

Strategic Business Perspectives on Innovation in Agrifood Supply Chains in Emerging vs Developed Markets

Workshop Program, final version February 13, 2016

Day 1 – April 19, 2016

Session 1: Introduction

8.30 – 8:45 Welcome and Overview, David Zilberman, UC Berkeley

8:45 – 9:15 Overview of trends and cases of the rapid transformation of agrifood supply chains in Emerging Markets

➤ **Tom Reardon, Michigan State University**

Tom takes us on a whirlwind tour of how agrifood markets are transforming lightning-fast in the Emerging Market countries, generating huge opportunities and also challenges for businesses that want to design innovative products, technologies, and supply chains for these markets. Examples include horticulture, fish, and dairy sectors.

9:15 - 9:45 Strategic concepts for designing supply chains of innovation in technology and product design in the context of rapidly transforming markets

➤ **David Zilberman, UC Berkeley**

David discusses winning business strategies and concepts developed for “innovation-induced supply chains” - how to adapt and design supply chains to successfully introduce new technologies and products to build and reach new markets. Examples include livestock, sugar, biofuels, and grain sectors.

9:45 – 10:15 Discussion

10:15 – 10:30 Coffee

10:30 - 11:00 The urgent policy agenda for supporting the development of agribusiness supply chain development

➤ **Glenda Humiston, Vice President, Agriculture & Natural Resources at University of California Office of the President - and former California State Director of the U.S. Department of Agriculture and Rural Development**

Glenda draws on her immense policy experience in Washington DC and Sacramento in providing support for innovative business practices to discuss what the US needs to focus on to stay competitive and innovative in rapidly changing global markets full of both opportunity and competition.

11:00 - 11:15 Discussion

Session 2: Downstream segments of the Supply Chain: Innovating toward the Consumer

11:15 - 11:45 Costco's International Operations and Innovations in Supply Chains to market new products

➤ Senior Vice President Dennis Hoover, Costco

Costco is a Washington-based retailer/wholesaler with >\$100 billion in sales in the US and foreign markets. Costco was a recent pioneer in “mainstreaming” organic produce to the point where it is the lead retailer of organic in the US. How it moved to the lead involved a fascinating story of innovation in marketing as well as procurement supply chain partnering with suppliers in the US and Mexico.

11:45 – 12:00 Discussion

12:00 – 1:00 Lunch Panel: The US food industry's structural transformation and its implications for strategic positioning and value chain innovation by agribusiness firms

➤ Richard Sexton and Colin Carter, UC Davis

Richard and Colin parlay their decades of cutting-edge research in the US, Canada, world and especially China markets, in wheat, corn, livestock, soy, and vegetables, and themes such as food processing concentration, world market reconfiguration, evolution of cooperatives, and competition law, to bring it together into sharp insights for businesses about how to design value chain innovation to navigate the turbulent waters of food industry change.

1:00 - 1:30 German Retail and Food Manufacturer's Product Design and Supply Chain Innovations for National and International Markets.

➤ Stephan Becker-Sonnenschein, CEO of Die Lebensmittelwirtschaft e.V. (Food Industry Association of Germany) and formerly of Kraft Foods, Germany

The German food and beverage industry is one of world's largest, with 6000 small and medium food enterprises, as well as global retail/wholesale giants like Metro and Aldi. This market is a perfect example of a revving engine of continuous competition and innovation in introduction of new technologies of processing and retailing in a context of consumers desiring a multiplicity of new products, quality, safety, and environmental attributes. Stephan is our guide to understanding how German firms use supply chain innovations to deliver product and technology innovations to demanding consumers.

