**TINNO**

Enterprising    Accountable    Customer oriented

# TINNO Profile

Aug 2023
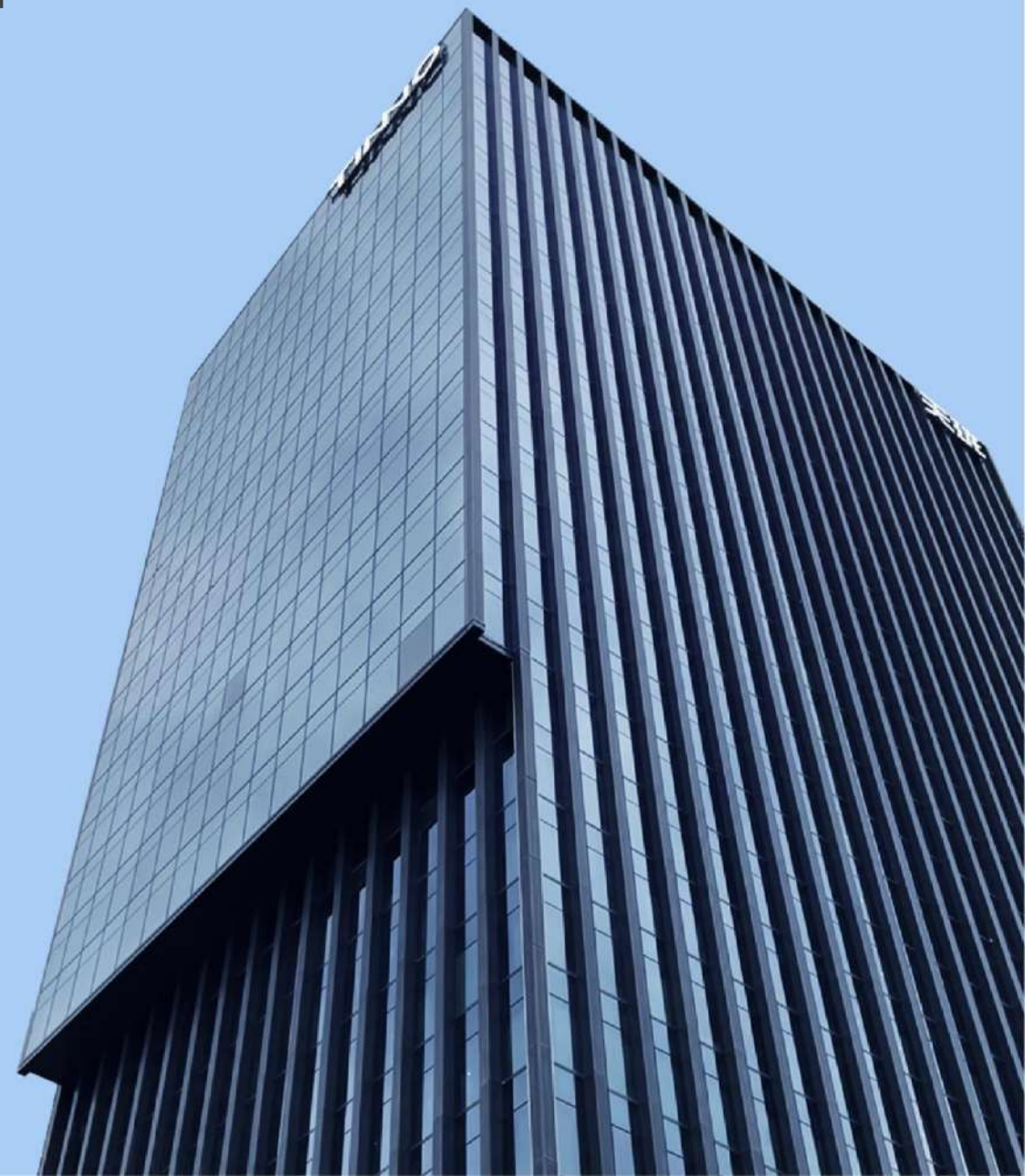
# CONTENTS

# 01
**PART ONE**

# Tinno Overview

# About Tinno

**TINNO**

Engaged in mobile terminals for 18 years, providing premium products, technologies, and services for customers worldwide.

**2005**
Established in

Company Overview

Data from 2022

**1.89** Billion USD
Operating Revenue

**80+**
Countries and Regions

**2000+**
R&D Engineers
**10000+**
Employees

**41** Million
Annual Shipments

**TOP1** in terms of ODM mobile phone export volume

**TOP4** in terms of ODM mobile phone shipments

**Business Units**

| Mobile Phone/Tablet | Network Terminal | IoT | Auto Electronics |

# Milestones

**TINNO**

One of the industry's 1st MTK chips manufacturer. Started ODM business.

**2005**

The world's 1st dual-SIMs, Dual Active phone.

**2006**

1st mobile phone that incorporated social media applications and QWERTY keyboard. Won the MTK annual innovation award

**2009**
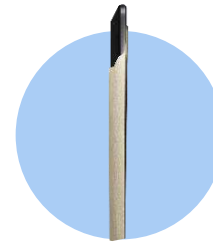
1st collaborative partner with Swarovski in mobile design.

**2010**

One of the 1st collaborative partners of Google Android One.

androidone

**2013**

The world's thinnest smartphone (approximately 5mm).

