



*SRG*

*Strategic Research Group, Inc.*

Capabilities Overview and Statement

*...Research that informs Advanced Technology Investment success...*

# SRG, Inc. Research Products/Services

## Analytical Services

- **Industry Analyses** (e.g., R & D Structure, Competitive Landscape, Critical Success Factors -- Legislative Assessment, Technology Trends, Technology Alliance Protocols and Deal Structure Standards, etc.)
- **Technology Assessments and Triage** (product and process technologies)
- **Intellectual Property (IP)/Patent Assessments** (e.g., Delphion <sup>TM</sup>, etc.)
- **Competitive Analyses** (Advanced Technology-Driven Firms)
- **Product-Market Assessments**
- **R&D Channel Management Services** (e.g., IP-grounded Product-Market Commercialization Planning and Management)
- **New Venture Assessments**
- **Technology Valuation Analyses**

# **SRG, Inc. Research Products/Services -- Continued**

## **Business Development Services**

- **Corporate Strategy Formulation** (Functional Area Audits)
- **Technology Innovation Management Strategy Development**
- **Market Research** ( Product Placement)
- **New Venture Business Models Development** (I.e., Pro Forma Development)
- **For Profit/ Not-for-Profit Governance Structures**

## **Management Services**

- **Information Technology (IT) Account Review and Management**
- **IT Sales Force Planning and Management**
- **University Intellectual Property Management Program Implementation**
- **University-Industry R&D Liasion Management**
- **Project Management**

# What's A "Valuation" Analysis ?

**Purpose:** *Pricing Licenses and IP Deal Structure*

## ***APPROACH***

- **Assess (Product-) Markets and Competition**
- **Know Industry Structure and Modes of Competition** through R & D Infrastructure/Arrangements
- **Assess Trends in Industry's Critical Success Factors**
- **Assess Technology's Potential Impact** –
  - The Products
  - Manufacturing Production Technologies
- **Business Models** (Generic Organization, Pro Forma Financials) Valuation Models of Choice -- Industry Partners, Investment Community, Governmental Sources of Capital
- **Potential License's Valuation**
  - Theoretical -- Market Share/Net Present Valuation, Impacts
  - Operational -- Fair Market Value of Comparable Licenses
  - Expert Opinion -- License Fees (Deal Terms)

# *Sample List of Assignments*

- American Gas Association (Roslyn, VA)
- Association of University Technology Managers (Chicago Southern California League of Cities, Council Area of Governments (LA, CA)
- South Carolina World Trade Center (, IL)
- Boston University -- Photonic Laboratory (Boston, MA)
- Boston University – Entrepreneurship Management Institute
- GMAC Mortgage (Braintree, Ma)
- Ford Motor, Inc., New Car Planning (Dearborn, MI)
- IBM/Rolm Systems (Lexington, MA)
- US Department of Energy- HQ, Conservation Research Technology (Washington, DC)
- US Department of Interior – HQ
- Battelle Memorial Institute (Washington, DC offices)
- Battelle Pacific Northwest Labs. (Washington, DC)
- Hewlett-Packard, Inc., formerly *DEC* Office Systems New Ventures (Merrimac, NH)
- Hampton University (Hampton, Virginia)
- US Small Business Administration - HQ Energy Policy Advocacy (Washington, DC)
- Office of Technology Assessment, US Congress, (Washington, DC)
- Old Dominion University’s Bank of America Center for Entrepreneurship (Norfolk, VA)
- Science Applications, Inc. (McLean, VA)
- Charleston, SC)
- University of North Carolina (*GA, Western Carolina University*, and *NC A&T SU*), Western Carolina region
- Piedmont Triad Angel Network (Piedmont Region)
- Virginia Center for Innovative Technology (Herndon, VA)

# Your First Steps

## **SRG, Inc. Follow-up Contact(s):**

Ralph B. Saunders II, Principal,  
Commercial Technology Valuation Practice Area  
336.286.2117

**Email:** [docsaunders@strategicresearchgroup.net](mailto:docsaunders@strategicresearchgroup.net)

## **Business Address:**

SRG, Inc.

