



## **Academic Challenge 5.0**

AC 5.1 | Orange County, CA | 20 – 22 October 2019

AC 5.2 | Singapore | March 2020

[Click Here to Register  
By 13 September 2019](#)



## **What is CORENET GLOBAL?**

CoreNet Global is a nonprofit association, headquartered in Atlanta, Georgia (US), representing more than 11,000 executives in 50 countries with strategic responsibility for the real estate assets of primarily large, multinational corporations. The end user membership base is diverse and spans industries including high-tech, financial services, manufacturing, pharmaceutical, telecommunications, healthcare, insurance and oil and gas. Google, Unilever, International Monetary Fund, Oracle, Coca-Cola, Amazon, AT&T, General Motors, Barclays, BASF, and Shell are among our many member companies. One-third of our membership resides outside North America (primarily Europe, China, India, Singapore, Australia, New Zealand, Brazil, and the Middle East) with most members managing portfolios with millions of square feet spanning multiple continents.

Virtually all corporate real estate (“CRE”) departments partner with external service provider companies to deliver services needed to acquire, maintain and dispose of real estate. These services include but are not limited to brokerage, site selection, architecture and interior design, lease administration, facilities management, and technology platforms. One of the long-term trends in the CRE profession is toward leaner, smaller internal CRE teams focused primarily on strategy and client relationship management, with growing dependence on external service provider companies for tactical delivery and execution. Those external service providers are also members of the association.

The organization’s mission is to advance the practice of corporate real estate through professional development opportunities, publications, research, conferences, designations and networking in 46 local chapters globally.

## **Why conduct an ACADEMIC CHALLENGE?**

A strategic priority for CoreNet Global is to strengthen its relationship with academic institutions around the world and grow the pipeline of talent into the challenging, rewarding -- and often overlooked – career of corporate real estate.

The Academic Challenge is an important step in raising the awareness of the profession and the impact of corporate real estate on the global economy. The competition is designed to attract students from all academic disciplines to tackle key challenges facing the profession, and the challenges facing the enterprises our members serve.

## **What is the role of a CORPORATE REAL ESTATE EXECUTIVE?**

Corporate real estate professionals have strategic responsibility for their corporations’ total real estate footprint of owned and leased space. They are charged with anticipating and responding to a corporation’s property needs as a result of business growth, expansion or contraction.

Corporate real estate executives are generally not REALTORS®, commercial brokers, developers or facility managers though they retain or manage these professionals as well as architects, site selection consultants, economic developers, interior designers and the like to help support their strategy.

Historically, corporate real estate professionals focused on managing the physical property for the business. They were charged with acquiring, maintaining, and disposing of real estate throughout the “lifecycle” or useful life of any property. Certainly, those functions still remain at the core of corporate real estate. However, the business landscape has changed and the role of corporate real estate continues to evolve. Now more than ever, corporate real estate professionals are charged with partnering with the business and adding strategic value.

