

- Minutes -
Engineering College Council Meeting
March 11-12, 2019
Cornell Ithaca Campus

Members Present: Nadine Aubry, John Balen, Najib Canaan, Lance Collins, Frank DeCosta, Alec Gallimore, Rana Glasgal, Kent Goklen, Ken Goldman, Andrea Ippolito, Michele Kaliski, Debra Kemper, Bill LaFontaine, Ivan Lustig, Kapil Mathur, Jim McCormick, Donald Morel, Sam Ramos, Beckie Robertson, Dmitri Shklovsky, Dan Simpkins, Elissa Sterry, Molly Tschang, Andy Verhalen, Lisa Walker.

Emeriti Present: Jay Carter, Sarah Fischell, Greg Galvin, Bob Shaw

The meeting presentations and materials can be found at:
<https://confluence.cornell.edu/display/ECC/2019+Spring+ECC+Meeting>

Welcome and Introductions

Elissa Sterry, ECC Chair, welcomed the Council to the Spring '19 ECC Meeting. She announced that the Spring '19 meeting would be a follow up to the Fall '18 meeting which focused on marketing and communications in the college, as well as ECC Task Force reporting. During the executive session of the Fall '18 meeting, council members expressed their interest in being more involved in strategic areas in the college and also gave positive feedback on the Task Forces which use of their collective talents to assist the college. She added that the Capital Task Force had completed their work, and thanked the task force members for their outstanding efforts. She encouraged the council members to communicate with her directly by phone or email with their feedback on the Task Forces. Elissa also welcomed three new members to the council: Alec D. Gallimore, University of Michigan; Debra Kemper (Cornell B.S. '88 CEE) Golden Seeds Venture Fund; and Kapil Mathur (Cornell M.Eng. '87, Ph.D. '88 ME) Cubist Systematic Strategies.

Review of Cornell Engineering Strategic Vision

Lance Collins, Joseph Silbert Dean of Engineering

Lance Collins welcomed the Council and thanked them for their continued feedback and support. He gave an overview of the college's strategic vision and progress towards its enabling goals which include: an emphasis on diversity; leadership in the research thrust areas of advanced materials, complex systems, network science and computation (data science); in addition to the emerging areas of bioengineering, energy and the environment, as well as increased interactions with industry. He reiterated that Cornell Engineering aspires to *“be widely recognized as among the top three engineering colleges in undergraduate and graduate studies.”*

Lance also discussed the four differentiators that make Cornell different from other universities,

which are: creating a new educational paradigm; leveraging the Cornell Tech campus; expanding bioengineering; and enhancing the Energy Systems Institute.

Breaking the Rules to Teach Using a New Paradigm

Lance revisited the “breaking the rules” platform and explained the importance of “breaking the rules to teach using a new paradigm”. He pointed out that the yield of students who have decided to come to Cornell Engineering has risen over the years, due in part to our marketing program. Lance also stressed the importance of diversity. He pointed out that we do a lot of teamwork in engineering, and that a diverse team does better work because it comes from a group of people with different perspectives, which is a win-win situation. However, he noted that it is also more challenging to work in a diverse environment. Lance emphasized that he wants students to be agents of change because of their experiences at Cornell. He pointed out that for the first time the college will have an enrollment of over 50% women. He also discussed the diversity of our URM populations. The percentage of our URM undergraduates has increased to 19%. However, the number of URM faculty and PhD students has remained relatively flat.

Lance emphasized the importance of the college’s role in creating innovative leaders in the 21st Century who receive an education based on rigorous fundamentals. He pointed out that most of the top 30 schools could also make the same claims. However, he noted that some of our differentiators include: ethics, leadership, communication, entrepreneurship, experiential learning, project teams, and the McCormick Teaching Excellence Institute.

Lance highlighted the Cornell Engineering Entrepreneurship Roadmap website for undergraduates, graduate students, faculty and alumni. This website provides resources for those interested in entrepreneurship. He also gave an overview of the commercialization fellows program that started in 2016. This program takes the most promising Ph.D. students away from their labs for six months to provide comprehensive education around technology commercialization. He explained that UNY I-Corps is a hub for education, infrastructure and research to engage academic scientists and engineers in innovation.

Lance announced the new Praxis Center for Venture Development which is a startup business incubator for high technology ventures in Engineering, Digital and Physical Sciences. “The Center focuses on accelerating the development of client companies’ technologies or products, validating client companies’ value propositions and strengthening client companies’ management teams. The Center facilitates the maturation of client companies to achieve a sustainable level of economic activity, generate significant outside investments and independent operation”.