**or**

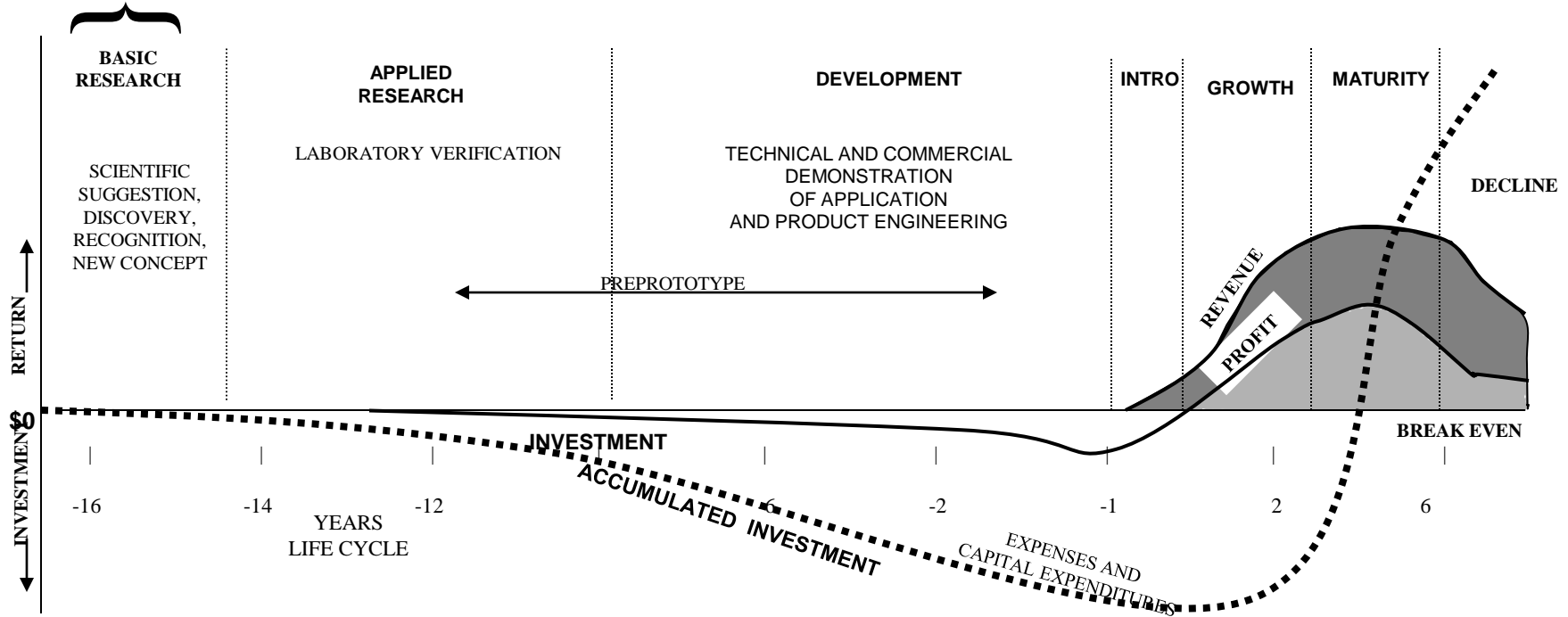
P.O. Box 1173  
Cullowhee, NC 28723

P.O. Box 55452  
Virginia Beach, VA 23471

# Backup Slides

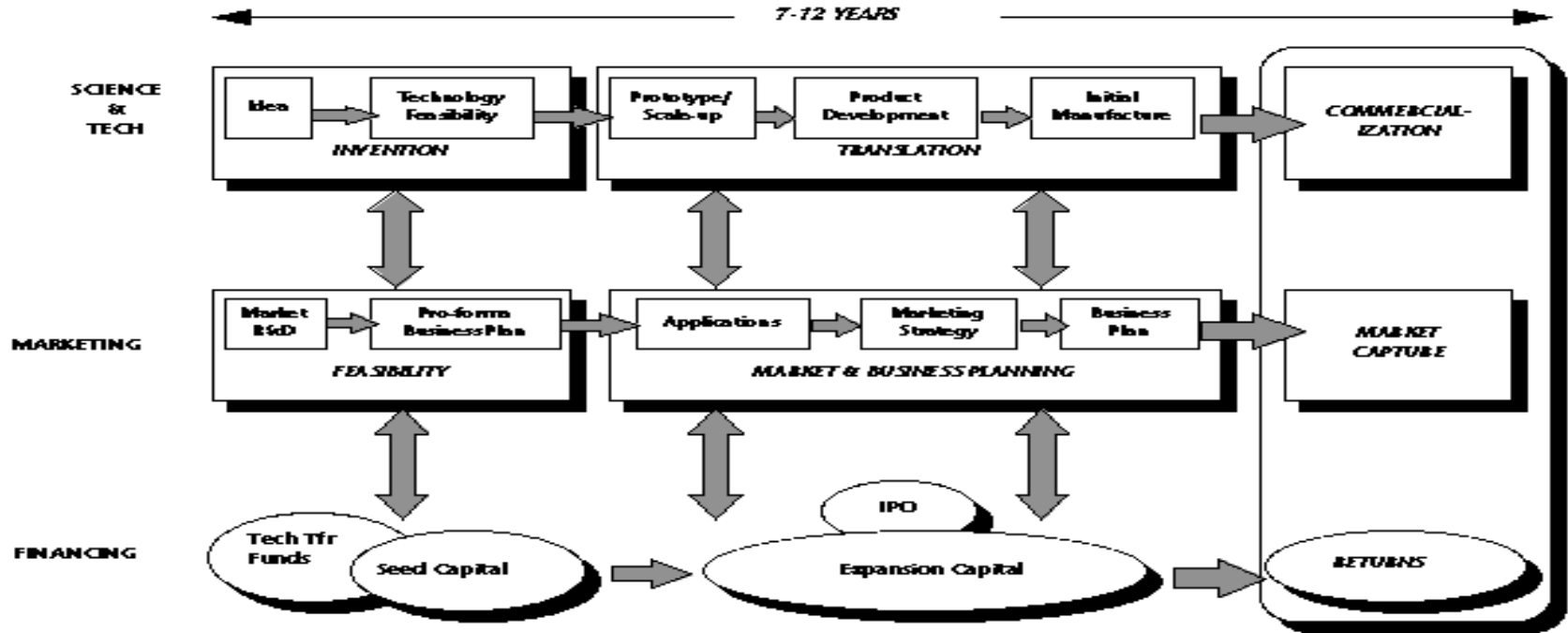
*...Research that informs Advanced Technology Investment success...*

