



For the Greater Good

Boosting the Value of Industry Partnerships

University Research
Forum





EAB

For the **Greater Good**

Boosting the Value of Industry Partnerships

University Research Forum

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Supporting Members in Research Growth

Tools, Services, and Publications Available with Your Membership

This publication represents only one of our many resources to support members in their goals to develop more strategic oversight and management of the research enterprise. Details about additional tools, services, and publications are provided below.

For additional information about any of these services—or for an electronic version of this publication—please visit our website (eab.com/urf), email your institution’s dedicated advisor, or email research@eab.com.

Competing in the Era of Big Bets

Achieving Scale in Multidisciplinary Research

This study helps colleges and universities develop more strategic approaches to building, maintaining, and, if needed, closing research centers and institutes. It includes a compendium of 16 best practices for managing center proliferation, allocating seed funding, developing business plans, implementing shared services, and creating assessments.

Delivering on the Growth Agenda

Building World-Class Research Clusters

This three-part webinar series from our 2016 National Meeting Series details how the changing research funding landscape has incentivized universities to pursue larger, more collaborative research initiatives. The webinars include exemplar models of grand challenge and cluster hire initiatives that highlight the shift toward team-based research, and how universities are competing for collaborative research opportunities.

On-Demand Webconferences

Register for upcoming sessions to hear our latest findings or access archives of past presentations. Many members convene campus leaders and task forces to attend and share ideas on practices and implementation.

Unlimited Access to Experts

University Research Forum members may contact EAB researchers at any time to discuss our findings, request networking conversations, or review related resources and practices.



All University Research Forum resources are available to members in unlimited quantity.

To order additional copies of this book, or to learn about our other services, please visit us at eab.com or contact us at 202-266-6400.

Executive Summary

Higher education has been operating in a flat-lining federal and state research funding environment for the past five years, forcing many universities to use their own funds to close any gaps. Although these institutional interventions can support ongoing initiatives in the short run, they are unsustainable for long-term growth. Unfortunately, beyond one-time increases, the deceleration of federal funding appears to be the new normal. As a result, other funding sources (e.g., industry, nonprofit, philanthropy) are on the rise and present the greatest growth potential.



Federal and State Funding

Slowly decelerating and unlikely to recover dramatically in the foreseeable future.

+1.2%

Federal and State funding grew only 1.2% between FY 2010 and FY 2015.



Institutional Funding

Fastest growing funding source, but not sustainable as universities overall contribute more than \$15B annually to research activities.

+32%

Institutional funding grew 32% between FY 2010 and FY 2015 to total over \$15B.



Industry, Nonprofit, and Other Funding

Increasing and represent the areas with the most opportunity for further growth in the coming years.

+28%

Industry, Nonprofit, and Other Sources grew 28% between FY 2010 and FY 2015 to total over \$10B.

Industry Funding a Large, Underutilized Source of Research Funding

While federal funding for research has stagnated, industry funding has become a more prominent resource for universities. At the same time, industry partners are downsizing their portfolios of university partners to focus their resources on the most valuable partnerships. Chief Research Officers (CROs) must therefore think more strategically about how to become a preferred partner with industry.

Advanced Processes Offer Opportunities to Better Attract Best-Fit Industry Partners

Across all funding sources, a greater focus on the outcomes of research has led to a significant shift in how administrators think about attracting new partners. Industry partners in particular want to work with universities that can demonstrate what potential benefits a partnership would offer. CROs must identify emerging demand and link ongoing university research to the needs of prospective partners. In addition, CROs must present a single face to industry partners that establishes the benefits of working with their universities and makes the case for a long-term partnership. Developing processes and narratives that fit the needs of industry partners separates universities with a high level of industry partnership success from those that struggle to realize significant gains.

Strategic Management of Industry Partnerships Allows Universities to Reap the Greatest Rewards

In addition to attracting beneficial industry partnerships, CROs need to develop systems for the ongoing management and growth of current partners. By differentiating levels of service and hardwiring opportunities for ongoing, two-way communication, CROs can add value to new and existing industry partnerships. In a time of increased reliance on industry partners for research growth, added value is critical not only to maintaining partnerships in light of narrowed industry partner portfolios, but also in deepening and broadening industry partnerships to promote the greatest benefit to the research enterprise.

Source: Higher Education Research and Development Survey, FY 2014
<http://ncesdata.nsf.gov/herd/2014/index.html>



Shifting Trends in Research Funding

STATE OF THE UNION

A Slowdown That Feels Like a Cataclysm

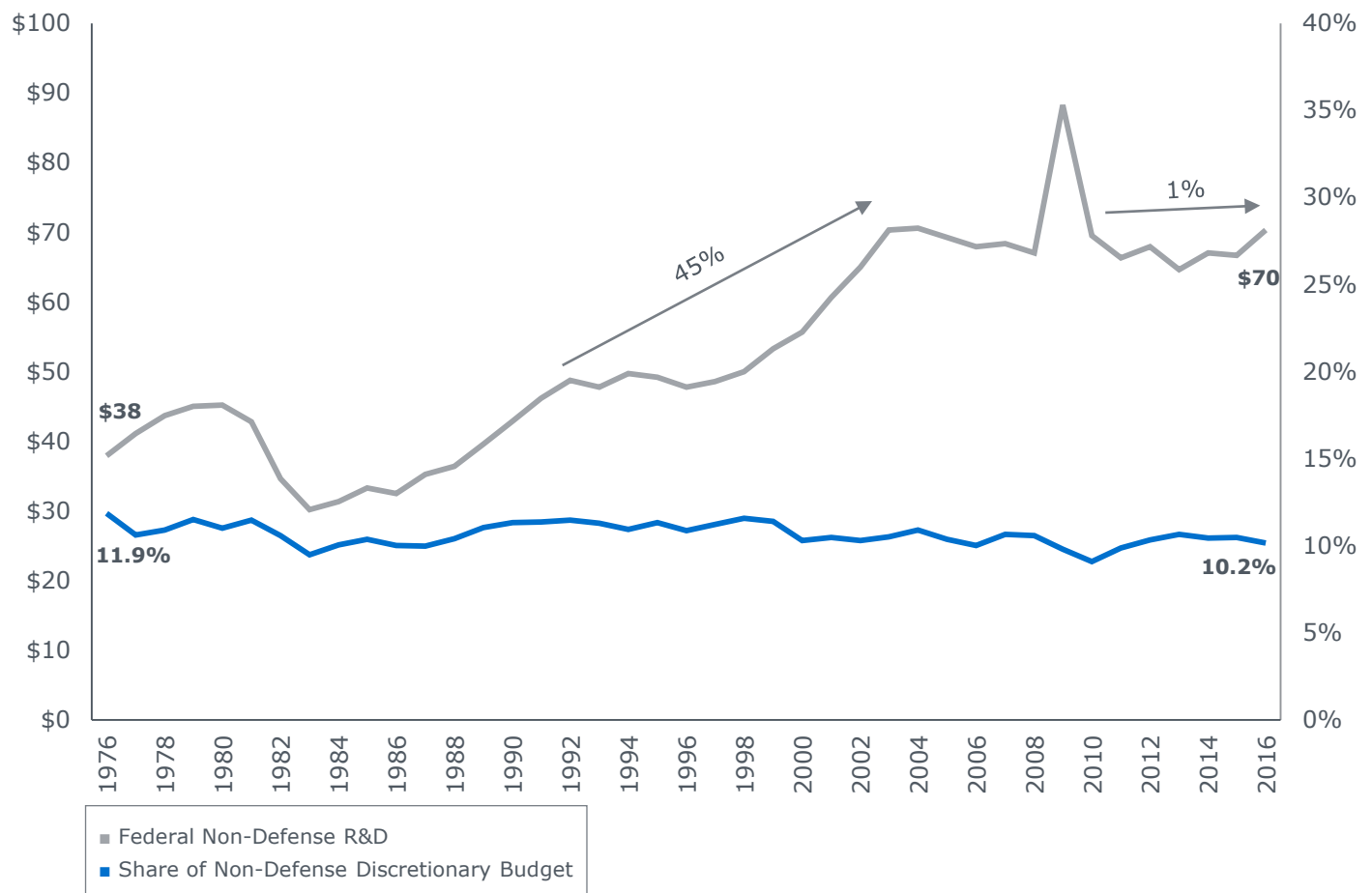
Even a Deceleration Requires Significant Readjustments

The research funding landscape today looks very different than at any other time in the past three decades. The steady increases in federal funding through the 1980s, coupled with the one-time doubling of NIH funding, paved the way for fast and expansive growth at many research universities. This growth came in the form of hundreds of new faculty hires, new research facilities and equipment, and a broadening pool of federal agencies distributing a steadily increasing pool of research funds.

However, that growth was due in large part to growth in the overall federal budget. As overall growth slowed, research universities still found themselves with new teams of faculty eager to continue research and new facilities to maintain. Many universities dug into their own reserves to fund research for the immediate term and to keep pace with demand for new innovation. Many administrators viewed these direct injections of institutional funding as a way to maintain the sprawling research enterprise until funding increased. But as hope diminishes for a drastically increased federal budget and no evidence points towards a change in the average 10% to 12% share of the budget for federal non-defense R&D, CROs must look for other ways to grow funding to expand the research enterprise.

Federal Non-Defense R&D

In Billions of Constant 2016 Dollars and as Share of Non-Defense Discretionary Budget 1976-2016



Source: "Historical Trends in Federal R&D," AAAS, Accessed May 2016, <http://www.aaas.org/page/historical-trends-federal-rd>.

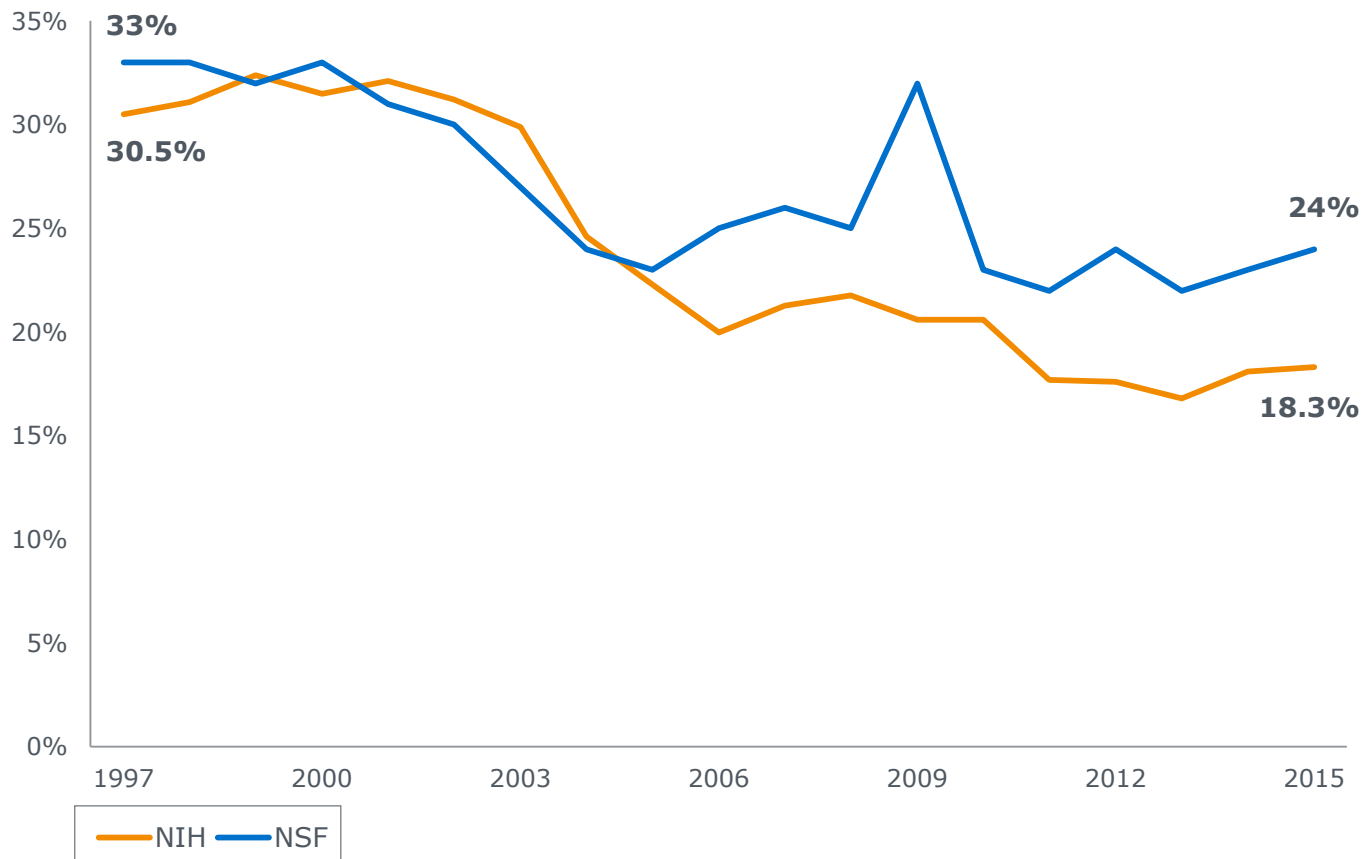
A Changing Game, with Less Success

Steeple of Federal Funding Becoming More Competitive

The influx of new investigators competing for limited federal funding has led to lower proposal success rates. Success rates at two of the largest federal funding agencies, the National Science Foundation (NSF) and the National Institutes for Health (NIH) have declined slowly over the last 20 years, with NSF approval rates down to less than one-fourth and NIH approval rates below 20%.

Beyond lower overall success rates, the decline in federal research funding has disproportionately hurt early-career investigators. Low success rates mean that investigators receive their first large agency grant later than usual, which delays (and in some instances, eliminates) promotion and tenure opportunities. Some universities have even revised long-standing policies that required faculty to obtain a federal grant to achieve tenure in light of diminishing success rates.

NSF & NIH Grants, Percentage Approved Annually
1997-2015



Source: "Science and Engineering Indicators 2016," National Science Board, Accessed May 2016, <https://www.nsf.gov/statistics/2016/nsb20161/#/>.

Dominating the Smallest Portion of the Market

Industry Commands Funding in Applied, Developmental Research

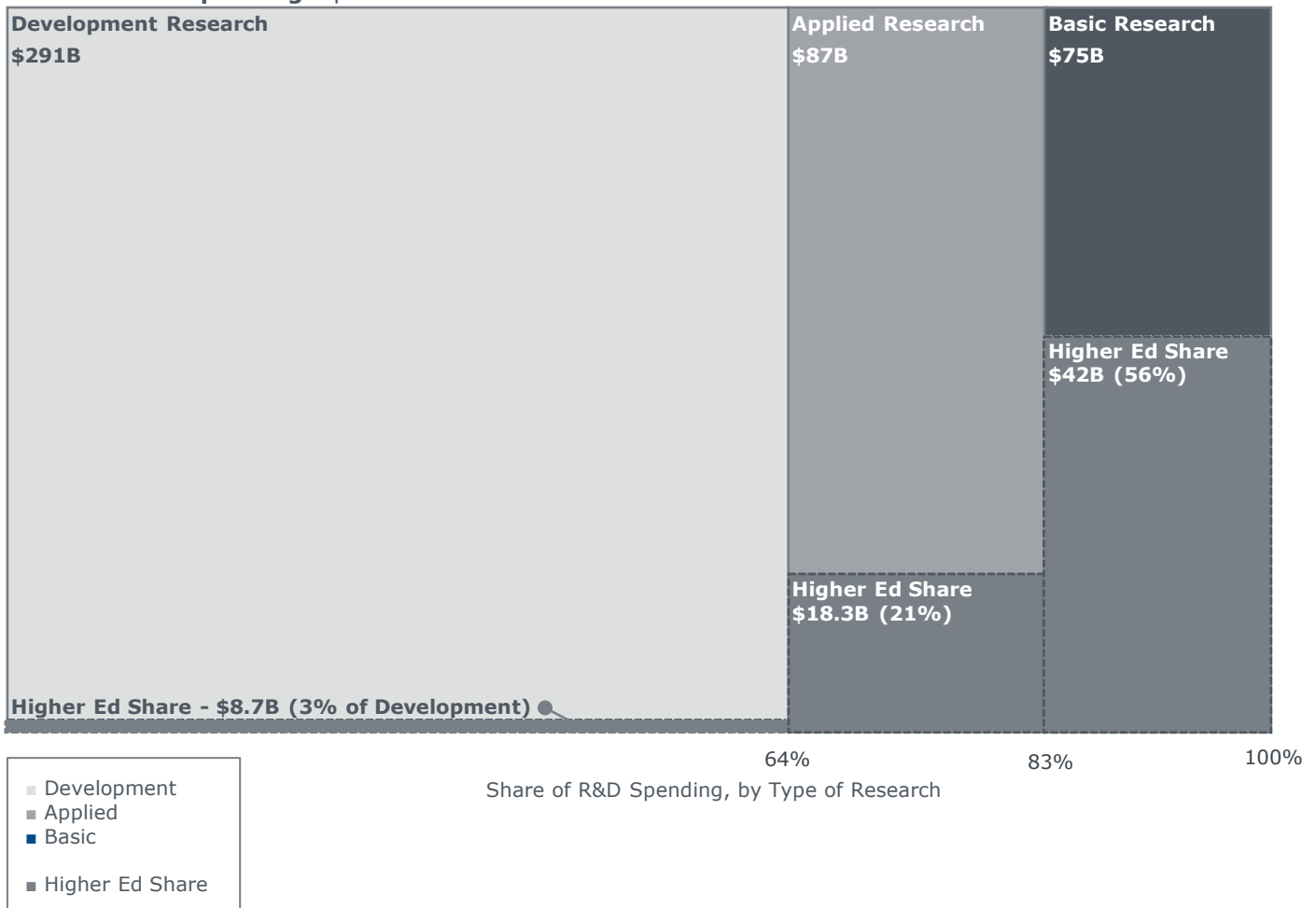
The deceleration of federal funding and increased competition for grants has driven many universities to seek more non-federal funding for research. Industry is the first place most universities turn to, given industry dominance as the primary source of research and development (R&D) spending in the U.S., particularly in applied and development research. Universities remain the primary performers of basic research, which, at \$75 billion in 2015, represents the smallest portion of the total R&D market.

