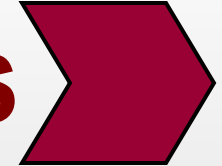
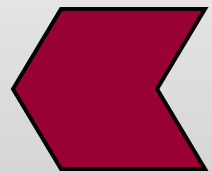


“Right” Things



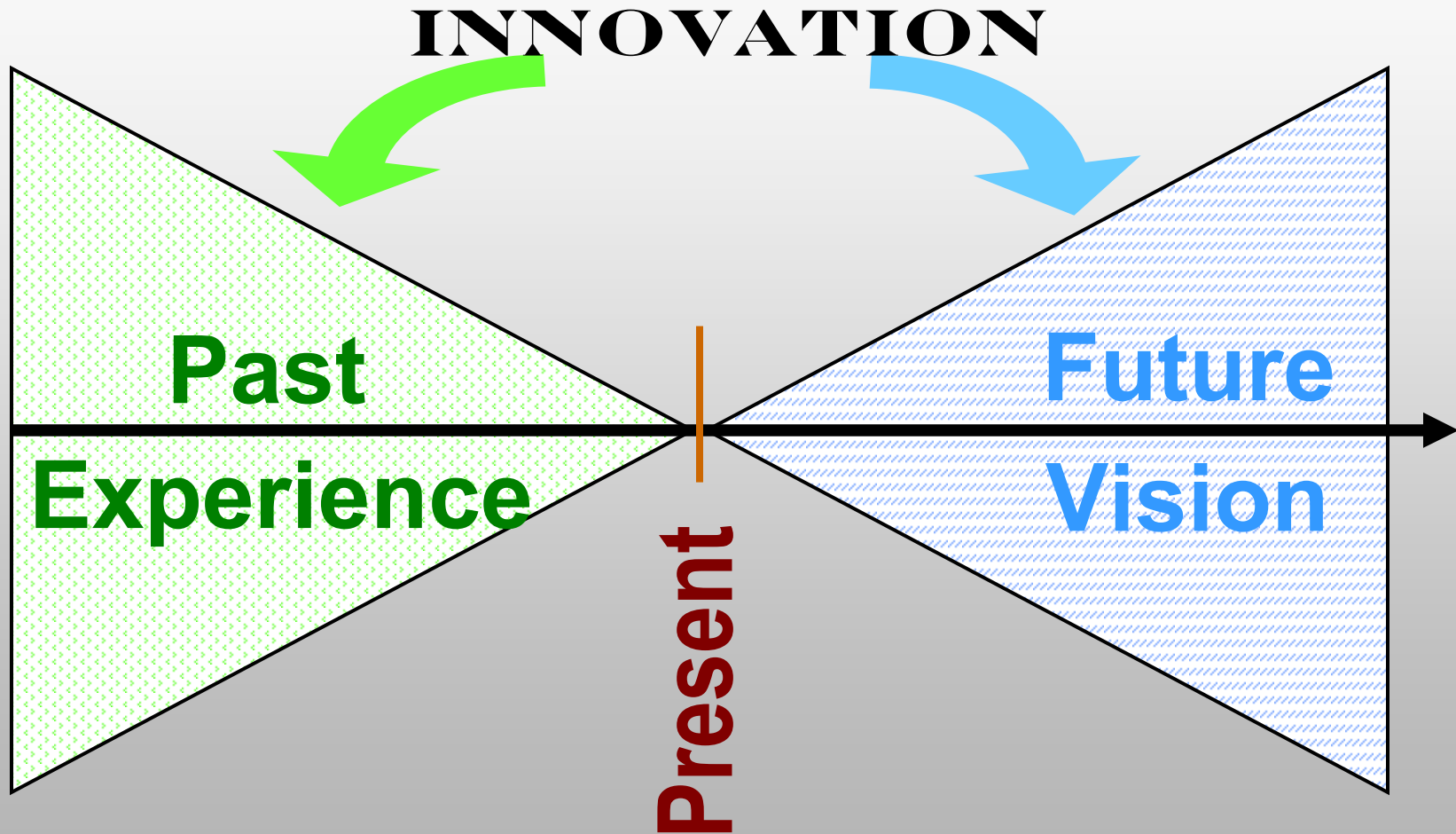
for



“Left-Brainers”

Interdisciplinary Nature of Innovation

Bridge to the Future. Can We Build It?