1:30 – 1:45 Discussion

1:45 – 2:30 Great waves and rushing currents: Seafood and Aquaculture Markets and Innovative Supply Chain Strategies to market to them

➤ Tom Reardon, Michigan State University

➤ Tobias Aguirre, Executive Director of FishWise

The fish and seafood global market, sourced from capture fisheries or aquaculture, has been growing at a meteoric rate as the huge market of Asia moves to enormous demand for both cost-competitive commodity fish and both Asia and Europe and North America rush to demand a wide range of products of high quality differentiation as well as food safety and environmental sustainability assurance and signaling. The challenges – and profits – of innovating procurement

supply chains and consumer-informing marketing are discussed in this session from the viewpoints of market transformation, and of working with retailers and trade associations and NGOs to assure – and market – sustainable seafood.

2:30 – 2:45 Discussion

Session 3: Midstream segments of the Supply Chain: Innovating toward Retailer & Consumer

2:45 – 3:15 Innovations in Sustainable Supply Chains: signaling to the new consumer

➤ Dara O'Rourke, UC Berkeley, and co-founder and Chief Sustainability Officer of GoodGuide, named by *Fast Company* among "World's 50 most innovative companies" Some consumers today do not care only about price and quality but also care about the way a product is being produced. Companies have to innovate in imbuing their products with environmental, social, and health attributes. But those are just extra costs unless the company can design a supply chain that assures the "production" of these attributes and signals to the discerning consumer that the product has them. Dara's GoodGuide sells a service of signaling consumers by product rankings. Dara also has worked with companies like Amazon who design their supply chains to assure that signaling.

3:15 – 3:30 Discussion

3:30 - 3:45 Coffee Break

3:45 - 4:15 Fresh Express's innovation in packaged salads

➤ **Jim Lugg of Fresh Express and James R. Lugg Global Research & Innovation Center** in Salinas. Fresh Express pioneered a new product – packaged salads – and then designed innovative supply chains in procurement from grower-shippers in the US and Mexico and innovative marketing and quality assurance to retailers across the US and Canada. The company, now part of Chiquita, sells a half billion pounds of packaged salad each year.

4:15 - 4:30 Discussion

4:30 – 5:00 Scharffen Berger's artisanal chocolate path of innovation and market development

➤ **John Scharffenberger, co-founder** From its base in Berkeley, the company invented the modern "bean to bar" movement that now includes over 75 manufacturers in the US following its lead. The company pioneered direct supply chain sourcing from small cocoa farmers around the world. It used its marketing program to signal to discerning consumers. The company was acquired in 2005 by the Hershey Company (one of the global leaders in chocolate) to move to scale this differentiated product.

5:00 - 5:15 Discussion

5:15-5:45 Innovations and adaptations in traceability and labeling: BayWa A.G.

➤ **Klaus Josef Lutz, CEO of BayWA**

BayWa A.G., based in Munich, is a global multinational working in agriculture trade and logistics, and renewable energy. Klaus discusses its apple operations. BayWa imports apples for European retailers. Upstream, BayWa sources from New Zealand's famous apple giant, ENZA (which Baywa acquired); BayWa then uses a multinational logistics company to operate an innovative and complex supply chain with traceability and brand labeling, as well as commercial practice adaptation over very different client countries and chains; this flexible system allows BayWa to serve both rapidly emerging large volume Asian retail markets as well as attribute-demanding and mature markets of Europe and North America.

5:45 – 6:00 Discussion

6:00-6:30 Capturing competitive market advantage by treating animals well

➤ **André Vielstädte, CEO, Tönnies Forschung**

André heads a research subsidiary of Tönnies Holding, spanning distribution, meat, and ingredients. It is Germany's largest processor of pigs. Tönnies leverages its research on combining efficient production and supply chains with ensuring and signaling animal welfare to market to European consumers who are concerned with cost, quality, and animal welfare.

6:30 – 6:45 Discussion

7:00 - 8:30 Wine Reception and Dinner with Speaker: Innovation in beer and wine value chains in the global retail market

- **Jo Swinnen**, University of Leuven, Belgium, and founder of the international Beeronomics Association and author of the Economics of Beer, Oxford University Press.

Day 2 - April 20, 2016

8:15 - 8:25 Summary of first day, welcome/plan second day, David Zilberman, UC Berkeley

Session 3: Midstream segments of the Supply Chain: Innovating toward Retailer & Consumer (Continued from Day 1)

8:25 – 8:50 Development of a retail delivery innovation supply chain to rural China: Alibaba's Village Taobao business.

