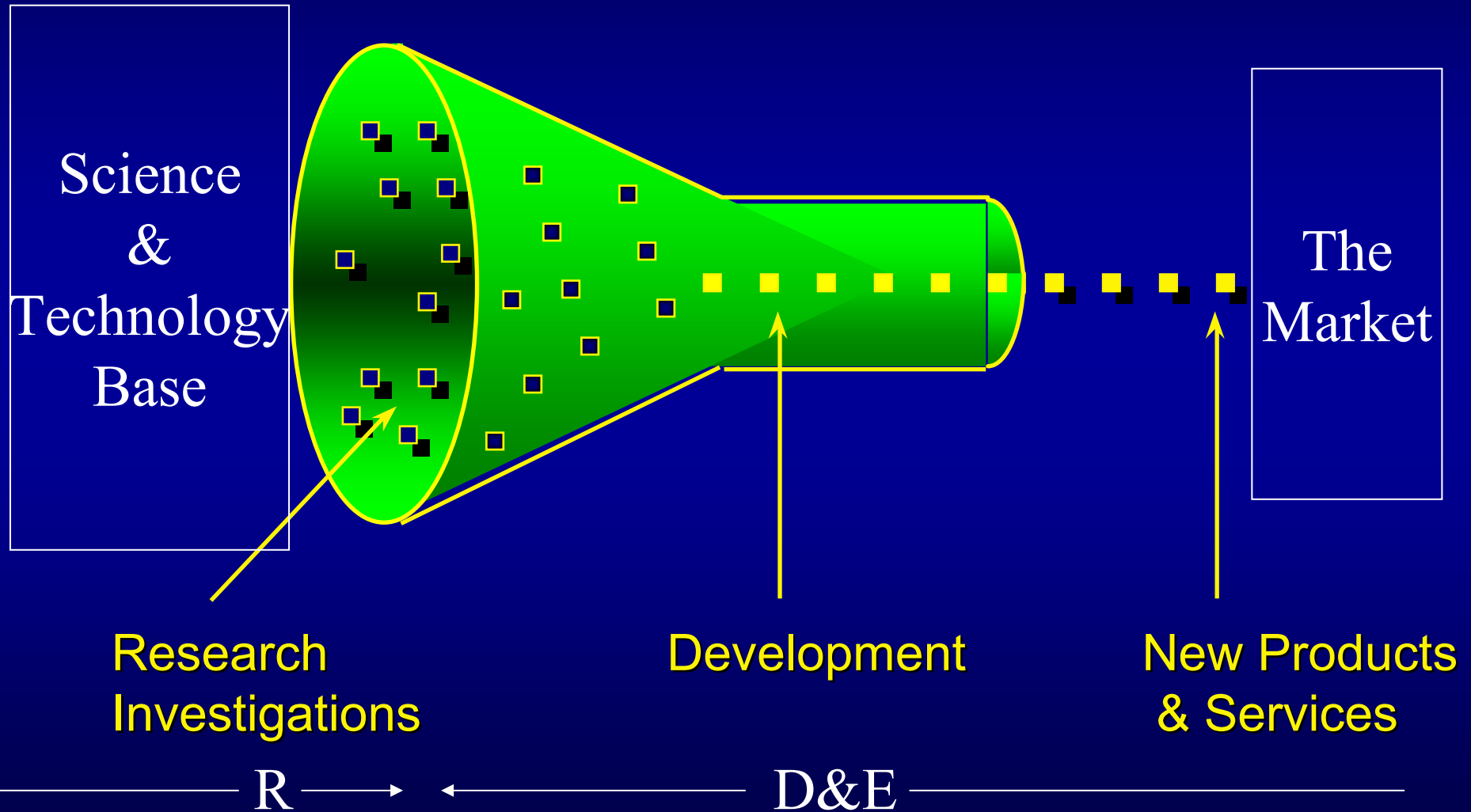


Business Model Innovation: The Next Frontier in Innovation

Presentation on the Occasion of
the Launch of “Open Business Models”
Firenze, Italia

Henry Chesbrough
Haas School of Business
UC Berkeley

The Current Paradigm: A Closed Innovation System



Great Successes from the Closed Innovation Model

- The Venetian Glass Industry
- The Roman Catholic Church
- The Chemicals Industry – Germany and later US
- Edison, GE, and the rise of electrification
- Vannevar Bush – Science: The Endless Frontier
- Chandler: Internal R&D key to the rise of the modern US corporation in 20th century

Hidden Assumptions in the Internally-Focused Innovation System

If I discover it, I will find a market for it.

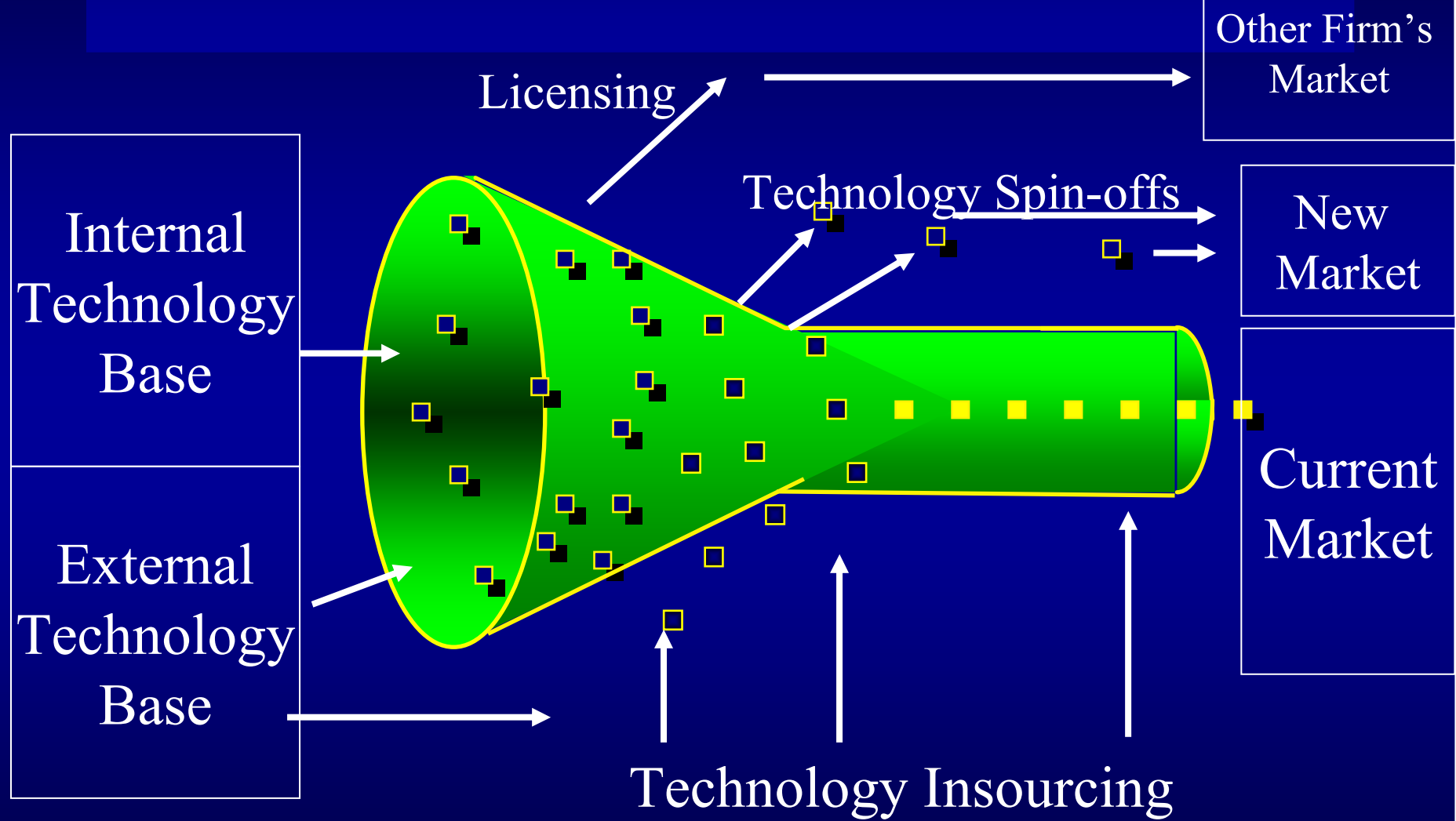
If I discover it first, I will own it.