Although most universities would agree that they must maintain their primary focus on basic research excellence, a select number of institutions have also begun exploring ways to collaborate with industry partners in applied and development research.

Total Research and Development Spending

By Performer of Research, United States
2015

Total US R&D Spending - \$453B



Source: "2016 Global R&D Funding Forecast," R&D Magazine, 2016.

Dollars Only Part of the Value Proposition

Industry Partners Provide a Range of Benefits

Partnerships with industry provide a host of benefits to universities beyond research funding. For starters, industry partners engage directly with local and state officials, which makes them ideal advocacy partners for increased state funding resources. They also make strong economic development partners; in such partnerships, universities provide expertise, equipment, and research to support smaller and growing companies, as well as attract larger companies to the region.

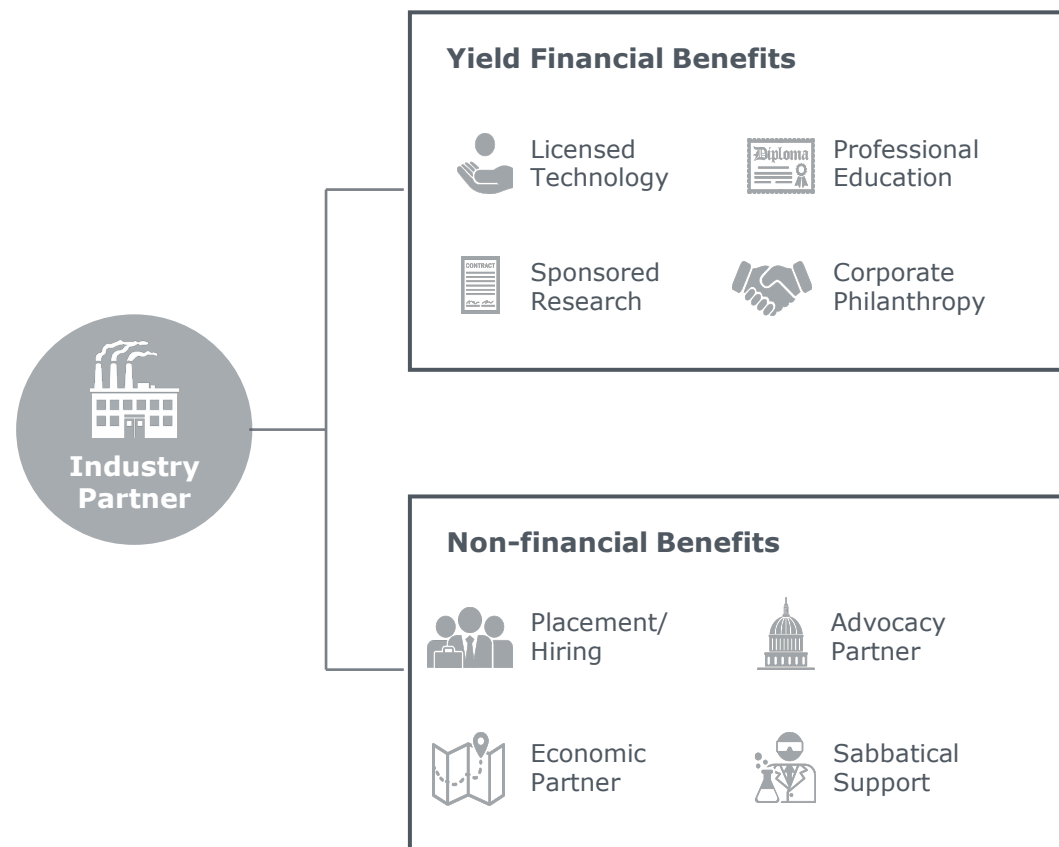
Additionally, companies seek university talent to bolster their own ranks by directly hiring graduates, providing internship and co-op opportunities to students, and offering sabbatical and fellowship roles to faculty. Given that access to talent is often a company's top priority in partnerships with universities and graduate employment is typically a major institutional goal, universities should take advantage of the opportunity to actively network industry partners and students. Administrators can create service models that connect partners with students, graduate assistants/post-docs, and primary investigators (PIs) as a means of deepening partnerships on both sides.

"Bring a Friend" Funding Opportunities

Federal funding agencies are incentivizing university-industry partnerships through joint-funding initiatives, like those listed below:

- SBIR and STTR programs
- NIH's *Discovering New Therapeutic Uses for Existing Molecules*
- DOE's BUILD Initiative
- Dept. of Commerce's *i6 Challenge*

Financial and Non-financial Partnership Benefits



Source: SBIR, Accessed May 2016, <https://www.sbir.gov/>. NCATS, Accessed May 2016, <https://ncats.nih.gov/ntu>. BUILD, Accessed May 2016, <https://betterbuildingssolutioncenter.energy.gov/>. I6, Accessed May 2016, <https://www.eda.gov/oie/ris/i6/>. EAB interviews and analyses.

Culling Their Portfolios

Consolidations Prioritize Fewer, More Strategic University Partnerships

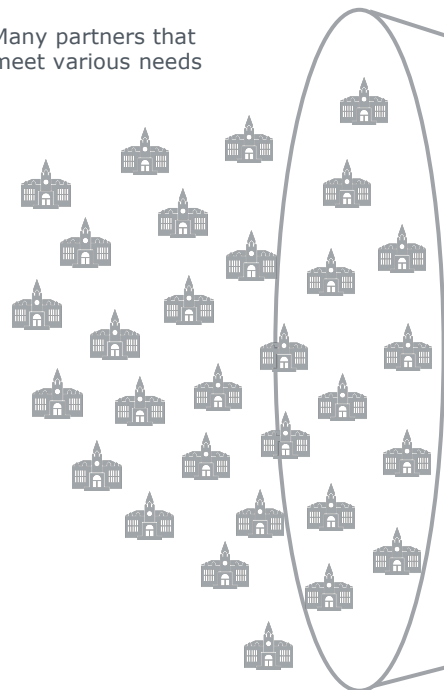
Industry partners are actively engaged in creating smaller portfolios of more strategic university partnerships. Under the old model of industry partnerships, a company had multiple university partners for recruitment, research, and professional education, each managed independently by separate units within the company. In the new model, partners select universities that provide the best talent, research opportunities, and professional education, and seek more integrated services between units.

Unfortunately, many companies are narrowing the focus of their university recruitment efforts, strategically dedicating recruitment personnel to the institutions that yield the most successful employees. As companies tactically realign recruitment efforts, the number of their research and professional education partnerships decrease as well.

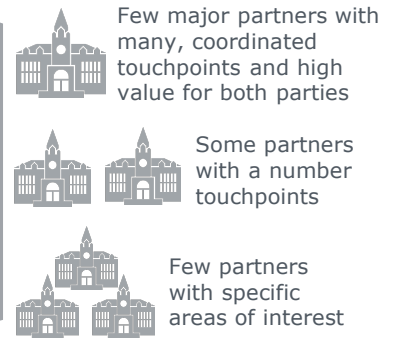
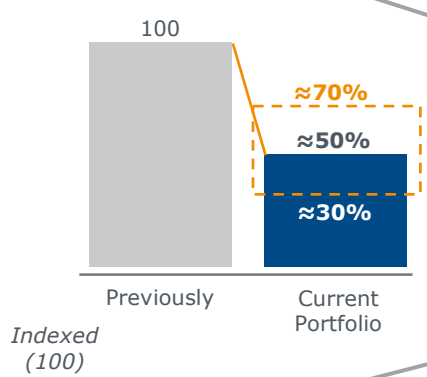
”We’ve actually lost a few industry research sponsors whose companies moved toward consolidated recruitment models that don’t include our university.”
*Vice President for Research,
 Public R1 University*

Old Model of Partnership

Many partners that meet various needs



New Model of Partnership



- ⚠ Large number of university partnerships across all functions
- ⚠ Functions operate autonomously; little coordination or oversight of other units
- ⚠ Relationships between industry partner and university exist at sub-executive level; relationships turn over with staffing changes

- ✅ Fewer university partnerships; most partnerships cross functions (recruitment, research, professional education)
- ✅ Functions operate more in sync; units coordinate activity where possible
- ✅ Relationships between industry partner and university exist at executive level; relationships contain multi-year engagements

Source: EAB interviews and analyses.

Why Is Industry Collaboration So Hard?

Pain Points According to the Experts

Industry concerns boil down to two principal problems: universities do not differentiate themselves in the eyes of potential partners and universities struggle to manage partnerships at a strategic level.

What Industry Says...

"Our objectives are not aligned with university research."

"We struggles to pinpoint universities' true research strengths."

"IP and contract negotiations are difficult or take too long."

"We operate on different research timelines than universities."

"Universities struggle to adapt to divergent needs of different market sectors."

"Universities are too siloed and do not communicate well across units."

...And What Industry Means

Universities need to market and distinguish themselves better.

Universities need to steward their partnerships better.

Executive Framework

To help research executives address these challenges when seeking to work more closely with industry partners, this publication details 11 executive-level practices that can better position universities to engage with industry. These practices can be broken down into two categories. The first category focuses on finding best-fit partners through matching emerging demand and presenting one face to market. The second category focuses on deepening long-term partnerships through benchmarking touchpoints and providing tailored services.

1 Business Development

Finding Best-Fit Partners

Matching Emerging Demand

1. How can universities better articulate their research strengths and diagnose latent industry needs?
2. How can universities better prepare and incentivize their PIs to pursue work with non-federal funders?
3. How can universities structure competitions and get faculty input to generate multimillion dollar research ideas?

Presenting One Face to Market

4. How can universities signal to potential external partners their ability to coordinate service offerings across decentralized organizational structures?
5. How can universities promote flexible contracting options to attract more industry partners?

2 Relationship Management

Deepening Long-Term Partnerships

Internal Data and Service Offerings

6. How can universities better capture the totality of their interactions with industry partners?
7. How can universities best use their existing relationships to cultivate broader and deeper engagements with their biggest partners?
8. What models are most effective for managing relationships with industry partners?
9. How can universities adapt their service offerings to high-engagement industries?

Two-Way Listening Posts

10. How can universities leverage PI relationships with industry to cultivate and mature their partnership opportunities?
11. How can industry advisory boards better provide insights into developing more beneficial industry partnerships?



Business Development

Finding Best-Fit Partners

SECTION

- Matching Emerging Demand
 - Practice 1: Unarticulated Needs Road Map
 - Practice 2: New-PI Funding Broker
 - Practice 3: Big Idea Incubator
- Presenting One Face to the Market
 - Practice 4: Industry Inquiry Portal
 - Practice 5: Tiered IP Menu

1

Executive Framework

1 Business Development

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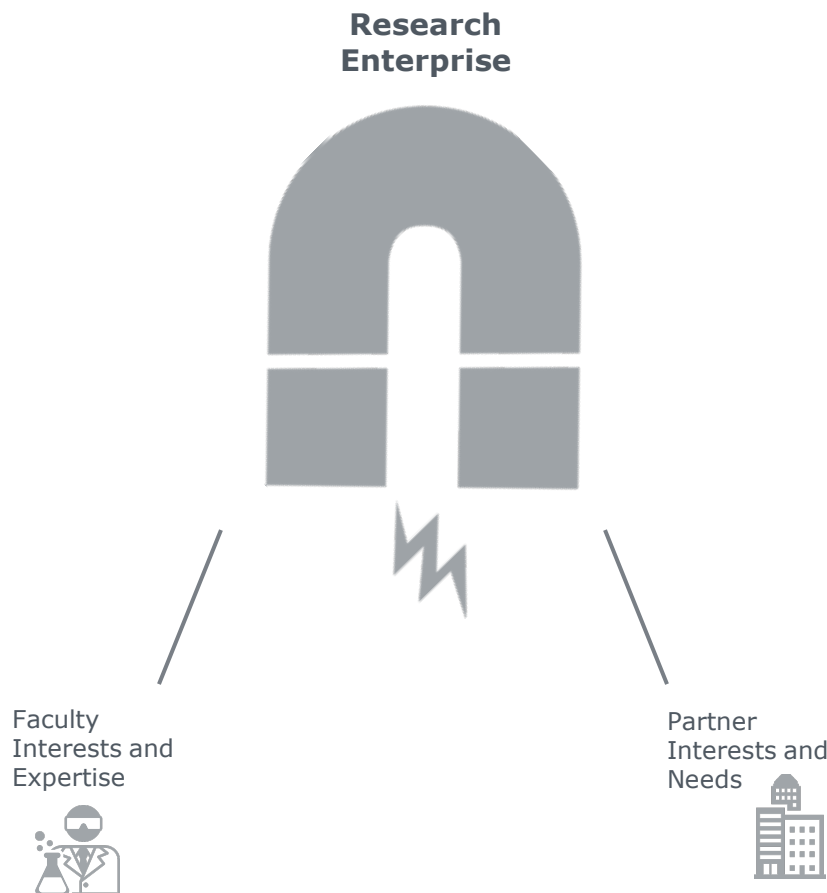
Two-Way Listening Posts

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A Match-Maker for Industry and Research

Source Industry Needs and Articulate Research Strengths

Prospective industry partners often do not know where to look to find the best match for their needs. They may scour the internet for talented researchers doing work in fields of interest or may have direct connections to research organizations that help keep them abreast of new innovations. Partners with existing university ties may ask Research offices or other administrative units to help them find investigators, but executives often default to speaking directly with faculty they already know, regardless of whether the faculty are the most fitting experts.



The highest-performing universities take a proactive approach to gathering both internal and external information and developing pathways between researchers and potential partners that highlight where interests, expertise, and needs overlap between the institution and potential industry partners.

