

# Building Strategies for Effective Virtual Collaboration Between Industry and Academia

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## Session Outline

- ELO snapshot
- Some definitions
- Our challenge
- Real experiences
  - A virtual user with a job to do
  - A recovering technologist
- Breakout discussions to address:
  - Technology
  - Strategies
  - Support

## ELO Snapshot



- We facilitate online learning and collaboration.
  - Online courses and graduate degree programs
  - Professional development
  - Virtual communication and collaboration
- 10X growth in the last three years.

## Some Definitions

strat·e·gy

*/'stratəjē/*

Noun

1. A plan of action or policy designed to achieve a major or overall aim.

col·lab·o·ra·tion

*/kəˌlabə'rāSHən/*

Noun

1. The action of working with someone to produce or create something.

## Some Definitions

vir·tu·al col·lab·o·ra·tion

*/ˈvərCHooəl/ /kəˌlabəˈrāSHən/*

Noun

1. Collaboration conducted exclusively through technology-mediated communication.

# It All Started with a Simple Question...

- “Can you help us?”
- A progression of solutions
  - “Polycom” communication
  - PhD defenses
  - Virtual meetings
  - Webinars
  - Virtual town hall meetings
  - Conference support
  - Industry collaborations
  - Multi-institutional Research Centers

How do you support virtual collaboration with a near-zero tolerance for error?

# As a User

Any problems are complete killers to  
using the technology



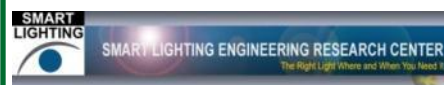
# Engineering Research Centers

Advanced  
Manufacturing (4)

Biotechnology & Health  
Care (4)

Energy Sustainability &  
Infrastructure (5)

Microelectronics, Sensing  
& Information (4)