The important technologies I will need can be anticipated in advance.

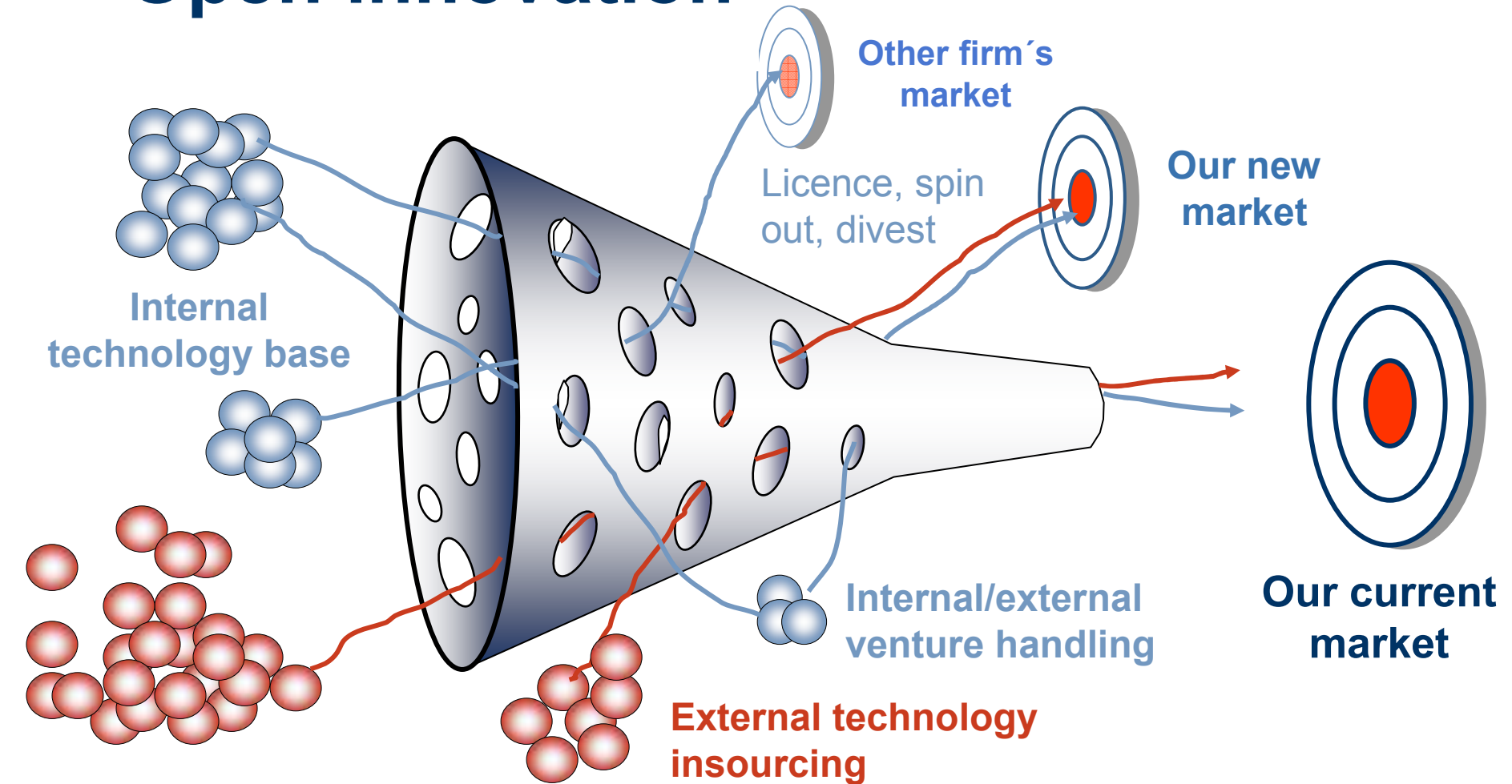
“Misfits” are regrettable, but are a cost of doing business.

The best people in this field work for us.

The Open Innovation Paradigm



Open innovation



External technology base

Stolen with pride from Prof Henry Chesbrough UC Berkeley, Open Innovation: Renewing Growth from Industrial R&D, 10th Annual Innovation Convergence, Minneapolis Sept 27, 2004



The Logic of “Open Innovation”

- Good ideas are widely distributed today. No one has a monopoly on useful knowledge anymore.
- Financial managers must play poker, as well as chess, to capture the value in false negatives.
- We must manage IP in order to manage research:
 - need to access external IP to fuel our business model
 - need to profit from our own IP in others’ business model
- Not all of the smart people in the world work for us.

What is Innovation?

Before

- Invention
- Product

- Technology-driven
- Internally generated
- Engineering's job

What is Innovation?

Before

- Invention
- Product
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After

- Commercialization
- Business, including process and biz model
- Business/value-driven
- Internal Integration of int. and ext. stuff
- Everyone's job

What is a Business Model?

- Creates Value
- Captures a portion of that value

What is an Open Business Model?

