



Innovation at IBM

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IBM Systems and Technology Group

IBM at a Glance

- Approx. 400,000 full time regular employees;
 - 220,00 technical people
 - 5740+ Executives,
 - 37350+ Managers
- Operations in 170 countries, divided into 6 markets:
 - USA
 - Canada
 - Japan
 - North East Europe
 - South West Europe
 - Growth Markets
- Key Business Segments:
 - Services
 - Systems
 - Software
- 2008 Business Results
 - \$103.6B in revenue, up 5%
 - \$16.7B in pre-tax margin, up 15%

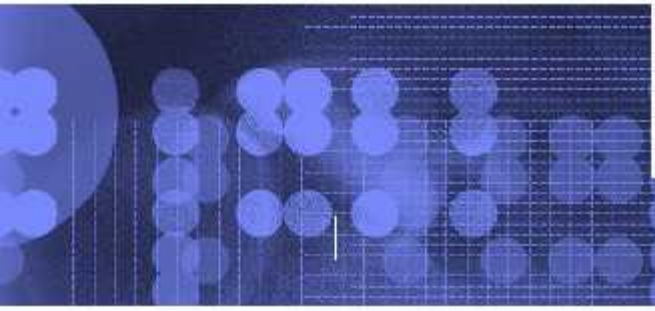
A Highly Diverse Workforce






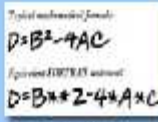

















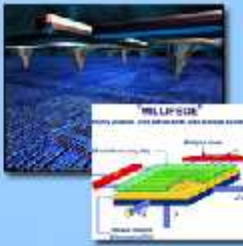

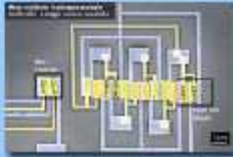

- 49% workforce has less than 5 years of service
- 62% workforce is in our Services business
- 40% of employees work remotely – not from a traditional IBM office
- 59% of our employee population is outside USA
- 15% of population comes from acquisitions & outsourcing deals

IBM Research Worldwide

- **Eight Research Labs worldwide**
- **Over 3100 employees**
- **Priorities**
 - Impact IBM and the Market
 - Balanced Research Agenda
 - Global Leverage
- **Funding**
 - Unrestricted corporate funds
 - Joint programs
 - IBM Business Units
 - Government programs
 - Customers