**2015**

Major European and American T1 operators and other clients

vodafone

T · ·Mobile·

sonim

AT&T

CAT

**2016-2018**

More globally renowned mobile brands becoming our clients.

realme    LG

TRANSSION    MI

motorola    NOKIA

Lenovo    vivo

Enter into new industries：IoT, Keyboard, Tablet,mm Wave. Auto Electronics
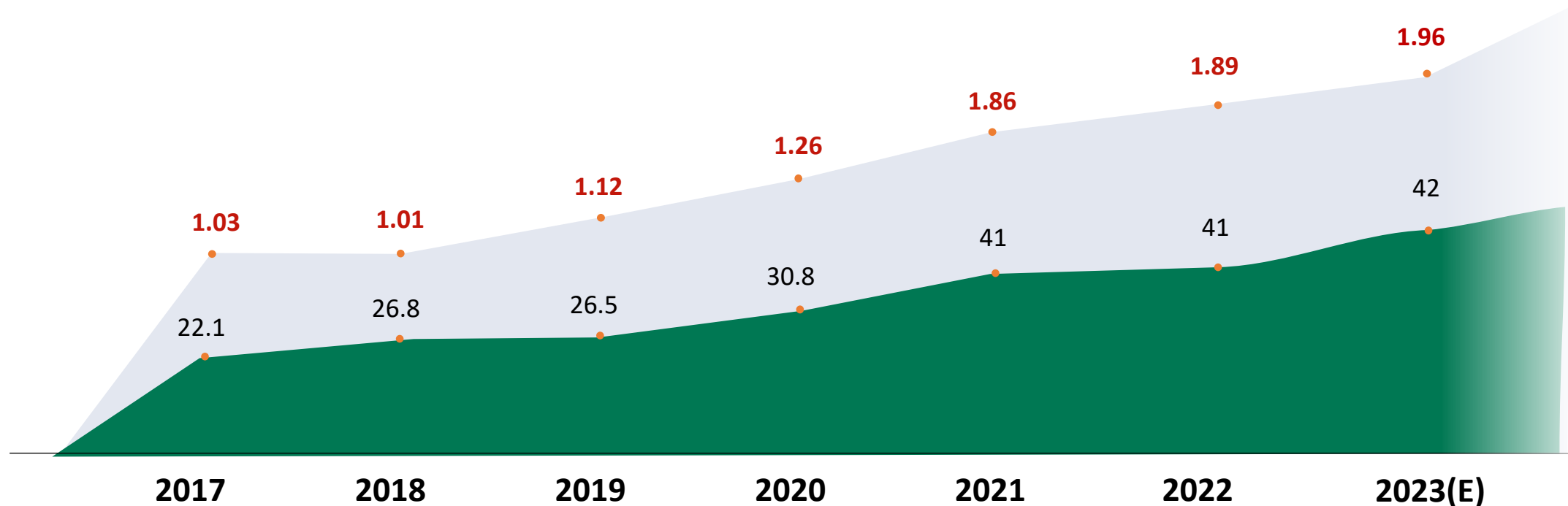
**2019-**

# Steady growth in shipments and turnover

## Deeply engaged in mobile communication terminals, ensuring steady growth

TINNO

- Revenue (Billion USD)
- Shipment (M Units)

| Year | Revenue (Billion USD) | Shipment (M Units) |
|------|----------------------|--------------------|
| 2017 | 1.03 | 22.1 |
| 2018 | 1.01 | 26.8 |
| 2019 | 1.12 | 26.5 |
| 2020 | 1.26 | 30.8 |
| 2021 | 1.86 | 41 |
| 2022 | 1.89 | 41 |
| 2023(E) | 1.96 | 42 |

# Client Network

Years of dedicated overseas operating experience enable us to further understand customer needs



## International Carrier Partner

| | |
|---|---|
| AT&T | swisscom |
| vodafone | TRACFONE |
| Orange | SFR |
| China Telecom | MTN |
| Sprint | T-Mobile |
| Rakuten | Telcel |
| bouygues | Three |
| TIM | WIND |
| Claro | |

## Key Account Partner

| | |
|---|---|
| Lenovo/Motorola | realme |
| Mi | CAT |
| OPPO | NOKIA |
| SONIM | VIVO |
| Ascom | BYD |
| WalMart | |

## Local King Brand Partner

| | |
|---|---|
| BLU | Mircomax |
| QMobile | Mobicel |
| My phone | Fly |
| LANIX | Condor |
| SYMPHONY | GENERALMOBILE |
| KENBO | EVERTEK |
| HYUNDRI | |
| WALTON | |

TINNO

# Providing services for first-tier operators worldwide

Proven by rigorous tests and certifications worldwide

# Product Segments

**TINNO**



Mobile Phone Tablet

Auto Electronics

Network Terminal, Mobile Broadband

IOT

# Why choose TINNO?

Abundant ODM customization capabilities that help customers realize wonderful ideas.

**TINNO**

| Regional market brand | Western Operators | Global Mobile Phone Brands | Japanese Customers | Industrial Customers |

# Why choose TINNO?
Product End-to-end services process

**TINNO**

**①  Product definition**

- Market analysis & research

- Product Planning
  Promotion planning

- Customer communication

- Requirement evaluation

- Product definition
  Programme approval

- Project approval

**②  Product development**

- ID design(JDM)

- Structura design
  Hardware design

- Quality control throughort the
  life cycle

- Test
  Authentication

- ID,structure,hardware
  Verification and Debug

- Software integration
  Packing design

**③  Product operation**

- MP

- Customer acceptance

- Deliver

- Customer service

# TINNO's Project Base



**TINNO's Headquarter(Shenzhen)**

Covering
an area of **21.12** Acres
(85,500㎡)

**TINNO's Headquarter(Yibin)**

Covering
an area of **10.62** Acres
(43,000㎡)

**TINNO-WUJI industrial park**

Covering
an area of **24.71** Acres
(100,000㎡)

# 02

**PART TWO**

# R&D and Manufacturing

# R&D Resources

**TINNO**

Total R&D Team of **2000+**

### Xi'an

Established in May **2020**
R&D Team of **190+**
Hardware & structure research & development

