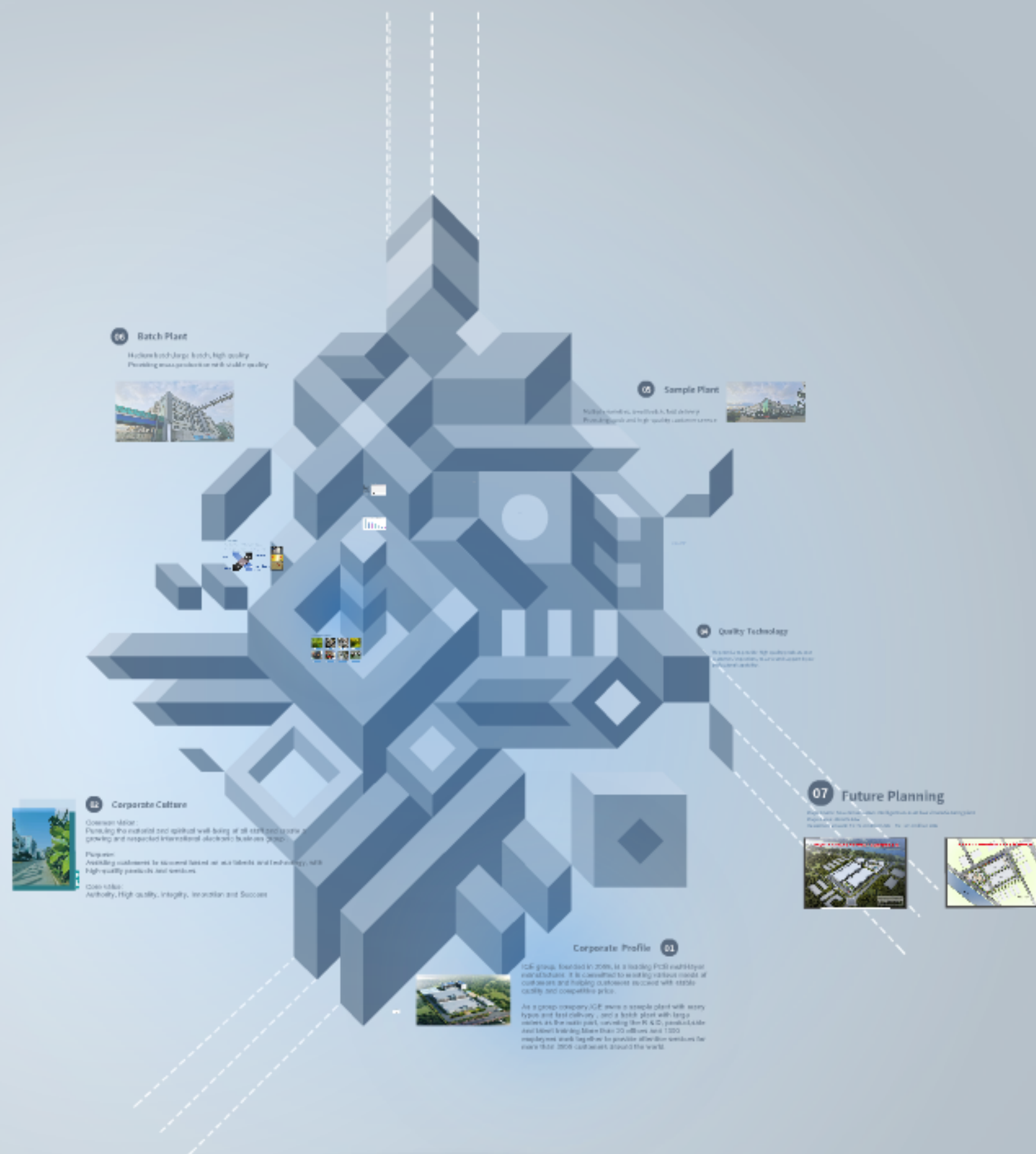


Q: What do we do ?





# INNO CIRCUITS LIMITED



## Corporate Profile 01



IQE group, founded in 2008, is a leading PCB multi-layer manufacturer. It is committed to meeting various needs of customers and helping customers succeed with stable quality and competitive price.

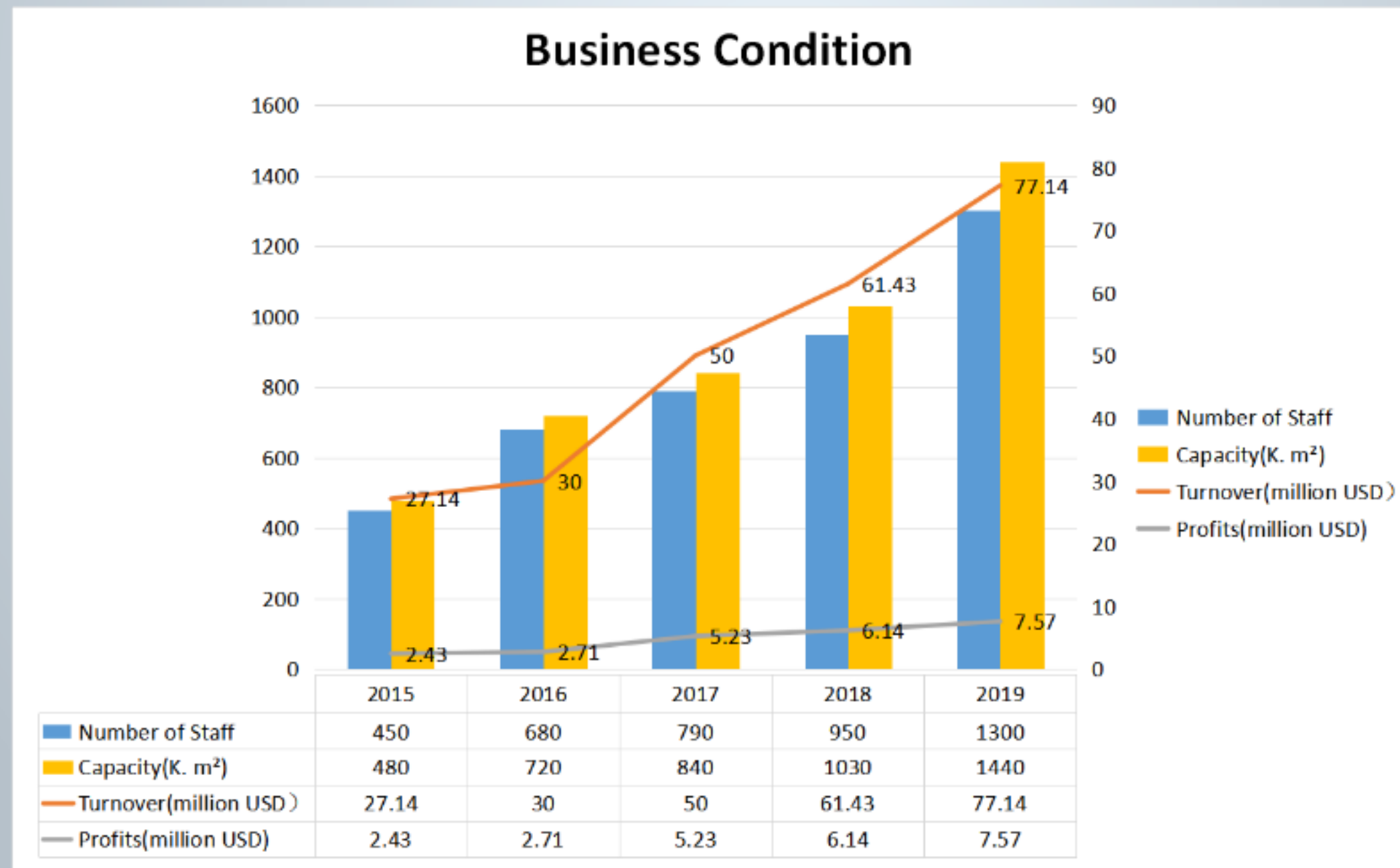
As a group company, IQE owns a sample plant with many types and fast delivery , and a batch plant with large orders as the main part, covering the R & D, product, sale and talent training. More than 20 offices and 1300 employees work together to provide attentive services for more than 3000 customers around the world.