Breaking the Rules to Leverage our Collaborations at Cornell Tech

Lance indicated that the Technion is one of the most entrepreneurial colleges in the world. He outlined the partnership between Cornell Tech and the Technion - Israel Institute of Technology. Cornell Tech has 500+ alumni, 300+ students this year, 30+ faculty and 50 startups.

Lance described some of the opportunities for Cornell Engineering to partner with Cornell Tech

which is a pipeline for Cornell engineering students interested in joining the tech boom in NYC. It also creates the opportunity for diversity. He pointed out that we need to find a way to leverage the CT/CIS/COE in partnership to advance digital and data technologies, which also creates opportunities for co-branding.

Breaking the Rules to Expand Bioengineering

Lance explained that the field of bioengineering is the multidisciplinary research thrust within the college focused on utilizing engineering principles and approaches to advance our understanding of, and ability to manipulate, biological systems. Bioengineering spans several departments in the college (BME, MSE, MAE, AEP, Facilities, BEE, ECE and CBE), as well as Weill Cornell Medicine, the College of Veterinary Science, CALS and Cornell Tech. Few universities in the nation have capabilities that span the full spectrum of disciplines. Lance pointed out that the Nancy E. and Peter C. Meinig School of Biomedical Engineering was established thanks to the \$50 million gift of the Meinig family. He added that CBE was named the Robert Frederick H. Smith School of Chemical and Biomolecular Engineering. Robert Smith, along with his Fund II foundation, made a \$50 million commitment. These funds support CBE students with a focus on African-American and female students. The gift also created a unique fellowship program at Cornell Tech that further strengthens the New York City campus' ties to engineering at Cornell in Ithaca. Lance pointed out that the Meinig gift powered BME faculty growth (James Antaki, Susan K. McAdam Professor of Hear Assist Technology, and Yadong Wang, McAdam Family Foundation Professor of Heart Assist Technology). He added that Lowell McAdam endowed these two chairs to senior faculty members dedicated to the areas of cardiovascular research and related technologies.

Pushing the Boundaries to Enhance Energy Creation

Lance gave an overview of the Cornell Energy Systems Institute led by Lynden Archer. The mission of the Cornell Energy Systems Institute (CESI) is to “make smart energy systems with low carbon footprint the norm through innovations in materials, technology, and systems design. The CESI is a university-wide collaboration of leading faculty researchers, staff, and students who work together to address grand-challenge scale technical questions related to energy. The scale and scope of these questions demand answers that fall outside conventional disciplinary boundaries and beyond the expertise of individual researchers. Through seed funding programs, fellowships, energy practitioners in residence, and partnerships with the David R. Atkinson Center for a Sustainable Future, National Laboratories, and Industry, CESI functions as a team-building hub for all matters related to energy and energy systems science and engineering.” Lance also indicated that the CESI research thrust areas include: Transportation and Manufacturing Systems; Energy Production Systems and Infrastructure; and Carbon Capture and Conversion Systems. He also noted that the long-term goals of Earth Source Heat are to create a new regional energy supply and to heat Cornell's Ithaca campus using only natural, renewable resources including geothermal energy.

Building on Breakthroughs to Design the Future

Lance pointed out that the college is breaking the rules with our facilities: e.g., modern classrooms in Weill Hall, renovations of Upson Hall, Rhodes Hall, Olin Hall renovation, as well as

the future renovation of Hollister Hall. He also noted that at Cornell Tech, The House (the world's first residential high-rise built to Passive House standards), exemplifies Cornell Tech's commitment to setting new benchmarks in sustainability and innovation. This on-campus home for students and faculty uses 60-70% less energy than typical buildings. The Bloomberg Center has set the goal of being net zero (i.e., producing as much energy as it consumes) and is LEED Platinum. The Tata Innovation center has a rooftop photovoltaic canopy that unifies the campus and is LEED Silver. Currently, there are two more buildings under construction: the Verizon building and Hotel.

