Course Overview

406.306 Management Information Systems

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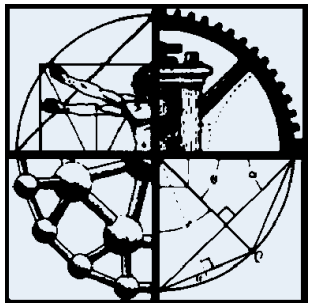
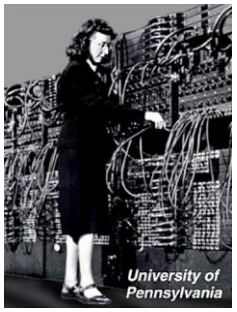
Dept. of Industrial Engineering

Seoul National University

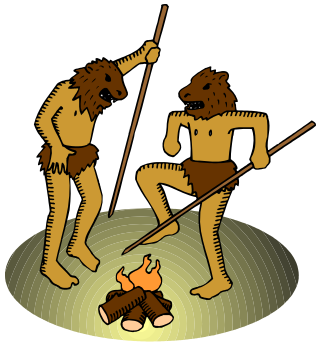
9/20/2007

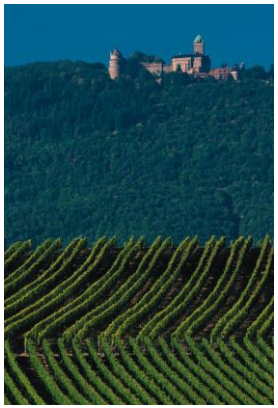
산업의 발전

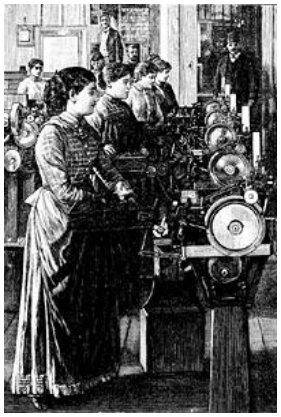


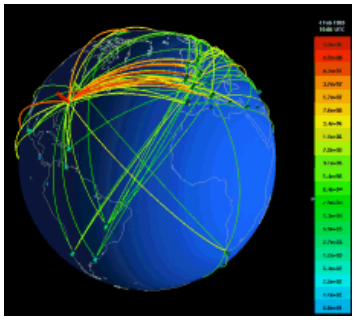


산업혁명 공학 컴퓨터 **PC** 인터넷 유비쿼터스









원시 수렵 농경 사회

중세 봉건 사회

대량 생산 산업 사회

주문 생산 산업 사회

정보 산업

지식 산업

20C의 혁신적 발명 (1910 – 1950)

20C 문명을 바꾼 혁신적 발명 85選

[Forbes誌,' 02.12]

1910~1920년대	1930년대	1940년대	1950년대
- Sneakers	- Jet Engine	- Radar	- Diners Club Card
- Mass Spectrometer	- Frequency Modulation	- Electronic Digital Computer	- Levittown
- Tetraethyl Lead	- Wallboard	- Nuclear Power	- The pill
- Business Management	- Value Investing	- Cellular Phone	- Thorazine
- Multi-plane Camera	- Nylon	- Microwave Oven	- The Conglomerate
- Frozen Food	- United Auto Workers	- Instant Photos	- Holiday Inn
- Mutual Fund	- Blood Bank	- Transistor	- Fortran
- Bell Telephone Laboratories	- Pulse-Code Modulation	- Tupperware	- Polio Vaccine
- Rocket Engine	- Xerography	- LP	- Fast Food
- Television	- Automatic Transmission	- Magnetic Core Memory	- Containerized Shipping
- Penicillin	- Helicopter		- Disk Drive
- Synthetic Rubber			- Fiber Optics
			- Ampex VRX-1000
			- Implantable Pace maker
			- Laser
			- Three-Point Seat Belt
			- Integrated Circuit

20C의 혁신적 발명 (1960 – 2000)

20C 문명을 바꾼 혁신적 발명 85選

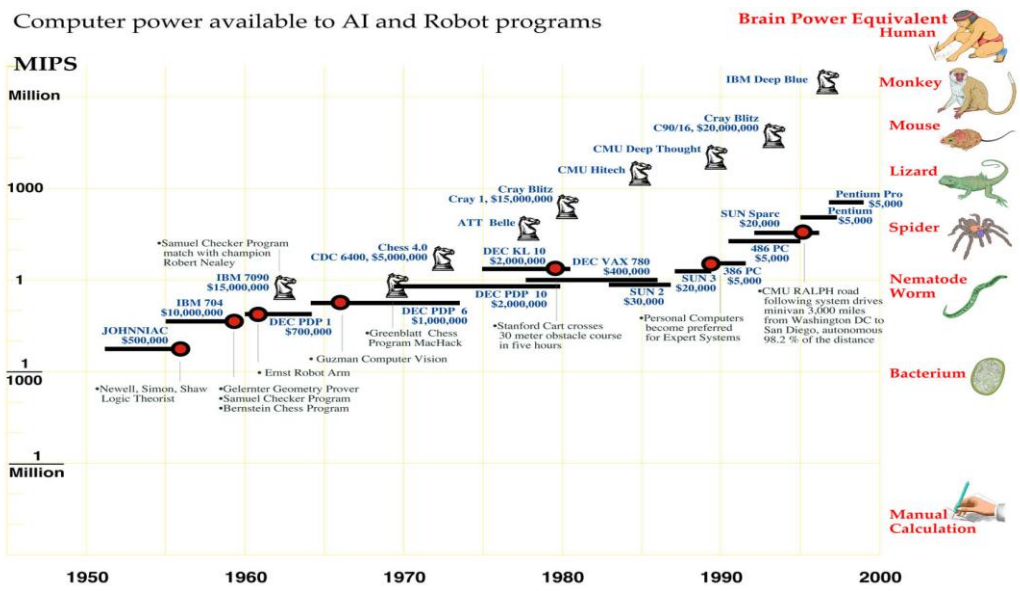
[Forbes誌,' 02.12]

