

Cloud Computing Enable Sustainable Economy Transformation



Welch Sun, General Manager, Public Sector, HP Enterprise Services

孙文清 副总裁，中国惠普有限公司

总经理，中国惠普有限公司企业服务事业部

Sep. 5th, Changchun, China



The Grand Challenges.....

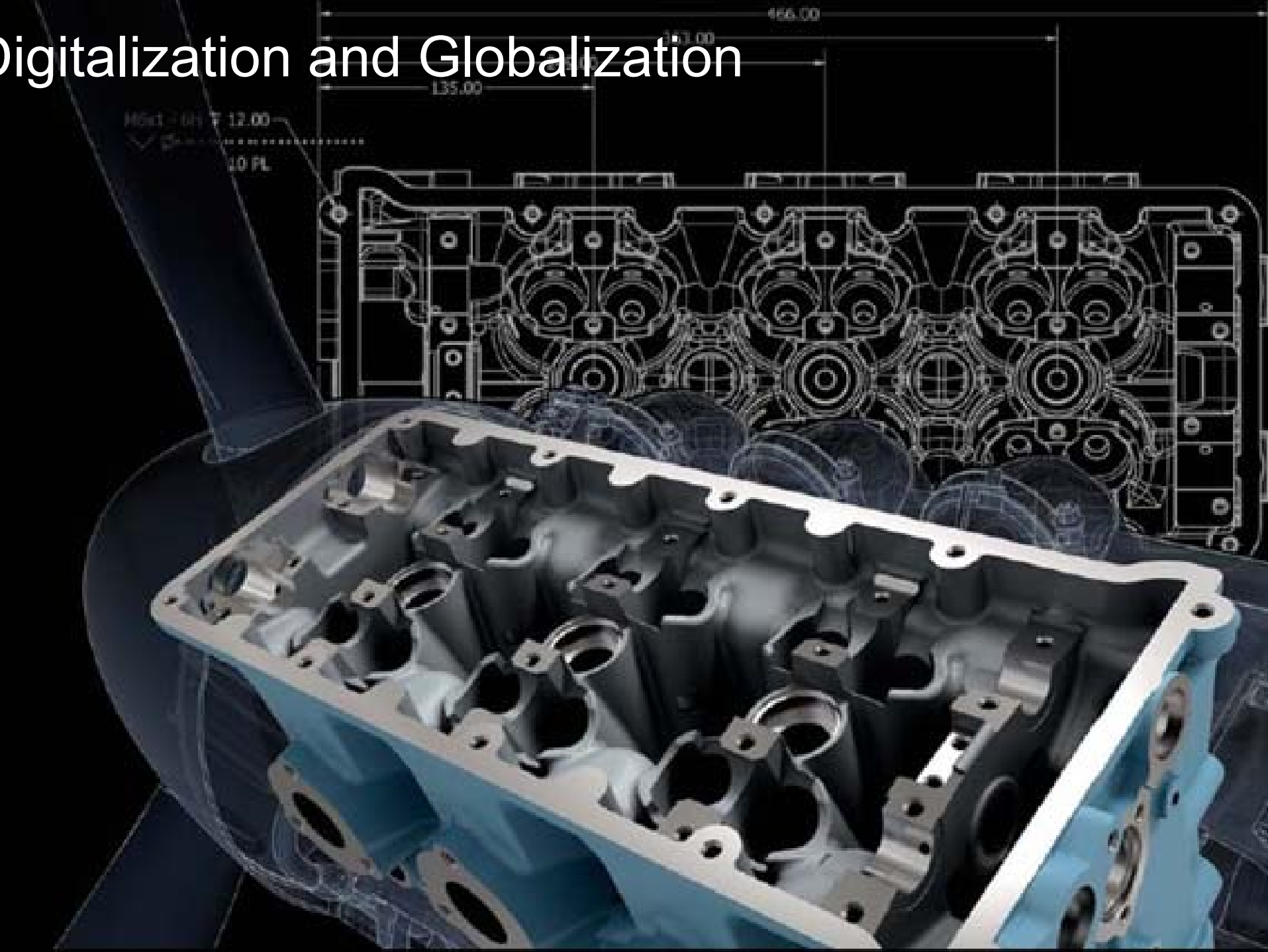






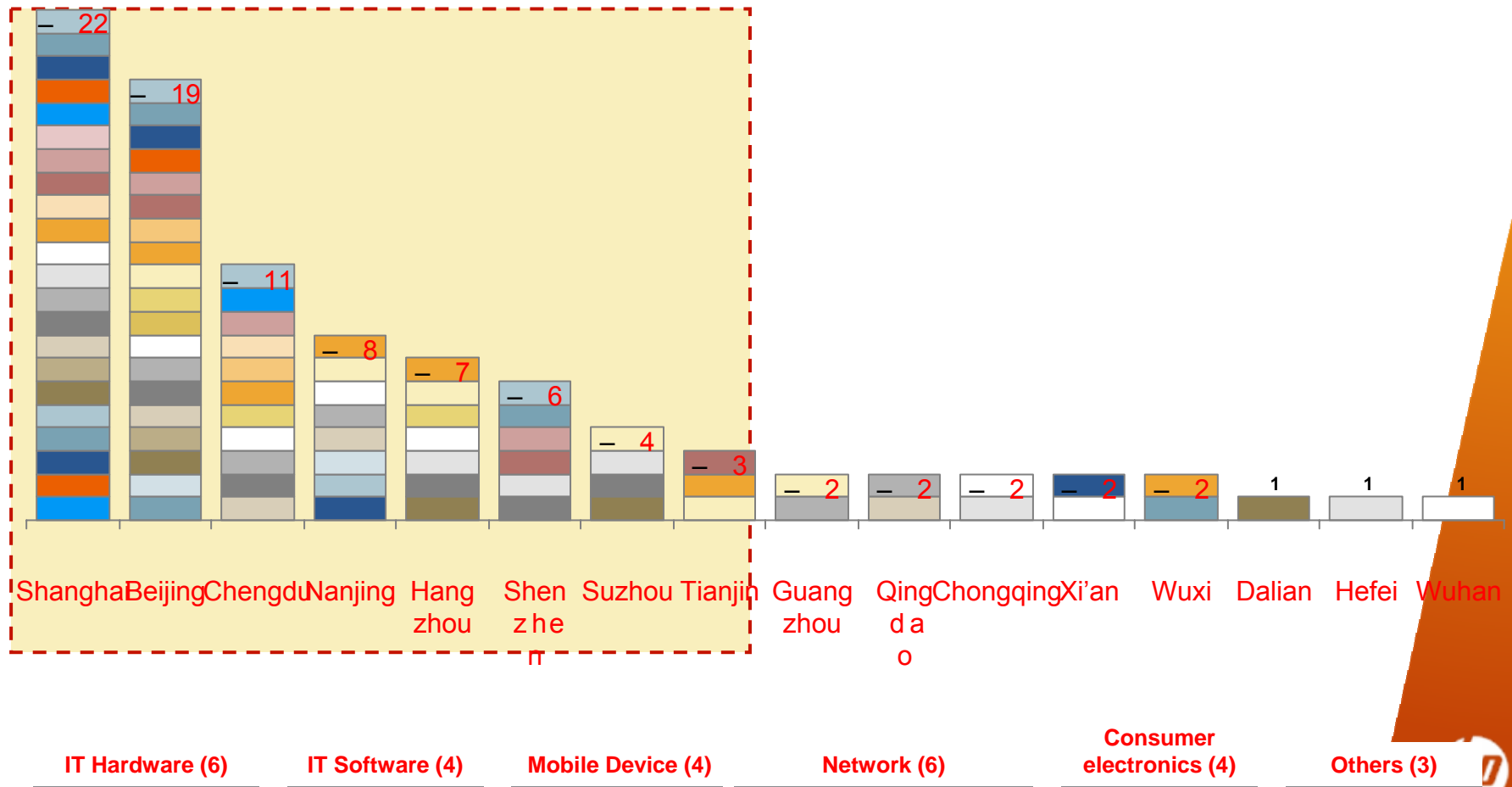


Digitalization and Globalization

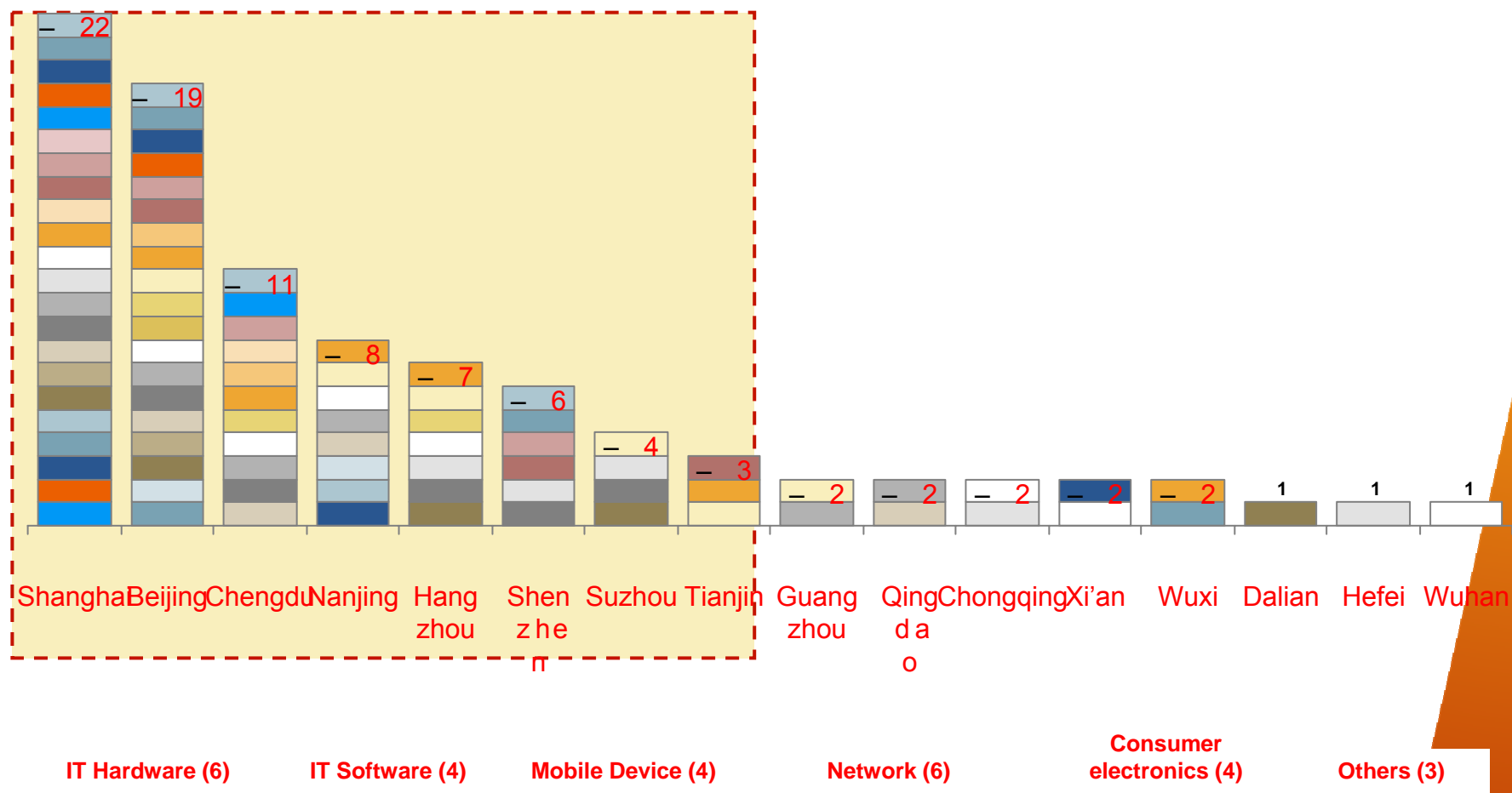


Big Regional Difference Today

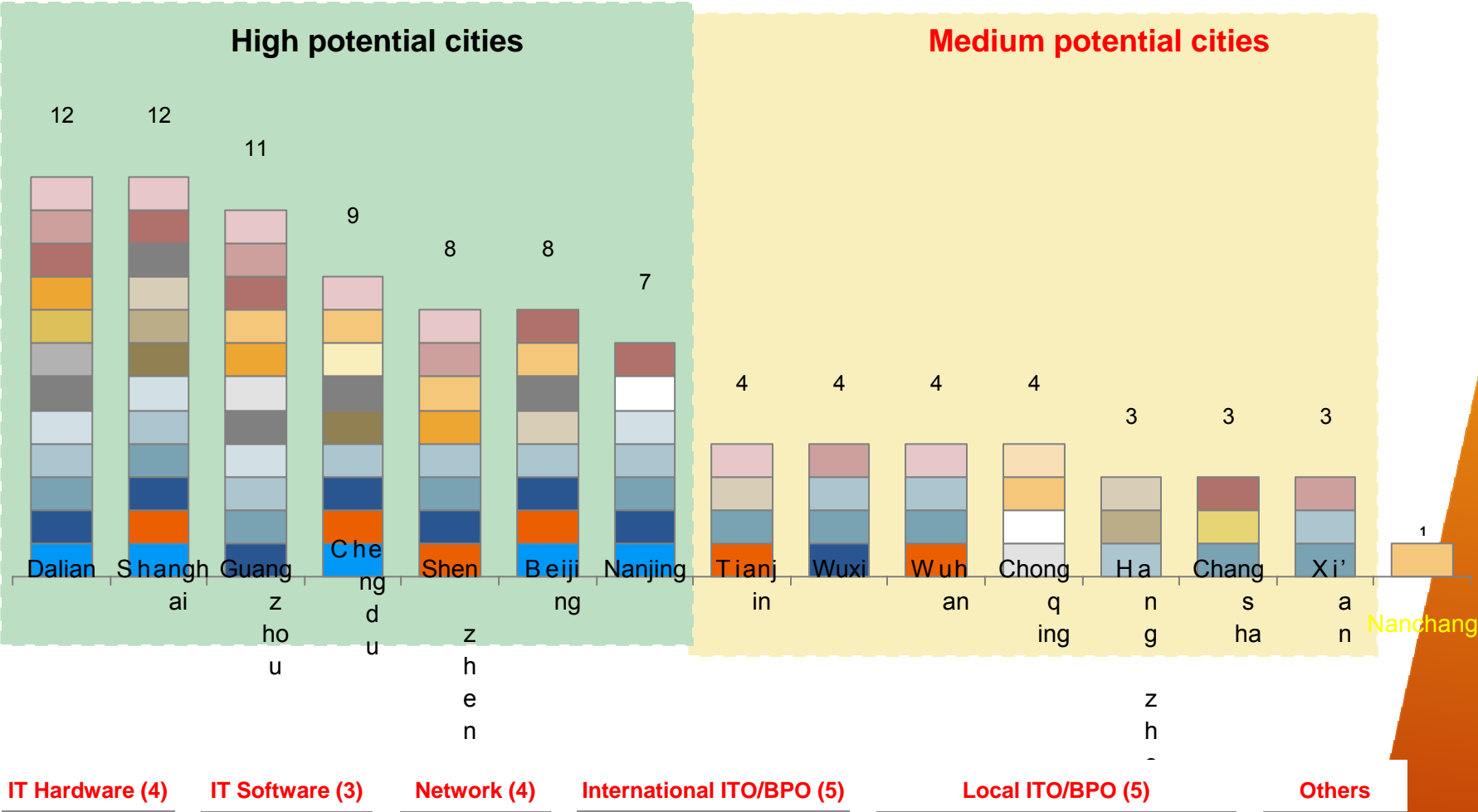
