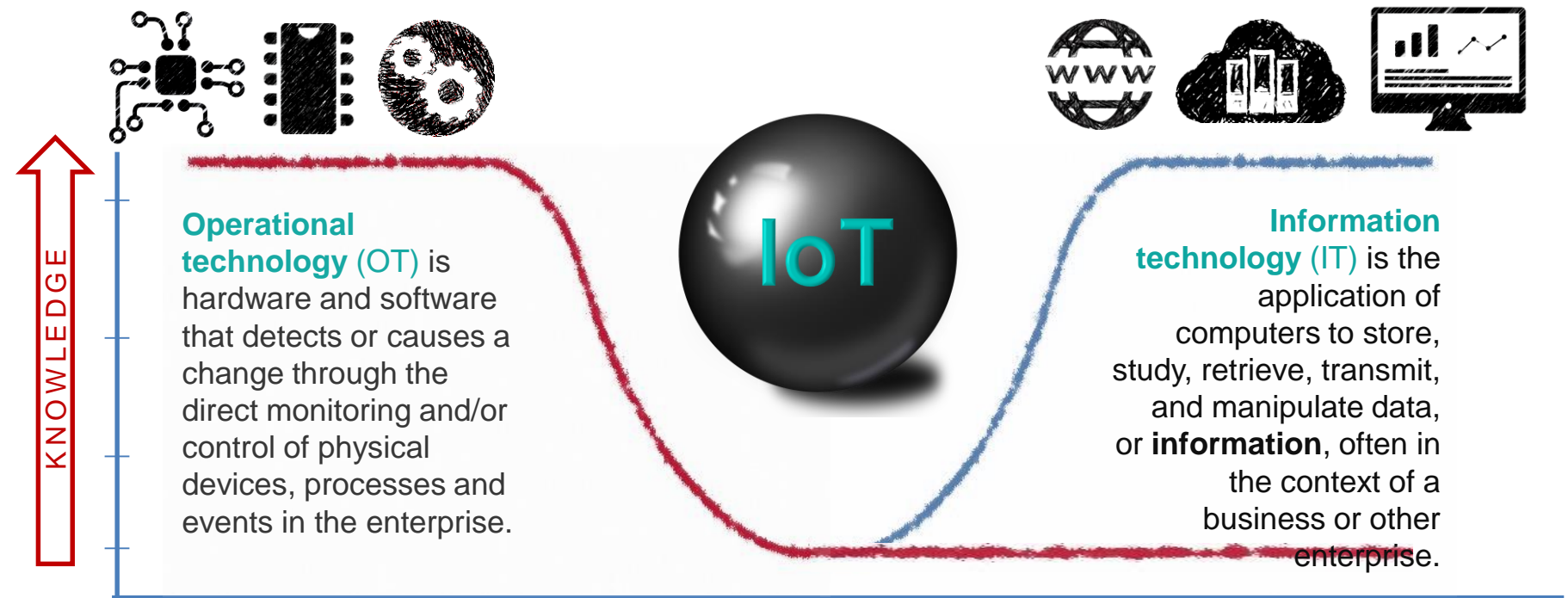




Arrow - STPI IoT Open lab

Sanjeev Keskar
Managing Director

The OT vs IT Knowledge Gap



IoT Opportunities

HOME CONSUMER



*Light bulbs
Security
Pet Feeding
Irrigation Controller
Smoke Alarm
Refrigerator
Infotainment
Washer / Dryer
Stove
Energy Monitoring*

TRANSPORT MOBILITY



*Traffic routing
Telematics
Package Monitoring
Smart Parking
Insurance Adjustments
Supply Chain
Shipping
Public Transport
Airlines
Trains*

HEALTH BODY



*Patient Care
Elderly Monitoring
Remote Diagnostic
Equipment Monitoring
Hospital Hygiene
Bio Wearables
Food sensors*