1960년대	1970년대	1980년대	1990 년대 ~2000
- Pampers - Telstar - Modem - Point-of-Sales Data - Mainframe Family - Consumerism - Mouse - Automated Teller Machine - Charge-Coupled Device - The Internet	- Compact Disc - Relational Database - Answering Machine - Microprocessor - Computed Tomography Imaging - Ethernet - UNIX/C Programming - E-Entertainment - Discount Brokerage - Catalytic Converter - Index Fund - Personal Computer Chip - Recombinant DNA - Cash Management Accounts - Original-Issue Junk Bonds - Spreadsheet	- Liquid Crystal Display - Customized Mass Retail - Mevacor - Prozac	- World Wide Web - Protease Ingibitors - Internet Business - Viagra - Automated Sequencing Machine

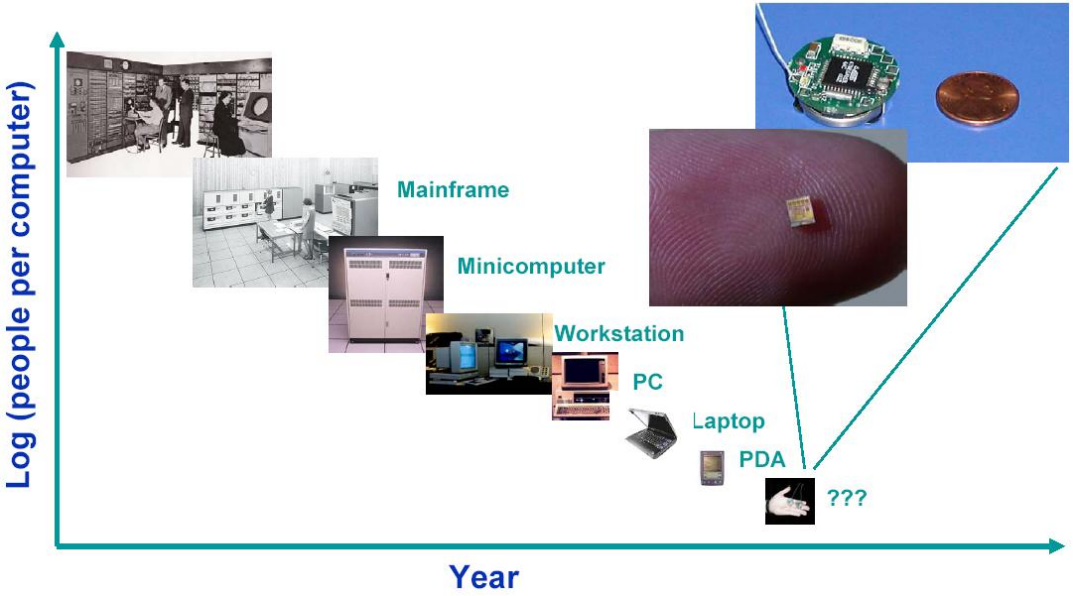
세상을 바꿀 뻔한 발명품

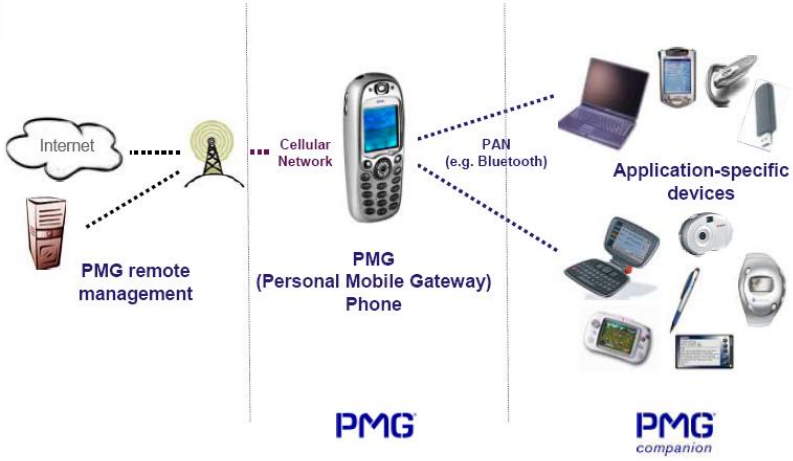
Flying Cars (1926)
Videophones (1931)
Faxed Newspapers (1940)
3-D Movies (1953)
Nuclear Bombs as Steam Shovels (1957)
Unlimited Solar Power From Space (1968)
Interactive Television (1977)