Geographic distribution of development centers of 27 major IT companies
(by the end of 2010¹)



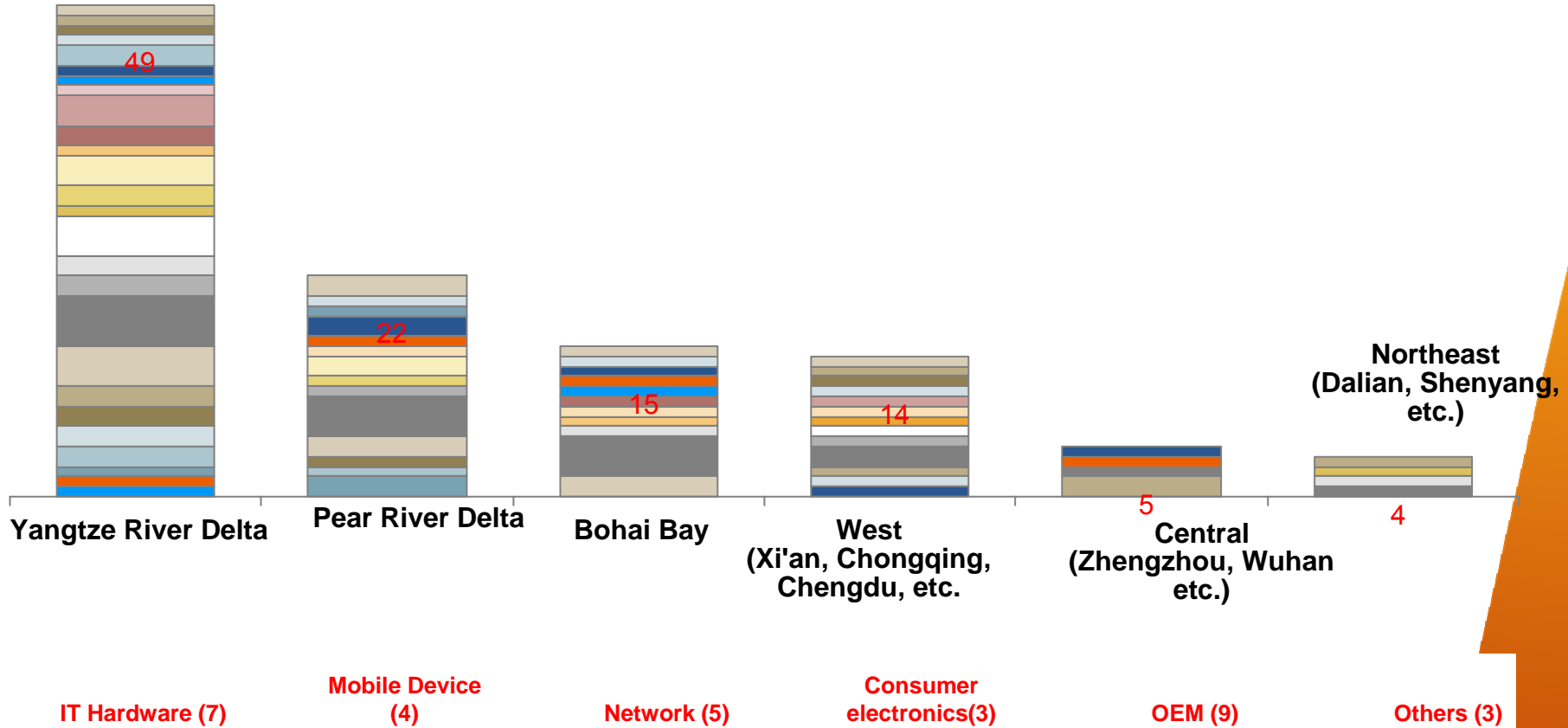
Geographic distribution of development centers of 27 major IT companies (by the end of 2010¹)