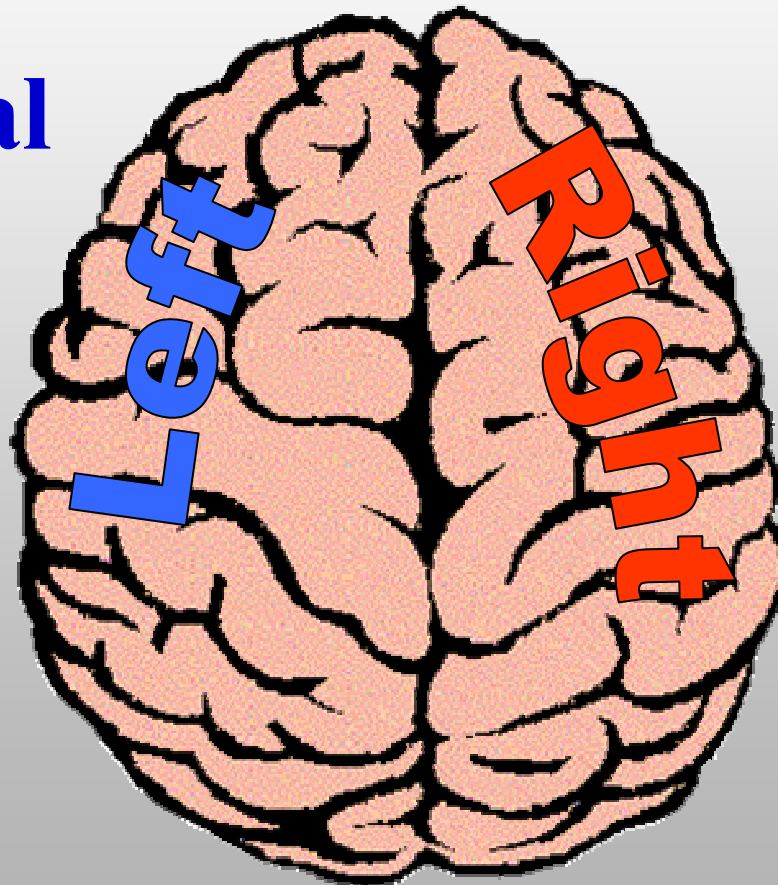


Driver of Innovation: Think or... Feel?

Perception of “new”:

Logical

**Science
Technology
Engineering
Mathematics**



Intuitive

**Art
Social Science
Management
Marketing
Ethics
Aesthetics**

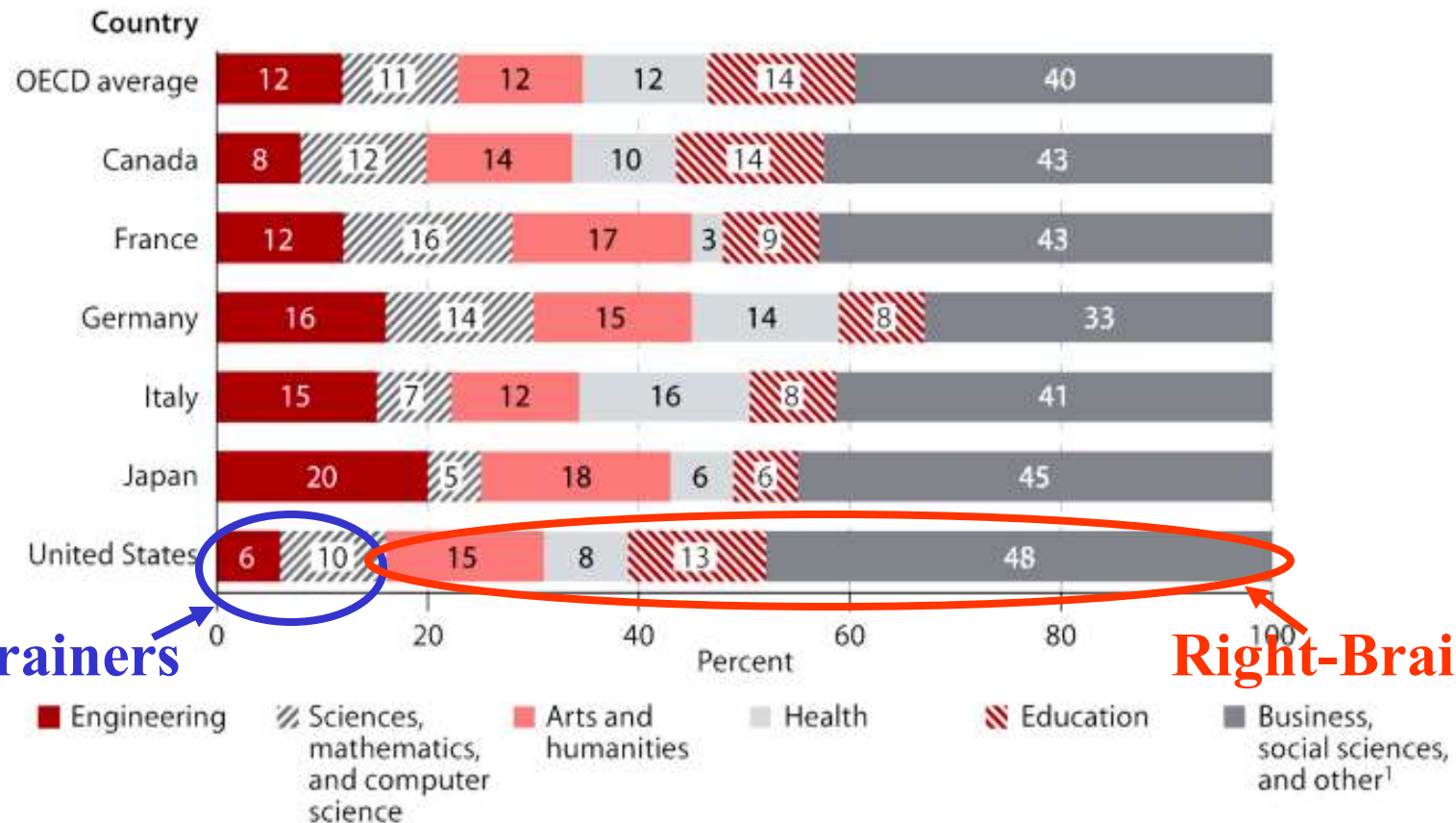
What Is Innovation?