- **Ching Guo, former Alibaba executive starting development of Village Taobao, currently consultant to TeddyVine International exporting US wines to China.**

Alibaba's meteoric rise as a company combining wholesale, retail, and logistics for a range of agriculture/food and nonfood products, has attracted global attention. A new e-commerce venture is Village Taobao, taking orders from villagers with internet-ready devices, and then

coordinating the dispatching of products from wholesalers/manufacturers to county logistic hub points and on-delivery to village consumer pick-up points.

8:50-9:15 Alibaba's logistics company Cainiao: innovative business structure as consortium of Third Party Logistics companies

- Alibaba executive

What do you do when you aim for door-to-door delivery of packages 24 hours after order placed to reach anywhere in a country of 1.3 billion people in rural and urban areas? Alibaba built from scratch but leveraged the existing: it knit together dozens of major logistics firms and 8,000 smaller ones and gave them an “information backbone” of an e-info network – and Cainiao does it all by leveraging, moving no parcel itself.

9:15-9:35 Discussion of Alibaba cases

9:35 – 10:05 Designing the logistics of supply chains to deliver innovative products competitively to Emerging and Developed Markets

- **Zuojun (Max) Shen, Chancellor's Professor of Industrial Engineering and Operations Research, UC Berkeley.**

Logistics systems are critical factors in delivering differentiated products to markets as diverse as China, Mexico, and California. Max delves into innovative system designs to combine energy and transport cost minimization with traceability and attribute maintenance. He provides examples from business cases in California and China.

10:05 - 10:20 Discussion

10:20 – 10:30 Coffee Break

Session 4: Midstream segments of the Supply Chain: Innovating Design of Procurement Supply Chains from Farmers in the context of evolving global markets and regulations

10:30 – 11:00 Bunge's innovations in building supply chains in a context of rapidly changing global markets

- **Carl Hausmann Former CEO Bunge North America**

Bunge's global agribusiness operations grossing \$53 billion span agribusiness in sugar and bioenergy crops, commodity trade in grains and palm oil, and marketing of food, ingredients, and fertilizer. Assuring a vast volume of product input to these global operations requires attention upstream to the supplier base in developing countries; that attention goes beyond contracts, quality, and costs, but also involves engaging in the policy and development context of the supply base.

11:00-11:15 Discussion

11:15-11:40 Mars's innovations for sustainability and consumer acceptability of its African sourced cocoa to its chocolate supply chains

- **Joel Harris, Director of Corporate Innovation, Mars**

Mars is a global leader in chocolate. It processes vast volumes of cocoa, procured from Africa, Asia, and Latin America. Cocoa is a risky and demanding perennial crop grown by millions of small farmers. Mars interacts with African farmers to encourage practices that sustain and increase productivity and the resource base of the farmers. In turn, Mars designs its supply chain to signal to consumers its support of small farmers' farming and working conditions to increase consumer acceptance.

11:40 - 12:05 Harnessing science to develop the upstream of the supply chain with new products and enhanced productivity, as the foundation for sustainable supply chains.

➤ **Howard Yana-Shapiro, Chief Agricultural Officer, Mars**

Mars has initiatives to innovate in the domain of agronomy and genomics of crops including cocoa and food crops that small farmers rely on in Mars's supply regions. Their success is based on building teams that combine scientists and practitioners to develop practical innovations, and on navigating regulatory challenges to implement these innovations.