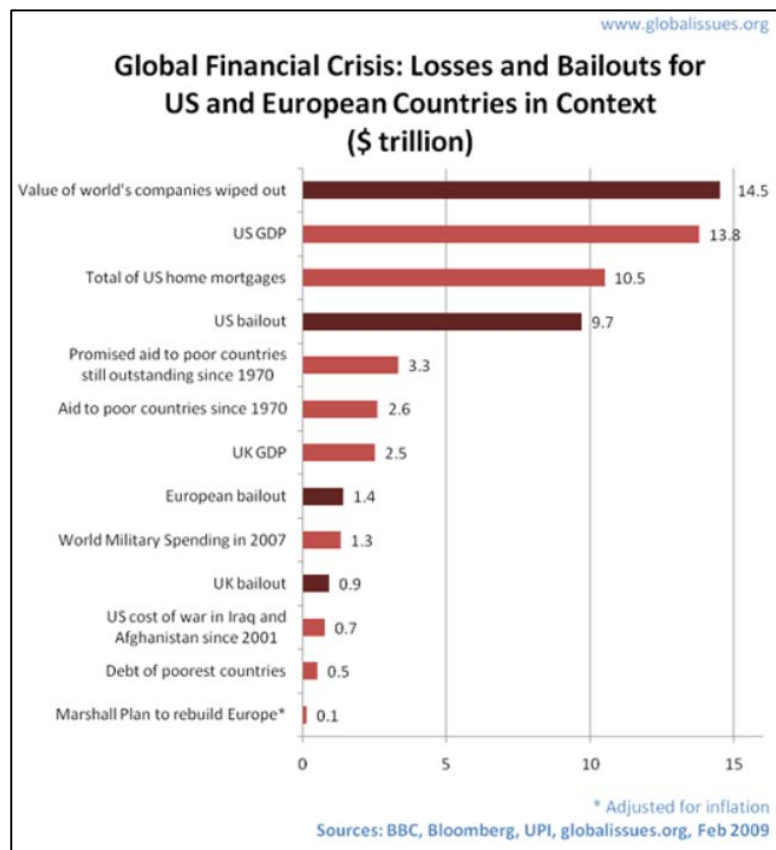
More corporations are now viewing real estate as a strategic asset and corporate real estate as a strategic function. As a result of that shift, a new skill set is required for today’s corporate real estate executives. They are at the forefront of corporate social responsibility and sustainability initiatives and are leaders in the innovative workplace design movement aimed at improving worker productivity, wellness, and the workplace experience. They also play a vital role in talent recruitment and retention, location strategies and interaction with other internal support functions such as human resources or information technology.

When the Global Financial Crisis hit, the impact on major corporations was deep and wide (see sidebar). Across virtually all regions and all business sectors, CEOs and CFOs issued the same directive: **cut costs – now.**

Since real estate and facilities are among the top three expenditures within a major corporation, its corporate real estate (CRE) professionals were under immense pressure to dispose of owned and leased property. It's not unusual for a large company to spend hundreds of millions of dollars each year on occupying and maintaining its leased and owned space).

However, immediate results were difficult to attain given that real estate is a slow-moving asset. Owned properties aren't always easy to sell, especially in a downturn. Leases can be hard to get out of, not to mention expensive.

Economic downturns trigger a sharp reduction in consumer demand and spending, which would impact corporate revenue, which then puts companies in cost-cutting mode. Companies also become very tentative and hesitant about future plans and investment (including anything about their real estate).



CRE leaders urgently began exploring ways to cut costs without undermining operational effectiveness. Some strategies delivered cost savings relatively quickly, but others took more time – years, in some cases. Meanwhile, in the “lessons learned” category, a new imperative began to enter the conversation: flexibility.

Several strategies either borne out of the Global Financial Crisis or accelerated by it are now commonplace today, specifically:

- Open offices which require fewer square-feet/metres per employee thus allowing a corporation to occupy a smaller space overall;
- Teleworking/desk sharing, and remote working;
- Greater partnering between corporate real estate, HR, & IT to ensure closer alignment/integration in order to produce better outcomes and processes;
- More robust customer relationship management both internally to offer more coordinated solutions to individual business units and externally to ensure alignment with the overall corporate strategy; and

- Some corporate real estate teams were reduced which necessitated:
  - Consolidating and more closely managing outsourced service providers; and
  - An increased reliance on service provider partners.

It has been a decade since the collapse of Lehman Brothers sparked the 2007-11 global financial crisis and recession. The global economy is finally performing at a robust level, with solid output and employment growth in many regions and interest rates generally on the rise toward more normal levels. The acute pain felt during the financial crisis, and the protracted period of recovery, should have encouraged corporate real estate professionals to take meaningful steps to avoid a repeat performance.

**But have lessons been learned?**

## COMPETITION BRIEF

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CoreNet Global is pleased to announce its 2019-20 Academic Challenge sponsored by Cushman & Wakefield, KI Furniture, and IA: Interior Architects. The goal of this global competition is to raise awareness of corporate real estate as a viable career opportunity amongst college students of all academic disciplines, to connect local chapters and members of the association with future talent, and encourage more universities to include corporate real estate in their curricula.

