

# Corporate Affiliate Programs Guide



Strengthening University-Industry Partnerships

#### **Corporate Affiliate Programs Guide**

Guidance for university administrators and academic researchers on how to set up and sustain a corporate affiliate program and guidance for companies and their representatives for determining whether to participate in a CAP and how to evaluate the benefits

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**UIDP** undertakes projects to help its academic and corporate members advance their interests through greater collaboration and partnerships between sectors.

A university-based, Corporate Affiliate Program (CAP) provides a business model for corporations and their representatives to interact and collaborate with academic researchers and students in areas of common interest. Programs are often interdisciplinary and possess a focus around academic units or research themes. For the purpose of this Guide, a Corporate Affiliate Program is organized by a university and includes multiple corporate members to create a forum for a specific research area, to connect students with industry, or to connect companies with the academic community.

CAPs are an important element in the university-industry partnership continuum. From an academic perspective, they help expose faculty and students to real-world problems presented by industry, which can lead to additional sponsored research and improved chances for federal or other third-party funding, as well as career opportunities for students. For industry, they offer opportunities to interact with a broad range of faculty and students, facilitate a talent pipeline, stay abreast of university research, enable access to university research facilities, and streamline interactions with various units within the university.

The primary driver for many university-industry activities is the desire for companies to leverage academic research and evaluate human capital (student through tenured faculty) for current or future business needs. CAPs support this incentive for collaborations and provide a forum for students to interact directly with company employees, learn about industry culture, and explore internship, co-op, and employment opportunities.

This Guide provides an overview of factors to consider before creating a program and the key elements required to establish and sustain a high-impact program.

This Guide has been developed by UIDP university and industry member representatives who have direct experience in forming and participating in Corporate Affiliate Programs.

This Guide provides guidance for university administrators and academic researchers on how to set up and sustain a corporate affiliate program and guidance for companies and their representatives for determining whether to participate in a CAP and how to evaluate the benefits.

## **CAP Structures and Features**

CAPs may range from simple, gift-based programs, with no exclusive member benefits, to large research-based programs, often with multiple membership tiers and pre-publication access to research. Every CAP has a membership model that defines the types of engagement enabled by the program and the financial relationship. This relationship is formalized in a membership agreement, which can be as simple as a letter from the industry participant for gift-based programs, or as complex as a formal agreement which details benefits, obligations, intellectual property (IP) rights, and more.

CAPs typically focus on relationships and/or research:

- Relationship-focused CAPs. These CAPs connect members with the academic community, usually within a specific department, school, or college. Engagement is often via events and conferences where companies can learn about current research. Examples include the University of Washington Allen School of Computer Science & Engineering Industry Affiliates Program,<sup>1</sup> UC San Diego Jacobs School of Engineering Corporate Affiliates Program and Executive Board,<sup>2</sup> Stanford Computer Forum,<sup>3</sup> and Cornell University's CIFS-IPP (the Cornell Institute for Food Systems Industry Partnership Program).<sup>4</sup>
- Research-focused CAPs. These CAPs aim to conduct basic or applied research in specific areas. Here, most of the membership fees are pooled to fund research and there is often an industry advisory board which advises on project priorities. Examples: Carnegie Melon University CyLab,<sup>5</sup> University of Washington Reality Lab,<sup>6</sup> Virginia Tech Center for Power Electronic Systems,<sup>7</sup> MIT Energy Initiative,<sup>8</sup> and the University of Oxford Saïd Business School Future of Marketing Initiative.<sup>9</sup>

## **Other Notable Programs**

Some programs fall outside the scope of this Guide due to their uniqueness. However, they provide useful models, tools, and templates for establishing or operating a CAP. A couple examples of these programs are below. Links to their program webpages and other useful CAP webpages can be found in the References at the end of the Guide.

The National Science Foundation (NSF) Industry-University Cooperative Research Center (IUCRC)<sup>10</sup> and Engineering Research Center (ERC)<sup>11</sup> programs are broad, multi-university programs that include CAPs. NSF provides tools and to establish, govern, and evaluate a CAP.

