Division of Economic Opportunity

FREDERICK COUNTY
MARYLAND

FREDERICK COUNTY MD
Office of Economic Development

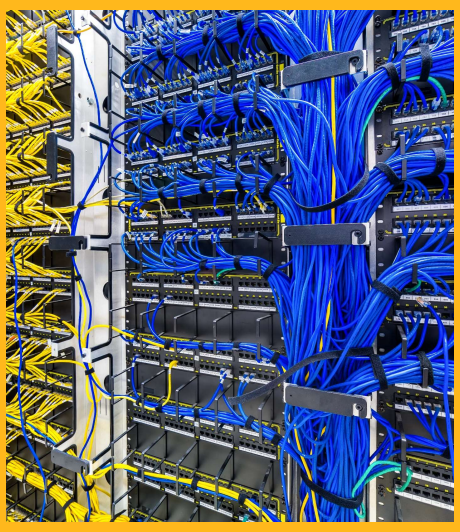
FREDERICK COUNTY
WORKFORCE SERVICES

Our Mission

The Division of Economic Opportunity leads Frederick County's vibrant economy by creating innovative and compelling opportunities for residents and businesses. We do this by serving as collaborative partners to streamline processes, access resources and facilitate economic progress.

1

What is a Data Center?



A data center is a facility that houses equipment and technology for the storage of and access to data and applications. More specifically, it is a physical facility that organizations use to house their critical applications and data.

2

Types of Data Centers

1. Enterprise
2. Managed services
3. Colocation
4. Cloud

3

Data Centers in Frederick County

Social Security Administration
The data center is responsible for maintaining earnings and benefits information for nearly every American worker, processing 75 million transactions per day. The building was constructed to use 30 percent less energy than the typical data center with LED lighting, a dedicated substation and an efficient heating and cooling system.

Fannie Mae
Fannie Mae regional data center is a 220,000 sf data center facility that received Fast Track Permitting. With 90,000 sf of office space, a 60,000 sf data center, and a 70,000 sf MEP facility. The facility was designed with redundant utility feeds including electrical, water, and telecommunications. The Fannie Mae Data center was one of the first data centers in the country to receive LEED certification.