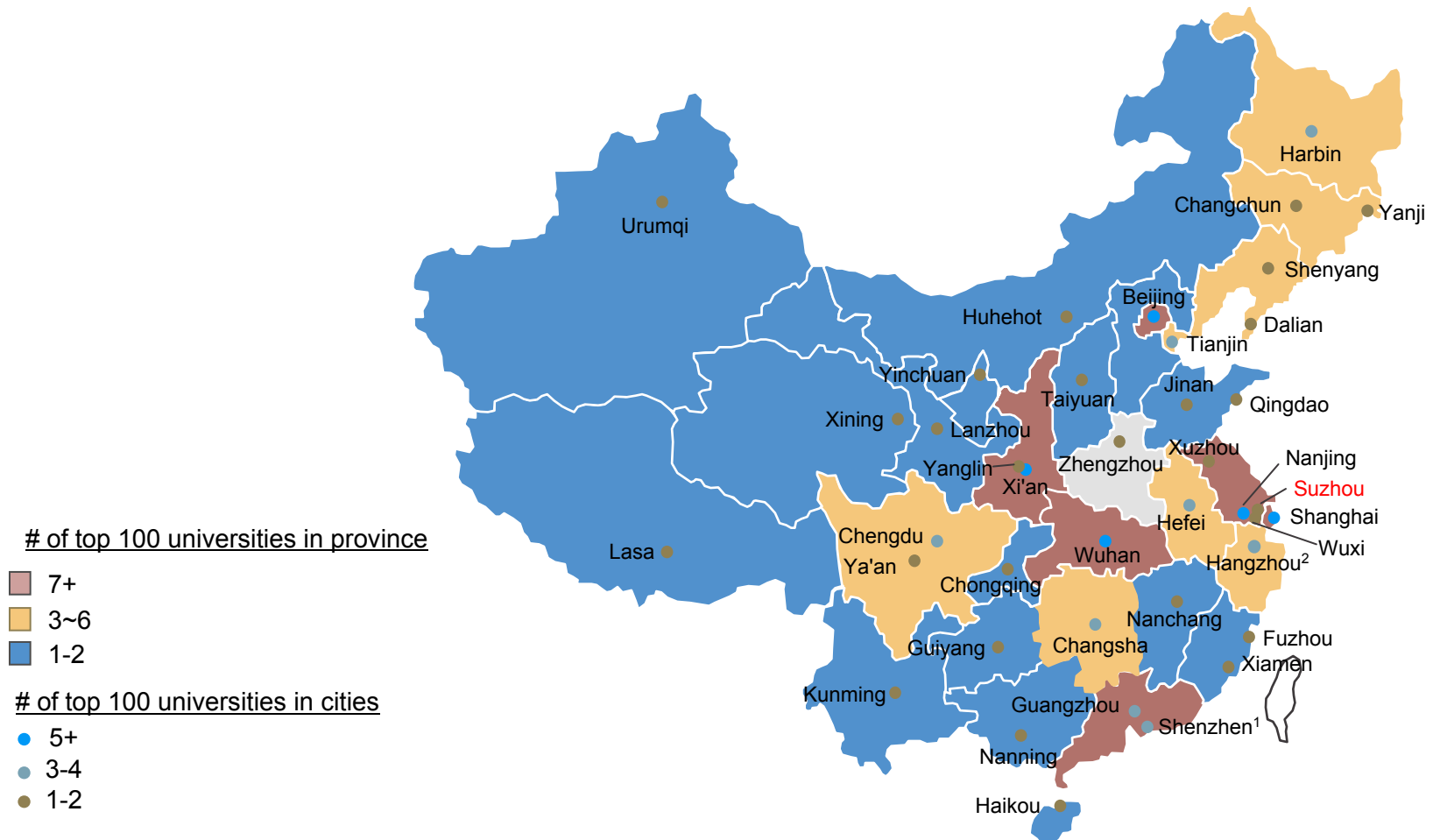
Geographic distribution of IT service centers of major IT service providers (by the end of 2010)