- Uses both internal and external sources to create value
- Uses both internal and external sources to capture a piece of that value

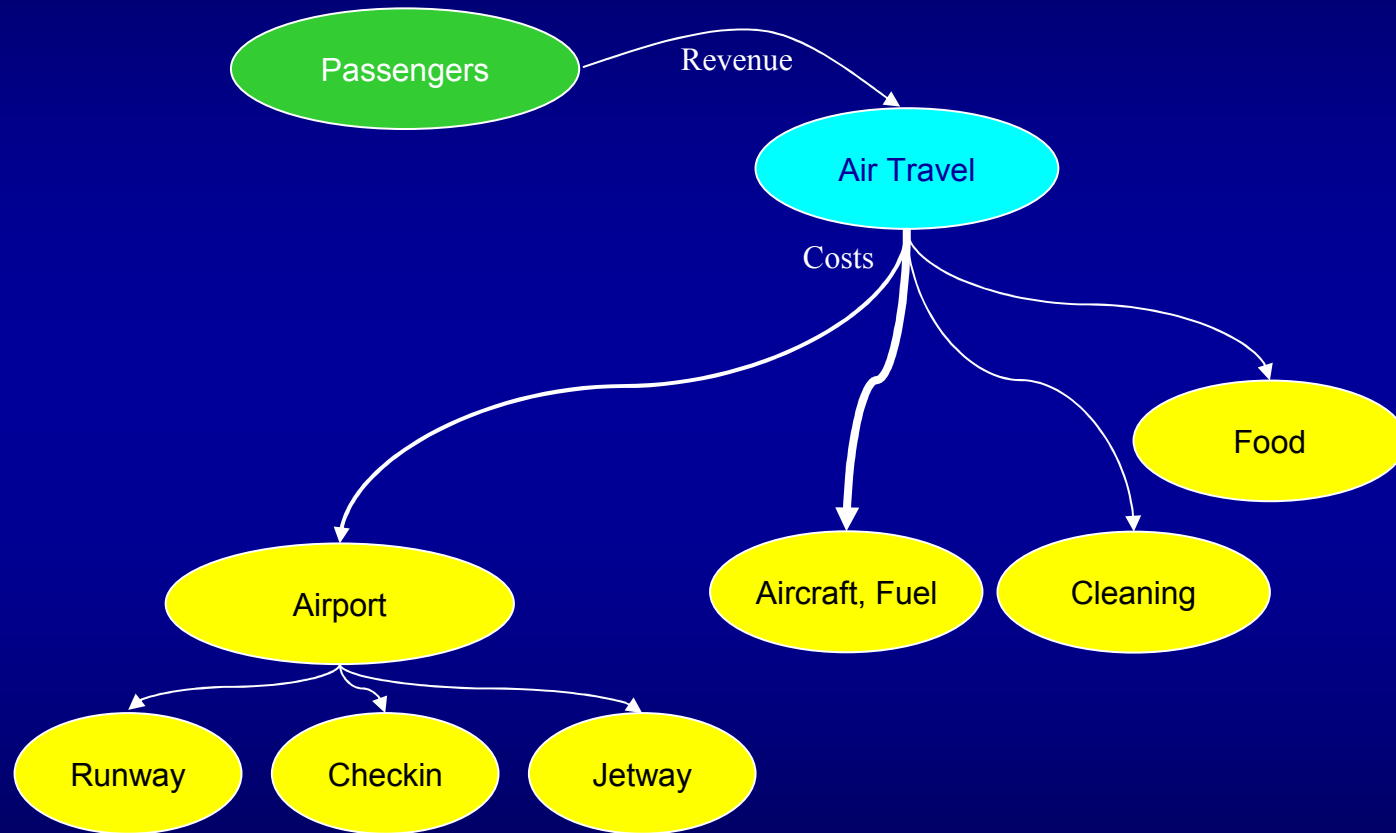
Which Would You Rather Have?

- A Better Technology

Or,

- A Better Business Model

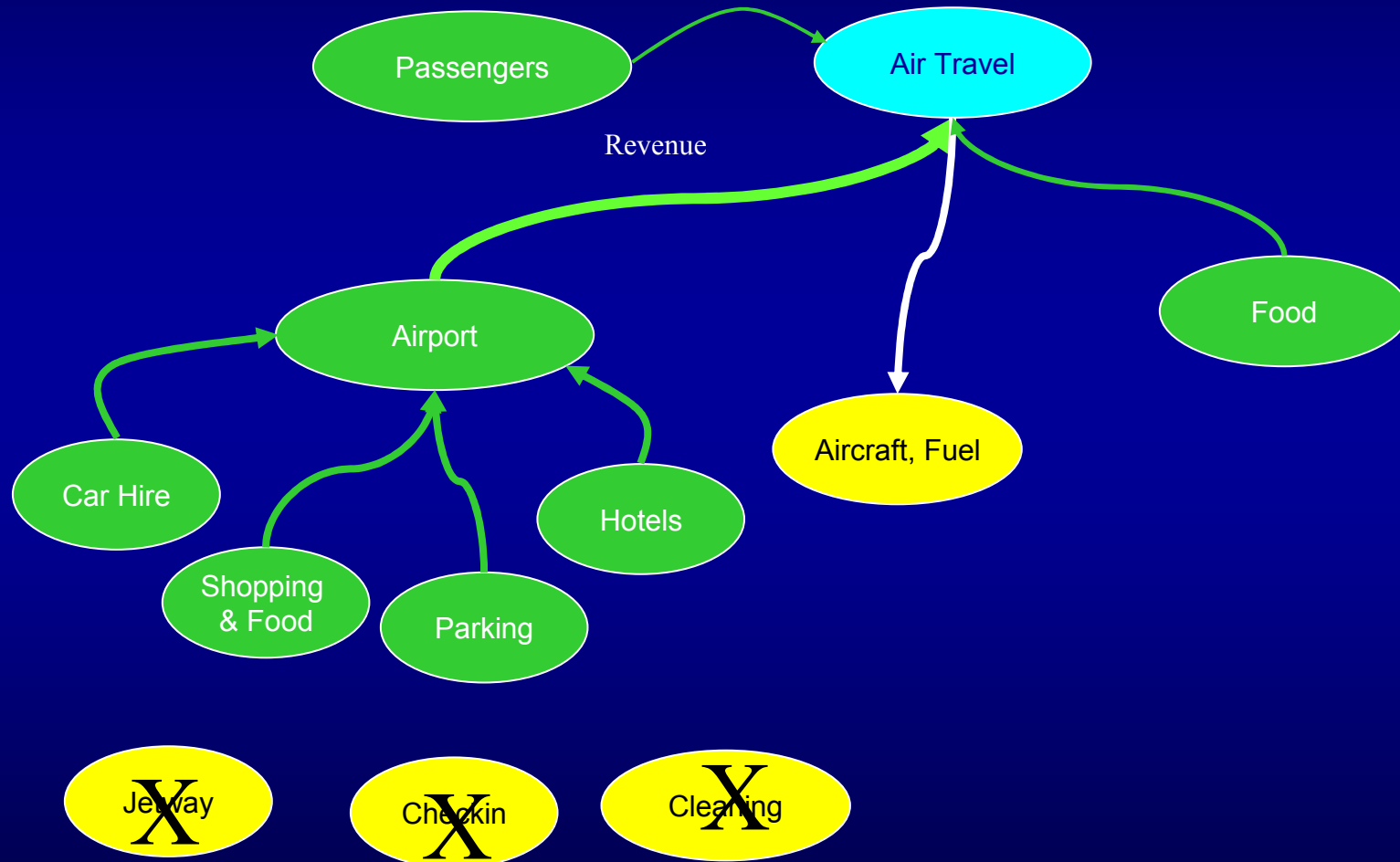
Graphic Illustration of a Generic Airline Business Model



