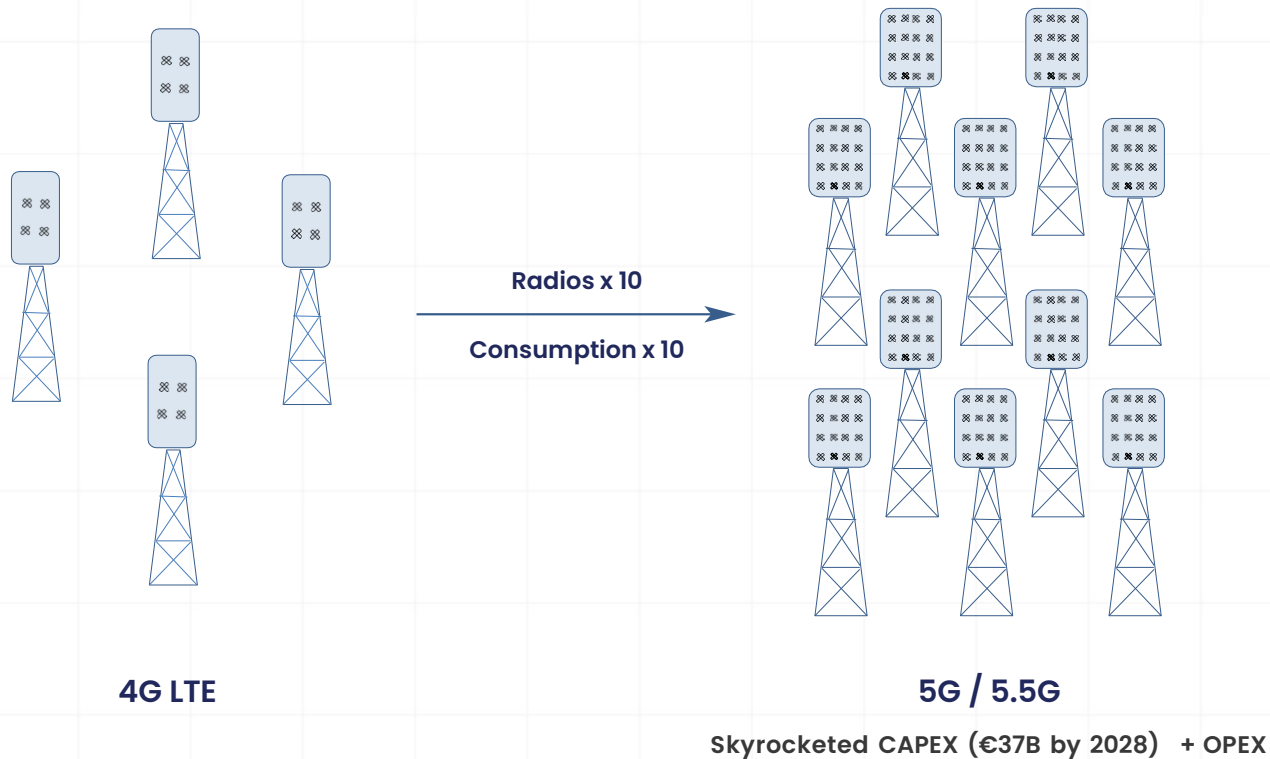
Previous: Broadcom, HRL, Demokritus Institute

Partners



The Problem

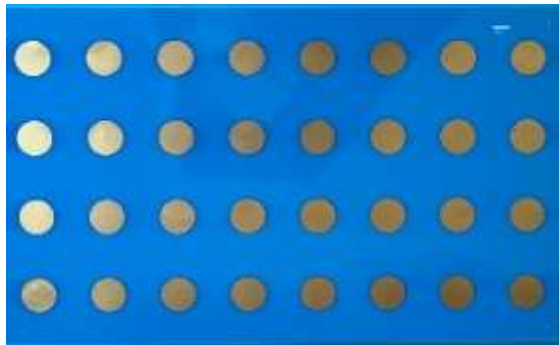
Unprecedented Cost for 5G massive MIMO



- Many radios High cost
- 1 radio path costs about €200
- 1 Radio Unit has 32/64/128 paths
- Lower Coverage