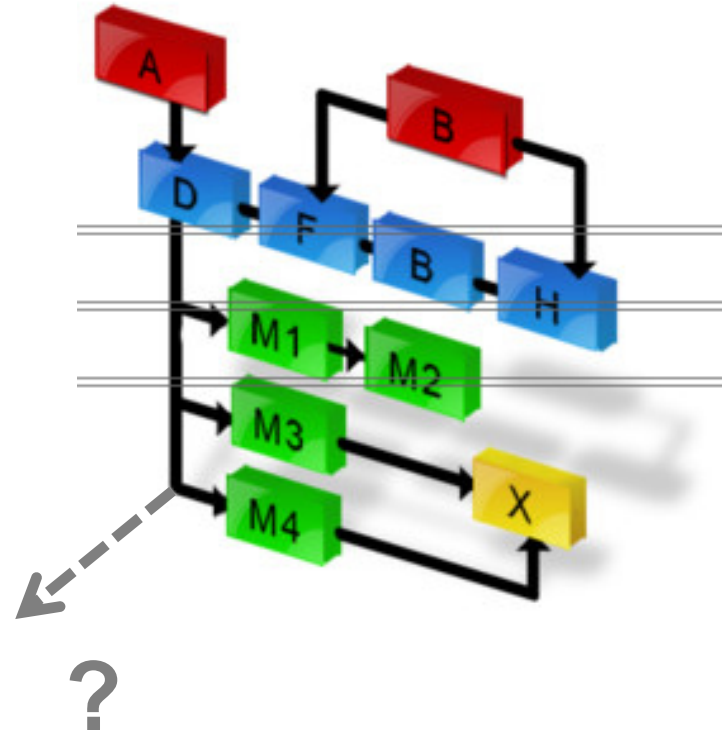
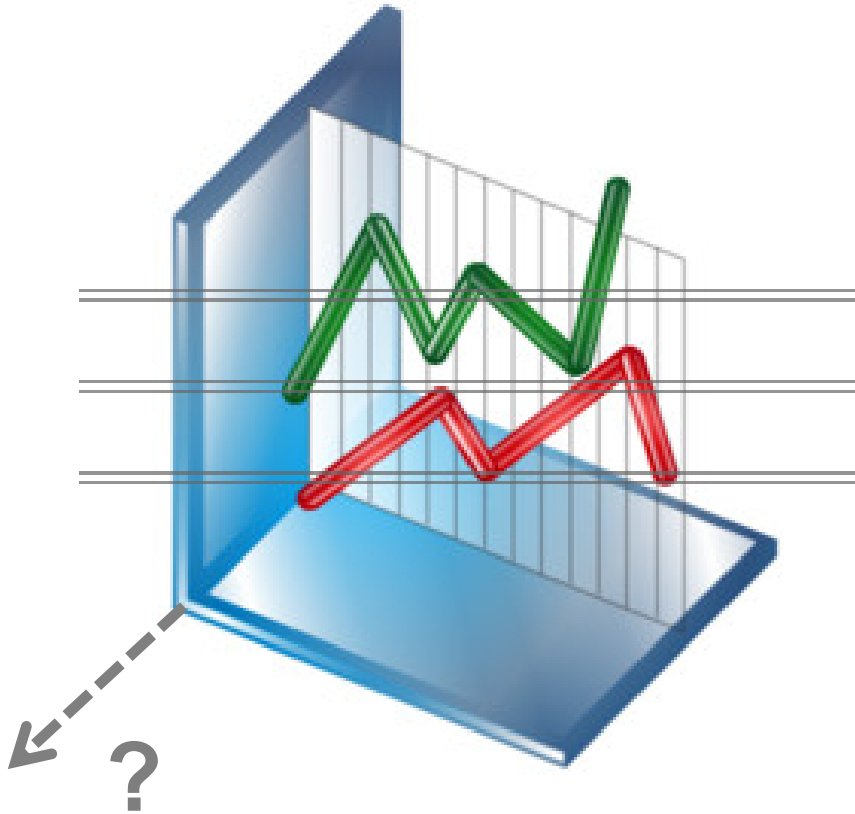
Geographic distribution of manufacturing bases of major IT companies (by the end of 2010)



Map of key cities with top 100 universities

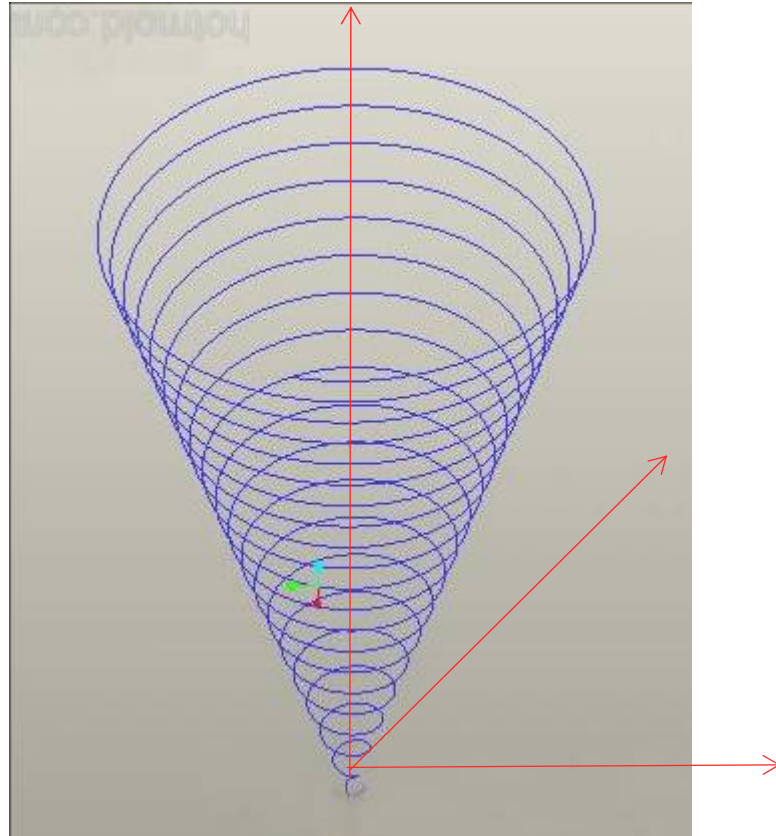


The World is Flat?



But in real world we are always competing in a Flat Surface!
Did you image the 3rd dimension while all other in 2D world?