# Development History

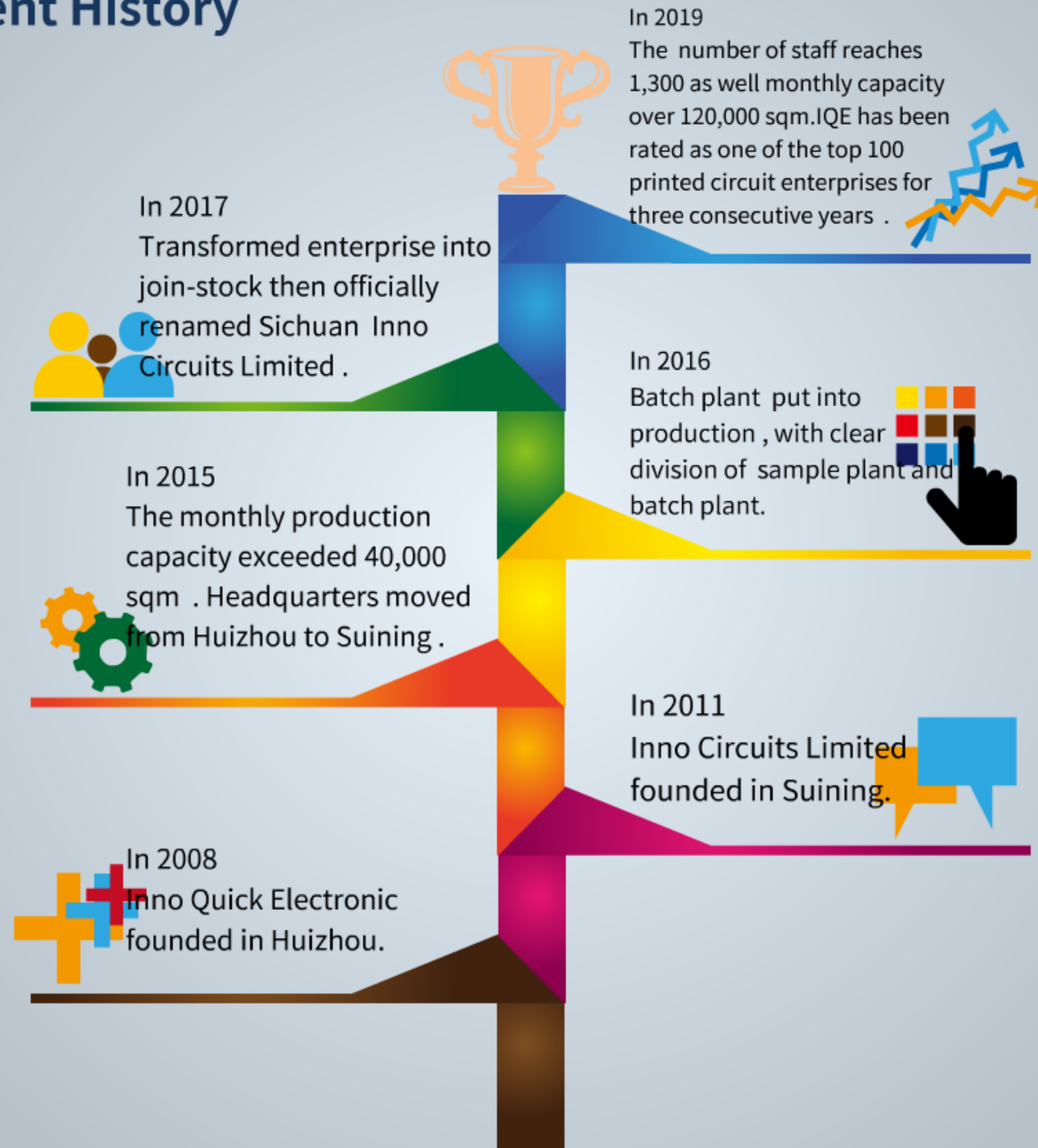
Located in Innovation Industrial Zone, Suining, Sichuan, which connects with Mianyang, Neijiang, Nanchong and Guang'an by expressway, IQE makes the most of convenient transportation and abundant human resources in this center of economic belt and the high-speed rail.

With its own advantages and customer support, IQE increases at an average annual rate of 29%, and prepares to come into the market positively.

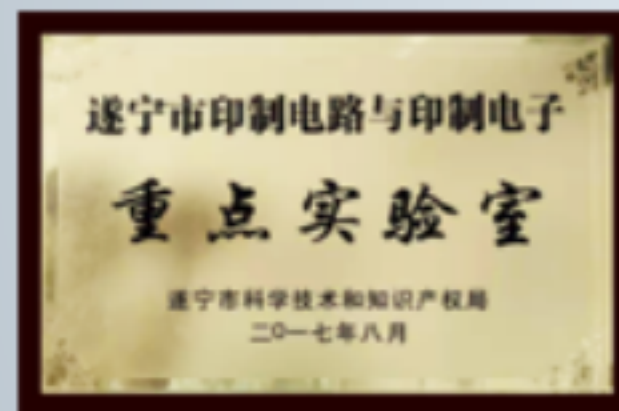




# Development History



# Social Honor



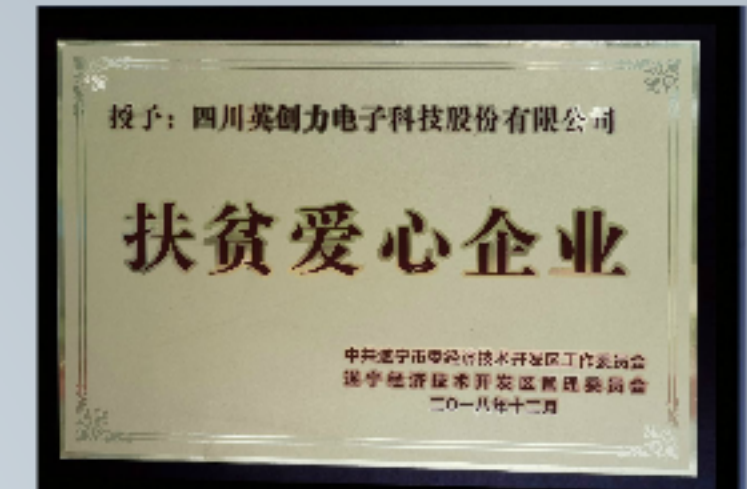


# Social Responsibility

We are actively seeking to attend to social activities to ensure we play an important role in local society, as we understand the success is built on everybody's support.



Donating 200,000 RMB to Tongjiang County to improve the learning and living conditions of local students.



Setting up the IQE Federation of trade unions to help the staff in need.



In response to the anti-poverty project, we cooperated with Shuangjiang village to help them in industry, commerce, employment, donation and intelligence.

Donating 500,000 RMB and aid to help fighting against COVID-19. Staff volunteered to work for medical supplies.







PRODUCT

02

## Corporate Culture

Common vision:

Pursuing the material and spiritual well-being of all staff and create a growing and respected international electronic business group .

Purpose:

Assisting customers to succeed based on our talents and technology, with high-quality products and services.

Core value:

Authority, High quality, Integrity, Innovation and Success

## Work hard and Enjoy life

Staff always concentrate on working with full enthusiasm and motivation along with enjoying life, in this comfortable and healthy working environment .





# Our team!



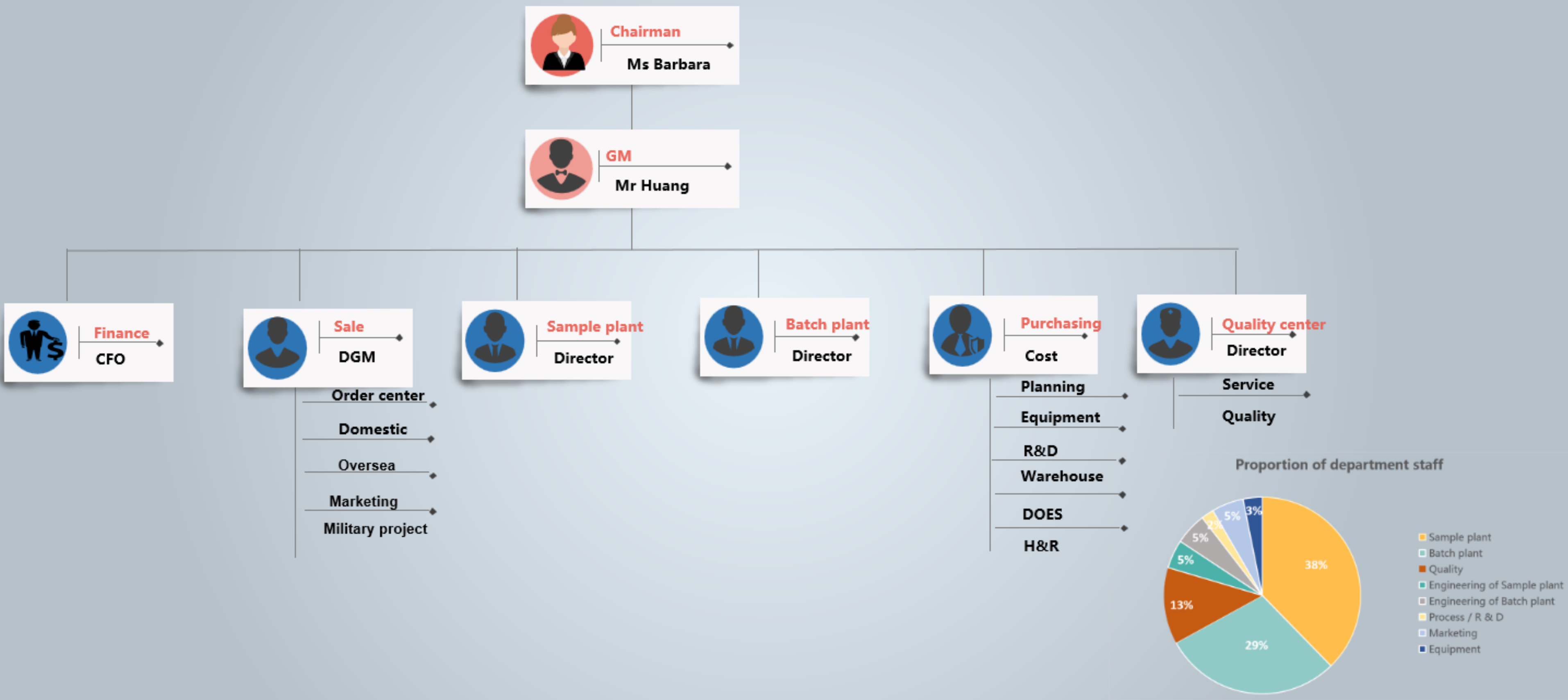


## 03

# Organisational Structure



IQE always adhere to the employee concept of "talent is the first resource of invitron" and the training policy of internal and external intergration, providing multi-level training programs for staff's further growth.



Q: How to ensure the quality ?





04

## Quality Technology

We promise to provide high-quality products over customers' expectations, to serve and support by our professional capability.