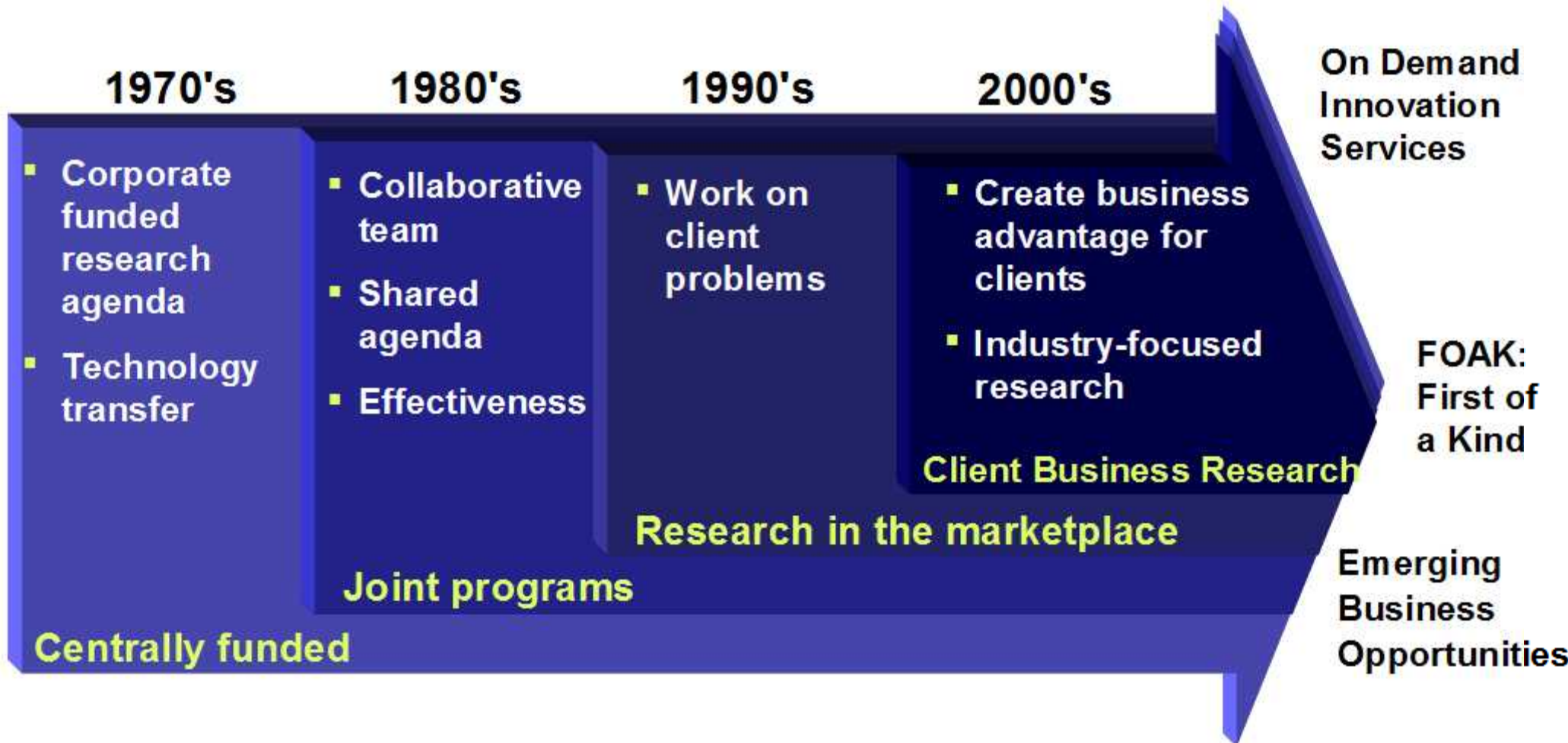


History of Innovations – 60+ years of World-class Research

								
1944: Mark 1	1948: SSEC	1956: RAMAC	1957: FORTRAN	1964: System/360	1966: One-Device Memory Cell	1967: Fractals	1970: Relational Database	1971: Speech Recognition
								
1973: Winchester Disk	1979: Thin Film Recording Heads	1980: RISC	Nobel Prizes: 1986: Scanning Tunneling Microscope	1987: High Temperature Supercon- ductivity	1990: Chemically Amplified Photoresists	1994: SiGe	1993: RS/6000 SP	1996,97: Deep Blue
								
1997: Copper Interconnect Wiring	1998: Silicon-on-Insulator	1998: Microdrive	2002: Millipede	2004: Blue Gene/L The fastest supercomputer in the world	2006: 5-stage Carbon Nanotube Ring Oscillator	2008: World's First Petaflop Supercomputer		