Innovation = Creativity * Risk Taking

Dr. Jacqueline Byrd

Silo Traditions in Higher Education

DEGREES AWARDED: Percentage distribution of degrees conferred by field of study among reporting G-8 countries: 2004



Left-Brainers

Right-Brainers

SOURCE: Organization for Economic Cooperation and Development (OECD), Center for Educational Research and Innovation. Retrieved December 23, 2006, from <http://stats.oecd.org/wbos/default.aspx>

Dr. Gregory J. Kivenzor

Interdisciplinary Innovation


Disciplinary Borders = Mental Divide

Field of study	Master's degrees			Doctor's degrees (Ph.D., Ed.D., etc.)		
	Total	Male	Female	Total	Male	Female
All fields, total	574,618	233,590	341,028	52,631	26,973	25,658
Business, management, marketing, and services					142,617	
Biological and biomedical sciences	8,199	3,318	4,881	5,578	2,845	2,733
Business, management, marketing, and services	142,617	82,151	60,466	1,498	901	597
Engineering and engineering technologies					35,133	
Physical sciences and science technologies					5,678	
Biological and biomedical sciences					8,199	
Mathematics and statistics					4,477	
Multi/interdisciplinary studies	4,252	1,440	2,812	983	440	543
Parks, recreation, leisure and fitness studies	3,740	1,935	1,805	207	119	88
Philosophy and religious studies	1,647	995	652	586	418	168
Physical sciences and science technologies	5,678	2,457	3,221	4,114	2,066	2,048
Computer and information sciences and services					18,416	
Public administration and social service professions	29,552	13,770	15,782	673	272	401
Security and protective services	3,991	1,974	2,017	94	55	39
Social sciences and history	16,952	8,256	8,696	3,819	2,184	1,635
Theology and religious vocations	5,815	3,469	2,346	1,422	1,101	321
Transportation and materials moving	802	679	123	0	0	0
Visual and performing arts	13,183	5,646	7,537	1,278	594	684

Source: U.S. Department of Education, National Center for Education Statistics, 2004-05 Integrated Postsecondary Education Data System (IPEDS), Fall 2005. (See Digest of Education Statistics, 2006, Table 258, http://nces.ed.gov/programs/digest/d06/tables/dt06_258.asp, accessed October 22, 2007.)