## Quality Assurance

- 1 **PE Assurance** → The best design to ensure the smoothest production and quality  
Review gerber → Handle gerber → QAE Audit → EQ → QAE Re-audit
- 2 **Selection of raw materials** → Mainly selected international brands, best performance guarantee  
CCL: Shengyi, KB, Nanya etc  
SM: Rongda, S.M Materials Taiyo, ABQ etc
- 3 **Systematic process management** → Good ideas make things better  
IATF16949 Management  
6S Management  
Visual Management
- 4 **Enough process assurance** → To make everyone professional and to do more dedicated works  
Improved training system (2 engineers get IPC CIT certification)  
PDCA Improvements  
To decompose all the targets into every staff and make every join quality assurance and improvement
- 5 **Technical customer service** → Focus on customer needs and achieve customer satisfaction  
CS Team: Timely response mechanism and systematic analysis and improvement  
Report Team: Be skilled at PPAP, APQP, PAPS0 etc.  
Sys Team: Handle other customers' needs in time, such as audit, Questionnaire, EP etc

## Quality Assurance

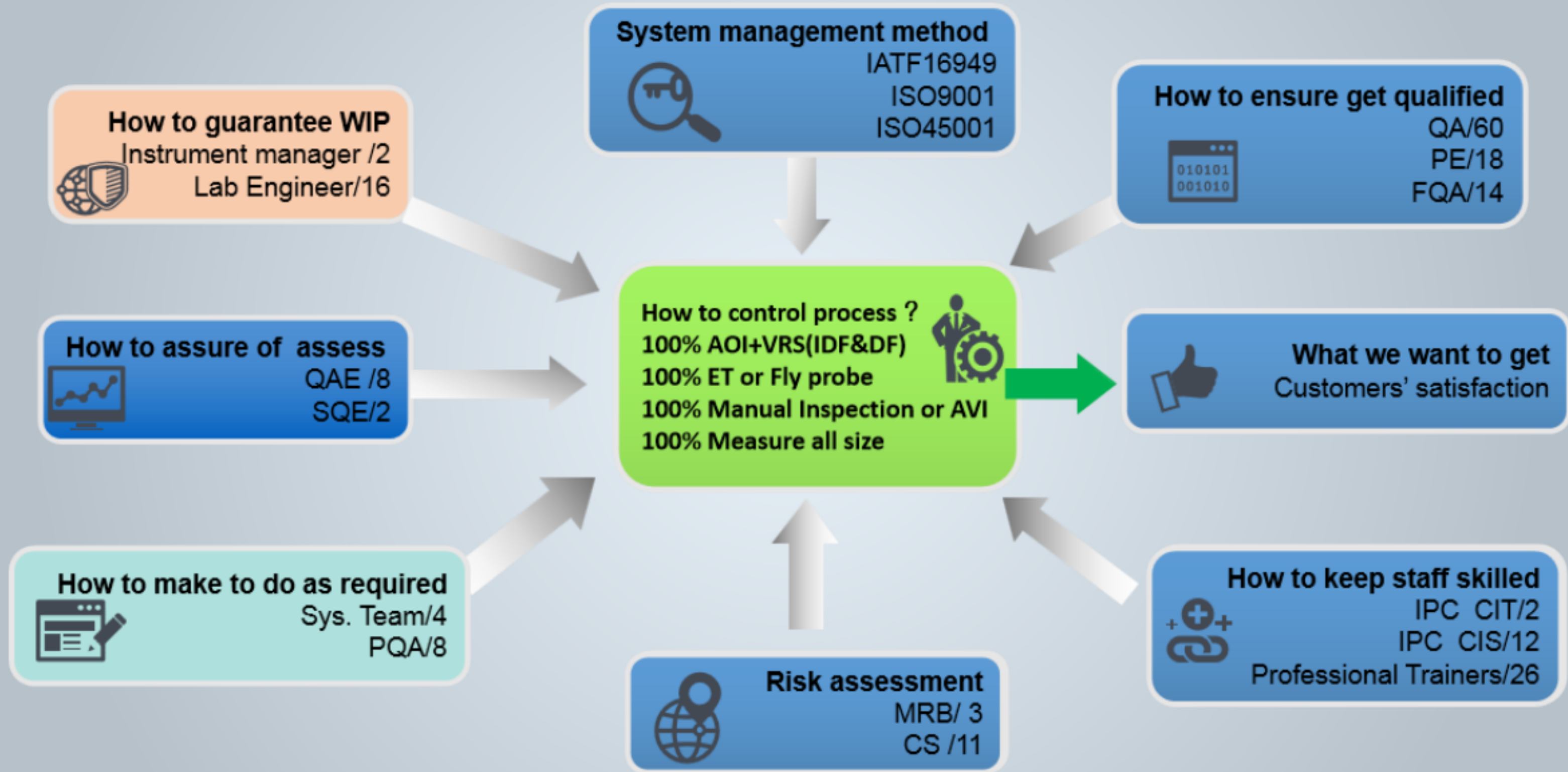
### Quality Policy

Customer first, Quality first, Service first;  
Making satisfactory products is our responsibility;  
Providing service over customers' expectations is our target;  
Keeping long-term friendly cooperation with customer;  
Making IQE develop constantly.





# Quality Management



# Quality Management



## We make the following commitments for quality and Service:

- Sticking to customers' contracts and spec. and provide qualified products with quality and quantity.
- If any issue about quality or service,we will response within 2h and feedback within 24h. we will keep contacting and handle for final satisfaction.
- If any complain ,we will provide solution and send CS engineer to customer side if needed.
- If any returns due to quality issues ,we pomise to exchange in time.

3D	8 WH	Confirm basic information, team and temporary measures
5D	3 WD	Use some dedicated methods,such as fishbone,5Why etc.to analyze and find the root cases for occurrence and non detection.
7D	5 WD	Validate and implement corresponding improvement actions.
8D	3 batches or within 1 month	Track effectively and confirm all the issues had been solved and prevented.
Method s	Fishbone,5W hy	No matter if it is a white cat or a black cat,a cat that can catch. rats is a good cat.



# Certifacation

IQE upholds the quality management system ,manufactures with choice material carefully , meet customer's a variety of requirements .



UL



CUL



CQC



IATF16949:2016



ISO9001:2015



ISO14001:2015



ISO45001:2018



GJB9001C:2017

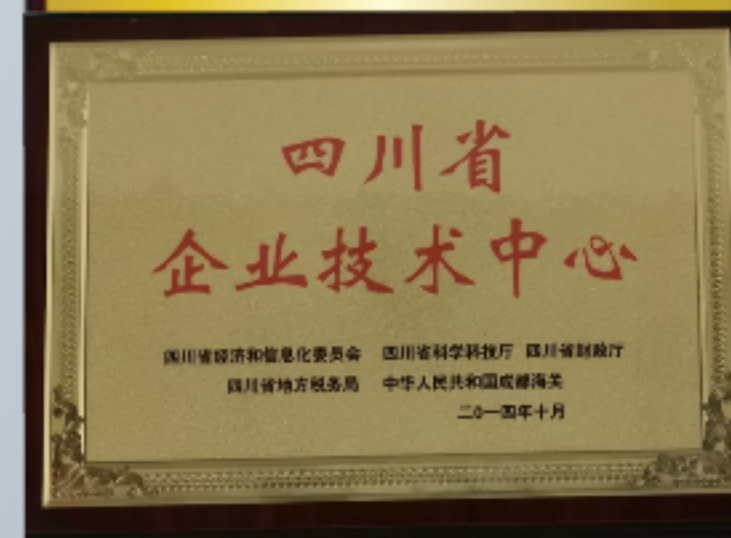
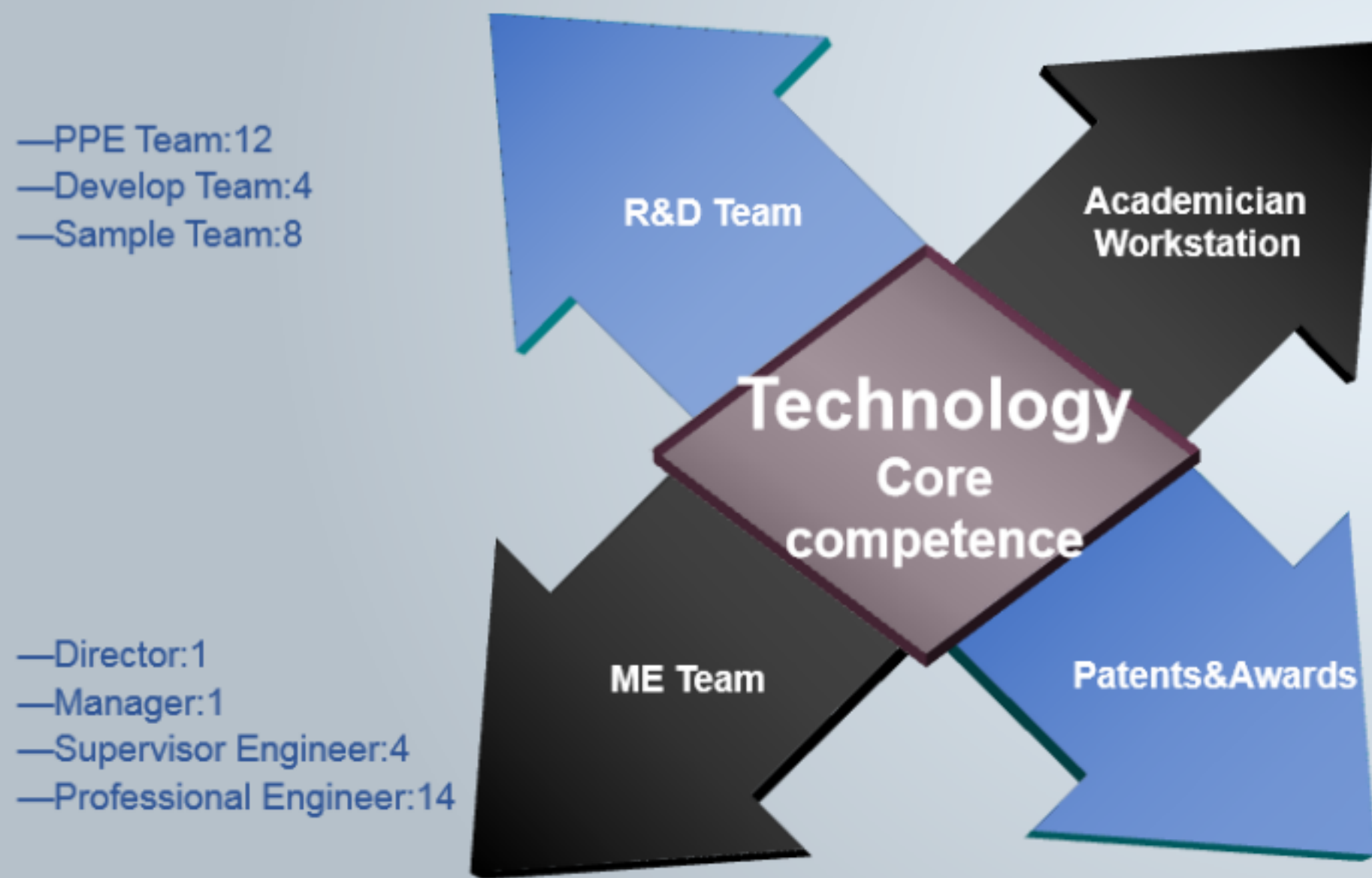