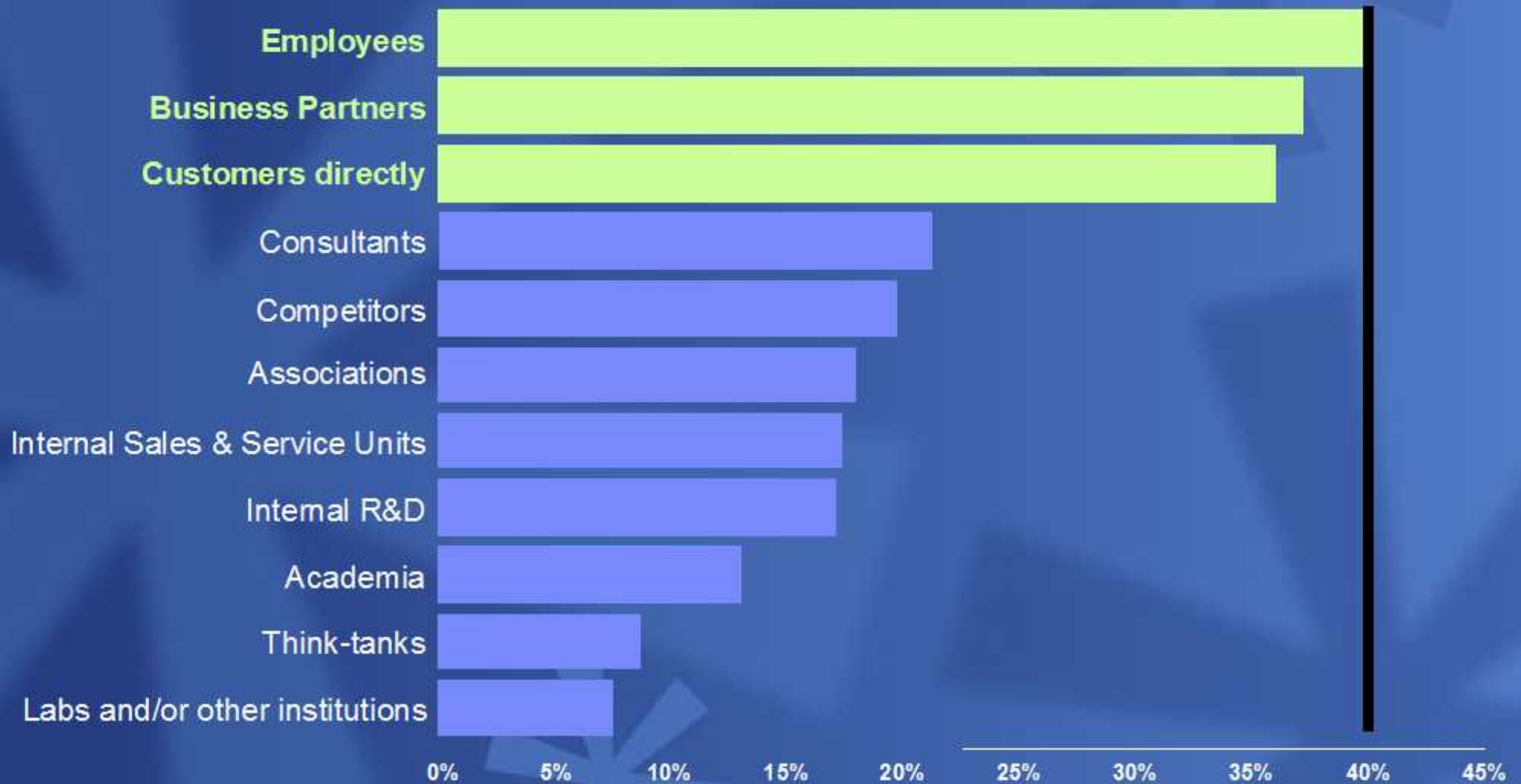
Evolution of Role

Work on client-specific technology, business problems



CEOs: Top Source of New Ideas and Innovation

Collaboration sparks innovation



The Changing Nature and Scope of Innovation

Open

Collaborative

Multi-disciplinary

Global



*Innovation resides at the intersection
of invention and insight, leading to the creation of social and economic value*

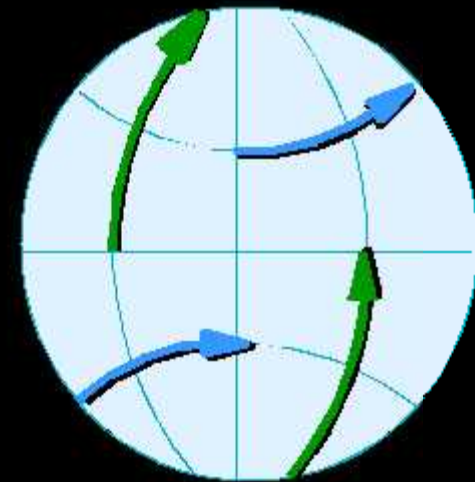
National Innovation Initiative

IBM Global Technology Outlook

- f Identify Emerging Technology Trends Significant to IBM and Competitors
 - Disruptive to Existing Business, Potential New Ones, Game Changers
 - Exponentials - Thresholds
 - How New Technology can Impact Customers (and Our Businesses)

- f Influence Technical Strategy of the Company
 - Make Sure the Company is Focused on Major Opportunities For New Growth

- f Source of Education For the CEO & Senior VPs



Jams

enterprise-wide discussion, collaboration and decision-making

- Real-time threaded discussion
- Open idea-rating
- Equal access by all employees



WorldJam 2004
 Focused on pragmatic solutions around growth, innovation and bringing the company's solutions To life

InnovationJam
 For the first time, IBM's clients, Business Partners, and our Family members joined in a new collaborative exercise

Innovation Jam Outcomes

(Emerging Business Opportunities – EBOs)

Real-time Translation Services



Simplified Business Engines



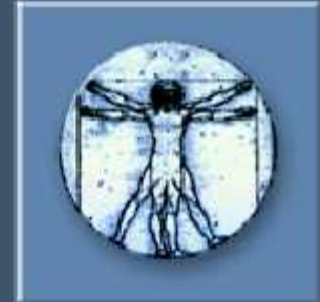
Intelligent Utility Networks



3D Internet



“Digital Me”



Big Green Innovations



Branchless Banking for the Masses



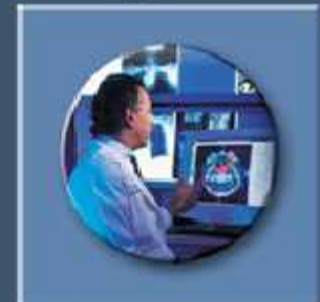
Smart Healthcare Payment Systems



Intelligent Transportation Systems



Electronic Health Record System



Energy and Environment Research at IBM

- Technology
 - PV (Si, CIGS, Concentrator, Nanowire/nanoparticle)
 - Nano-membranes for water purification and desalination
 - Energy efficient chips and modules
 - Battery 500 project
 - Organic catalyst to replace metal catalyst in PET used in water bottles
 - Mobile measurement technology
 - Co/tri generation
- Systems
 - Smart surveillance systems
 - Energy efficient systems – servers and storage
 - Data analytics, simulation, modeling
- Solutions
 - Intelligent transportation systems
 - Intelligent utility networks
 - Intelligent oil fields
 - Green data centers
 - Advanced water management
 - Carbon footprint management
 - Energy efficient technologies and services