Innovation Sequence

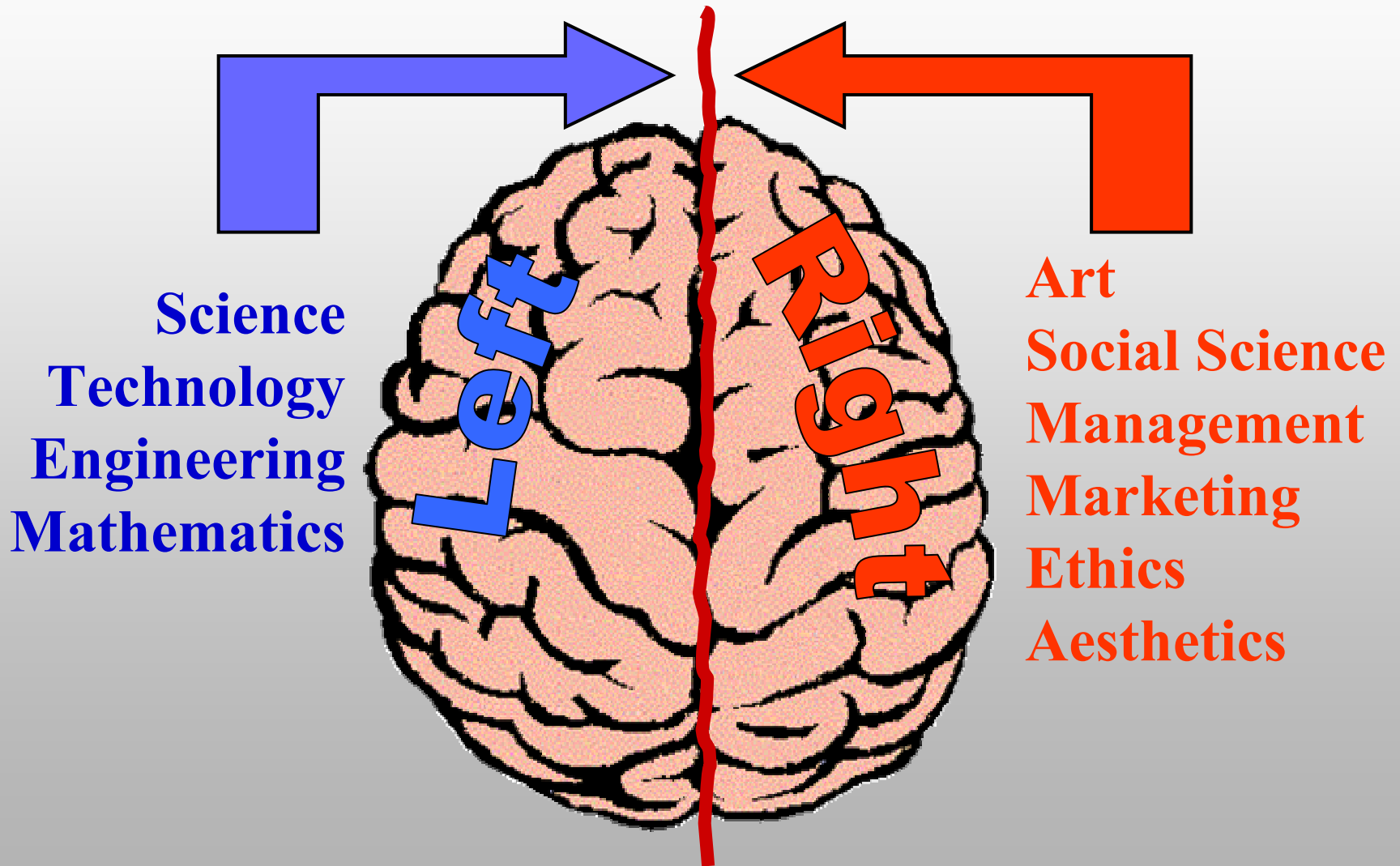
Left-Brainers

- New technology
 - New application
 - New product
 - Who is a customer?
- 

Right-Brainers

- Which technology?
 - Product specs
 - Business solutions
 - Customer needs
- 

Impenetrable Wall or Just Mental Block?



Top Patent Performers of 2007

Who these patents target: **Left** or **Right-Brainers**, or both?

<u>Rank</u>	<u>Company Name</u>	<u>Patents</u>
1	INTERNATIONAL BUSINESS MACHINES CORP	3148
2	SAMSUNG ELECTRONICS CO LTD KR	2725
3	CANON K K JP	1987
4	MATSUSHITA ELECTRIC INDUSTRIAL CO	1941
5	INTEL CORP	1865
6	MICROSOFT CORP	1637
7	TOSHIBA CORP JP	1549
8	SONY CORP JP	1481
9	MICRON TECHNOLOGY INC	1476
10	HEWLETT-PACKARD DEVELOPMENT CO L P	1470

