



RESEARCH BRIEF

Research Parks

Structure, Logistics, and Assessment

University Research Forum

Maia Cotelo

Research Associate

Rebecca Stefaniak

Research Manager

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1) Executive Overview

Key Observations

Research Park B and Research Park C require companies and developers to construct their own infrastructure, while Research Park A and Research Park D develop facilities either for specific companies moving to the research park or according to market demand. The Research Park B Foundation, governing body of **Research Park B**, sells land within the research park to companies and developers. Companies build their own campuses, and developers build in-demand facilities and find tenants. The Real Estate Office of Institution C sells long-term ground leases for land in **Research Park C** to companies, investors, and professional landlords. Those parties must then renovate the existing facilities, or demolish them and build new infrastructure. Contrastingly, the governing bodies of **Research Park A** (i.e., Institution A and a real estate investment trust) and **Research Park D** (i.e., Institution D's Foundation) build infrastructure in their respective research parks prior to leasing space to companies.

Profiled research park leaders do not target specific industries for research park occupancy; the research parks' locations and the strengths of associated institutions determine the industry mix (i.e., which industries locate within the research park). Contacts at **Research Park B** share that companies that move to the research park are typically those that specialize in areas in which associated institutions (i.e., Institution B.1, Institution B.2, Institution B.3) excel, such as agriculture and crop sciences. Contacts at **Research Park C** and **Research Park D** agree that companies cluster near competitor companies and institutions' talent pipelines. Contacts at **Research Park A** and **Research Park D** share that their proximity to army bases and intelligence centers encourages federal agencies to lease space in their research parks.

Non-research spaces remain uncommon at profiled research parks, but contacts report that demand for non-research spaces (e.g., dining halls, walking trails) is increasing. Research park leaders report that during the construction planning phase of the research parks, non-research spaces were among the first items cut from the budget. However, all contacts share that non-research spaces are becoming increasingly important to companies. Profiled research parks have begun to offer temporary non-research space that encourages interaction between research park employees (e.g., food trucks, farmer's markets).

Profiled research parks provide associated institutions with employment for graduates, improved research opportunities, and increased private sector funding. Research parks offer affiliated institutions and local communities the opportunity to retain top students after graduation. Similarly, companies within the research park can offer quality employment to spouses of faculty recruits. Association with a research park can also improve an institution's research through collaboration with elite companies (e.g., through a research partnership or industry expertise) and private sector funding. Contacts state that due to Institution B.1's association with **Research Park B**, for example, Institution B.1 ranks among the institutions receiving the most private sector funding in the country.

2) Structure and Logistics of Research Parks

Land and Infrastructure Management

Research Parks are either Independently Managed, or Managed by a Real Estate Investment Trust

Research Park B Foundation, the Real Estate Office of Institution C, and Institution D's Foundation independently govern **Research Park B, Research Park C, and Research Park D**, respectively. Contrastingly, Institution A partners with a real estate investment trust to govern **Research Park A**.

Land Ownership and Infrastructure Financing at Profiled Research Parks

Research Park	Land Ownership Entity	Entity that Finances Infrastructure
Research Park A	Institution A	Developers with which Institution A partners
Research Park B	Individual companies and developers to whom Research Park B's Foundation sells land. Research Park B's Foundation also maintains ownership of part of the research park.	Individual companies and developers that buy research park land
Research Park C	Institution C's real estate office	Companies, investors, and professional landlords that sign ground leases
Research Park D	Institution D's Foundation	Institution D's Foundation, by borrowing money at commercial rates

Research Park Land Ownership Profiles

Research Park C: Companies, Investors, and Professional Landlords Build Infrastructure after Signing Ground Leases

Institution C does not dedicate funds to building infrastructure in **Research Park C**. The Real Estate Office at Institution C offers 88 individual 35-year and 51-year ground leases that include existing infrastructure from previous occupants. Individual companies, investors (e.g., investment companies, pension funds) and professional landlords who sign the ground leases renovate the facilities, or demolish them and build new ones. Investors and professional landlords then lease the properties to companies. Institution C's real estate office maintains control (i.e., acts as landlord) of 10 percent of the land in Research Park C.