# Key Concepts: *Cycle of Technology Development*



**FIGURE 1. Technology Research and Development Process** (adapted from Booz 1976; Renault 1996)

# Technology Commercialization Process



Source: UBC, UILO "Report on UBC Spin-off Company Formation and Growth", A. Livingstone, 1997

# Instruments of Intellectual Property

- **Disclosures** (*triggers Bayh-Doyle compliance*)
- **Copyrights** (*e.g., software, dissertations, webpages, textbooks, “works of art”*)
- **Patents (Ownership)** (*20yrs, 17 after process*)
- **Trade and Service Marks** (*10yrs with use*)
- **IP Ownership** (*assignments*)
- **Licenses** (*annual review, negotiated*)

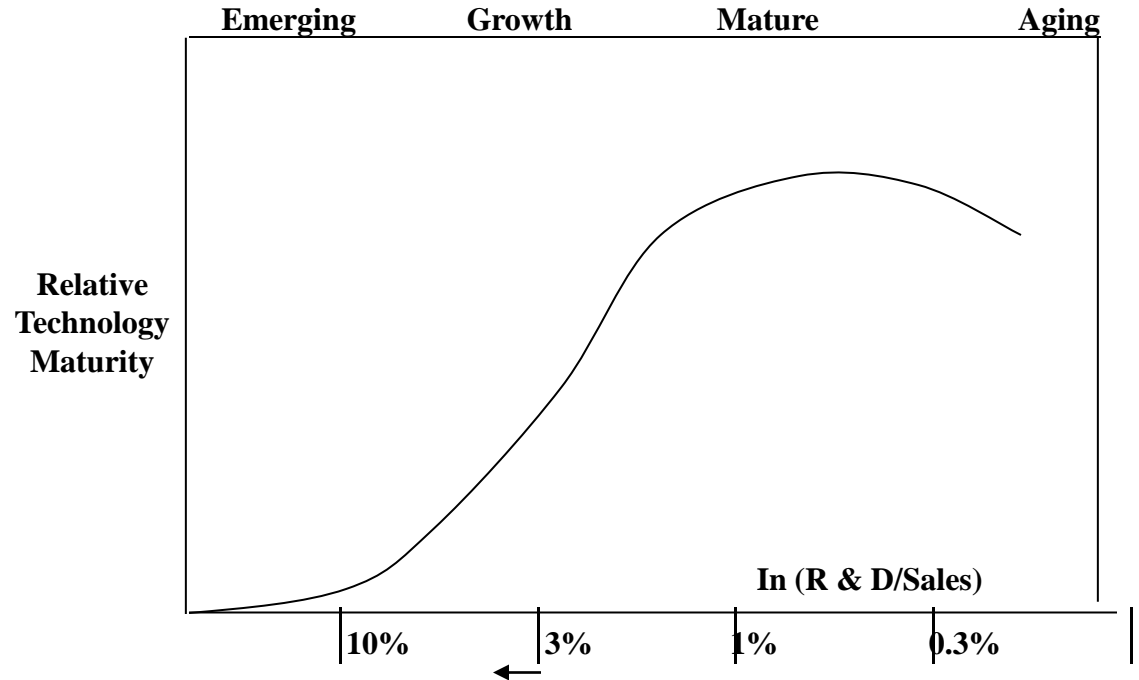
# What's In A "Valuation" Analysis ?

*Purpose: Pricing Licenses and TT Deal Structure*

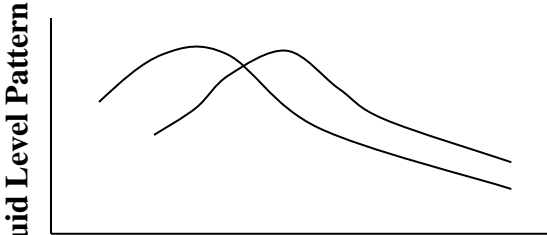
## Approach:

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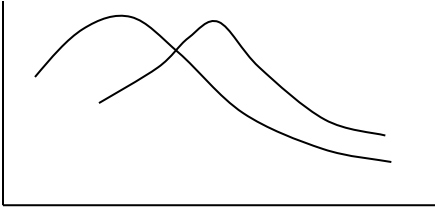
# The S-Curve, The Product Life Cycle (MacAvoy 1993)