### Chengdu

Officially commence operating in May **2022**
Plan to employ **200+** people in 2022
Software testing & software development

### Yibin

Established in September **2020**
R&D Team of **300+**
Software testing & software development

### Shenzhen R&D Head Office

Established in **2006**
R&D Team of **850+**
Comprehensive R&D coverage
**ID/MD/SW&HW** platforms

### Nanjing

Established in October **2006**
R&D Team of **160+**
Software development

### Shanghai

Established in September **2017**
R&D Team of **170+**
Hardware and software research &
Development for North American operator projects

### Nanchang

Officially commence operating in July **2022**
Plan to employ **260+** people in 2022
Comprehensive R&D coverage
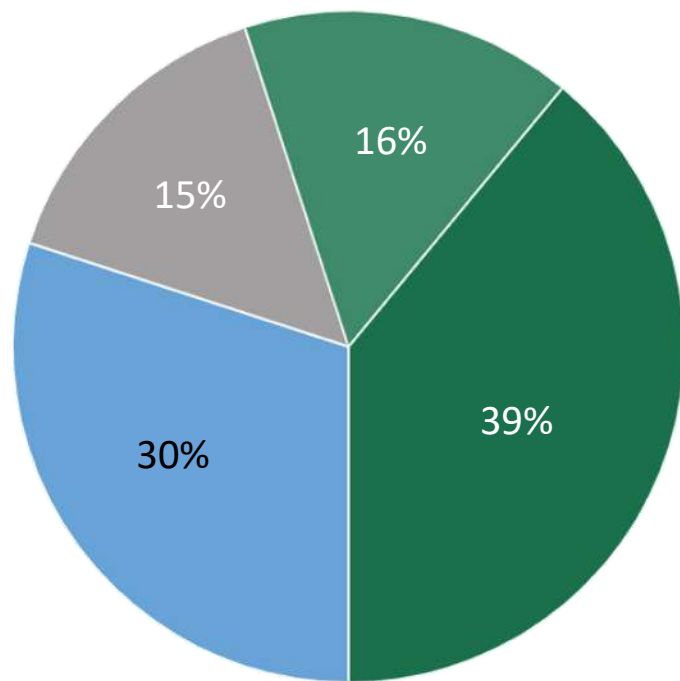**MD/SW&HW** platforms

### Taipei

Established in September **2016**
R&D Team of **30+**
Hardware and software research &
Development for North American operator projects
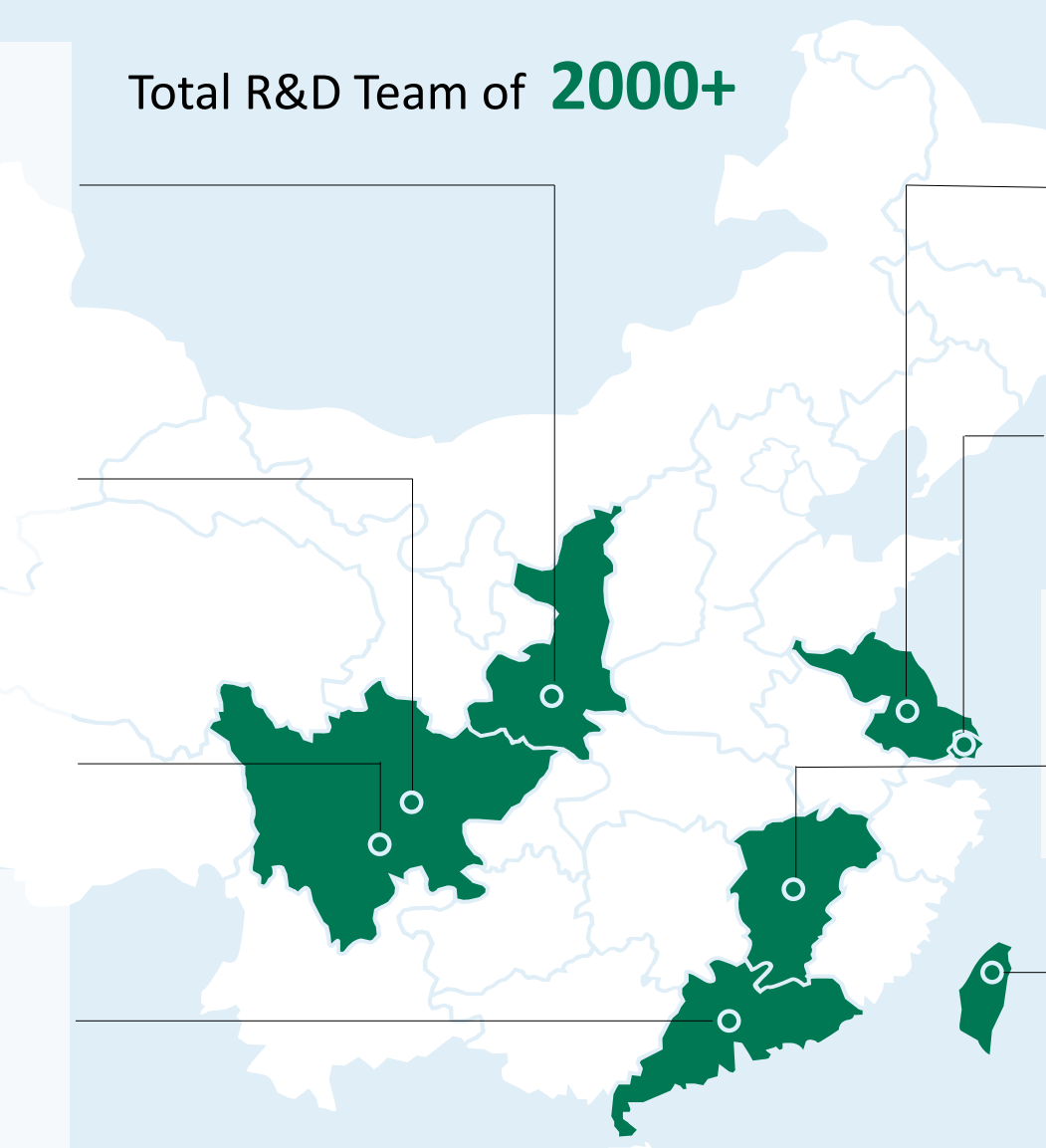
# TINNO R&D Multiple Platform Experience

