PHL Tech Transfer Roundtable

Gordon Smith Professor & Head Grain Science & Industry Kansas State University



Who am I?

- Since Jan 2015, the Head of the Grain Science and Industry Department
- From 2005-2014, Vice President and Research Fellow Research, Quality and Innovation at ConAgra Foods
 - Responsible for product development, applied technologies, university relationships
- From 1991-2014, Various titles including Senior Director Research & Development at Sara Lee Foods
 - Responsible for technical service, product development, regulatory affairs and quality assurance



The agenda for the next two hours:

| Ι. | Int | roduction/overview | 15:00-15:30 |
|-------------------------------|-----------------------------|--------------------|-------------|
| II. | II. Country team workgroups | | 15:30-16:20 |
| III. Country team report outs | | | |
| а | э. | Bangladesh | 16:20-16:30 |
| k |) . | Ghana | 16:30-16:40 |
| C | C. | Guatemala | 16:40-16:50 |
| C | d. | Ethiopia | 16:50-17:00 |



In many cases, effective tech transfer involves "commercialization" of goods or services.

Commercialization creates businesses which make, buy or sell goods and services in exchange for money.



If no profit is generated through the cycle, does a business exist?



Public Private Partnership Challenges

- 1. Pure market forces may be masked
- 2. Enterprise management may not profit driven
- 3. Innovation may not be fueled or driven by the market economy
- 4. Major initiatives may be selected, prioritized and motivated by nonmarket considerations
- 5. Capital may be allocated without balance sheet impact consideration
- 6. Participant performance may be judged against different metrics
- 7. For profit ventures often neutral or counter to perceived social benefits



Business Partner Considerations:

- **1.** For profit enterprises
- 2. Leadership duration can be short
- 3. Short term ROI pressure is greater now more than ever
- 4. To execute your project, something else will have to go
- 5. Worldwide economic growth concerns impact investment
- 6. Innovation and sustainability are modern "business buzzwords"
- 7. Competition, other potential partners
- 8. Alignment of technology with business strategy
- 9. Follow the money to determine "true" business goals



- Where is the true value in the solution and where will value be realized?
- What is the estimated cost to the user?
- What is the estimated "simple" ROI?
- Who are the obvious partners to execute?
- What are other potential solutions and who could provide them?
- Competitive advantage? Duration?
- Strengths, Weaknesses, Opportunities and Threats (simple SWOT analysis)



- Target customers?
- How will demand be created?
- NGOs/extension
- Pricing
- Marketing/advertising
- New distribution channels?
- Funding for demand creation?
- Initial size (years 1-3)? Potential size (after year 3)?Barriers to competitive entry?

-Basic business considerations

- Opportunity fit to strategy?
- Opportunity cost?
- Price elasticity?
- Profit model over time?
- Competitive threats?
- Regulatory pressure?
- Growth barriers/investment required?
- Next generation products?

CONSIDER IMPACT NOT ACTIVITY



-Meaningful to

company and

consumers?

-Market /market

development?

Office of Corporate Engagement

-Meaningful to company and consumers?

- Technology is answer to an obvious problem and well defined
- Where is the true value in the solution and where will value be realized?
- What is the estimated cost to the user?
- What is the estimated "simple" ROI?
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-Market /market development?

- Target customers?
- How will demand be created?
 - NGOs/extension
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 - New Channels of distribution
- Funding for demand creation?
- Initial size (years 1-3)?
- Potential size (after year 3)?
- Barriers to competitive entry?





- Why is the technology not already in-market?
- What would facilitate current manufacturers interest in the market?
- Strategic fit
- Outline of potential supply chain?
- Available profit at critical steps?
- Advantages of and barriers to in-country manufacture?
- Investment potential?



*See last slide (#6) for more information

-Basic business considerations

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"Businesses Should Create Meaning"

Questions

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Your Task

- Divide into country groups
- Identify 1 or, no more than, 2 technologies to be brought forward during years 4 & 5
- Go through questions for each of the four major points – what is known, what is guessable, what is completely missing
- In 10 minutes at the end of the session, convince us that you have a great strategy to help move a product towards a market