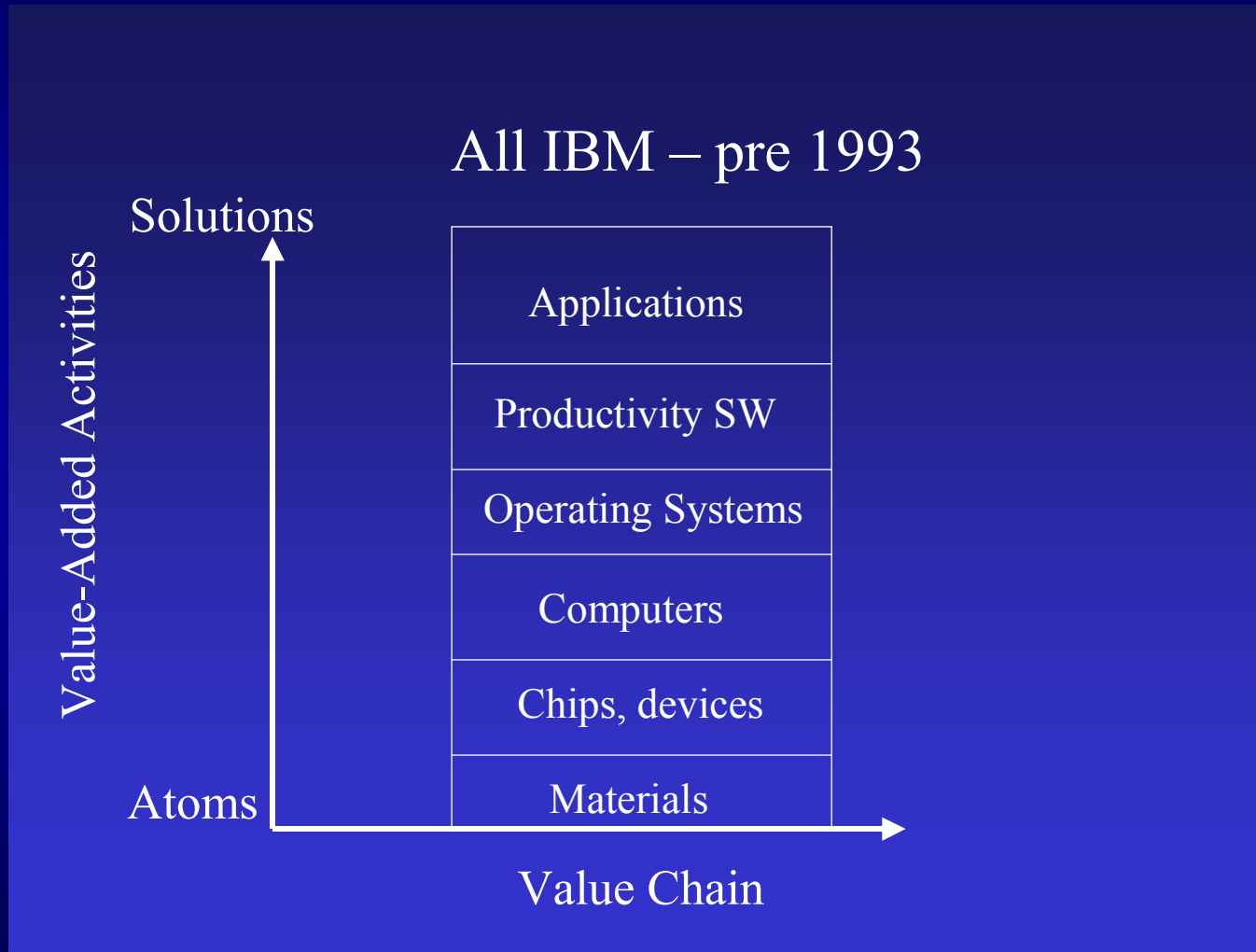
Ryan Air

- Ryan Air is a regional low-fare airline operating in the United Kingdom and northern Europe.
 - Only flies into regional airports, no landing fees.
 - Guarantees airport certain # passengers in their terminal
 - Airport pays Ryan Air to operate out of its airport
 - Airport provides Ryan Air a percentage of the revenues from shops, restaurants, car hire and hotels at airport.