**TINNO**

## Employee Experience



16%

15%

39%

30%

● >10 years  ● 6-10 years  ● 3-5 years  ● <3 years

**MEDIATEK**

**Qualcomm**

**SPREADTRUM®**

**NXP**

**Rockchip** 瑞芯微电子

**HOLTEK**

**SAMSUNG**

**BROADCOM®**

**ANYKA** 安凯微电子

**UNISOC®**

# Invention Patent

**Total Patent Applications**

**2849** items

**Invention Patent**

2022 items

**Utility model patent**

576 items

**Appearance patent**

251 items

# CNAS Labs

**TINNO**



CNAS Certificate

Comprehensive Test Center

Mechanical Reliability Laboratory

RF Laboratory

Audio Laboratory

Failure Analysis Laboratory

Baseband Laboratory

Environmental Reliability Laboratory

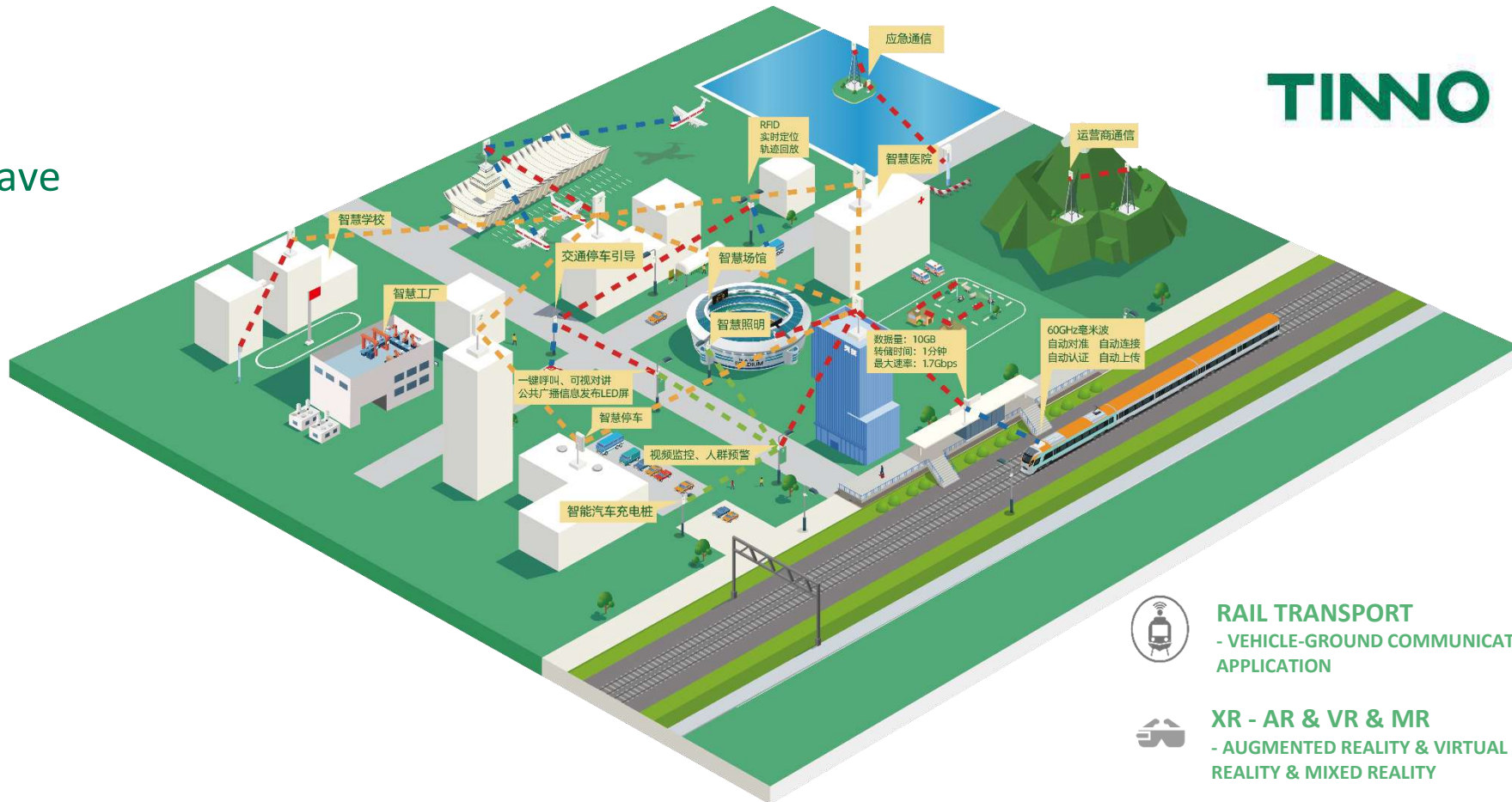Imaging Laboratory

5G mm Wave Anechoic Chamber

Antenna OTA Anechoic Chamber

# Jaguar Wave

## Leader of 5G millimeter wave

**TINNO**



**Airshow China 2022**
4K HD Video Wireless Transmission



**Guiyang Section of (Chegndu&Xi'an) Railway Bureau**
Wireless High-Speed Dump of Train Data



**Las Vegas,USA**
Community Broadband Networking



**Systems between Bus & Bus Stop Monitoring Center in Singapore**
Bus Stop Blind Spot / Road Monitoring



**TINNO Building**
Indoor Wireless Gigabit Backbone Network



**RAIL TRANSPORT**
- VEHICLE-GROUND COMMUNICATION APPLICATION