# Dynamics of Product and Process Innovation (Adapted from Utterback 1996)

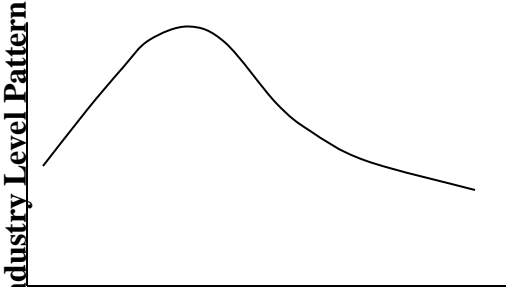


First Wave

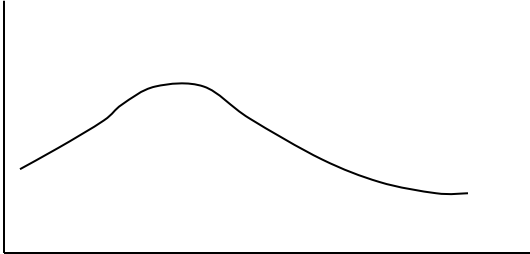


Second Wave

## Total Number of Firms in the Industry

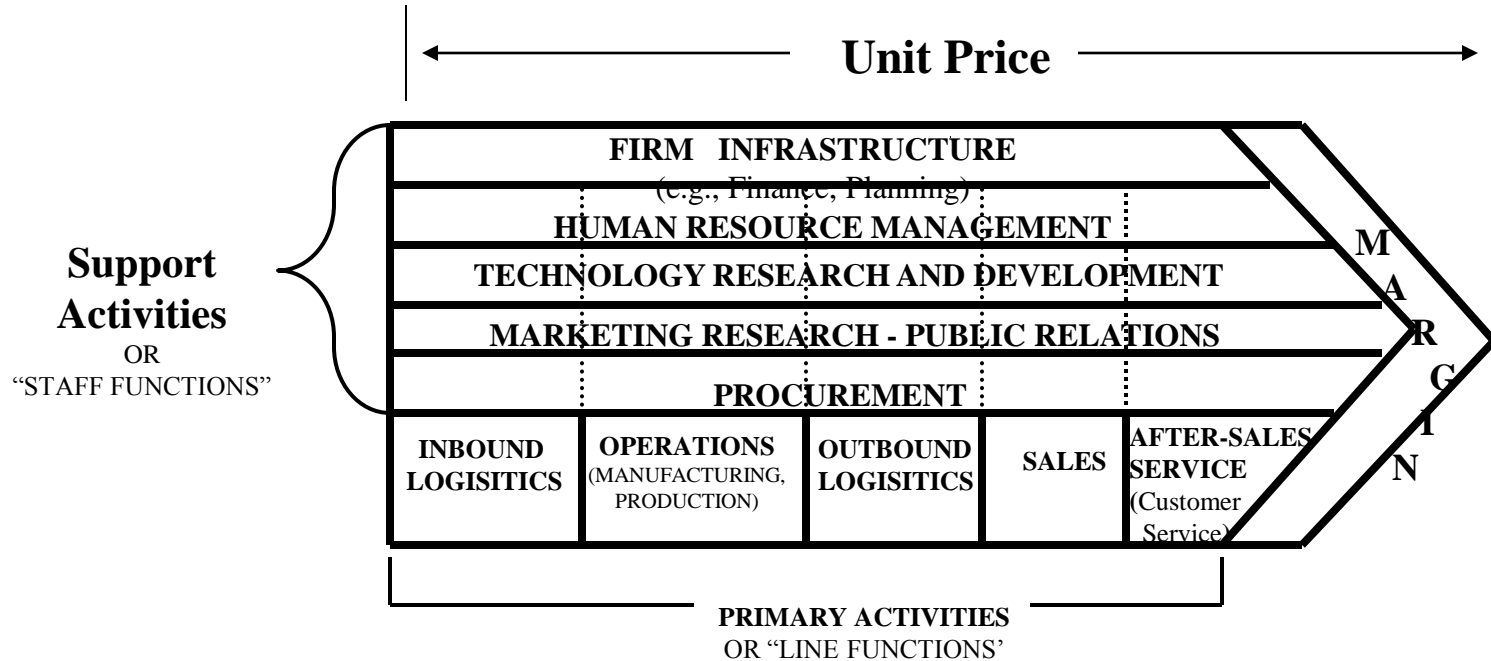