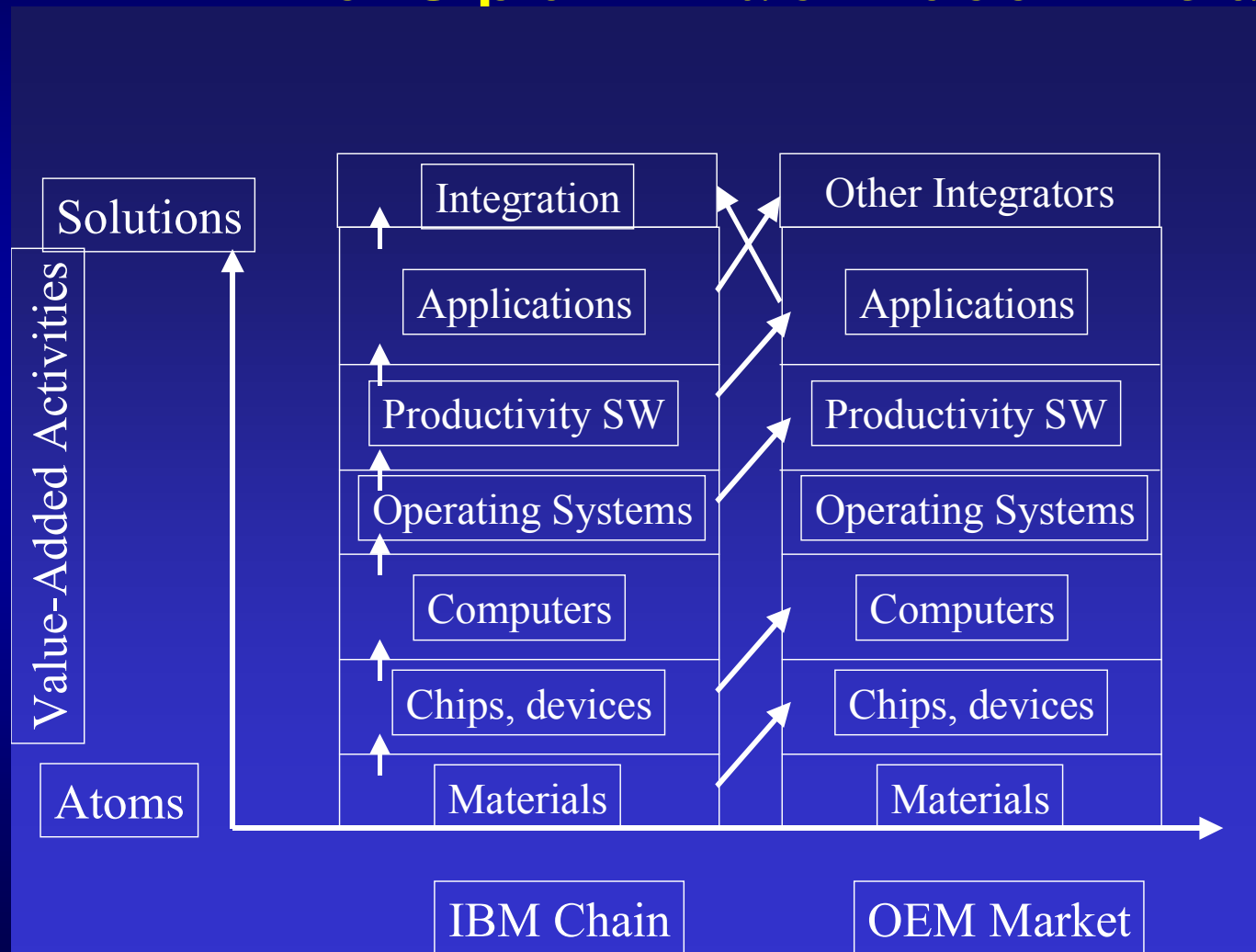
The Ryan Air Business Model



IBM: Its Closed Value Chain



IBM's Open Business Model



IBM's Open Source Business Model

- Spends about \$100M each year on Linux
 - 50% for general improvement
 - 50% for specific improvements for IBM gear
- Others spend another \$800M a year
- IBM creates value through Linux
 - Also donates development tools, patents
- IBM captures value through value-added services and software “up the stack”

The Business Model

- Identifies a **market segment**
- Articulates the **value of the proposed offering**
- Focuses on the **key attributes of the offering**
- Defines the **value chain** to deliver that offering
- Creates **a way for getting paid**
- **Establishes the value network** needed to sustain the model

Business Model Maturity Stages

6 stages

1. Undifferentiated business model
2. Differentiated business model
3. Segmented business model
4. Externally aware business model
5. Integrated business model
6. Platform leadership business model

Stage 1-Undifferentiated

- Commodity
- No differentiation
- Hard work, hustle, luck
- Can't attract capital, can't scale

- Example: most restaurants

Stage 2-Differentiated

- Performance advantage
 - Ad hoc processes
 - Hard to sustain
 - “one hit wonders”
-
- Example: most technology startups

Stage 3 - Segmented

- Can serve multiple segments
 - More profit, more volume (low cost)
 - More sustainable
 - Still too internally focused
-
- Example: many industrial firms; Xerox

Stage 4 – Externally Aware

- Now harnesses external sources of technology to complement internal
- More “at bats” with same dollars
- Share risks as well as rewards
- Broader market now available to serve

- Example: SAP R/3; Big Pharma

Stage 5 - Integrated

- External sources routinely utilized to fuel your business model
- Unused internal ideas allowed to flow outside to others' business models
- Company becomes a systems integrator of internal and external technologies
- Examples: Millennium, other biotechs; Nike; Procter & Gamble

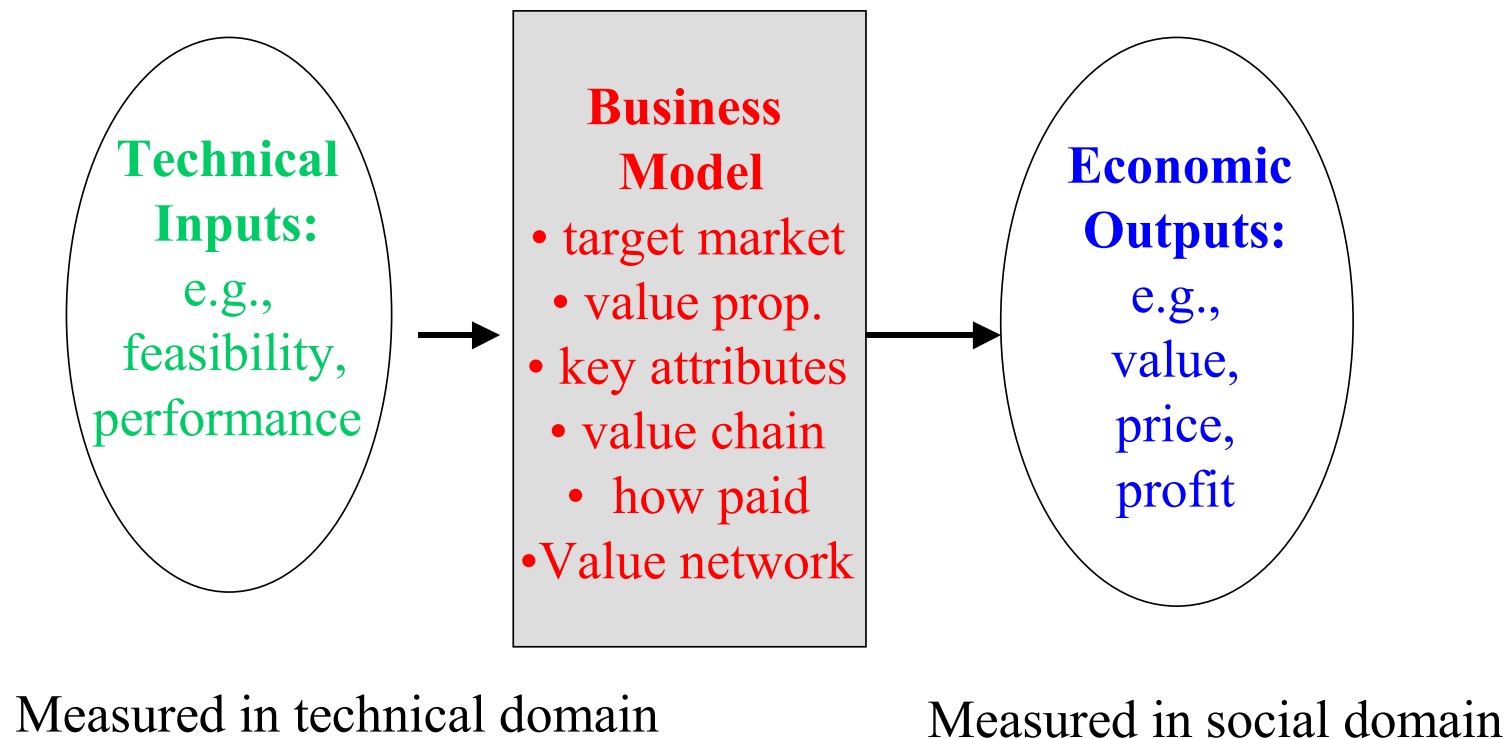
Stage 6 - Platform

- Ultimate stage, an ideal
- Company now benefits from investment of others in the platform. Company can induce investment.
 - Suppliers, customers, third parties
- Ecosystem created
 - Company must balance value creation with value capture
 - Cannot become predatory, destroys ecosystem
- Examples: iPod; .NET, WebSphere, Dell, WalMart