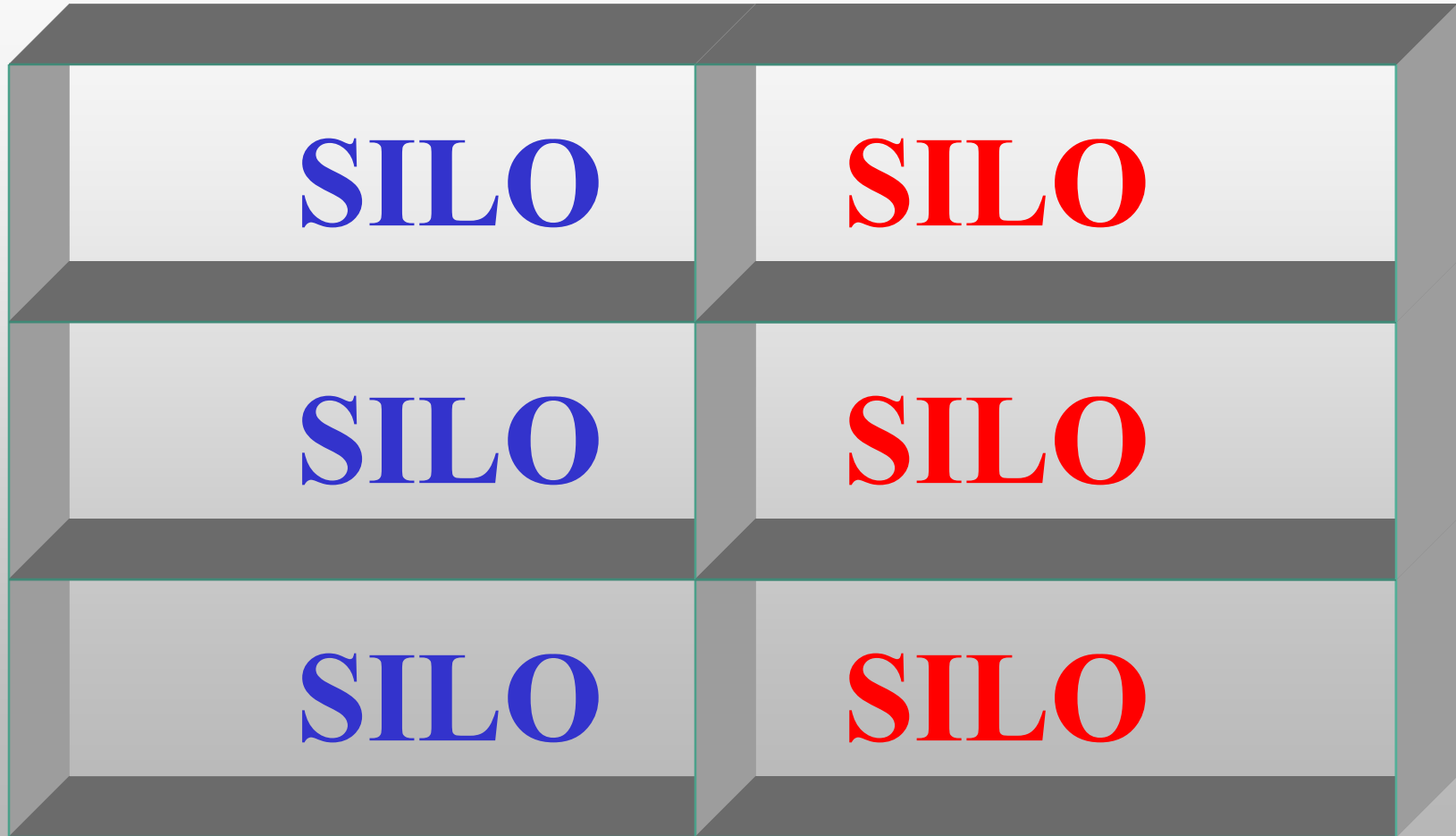
Silo Thinking Hurts Innovation

CULTURAL SILOS

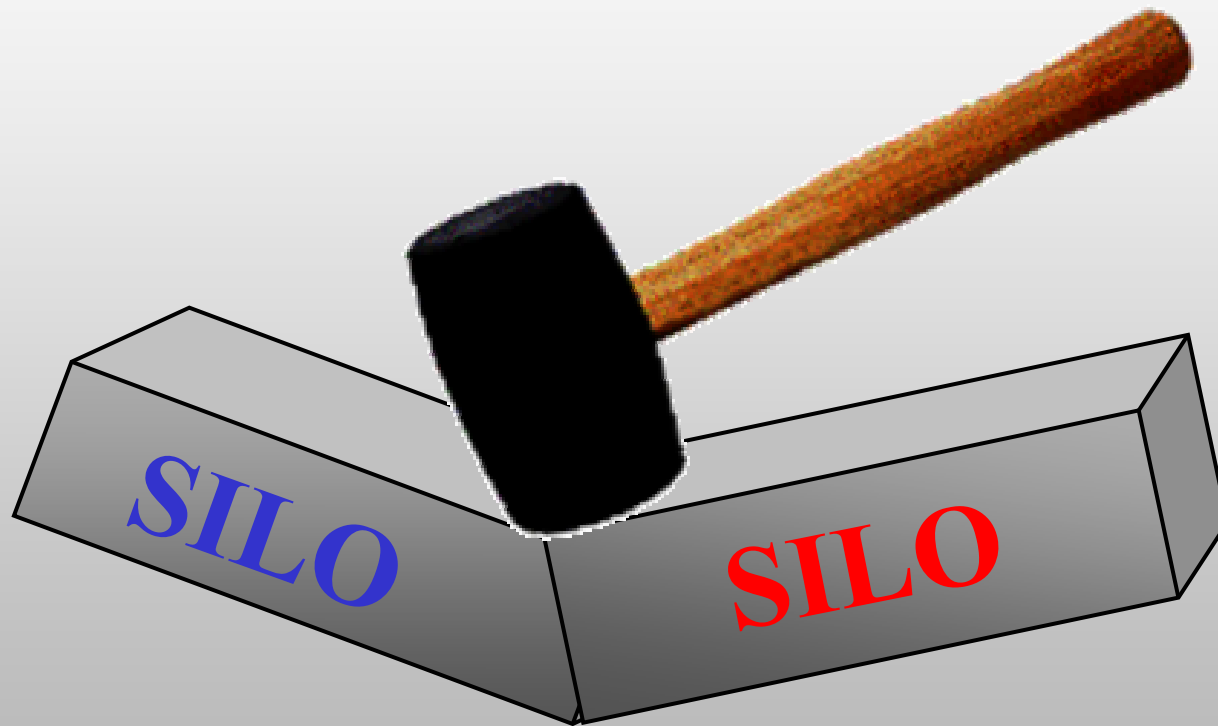
FUNCTIONAL SILOS

