

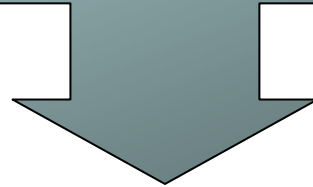
University of Connecticut  
Teaching Workshop

*“The Dynamic Needs of Industry”*

Pat Verduin

# Dynamics Facing Industry – Top 5

Consolidation of the Supply Chain  
Globalization of the Supply Chain  
Wall Street Demands  
Increased Constituent Scrutiny  
Consumer Knowledge-base and Demands



*Changing Workforce Requirements*

# Who is "The Industry"???

## Direct Industries

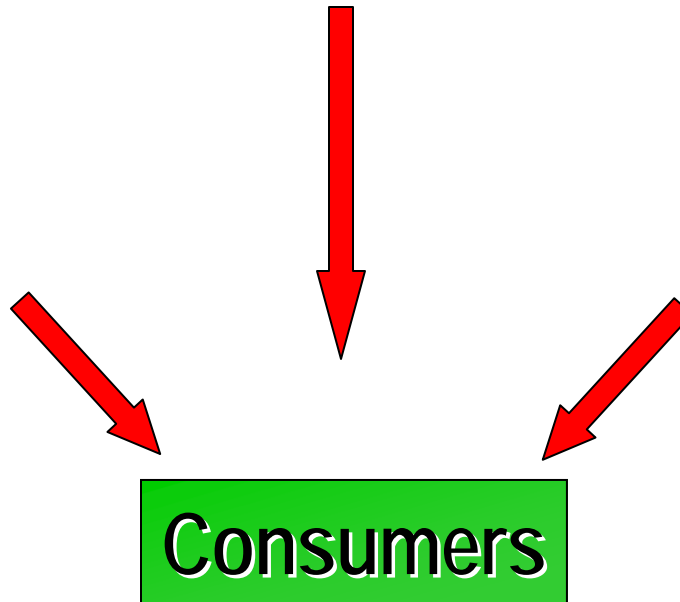
Farming & Growers  
Raw Ingredient Processors  
Functional Ingredient Manufacturers  
Consumer Packaged Food Manufacturers  
Distributors  
Retailers (traditional/non-traditional)  
Industrial Establishments

## Adjacent Industries

Chemical Suppliers  
Utility Suppliers  
Packaging Suppliers  
Equipment Manufacturers  
Transportation Industry  
Analytical/Testing  
Environmental Industry  
Information Management

## Key Constituents

Government Agencies/Political  
Media  
Employees/Unions  
Stockholders/Boards/Wall Street  
Advocacy Groups  
Academics/Foundations  
Medical Community



**Consumers**

# Consolidation

- **Acquisition-based growth used to increase efficiency of operations, improve margins, expand to new markets & improve market share**
  - Does it work??
  - Niche companies seem to be outperforming
- **Efficient Competitors and Powerful Customers/Vendors**
  - Balance of Power has shifted due to Corporate Farming, Mega-Manufacturers, Chain Restaurants and "Wal-Marts"
- **Managing multiple brands, business models, supply chain requirements and technologies is cumbersome**
  - Bureaucratic, slow-moving processes combined with risk avoidance
  - Products, brands, technologies get "lost" vs. nurtured

**Workforce: Broad technical capabilities, articulate and business savvy**

# Globalization

- **Understanding the “new” market and/or regional capabilities**
  - Consumers/Customer/Vendor Cultures
  - Setting realistic expectations around capabilities
  - Emerging market involvement
- **Deep Technical Understanding of Ingredients, Products and Formulations**
  - Building the right specification for delivery
  - Product safety and environmental concerns
- **Understanding Trade Requirements, Local Customary Practices and Political Risks**
  - Product Safety Risks and Laws, Documentation and Timing
  - Contingency Planning

**Workforce: Deep technical capabilities, international communication, legal/regulatory**

# Wall Street Demands

- **Profitable Growth – Quarterly Horizon**
  - Long-term investment in technology or innovation is required but difficult
  - Price variability and increased cost of goods
  - Cost reduction demands throughout the supply chain
- **Increased Involvement from External Shareholders**
  - Metrics: Capital expenditure, # of Employees, Margins, Trade spending, New Product Introductions, Market Share, Efficiencies....
  - Advocacy Groups with Agendas
- **Increased Scrutiny of Board and Senior Management**
  - High turn-over rate, shorter horizon for results
  - Liability concerns