IT 하드웨어의 발전

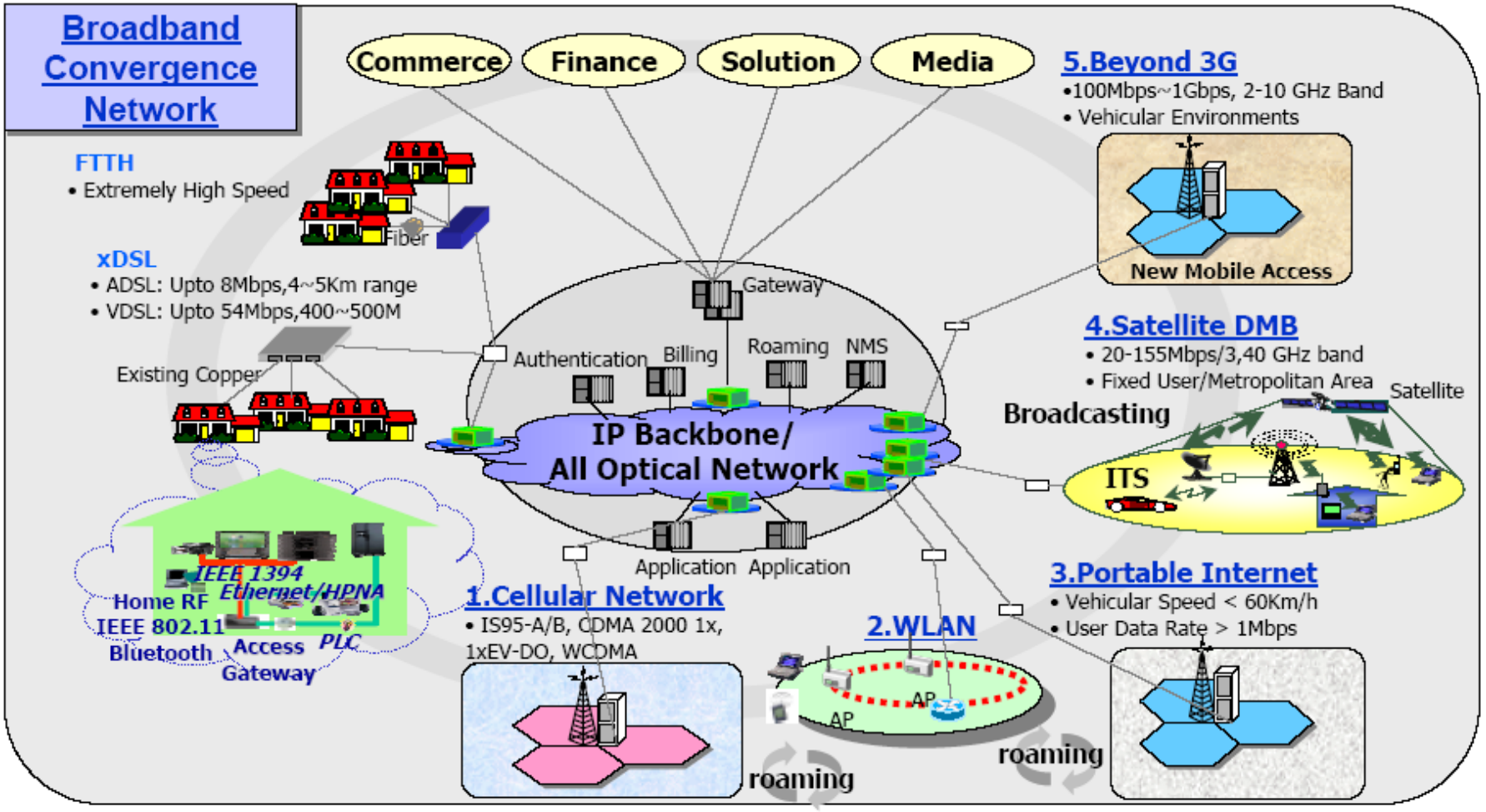


A PMG Connected World



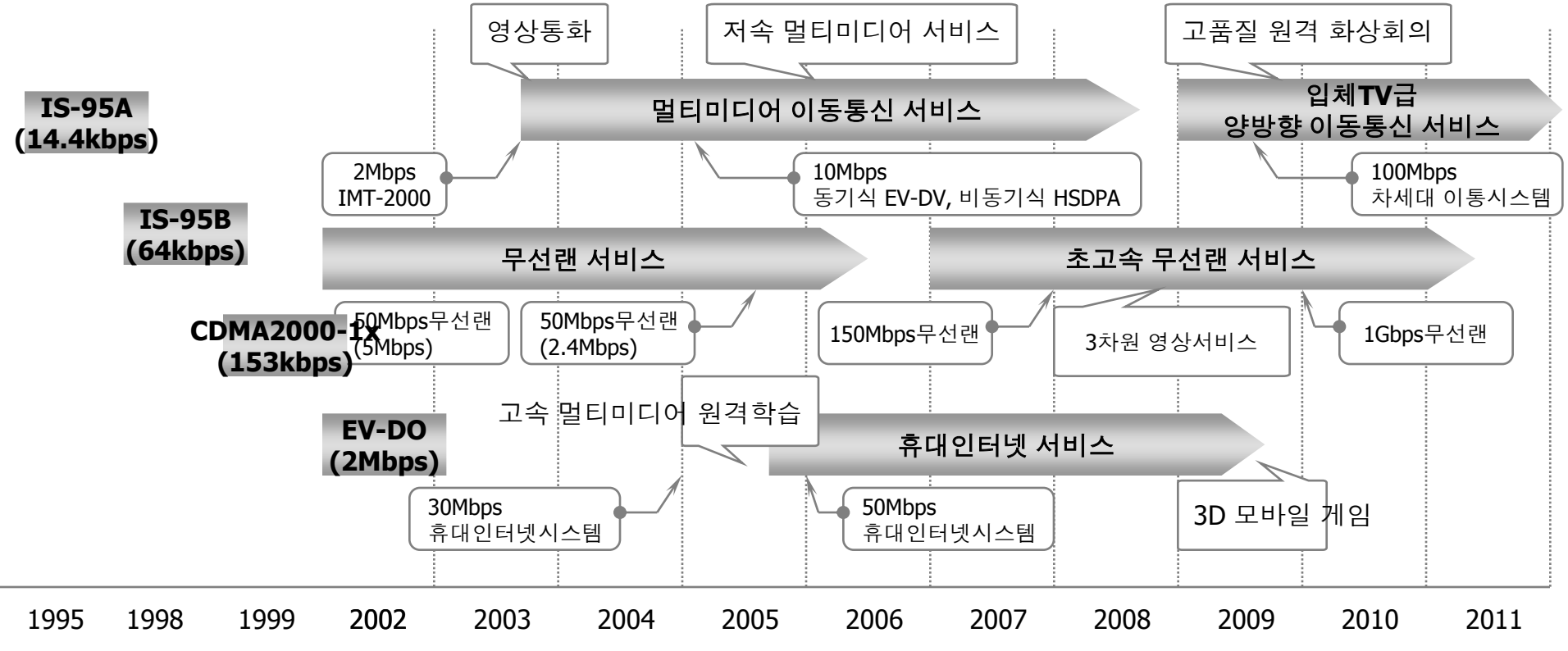


네트워크 기술의 발전



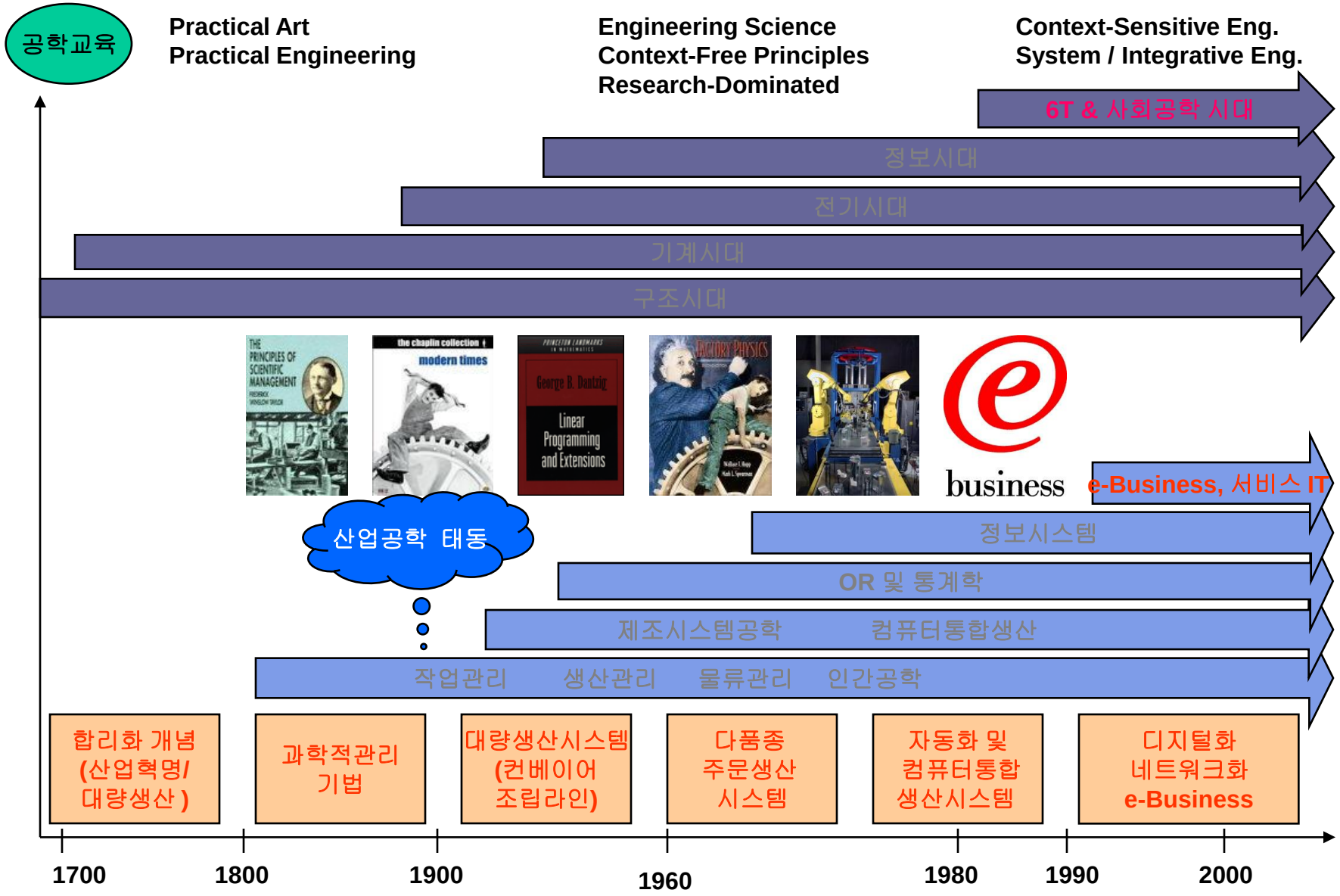
- ITS : Intelligent Transport System
- ADSL : Asynchronous Digital Subscriber Line
- VDSL : Very high speed Digital Subscriber Line
- FTTH : Fiber To The Home
- HPNA : Home Phone-line Networking Alliance
- PLC : Power Line Communication
- NMS : Network Management System
- DMB : Digital Multimedia Broadcasting