## Technology

Our technical knowledge comes from many years of PCB manufacturing experience, continuous innovation and careful cultivation of technical leaders, as well as strict quality assurance inspection.

Our senior expert team can provide practical experience for all new and old customers at any time, to help solve any technical problems and improve production efficiency.







After years of efforts, we have made great progress in in the field of circuit board manufacturing,servicing for the most precise and performance-oriented industries ,such as communication, consumer electronics, automotive, power energy, military,medical etc.

In the future, we will also establish close cooperation with many suppliers to achieve a win-win situation.



Items		Sample plant	Batches plant	Remark
Finished thk.		5.0mm	3.2mm	Max. individual indicator
Min. conductoe width/space		2.5/2.5mil	3.0/3.0mil	
Min. SM dam		2mil	3.5mil	
Final copper thk.(inner layer)		6OZ	4OZ	
Final copper thk.(outer layer)		10OZ	4OZ	
Aspect ratio		16:1	12:1	
Max. layers	Normal	36L	20L	
	High speed	20L	12L	
	Heavy copper(≥4OZ)	12L	6L	
	High frequency	10L	6L	
Embedded copper		Machinable	/	
Back drilling		Machinable	/	
IMS		Machinable	Machinable	Copper base\Al base(not included single layer)
Multilayer high frequency		Machinable	Machinable	Material stype: Rogers\Arlon\Taconic\Nelco\旺灵\富士德
				Products structure: foam board\mixed press\pure press
				Application area: 5G\24GHz\77-79GHZ\automotive radar
Step plating		Machinable	Machinable	Included blind slot
Blind&burried		Machinable	Machinable	All levels
Flex-rigid board		Machinable	/	

## >> Service

The continuous development of IQE base on the long-term cooperation of mutual trust and promise to ensure customers' success.

We focus on every customer's needs with a multilingual service team, to keep in touch with customers without time difference.

We provide the most suitable production plan according to technology, quantity, cost and delivery requirements. For sample orders, we quote **in 2 hours** and deliver **in 24 hours**. Fast service can win customers' trust.



Service Type:

**Quick** quote ,Quality products,Incredible delivery speed,**Satisfactory** after-sales service.

Service window:  
[marketing@iqpcb.com](mailto:marketing@iqpcb.com)



Q:What are our strengths?





05

## Sample Plant

Multiple varieties, small batch, fast delivery  
Providing quick and high-quality customer service



With diversified products applied for various fields, IQE devotes to meet all customers' needs.



Size:≤20m<sup>2</sup>

Types:  
Special request,  
Special technology,  
Special process,  
Customized products.

Output:  
200PNs/day  
1000m<sup>2</sup>/day

QT:  
Within 24h for 2 layers  
Within 48h for 4 layers

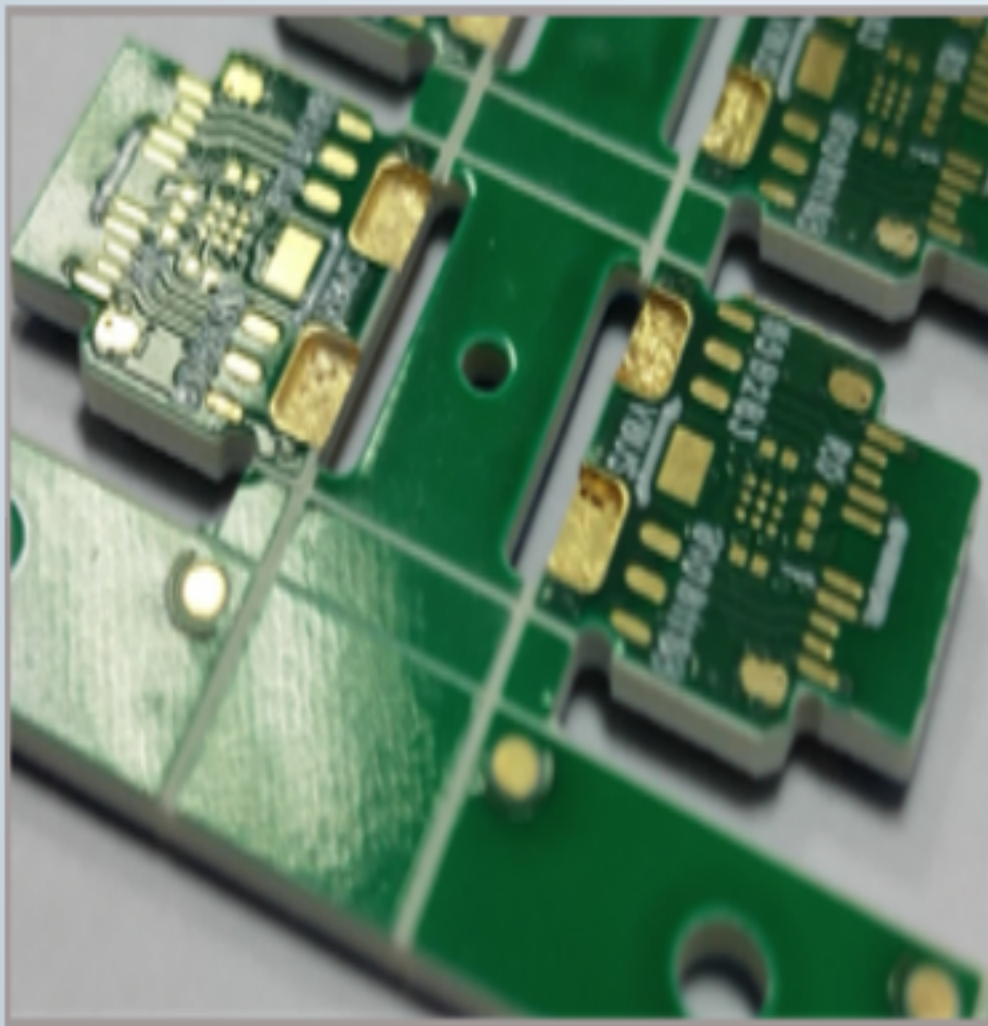
## Sample Plant Capability

Category	Sample Production
Layer Count	2 - 36
Laminate	FR4(Tg140,TG150,Tg170,Tg250)/CTI≥600/Halogen free/IMS/High frequency/IMS/PI
Max Panel Size	630 mm x 1200 mm (Double), 550 mm x 650 mm (Multilayer)
Finished Thickness	0.2-6.0mm
Copper thickness	6 oz (Inner) to 10 oz (Outer)
Min. drill size	0.15mm.
Aspect Ratio	16:01
Minimum line width /spacing	2.5 mil/2.5mil
Solder Mask Dam	2 mil min.(GN),4 mil min.(others)
Plug Hole Diameter	0.2 -0.6 mm
Impedance tolerance	+/- 6%.
S/M Color	GN/WT/BK/RD/YL/BU/OG/BN
Surface Finish	OSP/HASL/LF HASL/IAg/ISn/ENIG/Gold Finger /dual finishing
Special Technology	Press-fit hole/embedded copper/high frequency foam /mixed press/heavy copper/half hole/step plating/resin plug/edge plating



# Telecommunication Network

5G/Telecommunication base station/Internet of things/WiFi/5G charger/5G harness/Switch/Server/Wireless module/Transmission equipment



Product Style	High frequency board
Layer	6 layers
Difficulty Level	▲▲▲▲▲
Key Technology	①Regors Ro4350+Ro4450F Lamination ②Different SM color:one green,the other blue ③Depth rout:0.19 +/-0.1mm
Production Time	6-7 days
Major Client	HUAWEI,TCL,ILINKWORLD,,JIUZHOU,KONKA, TOPBAND,WEIBU,Lenovo,HET,SINOSUN etc



# Consumer Electronics

Computer mainboard/Mobile phone  
/Server/Router/Smart home/ARVR/Office  
equipment/STB/Video audio  
/Displayer/Wearable equipment



