



# National Landing Innovation District **Executive Summary**

January 2025

Prepared by:



Prepared for:



Alexandria  
Economic  
Development  
Partnership



NATIONAL  
LANDING



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# Executive Summary

CIC Captains of Innovation, Arup, and Cambridge Econometrics are pleased to provide this summary of the deliverables we provided to Arlington County, the City of Alexandria and the National Landing BID at the conclusion of the Innovation District Study stage for the National Landing Innovation District.

## 1. Introduction

National Landing is uniquely positioned to support an innovation district due to its unparalleled combination of assets, regional strengths, and strategic opportunities. The area already boasts a dense concentration of technology-related businesses, anchor institutions such as Amazon and the Virginia Tech Innovation Campus, and proximity to federal government agencies, especially the Pentagon. These attributes create fertile ground for fostering collaboration between private companies, academic institutions, and government entities.

The proposed focus areas — Cybersecurity, Advanced Computing, and Defense Technology — align seamlessly with existing regional specializations and national priorities. Northern Virginia is a national leader in cybersecurity, with a business concentration four times the national average. Similarly, advanced computing and defense technology benefit from the area's robust infrastructure, talent pipeline, and research capabilities. By capitalizing on these strengths, the district can drive economic growth, attract global talent, and enhance the region's competitive edge.

Moreover, the innovation district provides a strategic solution to critical economic challenges, including office space vacancy and tax revenue growth. The development of targeted vertical hubs and programming will not only activate underutilized spaces but also foster an ecosystem that supports knowledge-sharing, funding access, and workforce development. By bringing together diverse industries that might not otherwise interact, the district will create connections across sectors, encouraging collaboration and unlocking new

opportunities for innovation. The creation of an independent governance model ensures that the district remains mission-driven, inclusive, and adaptable to future opportunities.

In short, an innovation district in National Landing represents a visionary yet practical strategy to elevate the region's innovation economy while delivering tangible benefits to businesses, residents, and the broader community.

As part of the process for developing the innovation district, we have identified technology and industry opportunities, performed an economic impact analysis, and facilitated steering committee workshops. This report will:

- a) share our methodologies and findings
- b) provide a strategic roadmap for vertical development
- c) recommend governance models
- d) provide a budget projection
- e) conclude with a summarization of potential funding sources.

## 2. Technology and Industry Opportunities

Our research goal was to identify the industry sectors — and emerging technologies — that the innovation district will focus on promoting and attracting.

**Ultimately, we concluded that three industries should be short-listed: Cybersecurity, Advanced Computing, and Defense Technology.**

We arrived at this short list by first asking three primary research questions:

- 1) What industries and sectors do the region and local area already specialize in?
- 2) What are the important emerging technologies driving innovation and growth across the economy and how do they relate to local industry specializations?

- 3) What are the assets in the local area that support a strong innovation environment for particular industries?

Our research found that **local and regional industry strengths** support this conclusion. Existing regional economic development plans and studies have already identified computer software, cybersecurity, emerging technologies (e.g. material sciences, quantum computing), life sciences (e.g. biotech), defense (including national security), and aviation (including aerospace, transportation) as priority sectors for the region. Arlington and Alexandria counties have high levels of employment concentrated in technology-related sectors. (In fact, 67% of scientific research and development employment is related to physical, engineering, and life sciences [except nanotechnology and biotechnology].) These areas of high employment concentration are mirrored at the wider regional level, pointing towards the strongest near-term tech-driven industry opportunities for National Landing.

In addition, our research showed these **six technologies are most frequently cited as driving innovation in important growth sectors for the region:** Artificial Intelligence & Machine Learning, Quantum Technology, Telecoms and Next Gen Wireless, Advanced Robotics, Edge and Cloud Computing, and Internet of Things (IoT). This is consistent with innovation assets for the district such as the Virginia Tech Innovation Campus, the Pentagon, and the existing local presence of innovation-driven companies.

Our analysis includes an overview of the competitive strengths and rationale for National Landing being a location with a 'right to win' within each short-listed industry.

**Cybersecurity:** The existing Northern Virginia innovation ecosystem for cybersecurity offers several advantages for National Landing, from favorable regional development policies to a strong concentration of cybersecurity businesses (4x the national average) to research and workforce development programs focused on Cybersecurity to venture capital and federal funding specifically focused on this area.

The US Cybersecurity market size was valued at \$67.7B in 2023.

And, National Landing is already poised through its infrastructure and institutional partnerships to support innovation in cybersecurity.