이동 통신 기술의 발전

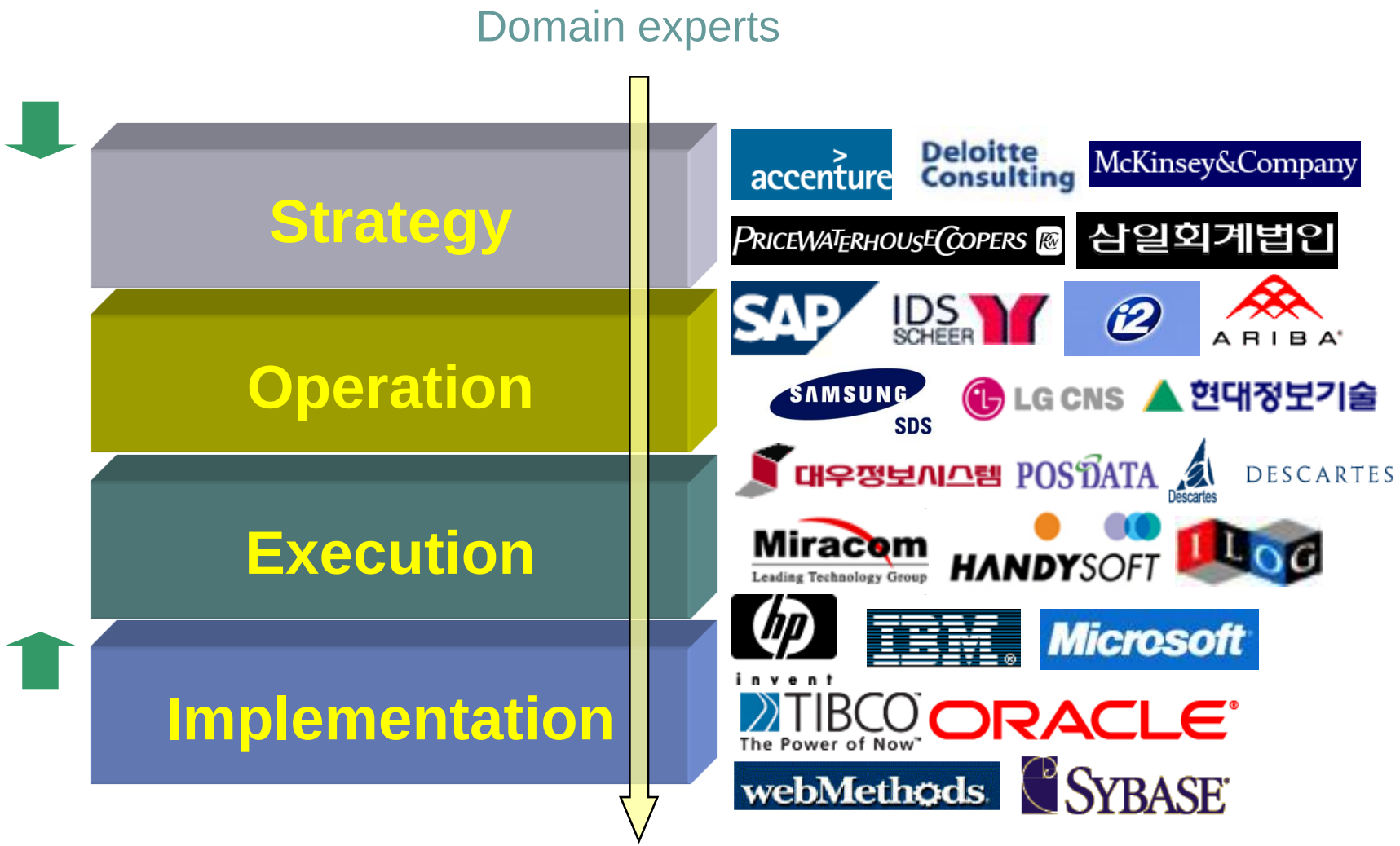


[자료재구성 : 정보통신부, 2004]