Fluid Transitional Specific  
PHASES



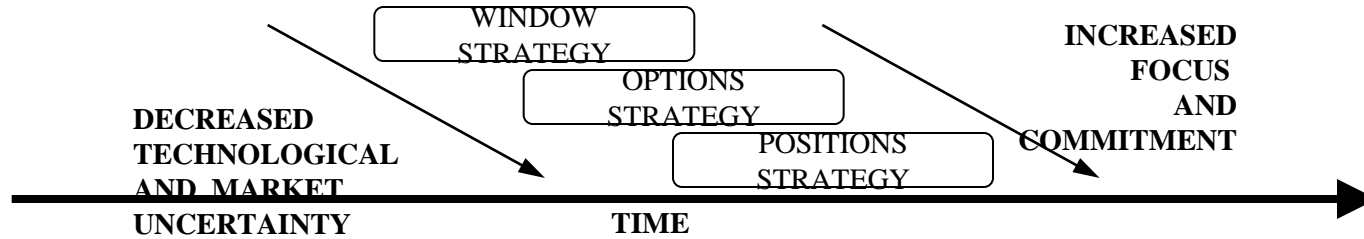
Fluid Transitional Specific  
PHASES

# The Fundamental Enterprise Model



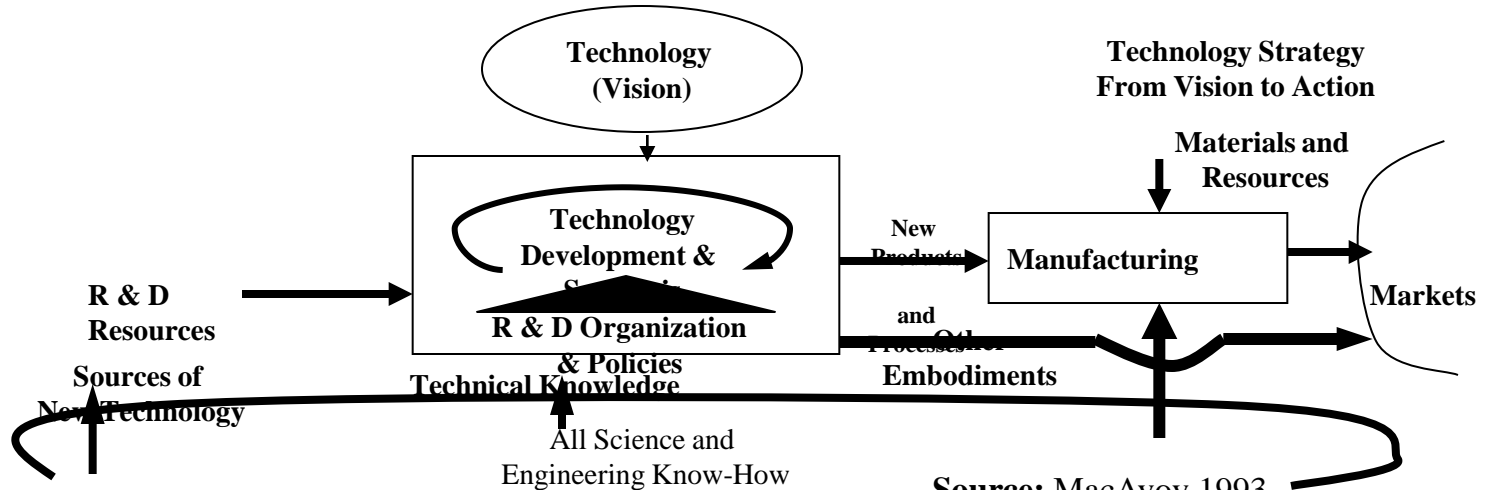
SOURCE: Porter 1990, pg. 41, 1985, 1984