### A Student Competition

Student teams from universities and academic institutions around the world are invited to compete in an academic challenge whereby students will be asked to play the role of an internal corporate real estate team in order to address a real-world issue facing companies around the globe: *develop a proactive strategy to: (a) "Recession-proof", to the extent possible, the corporate real estate portfolio, (b) continue to support the business objectives of the corporation and (c) ensure that such a strategy does not negatively impact the company in the unlikely event that a recession does not materialize.*

Three teams, with a minimum of two (2) and a maximum of four (4) students each, will be selected to compete onsite at the CoreNet Global North American Summit, a professional conference for 3,000+ corporate real estate professionals from around the world, to be held in Orange County, CA, 20-22 October 2019. Interested students will be required to submit a registration form and then respond to several questions, as discussed herein. Based on the quality of their responses to the questions posed, three teams will be invited to participate in the Final Round.

**The winning team will be awarded US\$5,000.**

## THE CHALLENGE

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You and your Real Estate Team at Company X, a global leader in either the financial services, IT, pharma/life sciences, or manufacturing sector, have been discussing recent reports about the overall economy. The team sees warnings that raise the specter of recession such as:

- the IMF has lowered its forecasted growth for the world economy in 2019;
- trade tension between the US and many nations, especially China;
- the continued slowdown in the Chinese economy;
- slowing and weakness in the US housing market;
- rising mortgage rates in the USA;

- the narrowing of the yield curve (a signal that bond investors expect a recession); and
- significant economic and geopolitical risks stemming from Brexit, ongoing tensions in the Middle East, and US-Chinese tariff negotiations.

All these signs may point to a recession either in late 2019 or in 2020. In fact, a recent Newsweek Article suggests that most CFOs for large corporations believe that a recession is coming by late 2020<sup>1</sup>.

The Global Financial Crisis of 2007-2011, caught most companies and the Corporate Real Estate Team at Company X by surprise. The team has decided to develop a proactive strategy to: (a) “Recession-proof,” to the extent possible, the real estate portfolio; (b) continue to support the business objectives of the organization; and (c) ensure that such a strategy does not negatively impact the company in the unlikely event that a recession does not materialize.

As part of this project to develop the strategy, the team has determined that they need to meet with key business leaders at the company and develop an understanding of likely responses of the business and the respective business lines to a recession. Using that understanding the team will develop the Real Estate response.

Your response should offer practical tactics corporate real estate professionals can employ to help their companies prepare for the next recession. These tactics should position the organization to be more effective during the economic downturn so that when growth returns, it can be even more competitive and successful. Your presentation should address the impact your response will have on the corporate real estate footprint in the short-term and long-term.

Robert Kennedy famously said: “*All of us might wish at times that we lived in a more tranquil world, but we don't. And if our times are difficult and perplexing, so are they challenging and filled with opportunity.*” With this in mind, **teams should not only recession-proof but innovate.** Your response should not focus solely on disposing of property but rather ensuring that property is used to create a culture that helps employees through challenging times at work during a recession.

Teams selected for the Final Round will be assigned a corporate profile including revenue, demographic, portfolio, and strategic information to help get you started (*see the list on page 5 for a sampling of corporations that employ CoreNet Global members who generally attend the annual conference*).

## The Context

As discussed previously, corporate real estate is the real property used by a company for its own operational purposes (consider The Coca-Cola Company (NYSE: KO) and the variety of offices, production, distribution, sales, and other facilities required to support their 450 brands in more than 200 countries globally). CRE provides corporations with a productive environment to house employees, manufacture and distribute products, and provide services to the market. Corporate real estate touches all classes of property, land and buildings such as office facilities, data centers, manufacturing facilities, logistics centers, corporate headquarters, distribution facilities, retail stores and hotels.

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<sup>1</sup> “*Is a Recession Coming? CFOs Predict 2019 Recession, Majority Expect Pre-2020 Market Crash,*” Newsweek, Dec. 12, 2018.

