

Scaling Up Microsoft R&D in China

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Microsoft's R&D Growth in China

- 1995 R&D office established in Beijing
- 1998 Microsoft Research China established in Beijing
- 2003 Microsoft Advanced Technology Center
- 2006 Microsoft China R&D Group formed
- 2008 R&D offices in Beijing, Shanghai and Shenzhen

Opportunities in Asia

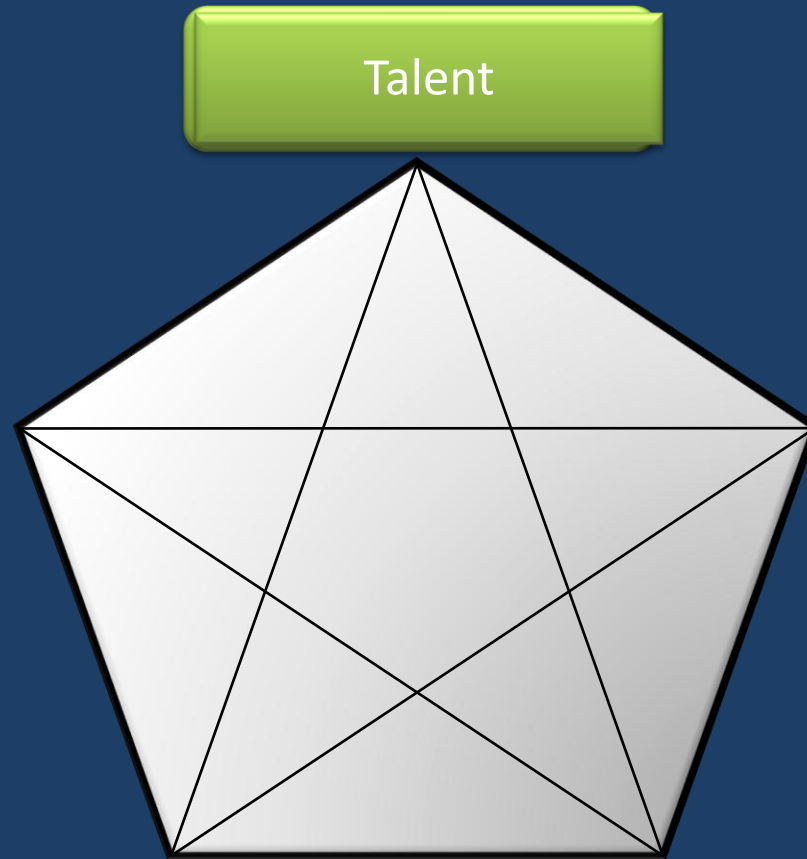
Strong focus on education & engineering

Big talent pool

Largest Internet and mobile phone user population

Aspiration to innovate technologies for Asia and the world

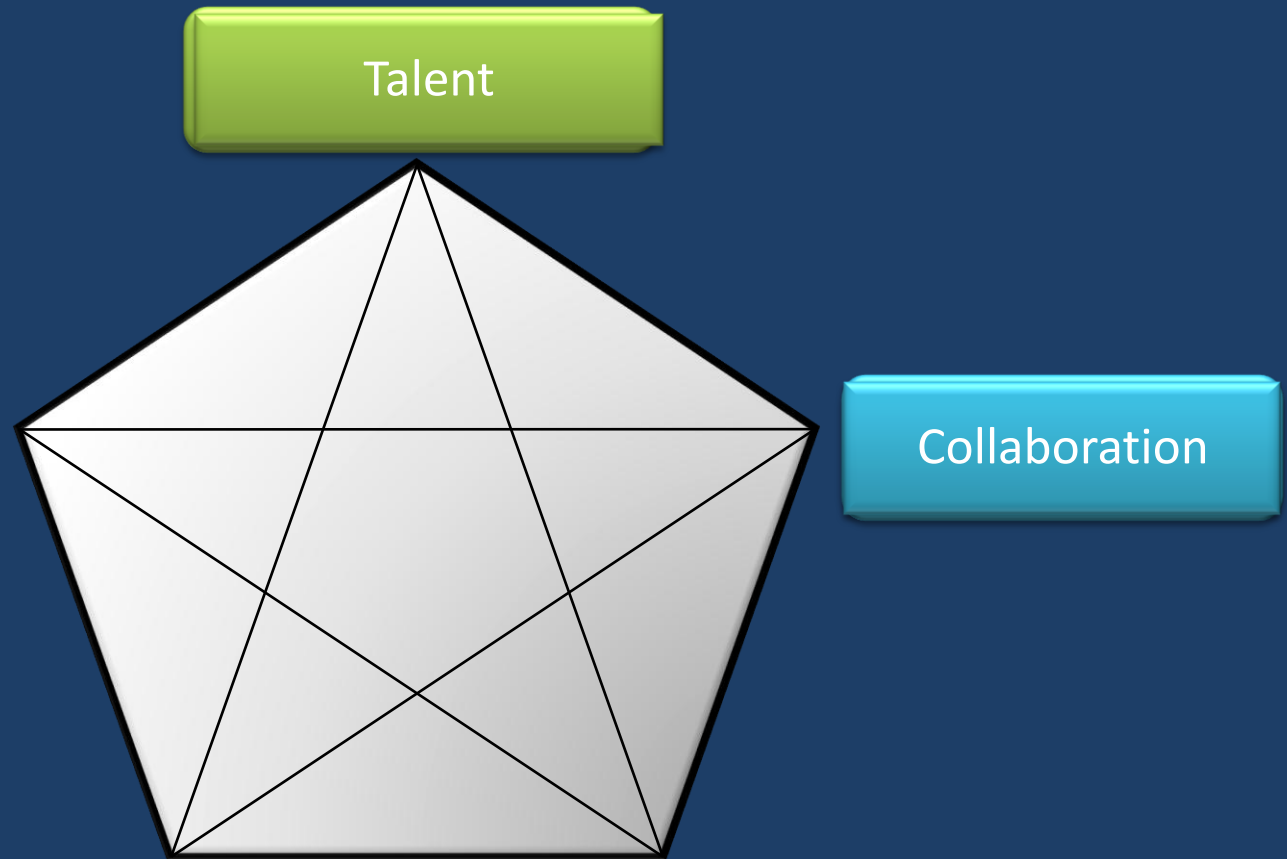