**XR - AR & VR & MR**
- AUGMENTED REALITY & VIRTUAL REALITY & MIXED REALITY

**SMART CITY**
- AI HD VIDEO RETURN APPLICATION

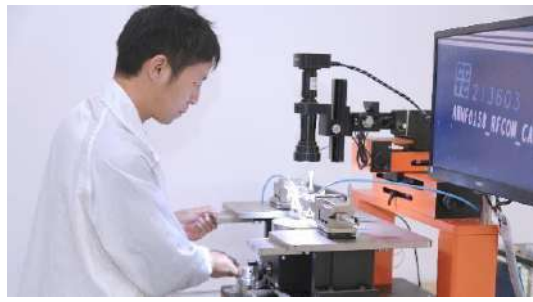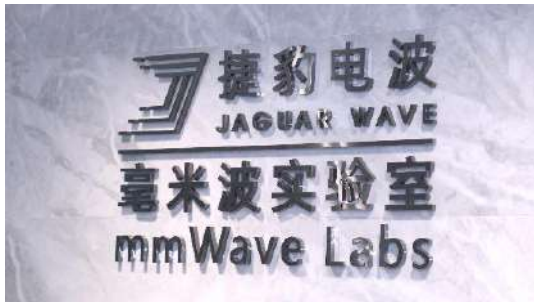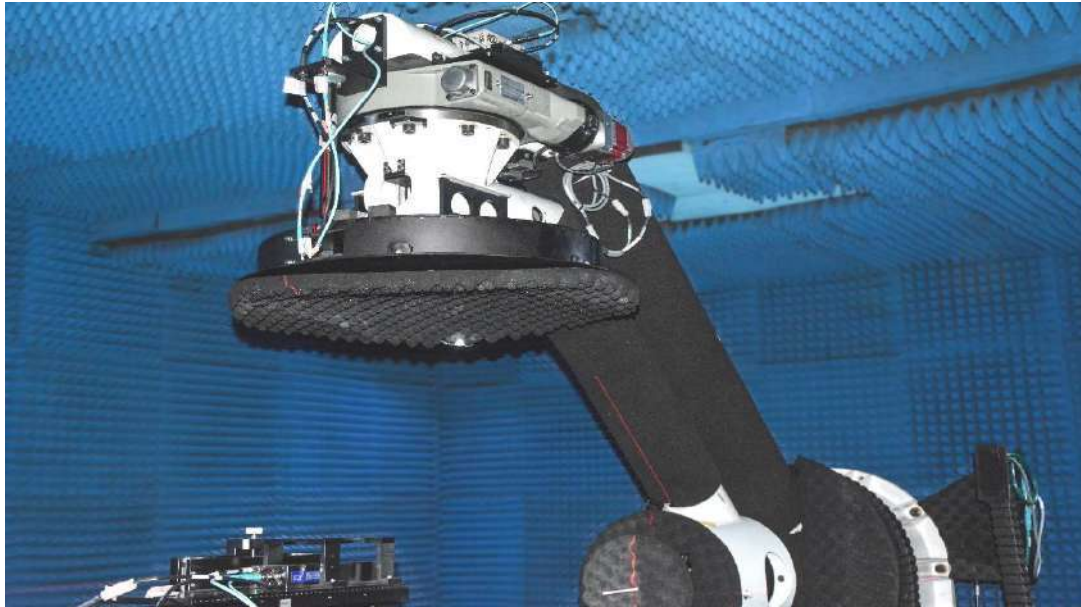**SMART VENUE**
– HD VIDEO TRANSFER

**SMART FACTORY**
-INDUSTRIAL INTERNET APPLICATION

**EMERGENCY COMMUNICATION**
- SMALL CELLS AND MOBILE BACKHAUL APPLICATIONS

# Asia's leading millimeter wave lab



**29**
Invention Patent

**1**
Utility Model Patent

**3**
Appearance Patent

**3**
Invention & Utility Model Patent

# Global Certification

**TINNO**

## Regulatory

- CTA
- CCC
- SRRC
- CE
- FCC

## Multi-national

- BSMI
- NCC
- BIS
- Telec
- Jate

## Industry

- Bluetooth SIG
- Wifi alliance
- GCF
- PTCRB
- EMVCo
- Battery life
- HD VOICE
- ROHS
- REACH
- WEEE
- Prop 65
- Halogen Free

## Carrier

- Bluetooth SIG
- Wifi alliance
- GCF
- PTCRB
- Battery life
- HD VOICE
- China Mobile
- China Telecom

## Battery

- UN38.3
- IEC62133(CB)
- UL1642,UL2054
- IEEE1725
- Battery Directive
- WERCS
- GB31241
- PSE,BSMI

International market: certified in more than **80** countries and regions around the world

# TINNO's Global Manufacturing Network

**TINNO**

Dehradun

Yibin, Sichuan

Nanchang, Jiangxi

Noida

Heyuan, Guangdong

Haiphong, Vietnam
( under construction )