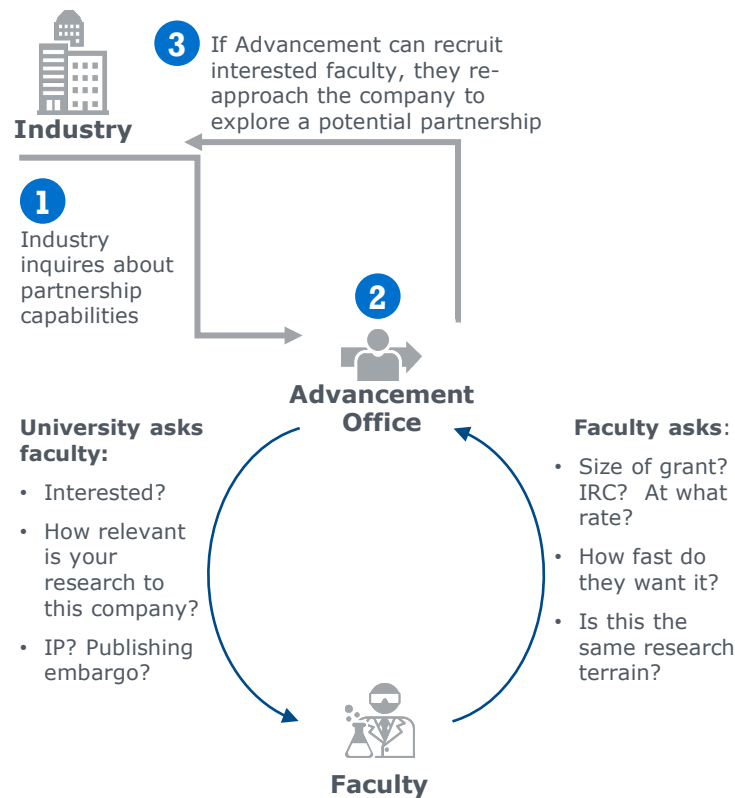
The Old Way: A Reactive, Fragmented Cycle

Industry Engagement Requires More Structured Processes, Shorter Cycle Times

Although most research universities encourage PI partnerships with industry, this tends to be a grassroots activity left to individual investigators without the benefit of an institutional strategy. Partnerships often arise from mutual research interests between professionals in a certain field and end at the conclusion of the research project. In cases of inbound industry interest, the Advancement office typically takes the lead in shepherding the request to the relevant college, department, PI, or center. A back-and-forth ensues, and eventually Advancement re-engages the interested company with an answer from the faculty; if there is sufficient faculty interest in the partnership, Advancement, the PI, and the industry partner will explore potential partnership options.

This model worked well for many universities at the height of corporate philanthropic giving, but as companies (and donors and foundations) increasingly seek more immediate, tangible returns on their investments, the reactive "order-taker" model is poorly suited to helping institutions convert research strengths into industry-sponsored research dollars.

Inbound Requests: Research 'Order-Taker'



Source: EAB interviews and analyses.

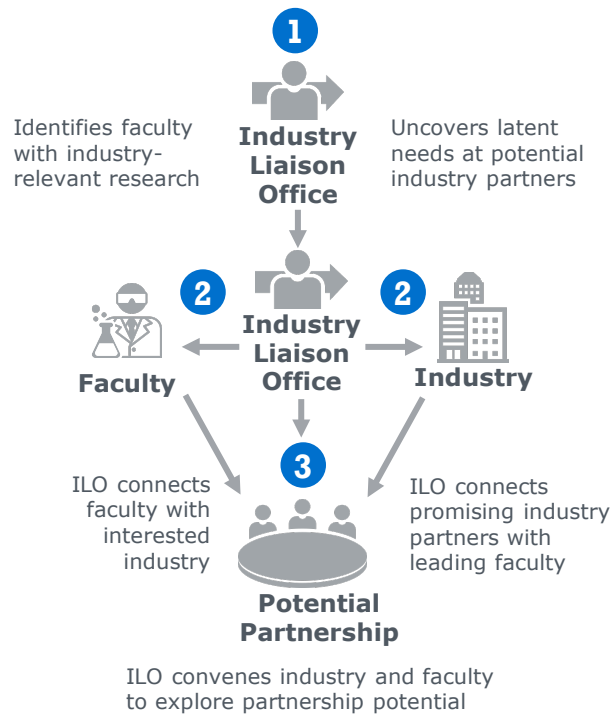
The New Way: Centralized, Streamlined, and Proactive

Prioritize Identification and Communication of Industry Needs and Outcomes

Under a partnership demand generator model for industry engagement, universities centralize responsibilities in a liaison office for communication to potential industry partners. This liaison office manages inbound requests for research partnerships but more importantly seeks out potential partners through in-depth industry needs assessments, which yield a road map of how a company’s R&D needs align with the university’s research strengths. This road map highlights how the university’s research assets can support a particular partner’s goals and highlights the expected outcomes of research partnerships.

Industry liaison office (ILO) staff also serve as ambassadors to faculty whose research interests overlap with the goals of potential industry partners. In addition, the unit’s unique blend of industry and academic research knowledge allows the ILO to serve as a match-maker between the university and companies interested in sponsored research partnerships. With their deeper knowledge of industry goals and objectives, the university can pursue industry partnerships with a business development understanding and promote themselves as the ideal partner for the company’s short-term and long-term goals.

Proactive Requests: Partnership Demand Generator



Source: EAB interviews and analyses.

Beyond 'Good at Everything'

Benchmark Internal Strengths Against Emerging Industry Needs

This demand generator model is best exemplified at The Ohio State University's Industry Liaison Office. This office conducts internal research priority identification to understand the university's research strengths and which PIs are driving the research in their respective fields with the intent of mapping these areas of expertise to industry interest. Simultaneously, the ILO staff conduct industry audits to understand which markets possess needs answered by research happening on campus, and which companies offer a high likelihood of success if the university approaches them for a potential partnership.

The industry-need identification is deep and detailed as well as forward-looking; the goal of this deep-dive is to identify what research needs an industry partner will have in the next three to five years. This knowledge is acquired through a wide-ranging review of standard and less conventional sources, such as job postings, marketing briefings, patent filings, and two-way listening posts. With this foundational information, the ILO can propose the university for many of the potential industry partner's upcoming strategic initiatives. This has the added benefit of offering a multitude of long-term partnership options at once.



Internal Research Priority Identification

High-Level Strength Indicators



Amount of Research



Other University Priorities



Demand for This Research Topic

Relative to Other Universities



Discipline Ranking



Publications and Citations



Research Dollars

Relative to Industry Needs



Research Applicability



Market Need Urgency



Enduring Problem

Industry Research-Need Identification

First-Look Needs Identification



Hoovers, Other Corporate Databases



Job Postings



Industry News, Publications, Press Releases

Existing Partnerships



Nature of Existing Partnerships



Professional Conference Collaborations



Joint Patent Filings

Additional Alignment Indicators



Sabbaticals, Past Interactions



Alumni at Company



Current Affinity Connections

Experience from Both Sides of the Aisle: Staffing Your Industry Liaison Office

Among the features of a successful industry liaison office is the appropriate balance of staff with industry R&D and academic research experience.

- **Industry R&D Experience:** Individuals with experience in industry-side R&D that understand what a company looks for in a research partner, which proposals and pitches garner executive attention, and what services provide surplus value in a partnership. Rolodex of other industry R&D managers a plus.
- **Academic Research Experience:** Individuals with experience in academic research, often in a STEM field, that can communicate the asks of companies back to potential faculty participants, and translate the university's ongoing basic research into outcomes-focused propositions for potential industry partners.

Source: EAB interviews and analyses.

Putting Pen to Paper

Road Maps Provide Structure for Partnership Discussions

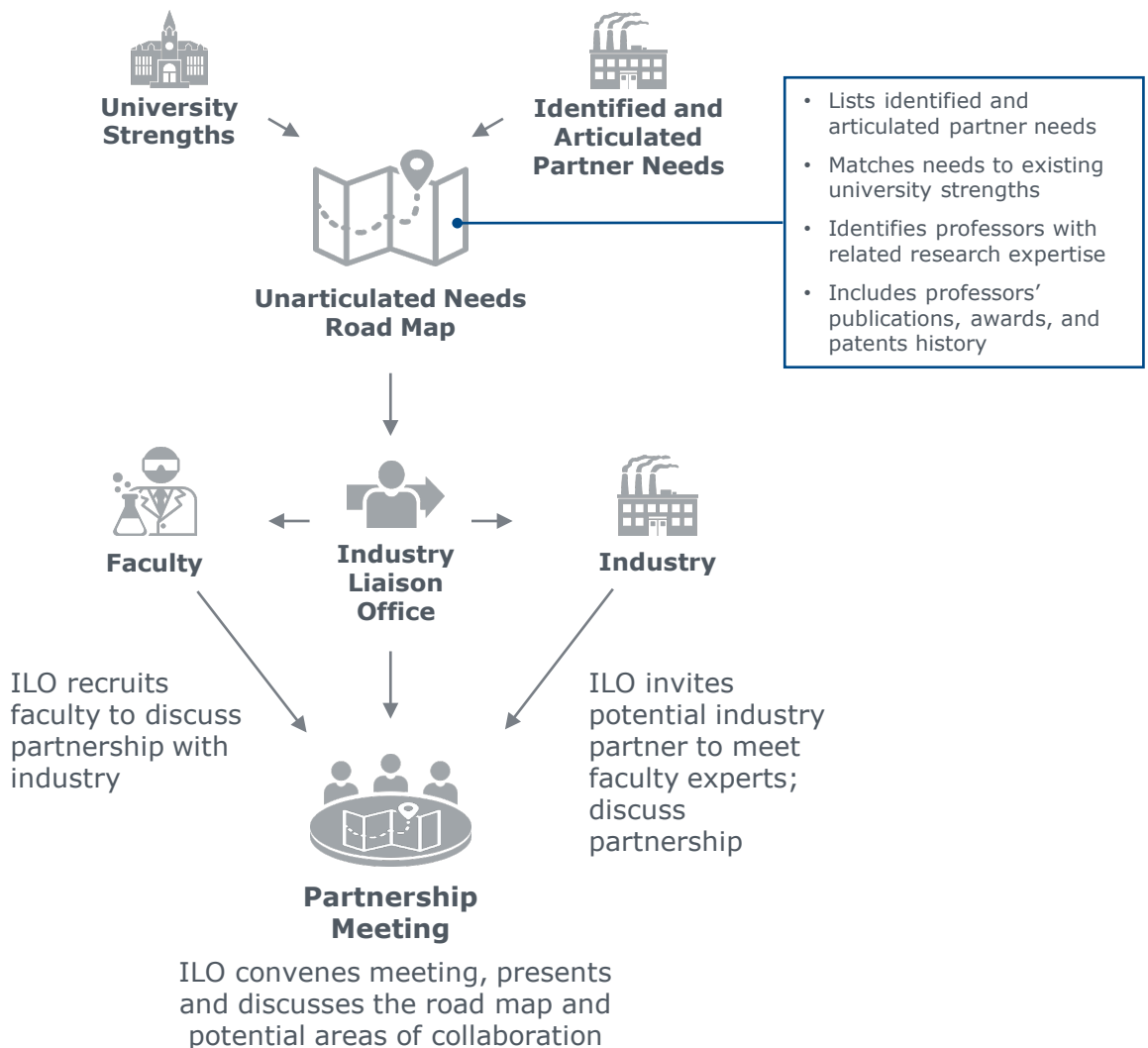
With internal research strengths identified and latent industry needs uncovered, the ILO staff are able to generate a partner’s possible unarticulated needs road map. This road map highlights the company’s short-term and long-term needs, and aligns them to the university’s research centers, departments, and stand-out investigators. The map also provides further information on individual investigators, such as their grants, patents, and manuscripts, which allows the company to select their “dream team” of researchers for pending partnerships. The onus of encouraging the PIs to participate is then shared between the ILO and the industry partner, who must jointly create an enticing pitch to recruit the best investigators to the team.

For any PI uncertain or skeptical of industry engagement, the ILO can support the industry partner in crafting an agreement that addresses the investigator’s hesitations, such as flexible IP terms or removing publication barriers. In total, these maps require between four and six weeks to create.

”I would say at most universities there’s a bell curve of faculty engagement; there’s a handful that are always excited about industry partnerships and a handful that want nothing to do with industry research.”

*Industry Relations Director
Public R1 University*

Road Map Guides the Conversation



Source: EAB interviews and analyses.

Craft an Overarching Message

Hone Delivery of Identified Underlying Needs and Potential Outcomes

In the end, these roadmaps offer a menu of potential partnership options, ranging from small scale and short-term to large scale and long-term. By identifying the company’s underlying needs, they also present the impression of a diligent thought partner, which opens the door to repeat business both within research and to the other industry touchpoints across campus. This broader thinking promotes larger partnerships, which can include several different financial investments across sponsored research, undergraduate and graduate assistantships, paid internships, equipment and facilities developments, and corporate philanthropy.

The maps also serve as a crucial tool for communicating the potential outcomes of sponsored research partnerships. Companies are intentionally focusing their resources on research that will yield some sort of tangible outcome, such as datasets, intellectual property (IP), or full-blown products that can provide a path to a return on the research investment. Although these outcomes are difficult to predict at the onset of partnerships, competency maps present a breadth of potential partnership models and a depth of engagement across numerous areas that, over time, can yield greater returns than attempting to engage multiple partner institutions across multiple parts of the university.

”
 “We’ve done [about] a dozen so far –every time the reaction is strongly positive– they have never seen this amount of preparation.”
*Caroline Whitacre,
 Senior Vice President for Research
 The Ohio State University*

Benefits of Competency Mapping



Watch our webinar about the **Unarticulated Needs Road Map** online at eab.com

Source: EAB interviews and analyses.

New PIs Struggle to Find Their Footing

Engage Faculty Early in Pursuing Non-federal Research Funding

A problem for many PIs is their unfamiliarity with the needs of non-governmental funders of research. In particular, investigators often have difficulties articulating the impact of their work to potential philanthropic and industry partners. These skills are not necessarily instinctive to PIs, and universities can provide additional support and training to enhance investigators' abilities to secure alternative funding.

While the impacts of decelerating federal research funding are indiscriminate, there are some faculty populations that have felt this pain more acutely.

Early-career investigators face a new-normal of perpetually limited research funding, with diminishing opportunities from major funding agencies that threaten to further delay promotion and tenure. To this end, universities seek alternative funding sources for early-career faculty. But these philanthropic and industry sources present distinct challenges, especially for PIs trained to understand only NIH and NSF proposal processes.

With the unsupported mandate to "pursue other sources," most new investigators struggle through a myriad of confusing internal and external networks, fumble various proposal requirements, and often abandon their pursuit.

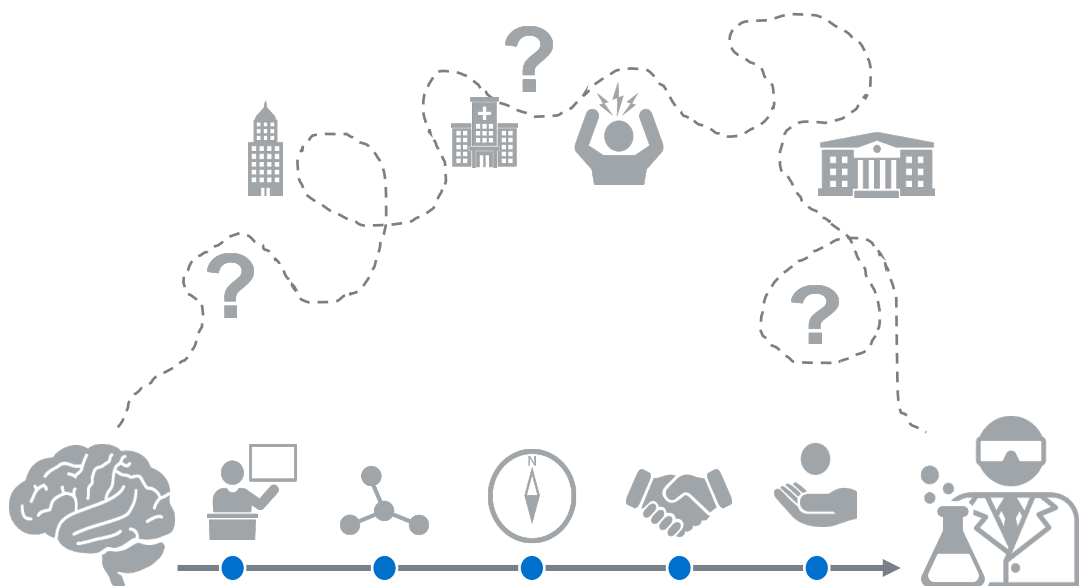
+4 Years

Increase in average age of an investigator receiving first NIH R01 grant, from 38 in 1980 to 42 in 2013.