College Visibility

Lance described examples of technology advances in the college that have given it visibility. Chris Schaffer and Nozomi Nishimura (BME) are conducting promising new research into the treatment for Alzheimer's. Natalie Mahowald (EAS) testified to Congress about the urgency of acting now to arrest climate change. Pat Reed (CEE) wrote an article on "*Robust abatement pathways to tolerable climate futures require immediate global action*" published in the journal, *Nature Climate Change*. Claudia Fischbach (BME) is tackling cancer biology research across colleges and campuses. David Muller (AEP) is pushing the boundaries with his electron microscope. Lance also discussed the college's visibility that resulted from the Cornell/Columbia's team of engineers' plan that averted NYC's dreaded L train shutdown.

Update on Re-Branding Initiative, Launch of Marketing Strategy Task Force

Lance Collins, Joseph Silbert Dean of Engineering

Jacob Lepiarz, Siegelvision

Elissa Sterry, ECC Chair

The Vision

Siegelvision is assisting the Dean and college's marketing team with a plan to elevate the college's reputation among key audiences. Jacob Lepiarz of Siegelvision described the vision of the college as: "A future where Cornell Engineering is broadly recognized as one of the greatest engineering colleges in the world."

Siegelvision Current Assignment

Siegelvision's current assignment is to measure and evaluate the college's marketing strategy, refresh the brand voice, and provide recommendations on industry engagement. Jacob summarized the work Siegelvision has carried out to date which includes the following preliminary recommendation: the ECC Marketing Strategy Task Force was launched "to provide input to Dean Collins and the Cornell College of Engineering on marketing strategy to improve reputation among corporate stakeholders on par with Stanford, MIT and other best-in-class universities."

Jacob gave an overview of the proposed framework for the development of the measurement and evaluation process. He noted that Siegelvision has completed a comprehensive audit of the college's marketing measurement and evaluation system, including internal marketing metrics sources, reporting from external partners, as well as key performance indicators (KPI's).

Comments:

- *Can you have brand health when it's just focused on a particular audience? It seems like a much bigger project.* Jacob responded that since resources are limited, we need focused audiences.
- *Council members expressed concerns about the resources needed for implementing marketing.* Jacob indicated that it takes significant resources to move the general population. Dawn McWilliams pointed out that we have a marketing budget of about \$400-500 thousand a year. Jacob added that we should hone in on our key resource areas.
- *Do we build relationships with policy makers, community organizations, school districts?* Lance indicated that we have been successful with our admissions efforts by tapping into community organizations.
- *Through this process, were you able to measure stakeholder sentiments?* Jacob responded that several services measure stakeholder sentiments. Miranda Swanson added that our students have expressed strong interest in international experiences and she is co-leading a committee of faculty and staff to think about expanding international experiences for our students. They are also considering how to use technology to bring international experiences to the classroom. Jacob added that our alumni are a huge audience who are looking for ways to engage and contribute.
- *Are we going to start with a domestic scope then expand to international?* Jacob responded that this will be a question for the ECC Marketing Strategy Task Force. They will probably start with getting the framework in place domestically, before expanding internationally. Elissa added that industry marketing will be global.
- *Does an improved marketing strategy result in increased research dollars?* Lance pointed out that the new marketing strategy will help, but will not cure the problem. Its role is to increase industry recognition.
- *With respect to the U.S. News survey, can our research dollars be determined in different ways? Is it possible to reallocate our research dollars to show higher amounts?* David Erickson noted that reputation-wise we have a very high ranking; however, our expenditures are low. He added that we undercounted our expenditures last year. BME's expenditures almost doubled last year. With a few more research dollars, our rankings could have risen about 4 points. He is more confident now that we are accounting for our expenditures correctly.

Jacob pointed out that Siegelvision is focusing on refreshing the college's brand voice: "Breaking the Rules" is an ethos, not a slogan. He added that the college should align its

positioning of unconventional thinking with its other core attributes and provide more guidance and flexibility to express brand identity. The college also needs to create an identity statement about what makes Cornell Engineering unique. He recommended testing the refreshed positioning and messaging with key audiences through survey validation with alumni, peers, students and industry, and testing the message with unaffiliated industry audiences. Jacob gave a few recommendations for elevating the brand and delivering results against the college's key objectives through the COE website, Cornell Engineering brand ambassador kits, and internship programs.