Sustainable growth = “Tornado”

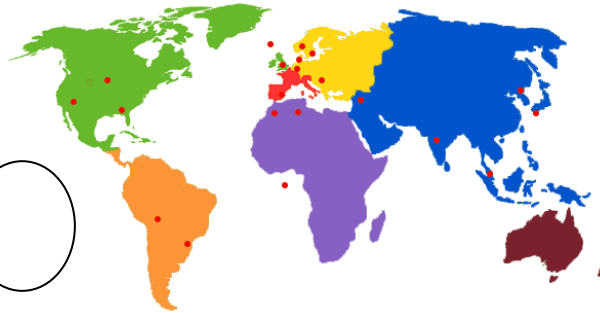


- 三十年河东，三十年河西

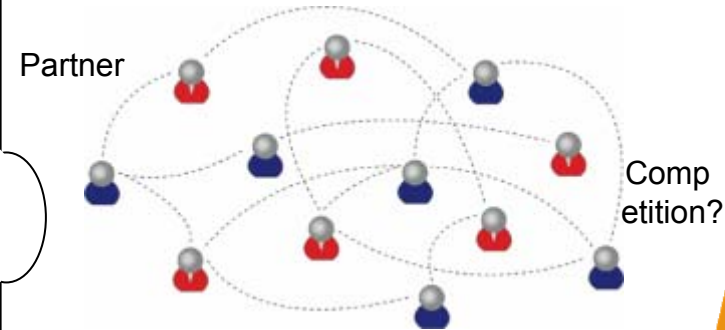
Strategic Questions to be answered



•Your next 5-10 years goal?



•Your positioning in the world? In the region?



•Winning Strategy?



•Core competence?
Weakness?



•Resources development
and utilization?

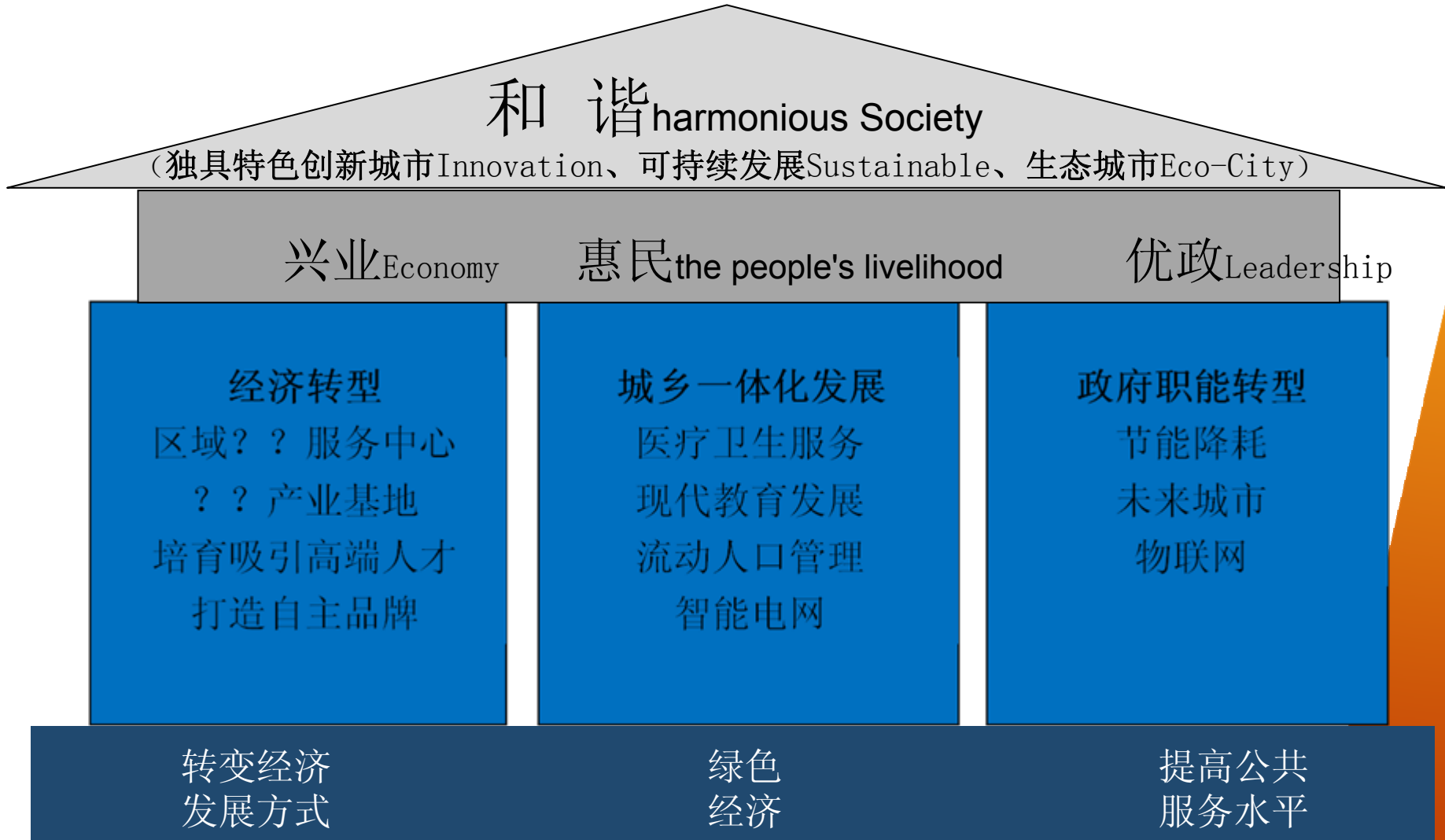


•Success implementation



•Sustainable growth?

The Ultimate Goal of Gov.



Cloud: The Innovative Way for transformation !

H



developing region

Cloud Service Business Model

Cloud Computing?