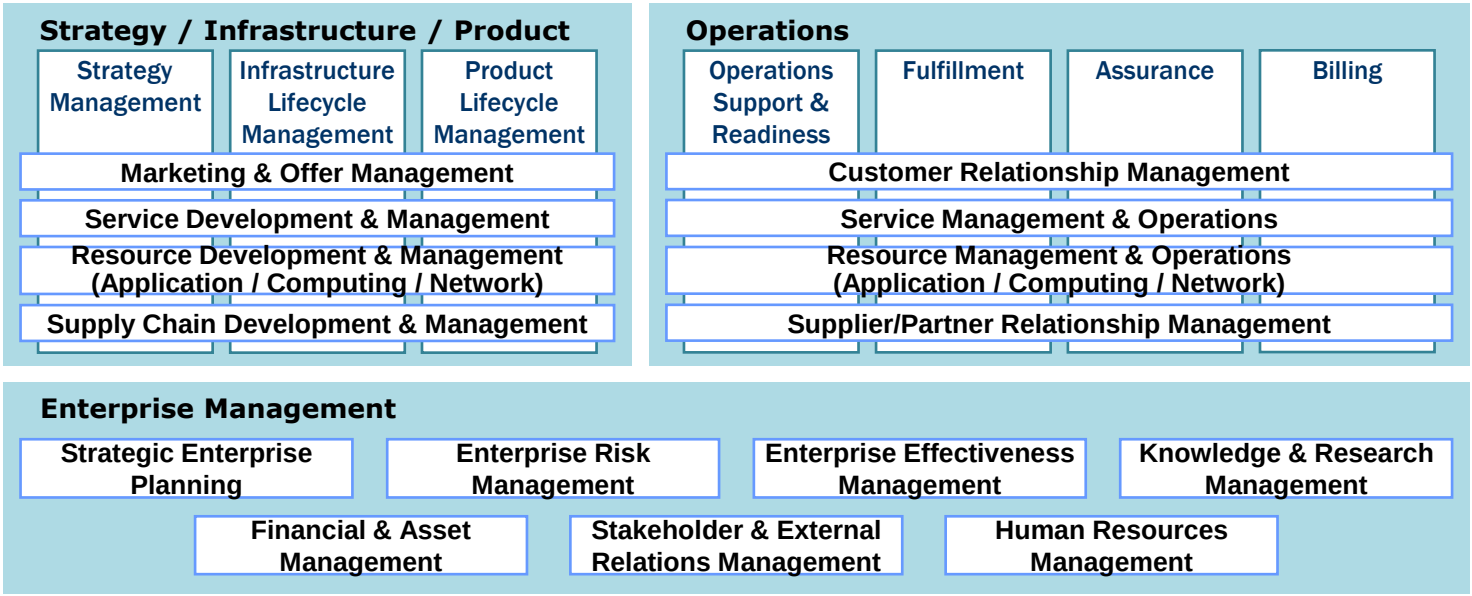
공학 및 산업공학의 발전과정

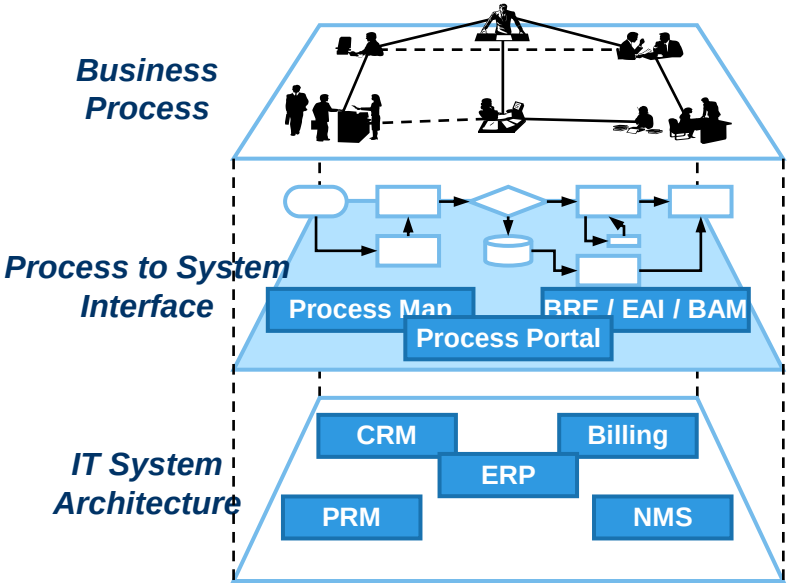


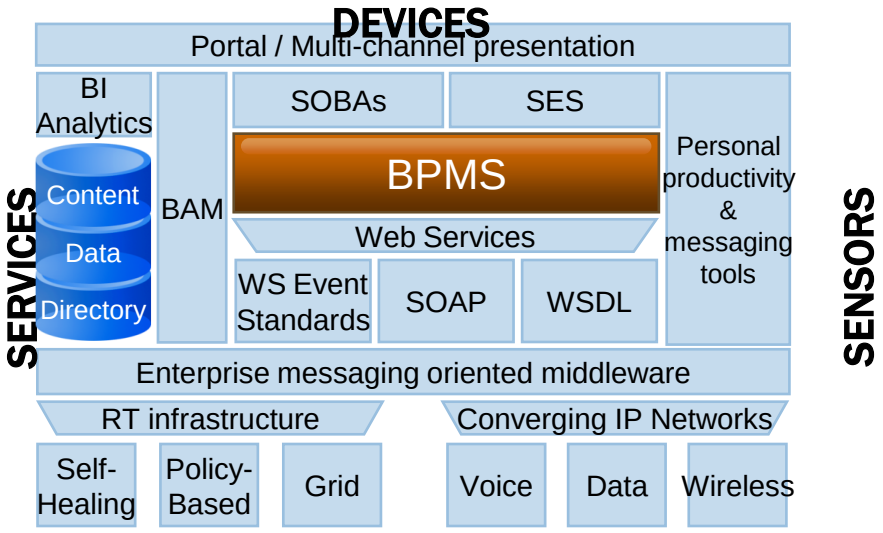
기업 IT 산업에서의 IE의 역할



기업 IT 구조


Strategy / Infrastructure / Product
Strategy Management
Infrastructure Lifecycle Management
Product Lifecycle Management
Marketing & Offer Management
Service Development & Management
Resource Development & Management (Application / Computing / Network)
Supply Chain Development & Management
Operations
Operations Support & Readiness
Fulfillment
Assurance
Billing
Customer Relationship Management
Service Management & Operations
Resource Management & Operations (Application / Computing / Network)
Supplier/Partner Relationship Management
Enterprise Management
Strategic Enterprise Planning
Enterprise Risk Management
Enterprise Effectiveness Management
Knowledge & Research Management
Financial & Asset Management
Stakeholder & External Relations Management
Human Resources Management


Business Process
Process to System Interface