Engineering Research Center for  
Structured Organic Particulate Systems



Center for Nanomanufacturing  
Systems for Mobile Computing

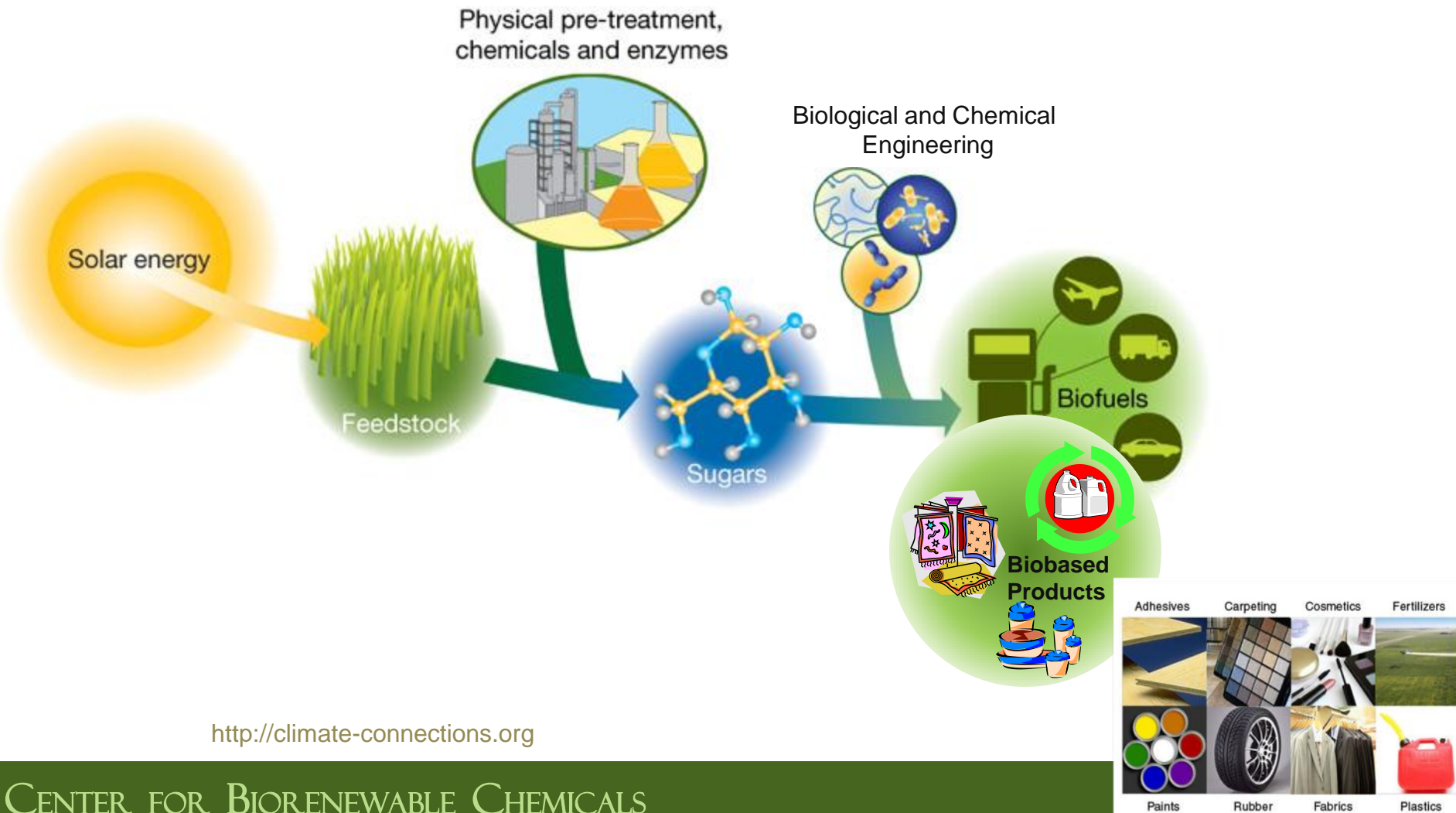


Thousands of Inventions and Licenses; Hundreds of Spinoff Companies;  
\$10s of billions of total market value; 10:1 return on investment in State



# Solution

Biomass + Biological & Chemical Engineering = Biobased Chemicals



<http://climate-connections.org>

# Multidisciplinary Research



# Participating Institutions

## Lead Institution

- Iowa State University

## Partner Institutions

- Penn State University
- Rice University
- University of California - Irvine
- University of New Mexico
- University of Virginia
- University of Wisconsin

## Affiliated Institutions

- The Salk Institute
- University of Michigan

## International Institutions

- Abo Akademi University (Finland)
- Fritz Haber Institute (Germany)
- Technical University of Denmark
- Technische Universiteit (Netherlands)

IOWA STATE UNIVERSITY



The University of New Mexico



# Innovation Partnerships

## Local Innovation Partners

- ISU Pappajohn Center for Entrepreneurship
- ISU Research Park & Small Business Administration
- ISU Offices of Intellectual Property

## Economic Development

- Iowa Economic Development Authority
- Iowa Values Fund, Iowa Demonstration Fund
- Iowa Seed/Angel Funds

## Centers of Excellence

- BioCentury Research Farm
- Biomass Energy Conversion Facility
- Center for Crops Utilization Research

## Venture Capital Partners

- Allied Minds
- Cimarron Capital
- Equity Dynamics
- Illinois Ventures
- Khosla Ventures
- Kleiner Perkins Caufield & Byers
- Mayfield Fund
- Nidus Partners

