



# TONGYU TECHNOLOGY

**Where Heat Meets Its Match**

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20+ Years of Thermal Expertise  
Trusted by the World's Leading Tech Companies

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01 TONGYU OVERVIEW

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## Manufacturing Capability

Scalable, digital manufacturing with annual output in the millions.

## Four Service Centers

- **South China – Dongguan HQ**  
(R&D + Air Cooling) + Liquid Cooling Plant (EV, Data Center)
- **Central China – Xinyang Factory**  
Large-scale production
- **East China – Jinan Office**  
Sales support
- **Overseas – Vietnam**  
Strategic manufacturing

## Five Service Units





## 2005-2009

### Startup

Foundation & system building



## 2010-2017

### Transformation

Global delivery launch



## 2018-2019

### Internationalization

Overseas expansion  
(Vietnam factory)



## 2020-Present

### Industry Leadership

Strategic Partnership with  
Tencent

**Tencent**

## 20+

Industry Experience

## 4

Global Production Bases

## 80+

Patents

## 1200+

Global Employees

### The 4 Phases to Leadership



AI



## Server/AI Computing Center

The Revolution in Precision Liquid Cooling in a 1U Form Factor

### Core Products

AI

✓ CPU Cooling Modules    ✓ GPU Cooling Modules    ✓ Memory Cooling Modules



ENERGY

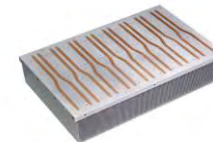
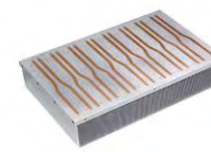
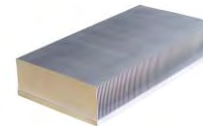


Precision Skiving Process

### Core Products

Energy

✓ Inverter Cooling Modules    ✓ IGBT Cooling Modules    ✓ Energy Storage Cooling Solutions







EV



Precision Die-Casting Technology

## Core Products

- ✓ EV Battery Cooling Plates
- ✓ Vehicle Controller Coolers
- ✓ Motor Cooling Systems

EV



CES & 5G

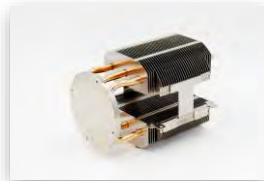


High-Efficiency Heat Pipe Technology

## Core Products

- ✓ Consumer Electronics Cooling
- ✓ Telecom Base Station Cooling Solutions
- ✓ Heat Pipe Modules & VC

5G







Server Liquid Cooling – Cleanroom



Automotive Liquid Cooling



Precision Reflow Soldering



Tunnel Furnace Brazing



Vapor Chamber (VC) Line



Vacuum Brazing



Friction Stir Welding

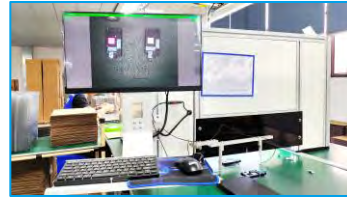


Die-Casting



## Digitization

- Monitor production in real time
- Full process traceability
- Optimize resources intelligently
- Ensure stable, efficient output



Process Monitoring



IMS Digital Management System



## Smart Manufacturing

- End-to-end automation solutions
- Precise, efficient output
- Fast implementation for projects



Automated Loading Robot



Automatic Tube Rolling

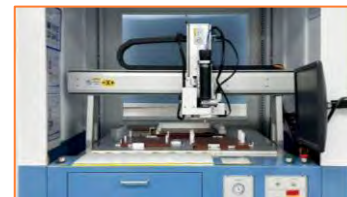
50%

## Automation

- 200+ in-house developed automation equipments
- 300+ co-developed R&D automation equipments
- Continuous investment in automation significantly boosts productivity



Inline Laser Inspection Machine



Automated Soldering Machine



## Customization

- Tailored for your project
- From process to system integration
- Boost efficiency and consistency



