

CHANGHONG 长虹®

Clever 聪明    Comfort 舒适    Cool 酷

—— 快乐创造 C 生活 ——

数字长虹, 创新未来

Digital  
Changhong, Future Innovating

CHANGHONG 长虹®

# CHANGHONG ELECTRIC CO., LTD.

The Largest Consumer Electronics Appliance Provider in China



## CHANGHONG at a Glance

### ■ Our history...

Nearly 50 years at the forefront of consumer electronics production

### ■ Market Position...

The largest consumer electronics appliance provider in China

### ■ Our operations...

Serving more than 100 countries, over 90 Million Customers

### ■ Our people...

Approximately 32K employees worldwide

### ■ Our financials...

2007 sales' volume reach to US\$4.08 Billion

## Company Highlights(1)



**1958** The company was established as one of the China's key electronics products manufacturer.

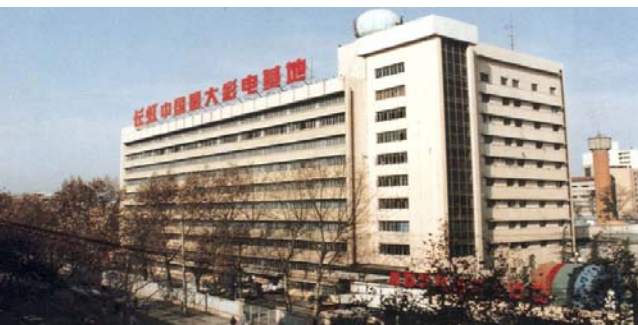


**1979** First Changhong color TV set was introduced into China market.

**1992** Changhong became the largest TV maker in China.

**1995** Changhong diversified its business from color TV only to White goods and AV, STB.

**2001** Changhong grew into top 3 air conditioner in China.



**2003** Changhong became the largest STB supplier in China.



## Company Highlights(2)



- 2004** Changhong established Hongwei company and entered into IC design field.
- 2004** Changhong Jiahua was founded and developed into the third largest distributor in IT field in 2005
- 2005** Changhong became one of the largest of mobile phone manufacturer
- 2006** Changhong grew into the 2nd fridge manufacturer by integrating with Meiling .
- Jan. 2006** Changhong is developing the largest consumer electronics' supplier in China.
- June.2008** Changhong brand assessed value exceeds 65.589 billion ( USD 9.61 billion) by WBL (World Brand Lab). 12.5% increase compare to the year 2007

## Core Management



Chairman: Mr Zhao Yong



Deputy hairman&General Manager:  
Mr Liu Tibin

## Our Corporate Vision



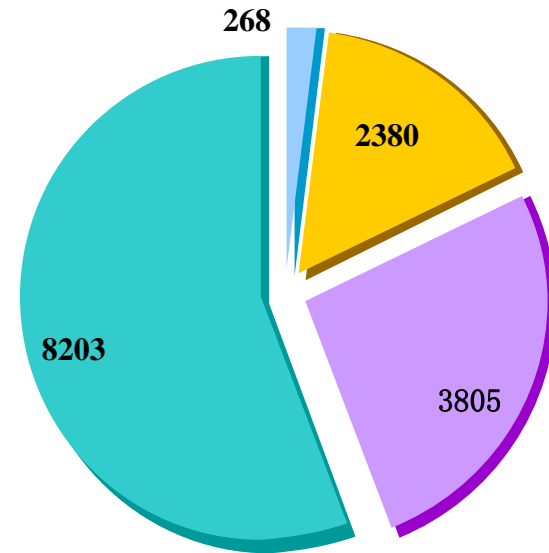


# Employee Structure

Total:32,000

Staff involved in	Quantity	Ratio
R & D	1995	6.23%
Technician	4381	13.69%
Marketing & Sales	6385	19.95%
Production	19239	60.12%

Education Background



**Average age: 30.2**



## Changhong 7 R&D Centers



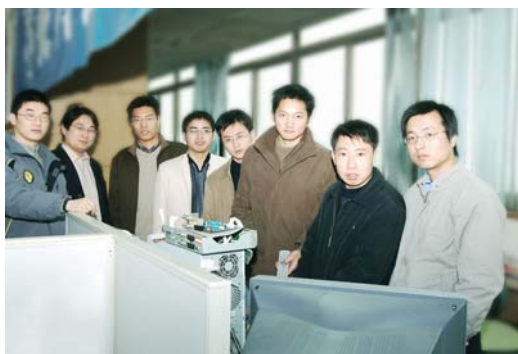
Changhong State-class R&D Center  
in Mianyang