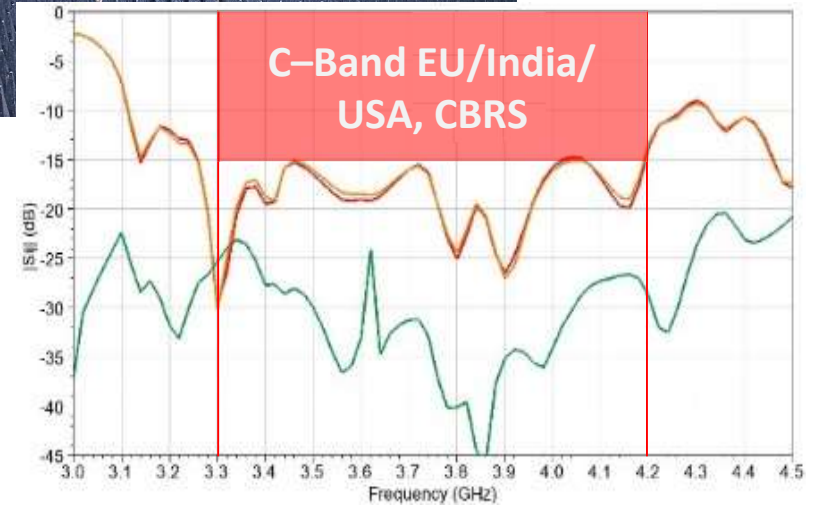
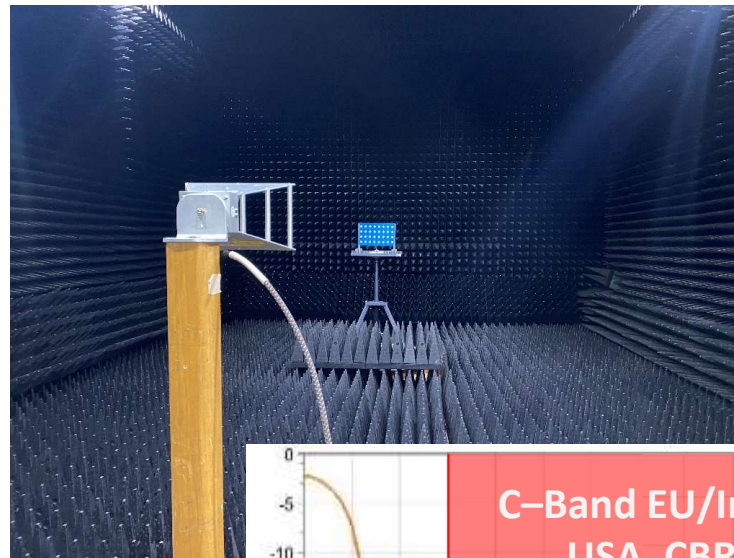
**Operators are
desperately looking for
affordable MIMO solutions**