To exit Research Park C, signees must sell their ground lease position to an outside party, or act as a landlord and sublease the property. Institution C maintains consent rights and right of first refusal (i.e., Institution C may buy out the lease on the same terms as the third-party offer).

Contacts share that groups from Institution C sign occupancy agreements similar to leases to utilize space in **Research Park C**.

Research Park B: Companies Purchase Land from Research Park Leadership and Construct Their Own Campuses within the Research Park

While Institution B.1, Institution B.2, and Institution B.3 helped found **Research Park B**, the institutions are now only represented on the research park's Board of Directors. Contacts at the Research Park B's Foundation, the non-profit that manages the research park, explain that the institutions still maintain relationships with Research Park B and the companies within it. Contacts add that local community colleges collaborate with companies in the research park. For example, community colleges provide job training for research park employees. One community college's new campus will be adjacent to the research park for the purpose of facilitating closer collaboration.

Research Park B's Foundation sells land within the research park to companies and developers. Companies build their own campuses on the land, and developers build facilities that are in demand (e.g., wet labs, incubator space) to lease to tenants. Research Park B's Foundation maintains control (i.e., acts as landlord) of two facilities within the research park that offer flexible leases (e.g., month-to-month, six months, one year). Companies who rent from third parties must follow the termination agreement in the lease if they decide to leave Research Park B. Companies and developers that own facilities within the research park must sell their land upon exit. Research Park B's Foundation maintains right of first refusal on the sales.

Research Park D: Research Park Leaders Construct Facilities Prior to Sale of Long-Term Ground Leases to Companies

Institution D's Foundation is a full-service real estate company. Institution D's foundation buys land, manages zoning and planning processes for the land, constructs infrastructure, advertises the research park properties, and manages the properties. Institution D's Foundation borrows money at commercial rates to construct the buildings that it then leases to tenants. To locate within **Research Park D**, a company must sign a 30-to-60 year, renewable ground lease. To exit Research Park D, a company must provide notice and abide to the terms in the ground lease (e.g., pay a fine). Institution D's Foundation then prepares, markets, and leases the property to a new company.

Research Park A: Institution Makes Long-Term Investment in Land, While Real Estate Investment Trust Sees Returns in Short Term

Institution A partners with a real estate investment trust to manage **Research Park A**. Institution A provides the land for the research park, and the real estate investment trust pays for all infrastructure (e.g., buildings, roads, sidewalks), maintains the buildings, and manages the properties. Companies rent properties from the real estate investment trust for shorter terms than other profiled research parks (e.g., 5 years). The trust bears all of the costs (e.g., snow removal, building maintenance) and receives all of the revenue generated by Research Park A (e.g., property rents). Institution A will only realize profits from the research park upon a liquidation event, which contacts estimate will occur in ten years. Contacts report that the benefits of Research Park A will accrue slowly for Institution A. Contacts explain that Institution A reserves 25 percent of research park land to manage on its own.

Institution A utilizes that portion of the land for strategic initiatives in which the real estate investment trust may not have interest (e.g. manufacturing facilities).

Research Park Utilities and Composition

Two Profiled Research Parks Centrally Manage Maintenance and Utilities, and Two Place Responsibility on Companies

The real estate investment trust and Institution D’s Foundation oversee maintenance (e.g., property upkeep) and utilities at **Research Park A** and **Research Park D**, respectively. Each company or landlord oversees the maintenance of facilities and utilities at **Research Park B** and **Research Park C**.