Changhong R&D Center in Beijing



Changhong R&D Center in Zhongshan



Changhong R&D Center in Shanghai



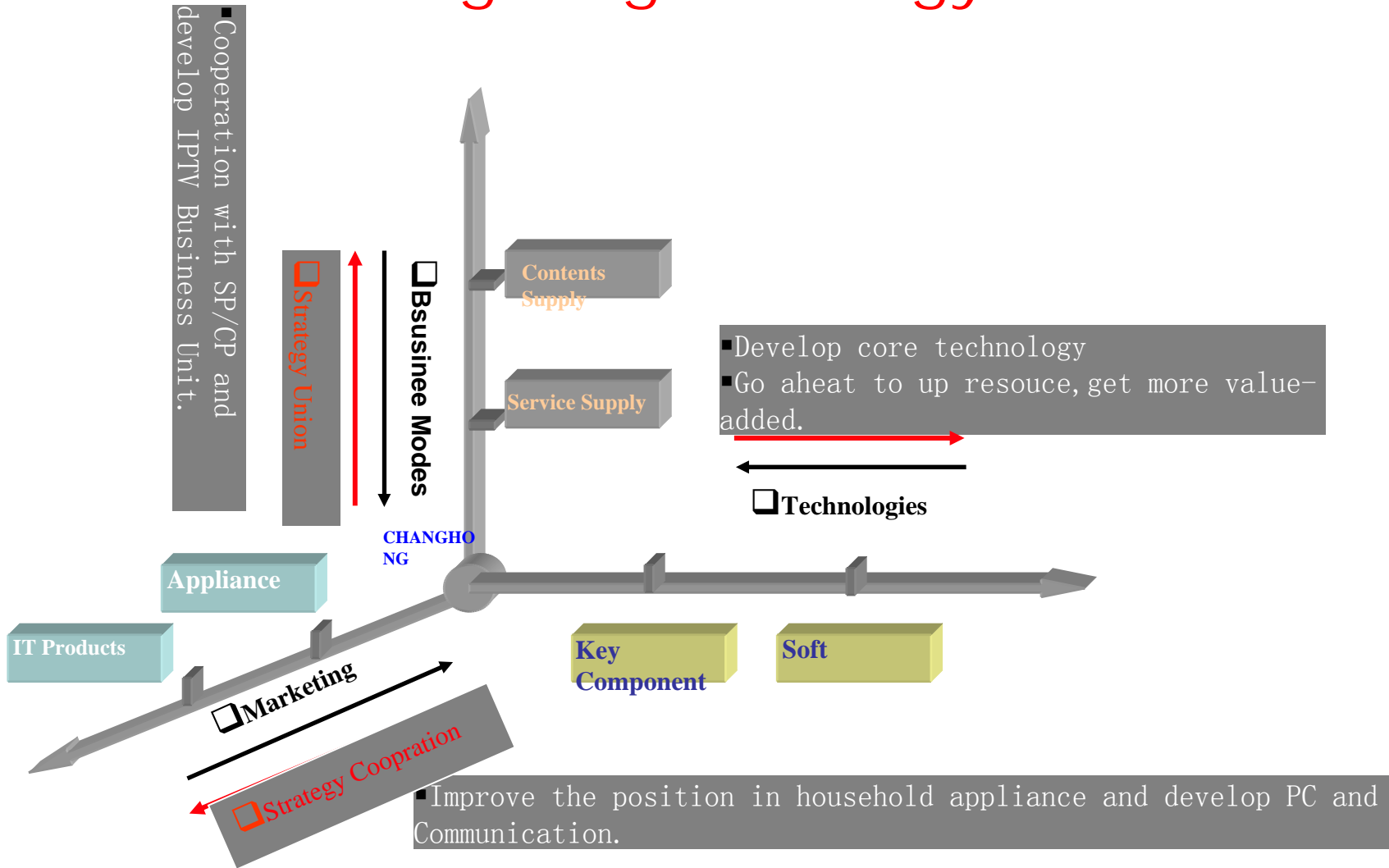
Changhong R&D Center in Chengdu



Changhong R&D Center in Shenzhen

❖ Other R&D Center: **Changhong R&D Center in Hefei**

# Changhong Strategy



## Product Range



- **Black Appliances**  
LCD、PDP、CRT TV
- **White Appliances**  
Air conditioner、Refrigerator、  
Washing machine
- **Key Devices**  
Chassis, etc...
- **Telecommunication products**  
Mobile Phone、Network Products
- **Digital Products and IT**  
STB、DVD、MP3、MP4、PMP and IC
- **Small Appliances**  
Induction Cooker、Electrical  
Cup、Microwave Over