**Advanced Computing:** Amazon — an anchor company located in National Landing — is already a major provider of Advanced Computing solutions. This, coupled with the Northern Virginia Innovation Ecosystem, offers competitive strengths such as a concentration of data infrastructure businesses (>3.5x the national average), a concentration in the technology verticals driving the growing demand for Advanced Computing, and access to the complex federal contracting ecosystem.

The global Advanced Computing market, valued at \$20.7B in 2023, is expected to grow by 22.4% by 2032.

As with Cybersecurity, National Landing is more than prepared to support innovation in Advanced Computing through its infrastructure and institutional partnerships.

**Defense Technology:** This broad industry focus area capitalizes on the extensive presence of federal defense and national security agencies at National Landing's doorstep. Further, National Landing's research capabilities in AI, IoT, and edge / cloud computing are fundamental to defense technologies. Clearly, the Northern Virginia innovation ecosystem offers strong competitive advantages. Among them are a concentration of Defense Tech businesses (>6.5x the national average), proximity and access to federal defense customers, and a workforce with federal government and military experience.

The Defense Technology market is rapidly evolving, and is expected to grow to \$184.7B by 2027.

National Landing is ready to bolster innovation in defense technology through existing research centers (e.g. The Sanghani Center for AI and Data Analytics) and infrastructure.

In addition to these three sectors, our research surfaced three additional innovation economy opportunity areas for future growth in National Landing — Healthcare and Life Sciences, Internet of Things, and Next Generation Wireless. Future considerations for these areas are detailed in this report.

### 3. Economic Impact

We were asked to explore the economic impacts that could be supported by an innovation district. Our analysis considered the **impact an innovation district could have**. It includes the magnitude of the impacts that could be supported by an innovation district under three different growth scenarios: baseline (i.e. no innovation district), low growth (i.e. innovation district with modest growth), and high growth (i.e. innovation district with accelerated growth).

Our calculations show **promising value**. For example:

- A high growth scenario could lead to a **17% increase in jobs after ten years** in National Landing (compared to the baseline scenario).
- Based on existing office demand per employee, the high growth innovation district scenario would result in **total office demand of 22.6 million SF** — an increase of 10.8 million SF compared to today's office tenants in the district.
- With a current vacancy of 3.1 million SF of office space in National Landing, only 0.4 million to 2 million SF of additional office space would be needed if the innovation district is established.
- Considering office demand in a hybrid/remote work scenario, the innovation district could generate between **\$1.7m (low growth scenario) to \$8.7M (high growth scenario) in additional tax revenue** (depending upon the pace of job growth).

Other key findings from the economic impact analysis are included in this report.

### 4. Strategic Roadmap for Vertical Development

Arlington County, the City of Alexandria, and the National Landing BID asked CIC Captains of Innovation, Arup, and Cambridge Econometrics to develop a roadmap to drive development within one or more of the identified target industries.

Our development strategy is focused on **identifying targeted verticals within these industries and activating areas where they are naturally clustered** throughout the innovation district. We propose achieving this through programming and partnerships, while also establishing physical space dedicated to these verticals, referred to as vertical hubs.

The rationale for vertical development is myriad, and can be classified within the following sub-categories: knowledge sharing and collaboration, access to talent, productivity and efficiency, access to funding and resources, ecosystem synergies, and global competitiveness. In essence, **the clustering effect of a vertical hub creates a self-reinforcing ecosystem that drives innovation, productivity, and economic growth**.

For future steps, we provide actionable recommendations to first develop a governing entity, followed by fundraising and strategic partnership development. With a strong entity formed and working capital secured, we then recommend turning attention to launching innovation programming and an exploration of physical space in service of the named industry verticals.

## 5. Governance Models

This report explores various structures that could be suited for the National Landing Innovation District, evaluating advantages and disadvantages to determine the optimal governance model. Doing so requires careful consideration of several guiding perspectives:

- The selected governance structure should enable the innovation district to attract and manage a wide range of funding sources, including public, private, and philanthropic contributions.
- The organization's structure should prioritize the innovation district's mission to drive economic growth, foster collaboration, and promote equitable development.
- The governance model should be equipped for efficient, decisive, and inclusive decision-making.
- The organizational structure should be designed to accommodate future expansion.

In this report, we share three selected peer innovation districts — Kendall Square (Cambridge, MA), University City (Philadelphia, PA), and Tech Square (Atlanta, GA) — and provide a succinct examination of their governance structures. In addition, an examination of three possible governance models for National Landing is outlined: 1) National Landing Business Improvement District (BID), 2) Public Benefit Corporation, and 3) 501(c)(3) Nonprofit Organization. Of the three, the second and third would be newly created entities.