Summary of Maintenance and Utilities Management at Profiled Research Parks

Research Park	Maintenance	Utilities
Research Park A	<ul style="list-style-type: none"> The real estate investment trust manages maintenance of facilities. A maintenance fee is included in the rent that tenants pay. 	<ul style="list-style-type: none"> The real estate investment trust charges companies a utilities fee as part of rent. The fee allots each company an allowance for utilities. If companies exceed the allowance, the companies must pay extra.
Research Park B	<ul style="list-style-type: none"> Companies with own campuses manage maintenance. Developers that own campuses manage maintenance of tenants’ facilities. Research Park B’s Foundation oversees maintenance of the two facilities it manages. 	<ul style="list-style-type: none"> Companies with their own campuses manage utilities. Developers that own campuses manage utilities for tenants’ facilities. Research Park B’s Foundation manages utilities of facilities it manages. There is no central server or database.
Research Park C	<ul style="list-style-type: none"> Companies with own campuses manage maintenance. Developers that own campuses manage maintenance of tenants’ facilities. Institution C oversees maintenance of facilities it manages (i.e., 10 percent of Research Park C). 	<ul style="list-style-type: none"> Each ground lease has its own meter. Companies with their own campuses manage utilities. Developers that own campuses manage utilities for tenants’ facilities. Institution C manages utilities of its own facilities (i.e., 10 percent of the research park). There is no central server or database.
Research Park D	<ul style="list-style-type: none"> Institution D’s Foundation manages maintenance. 	<ul style="list-style-type: none"> Institution D’s Foundation places conduit in the ground and collaborates with service providers to bring service lines to the research park. Companies must arrange to set up and pay for their own utilities for their spaces.

Industry Mix at Profiled Research Parks Depends on Location and Associated Institutions' Areas of Strength

Contacts from **Research Park A** share that typically research park tenants approach Institution A (i.e., rather than approaching the real estate investment trust) to locate within the research park, or Institution A approaches the companies. Because rent prices in Research Park A are higher than in the surrounding market, only companies who have a connection to the institution decide to locate within the research park. Contacts at **Research Park B** report that the strengths of associated institutions determines what type of companies locate within the research park; companies choose to move to research parks because of the specific talent pipeline and research partners that institutions offer. Similarly, life science companies locate within Research Park B because of associated institutions' medical schools, and their strengths in the fields of agriculture and crop sciences.

The companies in **Research Park C** reflect the industries that are well-funded in the United States at that particular point in time. Contacts share that the research park has hosted biotechnology, automobile, and software development companies. Contacts at Research Park C share that leaders aim to keep the research park 20 percent professional service offices (e.g., lawyers, consultants, engineers, venture capitalists) and 80 percent research and development. Research park leaders employ restrictions in ground leases to decide whether to dedicate land to professional service offices or research.

Profiled Research Parks Either Allow Companies to Design Space, or the Parks Design Research Space According to Market Demand

The parties who determine what type of research spaces (e.g., wet labs, incubators, manufacturing space) research parks include vary across profiled institutions. Leaders at **Research Park A** and **Research Park D** either build facilities specifically for companies that request space in the research park, or they build facilities that are in-demand. Contacts share that the latter option is riskier, but allows for companies to move into the research park much faster (i.e., companies do not have to wait for a facility to be built).

Contacts at **Research Park B** and **Research Park C** share that one of the benefits of selling ground leases without infrastructure, or with the old tenant's infrastructure, is that research park leadership does not need to determine what research spaces will attract companies. Rather, companies design campuses that fit the companies' necessities. For example, crop science, information technology, and pharmaceutical companies build greenhouses, data centers, and lab space, respectively. Contacts at all profiled institutions also report that shared workspaces are becoming increasingly popular.

Contacts at profiled research parks report that research park leaders have not experienced space allocation issues.

Offer Affordable and Flexible Space to Attract Startups and Diversify Industry Mix

Research park leaders agree that research parks should avoid dependence on a few, large companies. To avoid such dependence, contacts suggest designating a portion of the research park to be accessible to small, startup companies. Leaders recommend implementing lower rental prices and shorter leases on a select number of facilities that the research park manages. For example, Research Park B's Foundation offers affordable and flexible terms to life science companies for wet lab space.