**IOWA STATE UNIVERSITY**  
OF SCIENCE AND TECHNOLOGY

**BCRF, BECON, CCUR**



**IOWA STATE UNIVERSITY**  
Pappajohn Center for Entrepreneurship



**khosla ventures**  
venture assistance, strategic advice, venture capital

**Equity Dynamics**



**cimarron**  
CAPITAL PARTNERS



**MAYFIELD  
FUND**



**NIDUS**



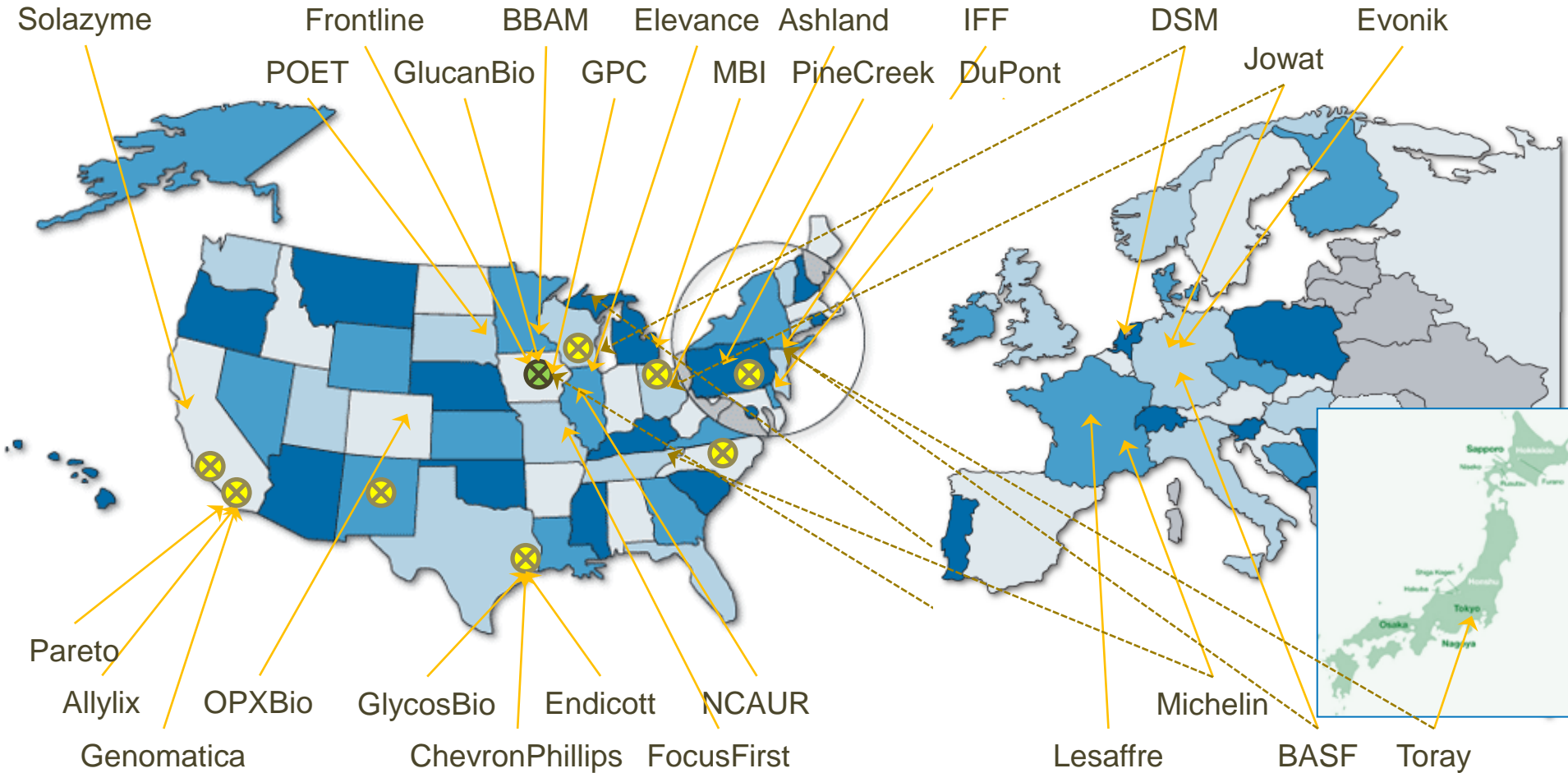
# Industry Members

1. Allylix
2. Ashland
3. BASF
4. Chevron Phillips
5. Danisco Group
6. DSM Group
7. Elevance
8. Endicott Biofuels
9. Evonik Industries
10. Frontline Bioenergy
11. Focus First (Nidus)
12. Genomatica
13. Glucan Biorenewables
14. Glycos Biotechnologies
15. Grain Processing Corp.
16. Group IV Biosystems
17. International Flavors & Fragrances
18. Jowat
19. Lesaffre Group
20. MBI
21. Michelin Group
22. National.Ctr.Ag.Utnz.Res.(USDA)
23. OmegaChea Biorenewables
24. OPX Biotechnologies
25. Pareto Biotechnologies
26. Pine Creek Systems
27. Poet Energy
28. Solazyme
29. The BioBusiness Alliance MN
30. Toray Industries