The MIT Industrial Liaison Program (ILP),<sup>12</sup> established in 1948, is a globally recognized model to create and strengthen mutually beneficial relationships between MIT and corporations worldwide. This program leverages historical strengths in partnering with the corporate sector. ILP members are supported by Industry Liaison Officers, who understand the member companies' needs and make connections across the Institute. ILP member companies account for approximately 40% of all corporate gifts and single-sponsored research expenditures at MIT.

## **Key Features of CAPs**

CAP features vary depending on the university context and specific program goals. The table below illustrates the key features of selected CAPs. The following table is strictly illustrative. There are many more CAPs at UIDP member organizations. A longer list of CAPs can be found at www.uidp.org/CAP-List.

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University of Washington <b>Reality Lab</b>	$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$		
UC San Diego Jacobs School of Engineering Corporate Affiliates Program & Exec Board	$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$	$\checkmark$		
MIT Energy Initiative		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
Carnegie Mellon Security and Privacy Institute (CyLab)		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$
Stanford Computer Forum	$\checkmark$		$\checkmark$		$\checkmark$			$\checkmark$	$\checkmark$	$\checkmark$
Virginia Tech Center for Power Electronics Systems	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$
University of Oxford Saïd Business School Future of Marketing Initiative		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$		
Cornell University Cornell Institute for Food Systems Industry Partnership Program (CIFS-IPP)		$\checkmark$	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

\* For this guide, the term Sponsored Research includes all forms of support to research projects

## **CAP Stakeholder Benefits**

Carefully crafted and managed CAPs can provide significant benefits for companies that participate as members and universities that manage them. CAPs can enable students to have more meaningful engagement with industry, learn about company culture and challenges, and provide potential leads for further research, internships, or employment. CAPs offer a neutral forum for companies to discuss shared challenges, access talent, and inform research and education directions.

Local communities can also receive significant benefits by establishing it as a leader in an emerging field. University research efforts can lead to new start-ups or co-location of industry personnel from large, multi-national firms.

CAPs rarely generate much direct income for universities; however, with proactive leadership they strengthen linkages with companies that often leads to additional sponsored research and new partnerships.

## **Academic Perspectives**

#### **Corporate Affiliate Program Rationale**

CAPs are engagement platforms for industry and rarely generate large, positive cash flow for the university. Programs provide additional benefits and can lead to industry-sponsored research, career opportunities for students, post docs, and senior non-faculty scientific staff, and consulting opportunities for faculty.

Program	Determine the program focus; e.g. relationship or research focused (or
Focus	a blend) and the academic unit or division.
Due	Benchmark similar programs at other schools. Look at program scope,
Diligence	fees, member list, staffing needs, etc.
Leadership	Identify interested faculty members and the faculty champion. Ensure
	there is support from academic leadership (Provost, Dean, Chair etc.).
Framing	Organize a framing workshop that includes your best partners and
Workshop	strongest prospects as a seed group, along with relevant faculty.
	Review proposed member benefits and activities, fees, etc.; listen for
	feedback and modify the program scope and fees as needed.
Program	Plan for the professional support staff required to successfully deliver
Management	the program. Ideally, the program manager will be identified and
	participate in the initial program design and industry consultation. Staff
	should have prior relationship management experience.
Membership	Carefully consider and document the proposed program goals,
Benefits	activities, member benefits, and member responsibilities. Such
	considerations include how the program will differentiate itself from
	other programs and deliver value. These benefits should be consistent
	with the selected gift or contract structure.