Product Style	Supper length board
Layer	2 layers
Difficulty Level	▲▲▲
Key Technology	①Final Size:847mm*155.96mm ②Cutting size:868mm*550mm
Production Time	4-6 days
Major Client	Flex,Jabil,Celestica,TOP BAND,HeT,GIMI,KONKA,TCL,CHANGHONG,Leno vo,MI,SKYWORTH,etc



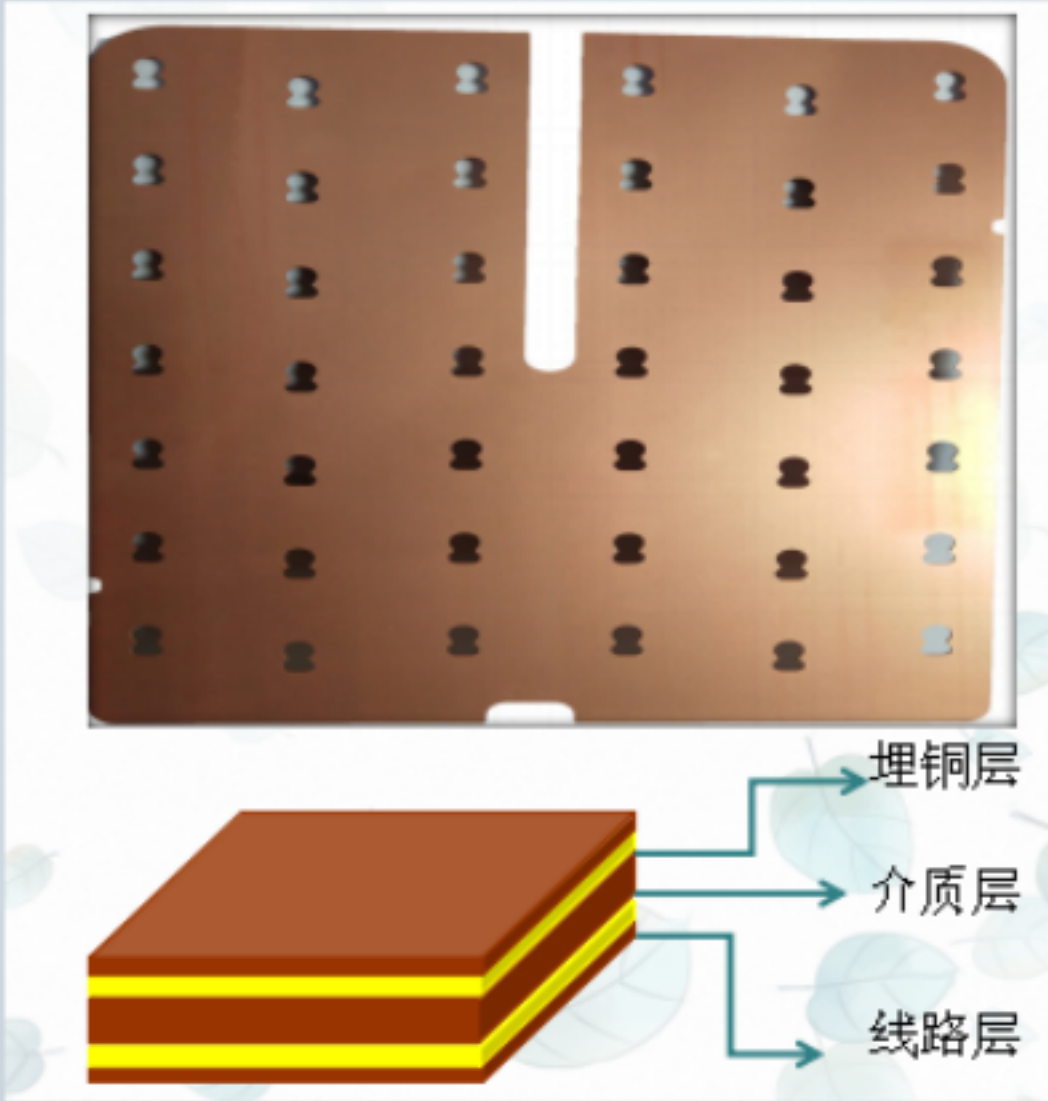




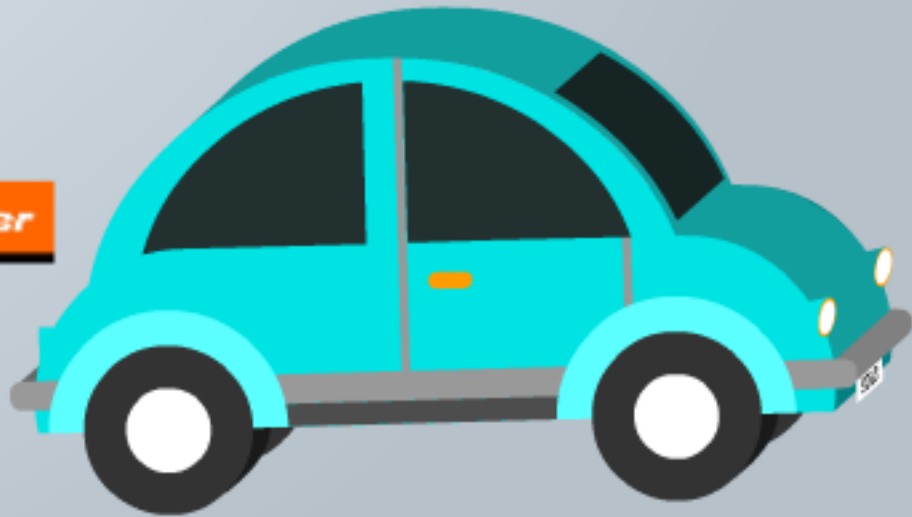


# Automotive Electronics

Lighting/Audio&video  
system/Communication system/Monitoring  
system/Battery management  
system/Steering system/Control  
mainboard/Sensor/Driving instrument



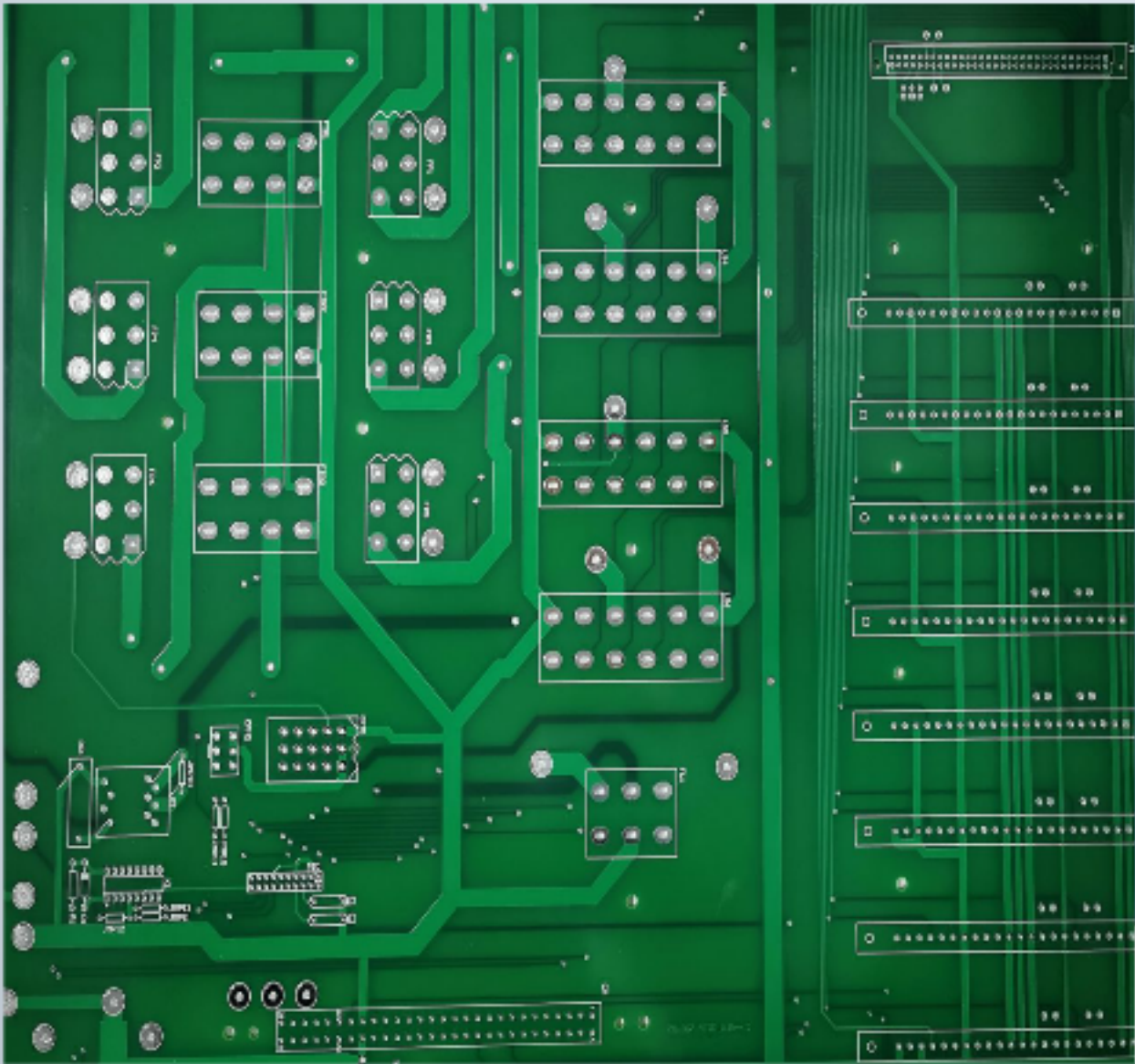
Product Style	Copper base
Layer	2 layers
Difficulty Level	▲▲▲
Key Technology	①Copper thk:0.8mm ②Inner slot tolerance:+/-0.075mm ③Profile tolerance:+/-0.05mm
Production Time	4-6 days
Major Client	ForyouANAYO,BYD,Flatfield,GAC GROUP,GM,GREATWALL,PIONEER etc