# Progression of Technology Strategies



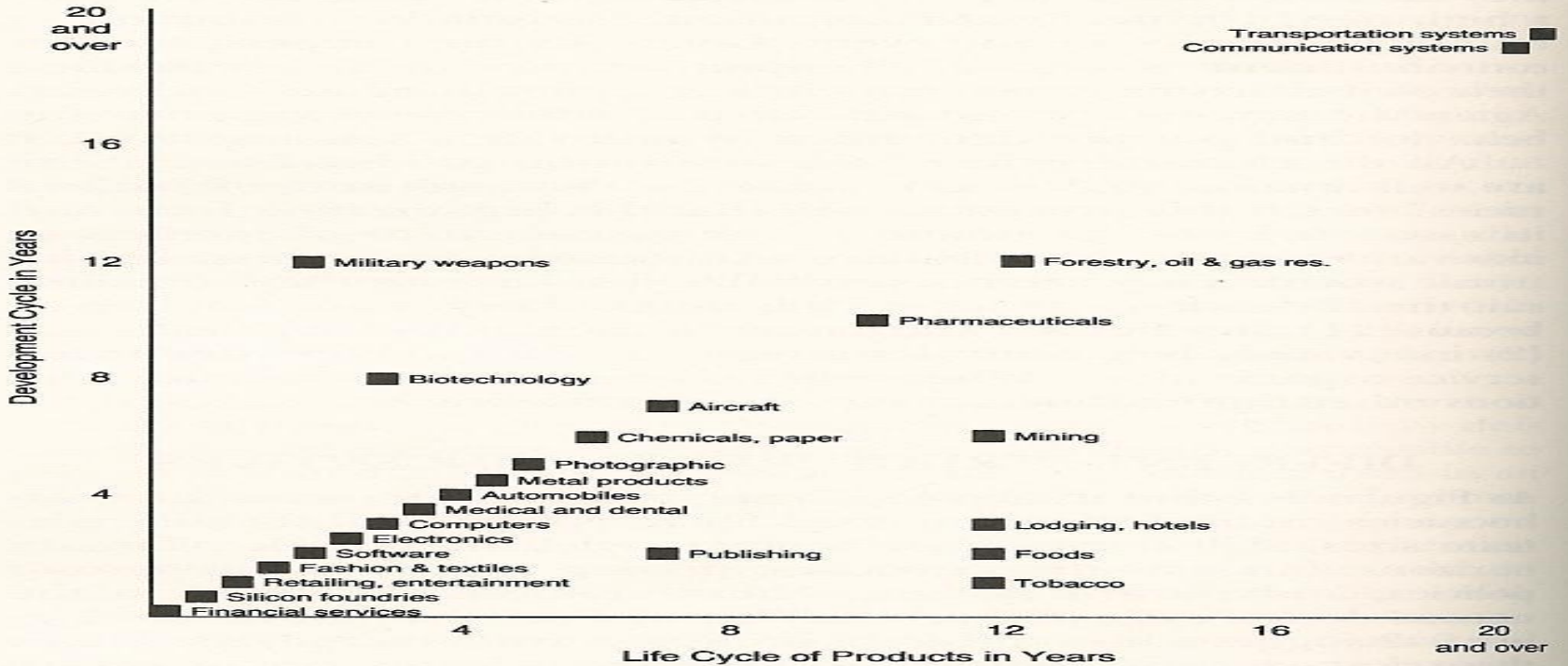
Source: Hamilton 1986

# Architecture of Commercial Technological Strategy Management



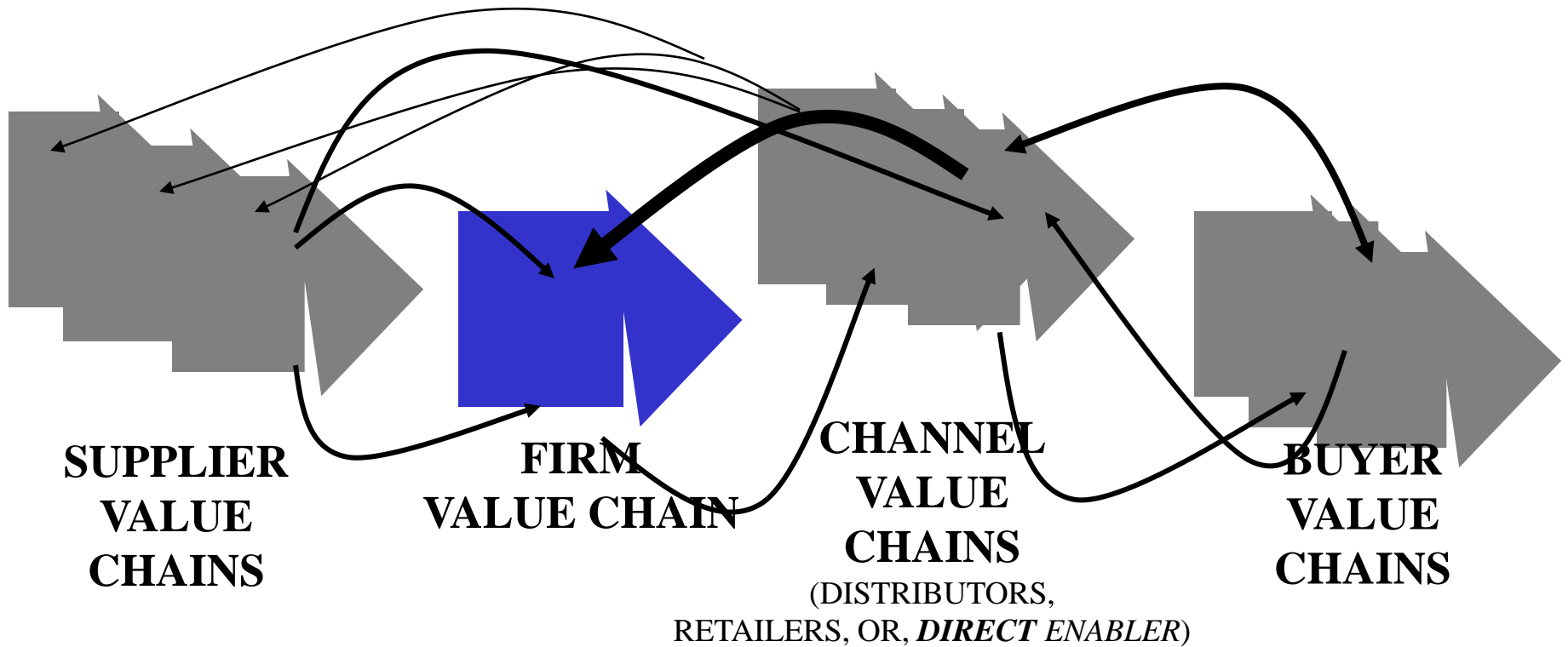
Source: MacAvoy 1993

**FIGURE 9-2**  
**Typical Time Horizons by Industry**



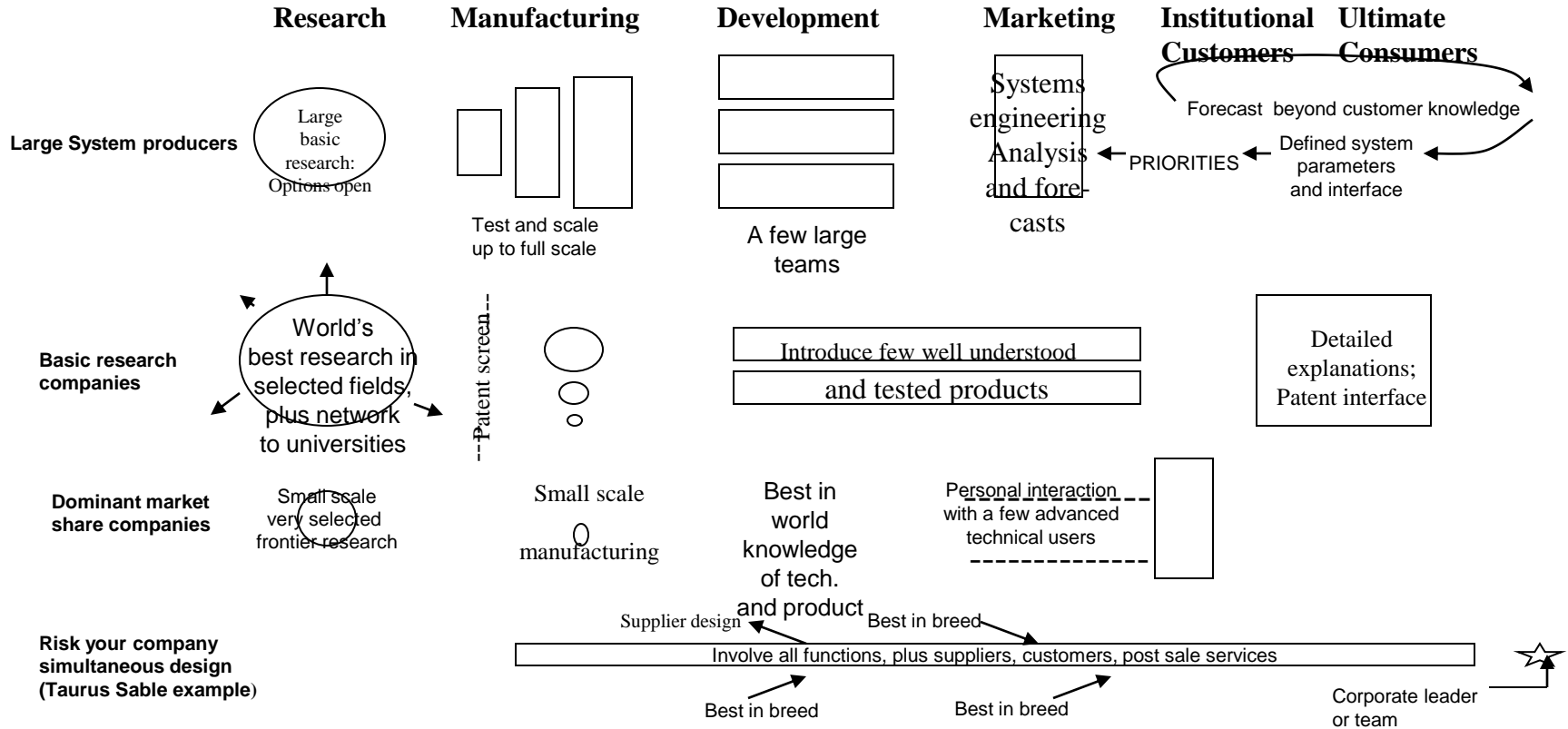
Source: Adapted by the author from a concept first introduced by Professor W. H. Davidson of the University of Southern California at a seminar at Boca Raton, Florida, spring 1986.

Source: Quinn (1992) "Intelligent Enterprise".