DISCIPLINARY SILOS

Silo Mentality Leads to Silo Behavior



Breaking the Silo Box



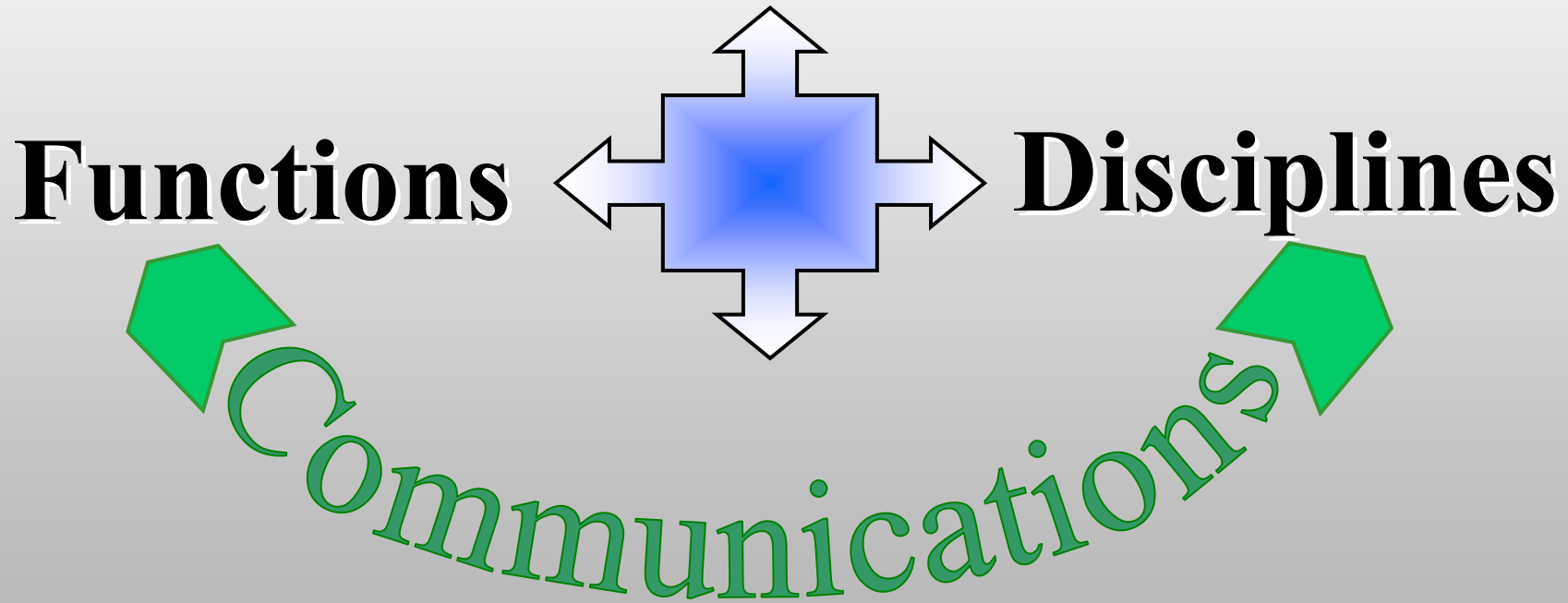
Solutions, Solutions, Solutions...