Automated Back Gluing



Automated PAD Dispensing



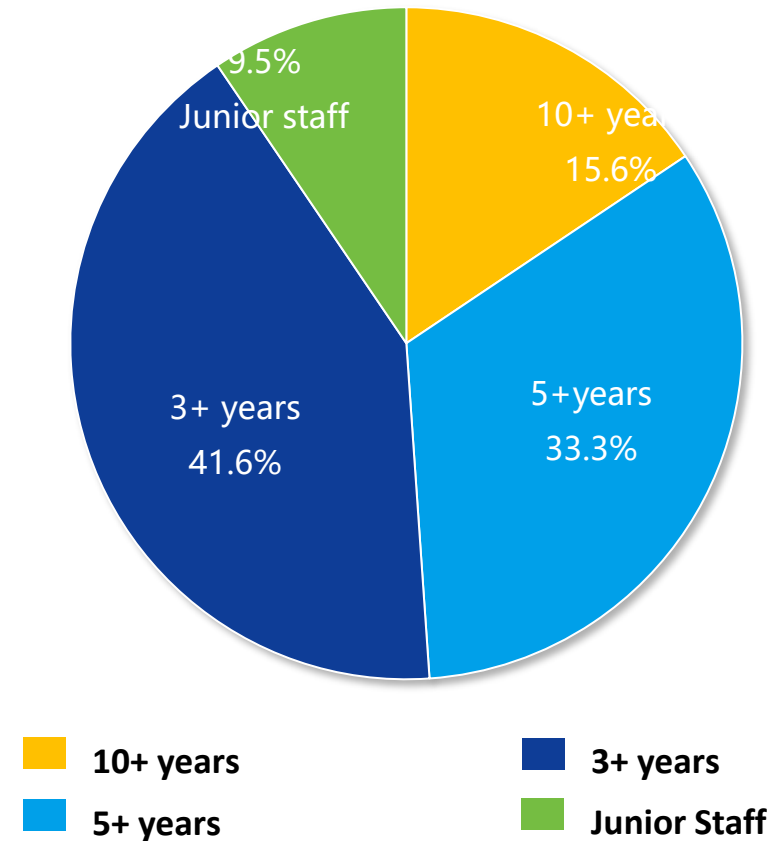
## 120+

Technical Team

### Team Advantages

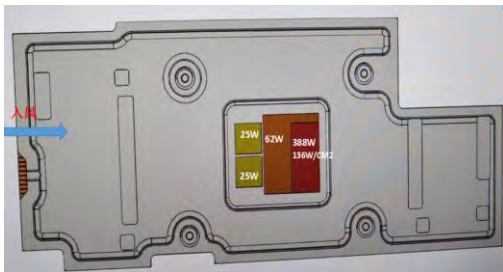
- ✓ 20 years of thermal management expertise
- ✓ Experience in **air**, **liquid**, and **immersion** cooling
- ✓ 1,000+ liquid-cooling projects completed
- ✓ R&D investment: 15% of total, driving innovation
- ✓ Fast response through customer collaboration

### Team Experience



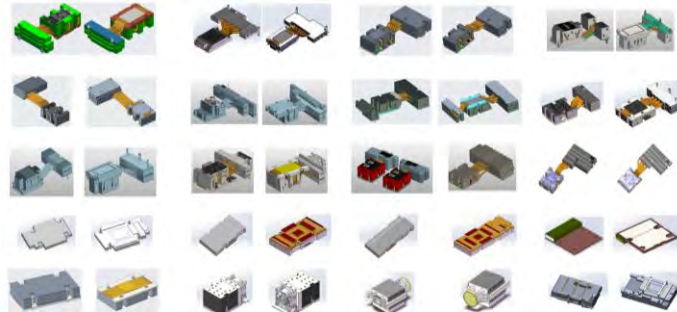
## Heat Pipes

- 650 mm stable heat pipe
- Maximum power: 65–70 W (D8)
- Local heat flux : 140 W/cm<sup>2</sup> chip
- Fully meets **thermal shock resistance** requirements
- Leading performance in China