#### Key Elements to Establishing a CAP

Members	Develop a list of potential member companies and identify the
	most likely recruitment targets. Ensure that there are a sufficient
	number of companies willing to join and determine if there will be
	any restrictions on companies due to compliance or regulatory
	matters. If more companies are needed to establish the CAP, identify
	further modifications to scope and fees that make sense and will
	boost member ranks. The number of members required will depend
	on the type and scope of the CAP. For gift-based programs with
	activities limited to, for example, an industry day and recruiting
	events, the number of members will typically range between 10 and
	100. Research-based programs which typically aim to build deep
	relationships with faculty and include more frequent meetings and
	dialogue, will usually have 10 -30 members.
Internal	Check if any potential member companies already have a relationship
Alignment	with other university departments or faculty and build consensus
	and alignment with those involved. Companies often have multiple
	touch points with a university and, to the extent possible, individual
	communications should be handled within the context of the broader
	relationship. For additional information on managing a U-I relationship
	through a single point of contact, see UIDP Comparing Internal
	Structures Guide. <sup>13</sup>
Budget	Estimate revenue and expenses to operate as well as any recurring,
	internal commitments. Be sure to include the cost of at least a part-time
	program manager. As a rough guide, a CAP with limited programming
	and one part time staff member can expect an annual budget of \$100-
	150K, whereas a research-based CAP with multiple meetings, research
	coordination, etc., will require more staff and the annual budget is likely
	to be in the range of \$250K to over \$1M. (These numbers reflect the
	running and management of the CAP. These funds are distinct from the
	money that is directed toward research by the CAP.)
Fees	Determine the price of the program, including an explanation of the
	business model. If membership tiers are proposed, ensure that the
	rationale is clear as this introduces greater complexity that can be
	harder to manage. Programs can take some time to ramp up to the
	target number of members, and while the aim should be to recover
	costs, this may not be feasible in the early years.
Membership	Thoughtfully develop a membership agreement that clearly delineates
Agreement	the roles and responsibilities of each party. There are many examples
	from other centers that can serve as a starting point.
Launch Program	Create website, hire program manager, schedule first meeting.

Several universities have published publicly available guidelines on how to establish new CAPs<sup>14,15</sup> **Be sure to check your own university's guidelines for establishing a CAP**.

#### **Key Learnings**

#### Campus Leadership is engaged and supportive

When seeking to set up a CAP, it is important to ensure that university leadership (e.g., Provost, Dean, Institute Director) is aligned and supports the goal.

There are several, highly motivated faculty working in an industry relevant area The CAP must possess significant research diversity and depth to make it interesting to industry and tolerate some faculty turnover. Engaged faculty should be eager to collaborate with industry.

#### A respected faculty researcher is willing to champion the program

Having a successful and respected faculty lead is important for recruiting other researchers to the program and garnering institutional buy-in. Tenured faculty are preferred since junior faculty are in the publish or perish part of their career and do not have enough time to lead the program.

There is a critical mass of companies willing to help shape and join the program

Discuss with trusted partners first. Enough companies should be involved to provide a range of perspectives and to provide networking opportunities for the company representatives. The number necessarily varies by field.

#### There is a clear value proposition for the university and for companies

CAPs are primarily an engagement platform rather than a profit center. Successful CAPs will produce ancillary activities and benefits to the university community and participating companies.

#### There is a clear business model

There needs to be clear benefits for all parties and an understanding of the cost of offering them. Many universities will be reluctant to establish a program unless it possesses a sound financial plan and consistently stays within budget.

## Key Elements for Operating and Sustaining a Program

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Benchmarking	Review the NSF IUCRC Governance Requirements <sup>16</sup> or other CAP program administrative documents Elements of these may be relevant
	and helpful when establishing the governance of a new CAP.
Communications	Communicate regularly (using multiple modalities) with members, on a quarterly basis at minimum. Keep the website up to date.
Company	Aim for institutional level relationships with multiple points of contact
Representatives	to build resilience when there are changes in company leadership and
	CAP representatives.
Customer Discovery	Solicit and respond to feedback from members. Do "exit" interviews
, ,	with companies that drop out.
Delivery	Deliver on the benefits and services promised to members.
Faculty Participation	Recruit new faculty to participate in the program. Review current
	faculty participants and clearly delineate roles and responsibilities
	for faculty and ensure that every researcher is meeting
	minimum requirements.
Industry Advisory	Create an industry advisory board (IAB) or other governance structure
Board	for the CAP. The governing body should meet at least twice per year to
	review how the CAP is operated. This is particularly important for CAPs
	where member fees are supporting research. (See UIDP Maximizing
	the Benefits of Advisory Boards Quick Guide. <sup>17</sup> )
Meetings	Hold a least one general meeting per year for all those involved with
Meetings	the CAP (two per year may make sense for research-focused centers).
	These should provide direct interaction and substantive exchange
	between industry and academic leaders and students. Online sessions
	using modern videoconferencing capabilities are an attractive
	complement to on-site events and can help maintain connectivity and
	momentum between face-to-face events.
Staffing	Hire a full or part-time program manager to make sure that the
Stanning	
	program is run professionally with a high level of customer service
	(relationship management, business development, program
De emuitine Mensheure	management, communications, and stewardship).
Recruiting Members	Recruiting new member companies is a priority for any program and
	requires on-going efforts. Recruiting efforts address the anticipated
<b>e</b>	attrition and grows overall membership.
Students	For many companies, access to students (both undergraduate and
	graduate) is a key motivator for joining the program; therefore, having
	students visible at meetings and other activities is vital. For students,
	CAPs provide access to recruiting and internship opportunities that
	may not have been available without a CAP.
Value Proposition	Create and maintain the value proposition for faculty and company
	members and communicate this regularly to all participants (faculty,
	students, IAB members).