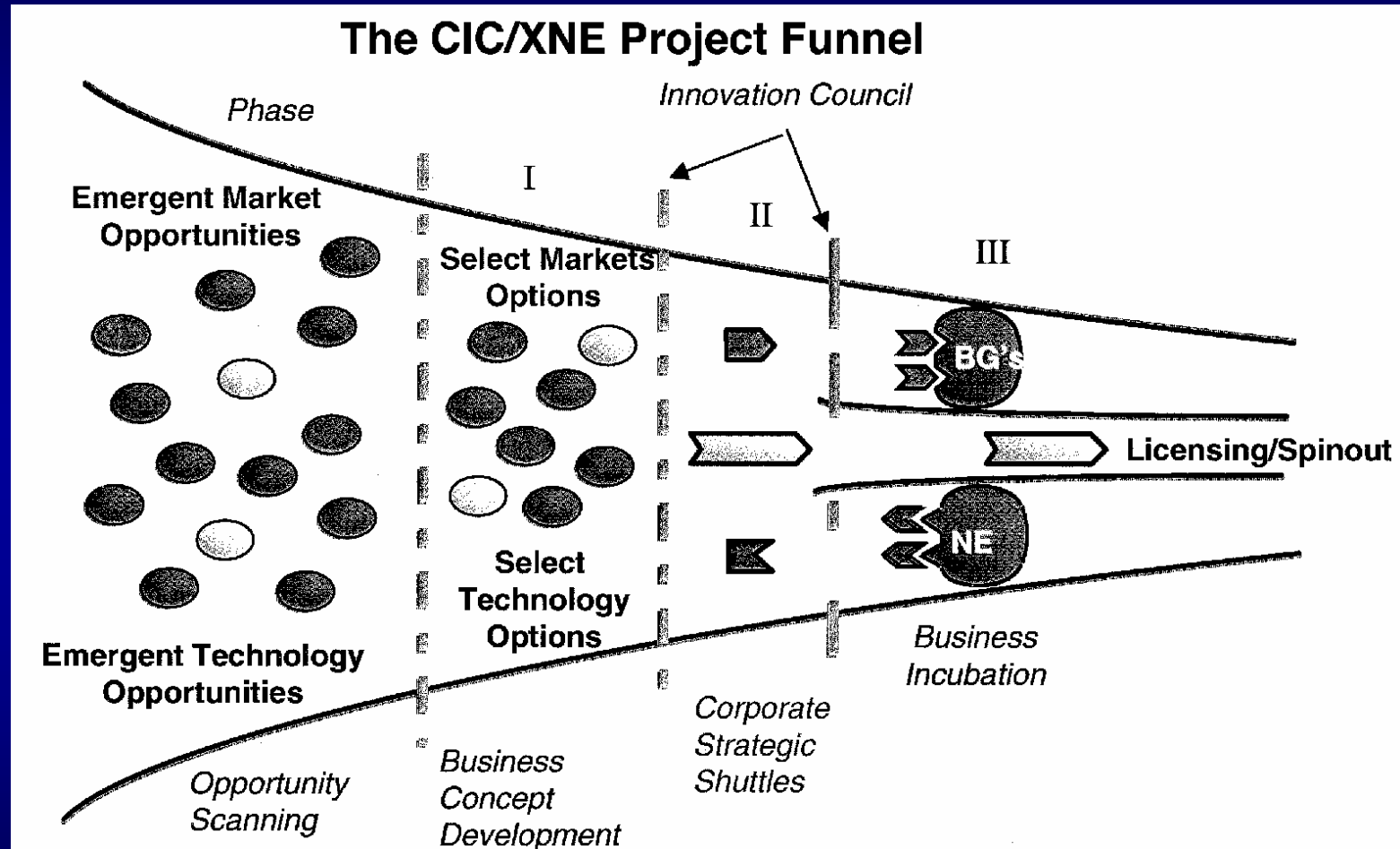
Who Owns Business Model Innovation?



Why Business Models are Hard to Innovate: Mapping Across Domains



Type I and Type II: Xerox and PARC



- ❑ Designed to minimize “false positive” errors
- ❑ Ignores risk of “false negative” errors

3Com

- Metcalfe left PARC in Jan. 1979
- Did consulting work until Feb. of 1981
 - DEC, GE, Exxon
- Brokered alliance between Xerox, DEC, and Intel for IEEE 802 (aka Ethernet)
- Initial plan: sell to Unix workstations, via direct sales force

Then....

- As part of consulting, created directory of LAN dealers and VARs across US
 - first of its kind
 - sold many hundreds of copies at \$125 each
 - did this for 5 years
- IBM PC took the world by storm
- 3Com formed, Krause joined from HP
 - VCs financed:
- New plan: add-on boards for IBM PCs, sold through IBM retailers and VARs

Adobe

- Warnock and Geschke at PARC
 - creating fonts for Star Workstation
 - wanted to make into a standard
 - Xerox said no: “how can we make money if we give it away?”
- They leave, and form Adobe
- Initial plan: turnkey publishing system, complete with own hardware, software, and fonts

“We were originally going to supply a turnkey systems solution including hardware, printers, software, etc.

“Steve Jobs and Gordon Bell were key ingredients in getting things going...

Gordon said, “don’t do the whole system”

Steve said, “just sell us the software”.

That’s how the business plan formed. It wasn’t there in the beginning.”