BUILDINGS INFRASTRUCTURE



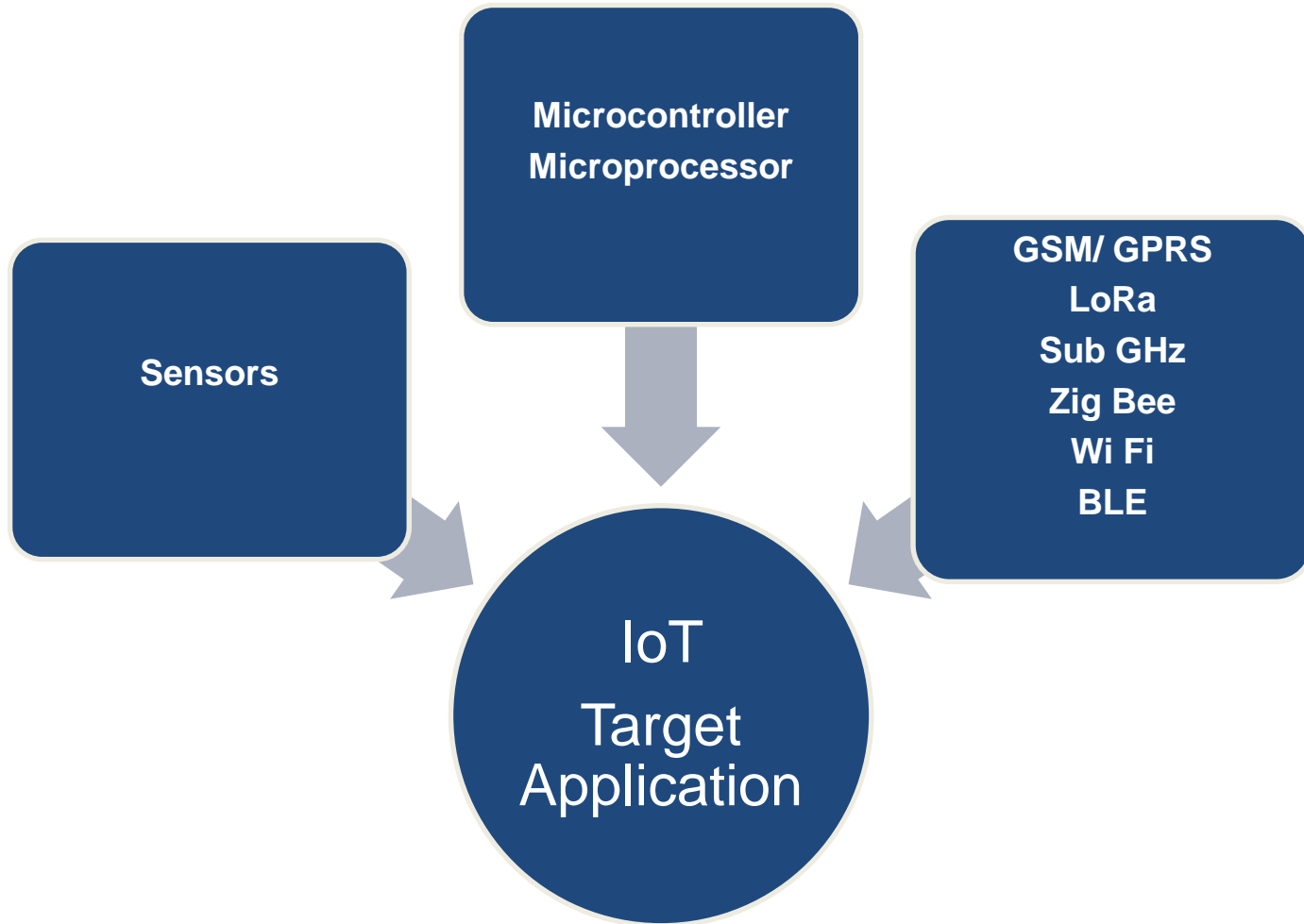
*HVAC
Security
Lighting
Electrical
Transit
Emergency Alerts
Structural Integrity
Occupancy
Energy Credits*

CITIES INDUSTRY



*Electrical Distribution
Maintenance
Surveillance
Signage
Utilities / Smart Grid
Emergency Services
Waste Management*