## 10,000+ Cooling Modules

### Air-Cooling Modules



### Liquid-Cooling Modules

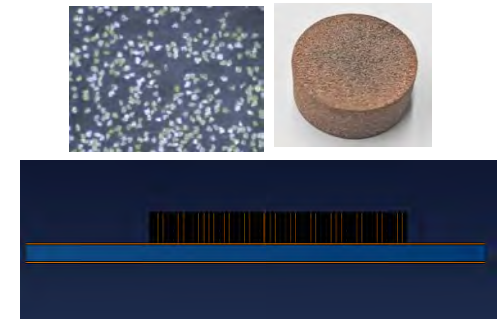


## University Collaboration

- Two-phase cold plate: 150 W/cm<sup>2</sup>, 0.025 °C·cm<sup>2</sup>/W
- Optimized design: -25% pressure drop,
- +18% efficiency



- High conductivity aluminum:
- 280 W/m·K (+60%)
- Diamond composite: >800 W/m·K





## ISO 9001:2015



## ISO14001:2015



## ISO 45001:2018



## ISO 27001:2022



## IATF 16949:2016



## IECQ/QC080000





## Precision Measurement



CMM



Blue Light Scanner



## Non-Destructive Testing



X-Ray Inspection



## Environmental Testing



XRF Spectrometer



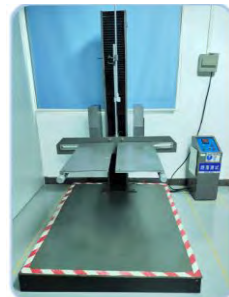
GC-MS



## Packaging Simulation Tests



Vibration Test (3-axis)



Impact Test



Drop / Transport  
Simulation

100%+ Appearance Inspection

100%+ Performance Inspection



## 01 Project Ownership

- One-stop dedicated contact
- Fast decision-making, clear responsibility
- Ensures on-time delivery

## 02 Transparent & Controllable Progress

- Digital tools for real-time tracking
- Proactive risk management
- Customer visibility into delivery status

## 03 In-House Full Process

- Flexible internal resource allocation
- “Priority Production Line” for urgent orders
- High quality & short lead times guaranteed

- Aluminum Extrusion: 4 weeks  
(Urgent: 2–3 weeks)
- Modules Soldering: 5–6 weeks  
(Urgent: 3–4 weeks)
- Liquid Cooling: 6–7 weeks  
(Urgent: 4–5 weeks, excludes QD)

## Expedited Production Support

- ✓ Priority scheduling
- ✓ Shift operations (extended hours)
- ✓ Cross-team resource priority
- ✓ Real-time progress tracking



## Core Strengths

### Fully licensed for customs clearance

We hold full import and export licenses and support global trade



Customs Registration Certificate



Registration of Foreign Trade Operators

### Hong Kong U.S. Dollar Account

Supports various international payment methods, including TT and LC

**7** The Complete 7-Step Export Process

**4** Global Service Centers



## Export Process Overview

- Export Preparation
- Production & Packaging
- Customs & Inspection
- Transportation Booking
- International Shipping
- Destination Delivery
- Payment & Tax Refund