4

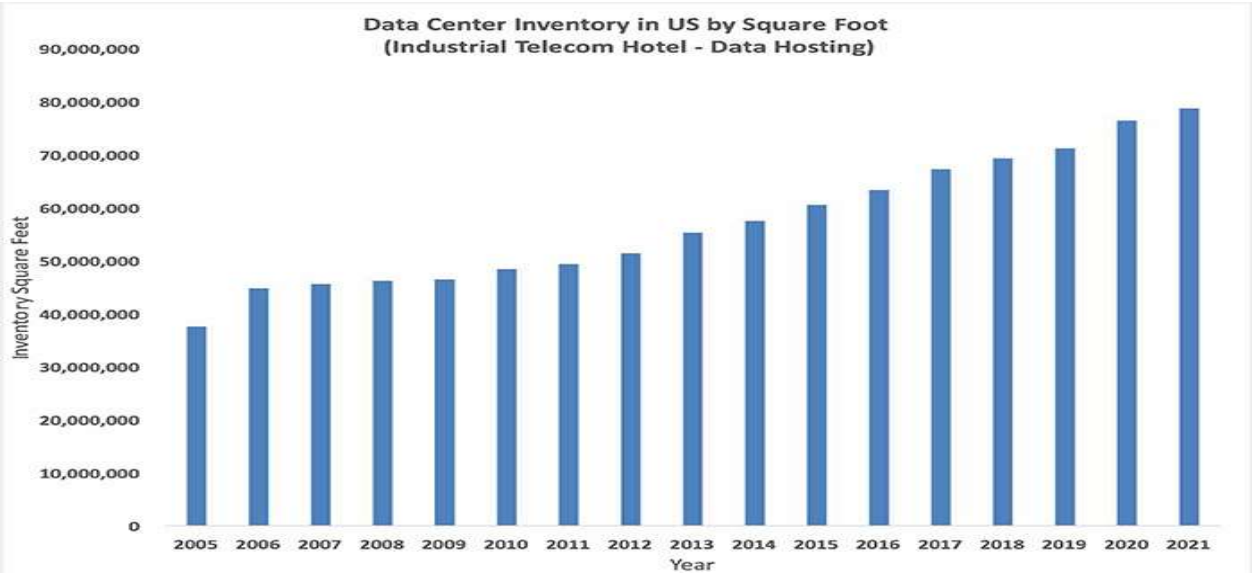
Data Center Industry

Trends

1. Real Estate
2. Economic Trends
3. National Economic Impact

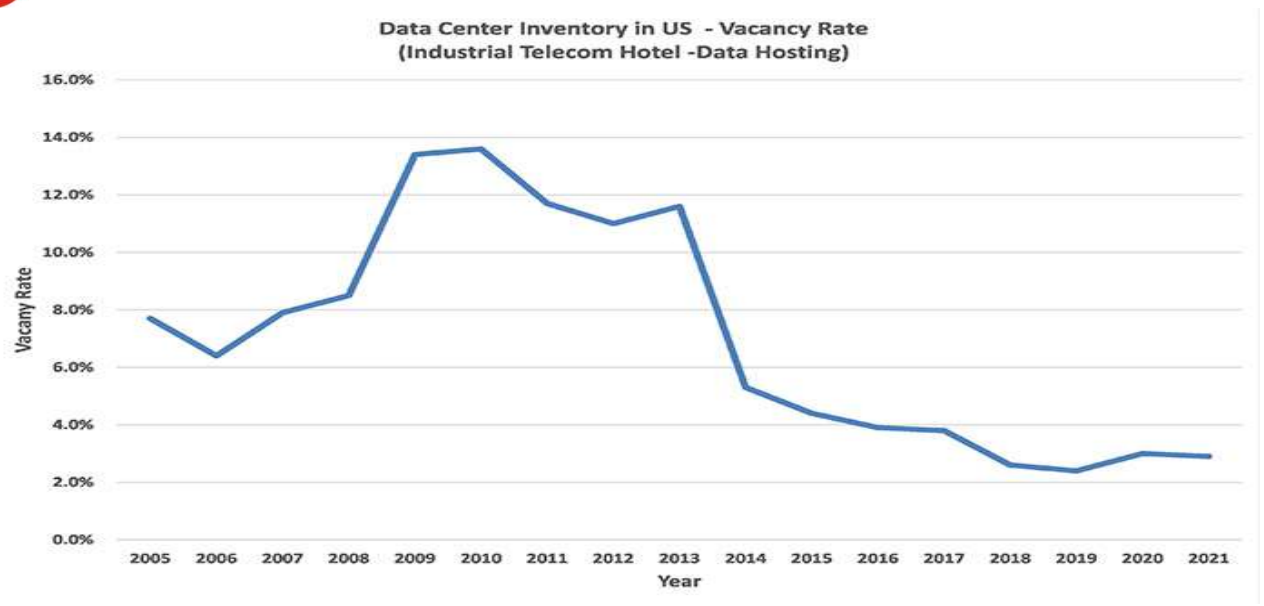
5

Real Estate



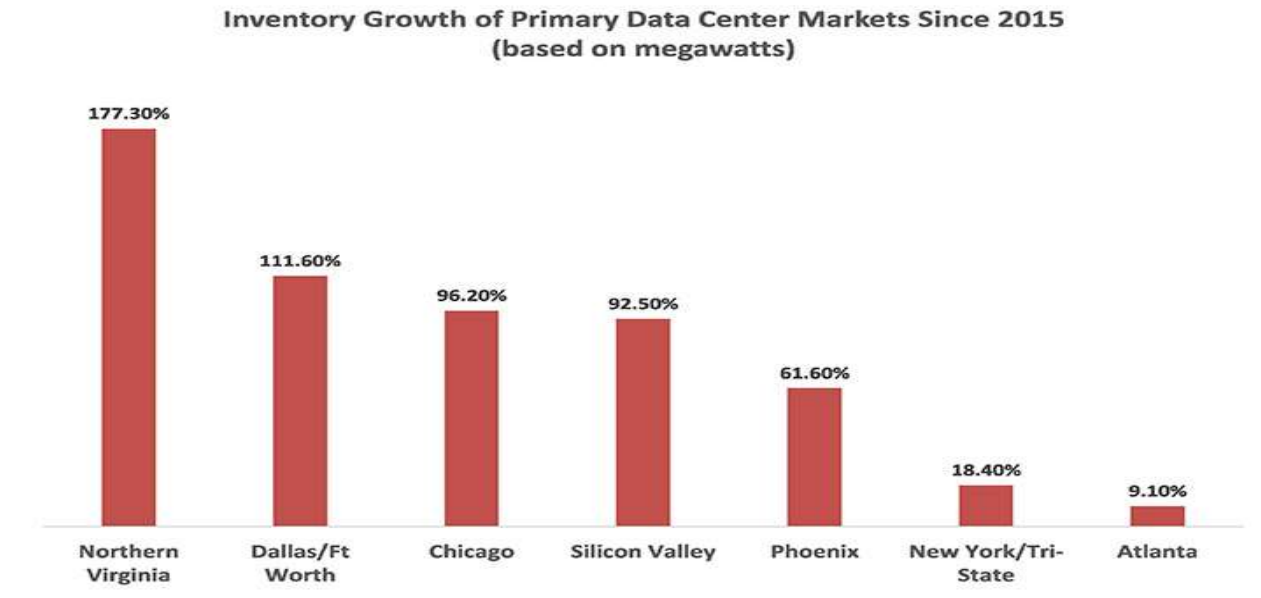
6

Real Estate



7

Real Estate



8

Co-Location Economics

IBISWorld

In 2021 the colocation data center industry in the U.S. consisted of:

- $13.2 billion in revenue
- 535 businesses
- 36,885 employment
- Major companies include Equinix Inc. with 21.2% market share and Digital Realty with 2.5% market share

9

Impact of Data Centers

U.S. Chamber of Commerce

- 25 million terabytes
- During Construction: 1,688 local workers are employed and an average of $243.5 million in output is generated.
- $9.9 million in revenue for state and local governments
- 43%

10

Greening of the Industry

Energy

- A study published in the journal, Science in 2020 found that through energy efficiency initiatives data centers have been able to grow more sustainably.

