

## Recent Academy Project Descriptions

### VazTec: Giving Power to an Innovative Idea

Start-up technology company VazTec, based in North Carolina, had a big idea: a valveless engine design that would improve engine efficiency and durability *without losing engine power*. But cutting-edge technology has little impact on emissions and fuel consumption unless it can be brought profitably to market.



**VAZTEC.LLC**  
VALVELESS ENGINES

That's where Tippie came in. VazTec secured a team of Tippie MBAs to perform financial analysis that would help realize the owners' ambitions to commercialize their innovation. The project was part of Putting Finance into Practice, one of the two real-world consulting-based courses required for Tippie finance MBAs.

The student consultant team created a customized, flexible cost of capital model for the industry, and a valuation model for end users of the engine technology. They also completed financial projections based on a number of potential development situations.

Armed with this information, VazTec's leaders are now actively seeking equity partners and licensees. They are more confident now that their technology will become commercially viable. Money aside, there's a corporate social responsibility upside to this project: adoption of VazTec's technology will mean less reliance on fossil fuels and fewer greenhouse gas emissions around the world.

Professor Tom Rietz served as an advisor to the consultant team. "Working with a startup, and all the ambiguity associated with it, was a fantastic learning opportunity," he explained. "This experience gave them real-world practice on an open-ended ambiguous problem. They learned that profits don't necessarily conflict with environmentalism and social responsibility."

"Without a doubt, this experience has developed my technical and client relations skills, and I am confident that it'll be an asset to my career," said second-year MBA Valerie Bustle. "Doing complex forecasting meant we needed an intimate understanding of the industry to predict its value. I applied concepts that I learned here at Tippie, over the course of my MBA."

Abel Nazareth, second-year finance MBA, explained how the team accomplished their goal despite roadblocks. "Working with a lot of uncertainty and limited input from the client taught us to develop flexible models that could work with various inputs. Class time was used for brainstorming ideas, which helped us look at the problem from different perspectives. It was exactly the type of real-world experience I didn't expect from an academic environment, but it boosted my confidence significantly."

### IDx: Financing Medical Innovation

Regardless of the potential benefits, bringing a revolutionary medical technology to market can be costly. A medical technology company may require several rounds of financing before its products realize a return to investors. Someone has to do the analysis, prepare the financials and write the materials to make the financial case to potential investors.

IDx is an innovative medical technology company. It believes that information technology deployed in the right settings can vastly improve physician productivity. Through smart retinal imaging, IDx captures high resolution photos of the back of the eye, and then automatically analyzes these images for markers of diabetic

retinopathy, glaucoma and cardiovascular diseases - all in real time. By automating the interpretation of images, IDx's products can help frontline providers detect measure and screen for disease more effectively and efficiently.



**IDx**

When it was considering additional financing to prepare for product launch, IDx chose a team of Tippie MBAs to write a Private Placement Memorandum that could be used to raise equity financing. The team put together the business description and financials; they undertook an analysis of IDx's future potential including forecasting demand, a competitive analysis and a risk analysis; and they put together a structure for IDx to describe its offering. Combined, this created a comprehensive and flexible tool that IDx can use as it finances its way forward.

Professor Tom Rietz served as an advisor to the consultant team. "In most MBA programs, the curriculum avoids private finance because private markets are a bit of a mystery relative to public markets," he explained. "But, private equity is an extremely important tool for innovative businesses. Through this project, the students learned first-hand about making the case for private financing. They will graduate with more than a Tippie MBA; they developed an understanding of private financing that they could not have attained at any other MBA program."

"This was a great project for me to work on," said team member Jarom Dilworth. "I was able to work on an exceptional finance project. Few programs in the country give MBA students the opportunity and autonomy in writing a PPM for a client as Tippie does." Qi Cui, another team member, said "It's a great learning experience for all of us and a great team working experience as well. It is exciting to put what we learned in class into practice." Both Dilworth and Cui are MBA Finance Academy students.

According to Gary Seamans, the CEO of IDx: "In my career I have had the opportunity to work with the largest investment banks and mega law firms. The five talented team members created a document that would rival anything I have experienced from these national and global firms. Suffice it to say, the leadership team and I were most impressed. These fine men and women are ready to make their mark in the business world of their choosing. Their excellence reflects great credit upon themselves and the Tippi MBA program."

