

Offshoring Software Development

Pavel Suk

Director, Global Engineering Organization
Prague Engineering Center
Sun Microsystems



Agenda

- Why are we global company?
- Global location strategy
- Investment in Prague Engineering Center
- Role of Czech Invest
- Lessons learned

Sun Microsystems, Inc

- #194 on the Fortune 500
- \$11.17 billion revenue in fiscal 2005
- 38,600 worldwide employees
- Product and Services
 - > Servers
 - > Software
 - > Storage
- Solaris, Java, SunGrid, UltraSPARC, Sun StorageTek



Always Known as Inventors

- 1982: Getting Started
 - > 4 employees, TCP/IP invented
- 1984: The Big Idea
 - > Network File System technology introduced and licenced free to the industry
- 1995: The Java Technology Revolution Begins
 - > Universal software platform, designed from the ground up for the Internet and corporate intranets.
- 2004: Java in the NASA's Mars Rover



Sun's Vision, Mission, Cause & Strategy



Participation Age

Everyone and everything participating on the network.



Our Mission

To create the technologies, products and services that power the participation age.



Our Cause

To eliminate the digital divide, while making the planet better off.



Our Strategy

Sharing creates communities, and communities create value.

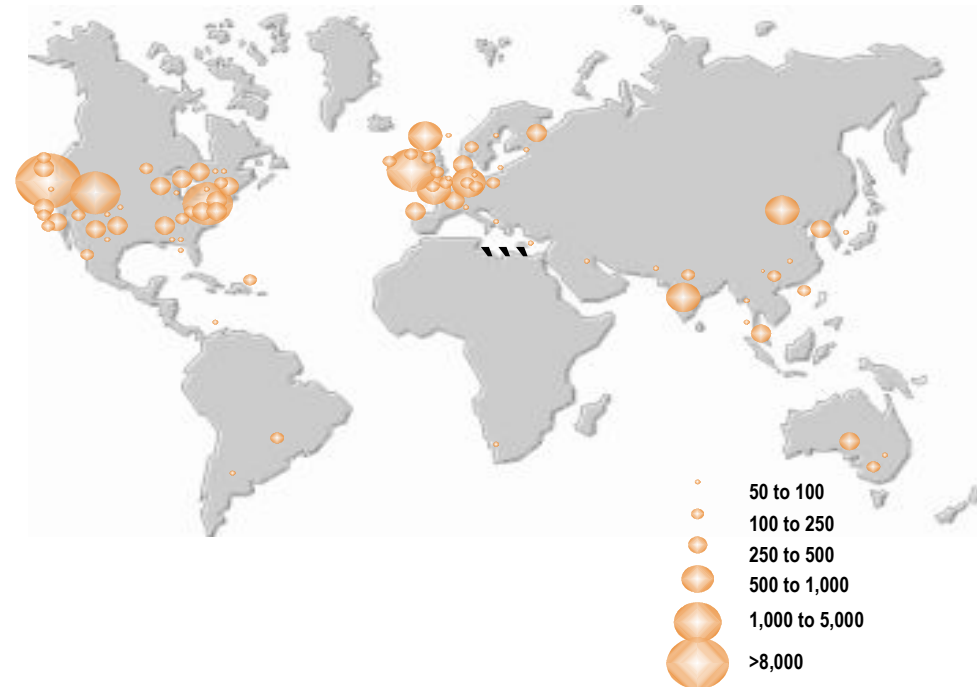
Sun is a Global Company



328 locations around the globe

Conduct Business in
100 countries

11% growth in FY06



Sun's Global Location Strategy

Smart growth in targeted
global locations

Vision

Global company with the right talent in the right markets, ideally positioned to attain and sustain long-term competitive edge

Global Engineering Organization

Large R&D Centers



Other R&D Centers: Dublin, Grenoble, Tel Aviv, Tokyo, Trondheim, Hamburg

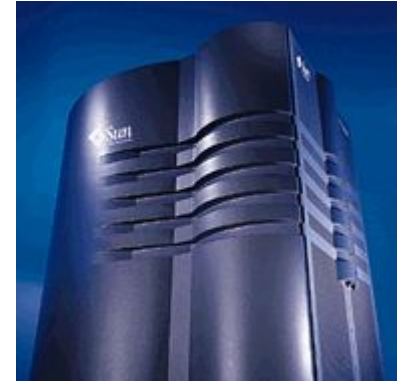
How Are the Locations Chosen?

- Talent quality and availability
 - > Quality and availability of individual contributor and management talent
 - > Workforce stability
 - > High technology presence
 - > Innovation, patents
 - > Education, number and quality of universities
 - > Attractiveness
 - > Experience from other investors



How Are the Locations Chosen?

- Ease of business considerations
 - > Support from government
 - > Labor regulations
 - > Ease of foreign investment, bureaucracy,
 - > Intellectual property protection, SW piracy,
 - > Political stability, transparency
 - > GDP, unemployment, currency
 - > IT infrastructure, internet, network, phone lines, broadband
 - > Quality of living and workspace



How Are the Locations Chosen?

- Operating costs
 - > Cost per engineer
 - > Benefits
 - > Wage and price inflation
 - > Cost trends
 - > Incentives
 - > Cost and trends on real estate market



Sun achieved 17th consecutive year of positive cash flow from operations in fiscal 2006 and achieved year-over-year revenue growth of 18% versus fiscal 2005.



How Are the Locations Chosen?