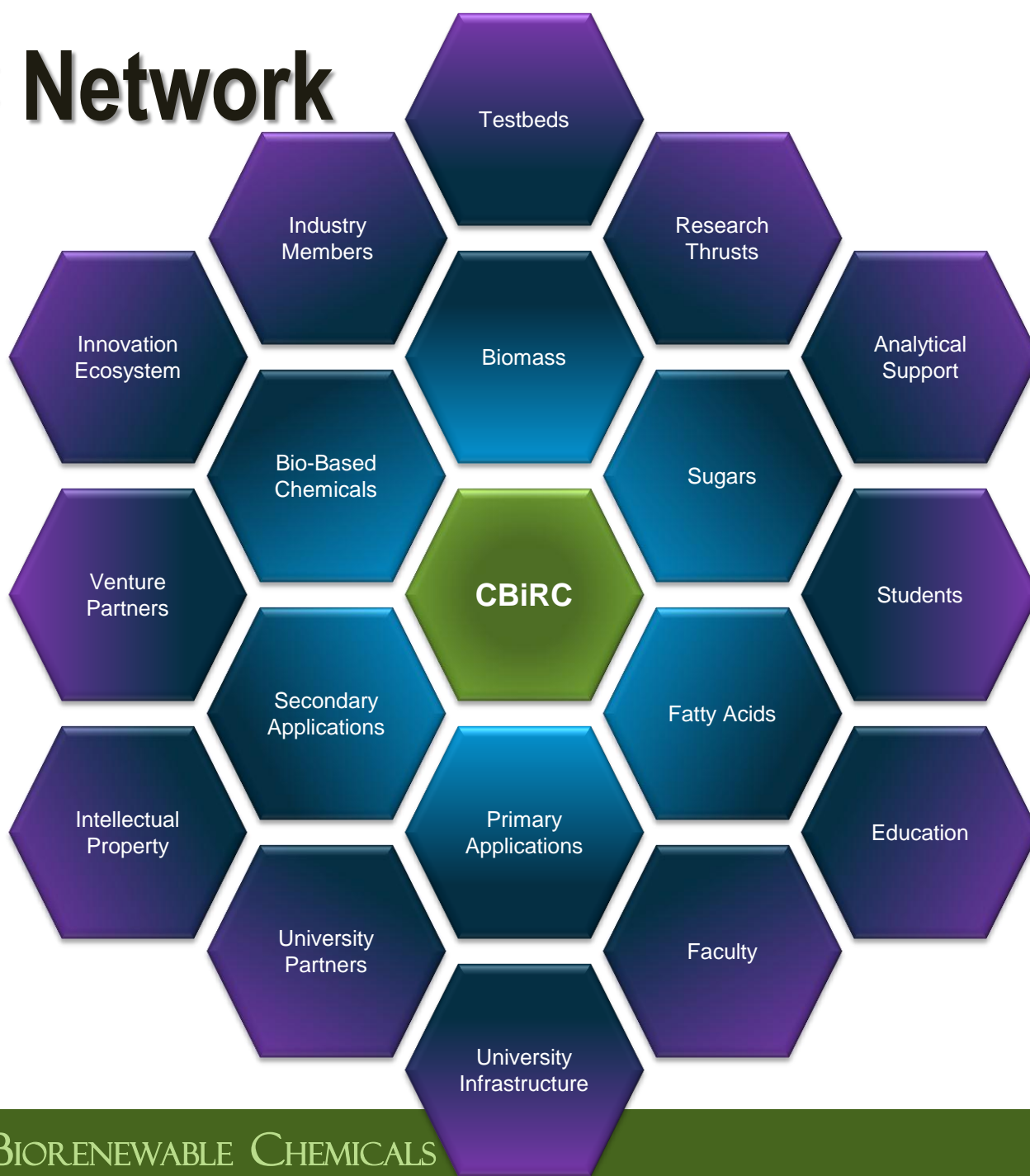


# Partnerships





# CBiRC Network



# Paul Jewell

(Recovering Technologist)