**Workforce: Business Savvy, action oriented, speed, trainable, communication skills**

# Constituent Scrutiny

- **Many more “voices” involved in assessing corporate responsibility**
  - Health & Wellness, Product Safety, Animal Welfare
  - Sustainability - Environmental Protection & Social Responsibility
  - Customer/Vendor Requirements increasing
  - Public debate is usurping science as the basis for policy and regulations
- **Information access makes issues/opportunities immediately available**
  - Speed of reaction will influence outcome
  - Constituent agendas influencing media coverage leading to consumer confusion
- **Government oversight is increasing**
  - Financial, Trade Requirements, Food Safety, Information Availability
- **Litigious Environment**
  - Consumers, Workers, Investors & Customers

**Workforce: Regulatory/legal knowledge, consumer/trend awareness, communication**

# Knowledgeable Consumers with Demands

- **Changing demographics and lifestyles**
  - Demand for solutions to meet need gaps
  - Trends to mainstream – “hit the wave”
  - Niche product markets with mainstream availability
- **High cost of building brands, innovation and product introductions**
  - Technology and/or processing is a “red-flag” with consumers
  - Product differentiation is difficult to create and harder protect
  - Customers demand “news” more than consumers
- **Social Responsibility and Product Integrity becoming more influential**
  - Marketing advantage?
  - Mistakes are costly –even if they are not your own

**Workforce: Creativity, market research, statistics, technology application, passion**



# Workforce Requirements

Workforce: Broad technical capabilities, articulate and passionate

+

Workforce: Deep technical capabilities, international communication, legal/regulatory

+

Workforce: Business Savvy, action oriented, speed, trainable, communication skills

+

Workforce: Regulatory/legal knowledge, consumer/trend awareness, communication

+

Workforce: Creativity, market research, statistics, technology application, passion

Technically skilled problem solvers who have passion for learning about their products and consumers and can communicate to and influence key constituents and business partners.

# Talent Blending

## Generalists

## Subject Matter Experts

### Technical Skills

Exposure to research & sound in basics  
Hands-on project experience  
Critical Thinking skills

Deep technical knowledge  
Significant hands-on experience  
Proven Problem Solving

### Activity Level

Multi-tasking/Action/Speed  
Convert Technology to Application  
Comfort with Creativity & Risk

Multi-tasking/Action/Speed  
Deliver technologies

### Personality

Passion for the Product  
Inquisitive - Consumers/Customers  
Decision maker  
Partner & Influence Business Team

Passion for Technology/Subject  
Demanding Scientific Rigor  
Respect of Business Team  
Partner with External Resources

### Experience

Market Driven Issues and Opportunities  
Business Metrics and Dynamics  
Market Trends & Issues

Global technology advancements  
Competitive assessment  
Market Trends & Issues

# Talent Blending

## Generalists

## Subject Matter Experts

### Technical Skills

Exposure to research & sound in basics  
Hands-on project experience  
Critical Thinking skills

Industry often  
"hiring-out" these  
skills

Deep technical knowledge  
Significant hands-on experience  
Proven Problem Solving

### Activity Level

Multi-tasking/Action/Speed  
Convert Technology to Application  
Comfort with Creativity & Risk

Leadership  
Positions (\$\$\$)  
tend to be drawn  
from this pool

Multi-tasking/Action/Speed  
Deliver technologies

### Personality

Passion for the Product  
Inquisitive - Consumers/Customers  
Decision maker  
Partner & Influence Business Team

Recently finding  
more "talent" in  
Eng/Basic Program

Passion for Technology/Subject  
Demanding Scientific Rigor  
Respect of Business Team  
Partner with External Resources