Five Elements of Scaling Up R&D



Talent

- Recruiting
 - Recruit the best
 - 3 level process for evaluation, including written exam, phone screening and detailed face to face interviews
- Training
 - Investment in training
 - Mentors
 - Engineering Excellence

Five Elements of Scaling Up R&D



Collaboration

- Working closely with academia and governments
- External partners
- Enrich the ecosystem

Research Collaboration

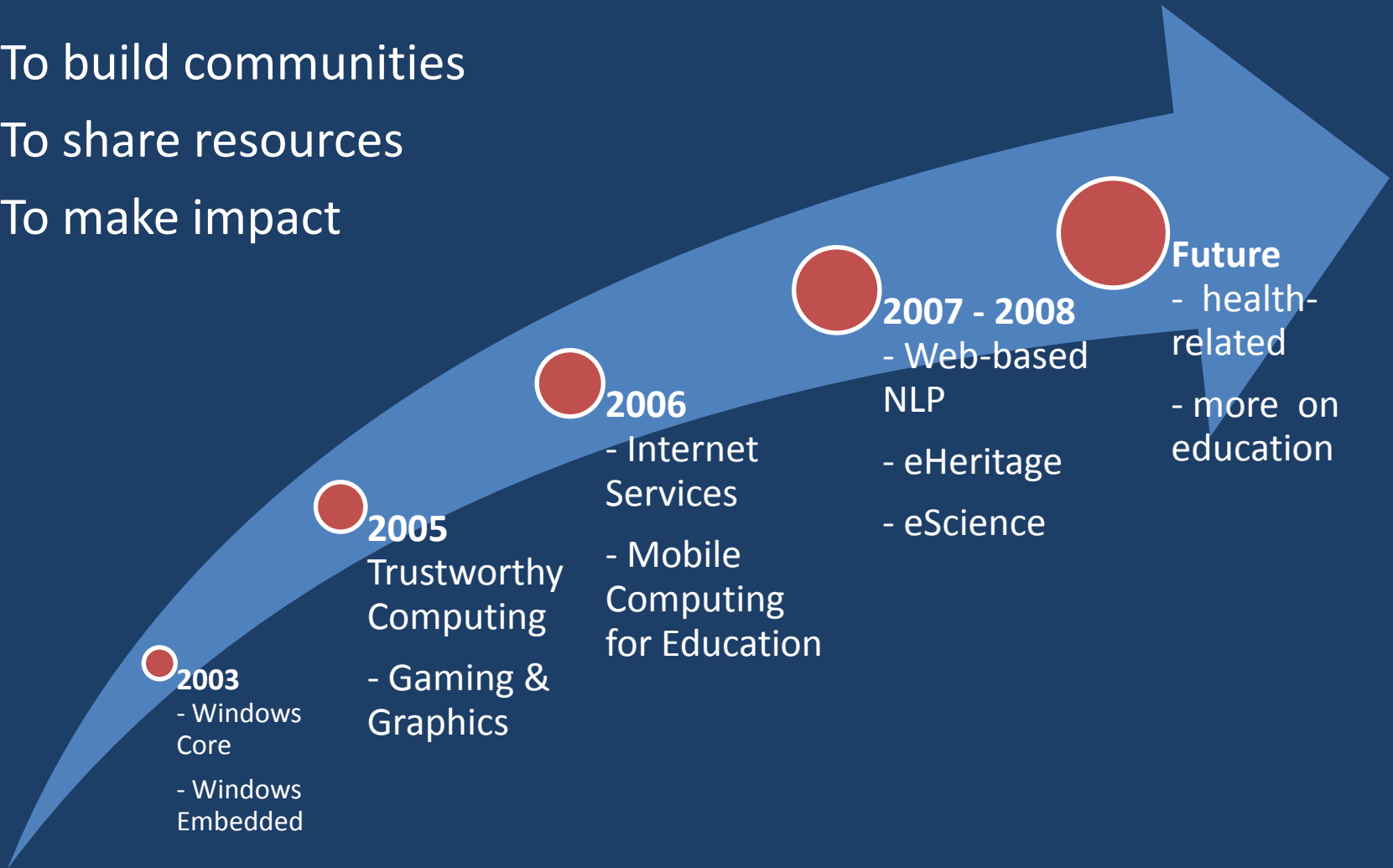
- 600+ projects funded
- 300+ projects involved Microsoft researchers
- ~ 1000 faculty participated
- 85 universities covered