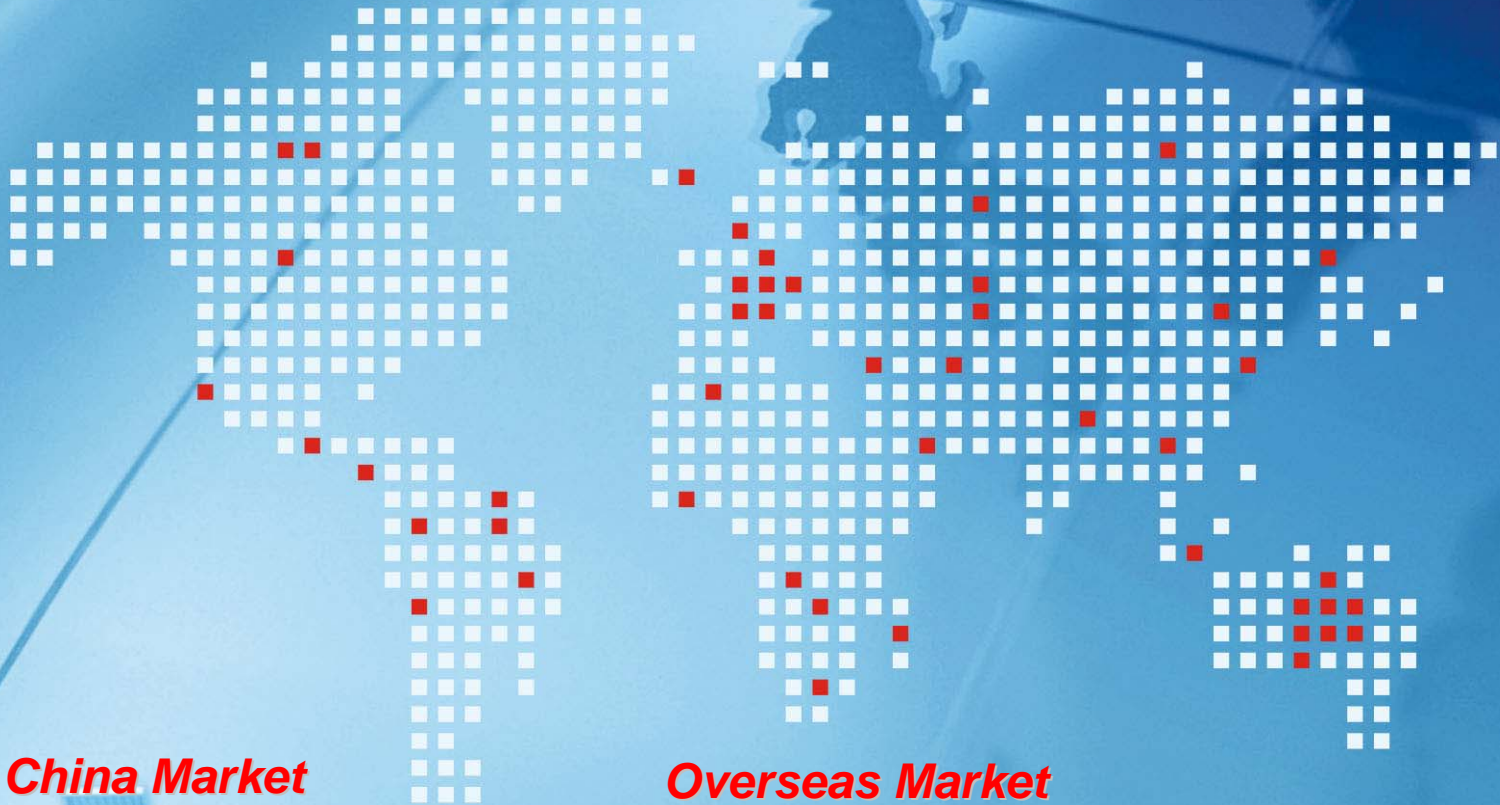
# Production Bases



## Product Capacity

• CTV.....	17 Million Sets
• LCD TV.....	1 Million Sets
• PLASMA TV.....	0.5 Million Sets
• Air Conditioner.....	3 Million Sets
• Mobile Phone.....	6 Million Sets
• Refrigerator .....	5 Million Sets
• <b>STB</b> .....	12 Million Sets
• AV Products.....	5 Million Sets
• Fridge.....	5 Million Sets
• Small Home Appliance.....	6 Million Sets
• Battery.....	300 Million Pics