- Ability to improve Sun's market share
 - > IT market for product and services
 - > Government support for open standard
 - > IT infrastructure
 - > Ease of doing business

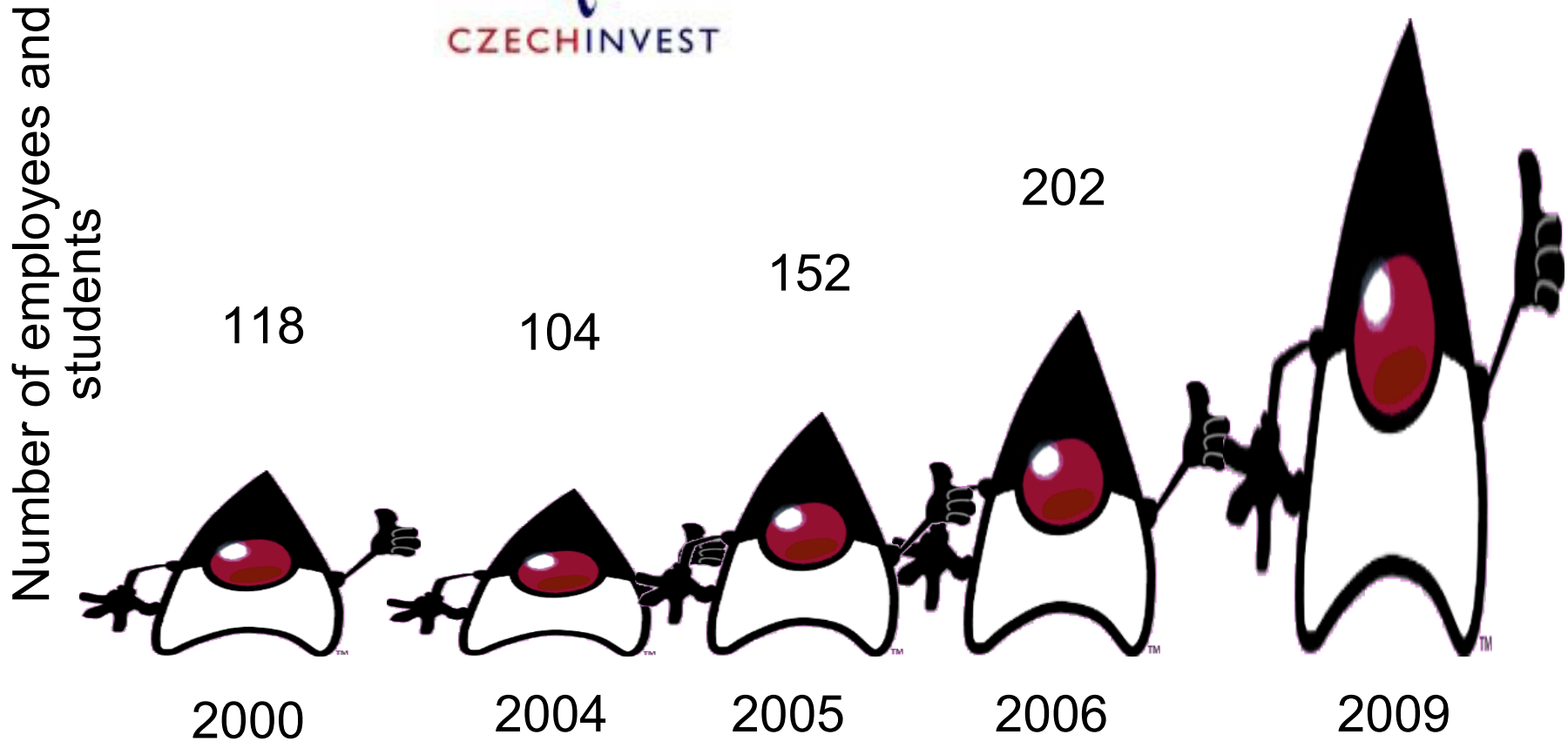
Sun Microsystems Czech

- 1994: Sun Microsystems Czech established
- 1999: NetBeans Acquisition
 - > Student project
 - > Freeware model
 - > Prague Engineering Center (35 developers)



```
* @author   Jaroslav Tulach  
* @version  0.10, Apr 10, 1998  
*/  
public class SingletonEnumeration implements Enumeration
```

Prague Engineering Center



What happened in 2004?

- External Research - Delloitte & Touche
 - > Over 30 countries, all new markets, extensive data collection
- First meeting with Czech Invest
 - > Tomas Bohrn
- Executive visits
 - > Vicepresidents, Executive Vicepresidents, Global Location Strategy Team
 - > All supported by presentation from Czech Invest
- Decision: Prague Engineering targeted for growth

Important Milestone - 2005

- The capacity of existing building reached
- Invest or sustain?
 - > Expected investment in new building and IT infrastructure:

USD 12M

- **DECISION:**

Expand Prague Engineering Center!

Site Opening - March 2006



Tomas Hruda, *CEO Czech Invest*
Linda Park, *VP GENO, Sun Microsystems*

Crawford Beveridge,
EVP People and Places,
Sun Microsystems



Site Opening - March 2006



Why Prague?

- Good track record of quality of people
- Excellent talent pool
- Gate to East Europe
- Member of EU
- IT and real estate infrastructure
- Stable political situation and law
- Commitment from government
- Magnet for visitors



Support from Czech Invest

- Comprehensive data
 - > GDP
 - > University, student population
 - > Employment
- Commitment from the government
 - > Incentive program
- Personal involvement
 - > Presentations to executives
 - > Trip to the US



My Recommendations

- Cultivate your talent pool
 - > Education, language skills, effectiveness and productivity
- Make it easy for investors to come and stay
 - > IT infrastructure, real estate market
 - > Visa applications, foreign policy
 - > Standard business environment
- Pick up the area you're strong at
- Start with easy one, attract others by snowball effect
- Stabilize workforce



Offshoring Software Development

Pavel Suk

pavel.suk@sun.com