### **Veriown Global Inc.: Smart Power, Smart Analysis**



Veriown Global Inc is innovating the way that energy and connectivity reaches people no matter where they are in the world. They are recognized innovative leaders in energy, fintech, and cloud based software services to change the way energy is delivered and consumed. When their Application Solutions team was involved in evaluating innovative new micro engine technology to cogenerate electricity, heat and cooling on-site for potential U.S. applications, Veriown Global knew they had to understand the value and the risks in the business model before they could make decisions on a commercial strategy with the technology.

Assessing the potential of the technology along with the risks presented a challenging problem. Veriown turned to a team of Tippie MBAs to perform financial analysis, forecasting and risk assessment for Veriown's business model. The project was part of Putting Finance into Practice, one of the two real-world consulting-based courses required for Tippi finance MBAs.

The student consultant team created a sophisticated forecasting model for energy prices and integrated it into a cash flow model for Veriown. Then, they performed simulations to assess the risk to Veriown and its customers. Finally, they analyzed a range of potential hedging and risk mitigation strategies.

Armed with this information, Veriown can maximize the value of its micro CHP solution by adjusting its capital investment, pricing and risk management strategies. This will allow Veriown and its customers to benefit from the efficiency of distributed co-generation of electricity, heating and cooling, while minimizing risk. This will mean less reliance on fossil fuels and fewer greenhouse gas emissions around the world.

Steve Johanns is the CEO of Veriown Global. “Veriown is involved in pushing the envelope in when looking at innovating markets with new energy technology and strategies,” he said. “The team of MBA’s from Tippie did an outstanding job of helping us in assessing strategic financial approaches to risk assessment and future business models with some of the more advanced distributed generation solutions yet to be brought to market. They made very valuable and real contributions to our strategy going forward and I hope I’m fortunate enough to get some of them on our team when they complete their MBA.”

MBA Team member Sanjay Mittal said that there were many insights in the project. “We helped Veriown understand and mitigate its downside risk to ensure that the distributed generation technology becomes successful and empowering for people around the world.”

Professor Tom Rietz served as an advisor to the consultant team. “Developing the forecasting model and understand the risks was an incredible learning opportunity for the students,” he explained. “I think the team significantly improved the business viability of an idea with a substantial positive environmental impact. These kinds of projects show how companies can make good economic decisions that are socially responsible.”

Veriown Global is now recognized for their new innovative solutions for bringing electricity, connectivity, and commerce to the most remote parts of the world. New problems leading to new groundbreaking solutions and opportunities for more work with future Tippie MBA teams!

## **University of Iowa Facilities Management: Power, Water and Risk Management**

The University of Iowa’s Utilities and Energy Management group knows its role is “mission critical” to the University. They provide water, electricity, steam, heating and cooling to the campus of a major research university and to the University of Iowa Hospitals and Clinics, the state’s only comprehensive academic medical center. The utilities infrastructure is also a critical risk management tool for the University and the Hospitals. Losing power, even for a relatively short period of time, could be catastrophic.



The utilities are also costly: the facilities represent a major investment for the University. Does it represent an efficient investment? How much is the Utilities operation worth to the University? How much should the University invest to manage the risk of power outages? These are challenging questions that require expertise in finance, risk modelling and risk management.

To answer these questions, the University turned to the Tippie College of Business where a team of MBA students performed an analysis. First, they created a baseline valuation for the utilities from an outside perspective. Then they considered the financing, revenue and investment structure of the University. Last, they turned to the risk management role of the utilities. They estimated both the value of risk management and asked whether investment in risk mitigation is worth the cost.

The basic utilities operations do create value for the University. But the real value lies in risk management; it far exceeds the basic operational value. Why? While the modern US utility system is extremely reliable, the special situation of a research university and hospital make potential losses extremely high. Thus, reducing even a small risk across time is enormously valuable. This provided a “great tool to evaluate the UI Utility’s net worth,” and “presented to the UI community the important steps Utilities takes for risk management and the impact that has on the value of our Enterprise,” according to Marla Johnson, Sr. Energy Financial Analyst and Glen Mowery, Director, UI Utilities & Energy Management.

“Working on the UI Utilities project provided an invaluable opportunity to apply classroom learning to a real-world project,” said Jim Kain, an MBA finance academy student and member of the project team. “Our team was able to show how different factors such as tax, debt, and risk management affected a critical university operation. Most rewarding was the knowledge that our team provided valuable and relevant information to our client.”