World's first C-Band Printed Antenna

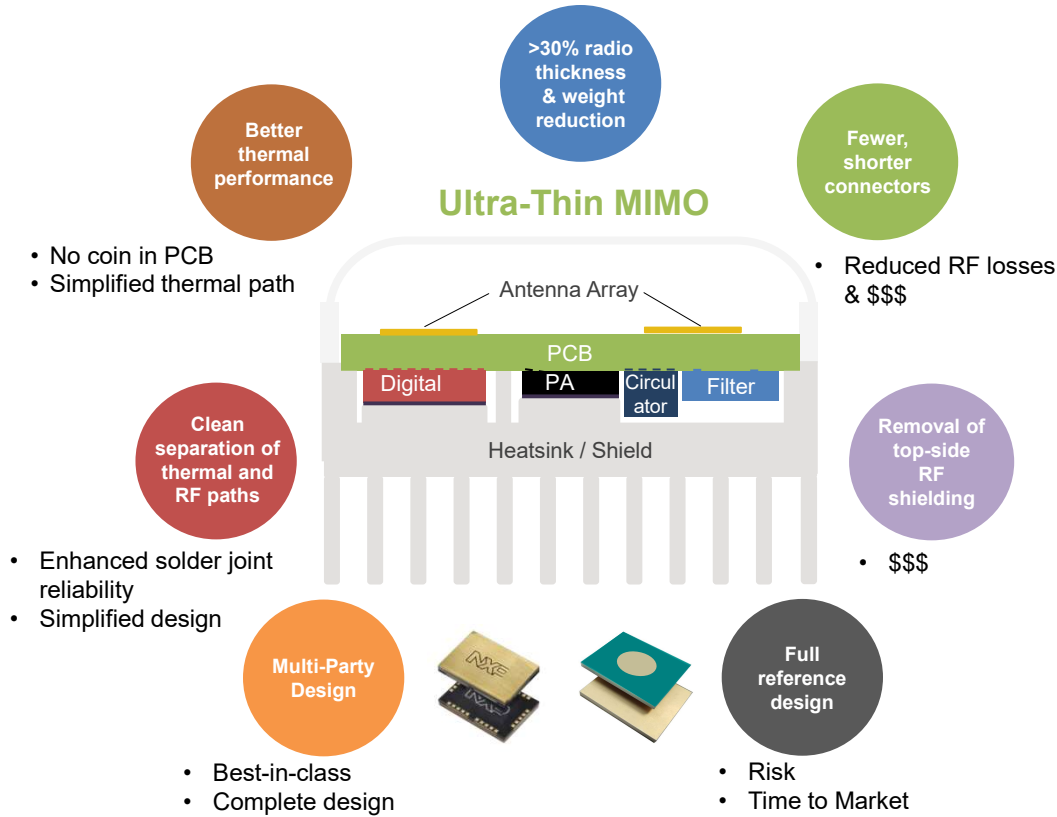


Ultra-Slim Antenna Array

PR on April 25, 2024