# Tap the Potential





## One Size Does Not Fit All



Internal  
CBiRC  
Meeting

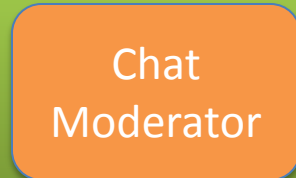
Audio



Video



Personnel



# Anatomy of the Industry Virtual Room

## 1. CBiRC Adobe Connect Session Pod

The screenshot displays an Adobe Connect session pod. The main content area shows a slide with the text "Thank You" and a group photograph of approximately 15 people standing in front of a building. The interface includes a top menu bar with options like Meeting, Layouts, Pods, Audio, and Help. On the left, there is a "Camera and Voice" window showing a video feed of a participant, and an "Attendee List (30)" window listing various participants and hosts. On the right, there is an "Industry Attendees (7)" window and an "Industry Chat (Everyone)" window. The chat window contains several messages, including "CBiRC: Can you here Tonie?", "CBiRC: hear (sp)", "Industry CBiRC 3: Can hear-Perminus", "Industry CBiRC 2: yes", "CBiRC: Great, thanks", "CBiRC: Feel free to type any questions you would like me to ask.", "Industry CBiRC 2: can Jacob comment on titers/yields?", "CBiRC: on anything specific product? regarding titers.", "Industry CBiRC 2: Can he comment on relative productivity of the 'reverse' approach relative to the conventional approach?", "CBiRC: i'll ask", and "CBiRC: Your questions are related, correct? You want to know titers/yields of 'reverse' vs conventional". The bottom of the screen shows a Windows taskbar with the system clock at 11:20 AM on 12/13/2012.

## Anatomy of the Industry Virtual Room 2. Attendee List

The screenshot displays an Adobe Connect meeting interface. The main window shows a slide with the text "Thank You" and a group photograph of approximately 15 people standing in front of a building. On the left side, there is a "Camera and Voice" window showing a video feed of a person. Below the main window, a chat window is visible with messages from participants. On the right side, there is a sidebar with several panels: "Industry Attendees (7)", "Industry Chat (Everyone)", and "Members". The "Attendee List (30)" panel is highlighted with a red box and contains the following list of participants:

- Hosts (5)
  - Iowa State University
  - ISU
  - Jacqueline Shanks
  - Moderator
  - Presenter
- Presenters (19)
  - Ann Perera 2
  - Datye UNM Group
  - Eran Pichersky
  - Erin
  - Geng Yu-Umich
  - Jacob Vick - Rice
  - Jarboe
  - Javier C
  - Jiang Moan Yuan
  - Ka San
  - Lude Rizhky
  - Maria Rodriguez-Moya
  - MaryAnn Moore
  - Matt
  - Raj Raman
  - Rob Anex
  - stmpath

The "Industry Attendees (7)" panel on the right shows:

- Hosts (3)
  - CBIRC
  - Iowa State University
  - ISU
- Presenters (0)
- Participants (4)
  - Industry CBIRC
  - Industry CBIRC 2
  - Industry CBIRC 3
  - Industry CBIRC 4

The "Industry Chat (Everyone)" panel shows a conversation:

CBIRC: Can you here Tonie?  
CBIRC: hear (sp)  
Industry CBIRC 3: Can hear-Perminus  
Industry CBIRC 2: yes  
CBIRC: Great, thanks  
CBIRC: ..... (12/13/2012 10:39) .....  
CBIRC: Feel free to type any questions you would like me to ask.  
Industry CBIRC 2: can Jacob comment on titers/yields?  
CBIRC: on anything specific product? regarding titers.  
Industry CBIRC 2: Can he comment on relative productivity of the 'reverse' approach relative to the conventional approach?  
CBIRC: I'll ask  
CBIRC: ..... (12/13/2012 11:20) .....  
CBIRC: Your questions are related, correct? You want to know titers/yields of "reverse" vs conventional

The bottom of the screen features a green banner with the text "IOWA STATE UNIVERSITY LIVE GREEN!" and a system tray showing the time as 11:20 AM on 12/13/2012.

# Anatomy of the Industry Virtual Room

## 3. Live Video

The screenshot displays an Adobe Connect virtual meeting interface. The main content area shows a slide with the text "Thank You" and a group photograph of approximately 15 people standing in front of a building. A small video window in the top-left corner, highlighted with a red border, shows a presenter, Jacob Wick - Rice, speaking. The interface includes a top menu bar with options like "Meeting", "Layouts", "Pods", "Audio", and "Help". On the left, a "Hosts (5)" and "Presenters (19)" list is visible. On the right, an "Industry Attendees (7)" list and an "Industry Chat (Everyone)" window are present. The chat window shows a conversation about titer yields and a reminder from Iowa State University. The bottom of the screen features a green banner with the text "IOWA STATE UNIVERSITY LIVE GREEN!" and a system tray with the time 11:20 AM on 12/13/2012.