## Global Market and Sales Network



### **China Market**

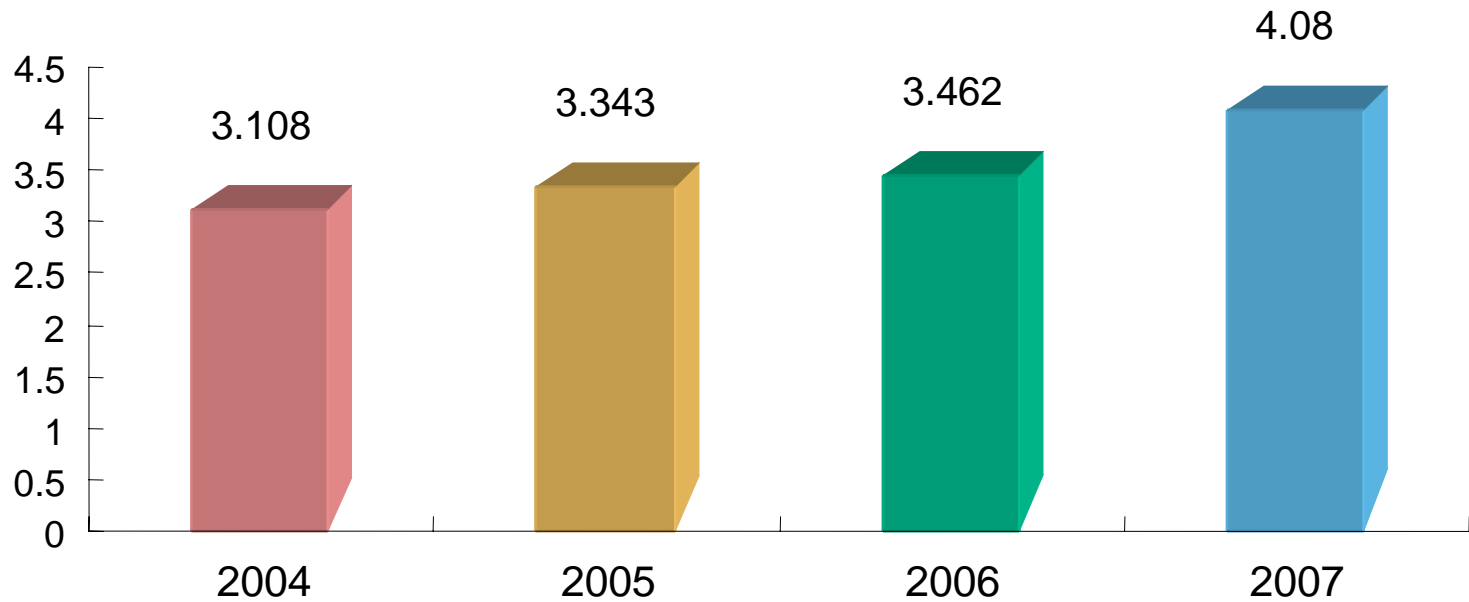
- **500** sales branches
- **600** service stations
- **8000** appointed service networks
- **12000** dealers

### **Overseas Market**

- **Sales** --- in over 100 countries
- **Localization** --- CHANGHONG have invested in Czech, Indonesia and Russia with aim to be a local entity.
- **Platform built-up** -- CHANGHONG already deployed offices and subsidiary companies in 13 countries

## 2004-2007 Sales Growth Chart

*Sales' Volume(Billion USD)*



## Brand Value

**Brand Value  
USD9.61 Billion**

### 2007 The World's 500 Most Influential Brands

No.	Brand Name	Country	Brand History
1	Coca-Cola	USA	121
2	Citigroup	USA	195
3	Google	USA	9
4	Harvard	USA	371
5	Microsoft	USA	32
6	Benz	Germany	121
7	Wal-Mart	USA	45
8	Mcdonalds	USA	52
9	GE	USA	115
.....			
45	Nike	USA	43
54	Sony	JAPAN	49
.....			
168	Hitachi	JAPAN	96
.....			
297	Discovery	USA	22
298	Hershey's	USA	113
<b>299</b>	<b>CHANGHONG CHINA</b>		<b>49</b>
300	Dassault	FRANCE	26
.....			
325	Singapore Airlines	Singapore	60
326	Freshfields	U.K.	264
.....			
430	TIMES	U.K.	222
.....			
495	Nikon	Japan	90
.....			

Data from World Brand Lab (WBL).



In the year of 2008,  
Changhong's brand value  
has reached RMB65.589  
billion, 12.5 percent up from  
last year's RMB58.325  
billion, being listed as one of  
the country's 500 most  
valuable brands.