As one of the results -



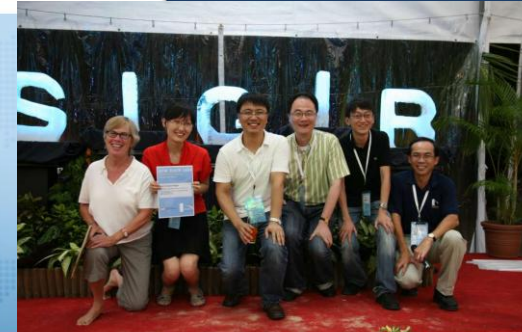
Regional Themes

- To build communities
- To share resources
- To make impact



Cultivating Talents

- Most comprehensive programs
 - Engaged students via programs: 330,000
 - Campus visits touched students: 200,000
 - Microsoft Student Technology Clubs in China: 80,000
 - Curriculum impacted students: 50,000
 - Interns: 3000 from 160+ universities in 20+ countries
 - Fellowship award for PhD candidates: 250
- Recognitions
 - Named by China Ministry of Education as “Talent Center”
 - Award from Korea Ministry of Education
 - SIGIR Best Student Paper Award 2008
 - Best Paper Award 2007 at ACM Multimedia



Academic Exchanges

Provided opportunities for collaboration

- 21st Century Computing Conference: 40,000
- MSR Asia Faculty Summit: ~1500
- Asia academic delegation to Redmond: ~200
- MSRA researchers as Guest Professors: 70+
- Various academic forums
 - E.G. Bill Gates with 3 university presidents in HK



Diversified Local Programs

- **China & Hong Kong SAR**

- Great Wall Plan with Ministry of Education (MOE)

- **Japan**

- Microsoft Institute for Japanese Academic Research Collaboration (IJARC)

- **Korea**

- Special Intern program with MOE
- KAIST – Microsoft Research Collaboration Center

- **Australia & Singapore**

- Matching funds from governments



Joint Programs with US Universities

- Shanghai Jiao Tong University, CMU, and MSRA joint program
- Tsinghua University, Stanford University, and MSRA internship program
- Beihang University, University of Washington, and MSRA CS course
- UCLA and MSRA joint summer program
- Korea University, Georgia Tech and MSRA joint program
- Participation in MIT VI-A program

Carnegie Mellon



上海交通大学
Shanghai Jiao Tong University



UCLA



Focus on Computer Science

Go Beyond Computer Science

eHeritage

eScience



Computer Science
as core

health

education

Microsoft's Academic Collaborations in Japan



- Bill Gates announced Microsoft Institute for Academic Research and Collaborations (IJARC) in Tokyo in 2005.
 - Objective: collaborate with academia in Japan to advance the-state-of-the-art in research, and to contribute to the development of Japanese society
- 2005-2008: IJARC funded about 40 projects covering more than 10 universities.
- Launched Microsoft Research Japan New Faculty Award in 2008. Still welcome applicants.