Tirupati

**130** M/Y
Total global capacity

**88** M/Y
Maximum annual capacity of Tinno

**42** M/Y
Cooperative production capacity

**India, Indonesia**
Overseas Partner Factories
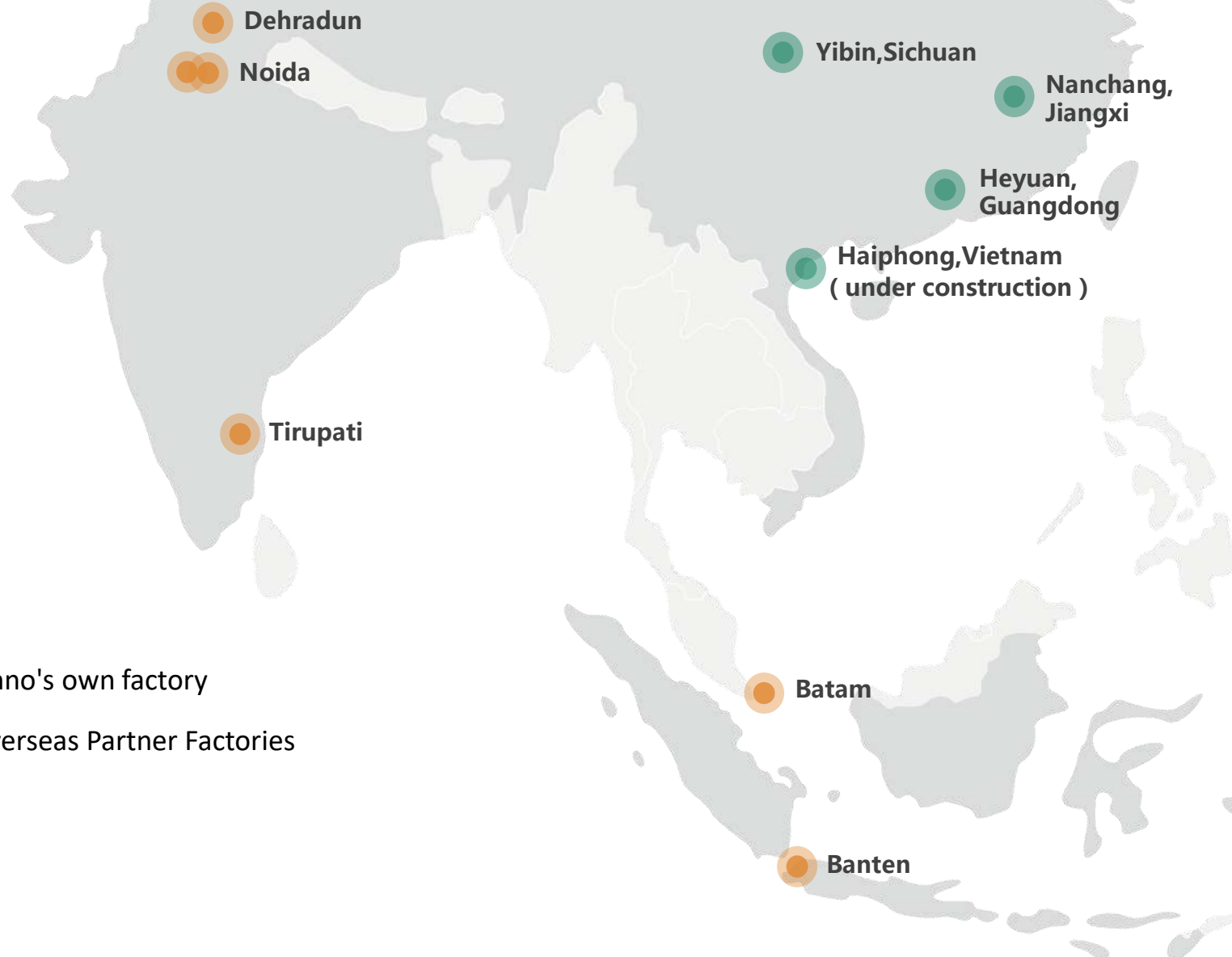
● Tinno's own factory

● Overseas Partner Factories

Batam

Banten

# Powerful Smart Manufacturing Capabilities

**TINNO**

**Automatic, Intelligent**

- SMT + PCBA test + PCBA bottom filling: automatic and intelligent production throughout the entire process

- Machine functional inspection: visual inspection, sensor inspection, equipment automatic testing, smart production

- Machine packaging operation: Integration of CFC customer requirements and realization. Automatic sealing, packaging, and smart production

**Lean Manufacturing**

- Self designed and self-made lean production line

- Lean production line, versatile setup, flexible manufacturing, meet diverse production requirements for various products (mobile phone/tablet/TWS, etc.)

- Lean production line with high operating efficiency; (UPPH>=5.0 for mobile phones, tablets, etc.)

- WMS smart warehousing management system, intelligent FIFO management, JIT

**Intelligent Manufacturing Management System**

- Self-developed and conceptualized intelligent manufacturing management system (MES)

- The entire manufacturing process is managed and controlled by MES

- The MES adopts poka-yoke mechanisms, which can better ensure output and product quality

# TINNO Factory Shop Floor
## World leading SMT automatic production line


SMT Production Workshop




PCBA Test Workshop


Assembly Workshop


Packaging Workshop

**Tinno's own factory**

**Nanchang, Jiangxi**

**2017**
Established in

Covering
an area of **59.3** Acres
(240,000㎡)

**4000+**
Employees

**40** M/Y
Annual Capacity

# Tinno's own factory

**Yibin, Sichuan**

**2017**
Established in

Covering an area of **38.3** Acres
(155,000㎡)

**4000+**
Employees

**30** M/Y
Annual Capacity

**Tinno's own factory**

**Heyuan, Guangdong**

**2010**
Established in

Covering an area of **17.3** Acres
(70,000㎡)

**2500+**
Employees

**15** M/Y
Annual Capacity

# Tinno's own factory
## ( under construction )

**Haiphong, Vietnam**

Covering an area of **7.91** Acres
(32,000㎡)

**3** M/Y
Annual Capacity

# Overseas Partner Factories


India


India


Indonesia


Indonesia

**03**

**PART THREE**

# Key Account Support

# End to End Quality Assurance

The quality control runs through the entire lifecycle of the product starting from R&D to the ending after sales stage, comprising a total of 8 stages known as "E2E".