# Changhong Network Technologies Co., Ltd.



## Profile

### *An independent subsidiary of Changhong group*

- Registered Independently in 2005
- Registered Capital: **50 Million RMB** (around US\$7.2M)
- Shareholder: Sichuan Changhong Electrical Co.,Ltd. **98% and private 2%**
- Over 1700 employees
- HQ: Mianyang, Sichuan province

### *Specialized in R&D, marketing and manufacturing of STB*

*Product covers DVB-C/S/T、DMB-TH、ISDB and NTSC STB, digital TV broadcasting application*

# Profile

**Company Idea :**

**Enthusiasm**

**Perfection**

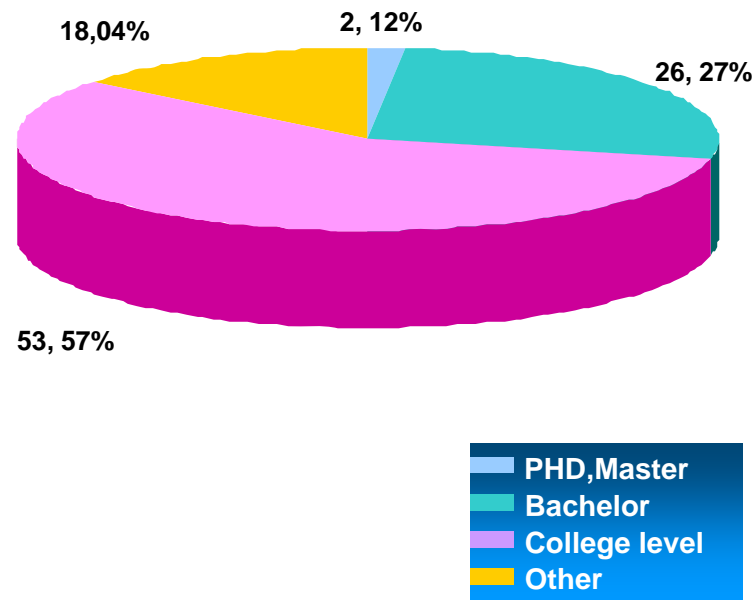
**Glory**

# Profile

## Employee Structure

Staff involved in	Number	Ratio
R & D	337	19.68%
Management	8	0.47%
Marketing & Sales	122	7.13%
Production	1245	72.72%
Total	1712	