Historically, corporate real estate professionals focused on managing the physical property for the business. They were charged with acquiring, maintaining, and disposing of real estate throughout the “lifecycle,” or useful life, of any property. Certainly, those functions still remain at the core of corporate real estate. However, the business landscape is changing and the role of corporate real estate continues to evolve. Now more than ever, corporate real estate professionals are charged with partnering with the business and adding strategic value.

More corporations are now viewing real estate as a strategic asset and corporate real estate as a strategic function. As a result of that shift, a new skill set is required for today’s corporate real estate executives. They are at the forefront of corporate social responsibility and sustainability initiatives and are leaders in the innovative workplace design movement aimed at improving worker productivity and wellbeing. They also play a vital role in creating work experiences that aid in talent recruitment and retention.



## INVITATION

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The CoreNet Global Exhibit Hall at our Global Summit in Orange County, CA will be your living laboratory. Teams will be tasked to conduct individual interviews and focus groups with a variety of conference attendees – corporate real estate professionals – whose jobs already require them to anticipate economic slowdowns. Now more than ever, these executives work within their organizations to facilitate and enhance business continuity and workplace resiliency.

Through interactions at the conference, including attending educational breakout sessions, your team can also test the feasibility of possible alternative approaches or concepts that best meet the stated objectives.

Each team will develop a report complete with data, key findings, and strategic recommendations to deliver in a live presentation onsite at the CoreNet Global Summit. Each team will have a dedicated space at the conference where they will engage conference attendees and work on their solution -- all in the form of a “hackathon.”

Your team will participate in a unique learning opportunity and help create an intellectually stimulating, fun, and engaging conference experience that will help shape the future decision making of an influential profession.

Companies with corporate real estate professionals engaged in CoreNet Global include:

### Financial Services

- American Express
- ANZ
- Bank of America
- BMO Financial Group
- Capital One
- Citizens Bank
- Deutsche Bank
- Fidelity Investments
- HSBC
- MasterCard
- Royal Bank of Scotland
- Visa
- Wells Fargo

### Insurance

- Allstate
- Farmers
- Hanover
- Humana
- Insurance Australia
- Liberty Mutual
- Manulife
- Progressive
- Travelers
- UnitedHealth Group
- Zurich Insurance, Ltd.

### Manufacturing

- AstraZeneca
- Chevron
- Clorox
- BASF
- BP
- Coca-Cola Refreshments
- Diageo
- Eli Lilly & Co.
- ExxonMobil
- Ford
- General Electric
- General Motors
- John Deere
- Kimberly-Clark
- Merck & Company
- Nestle
- Nike
- Northrop Grumman
- PepsiCo
- Procter & Gamble Co.
- Rockwell Collins
- Shell Oil
- Unilever



## SUBMISSION REQUIREMENTS & CRITERIA

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To aid in the team selection process, each team must respond to the questions below and provide all requested contact information. Please limit your responses to no more than 350 words each.

1. Based on the challenge described above, how will your team prepare to compete? What are your plans to research the 'lessons learned' from the Global Financial Crisis in order to prepare and protect your corporation for the next economic slowdown?
2. Submit 5-10 questions that you would like answered by the professionals with whom you will interact in order to better understand the challenges and opportunities of this project.
3. What unique strengths does your team possess that will enable you to deliver a sound strategy to the CEO? What makes you a winning team and why should you be selected to compete?
4. In your team's opinion, what is the single greatest challenge facing multinational corporations today? What is the single greatest opportunity facing multinational corporations today?

In the first round of the North American competition, responses to the above questions will be judged based on the quality of thought invested, the appropriateness of each response, and originality and creativity. Each team is competing against every other team; there is no one "right" response. Rather, the judges will be comparing each response against all the others in order to identify the finalists.