World's first **Single-Board Active Antenna Module**

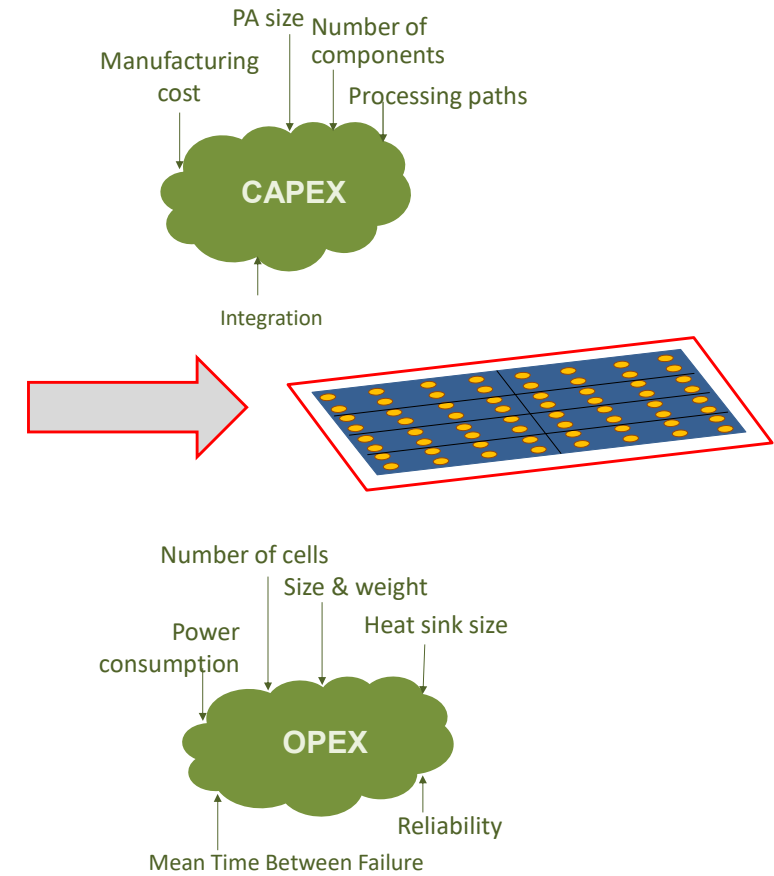
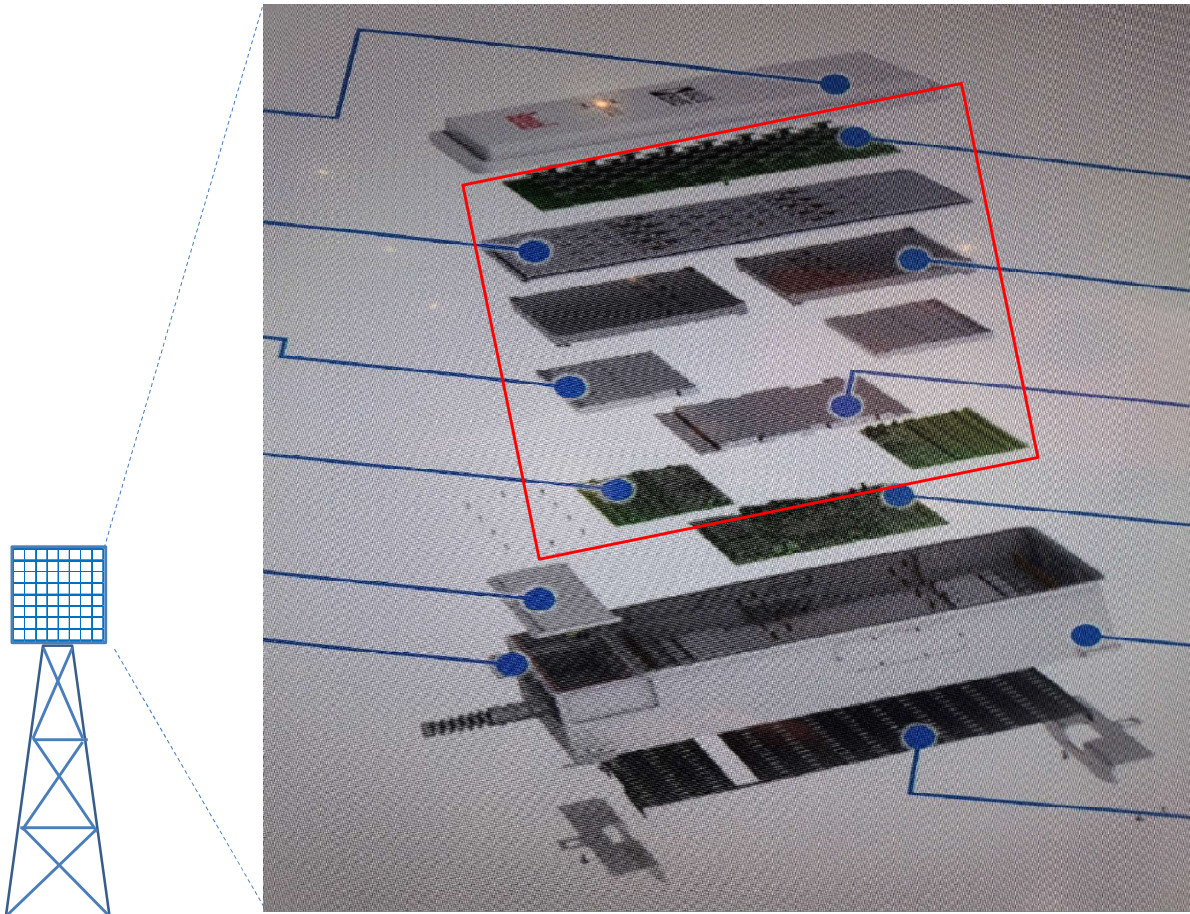