Quality Control during R&D Process — 01

R&D Test — 02

MP Assessment — 03

Supplier Quality Control — 04

Material Incoming Quality Control — 05

Manufacturing Process Control — 06

Out-going Quality Control — 07

After-sales Quality Control — 08

Factory    R&D    Supplier
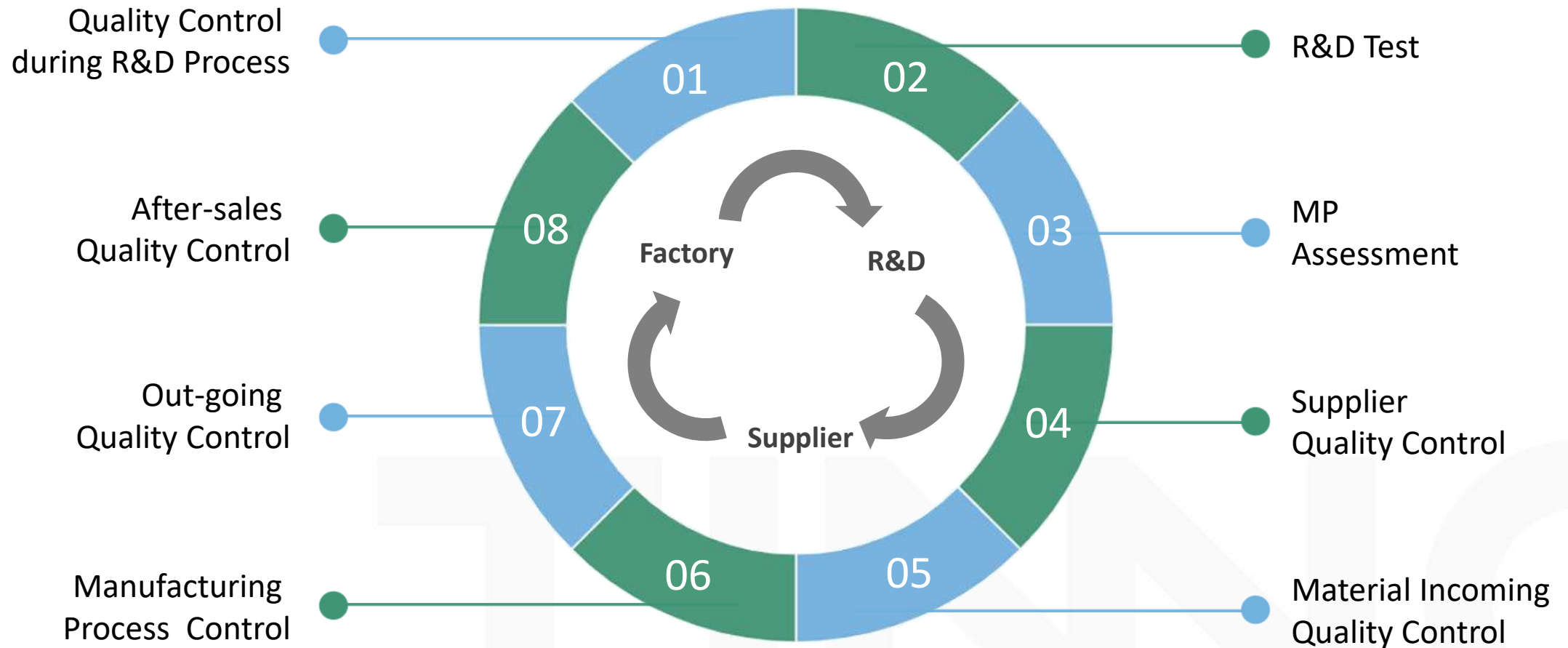
TINNO

# IT Process Support
## End-End PO operation process customized to meet customers' needs

**TINNO**



**R&D** --- Design Data ---> **PLM**

Parts/Secondary Materials ---> **Supplier**

BOM Information

**Customer** --- PO Order / Bill of Lading ---> **EDI** --- Automatically Import PO ---> **SAP** --- PR ---> **SRM**

Shipping Information / Quality Data

PO / Raw Materials

DN

PGI

GR / WO

Shipment

**Warehouse** --- PPS ---> **WMS**

Product Warehousing

Material Distribution

**MES**

**Production Line**

Raw Materials

Raw Materials
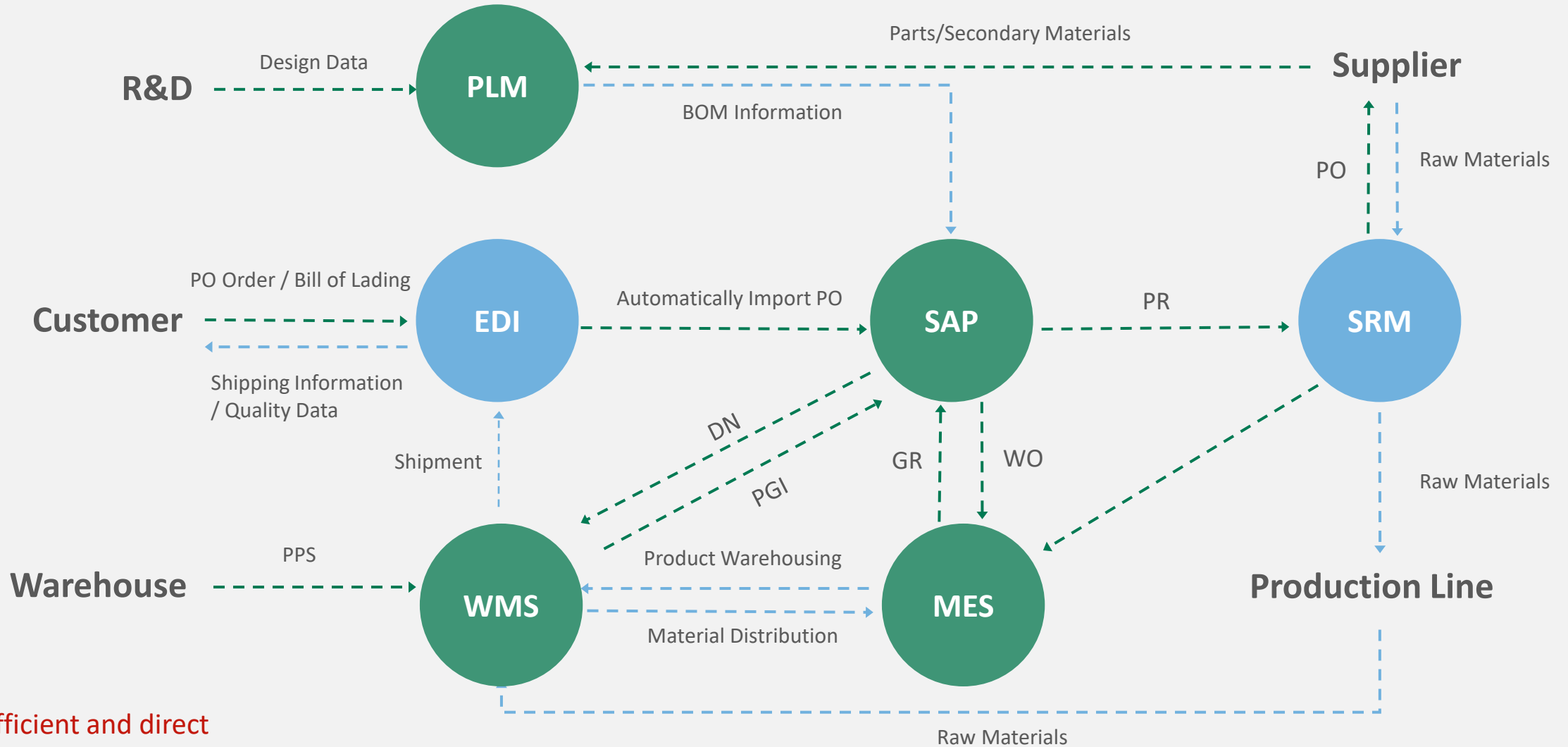
Efficient and direct
Factory system interfacing with customer system

# Securer & Greener TINNO

**TINNO**

## Certified by International Standards for Information Security and Environmental Protection





**ISO/IEC 27001** is the world's best-known standard for information security management system (ISMS). It enables organizations of all sectors and sizes to manage the security of assets such as financial information, intellectual property, employee data and information entrusted by third parties

The ISO/IEC 27000 family of standards keeps TINNO safe on IT security, cybersecurity and privacy protection

The **IECQ QC 080000** Hazardous Substance Process Management (HSPM) system is based on the international quality management system ISO 9001. It covers the key requirements of the various environmental protection directives such as the Restriction of use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) and Waste Electrical and Electronic Equipment (WEEE).