IT System Architecture
Process Map
BRE / EAI / BAM
Process Portal
CRM
Billing
ERP
PRM
NMS


DEVICES
Portal / Multi-channel presentation
BI Analytics
SOBAs
SES
BPMS
Web Services
Personal productivity & messaging tools
SERVICES
Content
Data
Directory
BAM
WS Event Standards
SOAP
WSDL
SENSORS
Enterprise messaging oriented middleware
RT infrastructure
Converging IP Networks
Self-Healing
Policy-Based
Grid
Voice
Data
Wireless

기업 IT 사슬 (국내)

전사적 정보 자원 및 조직의 관리

기업 정보 시스템의 아키텍팅

기업 정보 시스템의 기획, 분석, 평가 및 운용

기업 정보 시스템의 통합 / 운영 기술의 개발

새로운 IT 기술의 평가 및 도입

수요 업체

우리은행 SAMSUNG 삼성전자 대법원 HYUNDAI Drive your way KT

SI 업체

SAMSUNG SDS POSDATA 현대정보기술 LG CNS 대우정보시스템

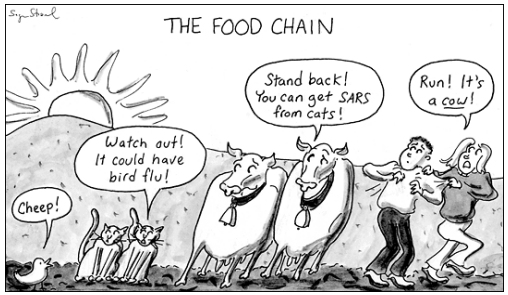
이종 정보 시스템이 원활이 상호 운용하도록 함

변화가 빠르고 유행에 민감

단기간에 급속도로 발전한 산업 분야

오늘날은 과거 어느 때보다 SW 개발에 대한 요구사항이 다양해지고 어려워 지고 있음: 비즈니스 측면, 서비스 측면, 기술 측면

기업내, 기업간 통합



개발 업체

솔루션 업체

SOMANSA Collaxa Pure Play BPEL Tmax Soft +1 dimension CUBICTHINK Miracom Leading Technology Group BROOKS AUTOMATION HANDYSOFT