“Synthetic” Programs:

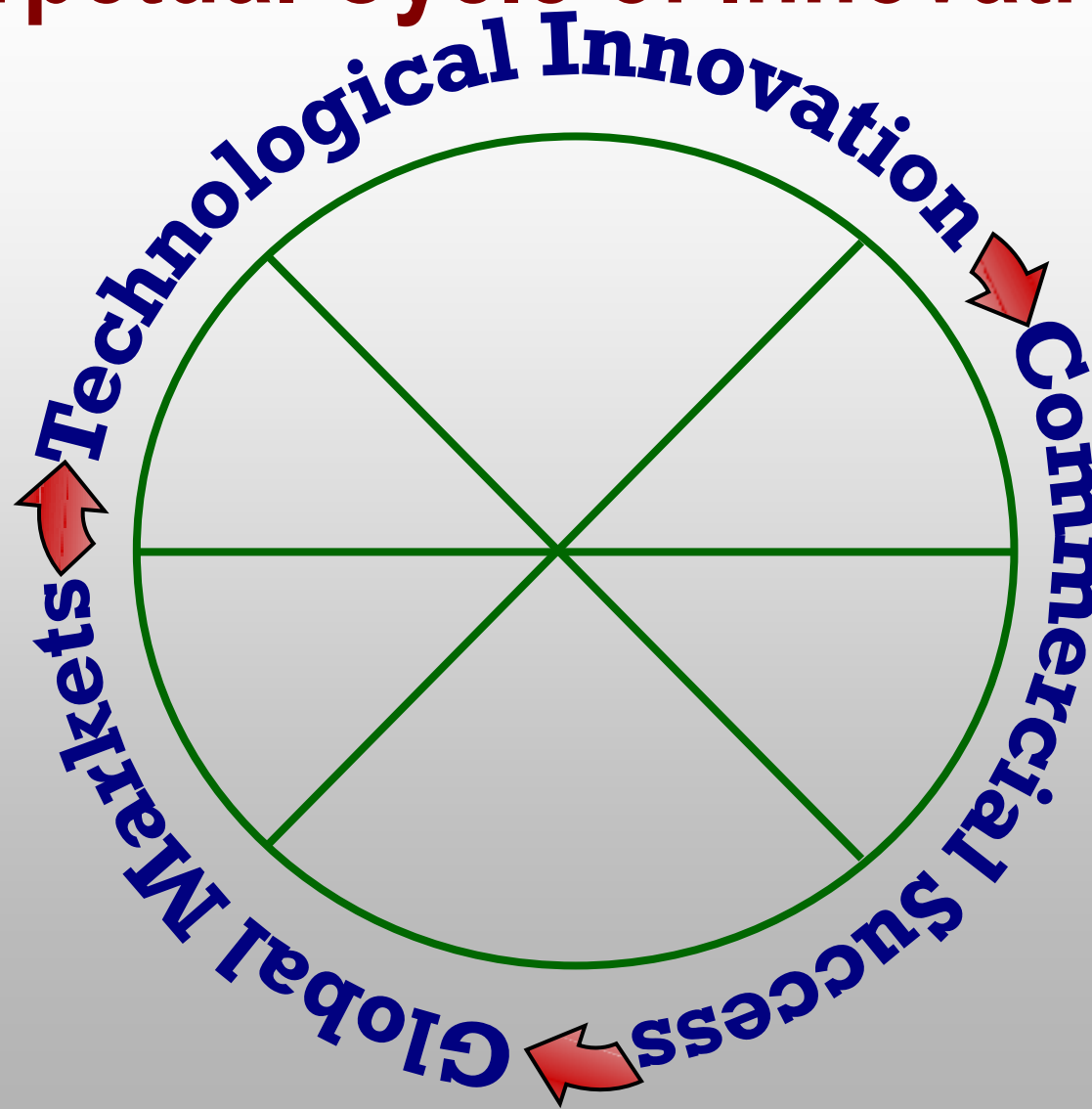
- **Management** of Technologies
- Technological **Entrepreneurship**
- **Professional** Science Master’s