Professor Tom Rietz served as an advisor to the consultant team. “This project was an exceptional learning experience for the students,” he explained. “They took a very complicated problem and boiled it down to its essence. They learned about valuing an integrated asset as part of a complex system. Further, they learned firsthand about valuing operational threats to an institution. All of this applies to a non-profit institution working for the social good, not just for-profit businesses.”

“The students were smart, engaging, asked very good questions during the data collection and analysis phase and were very professional in how the team presented its findings to University staff,” said Terry Johnson University of Iowa Interim Chief Financial Officer and University Treasurer. “I was very impressed with the creativity exhibited by TCOB students. The students were able to present complex data graphically making it easy to understand the components of the valuation. I feel I now have persuasive and powerful data.”

## Two Projects for Carbon Conversion International: Changing the Face of Green Energy

Technologies can solve environmental problems. Edward Taylor developed and patented a game changer: a non-thermal plasma technology that dramatically reduces the carbon dioxide output from fossil fuel electrical generation plants. Initial testing showed a 95% reduction in carbon dioxide emissions from a diesel generator! It could make coal energy nearly as green as wind and solar. But, to have an impact, you have to convince power plants to install it. This requires both technical and financial feasibility.

“The new carbon conversion technology significantly reduces the amount of greenhouse gases produced from a power plant, outperforming any other technology on the market today,” observed Tippie MBA student Kristin Knudson. “However, in order to sell the technology, they needed a better understanding of the financial value of the technology, as well as what the business model would look like. This is where our team stepped in.”

A team of Tippie MBAs worked with Carbon Conversion International (CCI, then known as GST/PEPPL) to create a flexible financial model that shows the financial value of their technology. While easy to use, the model includes a wide range of options that cover most possible scenarios for implementation and financing of the technology. The end result is that the technology isn’t just green, it’s extremely valuable financially because it improves efficiency. Combined with proven technical efficiency, the financial model gives CCI a convincing package and a strong negotiating position as they work with energy companies to implement the technology.

For team members, the project also provided great educational opportunities to apply concepts and learn soft skills. “In addition to the end goals for the client, the project served as an opportunity to apply academic theories and principles learned during our first-year at Tippie to a real-world situation,” said Team member Kyle Wehr. “This project really taught me a lot about teamwork,” according to Team member Matt Ryder. Exchange student Marnix de Kool explained “I think I have grown a lot, especially concerning my confidence to speak, to share ideas and to comment on others.”

“I really like projects involving commercialization of new technology,” explained Team advisor Professor Tom Rietz. “The team members develop everything from scratch and have to communicate effectively with clients from a range of backgrounds.” The clients were happy with the project as well. Al Siklroski, President of CCI said they were “very impressed with the outstanding job done by the six students.”

CCI was so impressed with the outcome that they contracted for a second individual project on a related topic the next semester. The team compared how CCI technology stacks up against converting power plants to natural gas to meet clean air standards.



## University of Foundation: Perspectives and Policies in Portfolio Management

In the classroom, Tippie MBA students learn the theory of portfolio management. You optimize the risk return tradeoff through diversification and asset allocation. In practice, managing a portfolio is a multidimensional problem with a variety of constraints. The University of Iowa Foundation manages a large endowment portfolio to meet the objectives of the University, the donors' intentions and the interests of the state while fulfilling its fiduciary responsibilities. What better place for Tippie MBA students to learn about the real world practice of running a portfolio?

The University of Iowa Foundation worked with a Finance Academy team to address a specific investment policy issue. The team researched peers and best practices in the field; conducted analysis of the risk-return tradeoffs; and considered the real world issues of management fees and trading costs. They put the analysis in the context of the fiduciary responsibilities and constraints of the foundation.



Team member Lisa Ferguson noted the learning opportunity: “On the financial side, I gained skills analyzing large amounts of data. Throughout the course of this project, I learned not only about the policy issues and financial analysis, but also about interacting with clients and creating final deliverables.” Fellow team member Zach Garthoff said the project “forced us to step up and we wound up providing a lot of value for the UI foundation.” Thus, providing a great learning experience, it also gave the foundation valuable insights into the investment policy issue.