### **TIMELINE** *(subject to change)*

- Registration opens and competition materials released – April 2019
- Application deadline – 13 September 2019
- Challenge competitors announced – 25 September 2019
- **North American Global Summit, Orange County, CA, 20-22 October 2019**
- Presentations due: 22 October, Time TBD at the North American Global Summit  
*Any additional materials to be shown to the judges (including, but not limited to: handouts, posters, etc.) MUST BE INCLUDED with the presentation when submitted; any new material presented without first being submitted may subject the team to penalty and will be excluded.*
- North American Global Summit Awards Presentation & Recognition Dinner: 22 October

**A second Academic Challenge will be offered in conjunction with our Asia-Pacific Global Summit (Singapore, March 2020); specific details of that competition are yet to be determined.**





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## Competition Criteria & Rules

## CRITERIA AND JUDGES' SCORING SYSTEM

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Competitors will be tasked with presenting an enterprise solution to the executive committee of an organization. Students will need to bring their own laptop computers with presentation, word-processing, and spreadsheet software in order to create this solution, though the final presentation need not be computer-based.

### PARTICIPATION

The competition is open to students of all disciplines pursuing a Bachelors or Masters degree at a recognized degree-awarding institution, such as a University, Grande École, College or Fachhochschule, hereafter referred to as "University," on a full-time or part-time basis. **Each student must be currently enrolled in classes at their host university throughout the competition, and not have more than 7 years prior professional experience.**

Employees of CoreNet Global and their family members are not allowed to enter the competition. Also, students currently involved in an internship, apprenticeship or summer placement with CoreNet Global are not eligible to take part in the competition.

A competition registration website will be available no later than April 2019; the final registration date for the competition is identified elsewhere. Once registration is completed, a registration confirmation email will be sent to the Team's Primary Contact. Incomplete registrations may be discarded. There is no fee to register and teams may only register once.

### TEAM SIZE & ELIGIBLE PARTICIPANTS

The competition is open to teams of two (2) to four (4) students; team members may be from different academic programs within one institution, and/or teams may be comprised of students from more than one institution.

Ideally, each team should be comprised of a diverse range of students from different disciplines, such as (and not limited to) architecture/design, engineering, business, finance, and science. Interdisciplinary teams may have an advantage when it comes to addressing this challenge.

Each team must have a faculty advisor from their home institution, and their contact information must be included on the team's registration form. It is expected that faculty advisors will travel to the competition with their team. In addition, each team must appoint a Team Leader. The Team Leader will be the main contact point for CoreNet Global, and emails sent to the email address provided by the Team Leader will be considered delivered.

The three (3) highest-ranking submissions will advance to the Final Round; please note that teams will NOT be required to present during Round One.

Finalists will be notified on or before 25 September 2019. Teams selected as Finalists must inform the Challenge by email to [AcademicChallenge@CoreNetGlobal.org](mailto:AcademicChallenge@CoreNetGlobal.org) no later than 30 September 2019 if they do not wish to travel to participate in the Final Round on 22 October 2019. This will allow the Challenge to notify the next highest-ranking team.

The Final Round will take place on Tuesday, 22 October 2019 as part of the CoreNet Global Summit. The order of presentations will be determined by the Challenge. Finalists will present in front of a panel of judges, as well as an audience of CoreNet Global members, sponsors, and guests.

Presentations may take up to, and no more than 15-minutes. A warning sign will be provided to presenters when they have 2 minutes remaining. Teams will not be allowed to exceed their 15-minute presentation time and will be stopped after 15-minutes has elapsed whether or not they have completed their presentation. Following each

presentation, judges will be allowed 5 minutes to ask the team direct questions. Questions will not be permitted from the audience.

Following the conclusion of the Final Round, the judges will deliberate privately and select a winner. The Challenge winner will be announced at the CoreNet Global Summit Recognition & Awards Dinner.