From our analysis emerges a clear recommendation: the **NLID governance structure should be a newly established independent non-profit 501(c)(3)**. Why? We determined that this structure allows for the convening of a broadly representative board (composed of anchor institutions, companies, public agencies, and community organizations). In addition, it will provide access to diverse operational and project funding streams. In this report, we outline a **six month process implementation roadmap** to establish the non-profit 501(c)(3):

1. Create an organizational business plan;
2. Decide on the basic governance structure of the NLID nonprofit;
3. Formalize boundaries;
4. Identify potential NLID board members and stakeholders;
5. Develop background informational materials for the above parties;
6. Create a funding strategy and secure startup capital commitments;
7. Meet with potential NLID board members & stakeholders;
8. Finalize the initial governance and advisory boards;
9. Formally launch the NLID nonprofit;
10. Action on further next steps (e.g. hire key employees).

## 6. Steering Committee Alignment

Between June and November 2024, Captains conducted a series of meetings, interviews, and workshops with a pre-selected group of steering committee members for the development of the National Landing Innovation District. These mission-critical engagements enabled us to introduce committee members to this project, collect qualitative feedback, align members on a vision and mission for the district, and more. The following is an example of a mission statement developed in one of the facilitated workshops:

*"Our mission is to accelerate and strengthen the district's defense technology, cybersecurity, and advanced computing ecosystems to empower innovators to unlock unparalleled growth opportunities globally through connections to federal decision-makers, access to specialized equipment, and world-class programming that engages the community."*

## 7. Funding Sources Analysis and Budget Projection

In this report, we provide a detailed budget projection over the first three years of the organization, outlining estimated costs for key areas such as labor, programming, support and other operational expenses. Our projections indicate that the total cost will be approximately \$1.2M in year one, \$1.8M in year two, and \$1.9M in year three (see Figure 1). These projections take into account a ramp up period and other necessary considerations.

	Year 1	Year 2	Year 3
<b>LABOR</b>			
CEO or Managing Partner	\$ 175,000	\$ 350,000	\$ 350,000
Bus. Dev. Senior Leader	\$ -	\$ -	\$ 250,000
Programming Manager	\$ -	\$ 115,000	\$ 115,000
Fundraiser / Resource Developer	\$ -	\$ 115,000	\$ 115,000
Administrative Assistant	\$ 40,000	\$ 80,000	\$ 80,000
<b>Total Labor (est.)</b>	<b>\$ 215,000</b>	<b>\$ 660,000</b>	<b>\$ 910,000</b>
<b>OPERATIONS</b>			
Programming Expense	\$ 200,000	\$ 300,000	\$ 300,000
Marketing Expense	\$ 100,000	\$ 150,000	\$ 150,000
Rent Expense	\$ 6,000	\$ 24,000	\$ 36,000
<b>Total Operations (est.)</b>	<b>\$ 306,000</b>	<b>\$ 474,000</b>	<b>\$ 486,000</b>
<b>SUPPORT</b>			
Consultants	\$ 450,000	\$ 450,000	\$ 300,000
Misc. SG&A	\$ 250,000	\$ 250,000	\$ 250,000
Pro Bono Stakeholder Support	\$ -	\$ -	\$ -
<b>Total Support (est.)</b>	<b>\$ 700,000</b>	<b>\$ 700,000</b>	<b>\$ 550,000</b>
<b>Total Cost</b>	<b>\$ 1,221,000</b>	<b>\$ 1,834,000</b>	<b>\$ 1,946,000</b>

Figure 1. 3-Year Budget Projection

Then, proposed funding sources are categorized by type (public, corporate, philanthropic, institutional) and presented in a summarized list which can be utilized in the future when a more detailed funding strategy is built.

## 8. What's Next

The National Landing Innovation District represents a bold and strategic vision to harness the region's unique strengths and position it as a global leader in cybersecurity, advanced computing, and defense technology. This initiative, developed collaboratively by CIC Captains of Innovation, Arup, and Cambridge Econometrics, provides a comprehensive roadmap to drive economic growth, foster innovation, and enhance community well-being.

The next steps are critical to transforming this vision into reality. They include forming a governing entity with leadership selected by key community stakeholders and prioritized industry leaders. This entity will ensure the district remains mission-driven and adaptable to future opportunities. Equally important is the development of working capital to establish a strong founding team. This team will spearhead the implementation of strategic initiatives, build partnerships, and create the infrastructure necessary to bring the innovation district to life. Together, these actions will catalyze the National Landing Innovation District as a thriving hub of innovation and collaboration.

### CIC Captains of Innovation

One Broadway, 14th Fl, Cambridge, MA 02142

### Arup

77 Water St, New York, NY 10005

### Cambridge Econometrics

5 Strong Ave, Ste 207-210, Northampton, MA 01060

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