Funding Challenges for New Faculty

- X Lack of experience working with an Advancement office
- X Underdeveloped research networks
- X Little familiarity with non-governmental funding sources
- X Few real-world interactions with potential "outcomes focused" funders
- X Ingrained prejudice against non-governmental funding sources

New PIs Often Follow More of a Drunken Ramble Than a Straight-line Path to Success



Newer investigators, if given proper support at an early stage, can develop the skills and professional networks necessary to seek more diverse funding sources. With increasing demand for research funding outside of federal agencies, universities have an opportunity to introduce tenure-track and newly tenured PIs to philanthropic and industry funding early, rendering these investigators more resilient to federal funding ebbs and flows, and with a view of federal funding as one of, but not the only, source of research funding.

Source: EAB interviews and analyses.

The Full-Service Funding Coach

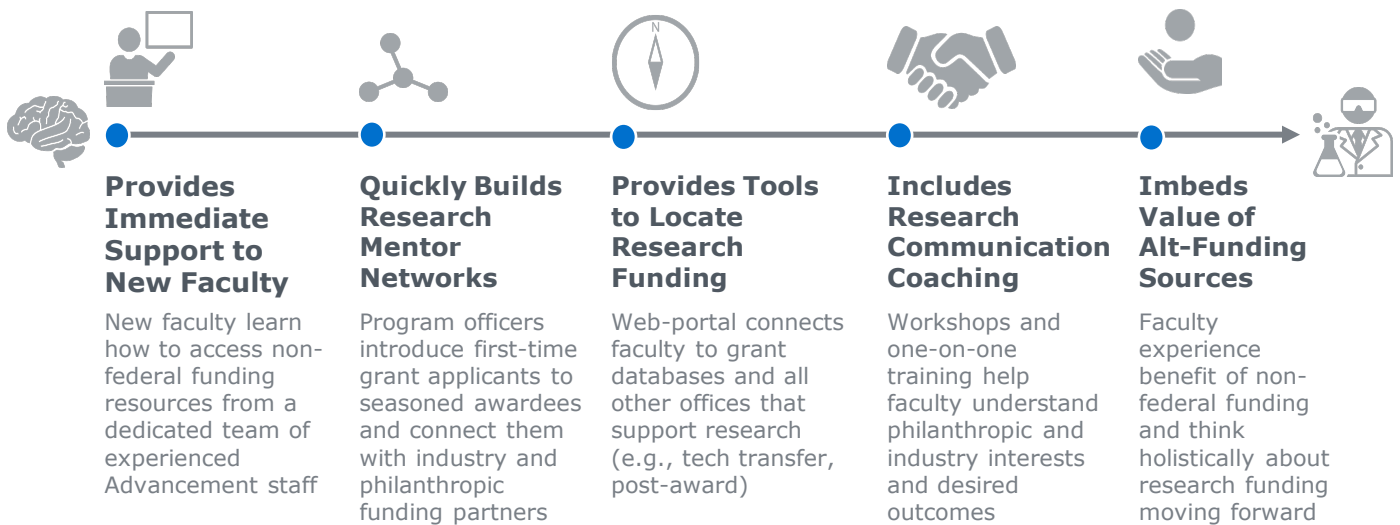
Train New PIs to Communicate with Funders, Discuss Research Outcomes

The University of California, San Diego provides philanthropic research funding support through a program called the Young Investigators Program (YIP). This program was created in 2012 through the Office of Corporate and Foundation Relations under the Vice Chancellor for Advancement as a means of assisting tenure-track and newly tenured PIs in identifying and applying for foundation grants. Given the existing partnerships between these foundations and the University’s Office of Corporate and Foundation Relations, office staff identified and created a database of foundation grants (many earmarked for early career faculty) that investigators could review. This partner scanning process removes from newer faculty the burden of identifying funding sources, which constitutes a significant barrier to winning non-federal research funding.

The Young Investigators Program



Goal: **Shift the burden** of finding research funding away from new PIs and onto administrative staff.



One of the significant sources of added value of this program is the individualized support that early-career faculty receive from the Young Investigators Program team. The team coaches new faculty on matching their interests with existing funding opportunities, explains and manages aspects of the proposal process that differ from those of federal agencies, provides networking with foundation staff and donors, and offers help in closing out and reporting properly. Staff even accompany early-career faculty to networking opportunities if helpful. This training fills a void for many new faculty, as most of the senior investigators that often serve as mentors for new PIs are familiar mainly with major federal agencies and do not always possess the skills (or the interest) to train tenure-track and newly tenured faculty to pursue foundation or industry funding.

Source: K. York, *Banking on Science*, Currents, January, 21-24, 2014. EAB research interviews and analyses.

Connect Funders to PIs in a Substantive Way

Assess Program Success by Funding Numbers, PIs Engaged

Since the program's inception, the Young Investigators Program has generated \$4M in additional funding, specifically for tenure-track and newly tenured faculty. The early access to foundation grant funding also accelerates the rate at which new investigators receive larger federal grants as they can stock and staff their labs more quickly with earlier funding. At a higher level, the program breeds a new generation of faculty who possess the knowledge and skills required to pursue non-federal funding sources, and come to view research funding as a combination of federal and non-federal sources.

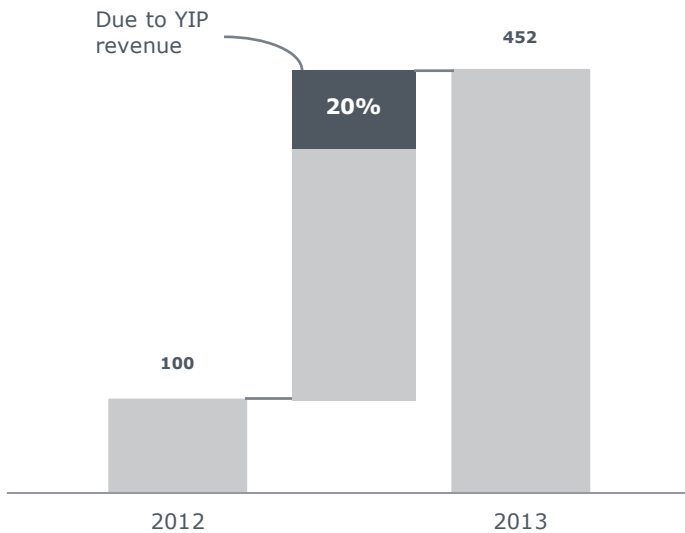
Furthermore, faculty develop the skills to network with funders outside of the federal agencies, which can become more essential as their research interests expand to include broader ambitions that may require greater resources.

\$4M

First-year **Young Investigators Program** extramural funding (\$2M to a single researcher)

Young Investigators Program by the Numbers...

Corporate and Foundation Relations Revenue
First Year of YIP (Revenue Indexed to 100)
2012-2013



...And an Individual Story

Background

- An early career professor learns about **YIP at new faculty orientation**

Action

- YIP helps **identify funding opportunities** for his research on cell membrane physics
- YIP helps him **draft successful foundation grant applications** to multiple donors

Result

- **Within 10 months** of hire, he was the recipient of the **Allen Distinguished Investigator Award** and was named a **Pew Scholar** in Biomedical Science
- Subsequently won a **five-year award** for early career faculty from the NSF



Read more about the **New-PI Funding Broker** online at eab.com

Source: K. York, *Banking on Science*, Currents, January, 21-24, 2014. EAB research interviews and analyses.

An Advancement Problem Exacerbated in Research

Communication with Funders Is an Exercise in Imagination, End-Stage Thinking

The Young Investigators Program remains successful due to a balanced approach of training investigators to be independent while also providing direct networking and grant identification support. However, as the goals and expectations of research funders swing toward results, what many investigators struggle with is communicating how basic research can translate into outcomes. Initiatives like the Young Investigators Program can support smaller cohorts of faculty as they hone these skills, but the majority of investigators will receive little to no formal training on “pitching” their research to potential funders.

This skill gap becomes more present as universities pursue larger scale research initiatives, such as grand challenge initiatives, that require clear articulation of solutions to massive societal problems. In fairness, these are not conversations in which faculty typically must engage; the process of placing one’s research into the broader context of contributing to the solution of a very large problem, and then imaging the research progress several years out, are not requirements of individual investigator-driven research.



“What I’m not finding at our institution are enough big ideas that will take the \$1M gift and make that next gift \$5M. The ideas are very operational. They’re not thinking longer-term or coming to me and saying ‘if I had a \$20M gift, I could do X, Y, and Z.’ Were just not seeing those conversations emerge.”

*Vice President for Advancement,
Public R1 University*



Current Academic Culture

- Deans focus on day-to-day operational needs and lack long-term vision
- Deans and department heads actively incentivized to think within their purview
- Scarcity of resources at odds with need for big-picture thinking



Advancement-Faculty Disconnect

- Advancement and academic leadership unaware of ongoing faculty projects
- Faculty don’t understand or trust advancement
- We ask deans and faculty to do something with little previous training

To assist faculty in the shift toward larger scale, outcomes-focused research, universities must provide greater support for faculty in sourcing big ideas and pitching those ideas to funders. Research and Advancement divisions can collaborate on these support structures, with Research guiding discussions and soliciting proposals on “big idea” research initiatives and Advancement providing training for communicating with funders.

Source: EAB interviews and analyses.

Big Thinking Requires Structure

Create a Framework and Safe Environment for Faculty to Brainstorm Big Ideas

Big ideas dominate the research space, from White House “moonshots” to billionaire philanthropists setting their fortunes against the world’s most devastating diseases. Universities have begun to think more about how research can contribute more specifically to real-world problems, but most institutions lack the structures to encourage and protect such thinking among faculty. Likewise, contextualizing research in broader terms that insinuate outcomes is uncommon, or even discouraged, among faculty-researcher communities.

The six steps below provide the modest beginnings of how universities can better engage faculty in thinking about research in a broader context. The most important is Step Two; in this definitional phase, universities must determine what they want a big idea to be, and how they want big idea proposals to impact the institution. The identified areas are often known strengths on campus; in fact, most big ideas are layers added onto existing expertise that focus on growth and promotion, rather than creating a new area of excellence from nothing.

It is at this stage that faculty input is essential but may be tough to muster. The key to engagement here, as in many faculty initiatives, is to identify champions of the process early who will participate in planning but will also steward their colleagues into and through the process.

Six Steps to Sustainably Source Big Ideas



A Big Idea Should:	A Big Idea Should Not:
<input checked="" type="checkbox"/> Transform the university and the world	<input type="checkbox"/> Be defined <i>solely</i> by a funding goal
<input checked="" type="checkbox"/> Make the university unique in the marketplace	<input type="checkbox"/> Bundle together smaller ideas
<input checked="" type="checkbox"/> Focus on where the university is good but could become better	<input type="checkbox"/> Solely feature a naming opportunity
<input checked="" type="checkbox"/> Include areas where the university is emerging as a leader	<input type="checkbox"/> Lead to slow, incremental improvement

Source: EAB interviews and analyses.

A Lab to Test the Narrative

Donor Conversations, with Training Wheels

Once faculty have brainstormed and developed big ideas, the next challenge is training them to communicate these ideas to potential funders, such as alumni donors, foundation grant officers, industry sponsors, and agency directors. To do this, universities must provide a safe space for faculty to learn and try (and sometimes fail). Many universities conduct such trainings in small groups or hire external moderators and speech coaches to assist; these sessions can be valuable, but often lack tangible incentives that are necessary for faculty to fully engage in the lessons.

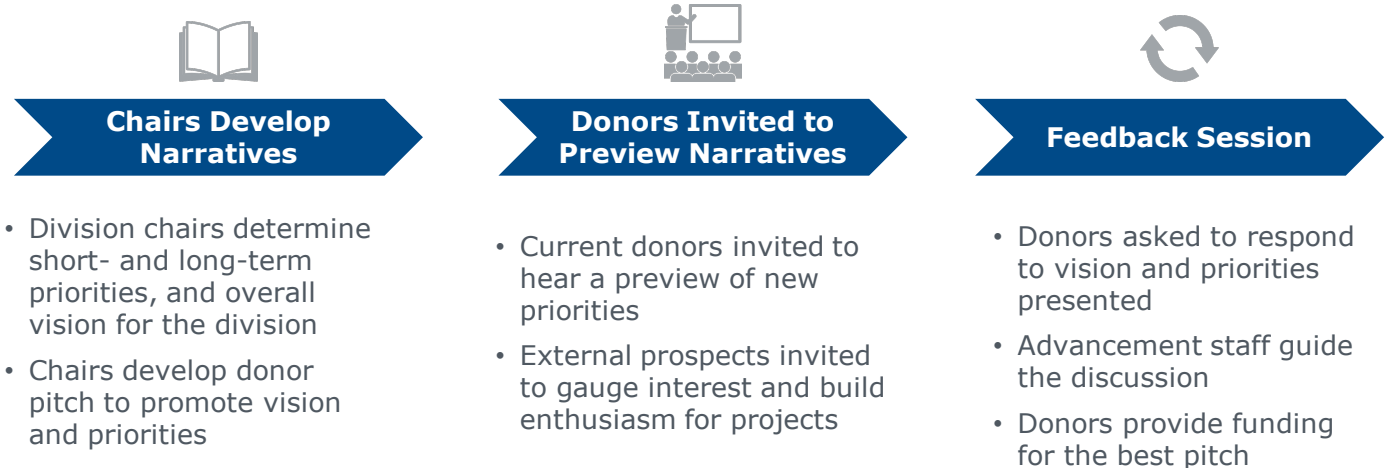
California Institute of Technology (Caltech) offers its faculty a training session more along the lines of a pitch competition. In this program, division chairs create overarching narratives for the direction the division’s research should take, and faculty from the division use the narrative to discuss how their personal research can contribute to those goals. Small grants awarded to the winners provide an incentive to bring faculty onboard.

The Advancement office recruits donors to pledge funding for the best ideas and invites these donors to serve as guest judges in the pitch competition. This structure provides the funding for the winners as well as useful feedback to faculty about the strengths and development areas of their individual presentations.

”It was shocking how little faculty knew about how to express a big idea in a compelling way with donors. Faculty are learning that donors aren’t only going to fund what they need them to fund. This is a longer process of aligning interests with [broader] priorities.”

*Vice President for Advancement,
Private R1 University*

Chairs’ Councils Create Low-Stakes Donor Interactions



Read more about the **Big Idea Incubator** online at eab.com

Source: EAB interviews and analyses.

The Gatekeeper Holds the Key

Offer Direction and Choice to Prospective Partners

Strengthening internal communications, whether through dedicated offices and carefully crafted presentations or through training cohorts of investigators to pitch their work to various funders, is an essential component of engaging industry partners. There remains a need, however, to maintain an easy-to-navigate inbound business process.



To capture incoming requests and offer industry partners as streamlined a process as possible, the research enterprise, and, ideally, the entire institution, should channel research interests in an organized fashion and offer clear, concise options to engage prospective partners.

Where's the Front Door?

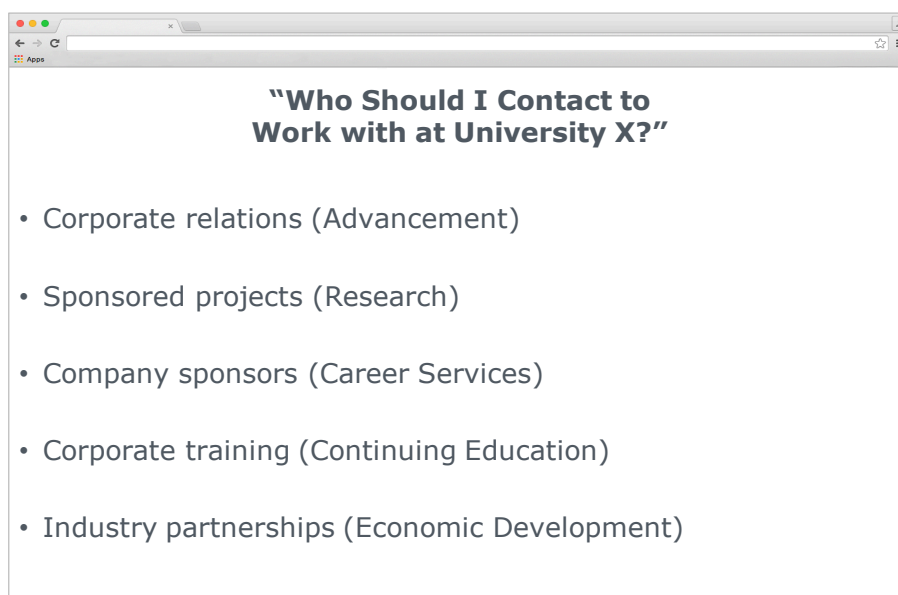
A Single Search Can Uncover Five (or More) Prospective Partner Entry Points

The frontline for interested companies vetting a university's capacity for partnership is often on the web, and most university's websites simply are not structured for non-student audiences. Even if potential partners navigate through to the "for industry" section of a university's website, they are typically confronted with a litany of potential collaboration points, most of which are indistinguishable to non-university readers.