Jim Bethea, the Foundation's Vice President and Chief Investment Officer worked with the team and also works with the Henry Fund. According to Jim, “This is the second project that I have worked on with the Finance Academy, and through my role on the Henry Fund Advisory Board, I can tell you that the students keep getting better.”

## Two Projects for HNI: Managing Financial Complexity

HNI Corporation is an Iowa success story. The company is a leading supplier of office furniture and gas and wood burning fireplaces. Manufacturing numerous brands under multiple operating divisions while dealing with suppliers, customers, lenders and investors involves a wide range of complex financial decisions. Even companies that are doing remarkably well can use fresh insights and analysis from the cutting edge of financial research to inform their decisions.

Where does a company go to find fresh perspectives that are analytically rigorous, informed by research but still grounded in the “real world” of financial management? Answer: Get a team from the Tippie MBA Finance Academy!



HNI engaged a team to work on general capital structure policy. The team gathered and summarized academic research on the subject. Then, they applied standard classroom analysis techniques. But knowing that wasn't enough, they took real world factors into consideration and devised a unique analysis that blended standard techniques, cutting edge research and practical considerations to give HNI valuable insights.

Team advisor Tom Rietz said “I can't tell you how many times during this project I got to say ‘Welcome to the real world! Let's figure out how to solve it.’ The team took it to heart, learned a lot and delivered a quality product to the client.” As team member Niros Dhital put it “I found the project very interesting because I was applying the finance knowledge that I gained from the class. At the beginning, I assumed it would be simple and the team just had to calculate things according to a formula. However, as the project progressed, there were many factors that I had never considered before. This project was truly a very good learning experience about real world finance.”

Marshall Bridges, a Group Vice President, Finance at HNI and a Tippie MBA Alum said, “We really appreciated the team's work. They gave us fresh insight through both comprehensive analytics and practical



understanding. The work was thoughtful, and we enjoyed the opportunity to provide some real world experience.”

HNI was so impressed with the outcome that they contracted for a second project on a similar topic the next year. Again, the students brought cutting edge research to a practical corporate finance problem and delivered unique insights to HNI.

### **Summit Agricultural Group: Ag is Serious Business**

Agribusiness is a fundamental part of the economy. Feeding the world engages businesses ranging from family farms to fortune 500 companies operating under every ownership and financing structure imaginable. Founded in Alden, Iowa by Bruce Rastetter, Summit Agricultural Group is an international leader in agricultural business with operations in production agriculture, agricultural investments and farm management. Summit is committed “to protecting the traditions of our nation’s agricultural heritage while at the same time exemplifying the kind of bold innovation and progressive business practices that are required of the 21st century agricultural industry.”



When it came time to evaluate new business opportunities and financing structures, Summit followed its Iowa roots to the University of Iowa MBA program. Summit engaged two Iowa MBA groups to undertake analysis for it. The first interdisciplinary team worked with Summit through the Business Solutions Center under the direction of Mark Winkler. The team conducted an extensive analysis of the agribusiness landscape for Summit.

The project worked out well. Summit hired team member Nick Viner into a permanent position in Investment Development and continued with a Finance Academy team the next Fall. Nick was the primary liaison between Summit and the team. The finance academy team tackled two specific aspects of financing for Summit’s potential future opportunities.

According to Nick, working on both sides of a project creates value: “Having worked on a prior project for Summit, while a student at Iowa, it was interesting to manage instead of participate in a student led project. Watching a project develop from the opposite vantage point broadened my perspective and provided an excellent capstone to my student career at Iowa.”

“The nature of this project created significant growth opportunities for team members,” noted Finance Academy Director Tom Rietz. Brandon Cole noted his growth in leadership: “This is the biggest leadership role I have taken thus far in my classwork. This experience has shown me that I can effectively lead a group and has made me realize I should be more active in seeking leadership roles out.” Seetharam Yarlagadda noted his own personal growth and appreciation for other team members: “I pushed myself out of my comfort zone to overcome my weaknesses. I was always surprised to see how my solution gets better with the inputs from team members.”

### **US Bank: Financial Analytics in Action**

As the fifth largest commercial bank in the United State, US Bank has relationships with millions of households. This includes lending billions of dollars to millions of families to buy homes. To maximize value for homeowners, US Bank needs to understand what drives home values and risk in lending. US Bank engaged a joint Finance/Analytics team to provide an analysis.