Connections to Japanese Academia

Microsoft

MSR

IJARC

Academic Advisory Committee



IJARC Engagement with Academia

- CORE projects
- IJARC Fellowship
- Symposiums and conferences
- Support to MIC and Innovation Day

Japanese Academia



Universities



Professors

MSRA UR Regional Programs

- Theme projects
- Curriculum innovation
- Talent fostering: internship, fellowship
- Academic exchanges: TechFest, Faculty Summit



Students

IJARC Academic Advisors

- From 6 major universities in Japan
- Cover a broad range of research areas

Katsushi Ikeuchi	University of Tokyo	Vision and Graphics
Sadaoki Furui	Tokyo Institute of Technology	Speech
Katsuro Inoue	Osaka University	Software Engineering
Yoichi Muraoka	Waseda University	HPC
Katsumi Tanaka	Kyoto University	Search and Data Mining
Hideyuki Tokuda	Keio University	Sensor Networking
Akinori Yonezawa	University of Tokyo	Software System/Security



Five Elements of Scaling Up R&D



Innovation

- Aiming high
 - First tier conferences
 - 5/5 rule
- R & D
 - Collaboration between teams
 - Example: Text to Speech engine

MSR Asia in Past 10 Years

- Founded on Nov. 5th, 1998
- 3000+ papers published on top-tier journals / conferences, 19 best paper awards
- 260+ technologies transferred to MS products
- 20 technologies licensed to other companies
- Have trained over 3000 interns



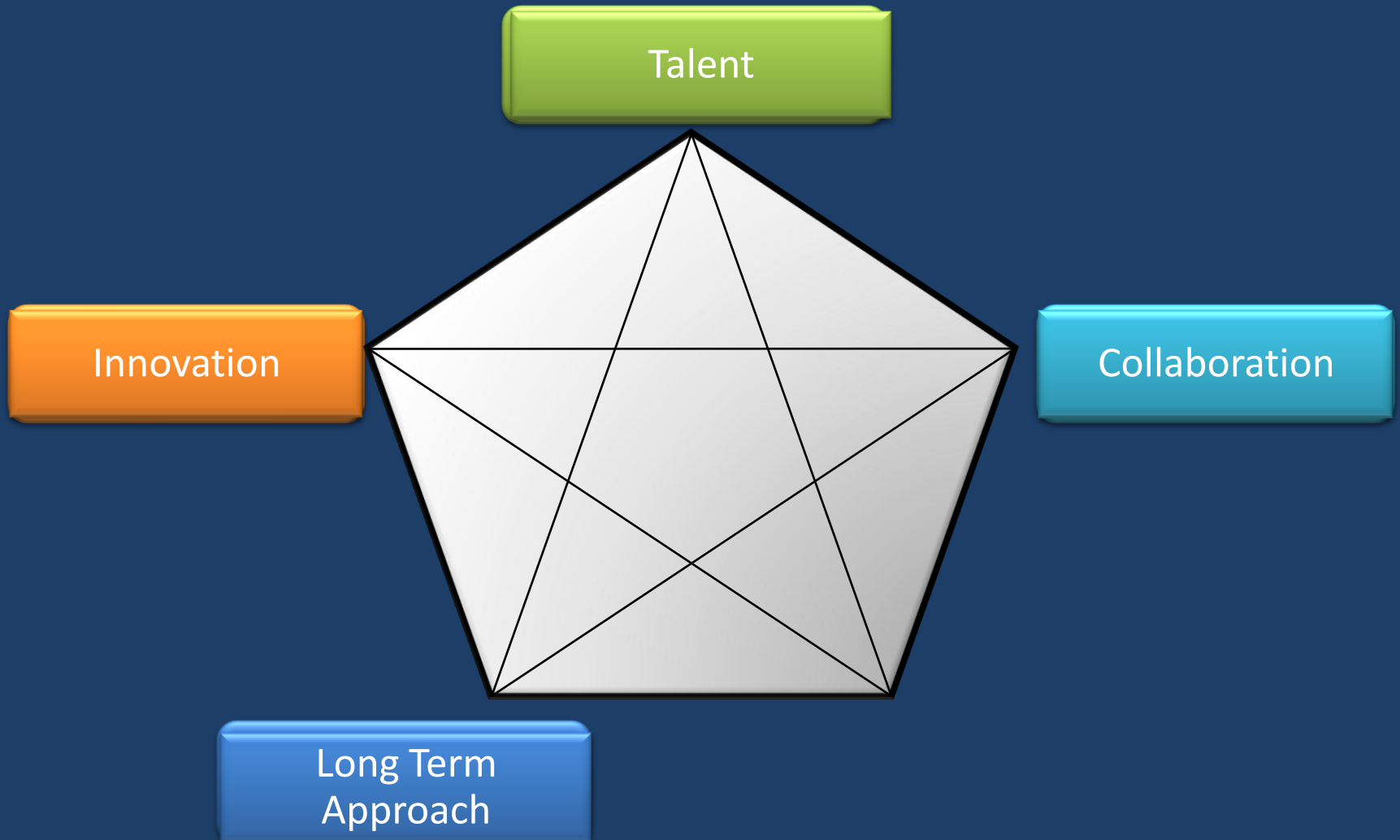
*"Microsoft Research Asia has become
a powerhouse of infotech R&D."*