Without a clear point of entry for industry partners, a university appears disorganized and ill-equipped for partnership.

“Companies shouldn't have to know 'University Bureaucracy 101' to navigate your website.”
*Director of Tech Transfer,
Public R1 University*

University Website Partner Portal



Industry Perceptions of University Partner Web Portals

- 1 Difficult to Navigate:** leads to higher rate of search abandonment
- 2 Unclear Expectations:** partners spend too much time/energy figuring out what is/isn't appropriate
- 3 Unsure of University's Research Strengths:** poor signaling leads to missed opportunities

A centralized web portal for industry contacts is an easy way to present a single face to industry, even if the internal organizational structures and processes are not as closely aligned. Such sites give the impression of a coordinated partner keen to cut red-tape and begin helping a potential partner with what they seek. In reality, few universities maintain truly centralized organizational models for industry engagement, but these portals provide a triage point for all units involved to collect information and more adequately direct browsers to the appropriate services.

An effective centralized industry web portal accomplishes three goals: it provides opportunities for self-identification and goal setting, illustrates the university's unique strengths and highlights its successes, and demystifies the partnership process and expectations as best as possible.

Source: EAB interviews and analyses.

Many Touchpoints, One Landing Page

Organize Around Inquirers' Needs, Not University Structure

For starters, a website partner portal should provide the user with self-identification options tied to the goals they hope to accomplish through partnerships. Clicking through the drop-down menus on the site below directs the user to the correct unit's webpage. For example, selecting "recruit" under "I want to" provides access to several recruitment paths depending on the desired level and discipline of students the partner may want to recruit.

Simplifying and requesting a **top priority selection** allows the university to suggest services and follow-up through the most appropriate channel.

Innovation and Engagement

The Innovation and Engagement Team facilitates connections between university researchers, industry, and investors while supporting campus inventors and entrepreneurs through technology commercialization and industrial contracting resources. The Team consists of the [Office of Technology Transfer](#) and the [Office of Industry Engagement](#).

Visit our [Innovation Homepage](#).

Connect with us:

[LinkedIn](#) [Twitter](#)

I am a:


- ▼ [Entrepreneur](#)
- ▼ [Small Business](#)
- ▼ [Large Company](#)
- ▼ [Angel Investor](#)

I want to:

- ▼ [Recruit](#)
- ▼ [Research](#)
- ▼ [Educate](#)
- ▼ [Grow](#)
- ▼ [Invest](#)

I'd like:

- ▼ [Partnerships](#)
- ▼ [Success Stories](#)
- ▼ [Giving Back](#)
- ▼ [New Venture Formation](#)



Promoting self-selection allows **more tailored service offerings** to each potential partner through the office best aligned with their selection.

Prompting outcome selection **empowers partners** to prioritize their relationship with the institution.

Collecting and centralizing success stories allows the partner to **anticipate the ROI** of their engagement.

Source: Adapted from: "Innovation and Engagement," University of Louisville, Accessed June, 2016, <http://louisville.edu/research/innovation>.

Differentiate Yourself Early and Often

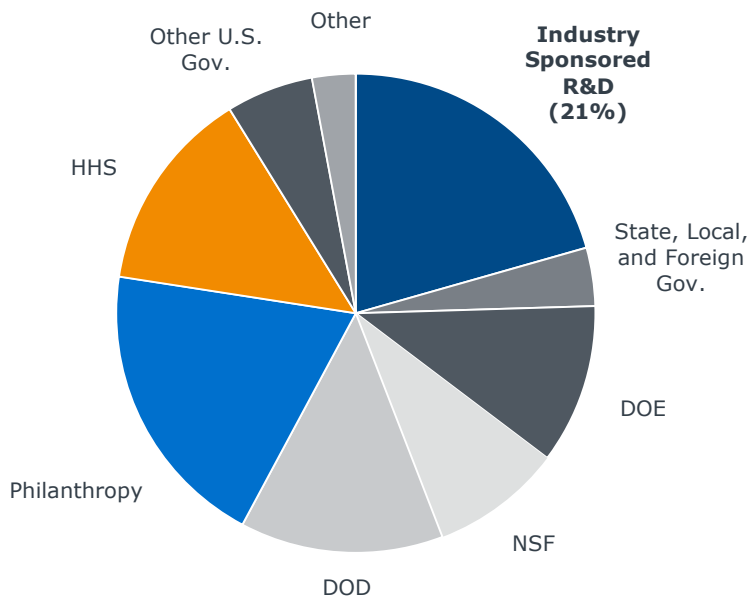
Highlight Success Stories That Illustrate Avenues to Partnership Success

Once a partner has self-identified their goals and navigated to the appropriate contact, they want to know how the university has supported other partners in similar endeavors. Within Research, portals should highlight niche research strengths, well-known research successes, commercialization initiatives, and high-profile investigators.

Solving Real World Problems

- Currently over 850 companies are working with faculty and students on projects of mutual interest. Among these industry sponsors are such global leaders as Barnhart Inc., Goodell Co., and Winslow Industries.
- ABC University has vibrant patenting/licensing activity, with 923 new invention disclosures in FY14, and \$81 million in total licensing revenue.
- According to a recent study, 44,000+ companies have been founded by our alumni, creating 4.4+ million jobs and \$3 trillion in annual world sales.

On-Campus R&D: \$636 Million



#1 in Industry Research Expenditures

- According to the National Science Foundation, we rank first in industry-financed R&D expenditures among all universities and colleges without a medical school.
- Industry-sponsored research totaled \$131 million in FY14 (includes government pass-throughs) or 21% of all research funding.
- In FY14, 869 companies provided R&D/ gift support, 47 companies funded \$1 million+, 213 companies funded \$100 thousand-\$1 million.

Listing previous and current partner names demonstrates **reputability** as well as **diversity of strengths** across industries.

Reporting invention disclosures and licensing revenue **illustrates potential ROI** of sponsoring research.

Highlighting alumni financial and economic impact **incentivizes engagements beyond sponsored research.**

Promoting portfolio diversity reassures potential partners of **institutional stability.**

Including rankings and funding distinctions **elevates the university's perceived quality of research.**

Source: Adapted from: "Industry Guide," Massachusetts Institute of Technology, Accessed June 2016, <http://web.mit.edu/industry/industry-collaboration.html>.

Transparency Eases Partnership Negotiations

Establish Partnership Expectations, Outcomes Up Front

Lastly, portals should attempt to articulate the conditions and expectations of partnership up front. In Research, this could include sponsored research fee structures, IP terms and conditions, F&A expectations, timelines, faculty and staffing commitments, publication expectations, and other negotiable components. Publicizing these terms allows companies to calibrate their level of interest and the negotiation and legal requirements to develop and maintain a partnership, rather than deferring difficult conversations until after partnerships begin.

This funding matrix is linked from various points throughout the industry portal and provides both a **comprehensive view of, and the requirements for,** each engagement type.

Highlighting and linking to **policy requirements and templates** within each category allows potential partners to begin compiling necessary paperwork.

Outlining the “maximum deliverables” for each engagement sets **expectations for parameters** of partnerships.

Citing **costs** up front allow partners to budget mentally before entering negotiations.

	Gift	Charitable Grant	Unrestricted Grant	Restricted Grant	Contract
Intellectual Property Terms	None (Institution Owns)	None (Institution Owns)	None (Institution Owns)	Institution Owns with License Option to Sponsor	Institution may assign ownership of IP to sponsor with concurrence of all project personnel
Publication Terms	None (Institution retains full publication rights). Donor may request acknowledgment of support.	None (Institution retains full publication rights). Donor may request acknowledgment of support and advance copies of publications	None (Institution retains full publication rights). Donor may request acknowledgment of support.	Institution retains full publication rights. Sponsor may request acknowledgment of support and advance copies of publications.	Institution retains full publication rights. Sponsor may request acknowledgment of support and advance copies of publications
Scope of Work	None (PI Conducts “Departmental Research”)	Defined by PI in proposal	None (PI Conducts “Departmental Research”)	Defined by PI in proposal	Detailed scope of work defined by the PI and/or the sponsor
Maximum Deliverable	Acknowledgment and Stewardship Report	Acknowledgment and Stewardship Report	Acknowledgment and Stewardship Report	Detailed technical report	Detailed technical report and other deliverables
Typical Payment Mechanism	Advance payment	Advance payment or payment schedule	Advance Payment	Cost-based invoicing or fixed payment schedule	Cost-based invoicing or fixed payment schedule
Documentation	Letter from Donor identifying funding as gift or charitable contribution	Grant agreement stipulating payment, and other terms and conditions	Company letter stating financial support	Grant agreement stipulating payment, reporting, and other terms and conditions	Formal contract stipulating payment, reporting, IP rights, confidentiality, and liability terms
Funding Restriction	None	None	\$100,000 per company per PI per year	None	None
F&A	None	See definition of Charitable Grant above for details.	15% of Total Costs	Full F&A unless exceptions apply	Full F&A plus 5% (except federal flow-through, which is assessed at full)



Read more about the **Industry Inquiry Portal** online at eab.com

Source: Adapted from: “Funding Matrix,” Pennsylvania State University, Accessed June 2016, <http://guru.psu.edu/policies/ra04.html>.

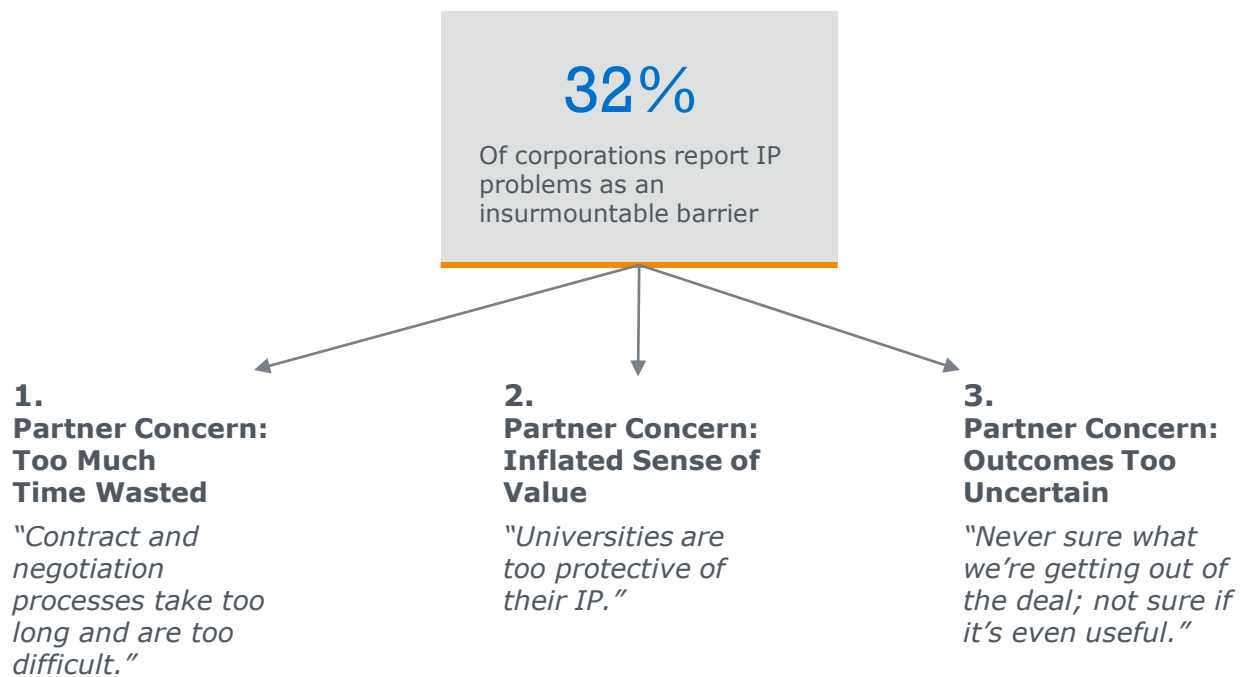
Get Out Ahead of Negotiation Questions

Concerns Over IP Negotiations Can Hinder Partnerships Before They Begin

Although many complaints from industry about working with universities can spread blame evenly across campus, questions about research tend to focus on IP negotiations. In short, companies report that they find the negotiations unnecessarily time consuming, believe universities overvalue their IP, and will not risk investment without a clearer path to more concrete returns.

Given the nature of much university research, these problems cannot be “solved” outright; universities can attempt to mature technologies further or identify better industry pricing benchmarks, but ultimately the process of communicating (and demonstrating) the potential value of basic research remains challenging.

New Technology, Same Conversation



Source: B.H. Hall, A.N. Link, and J.T. Scott, Barriers inhibiting industry from partnering with universities: Evidence from the advanced technology program, *The Journal of Technology Transfer*, 26, 87-98, 2001.

Options Bring Partners to the Table

Standardizing and Promoting IP Policies Preempts Negotiation Pushback

With these barriers in mind, some universities are adjusting their IP policies to present a friendlier face to potential industry partners. These adjustments range from more templated contracts to up-front technology fee models that provide rights to produced IP at the point of project sponsorship. In theory, these changes to policies and procedures promote an easier negotiation process with companies while also providing greater incentives for investigators to disclose findings and pursue commercialization. In practice, these policy changes serve more as a marketing effort to encourage companies to engage the university in ways that previous policies may have prohibited or made more challenging.



UNIVERSITY OF MINNESOTA

Too Much Time Wasted

"Contract and negotiation processes take too long and are too difficult."



Standardized Agreements

Inflated Sense of Value

"Universities are too protective of their IP."



Flexible Ownership Options

Outcomes Too Uncertain

"Never sure what we're getting out of the deal; not sure if it's even useful."



Low-Risk Trial Options

MN-IP Create

Create streamlines the process to sponsor research and license technology:

- **Option A:** Pre-pay 10% of sponsored research agreement for **exclusive worldwide license** to all inventions arising from the research project
- **Option B:** Sponsor negotiates a license for resulting technology **after the project is complete**
- **Option C:** Pre-pay 10% of sponsored research agreement for **fully paid-up, non-exclusive, royalty free, worldwide license** to all inventions arising from research project

MN-IP Try and Buy

Try and Buy provides companies with a process to license existing technologies through:

- **Low-cost, low-risk** trial period
- Royalties only activate **after \$1M in product revenue**
- Option to **license** at conclusion of trial period

In the model from the University of Minnesota, the MN-IP *Create* and *Try and Buy* options directly address industry beliefs about university IP by providing up-front licensing options and trial periods on existing technologies. Like many other large research universities, the University of Minnesota recognized an opportunity to retool older policies to match the current mindset of companies, and their conclusion was that more options in the negotiating process would increase the total number of companies engaging in the commercialization process as well as the number of repeat engagements.

Source: "MN-IP: Minnesota Innovation Partnerships," University of Minnesota, Accessed June 2016, <http://www.research.umn.edu/mn-ip/>. EAB interviews and analyses.

Options Establish Trust, Ease Future Partnerships

Policy Flexibility Gets Potential Partners in the Door

The outcomes of adopting these policies are somewhat surprising: three years after implementation, nearly three-quarters of industry partners elected to sponsor research and wait to see what IP, if any, the work yielded before negotiating licensing rights, the policy identical to the one in place before adopting options. In the same time span, the university increased the number of sponsored research agreements, the number of companies sponsoring research, the number of new industry partners, and increased the number of licenses purchased.

Although industry partners overwhelmingly elect to pursue the traditional option of negotiating at the end of the process, they appear to prefer the choice implied by the menu of options presented in the new policy.

"I want to sponsor research and..."

"...I don't want to spend time haggling over the exclusive IP licensing rights when we are done."



Option A: Pre-pay 10% of sponsored research agreement (or \$15K, whichever is greater) for exclusive worldwide license to all inventions arising from the research project.

"...I don't mind negotiating over the IP when we are done."



Option B: Sponsor negotiates a license for resulting technology after the project is complete.