## **Industry Perspectives**

## Corporate Affiliate Program Rationale

The speed with which technical fields are evolving, particularly in the digital space, is well documented. Its impact on the way companies innovate and the need for external collaboration is also well known. R&D-oriented CAPs play an important role in meeting this need by creating pre-competitive IP environments in which universities and industry can explore these fields in a more flexible way. CAPs that enable interaction with students also provide companies with invaluable access to talent in these same areas.

The benefits a company derives when joining a CAP depend on the level of maturity of the relationship with the center or university and the company's commitment to invest the needed time and energy to leverage the program's benefits. CAPs are an excellent way to get to know faculty and students, evaluate the capabilities of a university, and connect with the local innovation ecosystem, including start-up companies. They also offer an opportunity to explore new education and curricula initiatives as well as new areas of research while committing limited resources (time and money). This benefit can be augmented by the ability to interact with other companies sharing interest in the same area.

For more mature relationships, CAPs also provide a beneficial environment to conduct exploratory work with existing partners and students before committing to fund company-specific work via a sponsored research agreement.

Research-focused CAPs provide companies with a highly leveraged way to fund industry-relevant research in a particular area. A company's member fee may be about the cost of a small project, but it provides access to all the member-funded, pre-competitive research generated through the center. Often members get a commercial non-exclusive license to any new IP created.

## Selecting a CAP

The most important factor in electing to join a CAP is the alignment between the objectives of the CAP and the company's interests. Is the membership being pursued to have access to students, to increase the company's visibility, to advance a research program or all the above?

Companies should also have a clear understanding of the benefits offered by the CAP and whether they plan to play an active role in shaping the direction of the center. Some CAPs encourage this involvement while others expect companies to take a more passive role.

While no single focus fulfills all needs, there are aspects of existing CAPs that work particularly well for industry. For example, companies appreciate opportunities to direct a portion of the membership fee to research that is of interest to both the company the rest of the membership. CyLab (Carnegie Melon University) and CITRIS (various UC campuses) both feature this type of research funding mechanism. Companies also appreciate student-oriented events including career fairs, hackathons, industry days, grad-student meet ups, office hours, and sponsorship of student competitions.

With any CAP, a number of contracting considerations come into play. The intellectual property (IP) strategy for the CAP should be identified up-front. Some approaches include early access agreements, preferential licensing terms, open source policies, or public dedication approaches. The IP policies of a CAP can be a deciding factor when a company is selecting a CAP. Further guidance on IP approaches for multi-stakeholder agreements is under development.

## Participating in a CAP

As it is always the case in industry-university partnerships, the benefits of the relationship are directly related to the amount of time and resources devoted to the activity. Choosing the right person, a champion, to represent the company is very important as is ensuring they have the time to devote to the partners

CAPs often offer programs that may benefit different audiences within a company. For this reason, it is important for the company champion to have communication channels available to promote the membership and advertise specific activities, such as a conference or retreat.

#### **Key Learnings**

#### Company leadership support

When seeking to join a CAP, it is important to have the buy-in from leadership not only in terms of funding approvals but commitment to support, and when appropriate, participate in CAP activities.

#### There is a clear value proposition

Before joining a CAP, a company needs to ensure that the primary drivers of the membership, whether they are relationships, R&D or student engagement, are aligned with the company's goals for the membership.

#### An employee willing to champion the program

Successful CAP partnerships will benefit from having a person that can act as a main point of contact for the university, guide the participation of the company in CAP activities, and serve as an internal advocate.

#### Additional resources

CAPs may offer opportunities to engage across multiple functions, e.g., R&D and student engagement. Benefiting from these opportunities may require participation of company employees other than the champion.