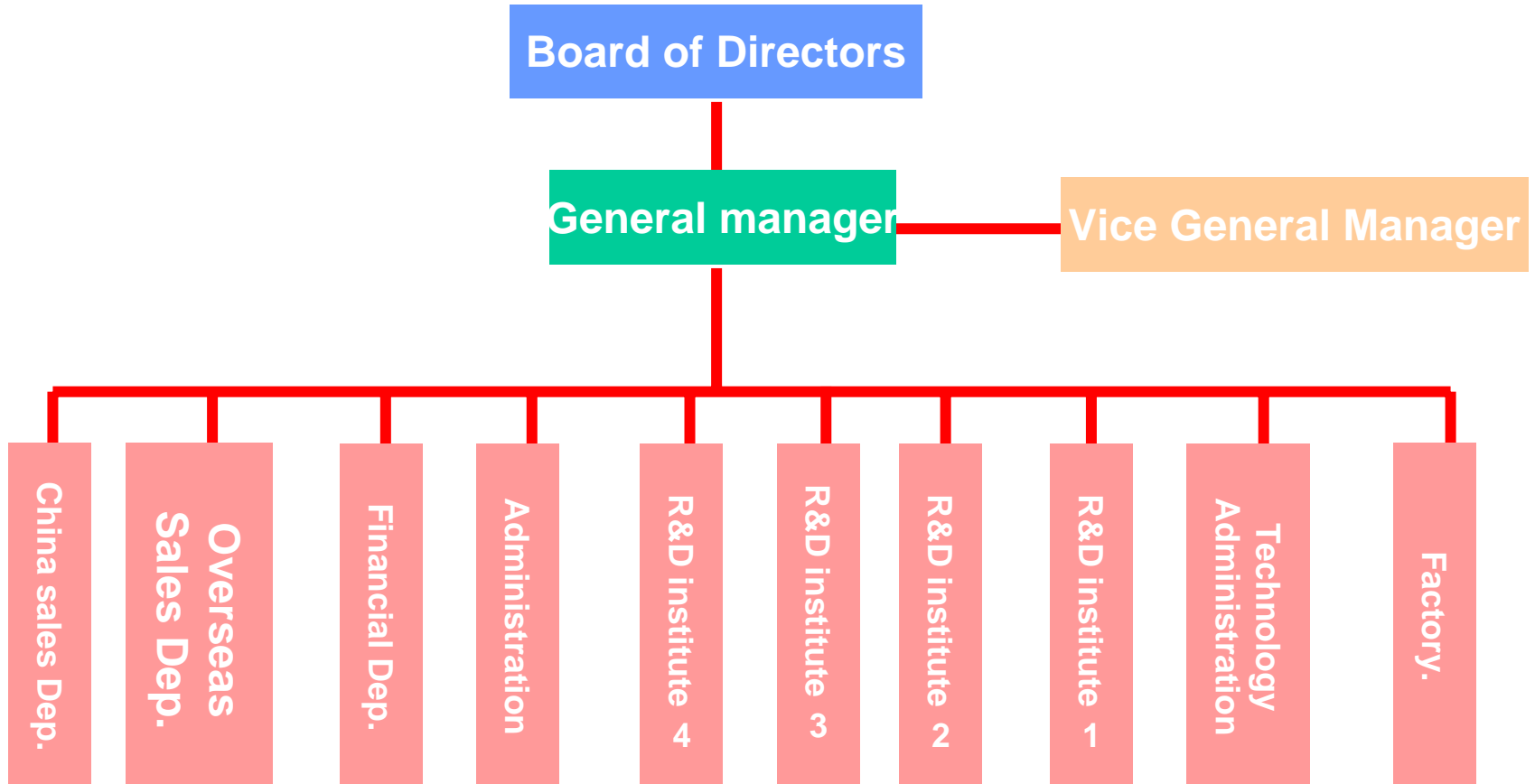
## Education Background



## Position in DTV

- In 1997, Changhong established the country's earliest R&D center especially for the digital STB production.
- In 1999, Changhong successfully integrated the MEDIAGUARD CA system into its set top boxes, becoming the country's first corporation to have such an achievement.
- Changhong is now the largest STB manufacturer in China, with an annual capacity of 12 million sets.
- In 2007, Changhong has held the biggest market share in China's STB industry, reaching up to 19.2 percent.

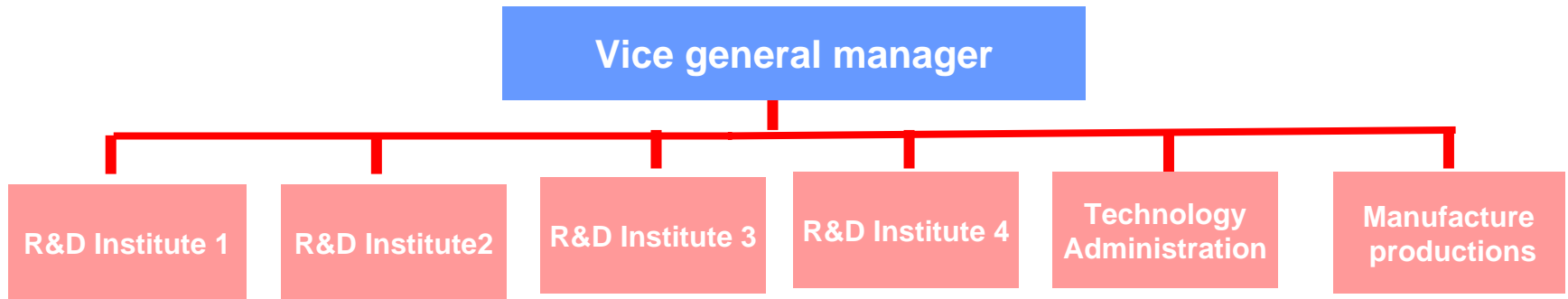
# Structure





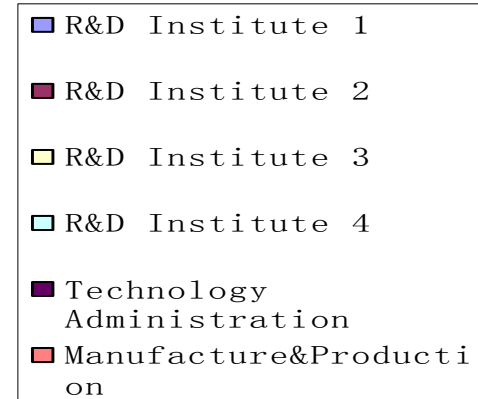
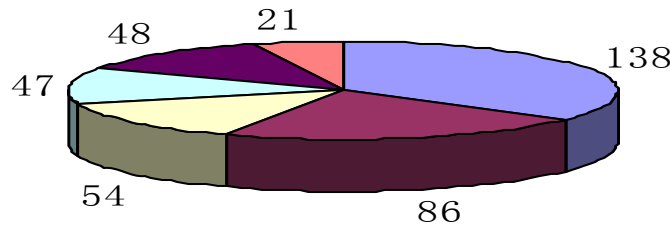
## R & D

### R&D team structure



- 337 engineers totally, include 38 senior engineers with doctor's or master's degree, 90% of the team members are with bachelor's degree.
- A young engineer team with the average age 28.