"...I don't want to spend time haggling over the non-exclusive IP licensing rights when we are done."



Option C: Pre-pay 10% of sponsored research agreement (or \$10K, whichever is greater) for fully paid-up, non-exclusive, royalty free, worldwide license to all inventions arising from research project.

72%

Frequency with which companies select **Option B**, or the "traditional route," which forgoes any up-front claim on IP and elects to negotiate at time of completion



Read more about the **Tiered IP Menu** online at eab.com

Source: "MN-IP: Minnesota Innovation Partnerships," University of Minnesota, Accessed June 2016, <http://www.research.umn.edu/mn-ip/>. EAB interviews and analyses.



Relationship Management

Deepening Long-Term Partnerships

SECTION

- Internal Data and Service Offerings
 - Practice 6: 360-Degree Relationship Management Dashboard
 - Practice 7: Preferred Access Program
 - Practice 8: Institutional Relationship Concierge
 - Practice 9: Dedicated-Partnership Programs
- Two-Way Listening Posts
 - Practice 10: Faculty Industrial Sabbaticals
 - Practice 11: Enterprise Research Advisory Boards

2

Executive Framework

1 Business Development

Finding Best-Fit Partners

Matching Emerging Demand

1. How can universities better articulate their research strengths and diagnose latent industry needs?
2. How can universities better prepare and incentivize their PIs to pursue work with non-federal funders?
3. How can universities structure competitions and get faculty input to generate multimillion dollar research ideas?

Presenting One Face to Market

4. How can universities signal to potential external partners their ability to coordinate service offerings across decentralized organizational structures?
5. How can universities promote flexible contracting options to attract more industry partners?

2 Relationship Management

Deepening Long-Term Partnerships

Internal Data and Service Offerings

6. How can universities better capture the totality of their interactions with industry partners?
7. How can universities best use their existing relationships to cultivate broader and deeper engagements with their biggest partners?
8. What models are most effective for managing relationships with industry partners?
9. How can universities adapt their service offerings to high-engagement industries?

Two-Way Listening Posts

10. How can universities leverage PI relationships with industry to cultivate and mature their partnership opportunities?
11. How can industry advisory boards better provide insights into developing more beneficial industry partnerships?

A Move Toward Strategic Management

Differentiate Service Offerings for Maximum Impact




Strong, multifaceted relationships become a key driver of success as industry partners concentrate their resources on fewer institutions and CROs think more strategically about their own resource allocations. Both research enterprises that have already attracted many partners and those only beginning to expand their portfolios benefit from a focus on deepening industry partnerships.






“We have plenty of partners. What’s hard is keeping them. [Companies] like to think in terms of one-off relationships, and the burden is on us to demonstrate lasting value.”

*Vice President for Research
Public R2 University*

Old Model

-  Partnerships forged by one-off engagements between PIs and industry researchers
-  Partnerships limited to single contracts, and typically end afterwards
-  Partnerships exist in isolation across respective units, with neither the university nor the partner aware of the full picture of engagements

New Model

-  Partnerships managed and stewarded at executive level to provide continuity amid turnover
-  Partnerships seek to offer depth of opportunities, as well as breadth of services
-  Universities maintain internal databases on partnership touchpoints and gather information on how to grow opportunities for partnerships

In the past, industry-savvy PIs have received funding from corporate R&D to work on specific projects. When the projects were completed, the PIs may or may not have maintained connections to the industry partner. Other campus stakeholders, such as Advancement and Alumni Relations offices, might also have had contact with their respective counterparts at the same partner company. As CROs attempted to make strategic decisions about industry partnerships, this important information was often lost or simply required too much effort to collect. The lack of critical information hampered workflow and led to poorly coordinated relationship management.

CROs recognize that this model is neither strategic nor sustainable. In order to benefit the university as a whole and to realize research partnership goals, including keeping partners’ interest, university-industry partner relations must become robust, transparent, and continually progressive.

Source: EAB interviews and analyses.

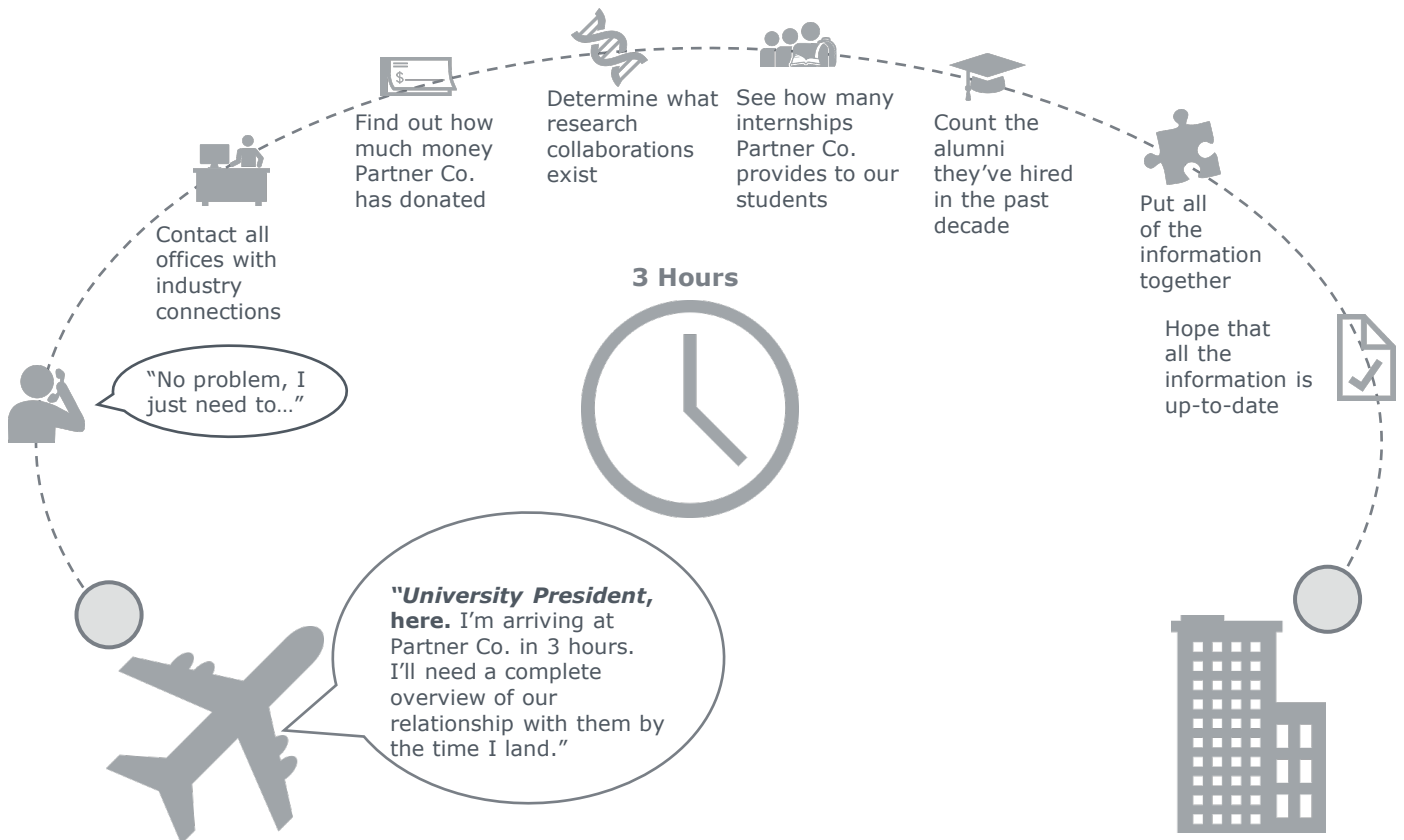
Keeping Pace with Partnerships

An Opportunity for Improvement in Process, Form, and Function

No plan can be executed properly without all of the necessary information. When CROs attempt to develop a profile of industry partners' relationships with their institutions, they often hit stumbling blocks simply collecting all of the data; in doing so, they miss key information that would inform strategy and enhance constructive opportunities.

Moving from "one-off" to strategic partnerships requires a full view of partner relationships with an institution, accessible to all involved parties and updated in real time.

The Long Journey to Partner Information



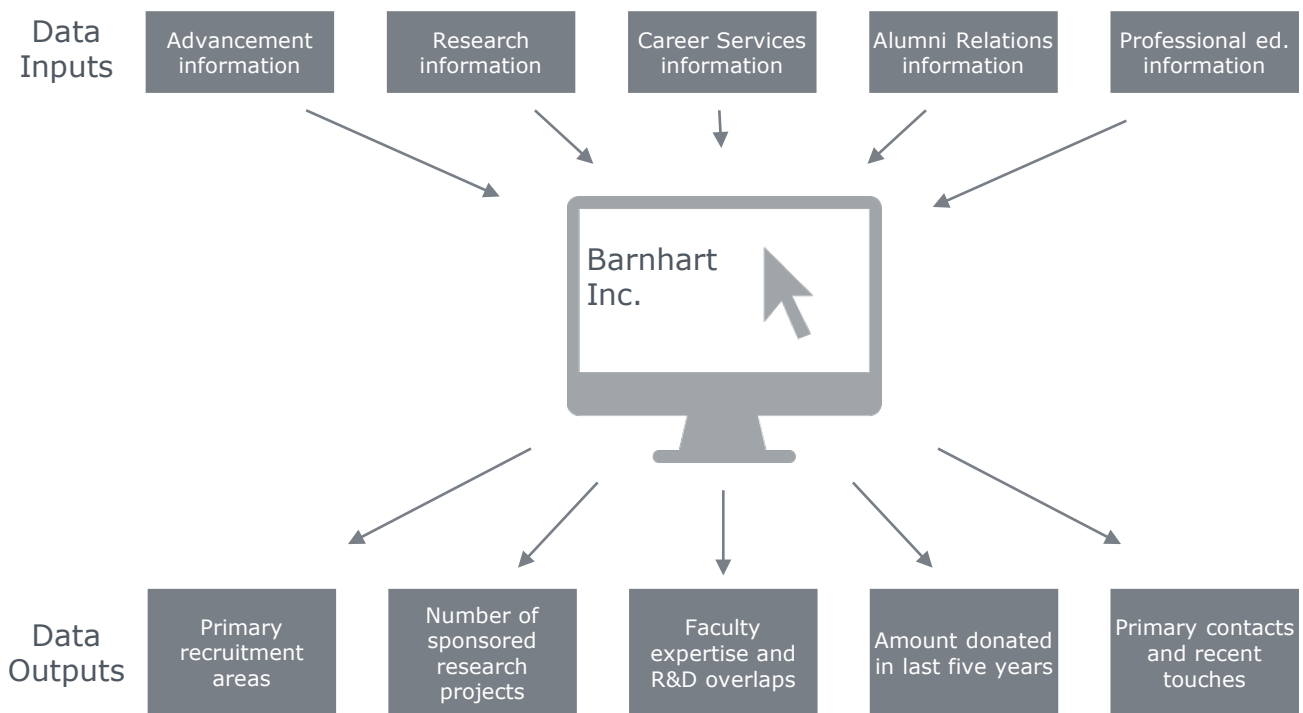
Source: EAB interviews and analyses.

Improve Transparency in Ongoing Relationships




Centralize Information from Across Units, Share Access with Participants

Purdue University realized the need for better data-driven decision-making, especially around how they provided service value and maintained internal strategic consistency and transparency of operations. The answer to this information deficit is the Purdue Partnership Platform, a two-way partnership database for university staff and its most crucial industry partners. Administrators realized that not only would understanding all partnership touchpoints greatly enhance available opportunities, but that failing to develop a holistic data management system at this critical juncture in the world of research partnerships could hurt their existing relationships.




Creating a 360-Degree Relationship Management Dashboard



Before Dashboard

-  Time to identify appropriate contact person too long
-  Information spread across multiple systems; some systems not shared
-  Information outdated or unverifiable in other systems

After Dashboard

-  Database has search function; key contacts clearly labeled
-  Single repository of secure correlated data from multiple systems; hierarchy of access and read/write permissions
-  Information updated in real-time and routinely synced for accuracy

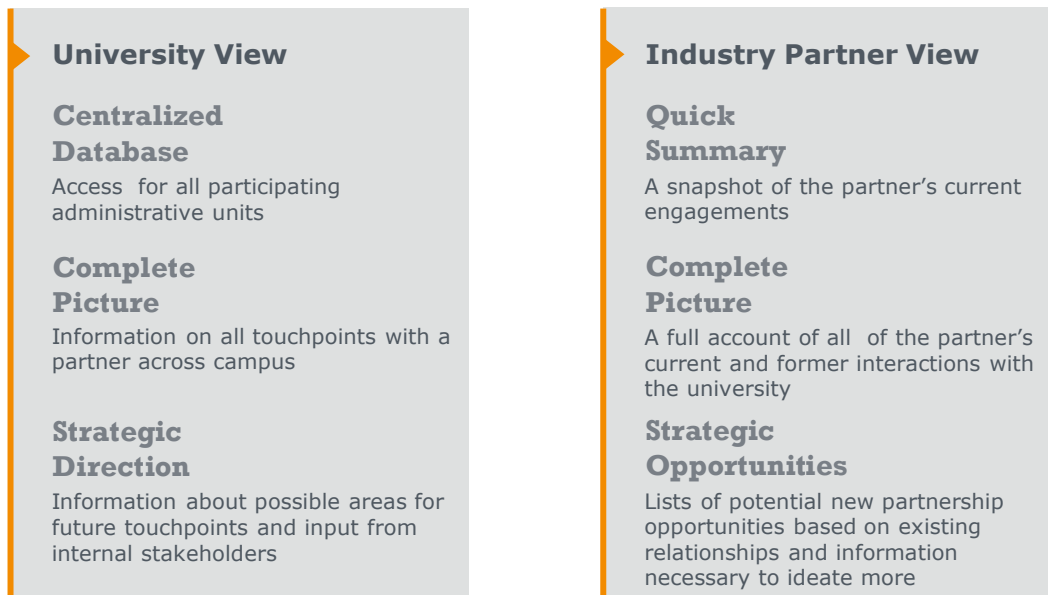
Source: EAB interviews and analyses.

Create Value Inside and Out

Ensure Two-Way Value Through Internal Sharing, External Dashboards

To gain the greatest benefit from an industry partner dashboard, both administrators and partners should have a “360-degree view” of their relationship. A complete picture of the relationship provides access and direction to university administrators and spurs opportunities for engagement with the industry partner.

The views between the university and industry partner differ somewhat on the 360-Degree Relationship Management Dashboard. The university’s access provides a more comprehensive view of all relationships and is geared toward internal stakeholders, while an industry partner’s view provides a full snapshot of the partner’s relationship with the institution. Both views comprise all touchpoints between the partners and are continually updated.



Read more about the **360-Degree Relationship Management Dashboard** online at eab.com

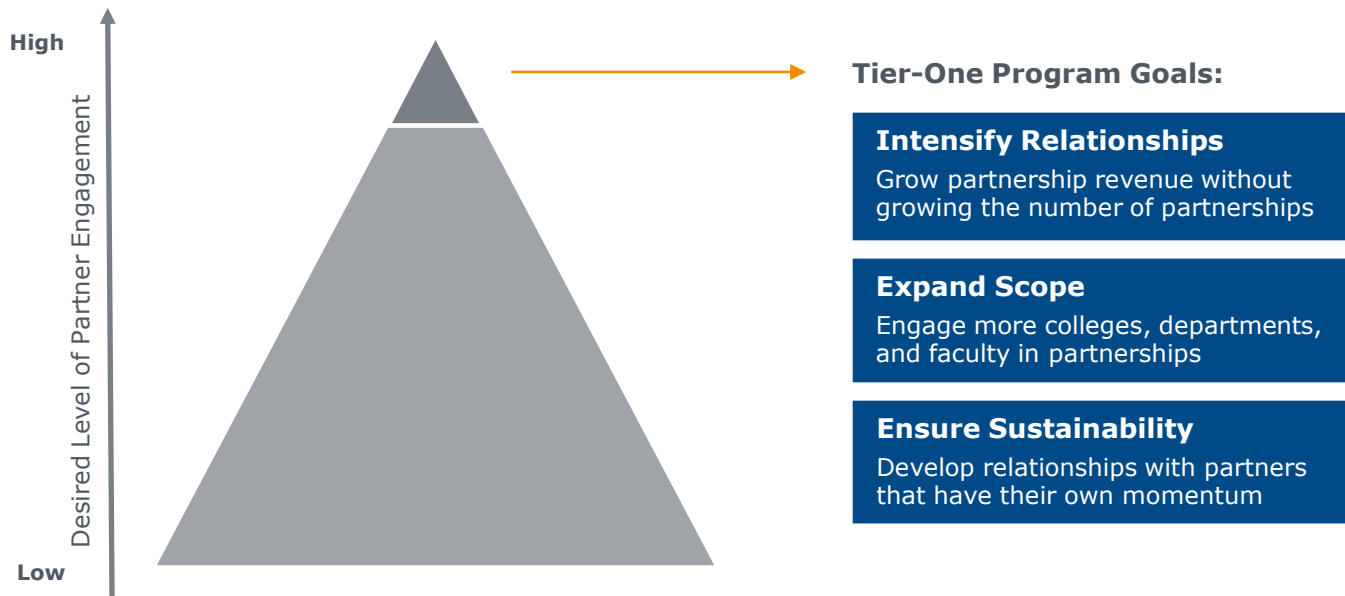
Source: EAB interviews and analyses.