Types of Research Spaces at Profiled Institutions



Computer labs



Wet labs



Vivarium



Automobile manufacturing



Incubator space



High-level imaging



Crash test sites



Clinical research labs

Construct Non-Research Space to Attract Companies and Encourage Interaction between Research Park Employees

Administrators at profiled research parks agree that non-research spaces are most often the first elements eliminated during the construction planning process, but that non-research space is becoming increasingly important to companies. Leaders share that non-research spaces should be communal and encourage interaction between employees. Contacts at **Research Park C** and **Research Park D** explain that modern research parks should have conference rooms, hotels, central dining areas, bicycle racks, and parks to attract companies.

Examples of Non-Research Space at Profiled Research Parks



Hotels: **Research Park A** will soon offer apartments and a long-term hotel near in the research park. Contacts share that because of the volume of international researchers who visit the park, providing long-term housing is important.



Food trucks: Contacts state that research parks should develop non-research spaces to encourage community building among research park companies. For example, **Research Park A** leadership arranges for food trucks during meal hours.



Farmer's market: **Research Park D** offers employees a cafeteria and a weekly farmer's market that includes booths and food trucks.

3) Assessment of Research Parks

Evaluating Success of Research Parks

Profiled Research Parks Offer Opportunities to Associated Institutions for Employment, Research, and Funding

Contacts at profiled research parks agree that research parks provide a wide array of benefits (e.g., jobs, research opportunities, human capital) to associated institutions. Because **Research Park C's** income (e.g., ground lease payments) contributes directly to Institution C's general fund (i.e., fund that pays for faculty members' salaries, research expenses), contacts report that revenue generation is a benefit of the research park for the institution. Contrastingly, contacts at **Research Park A** state that money is not one of the main benefits of the research park for Institution A, because the institution will not receive a profit from the research park until a liquidation event occurs.

Benefits of Profiled Research Parks for Associated Institutions and Local Communities



Benefits for Associated Institutions

Provides students with employment opportunities:

Research parks offer employment opportunities to associated institutions' graduates. Contacts report that this allows the institution and local community to better retain its top graduates. Similarly, the research park can provide employment to the spouses of faculty members.

Improves research through collaboration:

Contacts at **Research Park B** report that research park employees partner with faculty members to conduct research, as well as to assist them in course design (i.e., develop curriculum that best prepares students for the workforce).

Increases private sector research funding:

Contacts at all profiled research parks state that research parks' proximity to associated institutions leads to increased private sector funding for research. Contacts at **Research Park B** report that the region of the research park ranks highest in the country for private sector funding.



Benefits for Local Community

Creates jobs:

Because research parks attract large companies and growing startups, research parks provide local and regional areas with large volume of jobs. For example, **Research Park C** provides the region with 26,000 jobs, while **Research Park B** employs 55,000 individuals.

Enriches opportunities for locals:

Research park employees contribute to the local communities in a variety of ways outside of their work (e.g., present at local schools, mentor youth). Additionally, research park companies and activities provide additional tax revenue for local and state communities.

Produces cluster effect:

Contacts at **Research Park B** and **Research Park C** report that when a company in a specific industry partners with a university that specializes in the same industry, competitor companies often also move to the area. This is known as the cluster effect.

Profiled Research Parks' Success Depends on Variables Including Location, Partnerships, Space, and Marketing

Contacts at **Research Park C** report that the factor that contributes most to the success of the research park is its location. The location attracts company leaders due to the caliber of schools, cultural experiences, and homes available. Additionally, Research Park C's location allows startups access to the venture capital needed to succeed. Contrastingly, location is an obstacle for **Research Park B**, because there is not a wealth of venture capital in the region. Contacts at Research Park B report that the research park administrators have had to create a network of capital, mentors, and university connections to facilitate the growth of startups within the research park.

Influential Factors in Profiled Research Parks' Success



Proximity to institution

Contacts at **Research Park D** report that the research park's location 10 miles away from Institution D leads faculty members and students to be less willing to travel to the research park to conduct research. **Research Park A** is within walking distance of Institution A. Contacts at Research Park A agree that the closer the two entities, the more successful the research park.



Partnerships

Contacts at **Research Park D** explain that because Institution D's Foundation is the sole owner of the research park, only companies that want a relationship with the institution move to the research park. Contacts share that the research park may have grown faster and more robustly if there had been a public-private partnership. Institution D's Foundation is currently discussing the possibility of a public-private partnership with county leaders. Contacts state that this would require Research Park D to allow companies to enter that are not in complete alignment with the mission of the research park.