The team dove into a treasure trove of data and used programming skills and modelling techniques developed in Iowa MBA classes to analyze national and regional real estate markets. The analysis helped US Bank think

about modelling in new ways.

Avi Sengupta from US Bank described the teams work on the project as follows. “Mortgage modeling is one of the more difficult areas in the field of financial engineering. The team from the University of Iowa used sophisticated statistical and quantitative tools to develop a framework for projecting housing price appreciation across the country. We plan to leverage the model to manage our mortgage portfolio. The students demonstrated a sound understanding of the mortgage industry and I was amazed at the speed of their learning curve. We expect to build on this momentum and continue to work with Professors Rietz and Blackhurst (faculty supervisors for the project) on more complex business issues in the future.”

While the team worked on a highly complex, technical and analytic problem, they touted the project for what it helped them learn about process and teamwork. Team member Sameer Farooqi said he learned that “subject matter does not matter as much as the process” in a project like this. Because “consulting often has vague and shifting deliverables, we learned to do ‘mid-air course corrections’ which, I think, is a very important skill to have.” Spencer Sorrell agreed: “We learned to accept failure and learn from it. I also learned how to work in a highly-diverse team on a very complex task. All the team members come from different backgrounds and contain different skill sets than myself. I gained a deeper appreciation for diversity because of this project.”

US Bank continued their relationship with the Iowa MBA program by engaging an Iowa Consulting Group, the Finance Academy and the Business Analytics Academy in a continuing set of related projects, four to date and counting!

## **Renewable Energy Group: Contributing to the Cutting Edge**

Renewable Energy Group (REG) is on the cutting edge of the renewable fuels industry. Using by-products and waste oils, REG’s proprietary technologies produce biodiesel that reduces carbon intensity up to 84% relative to traditional diesel.

In a competitive industry, REG works to maximize value at every point in its supply chain. REG decided to ask an Iowa MBA Finance Academy team to investigate possible uses and markets for its by-products.



The team conducted a market analysis, investigating alternative value propositions for REG and their potential customers. They analyzed how opening new markets could impact REG’s bottom line and made recommendations.

The team was supervised by Finance Academy Faculty Director Tom Rietz. “This was a fantastic project,” he said. “The students had to analyze the potential markets from both sides and make sure there was a value proposition for both parties. They had to consider all the messy issues related to new market development and implementation of a value added strategy. You couldn’t ask for a better learning opportunity.”

Team member Salik Gilani stated that the project “made me understand the importance of having a good team. If the team is strong and cohesive, no matter how difficult the goal is, it is still achievable. This was not something which I thought would be a decisive and core theme of the project, but it ended up being what defined the semester for me. There were points when the project got really tough, and we were at standstills, but the fact that we talked and shared those problems helped us get through the whole project and I am proud of what our final result was.”

“It is great to partner with the University of Iowa and to provide real-world learning opportunities for students. These projects benefit both companies and students. REG appreciates the enthusiasm and innovation the students brought to the project and the opportunity to interact with MBA talent,” said REG’s Chad Stone, Chief Financial Officer and Tippie School of Management Advisory Committee member. “Students are able to lead projects, develop their skills and provide recommendations for real-business challenges.”

Renewable Energy Group, Inc. is a leading provider of cleaner, lower carbon intensity products and services and is North America’s largest producer of biomass-based diesel. REG utilizes a nationwide production,

distribution and logistics system as part of an integrated value chain model to focus on converting natural fats, oils and greases into advanced biofuels and converting diverse feedstocks into renewable chemicals. With 12 active biorefineries across the country, research and development capabilities and a diverse and growing intellectual property portfolio, REG is committed to being a long-term leader in bio-based fuels and chemicals. For more than a decade, REG has been a reliable supplier of advanced biofuels which meet or exceed ASTM quality specifications. REG sells REG-9000 biomass-based diesel to distributors so consumers can have cleaner burning fuels that help diversify the energy complex and increase energy security. REG-9000 biomass-based diesel is distributed in most states in the US. REG also markets ultra-low sulfur diesel and heating oil in the northeastern and Midwestern US. For more information on REG visit our website at [www.regi.com](http://www.regi.com).