Jacob had an open discussion with the Council regarding the re-branding initiative in the college. The following are some of the comments made during this discussion:

Comments:

- *We need to know what channels or inputs industry use to get their information. The more times Cornell Engineering appears the better. Harvard, Stanford and MIT appear everywhere.*
- *The pieces are there and we have great students... the bad news is that no one is creating the best narrative. We need to have our name mentioned more often in connection with being a great college.*
- *How do you get students who've become industry leaders to speak about their experiences at Cornell and how it led to their success?* Elissa responded that outreach to the industry community will be one of the charges of the task force.
- *We need to engage recent alumni in this industry community.* Carol responded that this is being discussed as part of the university strategy.
- *We don't have the ecosystem to drive this conversation, which is why the Cornell Tech campus can be valuable in this effort. One of the positives is the Cornell legacy alumni.*
- *What are our metrics and goals, and how are we going to measure those metrics?* Jacob responded that they will use objective metrics (i.e., what are the perceptions, Industry engagements, student body quality) and will create a chart with those metrics.
- *We should hold day-long symposia as a marketing tactic.*
- *We have more of a business development challenge than a marketing challenge. We need person-to-person activities, as well as a list of the agencies we want to get funding from and start building relationships with them. Assign a faculty member to an agency or industry and bring them here to meet faculty. The budget could be more targeted.* Jacob responded that the preliminary findings show that the budget needs to be very targeted, and we need to define faculty in research areas who have unique value to add.

Carol added that without a business development officer this has been difficult, however, she's about to make an offer for a candidate for this position shortly.

- *We should show our students appreciation. That would motivate them to stay engaged with Cornell and to become better alumni.*
- *We should consider the role of professional engineers and scientists. Some universities are working in concert with their faculty to increase their research dollars.* Lance responded that Cornell was late in the game due to its traditional view about hiring. Cornell Tech has forced us to change that view with the use of researchers.
- *How many ECC members have heard Cornell's name mentioned in their business? If people don't hear about Cornell, and without personal contact with industry, it will be difficult to increase our rankings.*
- *We need to double our research dollars. What is the connection between our consultants and Siegelvision?* Jacob responded that the Lewis- Burke people have been asked to be more strategic and are developing the strategic plan. Siegelvision is more focused on connecting with alumni. Marketing is only one component. The more targeted we can be, the more successful we will be. Elissa indicated that Siegelvision has done some preliminary work on industry engagement.
- Elissa gave overview of Marketing Strategy Task Force charter that involves: college assessment, high level roadmap, develop key message for the college (elevator speech) that should be incorporated in targeted communications and promotional materials. Marketing communications need to be evaluated, and recommendations made. Develop ideas for ECC members and alumni can get the word out. Document all of the ideas whether or not they are implemented. Act as a focus group to test communications developed by Siegelvision.
- *The Task Force should discuss IP issues and pay equity. It should also discuss licensing through equity position with companies.*
- *It is very challenging to work with Cornell with licensing for IP. Companies have to pay twice. There are still challenges with working with startups.* Lance indicated that their companies should have their CTO's speaking directly with Emmanuel Giannelis re. IP.
- *There should be serious, specific, quantitative benchmarking against other universities.*

Task Force Break Out Session Notes

Bioengineering Task Force

Attendees: Andrea Ippolito, Ivan Lustig, Kent Goklen, Don Morel, Beckie Robertson and David Erickson, *Associate Dean for Research and Graduate Studies*

Meeting Notes

- David Erickson gave an overview of the handouts and the charge for the breakout session.
- Reviewed College of Engineering area of strength document and identified leaders. This document includes Digital Agriculture, Immuno-Engineering and Infection Biology, Genome Biology, Cancer, Neurotech, Translating Biomedical Technologies, Orthopedic Biomechanics.
- Craig Wheeler has asked to have bio manufacturing included.
- David Erickson shared NSF Digital Agriculture recent funding submission of \$50M. If they are chosen to move forward (with this funding) one thing that could be helpful would be who should be partners/advisory council. David said that some seed funds already exist, as this would be additional funding.
- Beckie Robertson suggested that we help them pick from these strengths to determine criteria for picking the pilot. Cross-disciplinary collaboration, internal leader/champion, momentum, opportunity, leading with our strengths.
- Don Morel spoke about being a mentor to young professors, sharing network and specifically mentioned being on a board with someone who could help with Digital Ag.
- David Erickson thinks the following are the “hot” items:
 - Digital Agriculture
 - NeuroTech – Beckie Robertson
 - Immuno-Engineering and Infection Biology – Don Morel, Kent Goklen
- Identify who on this task force would be willing to partner, contribute and assist. There was discussion around opening up their networks to find industry partners for each.
- Andrea Ippolito to reach out to task force individuals and identify volunteers for each area. Andrea will then share these names and bios with David. David will review and then reach out to faculty leads to ask how specific task force members can assist them. After these conversations occur, David will report back to the task force. Then task force can discuss next steps.