Water

- Data Center industry is looking beyond water management to broader water stewardship by contemplating actions to replenish the water resources they consume and contribute to the overall health of the watershed

Other Greening

- Greening of the industry ranges from use of renewables, LEED certification, use of sustainable building materials, power, and water usage effectiveness, and more

11

Key Location Factors

- **20-mile radius and proximity to other data centers**
- **Price of energy**
- **Redundancy of energy/electricity**
- **The availability of green energy**
- **Access to ICT infrastructure – including for proximity to subsea cables that carry information across oceans, to land based fiber, to facilities and equipment along the information chain of transmission, processing, and distribution**
- **Access to engineers and technicians (network specialists, wiring technicians, electricians, heating and air conditioning specialists, security specialists, and more)**
- **Safe external factors – such as low risk for natural disasters and weather**
- **Available land and sites – large site sizes and the ability to acquire and gain local approval**
- **Nearby demand for high volume storage and transmission of data – complementary industries**

12

Future Vision

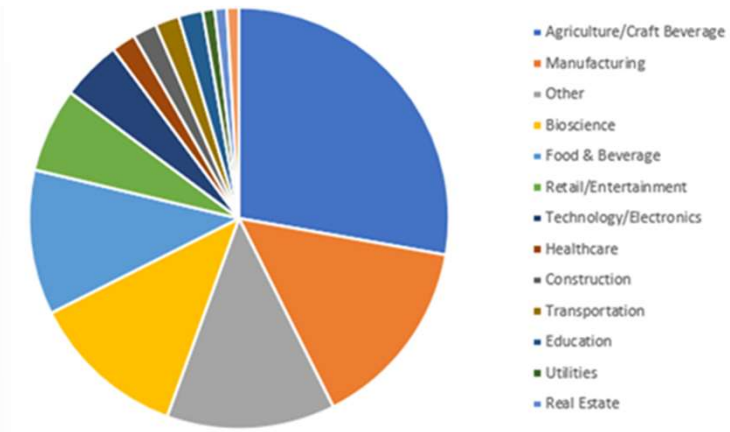
Value Chain

- Cloud and edge computing
- Quantum computing
- Sensors
- Photonics
- Satellite technology
- Internet of Things
- Autonomous vehicles
- Smart Cities and Smart Infrastructure
- Artificial intelligence

13

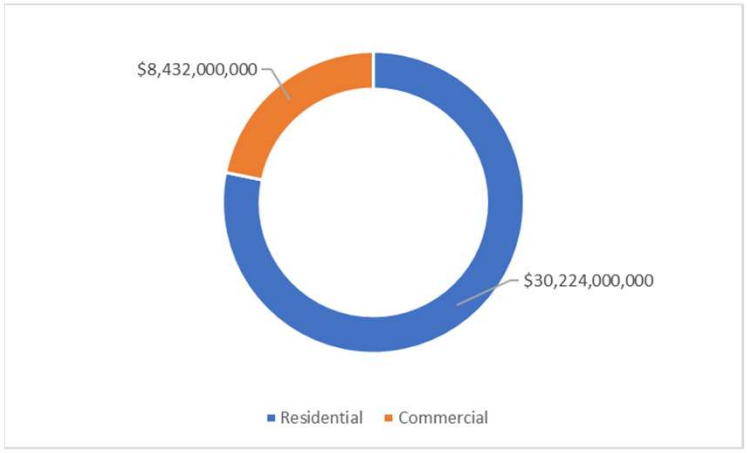
Current Project Pipeline

109 **Prospects**



14

FY 2022 Tax Base



15

Expanding the Tax Base

2022 Real Property	
Total Assessable Base	$38,656,000,000
Commercial Base	$8,432,000,000
Percent of Total Base	22%
25% Commercial Base Goal	$9,664,000,000
Additional base Needed	$1,232,000,000
Kite Pharmaceuticals	
9021 Bennett Creek Blvd, Frederick, MD 21704	
Square Footage	297,000
Assessment	122,704,400
*As of 7/31/2023 source: SDAT	
Number of Kite Pharmaceutical Buildings Needed to reach 25% of Base	**10**
Average Annual Absorption (in sq. ft)	300,000
Years to achieve	10

16

Expanding the Tax Base

Image of Aligned building rendering Loudon

2022 Real Property	
Total Assessable Base	$38,656,000,000
Commercial Base	$8,432,000,000
Percent of Total Base	22%
25% Commercial Base Goal	$9,664,000,000
Additional base Needed	$1,232,000,000
Aligned Data Center	
21890 UUNet Drive, Ashburn, VA	
Square Footage	368,624
Assessment	311,575,780
*As of 7/31/2023 source: Loudon County Assessor	
Number of Aligned buildings	**4**
Needed to reach 25% of Base	
Average Annual Absorption (in sq. ft)	300,000
Years to achieve	5

17

18