# Industrial Control

Industrial automation/Smart device/Communication board/Control mainboard/MPU/On-line monitoring/Safety protection/Sensor/On-line monitoring&analysis module/Measuring and analyzing instrument

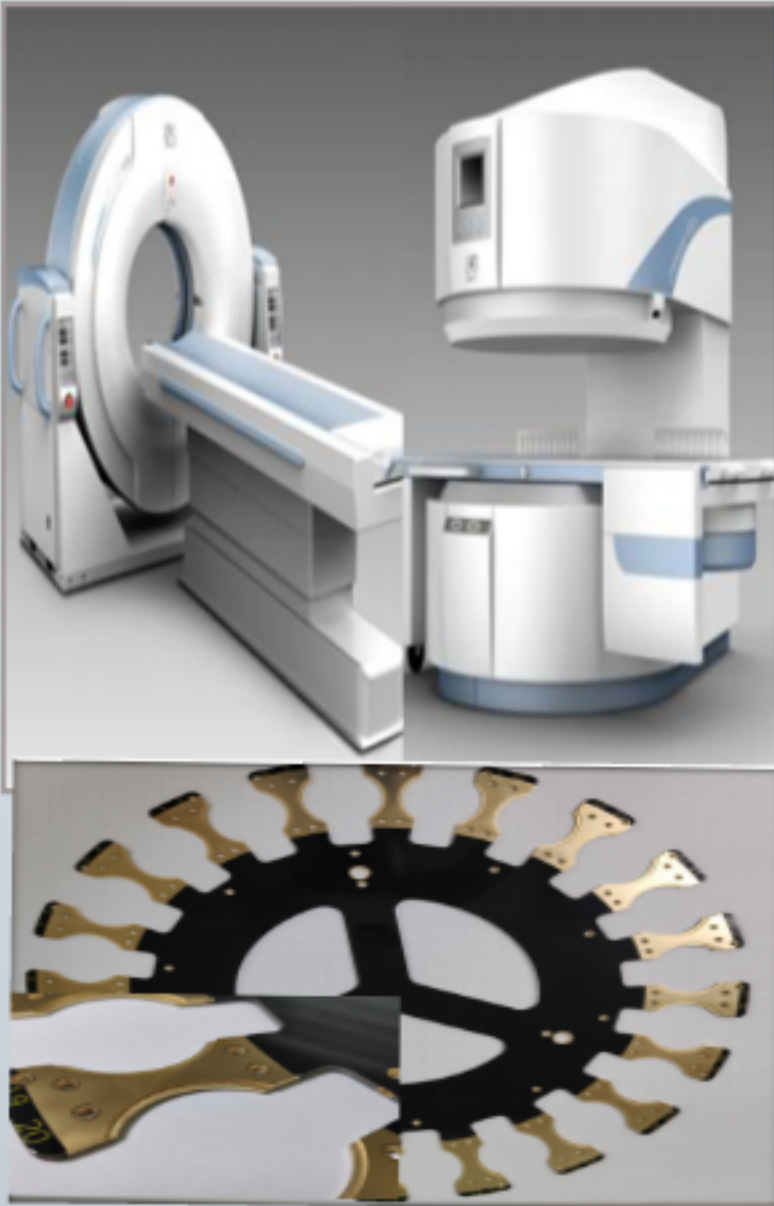


Product Style	HAL LF
Layer	6layers
Difficulty Level	▲▲▲
Key Technology	①Copper thk:4/4/4/4/4/4( all layer 4oz); ②SM dam:8mil; ③Press fit tolerance:+/-0.05mm; ④Do not allow any repairing
Production Time	6-8 days
Major Client	HANs LASER,CEC,APTECH,TongDa GROUP, TOPBRAND, JINGPENG etc



# Armarium

Household electronics/Respirator/Infrared thermometer/Surgical equipment/Power protection equipment/Physiological Recorder/Life monitoring equipment



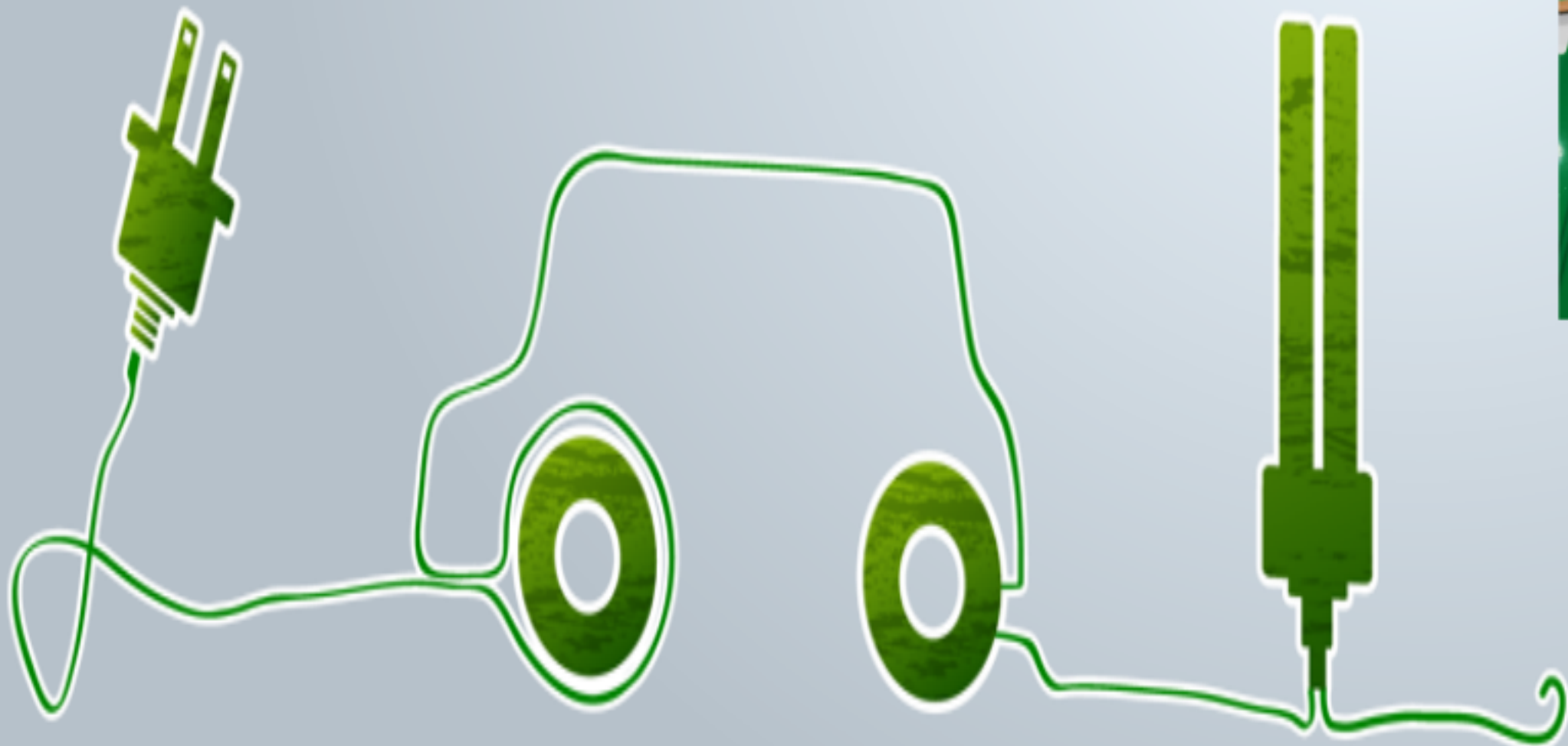
Product Style	Step plating
Layer	2 layers
Difficulty Level	▲▲▲
Key Technology	①Complex profile ②Depth routing:0.8+/-0.1mm ③Step plating
Production Time	4-6 days
Major Client	XUGUANG,DATIEJIANG etc





# Power&Energy

Power amplifier/Automatic power supply/Communication power Supply/charger/ASY/Industrial control panel/Ammeter

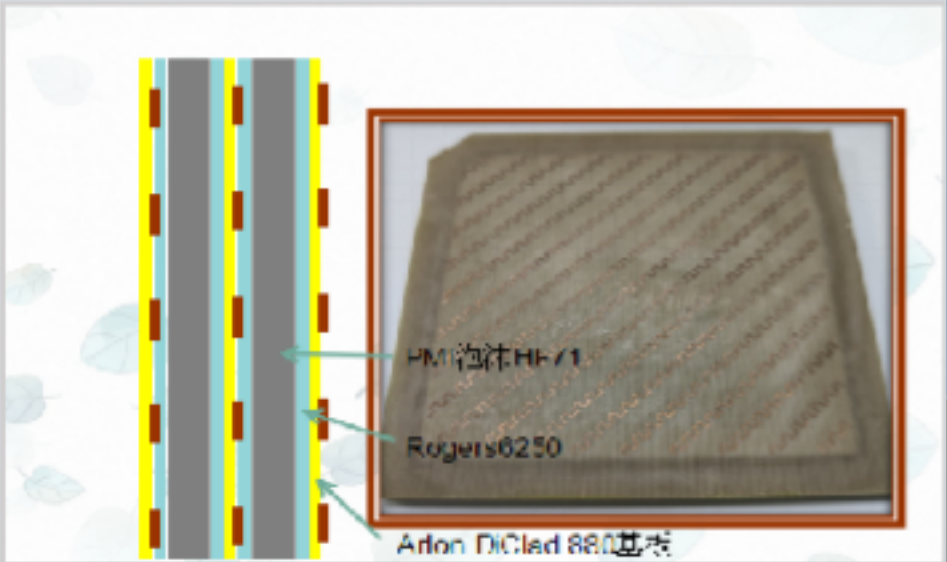


	Product Style	Embedded copper
	Layer	2 layers
	Difficulty Level	▲▲▲▲▲
	Key Technology	①Embedded copper ②No image on outlayer ③Strength with FR4 on both side
	Production Time	4-6 days
	Major Client	CEC,SANXING,LVXIN etc
		