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## **Evaluation Metrics**

During the formation of a CAP, it is important to consider how the performance of the CAP will be evaluated and to identify the key metrics that will be used. The metrics may evolve over time to reflect the growth and maturation of the CAP. Consider a basket of metrics to reflect the different stakeholders. Some illustrative metrics for different types of CAP are provided in the table below. Further metrics can be found in the UIDP List of Collaboration Metrics.<sup>18</sup> Different organizations weight the metrics suggested below in different ways. Therefore, a universal formula for evaluating a CAP does not exist.

	Stakeholder					
CAP Metrics	Company	University	Faculty	Students		
Research Metrics	Dollars spent and \$ leveraged	Research support \$ from member fees and sidecar sponsored projects	Research \$ and number of papers published as a result of CAP funded research	Number of students supported; quality of interactions with company staff		
Relationship Metrics	Depth of engagement with faculty and connection to local innovation ecosystem	Number of company representatives on university boards and number of faculty on company boards	Number of faculty visits to companies	Total unrestricted gifts for scholarships and fellowships.		
Student Metrics	Number of student internships, coops, full time hires.	Number of direct interactions between company staff and students	Number of hires, internships and company visits	Number of hires, internships and company visits		

## Illustrative CAP Evaluation and Performance Metrics

#### CASE STUDIES OF REPRESENTATIVE PROGRAMS

#### University of Washington Reality Lab > https://realitylab.uw.edu/index.html

CAP Focus: Research CAP Purpose: Advance Virtual and Augmented Reality Technology

#### Description

The UW Reality Lab is an industry-funded research center within the Allen School of Computer Science & Engineering at the University of Washington. The Reality Lab aims to advance the state of the art in virtual and augmented reality by developing new technologies and applications, educating the next generation of researchers and technologists, and supporting robust collaborations with industry. The Lab brings together an interdisciplinary team of UW faculty, graduate students, and undergraduates working in 3D computer vision and perception, object recognition, graphics, game science and education, distributed computing, stream processing, databases and computer architecture, and privacy and security.

#### **Results/Outcomes**

The Reality Lab was launched in January 2018 with significant gift support from a small number of major tech companies. This funding structure was a deliberate choice to involve just the most interested companies that were willing to provide both time and money to make the Lab a success. These companies were excited by the opportunity to fund a critical mass of research in the areas of AR/VR, graphics, vision and interaction and to build a pipeline of students trained in these technology areas. Going forward the Lab expects to invite a few more companies to join the Lab.

In addition to funding research the Lab supports a variety of academic courses, including a capstone design class, and offers a weekly lecture series that is open to the public. There are currently fourteen faculty and over twenty-five graduate students involved with the Lab. The Reality Lab is led by a faculty director and two co-directors with support from an industry advisory board.

#### **Key Insights**

- 1. It's possible to build a successful research-focused CAP where the member fees are gifts. Since there are no contracts the industry members must trust the faculty to be good stewards of the member funding and to produce quality research. Companies that already have a good working relationship with the school are more likely to be comfortable with this approach.
- 2. A business model based on higher member fees and fewer members can work if the value proposition is strong enough. In this case, the combination of a top-ranked computer science school and industry interest in a building an AR/VR talent pipeline were important factors.

#### CASE STUDIES OF REPRESENTATIVE PROGRAMS

#### Stanford Computer Forum > https://forum.stanford.edu/index.php

CAP Focus: Relationships, Student Recruiting CAP Purpose: Improve interaction between companies and students/ faculty/ departments

#### Description

Since its founding in 1968, the Computer Forum has welcomed corporate members from Silicon Valley and around the world. The Forum brings together academic and industrial leaders in the fields of Computer Science and Electrical Engineering. The Stanford Computer Forum is a cooperative venture that encourages collaboration between the Computer Science and the Electrical Engineering Departments at Stanford, and member companies located in Silicon Valley, the rest of the U.S., and the rest of the world. The Forum provides a mechanism for developing interaction with industrial researchers and their academic counterparts, promoting the exchange of the most advanced technological ideas in the fields of computer science and electrical engineering. The Forum also offers industry the opportunity to become familiar with the professional abilities and interests of Stanford students through its active recruiting program.