12:05 – 12:30 Discussion of Mars cases

12:30-1:30 Lunch Symposium: David Sunding, Professor and Chair, Agricultural and Resource Economics, UC Berkeley

Addressing regulatory challenges to allow companies to make profits while supporting the effort to protect the environment

1:30 - 2:15 Strategic positioning for US agribusiness firms in the evolving bio-energy

➤ **Bruce Babcock**, Cargill Endowed Chair of Energy Economics and Director of the Bio-based Industry Center, Iowa State University

➤ **Madhu Khanna**, Distinguished Professor in Environmental Economics, Department of Agricultural and Consumer Economics, and Associate Director, Institute for Sustainability, Energy and Environment, University of Illinois at Urbana-Champaign

The panel addresses the issues of how to simultaneously reduce costs to increase competitiveness, increase consumer and manufacturer acceptance of the product, and work with government to improve the regulatory context.

2:15 - 2:45 Rapidly changing public regulation and private standards conditioning innovations in European biofuel supply chains

➤ **Justus Wesseler**, University of Wageningen, Netherlands

Bioeconomy firms in Europe need to leverage their responses to evolving regulations and private standards to innovate in the design of supply chains of food, feed, fuels, and fiber.

2.45 - 3.00 PM Discussion

3:00 - 3:15 PM Coffee Break

3:15 - 4:00 PM Panel on Agribusiness strategic positioning leveraging their responses to evolving US regulation of food and agriculture

➤ **Dan Sumner**, Director of the UC Davis Agriculture Issues Center

- **Mechel Paggi**, Director of the Center for Agribusiness Research, California State University at Fresno

Phytosanitary, water use, and animal welfare regulations and standards have been changing rapidly in the US; Dan and Mechel parlay their decades of interaction with California agribusiness and US and California policymaking institutions to draw lessons for positioning firms in the evolving environment. They identify opportunities that emerge out of these concerns.

4:00-4:15 Discussion

4:15 - 4:45 **Shuanghui's innovation in scaling up and upgrading its pork supply chain in China**

- **Jun Wang, Shuanghui, US Investor Relations**

China has the biggest and fastest growing pork market in the world; Shuanghui is the leading pork processor in China and now the largest pork company in the world, after its acquisition of Smithfield in 2013. Shuanghui has played a role in modernizing the pork supply chain, introducing a series of consumer product innovations and supply chain design innovations to address challenges such as food safety, logistics, and feed and breeding.

4.45 – 5:00 Discussion

Session 5: Innovations in Finance and other Support Services to Supply Chains

5:00-5:30 **View from Silicon Valley: Investor in Food and Agriculture**

5:30-5:45 Discussion

5:45 -6:15 **Value chain finance internationally by Rabobank**

- **Ken Shwedel**, Principal at KSAdvise, Mexico City, and former executive in Rabobank Mexico.

Ken parlays his decades of experience as a leader in financing agribusiness value chains in Latin America and advising major Mexican companies and the livestock federation, to dig deep into ways to finance strategic positioning for innovation in supply chains.

6:15 - 6:30 Discussion

6:30 – 7:00 **Financing supply chains in agriculture: What have we learned?**

- **Corny Gallagher, Senior Vice President, Agriculture and Wine Executive, Bank of America Merrill Lynch and Trustee of the Farm Foundation.**

This is the story of how agribusiness firms can work with bankers to build new supply chains. Corny is among America's most able for telling this story, as he brokered finance for a series of important takeoffs such as the meteoric rise of Tyson.

7:00 – 7:15 Discussion

**7:30 - 9:00 Wine Reception and Dinner - Potential of Biotechnology with Chris Somerville
Director of the Berkeley Bioenergy Institute and founder of Mendel Biotechnology Inc.**

Day 3: April 21, 2016

**8:30 - 8:45 Summary of first and second days, welcome/plan third day, Justus Wesseler,
Wageningen**

8:45 - 9:15 Commodity finance innovations promoting value chain development

➤ **Gordon Rausser**, Robert Gordon Sproul Distinguished Professor, UC Berkeley
Gordon parlays his many decades of experience as both analyst and investor to give us his insights on innovations in commodity finance and how businesses can draw on them to build or upgrade new product value chains.

