Academic-Corporate Engagement: Strategic and Organizational Best Practices

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ABSTRACT

Academic institutions pursue relationships with corporations to fulfill a variety of goals and interests. These may include furthering a research mission, supporting employment of graduates, and promoting economic development through commercialization of discoveries, among others. A body of best practices for corporate engagement has emerged recently, driven by a difficult and highly competitive environment for research funding and an increasingly selective approach to academic relations taken by corporations. Productive corporate partnerships require grounding in deep internal knowledge of an institution's assets, as well as understanding of the external corporate and academic landscape. Relationships also benefit from clear and sustained support from senior university administrators, and from a dedicated team of specialists with knowledge of academic as well as business environments. A strategic framework built on principles of relationship management can provide a roadmap for implementing and sustaining a successful corporate engagement effort.

INTRODUCTION

Research administrators count among their many responsibilities the identification of funding sources and the facilitation of connections between researchers at their institution and sponsors. While agencies of the federal government still provide more than 50% of the research and development (R&D) expenditures by universities in the United States (Figure 1), it is perhaps less widely appreciated that essentially all growth since 2005 in inflation-adjusted dollars supporting academic R&D has come from non-governmental entities: foundations, universities themselves, and corporations (Figure 2).
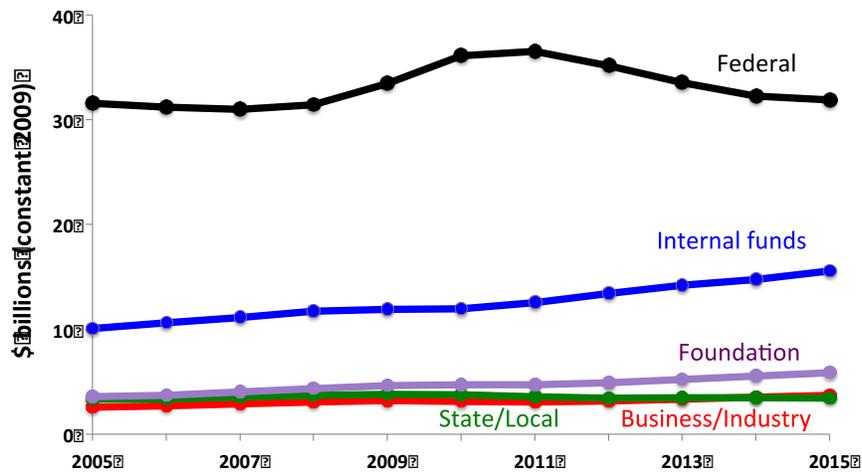
Figure 1. **Funding Sources for Research and Development Expenditures at U.S. Universities, 2005–2015**
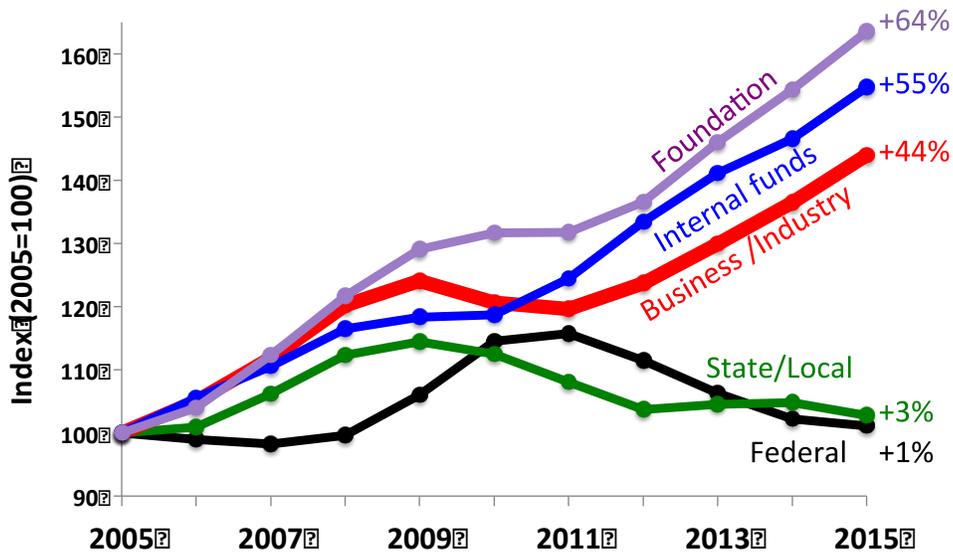Source: *National Patterns of R&D Resources,* NSF 17-311, 14 March 2017