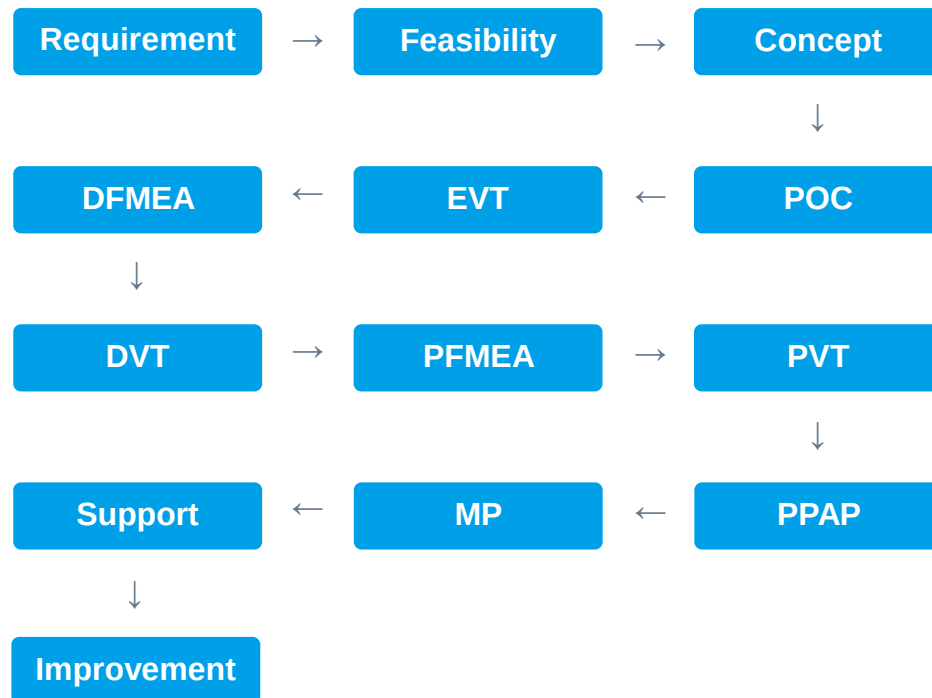




## ODM

Full Design Responsibility

### Process Flow :



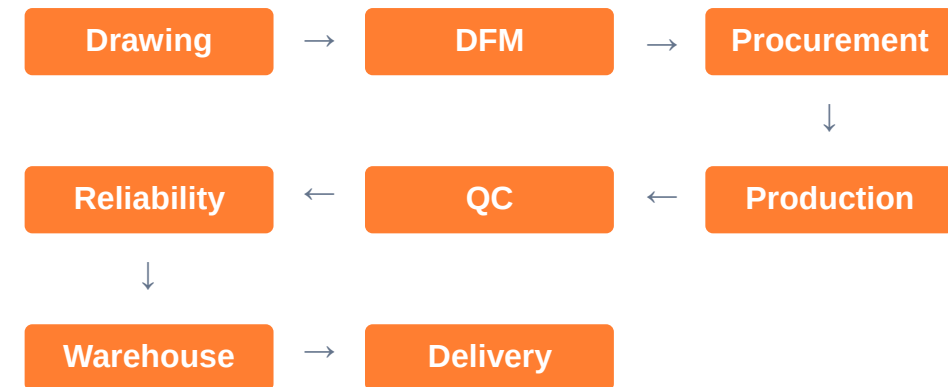
We manage the entire product lifecycle from concept to delivery, ensuring a seamless and optimized development process.



## OEM

Build-to-Spec

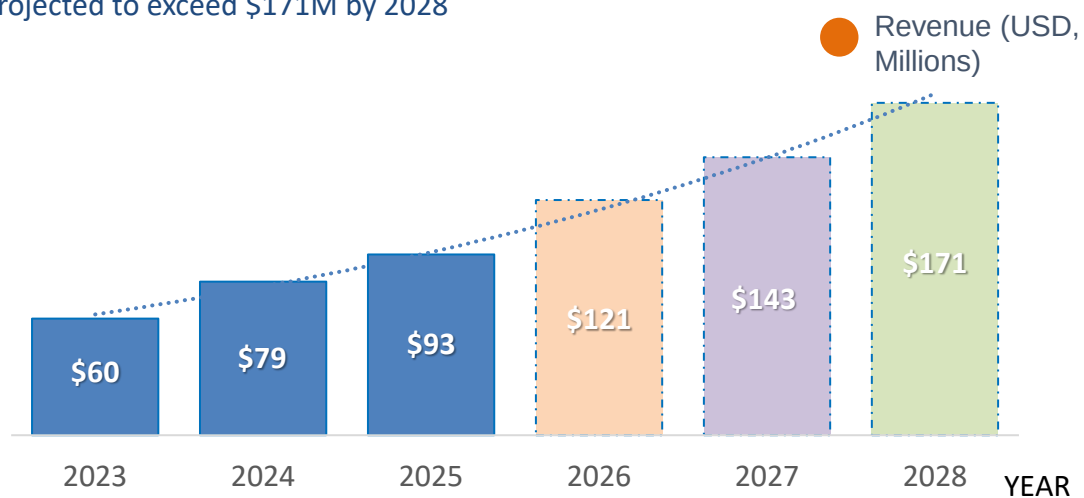
### Process Flow :



We transform your detailed designs into high-quality products with precision and efficiency.