- Charles Geschke

Today, Adobe’s market value exceeds that of Xerox

Different Financial Processes

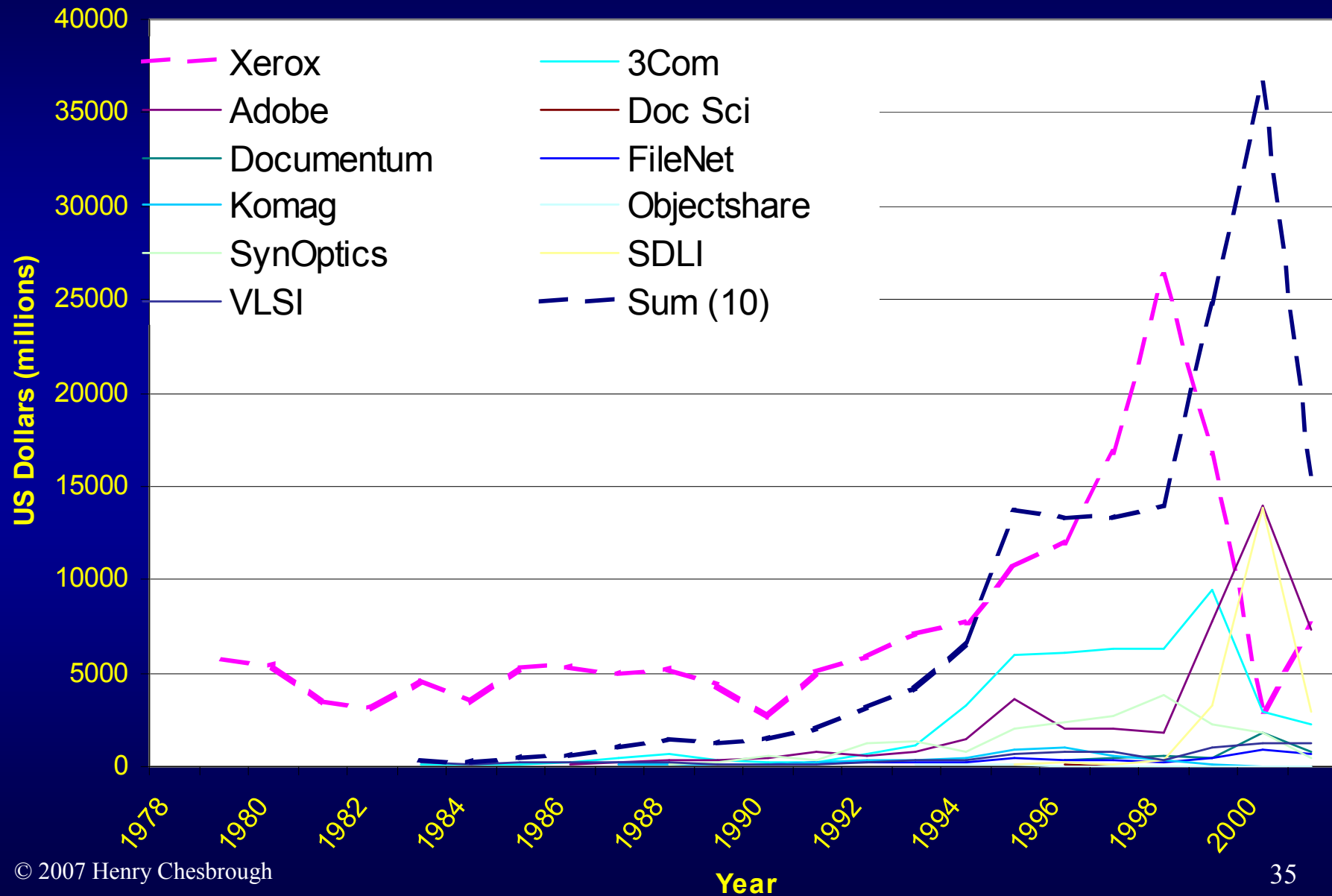
Chess: Type I errors

- Plan several moves ahead
- No new information needed
- You know what you've got, what opponent has
- NPV

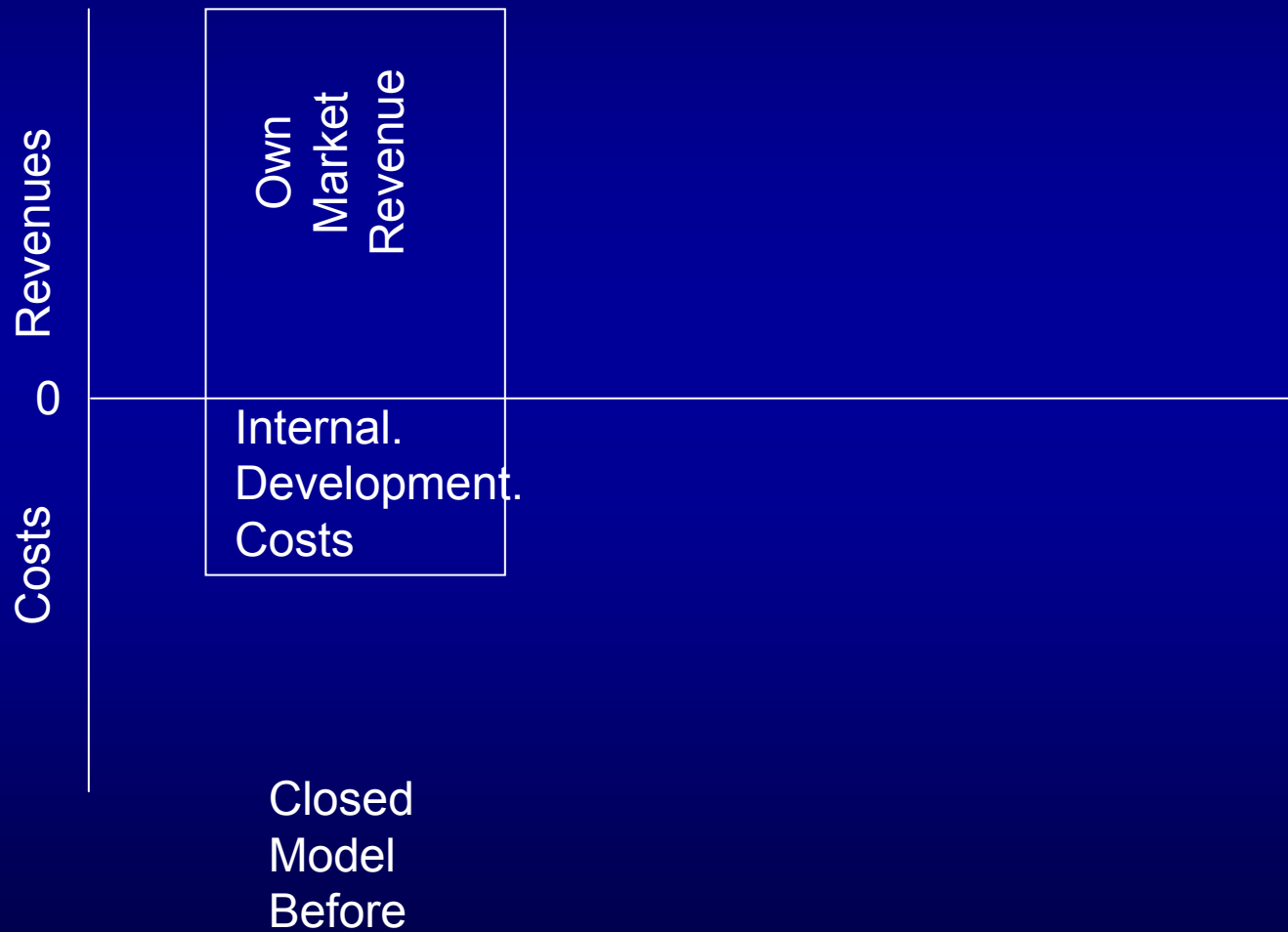
Poker: Type II errors

- Pay to play
- Pay for new information
- You discover what you've got, what other players have
- Options