# Anatomy of the Industry Virtual Room

## 4. Industry Attendee List

The screenshot displays an Adobe Connect virtual meeting interface. The main window shows a presentation slide with the text "Thank You" and a group photograph of approximately 15 people standing in front of a building. The interface includes several panels:

- Attendee List (30):** Located on the left, it lists participants including Hosts (5) and Presenters (19).
- Industry Attendees (7):** A red-bordered box highlights a sub-section of the attendee list on the right, containing:
  - Hosts (3): CBIRC, Iowa State University, ISU
  - Presenters (0)
  - Participants (4): Industry CBIRC, Industry CBIRC 2, Industry CBIRC 3, Industry CBIRC 4
- Industry Chat (Everyone):** Located at the bottom right, it shows a chat log with messages from participants like CBIRC, Industry CBIRC 3, and Industry CBIRC 2.

The bottom of the screen features a green banner with the text "IOWA STATE UNIVERSITY LIVE GREEN!" and a system tray showing the time as 11:20 AM on 12/13/2012.

# Anatomy of the Industry Virtual Room

## 5. Industry Chat Pod

The screenshot displays the Adobe Connect interface for a virtual meeting. The main window shows a slide with the text "Thank You" and a group photograph of approximately 15 people standing in front of a building. The interface includes several panels:

- Camera and Voice:** Shows a video feed of a participant named Jacob Wick - Rice.
- Attendee List (30):** Lists participants including Hosts (Iowa State University, ISU, Jacqueline Shanks, Moderator, Presenter) and Presenters (Ann Perera 2, Datye UNM Group, Eran Pichersky, Erin, Geng Yu-Umich, Jacob Wick - Rice, Jarboe, Javier C, Jang Moon Yoon, Ka San, Lede Riazkay, Maria Rodriguez-Moya, MaryAnn Moore, Matt, Raj Raman, Rob Anex, stampath).
- Chat Window:** Displays a conversation with the following messages:
  - Jarboe: Yes
  - Jarboe: good morning!
  - Rob Anex: Loud and clear!
  - Iowa State University: As a reminder, please mute your phone either locally or by pressing "star 6" on your phone
- Industry Chat (Everyone):** A separate chat window with a red border containing the following messages:
  - CBIRC: Can you here Tonia? (12/13/2012 09:56)
  - CBIRC: hear (sp)
  - Industry CBIRC 3: Can hear-Perminus
  - Industry CBIRC 2: yes
  - CBIRC: Great, thanks
  - CBIRC: Feel free to type any questions you would like me to ask. (12/13/2012 10:39)
  - Industry CBIRC 2: can Jacob comment on titers/yields? (12/13/2012 11:16)
  - CBIRC: on anything specific product? regarding titers.
  - Industry CBIRC 2: Can he comment on relative productivity of the 'reverse' approach relative to the conventional approach?
  - CBIRC: I'll ask
  - CBIRC: Your questions are related, correct? You want to know titers/yields of "reverse" vs conventional (12/13/2012 11:20)

The bottom of the screen features the text "IOWA STATE UNIVERSITY LIVE GREEN!" and a system tray with the time 11:20 AM 12/13/2012 and a progress bar showing 1:19:46/1:27:07.

# When Failure is Not an Option



## Some ELO Strategies That Work

- Adopt the simplest solution(s) appropriate to the situation.
- Utilize smart and effective undergraduates.
- Set expectations beforehand.
- Practice, practice, practice.
- Be prepared for failure – always have a Plan B.

# This is the Interactive Portion...

## *The Process:*

*20 min*

*Break-out  
Groups*

*3 x 5-min  
presentations*

1. Break into 3 groups
2. Select a scribe to write on flip charts
3. Discuss your allocated topic
4. Use flip charts to record major points discussed.
5. Select a person to present results back to whole group
6. Finish and return to whole group for 3 five minute presentations and open discussion.

# Three Breakout Groups

**(20 Minutes)**

1. TECHNOLOGY:

- Identify technological challenges and solutions.

2. COLLABORATION:

- Strategies for facilitating user focused virtual collaborations.

3. SUPPORT:

- Identify human resource challenges and solutions.