9.15 – 9.30 Discussion

**Session 6: Upstream segments of the Supply Chain: Innovating Design of Supply Chains
from Farmers**

**9:30 - 10:00 Cooperative services to support farmers and midstream marketing into supply
chains:**

➤ **Michael Cook, Partridge Professor, University of Missouri, and former CEO of Rice
Growers Cooperative of California, and of Farmland World Trade.**
Mike has managed and then researched and advised major agribusiness the whole of his long career. He shares with us lessons of strategies and opportunities and challenges of making cooperatives work for building successful and innovative supply chains in a context of rapidly transforming markets.

10:00 – 10:15 Coffee Break

10:15 – 10:45 Fresh produce supply chain transformation in North America

➤ **Robert Cook of UC Davis**
Roberta has advised and served on boards of major produce agribusiness firms for decades and has unique perspective on the industry and its constant change. She will talk about how value-added fresh produce processors and produce grower-shippers are shifting from spot markets toward coordinated relationships between suppliers and buyers – such as via fixed-price forward contracts, information sharing, and growth in marketing and logistical services. She shares with us strategic insights on how firms with product and technology innovations can leverage these changes to build their market share.

10:45 - 11:00 Discussion

11:00 - 11.30 DiMare Fresh's pioneering innovations in farming and supply chains

➤ **Tom DiMare, CEO of DiMare Fresh**

DiMare has major vegetable and fruit farming operations in California, Florida, South Carolina, and Texas; they operate a national supply chain to supermarkets and food service companies, with large packing facilities and own-logistics operations. Tom will discuss how they got first-mover advantages by innovating in product design and delivery.

11.30 – 11.45 Discussion

11:45 - 12:45 Lunch Panel: How businesses can avail of partnerships with universities to enhance their capacity to innovate in products, technologies, and supply chains

- **Gordon Rausser and David Zilberman (UC Berkeley), and Harold Schmitz (Chief Science Officer of Mars, and UC Davis)**

12:45 - 1:15 Transformation of the seed industry in China, India, and Africa: product innovation into biotech seeds and innovative private research and extension

- **Carl Pray, Rutgers University.**

The seed industry is changing at least as fast as the overall food industry in Emerging Markets. Carl has accumulated insights on this topic from decades of research and advising governments and major companies. He identifies the patterns of change in the industry and how innovative companies are positioning themselves to create competitive advantage as seed suppliers.

1:15 - 1:30 Discussion

1:30 - 2:00 Netafim's path to innovation success in designing and adapting drip irrigation technologies and service delivery supply chains globally

- **TBA, Netafim**

Netafim is based in Israel, operates in 110 countries, and is the global leader in drip irrigation technologies. Netafim has created a fascinating first-mover advantage by being the first mover over and over again as it derives its advantage from being a continuous innovator, creating custom-made solutions across a wide range of agroecologies and crops and irrigation products.

2:00 - 2:15 Discussion

2:15 - 2:45 Supply chain design to improve animal health and environmental quality: cases from Asia

- **David Roland-Holst, UC Berkeley**

In the midst of foot and mouth disease in Thailand and Cambodia, and avian flu in Vietnam, animal product companies innovated in the design of supply chains to reduce exposure of their operations to animal disease while at the same time making them more efficient and higher quality.

2:45 - 3:00 Discussion

3:00 - 3:15 Coffee Break

3:15 - 3:45 Woolf Farming and Processing's innovations in water and energy efficiency to allow shift to specialty crops to export to Asia

➤ **Stuart Woolf, CEO**

Woolf created a first mover advantage by first addressing and resolving the constraint of water access and second shifting from field crops to high value crops, used again for first mover advantage by building a large export operation of almonds to China.

3:45 - 4:00 Discussion

4:00 - 4:30 Climate, energy, and market risk and resilience challenges and solutions for agrifood supply chains in an era of climate change, energy cost and food safety shocks in some emerging market areas.

➤ **Tom Reardon, Michigan State University**

4:30 - 5:00 Conclusions of the Workshop, David Zilberman and Tom Reardon

5:30 – 7.00 Reception with Dean Keith Gilles and Dinner at the Faculty Club at UC Berkeley