"It is no surprise that Microsoft Research Asia has such popular appeal."

The New York Times
ON THE WEB

Five Elements of Scaling Up



Long Term Approach

- Long term commitment and investment
- Ensuring long term career growth for employees

New Campus Construction



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Microsoft Plans \$280 Million Beijing Research Campus (Update2)

By John Liu and Yidi Zhao



Microsoft's research and development operations in China, told a news briefing in Beijing today.

Microsoft is stepping up research operations in China as it looks to boost sales in a market where more than four-fifths of personal computer software is pirated. The Redmond, Washington-based company said in November it planned to add 1,000 engineers in the country by June, with about 90 percent of those workers developing products for the world's fastest-growing major economy.

"Piracy in China is putting pressure on companies to develop software products that aren't as vulnerable to illegal copying," said Liu Ning, an analyst at Beijing-based research company BDA China Ltd. "Piracy is getting better in China but will stay a problem in the short term."

About 82 percent of software run on PCs in China was pirated in 2006, costing companies including Microsoft \$3.43 billion in lost revenue, according to data from the Business Software Alliance published in May 2007. Still, the piracy rate dropped from 92 percent in 2003, a decline that saved software companies \$384 million, according to the group, which

May 6 (Bloomberg) — Microsoft Corp., the world's biggest software maker, plans to spend \$280 million building a research and development campus in Beijing, bolstering efforts to create more products for the world's most populous nation.

The center will be the company's largest outside the U.S., with space for 5,000 employees when it's finished in 2010, Zhang Yaqin, chairman of

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Microsoft Expands Its Research Work in China

By LORETTA TETRA and AARON BACK

May 7, 2008, Page A7

BEIJING -- Microsoft Corp. said it will invest \$280 million in a Beijing research and development center, and will double the number of full-time