Energy, Environment, and Sustainability Task Force

Attendees: John Swanson, Sarah Fischell (emeritus), Bob Shaw (emeritus), Jay Carter (emeritus), Lance Collins, Kapil Mathur, Andrew Verhalen, Terry Jordan (in Lynden Archer’s absence).

- Sarah’s recap of goals: 2035 Carbon neutrality, premier research institute in the environmental area
- The Opportunity: Bob Shaw spoke about the goal of having all kWhs be carbo neutral. He drafted a paper, and circulated it to the group. The result is the “Cornell Challenge 100% Renewable kWh” white paper.
 - First step is to create a working group of 10 people. Bob and Jay are both interested in joining. We cannot start doing this until we have a plan that shows it makes complete economic sense to do it. We have data through the Facilities Division that can be used to establish that.
 - For a while we can charge ourselves what we would have paid to be on the grid, and use those funds to pay off the cost of the venture.
 - The University uses upwards of 100 mWhs, but need twice capacity to handle things like storage.
 - Bob said that there needs to be some partnership with the business school to do a survey of need and economics of the program.
 - Sarah indicated that we don’t want to just sign a PPA contract with a developer and preclude faculty and students from being engaged with the process. Bob added that by going the other route, we also own the thing.
 - Sarah indicated that we need more visibility into what Facilities is doing.
 - Lance spoke to this, and mentioned Rick, the VP of Facilities. Within Facilities there’s a subgroup that handles everything related to sustainability. Bert Bland is within that group, and has seen the white paper mentioned above.
 - Lance said this is an extraordinary Facilities group, with some of them being Cornell Engineers, who are open minded to engaging with this process.
 - Sarah Zemanick (Dir. of Campus Sustainability) needs to be a part of conversations.
 - Lance suggested walking through data with the team, ask what they can already do, then identify the needs.
 - Bob added that there needs to be someone from CS to ensure the data is usable long term, and identify interesting features to the data.
- Issues to address:
 - Lance spoke to the trickiness of the power source, which burns PA sourced natural gas to turn a turbine, driving our combined heat and power plant. This is a state of the art facility, which we would be casting aside.
 - There was a question around how high a priority the 2035 neutrality goals are.
 - Terry pointed out that resources will be needed to pay UG students who work on the project.
 - Jay pointed out that there is an energy systems club that has expressed interest in participating.
- Miscellaneous:
 - The university pays 6-8 cents per kWh.
 - Andrew mentioned the Allam cycle plant down in Texas, which is 90% efficient, but still uses fossil fuels. Sarah mentioned that they have a suspect method of making it financially feasible.

- Next Steps: Lance said we need to start with the phone call to Facilities to discuss interest. Lance invited everyone to participate in a future meeting with Facilities. Bob asked that they be sure to send data ahead of time for review.
- Presentation:
 - Bob caught the group up. Last meeting everyone agreed to take on key initiative: making 100% of kWh used by CU to be renewable.
 - Since then, the team worked on the 4-page white paper which was “a plan to create a business plan”, calling for a gathering of data (cost of physical spaces, cost of energy, usage of energy), then creating a development plan.
 - Bob shared that there is already an abundance of data, but indicated it would need massaging. He said they also need to do diligence on developers and costs.

Launch of Marketing Strategy Group

Attendees: Elissa Sterry (chair) Greg Galvin, Bill Lafontaine, Lisa Walker, Alec Gallimore, Najib Canaan, Molly Tschang, Sam Ramos, Dmitri Shklovsky, John Balen, Jim McCormick
Liaison: Associate Dean Erin Mulrooney
Guest: Jacob Lepiarz (SiegelVision)

- Elissa Sterry began the meeting by asking the group to clarify the goals of the task force and how it will measure success. All agreed it was not necessarily about marketing and communications; but how do we get our product (brand) to market.
- Jim McCormick suggested the group think about 2-3 years from now, having a celebratory champagne toast – we’ve really done it, we have X, X, X – what are the the Xs?
- Elissa agreed that the point of their work is to attract more research and corporate funding to Cornell. What they are really trying to accomplish is increasing interactions with business and industry stakeholders. All agreed that they need to get statistics on where we are today – and looking at X numbers of years from now, where should Cornell be?
- Lisa Walker said the task force should provide advice (nose in, hands out) on how to increase the attractiveness of Cornell within industry and corporations
 - How easy is it to do business with Cornell?
 - Does the website represent how Cornell conducts business with industry?
- Najib Canaan suggested establishing relationships with middle market and start-up companies. Jim focused on the importance of repeat business with companies and truly meaningful partnerships.
- Molly Tschang said they need to get some ‘short-term wins.’ For example, Bill Lafontaine suggested starting at a “greenfield” and asking, what would it take to get Cornell engineering to be an attractive place for people to want to engage with faculty, students and projects? Then the marketing would center on Cornell’s capabilities and ease of use by corporations.