Figure 2. **Relative Change in Funding Sources for Research and Development Expenditures in the United States, 2005–2015**
Source: *National Patterns of R&D Resources,* NSF 17-311, 14 March 2017

According to data submitted to the National Science Foundation (NSF) for its annual Higher Education Research and Development (HERD) survey, in 2015 slightly less than 5% of university spending on R&D came from business or corporate sources (mean=4.8%; median=2.5%; *N*=640). In contrast, businesses are responsible for

nearly 70% of overall R&D spending in the United States, and the gap between corporate and federal government

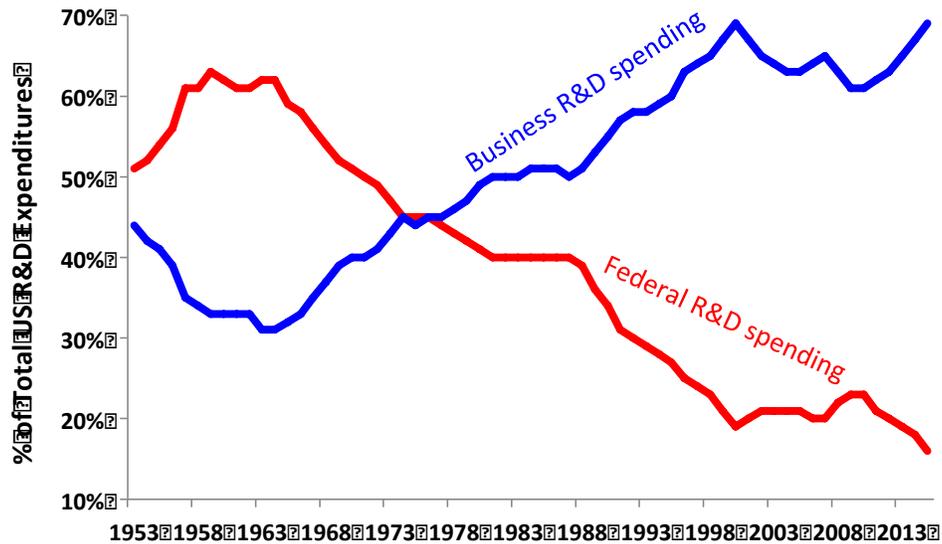investment in R&D has been growing for decades (Figure 3).

Figure 3. Sources of Research and Development Spending in the United States, 1953–2015.
Source: *National Patterns of R&D Resources*, NSF 17-311, 14 March 2017

Corporate relations professionals recognized a number of years ago that corporations were shifting their goals in university engagement from primarily philanthropic in nature to a more nuanced approach that sought demonstrable benefits to the company and its shareholders (Network of Academic Corporate Relations Officers Writing Team and Benchmarking Committee, 2011). The Network of Academic Corporate Relations Officers (NACRO), a professional development and advocacy organization, has responded to this changed environment by promoting a

set of 'holistic' guidelines to university-industry relations that encourage a broad spectrum of engagement opportunities, of which philanthropy is only one touchpoint among many (Network of Academic Corporate Relations Officers Benchmarking Committee, 2012).

Does corporate engagement represent an opportunity for universities interested in broadening not only their funding base but also the range of ways that their faculty, staff, and research community interact with businesses? In this article I describe best practices, organization and resourcing

choices, and implementation opportunities and challenges as identified in interviews with corporate engagement professionals at 16 colleges and universities in the United States (Table 1).

Table 1
Institutions Participating in Interviews for Corporate Engagement Project

Boston University	Purdue University
Carnegie Mellon University	Temple University
Dartmouth College	University of California, Davis
Duke University	University of California, Riverside
New York University	University of Michigan
Northwestern University	University of Notre Dame
Ohio State University	University of Southern California
Pennsylvania State University	University of Washington

ORGANIZATION AND RESOURCING CHOICES

Traditionally, corporate relations staff at a university served primarily as fundraisers, and were placed organizationally in an office of development or advancement, together with foundation relations colleagues. According to annual NACRO member surveys, this is still the most common organizational model (NACRO 2016 Benchmarking Survey Results, Question 19). However, a number of universities have created separate offices with business development staff as they have adopted a holistic approach and seek to engage corporate partners at numerous touchpoints (Table 2).