IOT Applications

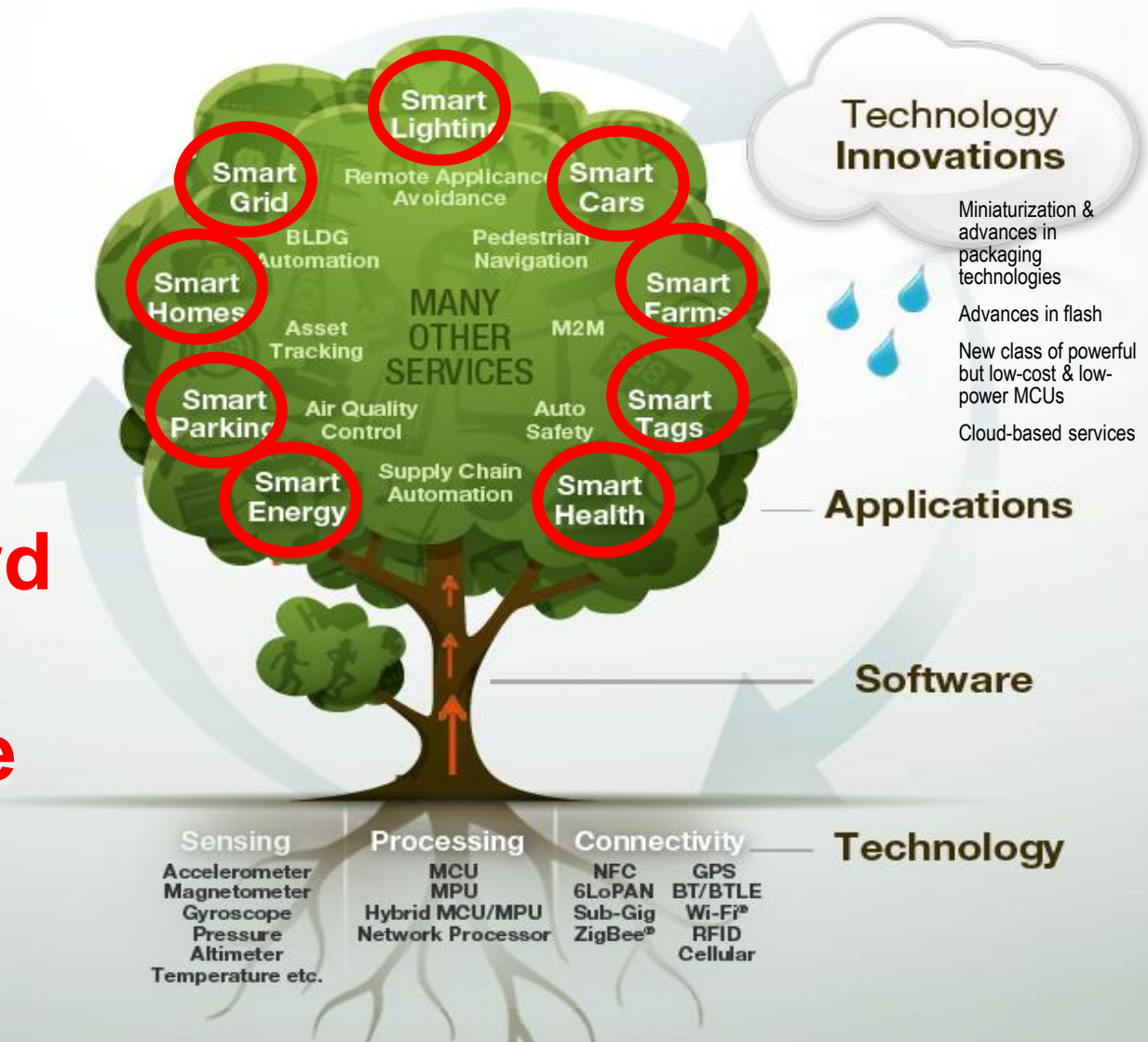


INTERNET of THINGS

Different Services,
Different Technologies

Different Meanings for Everyone

And the Word
“Smart” is
Everywhere



Understanding ESDM “Value-Chain”



PRODUCT IDEA - INNOVATION

- Betting on the right technology and standards, features
- Innovative product design and architecture



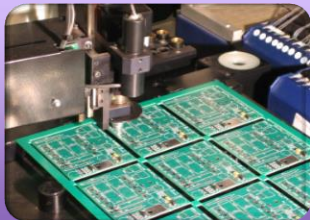
R&D, PRODUCT DESIGN (SYSTEM + HW + SW)

- Creation of IPR (Product IPR; Patents)
- System design: Hardware, SW, FPGA/Silicon, Mechanics
- Product design, development, testing/verification



COMPONENTS

- Silicon components
- BarePCBs, Mechanicals, Cable Assemblies
- Passive components, Electro-mechanicals



ASSEMBLY (SMT), TESTING

- “Board stuffing”: automated; done by EMS or in-house
- Testing, final assembly and Quality assurance
- Logistics, Packing etc.

30-65%

35-50%

5-20%



Arrow IoT Lab in Bangalore

- Arrow to offer world class development eco system for IoT product development for start ups in Bangalore who are developing products for IOT.
- This lab is in partnership with Govt. of India.
- Bangalore has > 500 start ups and more than 300 Electronics product companies. Bangalore is hub for Electronics embedded design.
- Arrow to offer product development infrastructure along with engineering support from qualified AEs from Arrow lab.

The lab..