## R & D



## R&D Team

- **R&D Institute 1:** focus on ST platform
- **R&D Institute 2:** focus on NEC platform
- **R&D Institute 3:** focus on the China Cable business
- **R&D Institute 4:** focus on hardware
- **Technology Administration:** QC, license ,royalty concerned issue, technology cooperation with our partners,testing, administration to changhong inside R&D dep.
- **Manufacture & Productions:** purchase, production

## Technology

- **Integrated CA Systems**

NAGRAVISION, Mediaguard, NDS, Irdeto, Conax, Novel-Tongfang, Sumavision, Chinacrypt, CTI, Cable-GS, etc.

- **Integrated Middleware**

MEDIAHIGHWAY, MBT, IPANEL, MHEG-5, etc.

- **Integrated Browsers**

IPANEL, ENREACH, AVIT, DT-SMS , CLIFE, etc.

- **Integrated NVOD systems**

ESK, CTI, AVIT, etc.

- **Integrated VOD Systems**

Seachange, ENREACH, Concurrent, Huawei, etc.

# Technology



# Technology

## Main Partner



NEC

Haier 海尔



TDK



ALPS®

SIEMENS

AMD

HYUNDAI

# Technology

Strategy Partner: ST



The Best Growth Partner of  
ST in 2006

Strategy Partner: NEC



CHANGHONG&NEC R&D Center

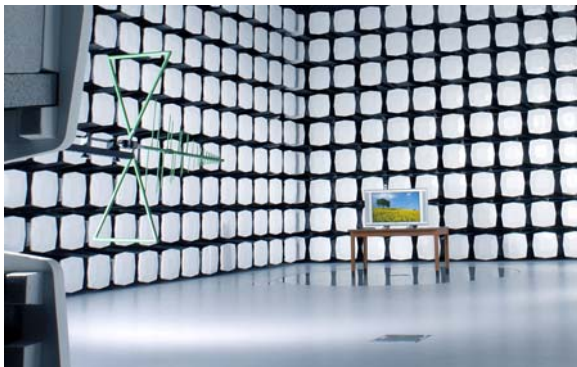


# Quality Control

## Process management control

- Company has won the CMMI Level 3 certificate at the end of 2007, and intended to acquire the CMMI Level 4 certificate in 2007 according to the schedule.
- IPD(Integrated Product Development)
- PDM(Product Data Management)

# Quality Control



**EMC LAB**

## Measurement method & Equipment

- EMC/ EMI experiment: the lab investing by hundreds million RMB, which has the honor to get the international authorization;
- The life experiment; The routine experiment; The worksite testing;
- The quality controlling in the process of producing.

## Quality Control

### DVB TV Broadcasting System Lab

- Invest 5 million RMB to establish full set DVB testing systems , providing the testing of design and the compatibility to MPEG II /DVB
- The high definition digital TV broadcasting system will be available according to the schedule at August, compatible with DVB-T,DVB-C,DVB-S2 and DMB-T(National Standard)
- The nonstandard signal TS bank, which can make a emulate live signal and status to test STB



TEST LAB

## Quality Control

- ISO9001 & ISO14001 Quality Attestation;
- A whole series of DVB testing systems, checking the compatibility of finished DVB-complied set top boxes;
- Non-Standard signal database, ensuring our STBs to work normally under any irregular circumstances;
- Performance-based testing systems, ensuring the sensitivity of our STBs and their AV indexes to be eligible;
- Life testing;
- Routine testing;
- Field testing;
- Quality control during the manufacturing process;
- Aging on the assembly line;
- Daily quality inspection by random sampling from every batch of production.



## Customer & Partner

### Customer in China

- Beijing Gehua CATV Network Co.,Ltd
- Guangdong Cable TV Networks Co. , Ltd
- Tianjin Broadcast & TV Network Co., Ltd
- Inner Mongolia Broadcast & TV Info-Network Co. ,Ltd
- Chongqing Broadcast & TV Network Co., Ltd
- Jilin Provincial Broadcast & TV Network Co., Ltd
- Heilongjiang Provincial Broadcast & TV Network Co., Ltd
- .....