# Military

Military radar/Military weapons/Electric system/Aircraft instrument products



Product Style	High frequency foam board
Layer	4 layers
Difficulty Level	▲▲▲
Key Technology	①DiClad 880+Rogers6250+Foam board ②Fill with foam between core ③Outline size:609mm*609mm
Production Time	6-7 days
Major Client	AVIC,RML,58 etc






# Lighting

LED(P1.8)/LED(Transparent screen)/LED/Solar panel/Photoelectric sensor/Disconnecter



Product Style	Transparent LED screen
Layer	4 layers
Difficulty Level	▲▲▲
Key Technology	①Min. width/space:4/4mil ②Too much inner routing ③Do no allow discolor
Production Time	5-6 days
Major Client	Unilumin,NVC,DGX,Huntkey,GIG ABYTE etc

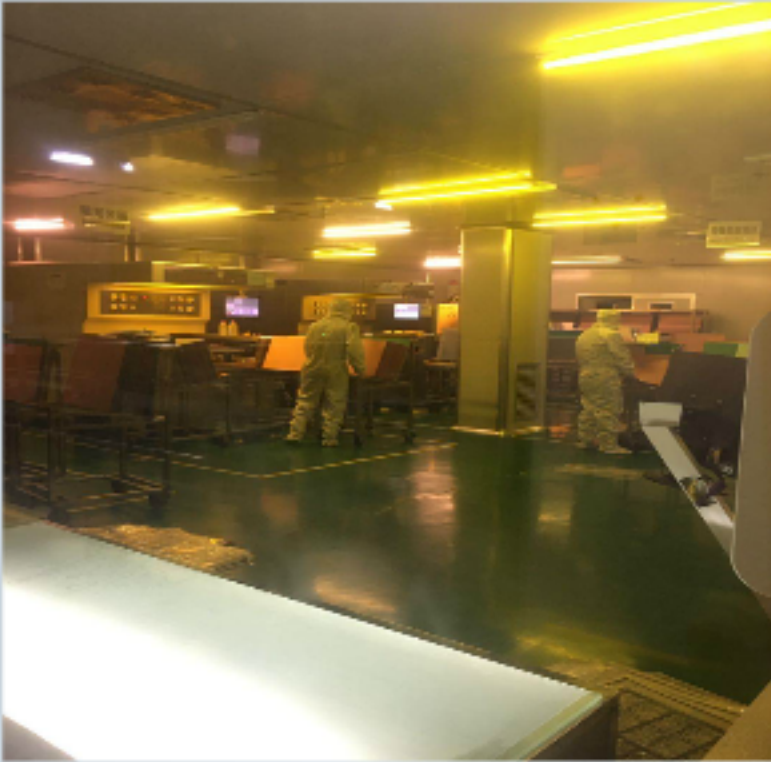




# Main Production Equipments



Equipment	BC machine
QTY	1



Equipment	Auto exposure machine
QTY	3



Equipment	Press
QTY	8



Equipment	Drilling
QTY	141



Equipment	VCP line
QTY	2



Equipment	LDI
QTY	1



Equipment	PTH line
QTY	1



Equipment	S/M Auto exposure machine
QTY	4





Equipment	Legend spray
QTY	4



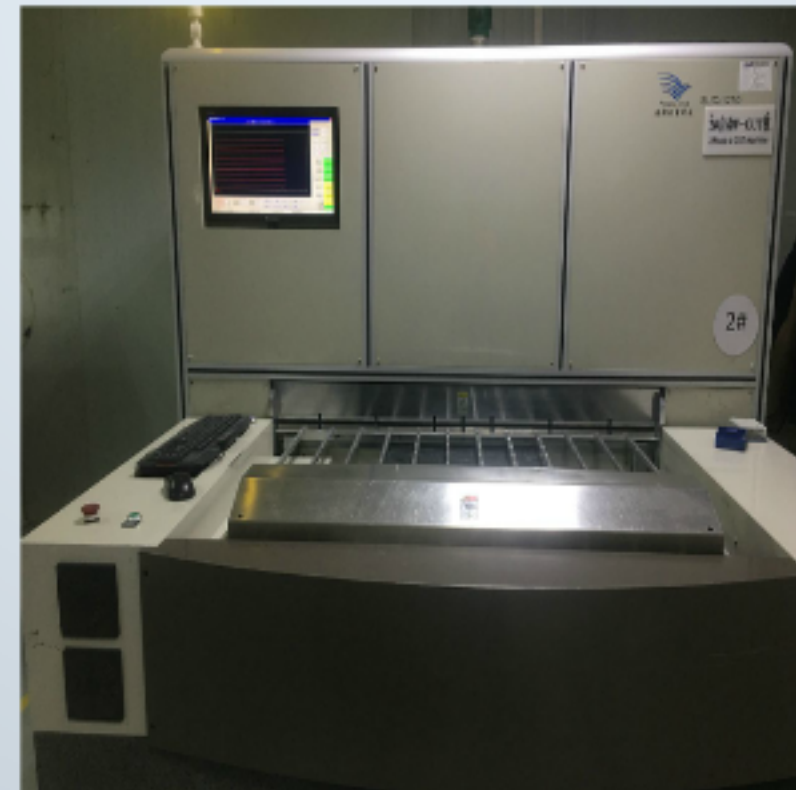
Equipment	Auto ENIG line
QTY	1



Equipment	Auto Beveling machine
QTY	1



Equipment	Router
QTY	16



Equipment	Auto VC machine
QTY	2



Equipment	Cleaning line
QTY	4



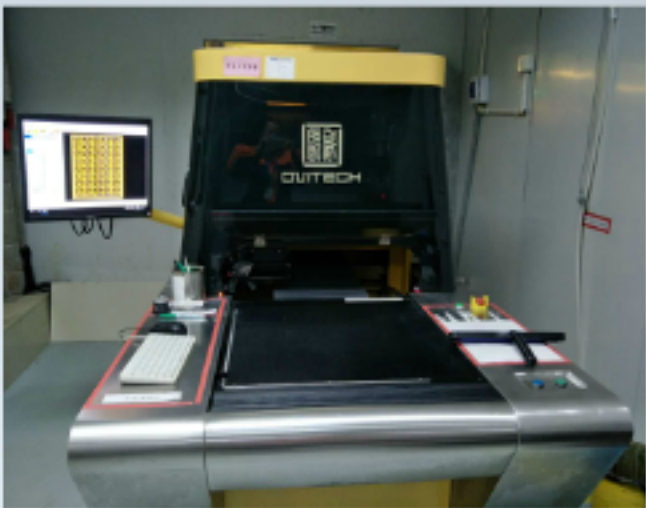
# Main Testing Equipments



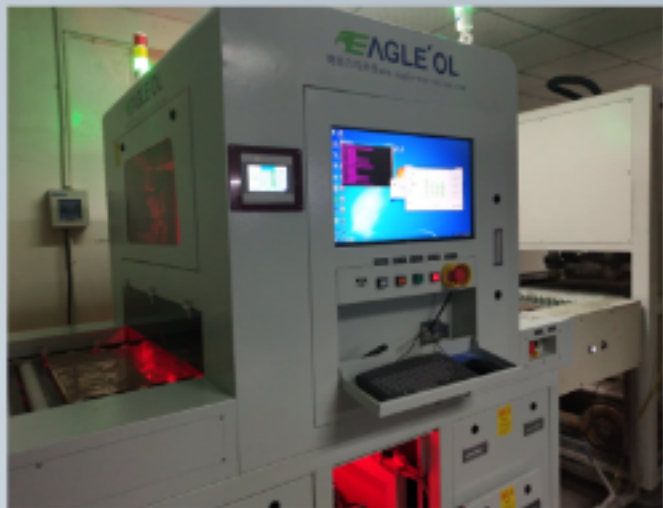
Equipment	Hole AOI
QTY	1



Equipment	Hole checker
QTY	2



Equipment	AOI
QTY	1



Equipment	Online AOI
QTY	1



Equipment	VRS
QTY	4



Equipment	Flying probe machine
QTY	14



Equipment	Auto flying probe machine
QTY	16



Equipment	AVI
QTY	1

06

## Batch Plant

Medium batch, large batch, high quality  
Providing mass production with stable quality





Size: > 20m<sup>2</sup>

Types:

Medium batch and large batch,

Automatic equipment,

Main production for 2L-8L

Monthly capacity: 150,000 m<sup>2</sup>

Current production: 100,000 m<sup>2</sup>

Output:

30 PNs/day

5,000m<sup>2</sup> /day

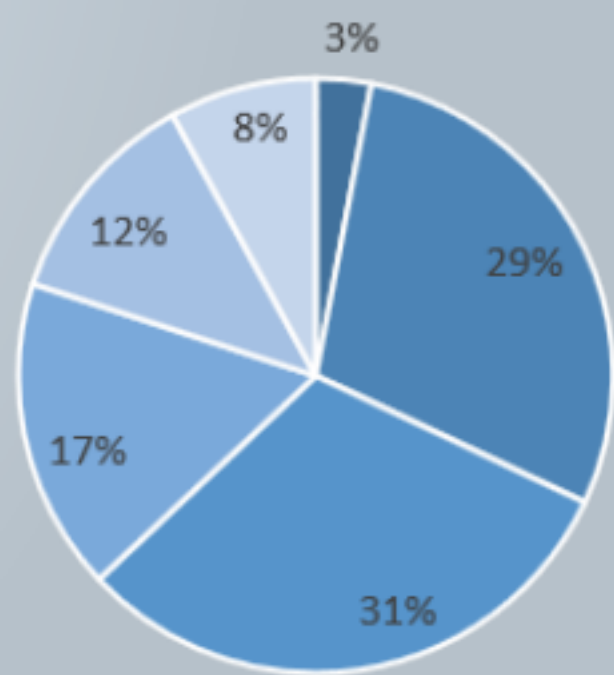
## Batch Plant Capability

Category	Mass Production
Layer Count	2 - 20
Laminate	FR4(Tg140,Tg150,Tg170,Tg180) /Heavy copper/ Halogen free/High frequency
Max Panel Size	630 mm x 710 mm (Double layer), 550 mm x 650 mm (Multilayer)
Finished Thickness	0.6-3.2mm
Copper thickness	3oz (Inner) to 5 oz (Outer)
Min. drill size	≥ 0.20mm.
Aspect Ratio	10 : 1
Minimum conductor width/spacing	3mil/3mil
Min S/M Dam	GN 2mil,others 4mil
Plug Hole Diameter	0.3 -0.6 mm.
Impedance tolerance	+/- 10%
S/M Color	Green/White/Black/Others on request
Surface Finish	OSP/HASL/LF HASL/IAg/ISn/ENIG/Gold Finger/Dual finishing

# Market distribution -- Region/ Proportion

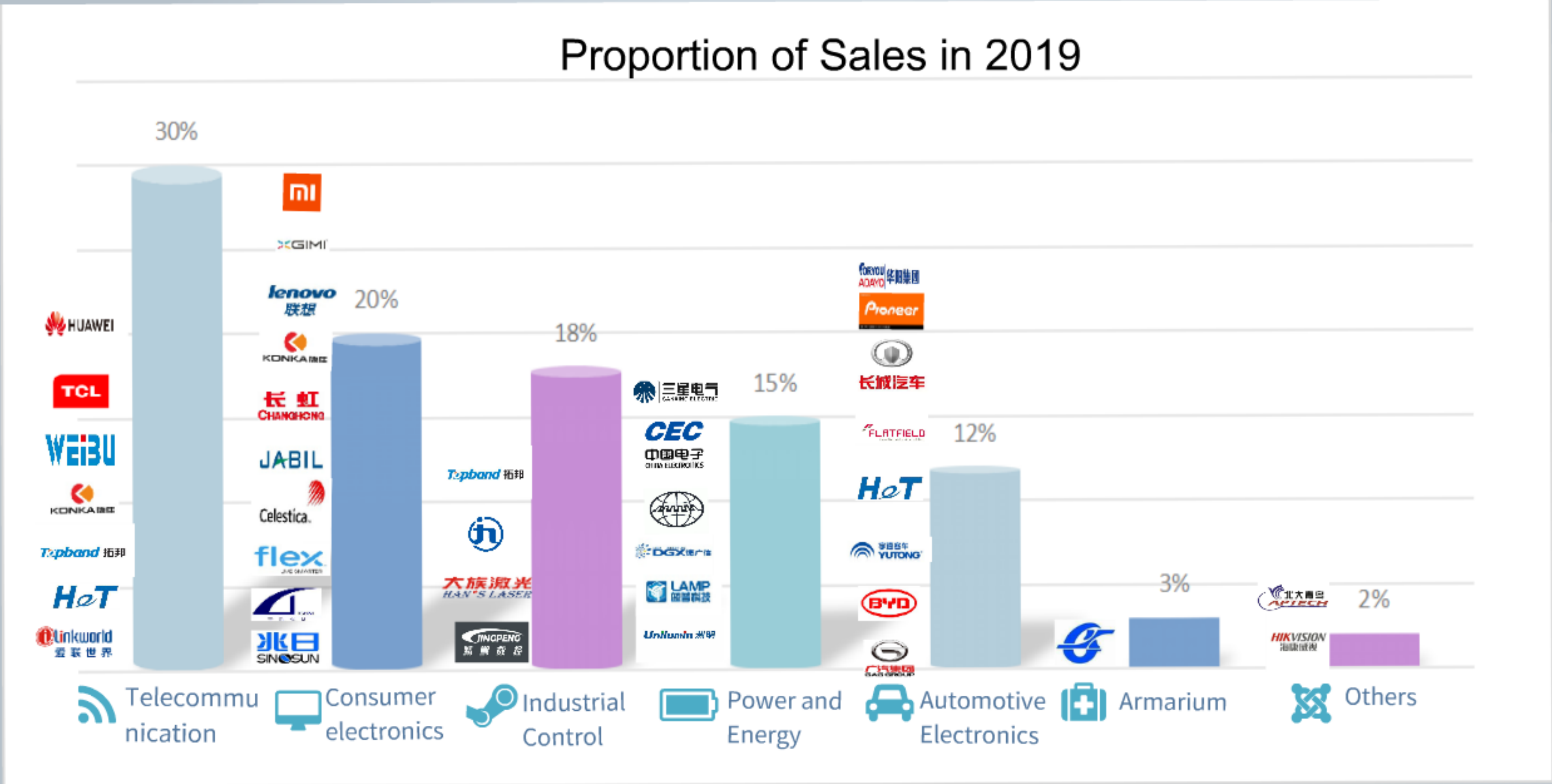


proportion  
Printed Circuit Board



1L 2L 4L 6L 8L 8L+

# Market distribution - Product type/Customer group





# Main Production Equipments



Equipment	Auto cutting machine
QTY	3



Equipment	PTH line
QTY	2



Equipment	Vacuum etching
QTY	1



Equipment	S/M Auto exposure machine
QTY	12



Equipment	Low-pressure spray
QTY	1



Equipment	Auto silk screen machine
QTY	2



Equipment	Vertical HAL spray
QTY	2



Equipment	Router
QTY	34



# Main Testing Equipments



Equipment	Online AOI
QTY	2



Equipment	VRS
QTY	8



Equipment	Auto E-Tester
QTY	24



Equipment	Warp levelling machine
QTY	1



Equipment	Hole checker
QTY	2



Equipment	AVI
QTY	3



# Lab Equipments



Equipment	Plasma cleaning
QTY	1



Equipment	Temp. shocker
QTY	2



Equipment	Temperature Chamber
QTY	1



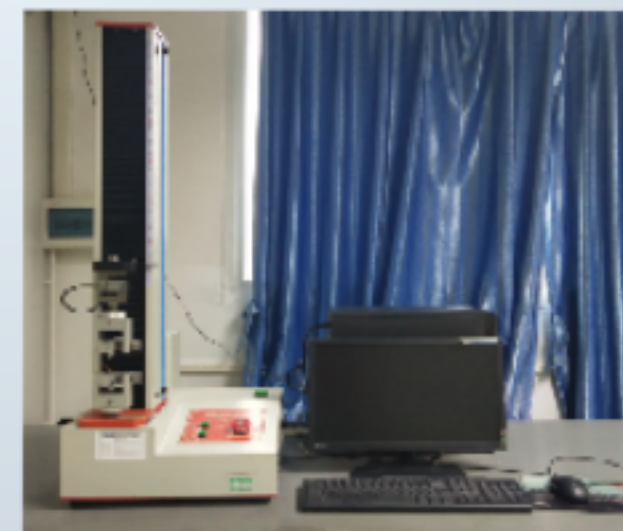
Equipment	Humidity Chamber
QTY	2



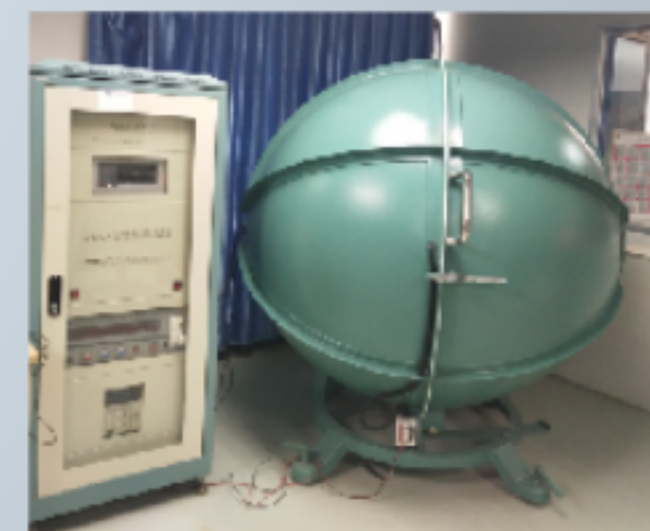
Equipment	Peel strength tester
QTY	1



Equipment	SEM(5000X)
QTY	1



Equipment	Copper foil ductility tester
QTY	1



Equipment	Optical power test
QTY	1



07

# Future Planning

Project name: 5G communication, intelligent iot circuit board manufacturing plant

Project area: 132,672.44m<sup>2</sup>

Investment amount: T1 :71.4 million USD T2: 37.1 million USD

四川英创力电子科技股份有限公司三期项目鸟瞰效果图



四川英创力电子科技股份有限公司三期项目平面图





# THANKS!



[www.iqpcb.com](http://www.iqpcb.com)



# INNO CIRCUITS LIMITED