Table 2
Examples of University-Corporate Points of Engagement

Touchpoint
Research sponsorship (including collaborative projects and clinical trials)
Philanthropy (including scholarships and gifts in support of research)
Patent licensing
Executive education and workforce development
Career center sponsorship
Startup businesses: investment, advising, and recruitment
Recruitment and hiring of alumni and postdocs
Advisory board and board of directors service
Sabbaticals

These new units—some of which are now a decade old—have names such as Industrial Liaison Office (Ohio State University), Business Engagement Center (University of Michigan), Office of Industry Relations (University of Washington), or Office of Industrial Partnerships (Pennsylvania State University). To date, most of the dedicated corporate engagement teams are part of their institution's Office of Research, although some have been established in the Office of Development (University of Washington) or are jointly funded by the Offices of Research and of Development (University of Michigan). Their location in the Office of Research emphasizes the importance of collaborative research in academic-corporate partnerships. Many of the officials interviewed for this project believe that research is the engine that can drive other elements along the spectrum of touchpoints.

Although specific organizational models differ, two features common to these corporate engagement offices are that they do *not* replace existing corporate and foundation relations offices, and they are generally staffed by specialists in industry sectors or verticals, who have advanced degrees. These specialists have experience working in the business world and are familiar with the cultural differences between academic and corporate environments. They are able to serve as facilitators and communicators. Typically they have worked in a business development role in industry (that is, they were not exclusively researchers) and are comfortable outlining the terms of a research collaboration between a corporation and a university. This gives them a distinctly different role to play than that of a corporate relations fundraiser, even though a fundraiser may be highly

effective at identifying and closing a gift that supports research.

Although studies do not appear to have been conducted to determine whether making investments in corporate engagement specialists resulted in higher levels of funding, interviews conducted for this project indicated an expansion of corporate engagement programs and recognition, meaning that institutions are taking a fresh look at corporate partnerships and finding much of interest. Therefore, a research university interested in enhancing its corporate engagement practices should evaluate the costs and potential benefits of investing in a team of specialists with knowledge of specific industry sectors.

ANALYTICS PROVIDE A COMPETITIVE EDGE

A number of institutions also have recognized that a strong *analytics* capability is an important adjunct to having frontline corporate engagement specialists, adding to the resource requirements. Universities that have made corporate engagement a strategic priority have acknowledged that partnerships with corporations are becoming more competitive. In this sense, putting into place all of the capabilities to compete successfully for corporate partnerships is just as necessary as it is for pursuing and administrating R01 research grants from the National Institutes of

Health, or Science and Technology Center awards from NSF. Many companies are taking an approach to academic engagement that mirrors the multiple touchpoint philosophy adopted by universities, choosing to work more comprehensively with a smaller number of partners. Selection criteria include alignment of product development strategies with the technical assets and research programs of a university, existence of executive education and workforce development initiatives, and evidence that the university values corporate partnerships.

To meet the competitive challenge and realize the full value of interactions between a university and a business, a number of academic institutions have made investments in analytical capabilities that can be applied to corporate engagement. These consist of people, software tools, and access to various internal and external data sources. The field of deep data analysis, called 'business intelligence' in the corporate world, has gained traction in academia as a way of understanding and predicting student enrollment and retention patterns, and other business-related aspects of university administration (Powers, 2011). At institutions with robust corporate engagement programs such as Ohio State University and Purdue University,

dedicated analytics teams combine IT professionals with analysts who have skills and experience in data mining. These teams are responsible for looking both inward and outward: they study the capabilities and research strengths of their own university, as well as those of peer institutions that may be competing for corporate partnerships. In addition, they survey the landscape of current and potential business partners, and create profiles for use by university administrators. Their insights come from studying a variety of public and subscription-based databases that may include merger, acquisition, and divestment announcements; corporate annual reports; 10-K filings; job postings; faculty publication lists and bibliometric impact studies; and patent filings and commercialization data. Data analysts in corporate engagement offices also maintain dashboards that track the status of existing partnerships, and can use data querying and visualization tools such as Cognos or Tableau to help build a case for establishing or enhancing a university-industry partnership.