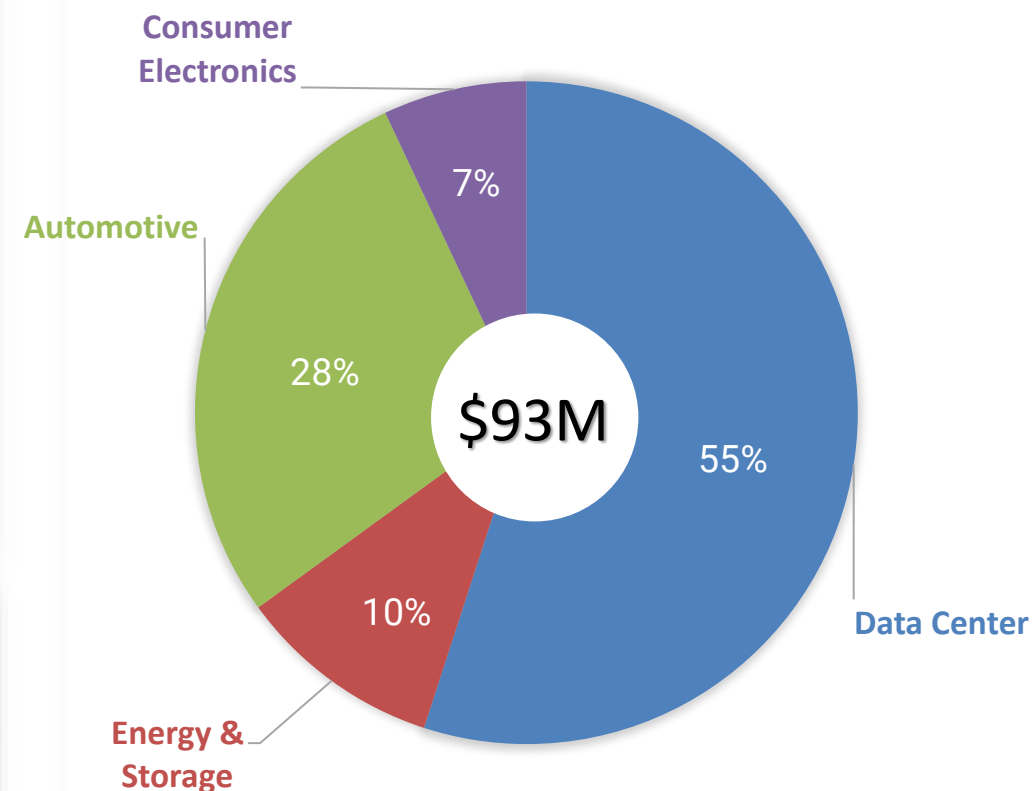
## Revenue Growth ( Past 3 Years &amp; Forecast )

- Revenue grew from \$60M (2023) → \$93M (2025)
- Projected to exceed \$171M by 2028



| Type                   | Capacity/M | Shipment | Utilization |
|------------------------|------------|----------|-------------|
| Aluminum Extrusions    | 4000K      | 3000K    | 75%         |
| Air-Cooling Modules    | 1000K      | 500K     | 50%         |
| Liquid-Cooling Modules | 200K       | 100K     | 50%         |

## 2025 REVENUE





## Internet Users



10+

Internet Users



## OEM Customers



10+

OEM Customers



## Chip Customers



3+

Chip Customers

TOP3

Server OEMs





## Automotive



TESLA

BYD



Wabtec  
CORPORATION



东风汽车  
DONGFENG MOTOR



广汽传祺



五洲龙  
WUZHOU LONG



## Energy & Storage



HUAWEI



i-bright  
中国航发·阳天电子



bodor  
laser



CHNT  
正泰



锦浪科技  
JINLANG



浩洋股份  
GOLDEN SHARE



## Consumer Electronics



美的 Midea



ASUS



雷尊  
LEIZUN



FOXCONN  
鸿海科技集团



USI



DELL

PEGATRON

COMMSCOPE



CyberTAN

EV

ESS

5G

CE



## Granted Patents



80+



## Member



Open Compute Project

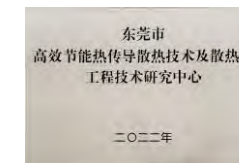
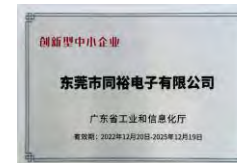
## Certified