Think + Feel = Harmony

Cultures



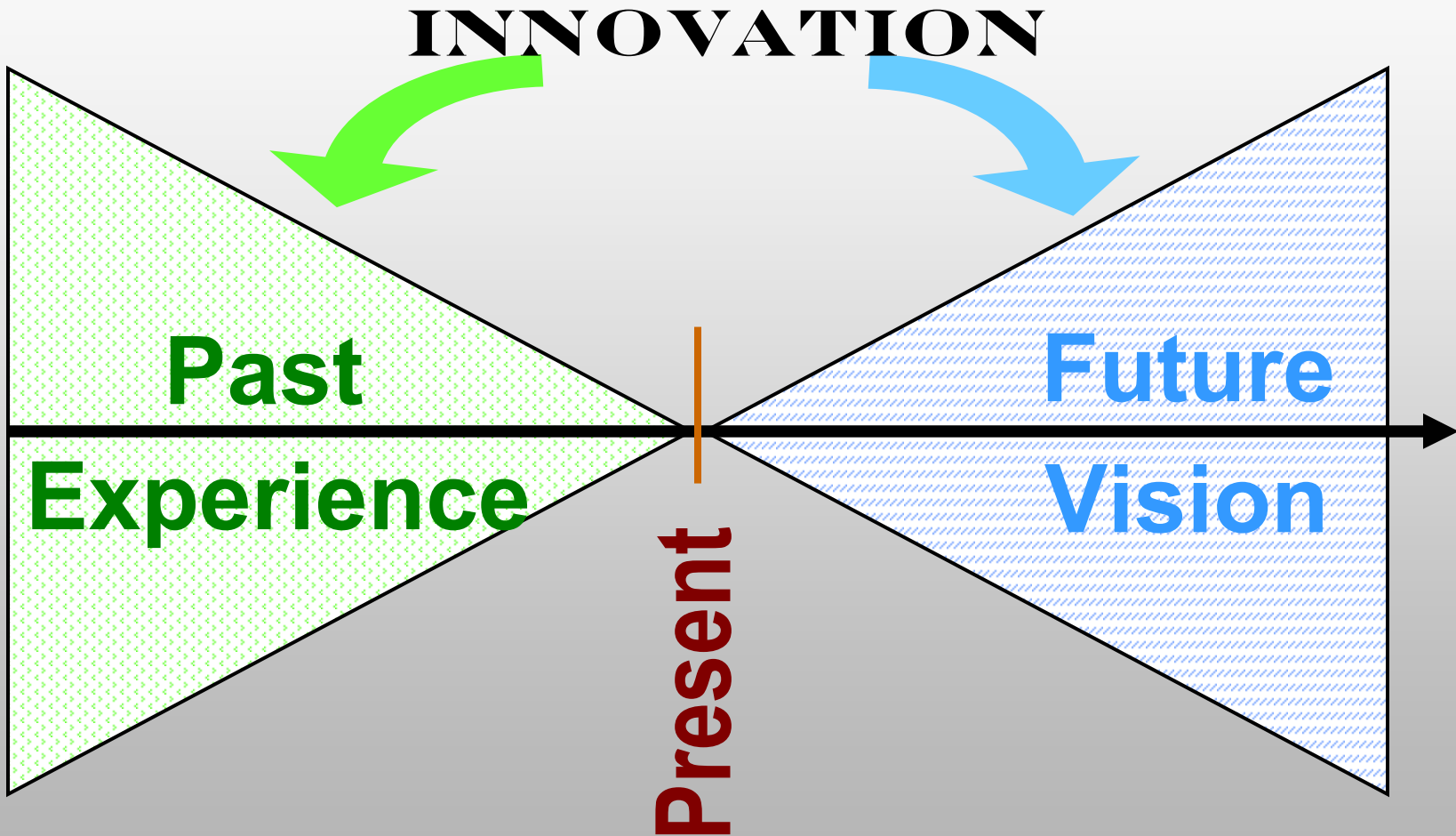
Perpetual Cycle of Innovation



Think + Feel = Harmony

INNOVATION

Bridge to the Future. Yes, We Can!



Questions and comments
are welcome ...

As always!