Next-Level Partnership Management

Tier-One Programs Focus Resources, Benefits on Most Valuable Partners

A major aspect of shifting from a patchwork management approach to a more strategic industry partnership style is the differentiation of service levels between partners. Differentiated service levels not only allow for the strategic management of scarce resources in the Research office, but also help structure conversations that lead to deeper partnerships. The service level that partners receive from the university should match, in a broad sense, their relative value to the university and its stakeholders.

Tiered Partnership Engagement



As tier-one partnerships increase in engagement between the university and the industry partner, new opportunities for partnerships across the university grow. Industry partners want to develop relationships that take full advantage of university resources, and universities can leverage the momentum of multilayered relationships to benefit faculty, students, and the university mission.

Source: EAB interviews and analyses.

Tap into Partners' Priorities

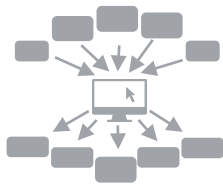
Leverage Internal Databases, Two-Way Feedback to Craft Service Offerings

To solidify relationships with the most strategic industry partners, CROs and their teams must first identify which partners fit that bill. The 360-Degree Relationship Management Dashboard proves an incredibly useful tool for determining which industry partners would benefit from additive services and what services those partners seek. Administrators can use the 360-Degree Dashboard to establish where industry partners invest most heavily and in what ways they should seek to grow the partnership. Partners also detail their desired services through their engagements and feedback.

Administrators use that information to structure conversations with existing industry partners and demonstrate how a more intensive relationship with the university could provide new benefits. The information from the dashboard can also aid administrators in determining what university resources appear most valuable to industry partners.

Building a Preferred Access Program

Step 1: Identify most valuable partners



Use 360-Degree Dashboard to divide partners into value-based tiers

Step 2: Determine points of value for partners



Conduct focus groups with partners and administrators to determine valuable institutional resources that could feasibly be provided

Step 3: Design program that provides access to scarce resources



Develop a program that offers differentiated levels of service to top industry partners

Focus groups with industry partners may uncover new opportunities for engagement and help administrators determine what resources to provide to tier-one partners. Differentiated levels of service reserve those most valuable resources and encourage industry partners to provide or sustain added value on their end to remain a tier-one partner. These focus groups can also serve as the catalyst for deeper partnerships.

Layer Value Across the Relationship

Prioritize Most Important Services for Partner; Remainder Is Surplus Value

Many university administrators do not realize the full range and value of the resources their institution can provide to industry partners. Companies seek partnerships that benefit their entire enterprise, from recruitment, to regional economic development, to IP opportunities. A relationship management system that can provide access to a broad array of university resources attracts and deepens beneficial partnerships.

Offering these resources to industry partners also benefits the university beyond research funding (e.g., through graduate job placement). Coordinated relationship management works best when it aligns with the needs of multiple campus stakeholders.

Range of Resources Included in Preferred Access Program



Access to University Leaders

Appointments with the President, Provost, or College Deans

Plus: The President gains advocacy and thought partners



Access to Research Collaboration

Laboratory tours, meetings with interested faculty, and first looks at potential research sponsorship opportunities

Plus: Young PIs gain access to necessary lab start-up resources



Access to Dedicated Space on Campus

Dedicated office space for exclusive use of preferred industry partners

Plus: Faculty, staff, and student entrepreneurial endeavors gain informal connections with on-campus industry representatives



Access to Recruitment Events

Direct contact with the Career Services Office and invitations to on-campus recruiting events

Plus: Students gain information about job opportunities



Access to Speaking Opportunities

Invitations to speak on campus at industry-related events

Plus: Students, faculty, and administrators gain understanding of key industries



Read more about the **Preferred Access Program** online at eab.com

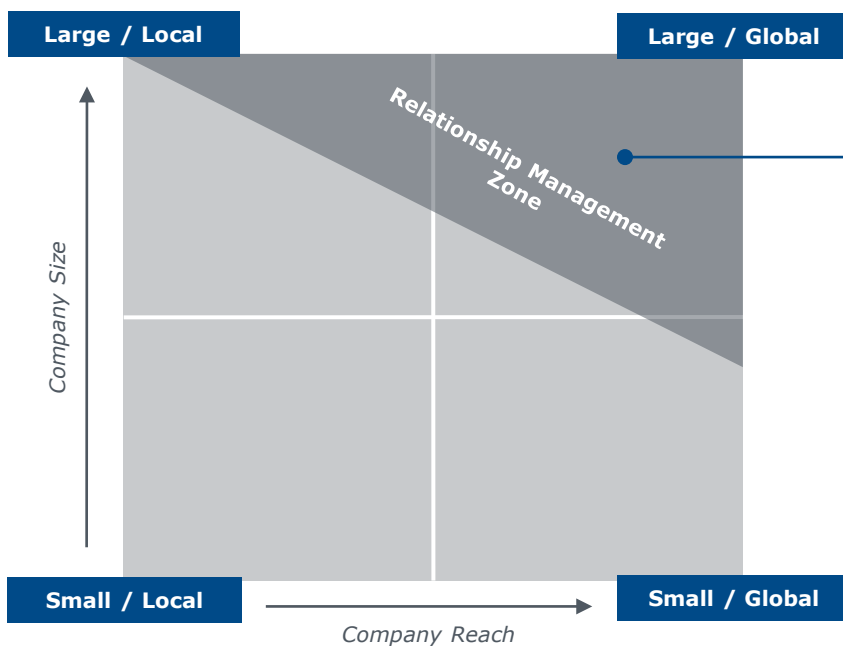
Prioritize Relationships with Growth Potential

Identify Partners That Require High-Level Management to Meet Growth Potential

In addition to determining which partners currently present opportunities to consolidate touchpoints and drive strategic growth, CROs and their teams should identify industry partners with high relationship growth potential. University research enterprises can increase the number of high-value partnerships by managing emergent growth relationships through dedicated relationship management.

Some high-growth partners require an additional level of relationship management because of the scope of their interests (research and otherwise), their own strategic goals regarding the university, or the size and reach of their enterprise. Ensuring these partners elect to grow with your institution and maximize the benefits of the relationships for both partners obliges a more formal relationship management system.

Industry Partner Placement Grid



Partners that require relationship management have...

- 1 ...R&D portfolios that could span multiple research units**
These companies have products and interests across colleges and require assistance accessing the different campus unit experts.
- 2 ...needs that go beyond sponsored research**
These companies seek university partners for their recruitment pipelines, philanthropic engagements, and professional education.
- 3 ...interest in forging alliances**
These companies desire fewer, more robust partnerships with universities, as opposed to multiple transactional engagements.

Source: EAB interviews and analyses.

Grow Relationships Through Strategic Management

Ad Hoc Management Diminishes Ability to Cultivate Collaborations

Universities must meet industry partners on the path to more strategic partnerships. The traditional models of partner management, in which various touchpoints sit under the purview of various PIs, staff from multiple units, and part-time relationship managers with greater focus on other activities, limit opportunities for strategic partnership growth. Leaders in university-partner relationship management instead devote specified staff to strategically manage large-scale, high-growth partnerships.



Traditional Models



Crowdsourced Management

- Partner management responsibilities can reside with multiple individuals across an institution
- Partner management likely to change with new projects



A Part-Time Job

- Time and focus of those tasked with partnership management is split among other responsibilities
- Relationship based largely on reactive service, not proactive value

Emerging Models

"Named and Known" Enterprise Relationship Managers

- Full-time staff focus on "enterprise-to-university" relationship management and major collaborative proposals with industry component
- Entrepreneurially driven matrix approach comprised of professionals in the central Research office, Advancement, and embedded in the research institutes
- Coordinate activities across campus
 - Main point of contact across all touchpoints for largest relationships
 - Work jointly with Advancement to manage corporate donations and alumni employee relationships
- **\$65M to \$100M** industry research funding in 3 years
- Developed in 2013 partly as response to intensified industry partnerships and expectations

In 2013, the Georgia Institute of Technology (Georgia Tech) determined that a new model of relationship management was necessary to continue to grow research funding and meet increasingly intensive industry partner demands. By pulling together corporate giving, individual PI research, master research agreements, capstone experiences, internships and fellowships, alumni relations, and career services under one umbrella, administrators were able to develop "enterprise-to-university relationships," rather than one-off relationships with various units at the institution. This strategy helps encourage industry partners to return to the institution with further projects.

Administrators hired full-time relationship managers in the Research office to complement and partner with the existing team in the Advancement office and individual interdisciplinary research institutes. Along with representatives from the Technology Transfer office, the teams developed an Industry Leadership Council, a forum for all industry relationship management staff to meet regularly to troubleshoot issues, share feedback, and strategize across accounts. Although the various teams differ in objectives, all three benefit from their combined efforts. The relationship managers in the Research office manage the largest industry partner profiles, tapping relationship managers in Advancement and the institutes as their work relates.

"When we look at the character of what the funding is, **the average industry award moved from \$75,000 five years ago, to \$100,000, to \$150,000...** Research [partnership] programs typically average \$500,000 now."

*Don McConnell, Vice President of Industry Collaboration
Georgia Institute of Technology*

Source: EAB interviews and analyses.

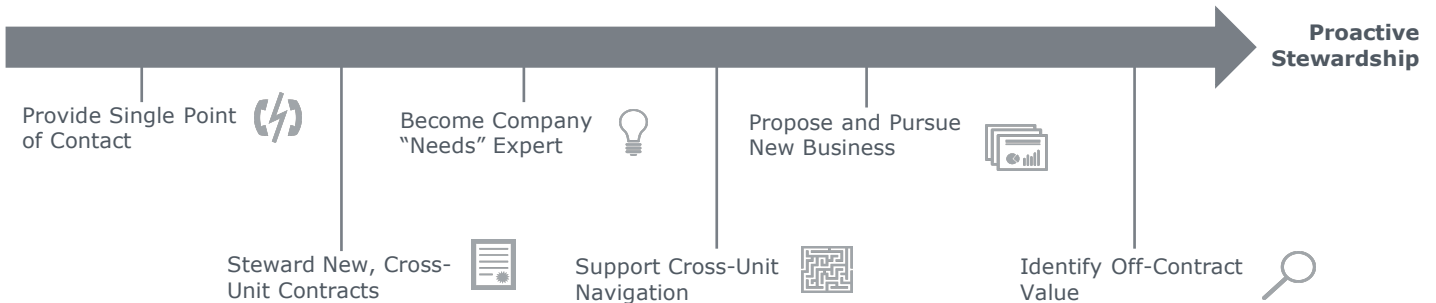
Spectrum of Relationship Management Services

Determine Which Service Sets Best Suit Your Partners' Needs

The most progressive institutions consider the long-term value of evolving from “account management” to “account stewardship,” in which university representatives not only manage but guide partners through research partnerships and elevate their level of engagement in mutually beneficial ways. An account stewardship model serves to introduce industry partners to more opportunities across campus and connect those opportunities coherently.

Service Spectrum

Providing Added Value to High-Growth Partnerships



Evaluating Relationship Managers

Portfolio Size

- Number of companies
- Scope of engagements
- Budgets of companies

Dollar Values

- Number of new contracts
- Number of retained contracts
- Dollar value of new contracts
- Dollar value of retained contracts

CROs should be wary of missing strategic opportunities to cohere and expand partnership features. Universities that cannot provide progressively deep partnerships to key industry partners often lose funding to universities that do offer a more strategic approach. By critically evaluating their relationship management strategies, CROs can improve the value of Research offices to internal and external stakeholders.

Although on the surface this practice appears staff intensive, most universities already offer some degree of industry relationship management through Advancement or other offices; garnering agreement around the direction and level of service to partners is more important than the number of account managers.



Learn more about the **Institutional Relationship Concierge** online at eab.com

Source: EAB interviews and analyses.

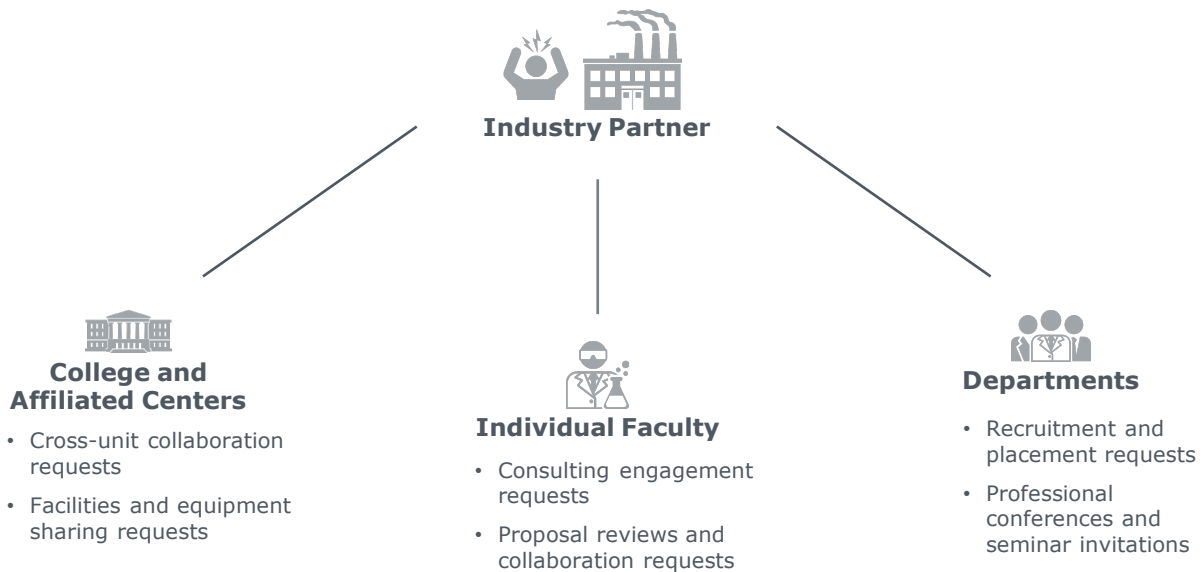
Uncoordinated Service Offerings Prove Ineffective

Companies Seeking Additional Value, Points of Interaction Are Often Confused

Many industry partners with existing relationships with faculty, departments, and centers related to their specific industry also require a high level of service, but seek to concentrate their relationship in a single area. Rather than the broad strategic engagement that a relationship manager might offer, these partners seek a high-intensity relationship with a narrower scope.

As with other industry partners, these focused partners have trouble navigating the multiple layers of possible touchpoints with the university. They need guidance to make the partnership most beneficial to both the university and themselves. Often, these partners want to interact only with the parts of the university that are most relevant to their goals.