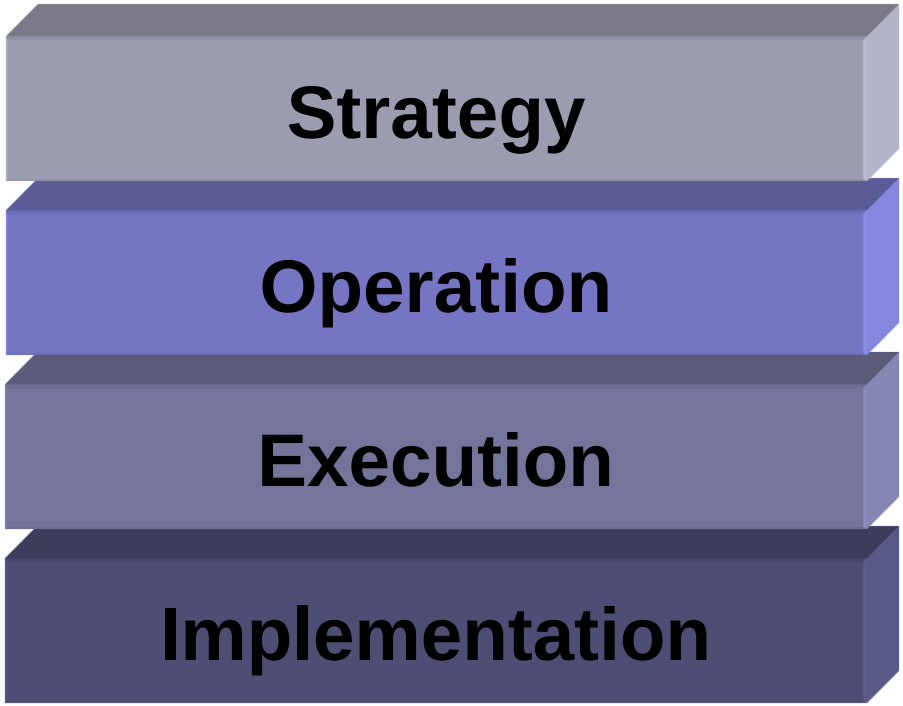
컨설팅 업체

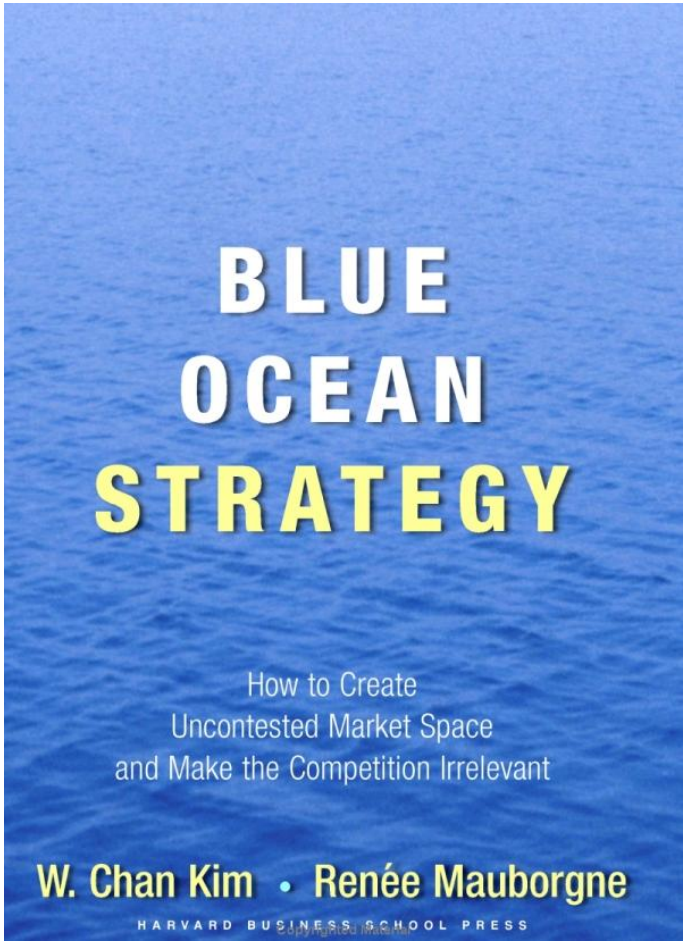
비즈니스 모델 / 전략 제시, 정보화 전략 계획 수립, 벤치마킹, 업무 프로세스 분석, IT 전략 수립, 정보화 평가 등

삼일회계법인 IBM McKinsey&Company Deloitte Consulting accenture

Blue ocean

- **BUSINESS + TECHNOLOGY**





let's get started

- course home page: http://di.snu.ac.kr/moniwiki/wiki.php/Courses
- some comments on the course syllabus
- TA: Mr. Yong Ki Lee (1st year MS student at DI lab)
- introducing yourself
- survey questions
  - fluency in e-Business
  - fluency in XML
- note of absence: http://www.web2expo.com/

term project (20%)

- topic: BPEL application
- team composition: March 27, 2007
  - up to 3 people
- system design (5%): April 26, 2007
  - design report
- system implementation (15%): June 12 & 14, 2007
  - final presentation & report