[K] Science & Technology Daily 2008.05.07 09

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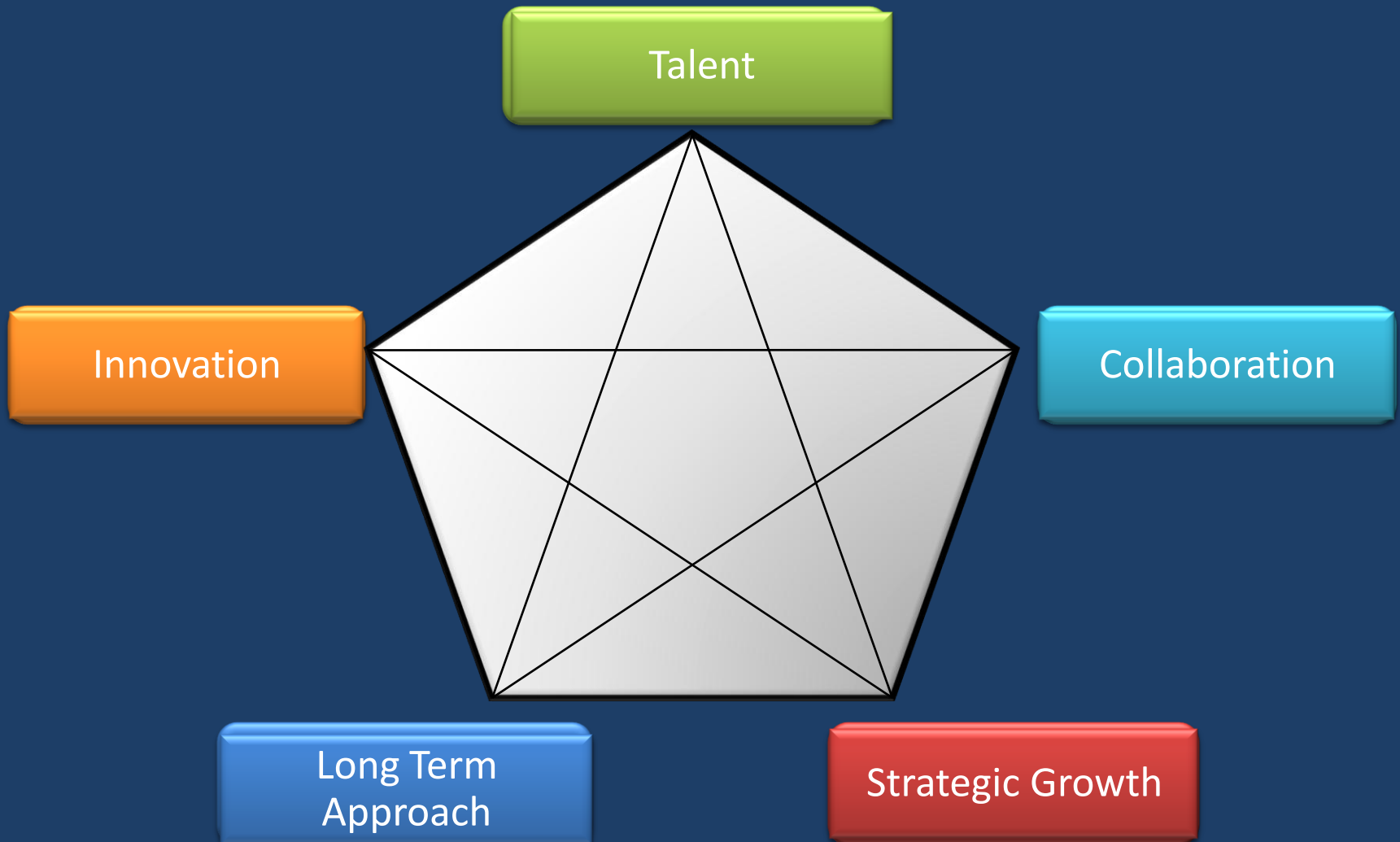
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Five Elements of Scaling Up R&D



Strategic Growth

- Seek opportunities with long term growth potential
- Grow teams to critical mass
- Find alignment with local market
 - Mobility & communication
 - On-line services
 - Server and tools
 - Entertainment
 - Emerging market

Centers of Excellence

Mobility and Communications

- No. 1 mobile users
- Projects
 - WM multimedia: camera & picture
 - WL Messenger client on mobile devices
 - Nokia G2 Client Features
 - RTC Live Meeting
 - E12 System Management and Setup
 - Text-to-speech (TTS) for UM

Web products and services

- No. 2 in both web users and broadband users
- Projects
 - Core Search and search apps (MM, products, etc.)
 - Search in China
 - AdCenter
 - Signup/payment platform
 - OWA and CWA

Entertainment

- No. 1 consumer electronics and on-line gaming
- Projects
 - Games for Windows
 - Causal Games
 - IPTV (app platform, time shift)
 - PC hardware, Xbox console/accessory
 - Surface

Servers and Tools

- No. 1 IT professionals and developers by 2008
- Projects
 - Distributed applications/sys
 - Sys mgmt/manageability
 - Developer/IT Pro tools/UX
 - Anti-virus/anti-spam
 - Integrated server solutions
 - Identity management
 - Tech computing w/ HPC

Emerging Markets

- No. 1 potential new market
- Projects
 - Affordable computing devices
 - Education and Health
 - Hosted services
 - Outlook mobile service
 - Visio science editing (math, physics, chemistry)
 - English writing assistant

Innovate Together



Summary

- Microsoft is committed to innovation, talent cultivation, and collaboration
- A key success factor has been collaborating with academia and industry

Thank You!



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