Partner Touchpoints with a Single College



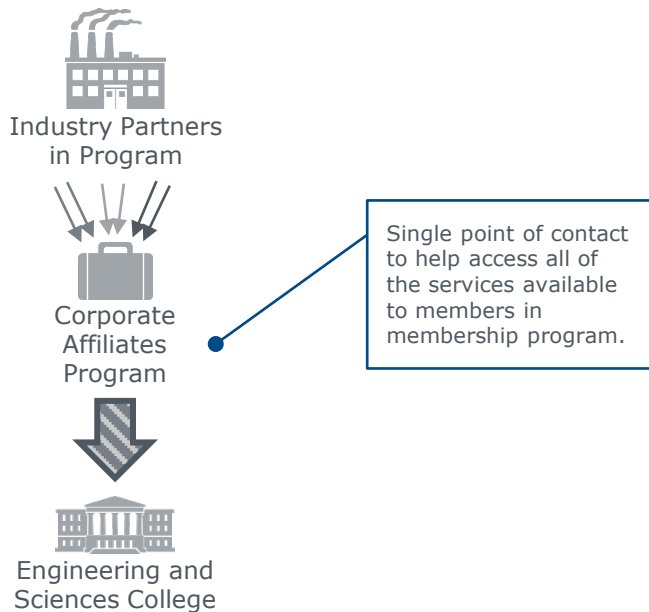
Source: EAB interviews and analyses.

Filter and Target Service Offerings

Coordinate Services for Specific Partner Cohorts Through Dedicated Programs

Targeted management programs geared toward companies in specific industries can address the needs of high-intensity, high-specificity partnerships at the college level. At the University of California, Santa Barbara (UCSB), the College of Engineering and the Sciences developed the Corporate Affiliates Program (CAP), a membership program that directs access to PIs, faculty consulting, on-campus space and equipment, and other valuable resources within a single college. In turn, the program deepens relationships with partners in regionally relevant industries.

Corporate Affiliates Program Services and Structures



The Corporate Affiliates Program Office provides multiple valuable touchpoints:

- Unlimited, coordinated research reviews
- Announcements of relevant conferences and symposia
- Visibility and recruitment
- Space and equipment access
- Collaboration and funding opportunities
- Industry advisory board role
- Quarterly industry newsletter
- Two faculty on-site technical visits

CAP provides a tailored approach to industry partner engagement for approximately 70 to 75 companies. Program staff includes one half-time staff person who arranges events for CAP members, as well as the Director and Associate Director of Corporate Business Development for the College. CAP members not only have existing relationships specifically with the College of Engineering and the Sciences, but they typically work within industries in which UCSB research excels and which are prominent in the region (i.e., aerospace, materials, and computer technology industries).

The industry partners interested in the CAP program typically do not include existing enterprise-wide relationships, which are often the largest partnerships on campus. Instead, partners interested in the program primarily want to deepen their contributions to innovative research in a particular area, often to enhance their industry and public reputation. CAP was initiated by a Fortune 500 company that wanted to have a public connection to a research university to emphasize their financial contributions to innovative research at institutions of higher education.

In addition, partners seek to join CAP to deepen their recruitment efforts in the College of Engineering and the Sciences, as well as their access to faculty and emerging research related to their industries. Another benefit to members of the CAP program include visibility and input into the strategic direction of research at the College.

Source: EAB interviews and analyses.

Cohort Services Model Drives Deeper Engagement

Promote Industry-Customized Value to Differentiate from Other Institutions

One of the aspects of CAP that industry partners value most is direct access to College of Engineering and the Sciences graduates. CAP provides recruitment opportunities on campus as well as inroads to student talent through faculty research and departmental events.

The program directly benefits industry partners and students through capstone sponsorship opportunities. Partners sponsor teams of seniors who work on projects in Mechanical Engineering, Computer Science and Engineering, and Aerospace. Partners use the capstone experience to expose potential recruits to the company, as well as to vet their talents early on.



“We have a number of university collaborations, but **the most significant one by far is with UCSB.**”

CAP Member, Chief Scientist, Conglomerate



“The capstone program is a great motivational and teaching tool and invites the opportunity for industry, student and faculty to work together and get to know each other.”

CAP Member, Aerospace Industry

CAP Successes

By the Numbers

75 CAP members in eight years

90-100 Faculty-to-company introductions each year

100+ Companies hosted on campus each year



Major Defense Contractor CAP Member

- Worked with UCSB to secure DARPA funding
- Conducted joint research projects
- Expanded from a single contract to multiple engagements

Talent pipeline cultivation

Hands-on, collaborative research projects

Access to university-industry-government collaborations

Shared facilities and equipment

Cross-unit collaborations

Another high-value aspect of the program for both the university and the industry partner is access to joint research projects. Both partners gain access to government grants for which they may not otherwise be eligible. The industry partner also gains access to university research facilities, equipment, and faculty. University-industry-government collaborations drive the impact of regional economic growth, spur innovative research for all parties, and drive deeper relationships between the industry partner and the university. By drilling down into key industries, UCSB has established itself as a go-to collaborator for these types of partnerships in the region.



Learn more about **Dedicated-Partnership Programs** online at eab.com

Source: EAB interviews and analyses.

Hardwire New Opportunity Exploration

Implement Two-Way Listening Posts to Enable Additional Feedback Channels

While databases can provide vital information on partnership health, nothing can replace a ground-level understanding of industry-specific nuances and their effect on partners' engagement with university resources. Deepened industry partnerships require not only new service offerings, but the intelligence necessary to develop and vet those offerings, as well as to remain on the cutting-edge of industry research needs. Faculty, staff, and industry representatives provide the qualitative information necessary to cement valuable partnerships.

▶ Two-Way Listening Posts Provide...

- ✓ Deeper understanding of how institutions can drive value through industry partnerships
- ✓ Clearer articulation of industry-specific needs, and how services can adapt accordingly
- ✓ New channels of engagement and promotion

Common approaches to industry partner relationship management do not take full advantage of all inroads to partner engagement and therefore often miss key intel about partner needs and preferences. Two-way listening posts provide the tools necessary to capture all available opportunities from industry partners and strengthen existing bonds through more strategic, higher value interactions. However, to access the tools two-way listening posts provide, CROs must develop processes that leverage these engagements and hardwire future two-way communication.

“Having someone based in the partner’s workplace made it easier to build a relationship with that partner, because the researcher has **a better sense of the partner’s priorities and the way they work**. Knowledge of the partner's internal processes is a great help when considering **future collaborations**. The best way to learn is to listen, and then determine ‘Okay, what can we do to help?’”

*Chris Hill, Knowledge Exchange Development Officer
University of Sheffield*

Source: EAB interviews and analyses.

Common Policy, but Too Rarely Utilized

Industry Sabbaticals Can Provide Critical Intel on Industry Partnerships

When CROs consider the role of faculty in deepening industry partnerships, they often focus on sponsored research conducted at the university. However, CROs who do not imagine the role of faculty in a more comprehensive way in the shift toward more strategic partnerships risk losing opportunities to connect with partners and gain invaluable knowledge about the industries in which they work, in addition to missing specific new opportunities for faculty research across the disciplines.

Forms of Industrial Sabbatical

Entrepreneurial Start-Up



Faculty member wants to develop and/or commercialize a new technology





Industry Secondment



Faculty member wants to dive deep in industry to do research, learn new skills, and/or increase industry awareness

While a number of universities and other institutions of research offer industrial sabbaticals, the policies surrounding those sabbaticals typically include some disincentive to faculty participation and therefore require updating to align with faculty and university needs. In addition, administrators often do not promote industrial sabbaticals, despite their benefits to faculty research and university partnerships. For interested faculty, industrial sabbaticals can enhance their research while they provide additional publicity for the university to prospective or current industry partners, particularly when sabbaticals take the form of industry secondments.

Common Faculty Problems with Industrial Sabbatical Policies

-  No assured salary
-  No health care and retirement benefits
-  Lose "time in seat"
-  Opaque advantages to program

Areas of Industrial Sabbatical Policy Impact

Eliminate financial disincentives



Promote program advantages



Let the clock run on benefit accrual



Source: "Faculty Sabbaticals at Government, Industrial Organizations," AMSTAT News, October 1, 2009, <http://magazine.amstat.org/blog/2009/10/01/facultysabbaticalsoct09/>. EAB interviews and analyses.

Encourage Results, Gain Value

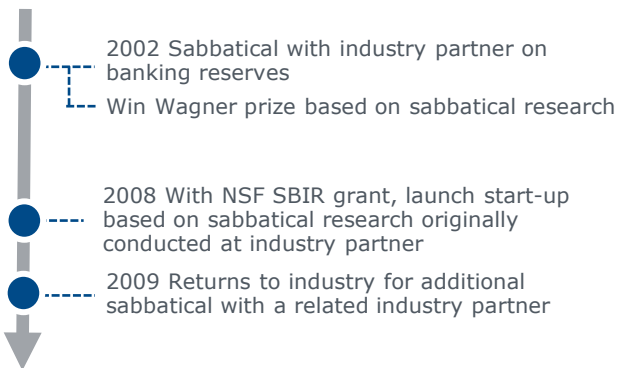
Successful Industrial Sabbaticals Lead to Numerous Benefits

Administrators at the University of Sheffield have managed over 30 industrial sabbaticals over the past five years. They quickly learned from faculty who had participated in industrial sabbaticals that there were numerous touchpoints between industry partners and the university of which they were not aware. Although some of these industry partners had over 100 touchpoints at the university, “nobody knew how it all tied together or how it linked.”

In addition to providing industry-side knowledge of university-industry relations, the industrial sabbaticals have helped faculty to identify additional leads for colleagues in other areas. To capture these opportunities, ensure the sabbaticals led to increased research productivity, and record the progress of the partner relationship, staff in the research office meet at least twice annually with involved faculty for structured, one-on-one discussions. These conversations also play a critical role in demonstrating research impact to funders. Relationships forged or intensified during industrial sabbaticals can lead to larger partner grants, publications, IP, and other benefits to the university research enterprise. Industrial sabbaticals also provide an opportunity to engage non-engineering faculty in industry partnerships.

Benefits for Faculty Research...

One faculty member’s path to success...



At the University of Connecticut, industrial sabbaticals have led to prestigious awards and deepened industry relations. Faculty who have participated highlight benefits to their research and teaching at promotional events for colleagues interested in similar experiences. Increased contact with the university through faculty industrial sabbaticals leads industry partners to “keep coming back” to partner with the institution in new ways.

”

Industrial Sabbaticals Drive New and Deeper Partnerships

“[An] Industrial Research Sabbatical has enabled mutually beneficial knowledge exchange. The Sabbatical scheme **supports researchers to develop new relationships and collaborative activity with partners in industry**, promoting a deeper understanding of culture and needs.”

*IIKE Research Sabbatical case study,
University of Sheffield*



”

...And for Industry Partners

“The opportunity for our staff to **learn from a natural educator** is of immense value to the science that we do and also to our staff. Those projects have resulted in publications. We are a contract research organization, so the **opportunities for us to publish** are relatively limited. To be able to... show our expertise in the public domain is extremely useful.”

*Industry Partner,
IIKE Industrial Sabbatical program,
University of Sheffield*



Source: Alexander Sadowski, “Alternative Sabbaticals In Industry Develop Skills, Says Associate Dean Suresh Nair,” University of Connecticut, October 29, 2014, <http://www.business.uconn.edu/2014/10/29/alternative-sabbaticals-in-industry-develop-skills-says-associate-dean-suresh-nair/>. “Research Sabbaticals/Secondments,” The University of Sheffield, Accessed May 2016, <https://www.sheffield.ac.uk/ris/rpe/irs>. EAB interviews and analyses.

Build a Sabbatical Beneficial to All Stakeholders

Embrace Improved Policies to Promote Industrial Sabbaticals

Industry secondments offer a low-cost way to promote faculty expertise to industry partners. A successful program, however, requires consideration as to how the university will support faculty who take such industrial sabbaticals, improve and clarify guidelines for industrial sabbaticals, and align sabbaticals with institutional mission and department budgets.

Clear guidelines allow administrators and faculty to begin industrial sabbatical conversations with a helpful framework for understanding everything that must be considered for the unique needs of each faculty member and industry partner. The needs of faculty engaged in industrial sabbaticals understandably differ by circumstance. Faculty engaged in formal fellowship programs typically receive training in related IP concerns, while those engaged in one-off opportunities may need more guidance from university staff. Faculty with prior industry experience may understand the feasibility of a proposed sabbatical better than those without. Tenured faculty do not need an extension of their probationary period, but may have more administrative duties that cannot be paused. Similarly, industry partners' needs may differ based on length of time necessary for the sabbatical, proprietary concerns, ability to fund faculty salary, and level of specificity of anticipated outcomes.

With Industrial Sabbaticals...

"The more accessible it becomes, the more desirable it becomes."

Chris Hill, Knowledge Exchange Development Officer, University of Sheffield

Support

Publicize **opportunity** to take industrial sabbatical and communicate **related considerations** to industry-minded faculty

- Faculty find project/company: Aid faculty to determine feasibility, develop grant or contract, and understand potential IP concerns
- Formalized fellowship program: Guide faculty in application process

Improve

As with traditional sabbaticals, structure **clear and open guidelines** for industrial sabbaticals that **safeguard salary, benefits, and career development**

- Match percent time on leave to percent salary and benefits faculty must secure through partner funding, venture capital, or grant
- Extend promotion or tenure timelines in accordance with time spent on sabbaticals

Maintain

Develop and communicate **requirements** to ensure benefits to **faculty productivity, sustainable funding, and institutional mission**

- Establish minimum tenure and maximum administrative requirements and thoroughly vet all sabbatical applications
- Include continued campus responsibilities (e.g., academic research, committee service)
- Determine sabbatical time limits



Learn more about **Faculty Industrial Sabbaticals** online at eab.com



Did you know? Industrial sabbaticals can take place in industry association, nonprofit, and governmental settings.

Source: EAB Interviews and analyses.

Missed Opportunity for Executive-Level Engagement

Industry Advisory Boards Too Focused on Science, Not Business

As with faculty industrial sabbaticals, industry advisory boards frequently get overlooked as a significant source of industry intelligence. Industry advisory boards often are relegated to a procedural role rather than a strategic one.

An improved plan for industry advisory boards can create value beyond what many CROs find from their current boards. New plans should address four main areas of disconnection between industry advisory boards and strategic research goals: sporadic engagement, limited vision, technical focus, and a ceremonial mindset.

Typical Industry Advisory Board



Sporadic Engagement

Large boards often prioritize quantity of participants, meet infrequently, and occupy limited mindshare for members.



Limited Vision

Board perspectives are confined to the unit in which they organize, prohibiting board members from considering value to the entire research portfolio.



Technical Focus

Input from boards and feedback from research units is largely technical and focused solely on R&D, not on broader strategy and research implications.



Ceremonial Mind-Set

Executives serving on boards interpret their role as a distant advisor, not someone who can provide on-the-ground support to research units.

Source: EAB interviews and analyses.

A New Level of Commitment and Value

Enterprise-Wide Boards Require Commitments and Expectations

Auburn University made the shift to a more strategic industry research advisory board as part of an effort to bring the university together around a more holistic idea of research and to communicate research applications outside of the university context, as well to spur regional economic development. To create a new advisory board, the university brought together new board members with existing members from the previous model's single-college research advisory boards to sit on an enterprise-wide board.



"We're moving toward the **Research Advisory Board version 2.0**: fewer standing committees, more project-focused."

*Research Advisory Board Liaison
Auburn University*



The New Model: Enterprise Research Advisory Board

- New board is university-wide
- Includes ≈25 members: CEOs, Heads of R&D, Entrepreneurs, Venture Capitalists, and Government Agency Directors
- Comprised mainly of alumni, who have a vested stake in advancing the university and an ongoing interest in its activities

Board Members Pledge to:



Remain active and engaged through quarterly meetings (in person and via conference call)



Fundraise for research and provide access to their professional networks for collaborations



Manage seed-funding competitions



Provide research oversight and direction for large-scale initiatives

The enterprise-wide board includes new standards for board members, such as a broader approach to the types of individuals asked to sit on boards (beyond high-level engineers and CEOs) and stricter rules for the activities in which board members are expected to engage. These activities may include managing seed funding competitions, hosting research fora, and tapping their professional networks to invite new businesses to engage with the university. Many of these activities take place within committees, which the new model has given a project-oriented focus rather than a standing status.

A recent endeavor of the research advisory board was to launch a fund that guides commercializable IP through the "valley of death" phase between when formal funding runs out and when the IP is marketable. While the initiative would not act as a complete incubator, the board helped researchers to scale their products through the proof-of-concept phase. This level of activity has been possible only through a more strategic advisory board that can leverage sufficient resources and expertise to meaningfully aid in university priority areas.



Learn more about **Enterprise Research Advisory Boards** online at eab.com

Source: EAB interviews and analyses.



Advisors to Our Work

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Budget and Policy Program
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