Main hall

- Access granted by STPI
- Reception desk
- Waiting
- Technology and Solutions wall
- Solutions demo and discussions

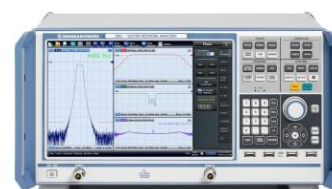
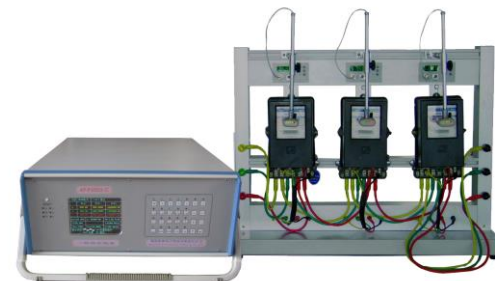
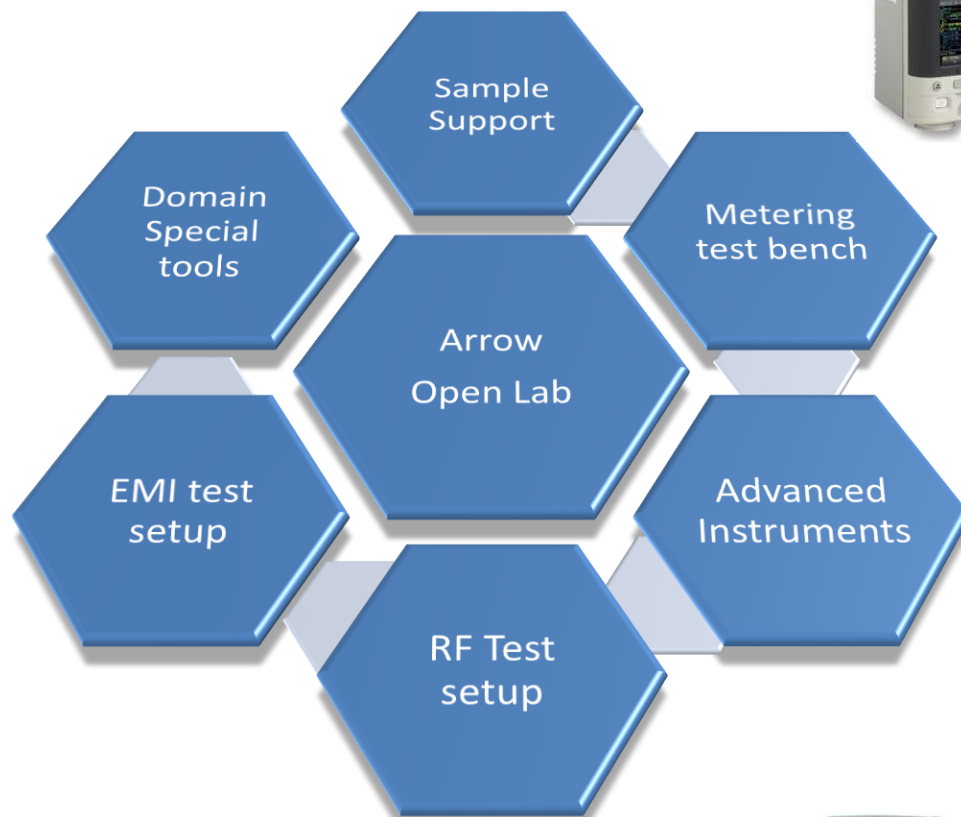
Meeting room

- 6 – 8 seating capacity
- Projector and Audio/Video conference

The Lab

- Access with escort by Arrow team/Lab Manager
- 12 work benches
- 4 PC work stations
- Storage

Value to users



Soldering / Desoldering Stations
Digital Rework Station



Target users

- 500+ Start-ups in and around Bangalore
- Small and Medium electronics product companies.
- Innovators
- 200+ TiE & IESA members, and others
- Technology partners & Clusters
- Educational partners RV COE & PESIT



IoT Open lab in Bangalore

by



Software Technology Parks of India

Ministry of Electronics & Information Technology
Government of India

&



Arrow at a Glance



Founded: 1935

Ticker Symbol: ARW (New York Stock Exchange)

Web Site: www.arrow.com

2018 Sales: \$29.7 billion

Employees: 20,000

Locations: Global network of more than 460 locations in 56 countries and territories

Corporate Headquarters: Centennial, Colorado

Customers: 100,000

Fortune 500 Rank: # 113



Lets create a ecosystem for budding Product companies in India

Thank You

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