RBA Responsible Business Alliance



## Certifications



Founding Member – AI Open Compute Lab

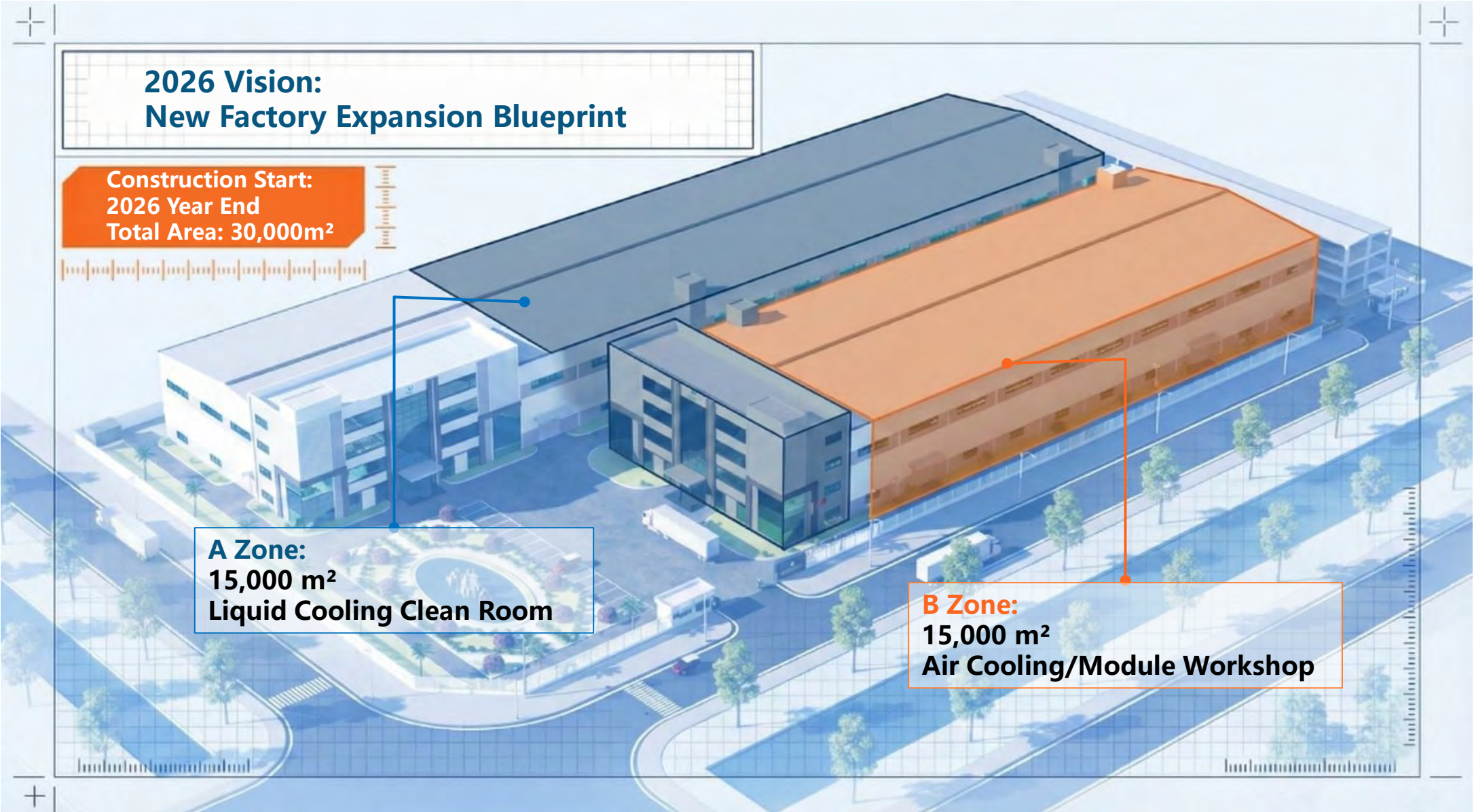


Intel Sustainability Summit 2023  
Intel CEO Pat Gelsinger visits Tongyu booth  
(CPU + DIMM products).



Outstanding Supplier Awards









# Thank You — Questions?

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