CORPORATE ENGAGEMENT IN PRACTICE

A university seeking to make the transition in corporate relations from a traditional philanthropy-centric approach to a philosophy that emphasizes long-term

relationships with multiple touchpoints needs a model for engagement. The approach known as 'relationship management' can serve as a framework for building a corporate engagement enterprise. Relationship management is "a strategy in which a continuous level of engagement is maintained between an organization and its audience" (Investopedia, n.d.). The field of relationship management, called Customer Relationship Management (CRM), has become widely known through the use of dedicated CRM software such as SalesForce. The essential concept behind relationship management is the premise that ongoing contact with a customer or partner is the best way to build trust, familiarity, sales, or other forms of productive engagement. Inherent to the theory of relationship management is the idea built into its name—that relationships require, and benefit from, deliberate and proactive *management*. In the context of university-corporate engagement, a relationship management model may be constructed around a primary point of coordination between the two entities. Having a single primary relationship manager is considered a best practice and carries the expectation that the relationship manager is responsible for developing and executing an overall relationship strategy, serves as a reliable though not exclusive communications hub,

and oversees a team—either formally designated or *ad hoc*—that executes various aspects of the university's strategy for partnering with the company. Other members of the relationship team are typically representatives from relevant university units: Sponsored Programs;

Technology Transfer; Corporate and Foundation Relations; faculty; and members of the legal, compliance, and career development or placement offices. Members of the team will often have their own relationships with cognate representatives from the company (Figure 4).
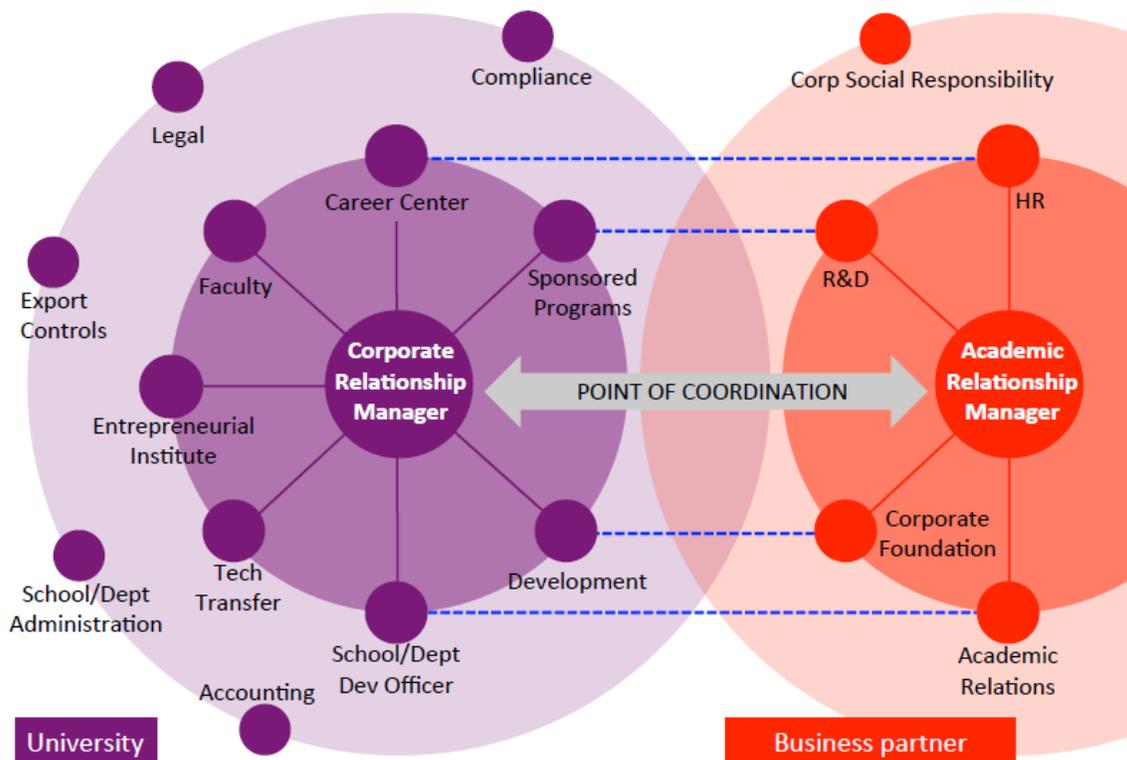