#### **JUDGING RUBRIC – Final Round**

Submissions will be judged on the following:

- **Innovation & Creativity (40 points)**  
*Does the submission present evidence of innovation, creativity, and/or initiative? Was data used effectively to support the recommendations? Is the solution presented clear, logically tight, and well-supported? [FINAL ROUND ONLY: Is there evidence that the team incorporated feedback gleaned from interactions with Summit attendees?]*
- **Applicability & Feasibility (30 points)**  
*Does the response presented appear reasonable and appropriate given typical business time and resource constraints? How did the team deal with new and/or ambiguous information? Was the strategy presented creative and actionable?*
- **Value Creation (20 points)**  
*Does the submission add value to the organization, its mission and/or enhance shareholder value? Does the methodology safeguard business continuity risks and address the potential underlying cultural diversity of the business leaders?*
- **Quality & Clarity of Presentation (10 points)**  
*Was the submission polished, professional, and delivered in a confident and convincing manner?*

#### **PRIZES**

Three teams will be selected from among all the complete submissions received. Teams and their faculty advisors will be provided transportation\* to our North American Global Summit and provided with lodging and Summit admission during the competition.

It is expected that faculty advisors will travel with each finalist team.

Non-Member finalists will be given complimentary student membership in CoreNet Global (retail value: \$25) and a copy of *The Essential Guide to Corporate Real Estate* (retail value: \$49.99). The winning team will receive US\$5,000.

\* In order to allow teams to make the most of their travel experience and potentially reduce expenses, teams are permitted to arrive early and/or stay late but lodging will **\*only\*** be provided for the dates identified in the notification email; all travel must be booked by CoreNet Global.

## COMPETITION RULES

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### Approved Research Sources & Outside Assistance

The goal of this competition is to judge how the team (and not its faculty, alumni or friends) has evaluated the problem. Teams may only access research sources provided by the Challenge and any other free, publicly available data. Research services requiring a fee subscription are strictly forbidden, even if your university has paid for the subscription. It is the intention of the Challenge that each team has equal access to information. Faculty Advisors are limited in their participation to an advisory capacity.

If a team develops a survey or other similar research tool, they do not have to share the tool or insights gained with the other teams.

### Authority

CoreNet Global, Inc. has created this competition and retains all rights and authority to modify the competition in any way at any time as it deems appropriate in its sole judgment; there is no appeal process. All registrants will be notified of any changes to the rules.

Violations of any rules in this document or any other rules set by CoreNet Global may result in penalty deductions from a Team's score during any round or a school's disqualification from the current and or future competitions. All penalties will be decided at the sole and absolute discretion of CoreNet Global.

### Behavior

Academic Challenge Participants are expected at all times to uphold the reputation of CoreNet, their academic institution, and the dignity of members of CoreNet Global and the faculty and staff of their academic institution. As such, all Academic Challenge Participants, Summit attendees, invitees, and vendors at events and meetings shall be treated with respect and consideration. CoreNet Global does not tolerate any form of harassment or discrimination by its Academic Challenge Participants, Members, volunteer leaders or Interested Persons on the basis of, but not limited to: sex, sexual orientation, race, color, religion, national origin, age, disability, handicap, citizenship, marital status, veteran status, or any other basis prohibited by law. As such, CoreNet expects all meeting or event participants not to engage in any form of harassment of this aforementioned nature.

Teams will be held accountable for any violation of this policy; this can include disqualification or vacating the judges' ruling if necessary.

### Communication

All communication, correspondence, and submission documents must be in English.

## Expenses

CoreNet Global and its sponsors are generously providing all travel expenses (coach airfare (or other transportation arrangement), lodging during the competition and Summit only, airport transfers, and most meals); Academic Challenge participants are expected to eat with Summit attendees and no meal will be reimbursed when a Summit meal is offered.

**RECEIPTS MUST BE RETAINED and submitted along with the CoreNet Global Expense Report form each team will be provided; at no time will alcohol be reimbursed. If possible, please submit only one expense report payable to a single team member (who can distribute reimbursements if necessary).**

Participants should anticipate additional expenses and plan accordingly.