## Cover the CAP Project: A Win-Win-Win Proposition

Growing populations in Arizona and other Southwestern states create increasing needs for food, water and energy. What if you could meet these needs by creating more energy, while saving water and reducing pollution all at the same time? That would be a Win-Win-Win!



First some background: The Central Arizona Project (CAP for short, <https://www.cap-az.com/>) delivers nearly 500 billion gallons of Colorado River water to central Arizona annually via a 336 miles long, open-air canal. The water is essential to agriculture, towns, cities and Native American tribes. However, to pump the water, the CAP uses

electricity from the coal-fired Navajo Energy Station, which consumes water and creates greenhouse gasses. Further, more than 21 billion gallons of water evaporate from the canal itself. Meanwhile, the Colorado River basin has been suffering through a historic drought and Lake Mead water levels are falling. Projected water use is forecast to outstrip demand as the population grows.

Michael Garvin and David Tietgen had the Win-Win-Win idea: Cover the CAP with solar panels! This would generate about 5.7 million megawatt hours of clean electricity per year, more than double the amount needed to power the canal. This could eliminate about 6 million tons of carbon dioxide emissions per year. It would also save billions of gallons of water annually by reducing evaporation and saving water currently used generating electricity. All big wins.

They began exploring covering the CAP with Pradhan Energy Projects and quickly realized that their idea would only work if it made financial sense. So, they asked an Iowa MBA Finance Academy team to investigate the financial feasibility of their idea.

The team undertook a complex financial valuation, considering construction costs, the value of the electricity and water, the possibility of electricity storage and even considered a high voltage direct current line to ship the electricity to California. They identified the most salient value drivers, recommended ways to increase financial viability, analyzed various means of financing and considered pitches to various constituencies.

To provide a useful model, the team had to learn about a multifaceted industry and market for electricity while understanding the constituencies and political processes that would be crucial for implementation. Team member Sarah Belser-Ehrlich said she “learned a lot about the energy industry in the United States. As someone who is very interested in the renewable energy industry, this was useful to learn.” The project helped her “understand the importance of making informed assumptions to create financial models that enable a project to move forward.” This understanding comes with real world projects, not canned cases.

"Our company is so grateful and pleased with the hard work that the Iowa MBA Finance Career Academy students displayed in providing us a comprehensive financial overview of our Cover the Cap project. The research and development of this finance model is exactly what our company needed to proceed with confidence a \$2 billion construction project in Arizona." David Tietgen, Project Manager.



Finance academy director Tom Rietz said “I don’t know anywhere else that students would get experience with a project this large and complicated. The nature of the CAP forced the team to think about alternative financing and governance structures as well. The team did a great job in boiling down a complex project to identify its most important aspects.”

## **Oak Ridge National Laboratory Center for Nanophase Materials Sciences: Giving Power to an Innovative Idea**

The missions of Oak Ridge National Laboratory (ORNL) and the Tippie College of Business share a common theme: Research. ORNL’s mission “is to deliver scientific discoveries and technical breakthroughs that will accelerate the development and deployment of solutions in clean energy and global security.” This is complemented by Tippie’s mission to “developing critical thinkers who will thrive in a world that demands innovative approaches to business education and practice.” These two missions converge when attempting to commercialize ORNL’s discoveries and breakthroughs.

When ORNL developed a groundbreaking new “nanospike” catalyst technology that directly converts Carbon Dioxide to Ethanol, they knew it had great potential value. Ethanol can be used as a fuel without modifying any infrastructure. Further, the technology can effectively store excess energy generated by wind farms or large solar installations. But, the nanospike technology requires a large upfront investment and a lot of electricity to create the ethanol. Was it economically viable? Could it attract the investment needed to implement it?



ORNL and a Tippie MBA team worked together to answer questions about economic viability. The team worked to translate the chemistry and physics into process cash flows for three possible implementations. For each, they developed valuation models and sensitivity analyses. They found that the key to economic viability lies in using otherwise wasted resources. For example, a solar or wind farm based nanospike ethanol plant might become economically viable if it uses excess electricity: the electricity generated by the farm that otherwise exceeds demand. Similarly, an installation at an existing ethanol plant might become economically viable if it uses excess carbon dioxide generated by the plant. The analysis helps ORNL assess potential partners for commercializing the technology.