Figure 4. Relationship Management Model for Corporate Engagement
Source: Correspondence with Daniel Kramer, Industry Liaison Office, Ohio State University

IMPLEMENTATION ROADMAP AND CHALLENGES

Universities contemplating changes to their corporate engagement strategy should develop a plan that takes into account organizational and staffing changes; outreach to and education of faculty and staff about goals; benchmarking against peer institutions; and development of metrics and performance indicators to

evaluate progress towards agreed-upon outcomes. Implementing such a plan benefits from the methodology and tools of project management, which is routine in the business world and increasingly adopted for significant process changes in academic environments. A cost-benefit analysis that identifies a reasonable target can help drive a decision on making the investment in corporate engagement capabilities, although it will likely emphasize financial factors over less quantifiable benefits. For example, 143 universities in the United States reported R&D expenditures exceeding $100 million in the 2015 NSF HERD data set (National Science Foundation, 2016). The median R&D expenditure at these universities was $323.9 million. The median for funds coming from 'business sources' was 4.25%. (Means for these 143 institutions were $426 million in expenditures and 5.31% from business sources.) A hypothetical institution that has, say, $300 million in research expenditures and is able to increase its corporate-originated spending from 3% to 5% of its overall R&D enterprise would realize $6 million in new funds annually. Even excluding other benefits, an institution can do the math,

make a judgment about the likelihood of achieving a target, and make an investment decision that takes into account other strategic priorities.

A critical early step emphasized by several officials interviewed for this project is securing a commitment from the highest officers of the university—preferably the president and the senior research officer—to announce the initiative to the university community and back it up with sustained support and involvement. There should be a charter document that articulates the goals of building a strong corporate engagement capability. Appointing a full-time coordinator or project manager rather than assigning the responsibility to an existing administrator is also a best practice. Depending on the extent of the university's ambitions and needs (does a suitable CRM system already exist; is there a strategic plan in place for corporate engagement; does a current database of research strengths and assets exist; does the institution have business intelligence capabilities?), the effort needed to develop the foundation for active corporate engagement can realistically require a year or more of preparatory work (Figure 5).
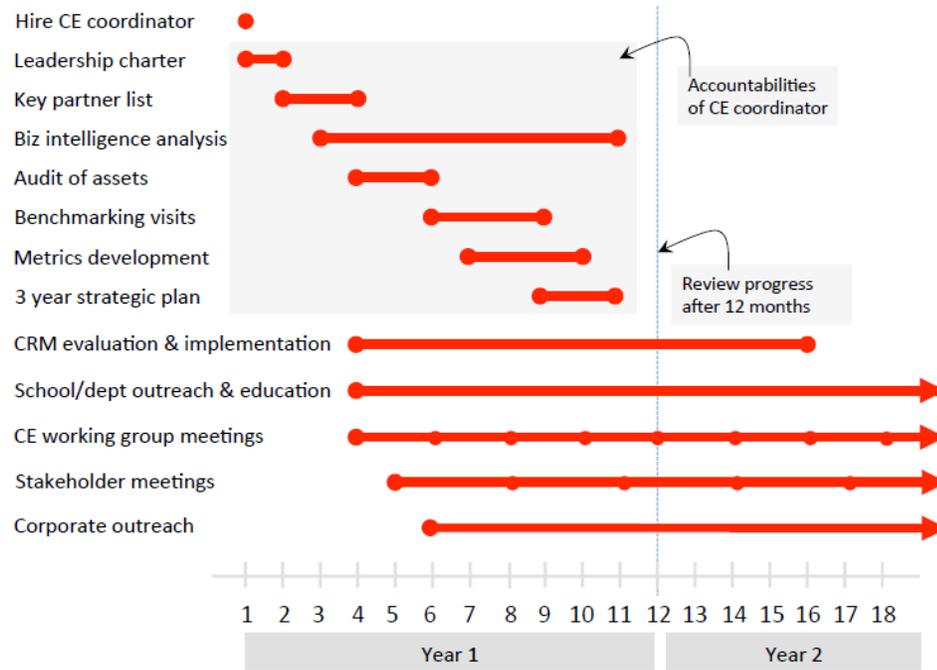
Figure 5. Hypothetical Roadmap and Timeline for Implementing a Corporate Engagement Capability

As the elements of a full corporate engagement capability are put into place, the assembled team can harness them to work through a checklist of both inward- and outward-facing actions (Table 3).