Gartner 2008 -- “ A style of computing in which massively scalable IT-related capabilities are provided “as a service “ using Internet technologies to multiple external customers”

“通过互联网，以服务的方式提供高扩展性的信息化能力”

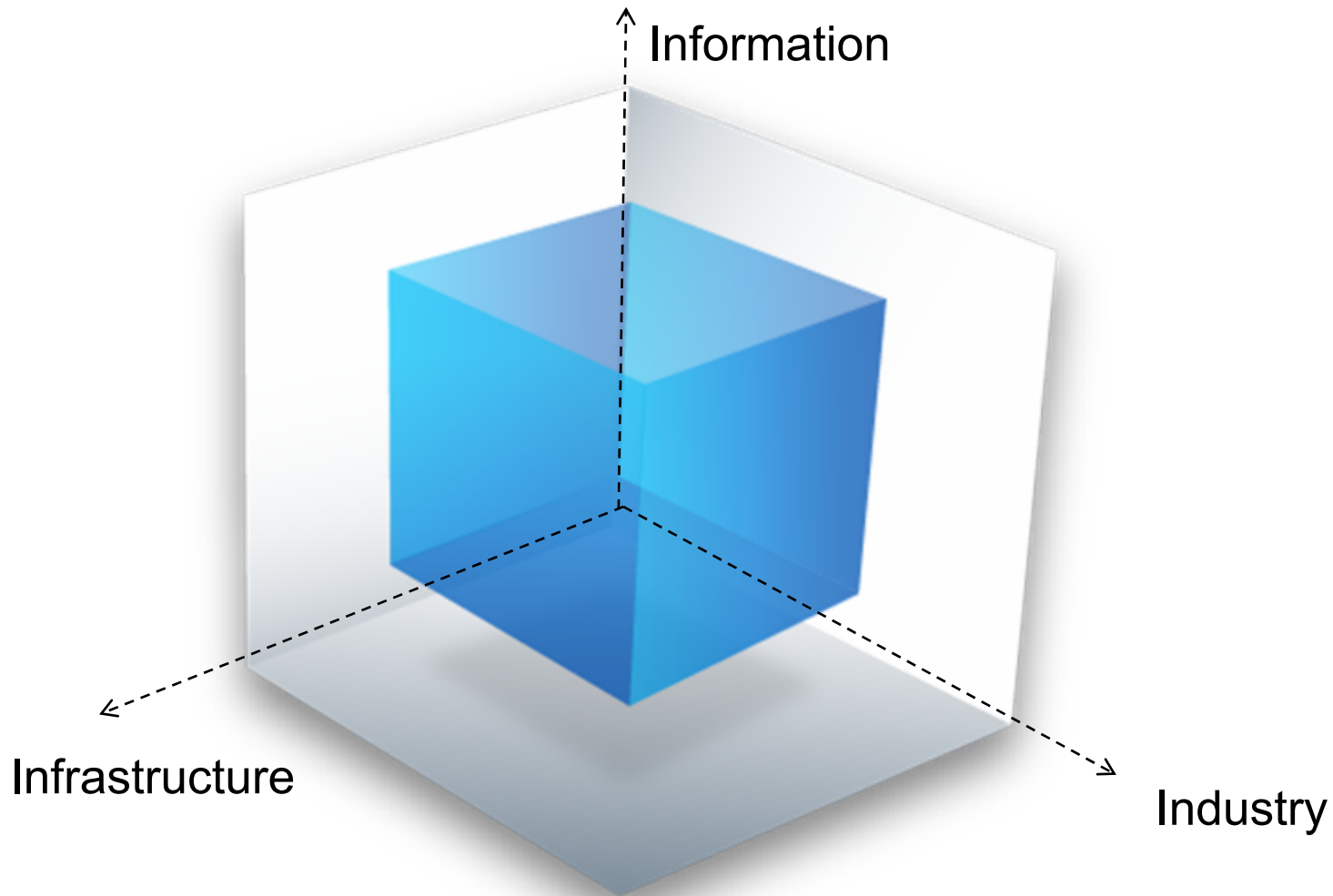
IDC 2008 -- “ An emerging IT development, deployment, and delivery model, enabling real-time delivery of products, services, and solutions over the Internet”

“一种新的信息化开发、部署、交付模式，从而实现通过互联网实时交付产品、服务和解决方案”

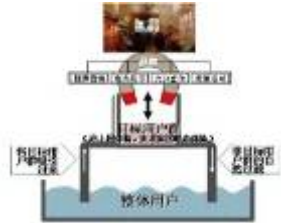
关键字：新的商业模式

- ✓ 虚拟化
- ✓ 高扩展性
- ✓ 互联网方式交付
- ✓ 按需定制、按时交费

3 “I” for Cloud Computing



Cloud Drive Business Innovation



Restructure Biz Model

- Product oriented to Service oriented;



"New" Operator

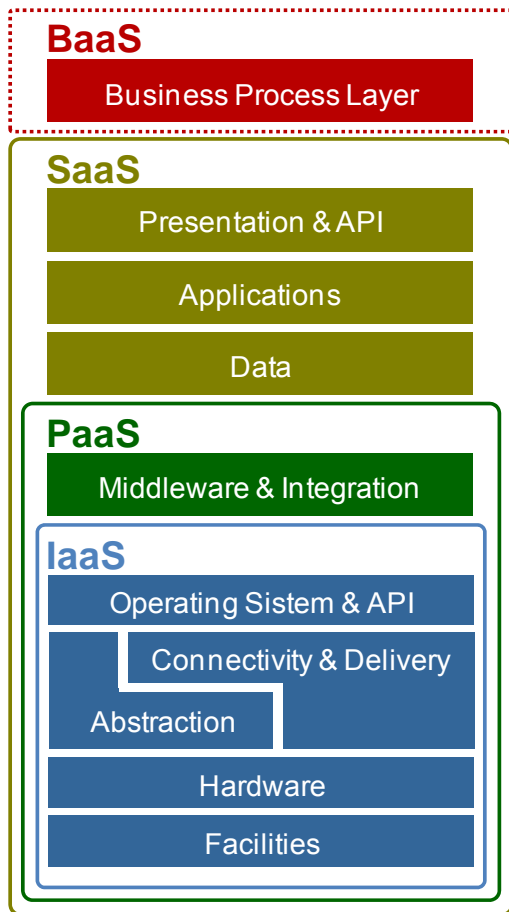
- Cloud accelerate IT infrastructure, Computing Power Operator



New Eco-System

- Transform eco-system, new leader

Cloud Computing multiple layer service model



业务流程即服务 Business Process as a Service (BaaS)

- ▶ 基于云的业务流程协同
- ▶ 如：基于云的网上银行

软件即服务 Software as a Service (SaaS)

- ▶ 商业应用软件商以按需使用的商业模式服务客户
- ▶ 由互联网交付，通过软件许可证管理
- ▶ 如：Google Apps, Salesforce.com.