Every team member learned about project management and team processes. Ryan Johnstone learned that “Establishing a timeline and benchmarks isn’t just something you do on a project. It’s everything. The timeline keeps you disciplined by holding you accountable.” They also learned how to exploit their individual strengths while relying on each other on a collaborative team. “I don’t need to be an engineer,” said Evan Saunders, “all I needed to do was have a basic and foundational understanding of the process (and thus the potential cash flows) to understand how to construct this model and deliver a high-quality product to the clients. I think this has increased my confidence to take on tough projects/roles that are out of my comfort zone.”

“This partnership was extremely valuable to our scientific team. We know the science but did not appreciate the economics, and it was gratifying to see that the technology appears viable under certain circumstances. Even more importantly, these results help us to understand the trouble spots – the areas that we must improve upon to increase the chances that our technology can make it to market.”

Professor Tom Rietz served as an advisor to the consultant team. “This was an incredible learning experience for the students,” he observed. “What better way is there to learn cash flow analysis than to take a process that has never been implemented before and learn how to convert it into cash flows for a financial analysis. It also happens to be a potential winning technology for the State of Iowa and the global environment.”

## John Deere Financial: Growing the Ag and Construction Economies

John Deere Financial (JDF) is a global finance company headquartered in Johnston, Iowa. By financing agricultural dealers and farmers, they provide cash necessary for an effective global food supply chain. Similarly, by financing construction and forestry dealers and companies, they provide cash that builds our global infrastructure and housing stock. Financing



**JOHN DEERE**  
**FINANCIAL**

in both areas is competitive in rapidly changing markets. Sometimes fresh eyes can help a company get a fresh perspective of their competitive environment.

John Deere Financial decided to engage at Tippie MBA team to find fresh ideas that would be analytically rigorous, informed by research and grounded in the practice of finance. They asked the team to analyze the markets, work through some program and policy ideas and provide recommendations regarding the dealer value proposition of JDF. The team analyzed John Deere Financial's own data, combined it with other market data, added some cutting edge insight from the classroom and provided a thorough analysis for the company.

Sponsor Mike Matera, Senior Vice President, Global Credit, Global Trade Finance, and Region 1 John Deere Financial said "I appreciate having a 'fresh set of eyes' looking into our business regarding the value proposition we provide our customers. The students gave us an external view of our business with no preconceived notions of how the business should operate. That independent thought process provided us unique perspectives to challenge the status quo."

The team members said they learned a great deal about finance companies and how to work on problems facing the company. "Prior to this project, I had not given enough consideration to the need for a financial services company to understand its market," said team member Ben Ertl. "This project helped me learn a great deal in that area. This experience taught me a great deal about how to tell the story so the client can immediately grasp your point."

Professor Tom Rietz, team advisor, said "I don't know another place where students can get inside experience with a finance company that is associated with an industrial company like John Deere Financial. While this is a common arrangement, it's not one we commonly study in finance classes because we seldom have the "inside" view it really takes to understand such a company. As a result, this was a fantastic learning opportunity for the team."

## Project Expectations

### From Clients, we expect:

- Clear objectives with information needed for producing the output
- Periodic contact regarding project questions and progress
- Opportunity to present final work to stakeholders

### Clients can expect from us:

- A team of 4-6 students dedicating 8-10 hours each per week for 16 weeks
- Project guidance and oversight by the Finance Academy Directors
- Periodic progress reports and a formal mid-project report
- A final report and presentation of the project output and conclusions
- Confidentiality

## Contact Information



### Amrita Nain

Faculty Director,  
Finance Career Academy  
Phone: 319-335-1017  
Fax: 319-335-1956  
E-mail: [Amrita-Nain@uiowa.edu](mailto:Amrita-Nain@uiowa.edu)



### Charles A. Fishkin

Business Director,  
Finance Career Academy  
Ph: 319-384-1970  
Fax: 319-335-3604  
E-mail: [Charles-Fishkin@uiowa.edu](mailto:Charles-Fishkin@uiowa.edu)



### Thomas A. Rietz

Soumyo Sarkar Professor of Finance &  
Departmental Executive Officer  
Phone: 319-335-0856  
Fax: 319-335-1956  
E-mail: [Thomas-Rietz@uiowa.edu](mailto:Thomas-Rietz@uiowa.edu)



**Integrity. Innovation. Impact.**  
INTEGRITY INNOVATION IMPACT