Customer & Partner

# Customer worldwide

Canal+

DIGITENNE

Freeview



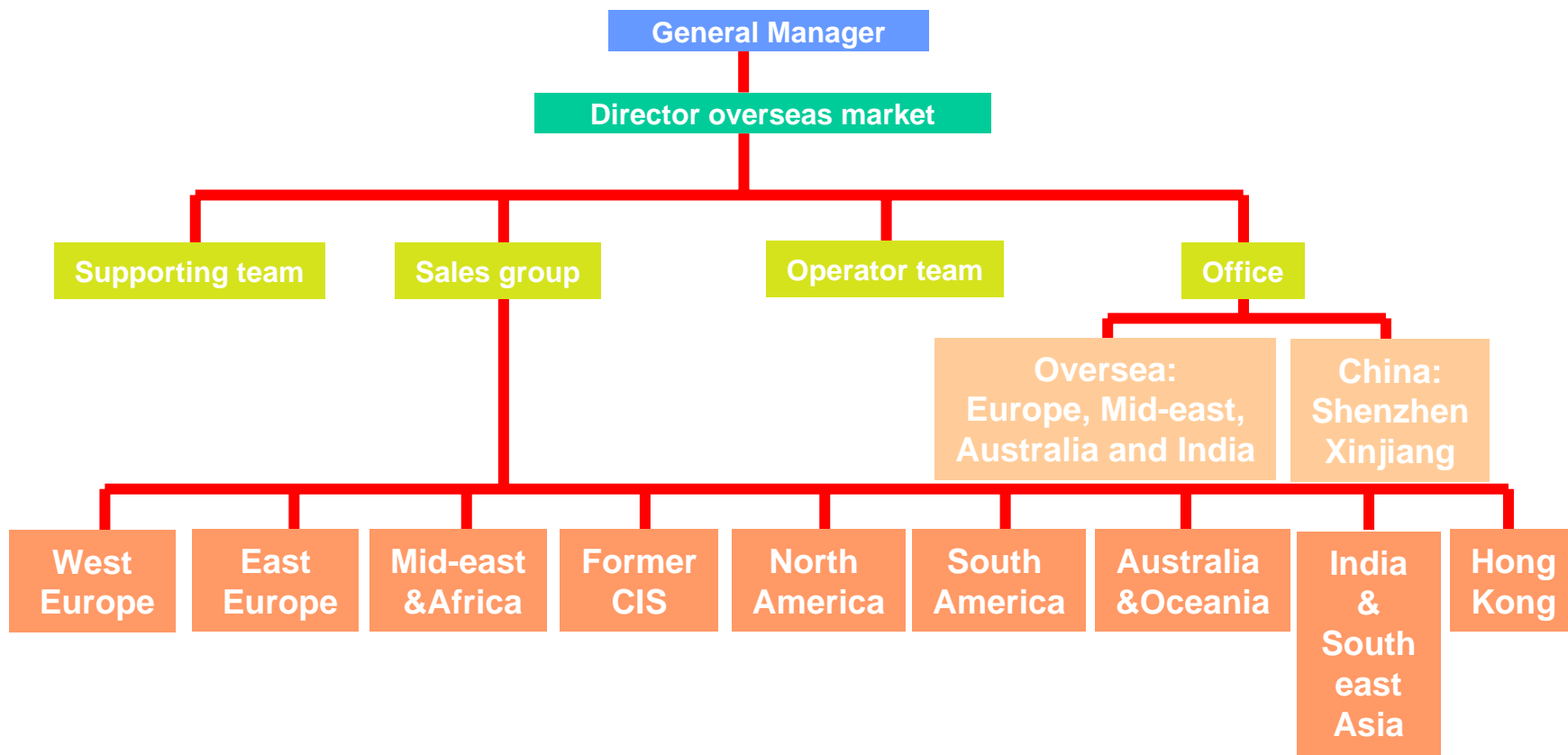
## Production Capacity

- Powerful SMT line, total over 34 lines (10 million STB PCB annual).
- There are 16 final assembly line, the capacity is 40,000 units/day.
- The biggest injection machine base in China.
- The factory has manufacturing capacity to produce 12 million STBs annually.



# Overseas Market

## Structure



# Overseas Market

## Strategy

**Our ultimate aim is to become one of the leading suppliers to operators worldwide.**

- **Establish co-operative relations with operators worldwide**

- Together with CA companies to exploit operator market

- Together with big agents to exploit operator market

- Organizing FAE team which is especially organized for the operator markets worldwide.

- **Establish local business offices around the world**

- eg. Offices in Europe, Mid-east, Australia and India

- **Focusing on mid & high –end products**

- HDTV, IDTV, PVR, DVR

- Plenty of valued-added services

- Integrated mainstream Middleware: Media highway, Opentv, MHEG-5

- **Professional R&D Team for oversea market**

## Overseas Market

### Market Plan

- **Developed market:**

Hongkong, Middle East, EU, Australia, USA, India, CIS.

- **Developing market:**

South America, East Europe, Southeast Asia.

# Overseas Market Market Partner



## Why Changhong could be your strategic partner ?

- 12 years expertise in STB manufacturing
- State-owned、 Stable development、 Modern management
- Advanced production and test equipments、 Strict quality control
- Logistics optimization、 overseas branches
- Mass production capacity
- More Experience in operator market



The End.  
Thank you!

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