- Alec Gallimore shared an example from the University of Michigan. They have one of three university-based Toyota Institutes. They have these institutes for talent acquisition – more PhD students mean more game changers.
- Much of the discussion was around what it is that corporations find attractive about working with universities. Talent and nexus of amazing research that companies simply don't have. Therefore, IP is critically important. The cost of doing business is changing IP to fit each corporate situation. UMich modifies the IP to work for the companies – one size does not fit all.

Next Steps

- Who are the companies that are likely to participate? (Create a list)
- #1 task is we must define the criteria important to corporations
- We need to look at where are our students going, who is hiring them? Need for data
- Are we doing anything relevant to corporations? Professors decide on their own what to research. Would they be interested in collaborating more with industry to formulate research areas? Much bigger topic.
- Invest a lot of money in terms of hiring, R+D, large scale funding, incentivize faculty to work in interdisciplinary areas that will lead to corporate. Large part of corporate funding are multi-million dollar alliances, collaborating with institutions to advance their strategic needs.

Partnerships

- Alec shared an example from U. of Michigan. U. of Michigan invests in R&D. The university incentivizes projects that lead to corporate support this creates multi-million alliances and partnering to advance their needs. The faculty can do the most cutting edge – demand driven. Seed research funded internally. Diversifying – federal and corporate and within federal funding. Opp to make impact. Alec said that it is not just about money but also about making impact. U. of Michigan has a university-wide business engagement center that reports to VP for research. They work hand in glove with college corporate engagement, foundation engagement, and federal engagement staff. U. of Michigan's annual research funding \$1.55B/yr, second only to Johns Hopkins.
- Lisa stated that one of the largest faculty frustrations is how much time it takes to raise money.
- Bill LaFontaine has spent the last few years talking to senior people at Cornell about quantum computing and the work IBM is doing on it. IBM is looking for a partner and Cornell would be perfect. It's hard for Cornell to find an aggregation point. How can Cornell ask for \$10M/year for next 5 years if the players can't align. Bill has felt like he is talking to himself.
- MIT – The president was worried about Stanford. He didn't change minds, he did the steering. Asked faculty if they were on board. If they weren't, they moved on.
- A deficiency is aggregation of talent – Cornell need to have a concerted effort.

- If you can get the attention of three companies, you are doing well. Try benchmarking not on dollars but on actions.
- How does Purdue get any \$ in West Lafayette Indiana... Let's build something.
- John Balen noted that Cornell is a people focused culture and has not been active in securing corporate money. Faculty may have thought they were selling out to corporations and that is changing. Put a stake around culture.
- Greenfield, numbers are zero, Emmanuel wants to rehabilitate what he has, the task force needs to provide a blueprint.
- The task force members are advisors. They do not run the university, they don't do the staffing – they can focus on bringing information to the dean and need to be careful about stepping into the playground of “let's do it.”

NOT MARKET STRATEGY, A PLAN TO INCREASE ATTRACTIVENESS

Goals

- Process – ease of doing business, could be recommendation on resources or structure of staffing
- Size of the pie – what do we think \$ are worth, if can we get to areas of research, segment into areas we think are hot, based on benchmarking and corporate targets
 - Cover steps 1-5 – define what's most important. Ease of doing business is top.
 - Best in class research / talented people
- Reputation – make it easy to sell yourself to your boss, make it easier to sell Cornell
- Areas of strength – supply out – demand back
- Lisa gave a few suggestions on reworking the goals listed and offered to make edits for the group.

Future ECC Meeting Dates

Day One: Reception and Dinner, 5:30 p.m. – 8:30 p.m.

Day Two: ECC Meeting, 8:00 am – 4:00 p.m.

Fall 2019

October 24-25, 2019

Spring 2020

March 26-27, 2020

Fall 2020

October 22-23, 2020

Spring 2021

March 25-26, 2021