

26 July 2011 BBC Technology News

Innovation in China: Huawei - the secretive tech giant

By Nick Mackie Shenzhen, China



Its telecom systems connect a third of the world's mobile phones. And globally, it employs 110,000 staff - more than Cisco or Microsoft.

The company is Huawei - born and bred in Shenzhen, southern China. And it epitomises today's power of Asia.

"It's a very young company, it's less than 20 years old," explains Ross Gan, global head of Huawei Technologies' corporate communications.

"Our workforce is also very young - the average age is 29 - so there's a very dynamic environment within the company."

This is certainly the impression one gets at the sprawling headquarters campus in Shenzhen's Longgang district, where 40,000 employees work.

Here, the company houses key research-and-development units, global testing facilities, and an executive training centre. But the enthusiasm on show isn't all down to the youth factor.



Huawei's workforce is young, with an average age of just 29 years old.

Huawei is owned totally by its employees - with around 60% of its staff holding non-tradable shares that are allocated according to position and performance.

Rural roots

In its early days, Huawei had to fight its corner for a share of China's mobile telecoms market.

Back then, the main orders for the lucrative urban network systems went to either state-owned companies or foreign firms. So Huawei, instead, focused on the challenging countryside.

"Huawei actually cut its teeth in the rural markets where the conditions were such that we had to design very specialised and customised equipment in order to meet our customers' needs," says Ross Gan.

This included developing infrastructure that could withstand variable power supplies, lightning and attacks by rats.

As the company grew and expanded into foreign markets, it made a name for itself as a problem solver - listening to its potential customers' needs or problems and designing solutions.



Huawei's Ross Gan says the company cut its teeth on rural markets.

Huawei is now the world's second-largest supplier of mobile telecom equipment, after Ericsson, serving 45 of the top 50 telecoms operators. It also boasts 55% of the global market share in 3G dongles.

Engineering cream

Revenues in 2010 topped \$28bn, and the company predicts an aggressive expansion over the next 10 years to \$100bn.

The main driver is its workers - of which 46% are engaged in research and development (R&D). The company has applied for more than 49,000 patents.

Huawei attracts the cream of China's engineers - postgraduates like Zhong Jianwei, project manager at the company's technical compliance unit.

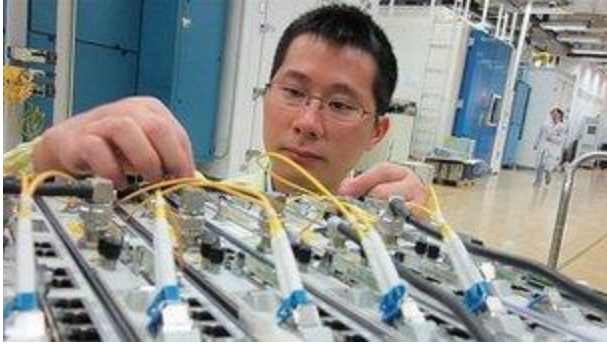
He discovered that working here is very different from most large Chinese companies with their typical rigid, statist, chains of command.

"Every day, I need to communicate with Huawei staff all over the world. It's international here - global," remarks Zhong Jianwei.

"I've never experienced this before."

To achieve its growth targets, Huawei wants new experiences.

It's not going to drop its core business - providing the systems for mobile operators in 140 countries - but it is developing two new strategic pillars.



Zhong Jianwei is a project manager in Huawei's technical compliance unit.

"A lot of it is driven by the larger forces of convergence," says Ross Gan.

"There are other customer segments out there - such as the enterprise market and increasingly the device markets."

Enterprise is about developing technology that helps make companies, even cities, more efficient and even more secure.

At the Shenzhen headquarters, it's clear that huge efforts are going into video conferencing - from standard desktop or mobile use to the kind of systems used by large corporations and governments. The goal is to create near face-to face communication.

The design team is now working on reducing today's distracting seams between the multi-screens.

"Within the next one-to-two years, we will, step-by-step, go from a narrow gap to no gap, to even 3D, " enthuses Luo Shan, software development engineer.

"Now we're working on the technology. We want to deliver a trusted high-level experience."

Enterprise has moved the company into the IT sector. It plans to be a big player in providing solutions for tech convergence.

Huawei has also set its sights on the cloud - from creating the basic hardware to developing the software and applications.



The company is moving aggressively into consumer electronics.

It's also marketing the cloud in a box - kitting out standard shipping containers as fully functional data centres which can then be dropped off ready for use.

Gadgets and gizmos

For large operations, customers need only prepare a shell of a building that can house multiple containers.

Huawei is making an aggressive push into the consumer market - video on demand, phones, 4G network cards - albeit delivering in much smaller boxes.

This year, it expects to ship 60m cellphones - from entry level to smart.

Much of the manufacturing is outsourced - including to Foxconn which has its huge Shenzhen manufacturing complex close by.

Huawei mainly supplies, wholesale, to the likes of mobile operators - though this strategy is changing.

After two decades of being in the crucial, but "boring", end of the mobile revolution - and largely unknown among the world's public at large - it's now seriously into brand building.

The company is rolling out tablets and smart phones and establishing new marketing channels.

Taking a leaf out of Apple's book, the company plans to develop a network of retail stores, in China and overseas.