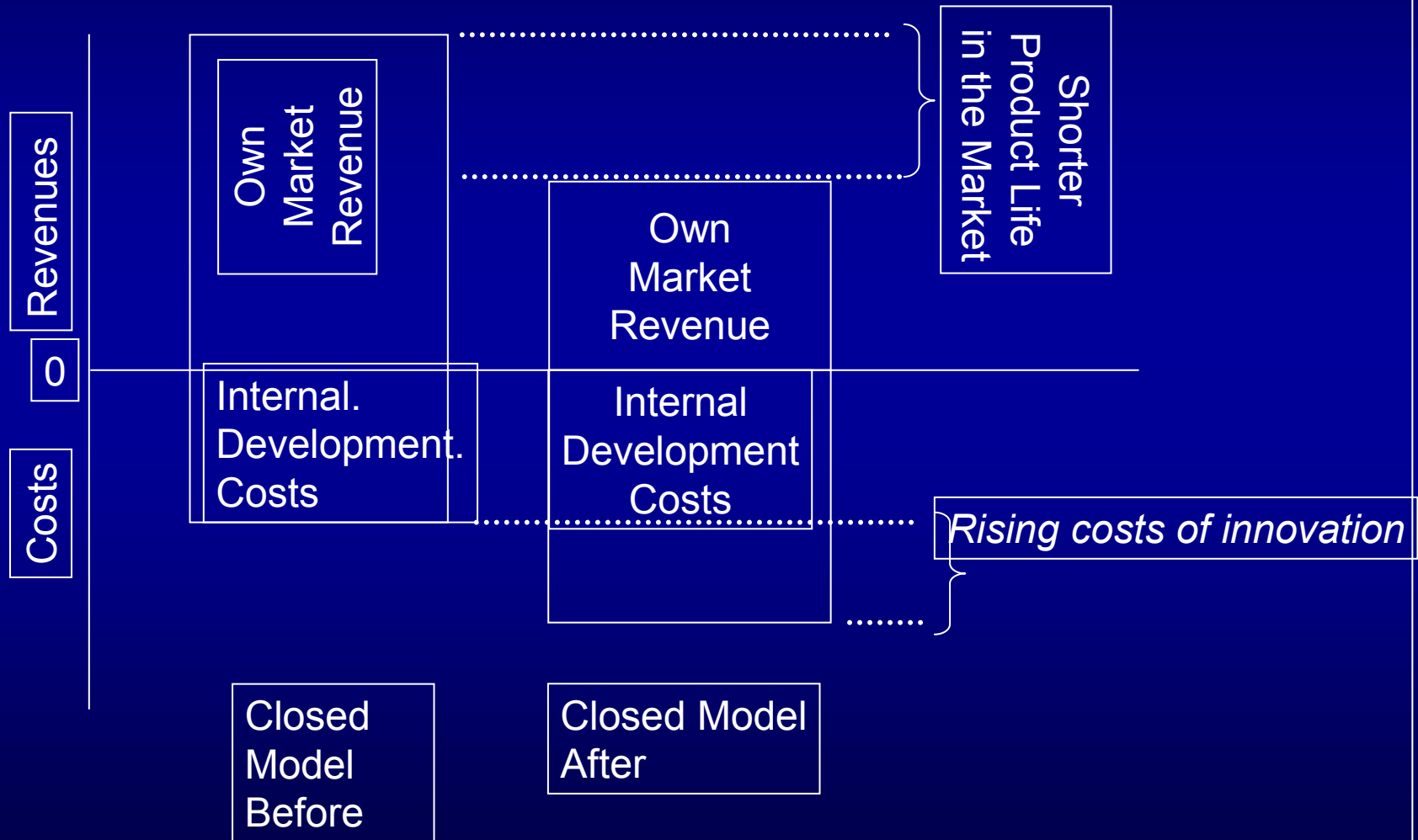
Xerox: Great at Chess, Lousy at Poker



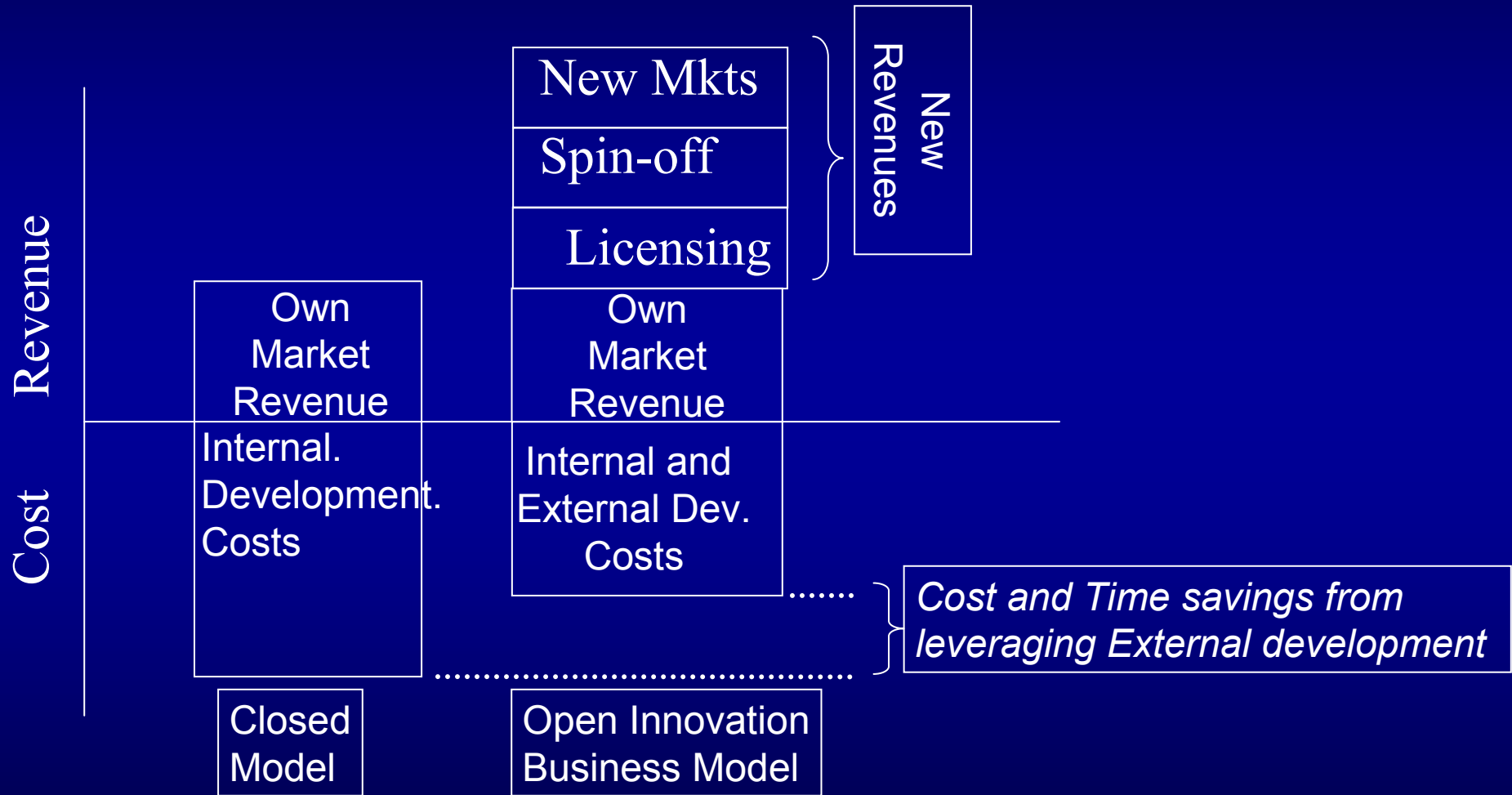
The Economic Pressures on Innovation



The Economic Pressures on Innovation



The New Business Model of Open Innovation



FOREWORD BY JOHN SEELY BROWN

HENRY CHESBROUGH

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The New Imperative
for Creating and Profiting
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