## Intellectual Property - Confidentiality

The Participants agree to provide CoreNet Global and its affiliates, legal representatives, assigns, agents and licensees exclusive, irrevocable, perpetual, worldwide, royalty-free license in the CoreNet Global Domain to all rights, title and interest in the submission, including all intellectual property rights in, and embodied by, the submission (including, without limitation, all patent rights, design rights, trademarks and copyright), for the duration of protection afforded by the relevant intellectual property rights, including the right of representation and reproduction and the right of performance, with respect to the competition, as well as in all materials arising out of the Participants' participation in the competition in any media and format throughout the world, without further compensation. Such license shall be transferable and shall include the right to sub-license. The license shall include the right to create any derivative work based on the submission.

It is the sole responsibility of the Participants to ensure that they are entitled to license all rights, title and interest in the submission, including all intellectual property rights in, and embodied by, the submission. At the request of CoreNet Global, the Participants and/or their academic mentors shall provide written confirmation of the ownership of any rights, title and interest in the submission, including all intellectual property rights in, and embodied by, the submission.

The participants agree to allow CoreNet Global to use, represent, reproduce, etc. their name, their host institution name, photographing and recording of their images and words on any kind of medium and format for any kind of internal and external communications that CoreNet Global deems appropriate throughout the world and without any additional remuneration.

Prior to any use of the CoreNet Global name, logo, images or any other similar material in any publication, permission must have been granted in writing. In such a case CoreNet Global undertakes to cooperate to allow the timely submission, examination, publication of any dissertation or thesis for a degree, which includes such material. If such a request is made and if within two months no response has been provided, such permission will be considered as having been withheld.

The participants will provide to CoreNet Global if reasonably possible a copy of any publication (e.g. journal, conference, etc.) that directly relates to the ideas generated in the Challenge.

The participants shall, unless expressly authorized in writing by the relevant party, not disclose any confidential information or documentation to third parties and shall only use such confidential information or documentation for purposes of this competition. Upon termination of this competition, the obligations herein relating to confidentiality shall continue in full force and effect for a period of one year.

In the event of any inconsistency between the provisions of these Terms and Conditions and such other agreements between the institution represented by the academic mentor and CoreNet Global, e.g. industrial partnerships the provisions of such agreements shall prevail to the extent of the inconsistency.

### **Modification to the 2019-20 Rules & Competition Format**

CoreNet Global reserves the right to modify the Rules and competition format at any time and at its sole discretion. This includes, but is not limited to, adding additional rules, changing or modifying current rules or deleting other rules. Teams will receive notice of any such changes.

### **Ownership of Materials**

Teams attest that all presentations, work product and other materials (collectively, “materials”) that they submit to the Challenge are their own original work. Further, each member of each team acknowledges and agrees that, by submitting any material, idea, concept, theory, model, analysis, data or information to the Challenge, they are releasing the same to CoreNet Global and granting CoreNet Global the right to use the same for any and all purposes, without any conditions (except to the extent such conditions are required by applicable law). Without limiting the foregoing, no member of any team reserves any rights with respect to any analysis, charts, descriptions, depictions, data, models, theories, proposed uses or any other aspect of the materials, ideas or concepts submitted or presented in connection with the Challenge.

### **Plagiarism**

Any team suspected of plagiarism will be investigated, and, if deemed appropriate by CoreNet Global, disqualified from the competition.

### **Privacy Policy**

CoreNet Global collects your personal data as listed in the online registration form for the purpose of operating The Challenge and any and all purposes as CoreNet Global may deem appropriate; participants waive any right to privacy relative to their name, likeness, or school affiliation. See above, under “Intellectual Property & Confidentiality.”

### **Questions and Clarification**

Questions that arise after the competition has begun must be submitted, in English, via email to [AcademicChallenge@CoreNetGlobal.org](mailto:AcademicChallenge@CoreNetGlobal.org) by the team’s Team Leader. When appropriate, the Challenge may edit submitted questions and share them with all teams simultaneously. We reserve the right not to answer all questions. When in doubt, make an assumption, state it, and move on.

### **Required Presenters**

Teams will not be penalized if all members choose not to present nor given any additional credit if they all do. Team member substitutions are not permitted.

**\*\*\*\*\* END OF ACADEMIC CHALLENGE BRIEF \*\*\*\*\***