With The IECQ QC 080000 certificate, it demonstrates to our customers, employees and shareholders that TINNO is committed to ensuring the sustainability of the environment.

04

**PART FOUR**

# Successful Products (Excerpt)

# Global New Satphone Launch

CAT® S75

2023.02



motorola defy ²

RELIABILITY: UNBEATABLE

DUST · WATER · DROP PROOF

2023.02

# Global New Smartphone Launch



5Gスマホで最もスリム ※

※日本で発売されている5G対応スマホにおいて。
本体横幅の比較。2021年11月25日時点。ステラアソシエ調べ。

2022.10

# Global New Smartphone Launch

**TINNO**

## 4G

**BULLITT**
V501AE
2022.01

**motorola**
P411BE
2022.05

**AT&T**
U626AA
2022.06

**motorola**
P412C
2022.08

**T-MOBILE**
U616AT
2022.08

**realme**
V5000
2022.09

## 5G

**Rakuten**
Hand **5G**
2022.02

**motorola**
P721CE **5G**
2022.04

**TRANSSION**
P840 **5G**
2022.07

**TRANSSION**
P740 **5G**
2022.08

**Rakuten**
P780 **5G**
2022.10

**sonim**
P800AE **5G**
2022.11

# Showcase New Category Global New Launch 2022



JEMS (JP)

Tablet
2021.08

realme

NA500 Tablet
2022.04

Lenovo

Pine Tablet
2023.01

# Showcase New Category Global New Launch 2022

**TINNO**

**Xiaomi 5 / 5 Pro
Tablet Keyboard**
2021.07

**Lenovo** **Pad Pro 2022
Tablet Keyboard**
2022.08

**Pad Plus 2023
Tablet Keyboard**
2022.08

**vivo**

**VIVO Pad2
Tablet Keyboard**
2023.05

# Success Story – Moto
From Pickup Product to Business Partnership



**2022**
Best Quality Award

**2021**
Best After-Sales Quality Award

**2021**
Best Product Award

**2021**
Best Product Quality Award

**2020**
Outstanding Service Award

**2019**
President's Outstanding Pickup Product Award