平台即服务 Platform as a Service (PaaS)

- ▶ 支持互联网应用开发生命周期
- ▶ 虚拟服务器、存储、web services、数据库集成，安全等

基础设施即服务 Infrastructure as a Service (IaaS)

- ▶ 存储、网络、服务器资源、基础设施管理软件
- ▶ 按时间或用量收费
- ▶ 服务器可以异质

How Gov. to Drive Cloud Computing?

- 设立专项基金，选择重点行业，扶持云计算的科研创新项目
- 联手HP， 打造好云计算平台，制定云计算平台的技术与业务管理规则，确保新商业模式的实现
- HP 云外包服务中心

Incubation 孵化



- 构建云计算社区（包括电子社区），链接云计算产业中各级参与者、大公司、中小公司、院校、技术人员、需求单位

社区 Community/eco-system

Policy & Regulation 支持

人才 People

- 新技术带来新商业模式，也带来新的法规、税务、商务上的新要求（信息保密、知识产权、税务等）

- 吸引、维系、培养云计算专业人才和高端管理人才

Eco-City / Smart Community Service Structure

Smart Life & Smart Business



RHIN/HIC/
Payer

U City/EDU
admin

HC/Smart
Meter/

ITS/SOAE
RP

SaaS/Taa
S...

MFG
APPS/CEM
S

New Government Services

New Community Services

New Business
Services

HP Utility Center/ HP Data Center



Mobility
Center

HEMS

REMS

REMS

BEMS

Telematics

Smart
Housing

Regional
EMS

Regional
EMS

Smart
Building



Why HP?

- > 700 SaaS customers
- 7 of the top 10 Cloud SPs
- 3 most popular social media properties in the U.S.;
- 4 of 5 of the world's largest search engines
- 8 out of 10 of the world's most trafficked web sites
- BladeMatrix - > 100 PRODUCTION installs, 10s of thousands of licenses sold
- Industry's first comprehensive cloud service automation & provisioning solution
- Four decades of app dev, mgmt & trans experience
- 100 million Snapfish consumers



Not just made in China, designed there too



Sumathi Bala

China's desire to give its home-grown design and engineering students the skills to compete in the global market received a boost in March, when Autodesk launched a student design community for the country.

The design innovation technology company has created a web portal to co-operate with the ministry of education that offers students from several of China's universities free downloads of the latest digital design tools for specialties related to architecture, building and mechanical engineering.

Wan Qing Sun, senior manager for education programmes in Autodesk China, says the portal gives students an opportunity to gain access to the latest technologies and to develop their skills for the global marketplace.

"It allows them to do their homework and projects online, and provides opportunities for them to network with foreign students and industry experts," adds Mr Wan.

The initiative is part of Autodesk's overall education strategy to train a new generation of skilled graduates who can meet the employment needs of China's fast diversifying economy.

Three years ago, the group set up a Center of Excellence computer laboratory with cutting-edge design technologies in collaboration with leading Chinese universities to develop a multidisciplinary curriculum customised to student needs.

Currently, Tsinghua University, Fuzhou University, Harbin Institute of Technology,

South China University of Technology (SCUT) and Shanghai Jiao Tong University benefit from this project.

"Institutes of higher learning are places where information regarding changing cultural trends and advanced skills and technology are passed on to students. Architecture is one such skill," says Professor Li Jian Cheng, deputy director of the Architectural Technology & Science Institute, School of Architecture at SCUT.

"To enable our students to have a competitive edge in the workforce after graduation, the principal of SCUT pays constant attention to technological advances to ensure our students have working knowledge of the latest developments."

Industry ventures are in line with a recent Chinese government campaign to focus on 'independent innovation'

Prof Li adds that the training has enabled his graduates to find employment in the field of building design, where the demand for architectural skills is growing.

As public and private sector organisations in China increasingly recognise the opportunity the global design industry offers the local economy, China's universities are realising the importance of partnering with global leaders such as Autodesk.

The industry ventures are in line with a recent government campaign to focus on "independent innovation". The goal is to move away from "Made in China" to "Designed in China" by creating value-added, home-grown products, services and technologies.

China's policymakers - no longer content with the country's role as the "world's factory" - have been

aggressively promoting the message of innovation as the key to competitiveness.

"The government also wants to move towards sustainable development. The rising pressures on the country to reduce carbon emissions make

innovation in design a growing area of importance and have led to a focus on integrating new technology," says Mr Wan from Autodesk.

He adds that the transition cannot happen unless China nurtures and develops a pool of skilled labour, which is a long-term goal of its state-owned, low-cost manufacturing base.

"The government, too, has been one of the effective ways to bring about change in the education, to improve the quality of its students and show that they have the skills and knowledge to compete in the global marketplace."

Local enterprises such as Lenovo, Huawei Information Digital Technology and Founder Technology have also set up independent industrial design departments to enhance their competitiveness.

But China's onward march is not without challenges. Because design is important in so many industries, there is a dearth of local experts to keep pace with rising demand.

Unlike other parts of Asia, such as Singapore or Hong Kong, which roll out the red carpet for foreign workers, mainland China cannot get round the problem by hiring from abroad.



While the referential innovations by Autodesk have introduced innovation and creative design at the ground level, the more important goal

of nurturing the skills gap, is certainly going to be a more time-consuming process. Mr Wan says that it may take China a decade to build a

sustainable talent base of engineers and designers who can support the industrial needs of the country. "Every year, about 1.6m

engineers graduate in China. In about 10 years time, there will be enough qualified skilled students to meet the challenges China faces."