Top-Side Cooling & Printed Antenna

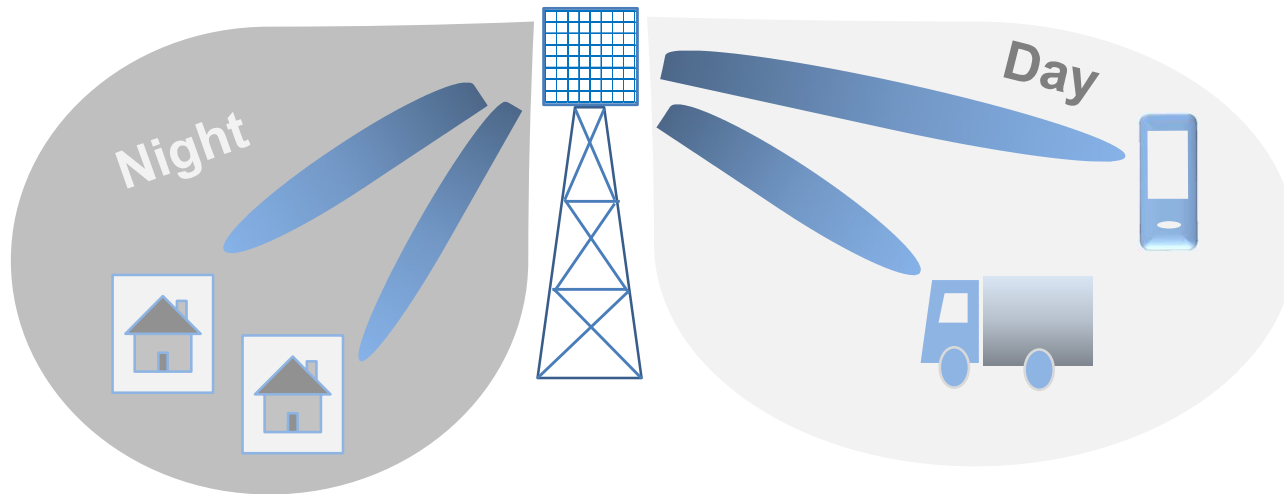


Promoted as “Digital Airfast” by NXP

Scaling, Simplicity, Integration, Cost Effectiveness



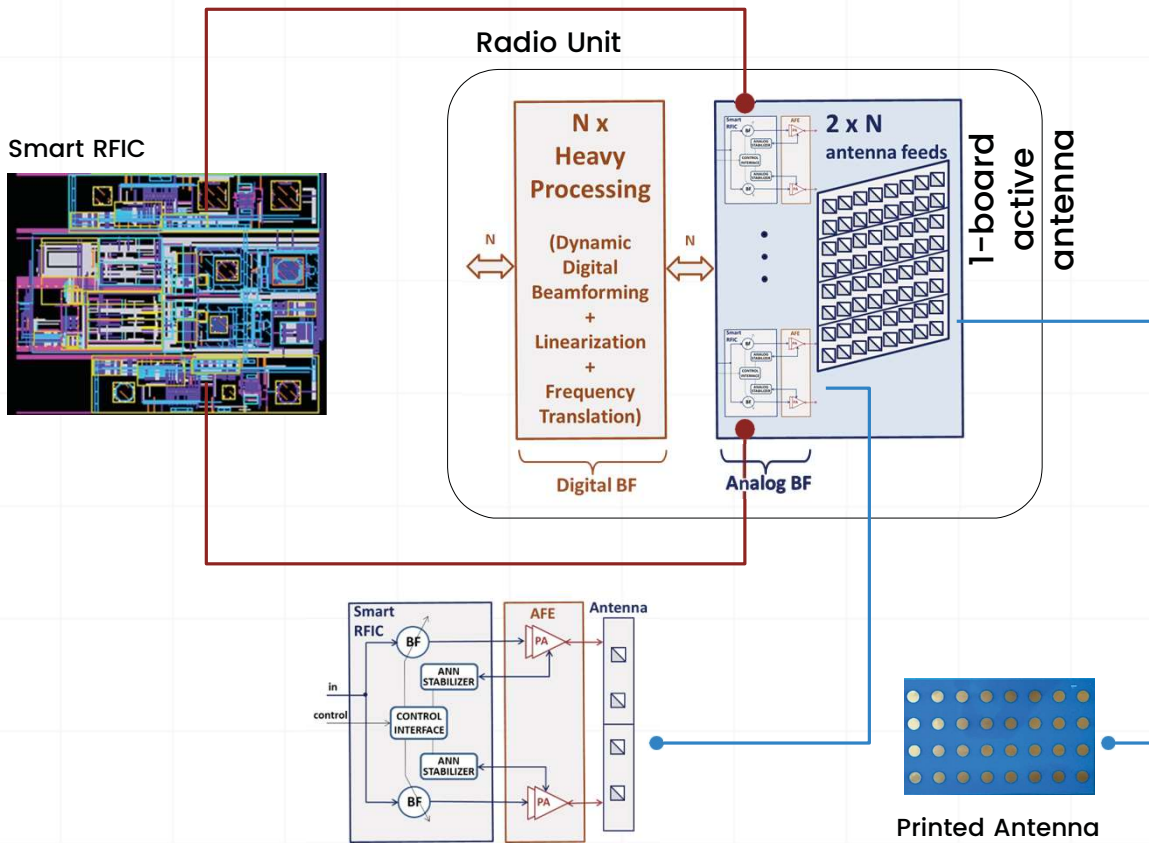
What comes next? → Smart RFIC Enhancing Flexibility



- Dynamic sectorization
- Tilt control without moving parts

Smart RFIC to be embedded in the active antenna module

The "Secret Sauce"