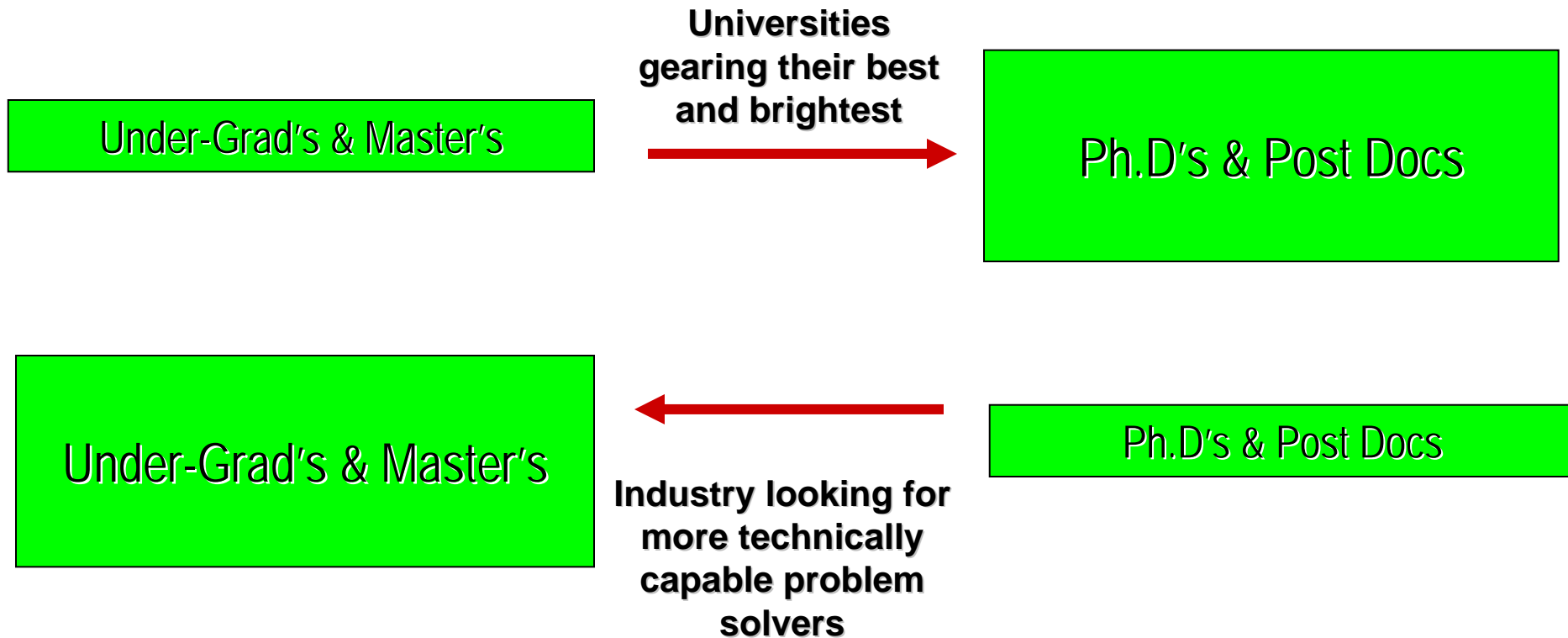
### Experience

Market Driven Issues and Opportunities  
Business Metrics and Dynamics  
Market Trends & Issues

Many academic  
Ph.D's tend to lack  
soft skills & business  
sense. Hard to  
"teach". Failure Rate?

Global technology advancements  
Competitive assessment  
Market Trends & Issues

# Industry/Academic Paradigm



# Talent Pool – Challenges for Academicians & Industry

- **Balancing potential for industry success while still teaching deep technical capabilities**
  - Hands-on project management & problem solving skills
  - Speed & Multi-tasking
  - Team & Communication skills
- **Creating a blend of Hi-Po “generalists” to lead scientific organizations with Hi-Po “SMEs” to lead academic and technical research programs**
  - Keep Hi-Po students exposed and interested in alternative career paths
- **Exposure throughout education process and career**
  - Creative programs to produce flexibility and expose opportunities prior to and throughout career
- **Alternate perspectives & experiences**
  - Technologies, Industries, Business Expertise, International
- **Consumer/Customer Experiences**
  - Inter-school programs linked to industries

**Solutions will require the broader “industry” to work collaboratively**

# Industry – Opportunities to Influence

- Active support for integrated academic program development
- Internship commitment
- Commitment to Diversity
- Technical ladder to reward accomplishments
- Cross discipline opportunities between academia, government and industry

**Thank you!!!**