#### Results/Outcomes:

Many students find career opportunities through Computer Forum recruiting events, and member companies find talent to hire. The Forum creates opportunities for Industry Visiting Scholars and the annual meeting exposes industry to current research in the Stanford Computer Science and Electrical Engineering departments.

In addition, the Forum provides funding for new faculty, fellowships for graduate students, support for seminars, poster sessions, and students to attend conferences.

#### **Key Insights**

- 1. The Computer Forum has a lot of self-sustaining momentum, which may be difficult to replicate for a newer program. For example, to host a successful career fair, enough companies need to attend. To attract sufficient companies, enough of the right students are required to talk to the companies. Similarly, to attract faculty to an event to talk about their research, you need enough companies to commit to attending, and vice versa.
- 2. The Computer Forum can sustain a high level of interaction with industry because of a dedicated staff team, and a large group of student employees to help with the many events.
- 3. Over the years, the Computer Forum has been flexible and responsive to new focus areas, such as recruiting which has in turn grown the company membership, and in response to that demand, has led to the growth of the support staff team.

## Cornell University: The Cornell Institute for Food Systems Industry Partnership Program (CIFS-IPP) > https://foodscience.cals.cornell.edu/industry-partnership-program/

CAP Focus: Relationships CAP Purpose: Finding solutions to Food Systems Challenges

#### Description

CIFS-IPP is a public-private collaborative venture that expands and enhances the engagement of CIFS Faculty Fellows, staff and students with industry scientists, engineers and business leaders across complex global food systems. By combining expertise in scientific research, business economics, and industry practice, CIFS-IPP finds solutions to today's food systems challenges and shapes tomorrow's discoveries. CIFS-IPP works to advance industry practice with cutting-edge science that propels its food industry partners to the forefront of research, development, and technology.

#### Results/Outcomes:

Building on a long history of Cornell University's collaborations with the food industry, CIFS-IPP provides a forum to strengthen connections between the CIFS Faculty Fellows (a group of over 100 faculty from Food Science and related disciplines across Cornell) and industry scientists, engineers, and business leaders. The Program has a broad emphasis on the sustainable production, processing, and distribution of food, including business economics and entrepreneurship. The Program has benefited from several long-term core industry members who, with its Executive Board, provide strategic advice and guidance as the Program continues to evolve to best address the challenges industry faces. A key focus is providing opportunities for industry member interaction with faculty who provide insights into the latest technology ideas and advances. An additional valued benefit to industry members is early access to Cornell's student talent pipeline through the CIFS-IPP Career Fair and other tailored recruiting opportunities. CIFS-IPP staff have frequent interactions across college and university departments to maintain internal program alignment and to provide CIFS-IPP member companies with easy access to university thought leaders outside the Program's core focus.

#### Key Insights

- 1. Strong support from both faculty, college and university leadership is key to establish and subsequently build a successful CAP.
- 2. A dedicated staff is essential to successfully manage a CAP and sustain a high level of engagement with industry members on an ongoing basis.
- 3. Over the lifetime of a CAP the issues that industry partners are focused on change and the CAP strategy and direction should evolve to reflect this.
- 4. Departmental, college and university leadership recognize that a successful CAP is not a profit center. Return on investment most likely will encompass multiple metrics, including enhanced student career opportunities, follow-on gifts and/or sponsored research, and executive training, leading to broader strategic relationships with CAP member companies across the institution.

# UC San Diego Jacobs School of Engineering Corporate Affiliates Program and Executive Board > http://jacobsschool.ucsd.edu/cap

CAP Focus: Relationships CAP Purpose: Develop, Structure, and Steward Partnerships

#### Description

A self-funded program of membership that builds productive, substantive relationships between companies, faculty, and students to achieve goals in research, recruitment and education in the interest of enhancing the reputation of the Jacobs School.

A 9-person team runs the centralized corporate relations program for the School of Engineering housed in the Dean's office. Customer Service is a top priority with focused business development and program management as the core strengths in order to drive the mutual goals of the institution and partners at the intersection of the technology roadmap of a company with the research roadmap of faculty.

This holistic program builds on membership with purpose, engaging partners' strategic interests while serving the targeted needs for talent and exposure to the research enterprise.

Benefits include recruiting, research, hospitality, access to the Dean and other engineering leadership (i.e. a seat on the Dean's Corporate Affiliates Executive Board).