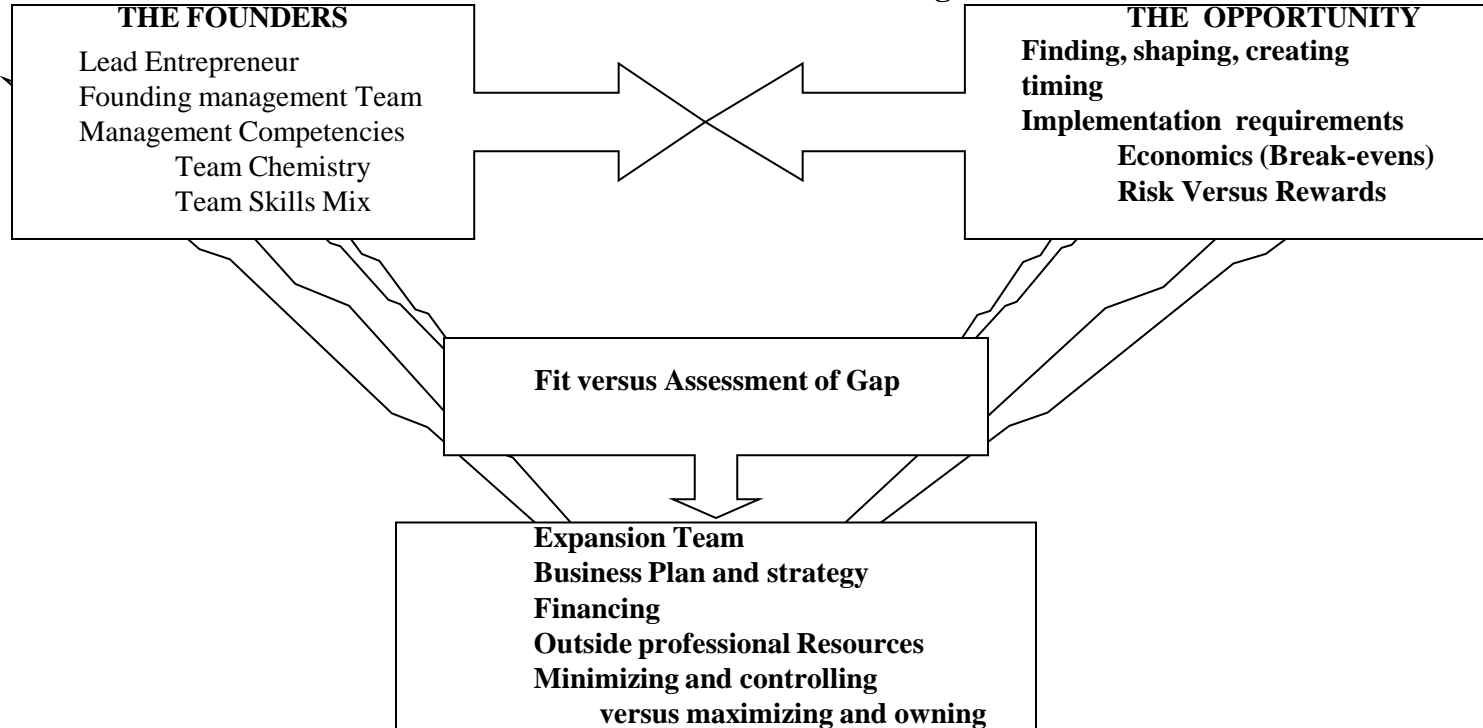
**The Value System**

Source: Porter 1990



## Innovation Structures (adapted from Quinn et al. 1997)

## New Venture Creation : The Driving Forces

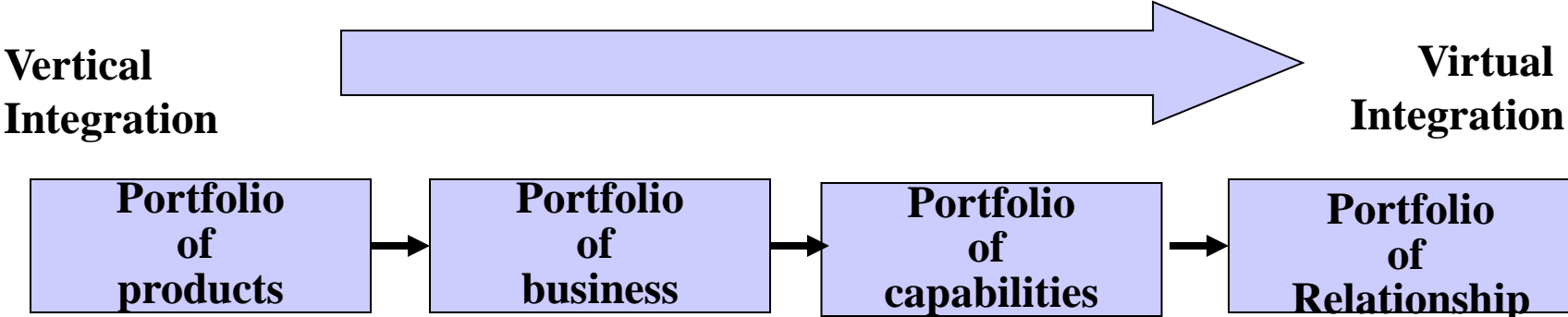


Source: Timmons et al 1986, 2002

# Shifting Commercial Realities

- **From Vertical to Virtual**
- **From Value Chain to Value Networks**
- **From Hierarchical Structures to Innovating Organizations**

# Shifting Realities - Strategic Evolution of the Value Network



Source: N. Venkatraman, 1997

## Key Definition(s) (Cont'd)

“Basic Research: (*Science only*)

**Objective --** To gain more comprehensive knowledge or understanding of the subject under study, without specific applications in mind.

“Basic Research: (*Industry*)”

“... **Defined** as research that advances scientific knowledge but **does not have specific immediate commercial objectives**, although it *MAY* (emphasis added) be in fields that present a potential commercial interest.”

-- Science and Engineering Indicators  
**NSB 1998** pg 4.9

## Key Definition(s) (Cont'd)

“Applied Research”: (*Science only*)

**Objective** -- aimed at gaining the knowledge to meet a **specific, recognized need**  
(Advances/solutions)

“Applied Research”: (*Industry*)

“...Includes investigations oriented to discovering new scientific knowledge that has **SPECIFIC** commercial objectives with respect to products, processes or services...”

“Development” --

Systematic use of knowledge gained from research directed toward the production of useful materials, devices, systems, or methods, **including the design and development** of prototypes and processes.

-- Science and Engineering Indicators, **NSB** 1998 pg 4.9