Table 3
Checklist for Corporate Engagement

Internal Review and Alignment Activities	External Knowledge and Actions
Conduct candid assessment of institutions strengths and weaknesses *vs.* peers	Articulate to corporations a value proposition for engagement
Align corporate engagement priorities with institution's strategic plan	Do homework for each potential partner: map research synergies; find strategic white spaces; identify executive education offerings
Develop strategy, metrics and action plan for each key corporate partner	Current knowledge of connections: key alumni, C-suite members, board of directors
Create comprehensive asset list, customized to match needs and priorities of key partners	Corporate engagement working groups with regular meetings and clear charter
Secure institutional leadership support and availability	Develop outcome measurements to share with corporate partners
Create roster of faculty with interest and relevant research programs	Conduct continuous research to stay current; create stewardship plans

The anticipated outcome is a team of interested faculty, a collection of relevant research facilities, and a curated list of additional engagement opportunities that collectively present a compelling value proposition to corporations that have been identified on the basis of how closely their strategies, product development needs, and other characteristics (recruitment goals, geographic proximity, existing partnerships) align with the strengths of the university.

A number of challenges to successfully launching and developing a new corporate engagement initiative were identified in this project. Some of these are associated with faculty, some with administrative staff, and some may be inherent to institutional characteristics. Several are listed in Table 4.

Table 4
Challenges to Expanded Corporate Engagement Commitment

Issue	Strategy
Faculty indifference or opposition	Educate with improved collateral and strategic plans; respect faculty prerogatives
Skills gap in relationship management or industry sector/vertical knowledge	Hire and retrain for experience in relationship management and subject matter expertise
Knowledge gap regarding faculty strengths and interests	Develop faculty database; mine patent and bibliometric databases
Influence gap—C-suite access	Use university board; leverage president and other senior administrators
Metrics gap—data sharing challenges	Create or empower informatics team to create capacity across institutional databases and systems
Incentivization concern—why support initiatives that don't lead to $	Broaden performance metrics to credit shared leads and nonfinancial wins
Focus on 'school before institution' or 'department before institution'	Messaging and actions from senior university administrators

There may be a perception that the prerogatives of the corporate and foundation relations office are diminished by investments in corporate engagement capabilities that emphasize data-driven, long-term, multiple-touchpoint relationships. It may be useful to rethink performance measures or incentives to broaden the definitions of successful engagement. Some faculty members may be indifferent or opposed to interactions with corporations in general, or with specific business sectors or individual corporations. Educating faculty on the benefits of corporate engagement while respecting their rights and opinions may be in order. A detailed audit of research strengths at the university, taking into account faculty interest and competing time commitments, may reveal gaps in what the university can bring to the table. It will almost certainly also reveal the challenge of maintaining current and comprehensive information about thousands of faculty, visiting scholars, postdocs, facilities, and so on. A whole set of issues surrounds the challenge of interoperability of data systems. A best practice is to commit to a data strategy, then use skilled data analysts, powerful data mining and visualization software, and old-fashioned networking to gather the large amounts of information that can usefully

inform corporate engagement strategies. This process may require substantial manual manipulation of data—no officials interviewed for this project claimed that their institutional systems were fully integrated.

CONCLUSION

Corporate engagement offers an academic institution a uniquely broad palette of opportunities to further its mission, which typically includes research, teaching, and regional economic development. While the goals of universities and businesses have inherent differences, their interests can also align productively. Interviews with representatives of a number of public and private universities that are at widely different places in terms of their corporate engagement activities revealed patterns of organization and investment worthy of consideration by institutions interested in enhancing this area. Best practices include creating units dedicated to corporate engagement and staffing them with professionals whose experience spans academic and business environments; distinguishing between fundraising and other metrics for success; and maintaining deep and regularly-refreshed knowledge of the institution's assets, the competitive environment of other universities with similar profiles, and the landscape of corporations that are current or potential partners. Creating a framework around the principles of relationship management can lead directly to an implementation roadmap that will guide an institution towards a robust ability to compete for new or expanded corporate partnerships, and successfully administer them as a growing part of their relationship portfolio.

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