#### **Results/Outcomes**

Membership contributions have enabled the school to build several new programs including adding a department, a cooperative education pilot, research centers of excellence, an executive education program, along with new infrastructure and facilities. New seed activities and initiatives have arisen from our partners and leadership (e.g. school-wide research review) and these have maintained important corporate relationships across the school. Sustained growth of research and faculty hiring are in part attributed to the CAP partner engagement.

"The Jacobs School's responsiveness to its corporate partners is exemplified by the numerous Corporate Affiliate Program recommendations that have been successfully implemented."

- Steve Hart, Co-Founder & Chief Technology Officer, Viasat

#### **Key Insights**

During the initial design of the CAP it was critical to determine if we were ready "to do business with business" and consider the following questions:

- 1. Is university leadership supportive of industry engagement and what are their expectations?
- 2. What challenges are we solving for our partners? The CORE 5: (i)Talent Discovery, Innovation, and Problem Solving (ii) Executive Professional Development for Employee Retention (iii) Branding, Civic Relationship, and Economic Development (iv) Corporate Social Responsibility (v) Charitable Support.
- 3. What is the relationship worth to our partners?
- 4. Are we buried in events? At what pace and scale are we able to function to serve the needs of industry?
- 5. What are our metrics and what are our partners metrics to measure success?
- 6. Are we subsidizing the cost of doing business on your campus?
- 7. How do we manage expectations?
- 8. Do we have the right talent and staff?
- 9. Are our partnerships susceptible to a potential single point of failure?

## References

<sup>1</sup> UW Allen School of Computer Science & Engineering Industry Affiliates Program https://www. cs.washington.edu/industrial\_affiliates

<sup>2</sup> UC San Diego Jacobs School of Engineering CAP Website http://jacobsschool.ucsd.edu/cap

<sup>3</sup> Stanford Computer Forum https://forum.stanford.edu/index.php

<sup>4</sup> Cornell Institute for Food Systems Industry Partnership Program https://foodscience.cals. cornell.edu/industry-partnership-program/

<sup>5</sup> Carnegie Mellon CyLab https://www.cylab.cmu.edu/index.html

<sup>6</sup> UW Reality Lab Website https://realitylab.uw.edu/index.html

<sup>7</sup> Virginia Tech Center for Power Electronics Systems https://cpes.vt.edu/

<sup>8</sup> MIT Energy Initiative http://energy.mit.edu/

<sup>9</sup> University of Oxford Saïd Business School Future of Marketing Initiative https://www.sbs.ox.ac. uk/research/centres-and-initiatives/oxford-future-marketing-initiative

<sup>10</sup> NSF Industry-University Cooperative Research Center https://www.nsf.gov/eng/iip/iucrc/ home.jsp

<sup>11</sup> NSF Engineering Research Centers https://www.nsf.gov/funding/pgm\_summ.jsp?pims\_ id=505599

<sup>12</sup> MIT Industrial Liaison Program http://ilp.mit.edu/

<sup>13</sup> UIDP Comparing Internal Structures Guide https://uidp.org/publication/comparing-internalstructures-guide/

<sup>14</sup> UC Davis has published guidelines on how to establish new Corporate Affiliate Programs. See https://research.ucdavis.edu/industry/partner-with-uc-davis/building-u-i-collaborations/ industry-resources/corporate-affiliates-program/new-caps/. Stanford University has developed a policy for creating Industrial Affiliate and Related Membership supported programs. See https://doresearch.stanford.edu/policies/research-policy-handbook/establishing-andmanaging-independent-laboratories-institutes-and-centers/establishing-and-managingindependent-laboratories-institutes-and-centers

<sup>15</sup> Georgia Tech Research Center Manual https://industry.gatech.edu/sites/default/files/PDFs/ Research\_Center\_Manual-2.pdf

<sup>16</sup> NSF IUCRC Governance Requirements at https://www.nsf.gov/eng/iip/iucrc/requirements.jsp

<sup>17</sup> https://uidp.org/publication/maximizing-the-benefits-of-advisory-boards-quick-guide-2019/

<sup>18</sup> UIDP Collaboration Metrics https://uidp.org/publication/collaboration-metrics/

## Notes


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