Printed antenna on PCB » **Integration**



Analog Neural Network supervises the high-power parts » **Simplicity**



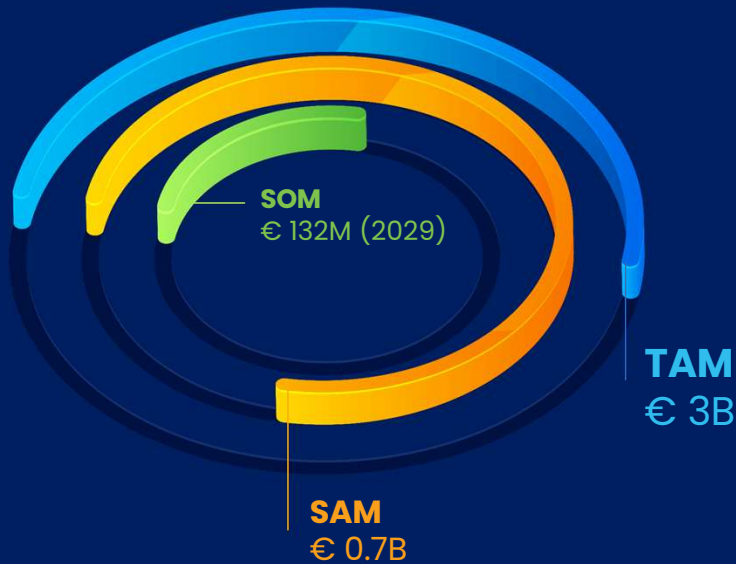
Unlock hybrid beamforming » **Flexibility**

RAN new features

- Dynamic sectorization
- Tilt control without moving parts

Improve: Coverage – Power – Lifetime – Volume – Weight → Reduce: CAPEX – OPEX

The Market Opportunity



Market pressure in combination with Open-RAN maturity has created a thriving ecosystem that enables best of breed to compete with large incumbents for Service Provider deployments

- Capitalising on the opportunity would enable the O-RAN market to reach €3B (TAM)
- 5G infrastructure antenna and RFIC semiconductor market valued at €0.7B
- Partnering discussions with visibility of early product deployment are already advancing in a number of markets

Digital HW



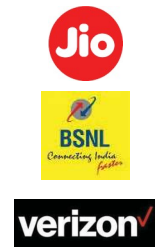
RF



ODM/OEMs



Service Providers

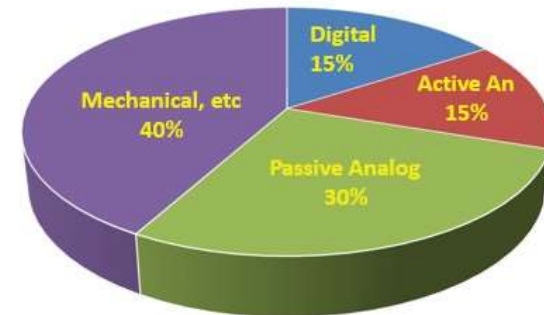


Value Proposition

- **Reduction of Radio Complexity**
 - Fewer modules, less digital supervision
 - Reduces radio parts, volume and weight (x2 or more)
- **Cost Reduction (CAPEX)**
 - Up to 25% reduction in deployment cost
 - Radio cost from ~6000 to ~4400€
- **Enhanced Coverage**
 - RFIC facilitates 25% better coverage
 - More reliable service, even in weak signal areas
- **Power Efficiency (OPEX)**
 - Reduces power consumption by up to 20%
 - Less power losses, lower OPEX
- **Flexibility**
 - Can trade coverage, power, life-time, OPEX, CAPEX
 - Expand options on radio dimensioning and selection



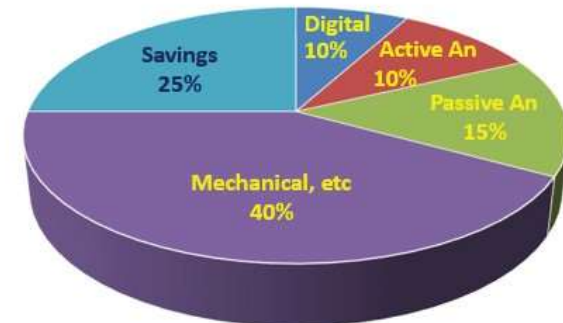
Radio BOM



Component integration
Path reduction
Ultra-slim antenna

Volume saving
Component saving: 40%
Cost saving: 25%

Radio BOM using Argo components



European Innovation Council Award



EIC Project Milestones

- Development finalization and manufacturing of the smart RFIC
- Validate our Active Antenna Catalyst module by integrating it into customer products
- Ramping up our marketing efforts for Argo Active Antenna Catalyst module and scale-up globally



We are your RF partner for your sub-10GHz radio

Thank You



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