Well-defined strengths

According to contacts at **Research Park D**, Institution D has not explicitly delineated or promoted the institution’s main areas of strength (e.g., engineering, medicine). As a result, Research Park D is not able to successfully target industries that fit well with the institution’s strengths. Research Park D does, however, successfully recruit companies by promoting the local areas’ well-defined strengths. For example, because of the proximity of an army base, Research Park D attracts companies in the intelligence and cyber security industries.



Available space

Contacts at **Research Park A**, a research park that constructs buildings prior to leasing, share that the private developer prefers to only construct a building when around 60 percent of it has been leased out. Because Institution A does not wish to tell companies that they must wait several months before a facility can be completed for them, contacts report that research park leaders require private developers to build more facilities once existing facilities are full.



Continued maintenance

According to contacts at **Research Park B** and **Research Park C**, research parks that manage long-term ground leases (e.g., 35 year ground leases) may encounter companies that do not continue maintenance on facilities as the end of their leases approach. Contacts add that research parks must dedicate staff to assess the state of facilities as leases near their end dates.

Profiled Research Parks Evaluate Quantity and Quality of Companies to Measure Research Parks’ Success

Administrators track the number of companies and total employment within the research parks, along with the number of national accolades (e.g., “Best Companies to Work for,” “Best Law Firms”) companies receive. Contacts add that research parks’ stability depends on company diversity within the park (e.g., company size, industry). Contacts at **Research Park B** explain that research parks must not become too dependent on a few large companies or a single industry to occupy space within the research park.

Metrics Profiled Administrators Consider to Assess Success of Research Parks

Strength of relationships between institution and companies



Number of companies



Number of employees



Diversity of company size and industry



Amount of revenue generated for institution’s general funds

Quality of companies (e.g., national recognition received)

Quantity of companies that hire institutions’ graduates

4) Research Methodology

Project Challenge

Leadership at a member institution approached the Forum with the following questions:

- Which parties are involved in the operation, management, and/or utilization of the research park?
- On which industries or research area(s), if any, is the research park focused?
- What types of research space does the research park offer?
- What types of non-research spaces and/or facilities does the research park offer?
- How do contacts divide the costs of construction, operations, and maintenance of the research park between key stakeholders?
- How do contacts allocate resources within the research park?
- Which parties oversee space allocation decisions?
- What procedures, if any, are in place to settle disputes over space allocation?
- Who is responsible for the management and allocation of IT resources?
- Who is responsible for the maintenance and security of central servers at the research park?
- Who is responsible for the allocation of central utilities at the research park?
- What procedures, if any, do contact institutions implement to manage parties' use of the research park?
- What benefits does the research park provide the contact institution?
- What benefits does the research park provide the local community?
- Which factors or components of the research park are key to its success?
- What challenges, if any, have contacts encountered in the development and governance of the research park?
- What metrics, if any, do contacts employ to evaluate the success of the research park?

Project Sources

The Forum consulted the following sources for this report:

- EAB's internal and online research libraries (eab.com)
- Profiled research park websites

The Forum interviewed administrators from the following research parks.

A Guide to Institutions Profiled in this Brief

Research Park	Institutions	Location	Approximate Institutional Enrollment (Undergraduate/Total)	Classification
Research Park A	Institution A	Mid-Atlantic	27,500/38,000	Doctoral Universities: Highest Research Activity
Research Park B	Institution B.1	South	6,500/16,000	Doctoral Universities: Highest Research Activity
	Institution B.2	South	24,000/34,000	Doctoral Universities: Highest Research Activity
	Institution B.3	South	18,500/29,000	Doctoral Universities: Highest Research Activity
Research Park C	Institution C	Pacific West	7,000/17,000	Doctoral Universities: Highest Research Activity
Research Park D	Institution D	Mid-Atlantic	17,000/24,000	Doctoral Universities: Highest Research Activity