

# Booz Allen's Innovation Hub Engagement Strategy

Connecting Federal Innovation Funds with  
Entrepreneurs to Accelerate Commercial Innovation

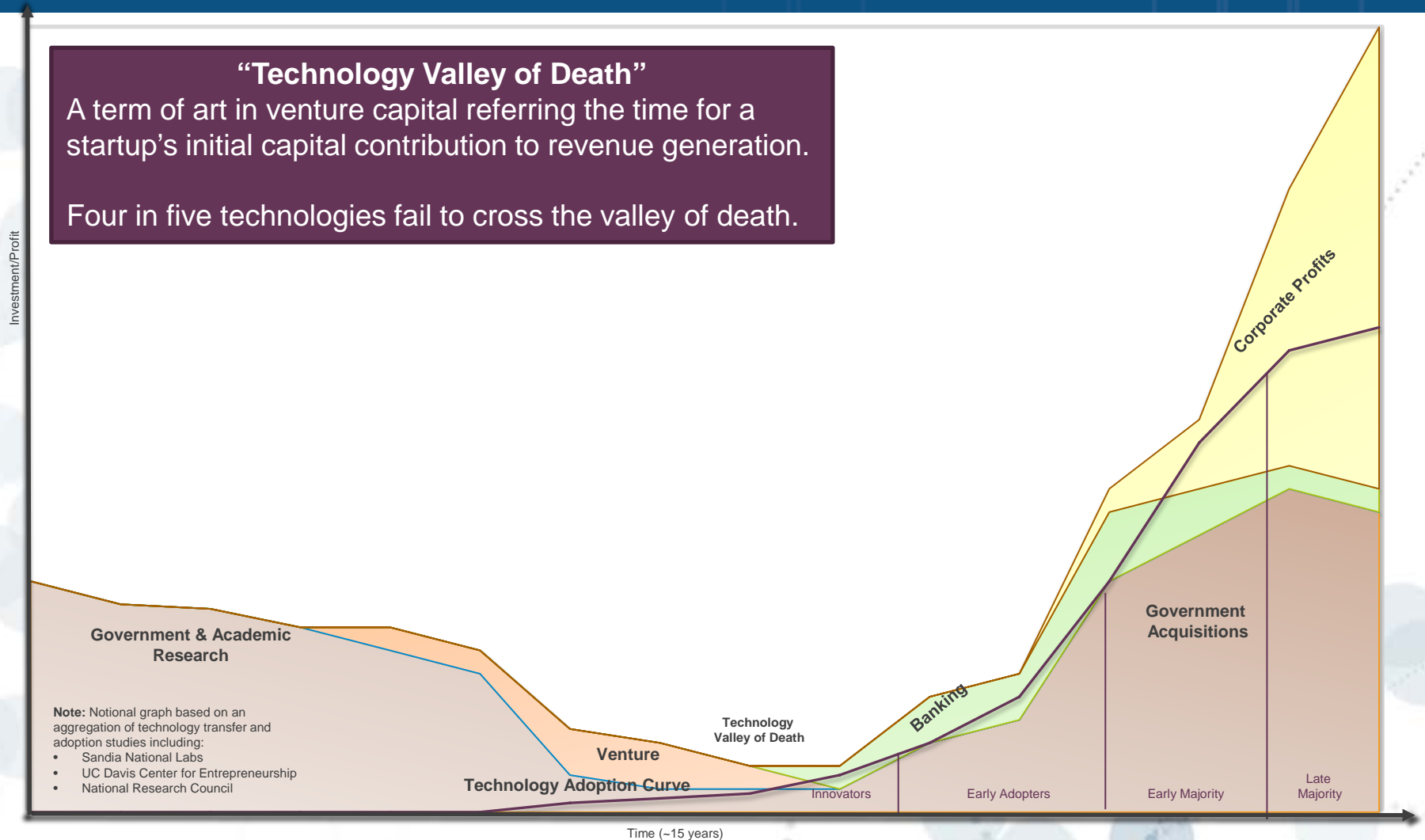


# The “Technology Valley of Death” describes the difficulty of progressing R&D to commercialization.

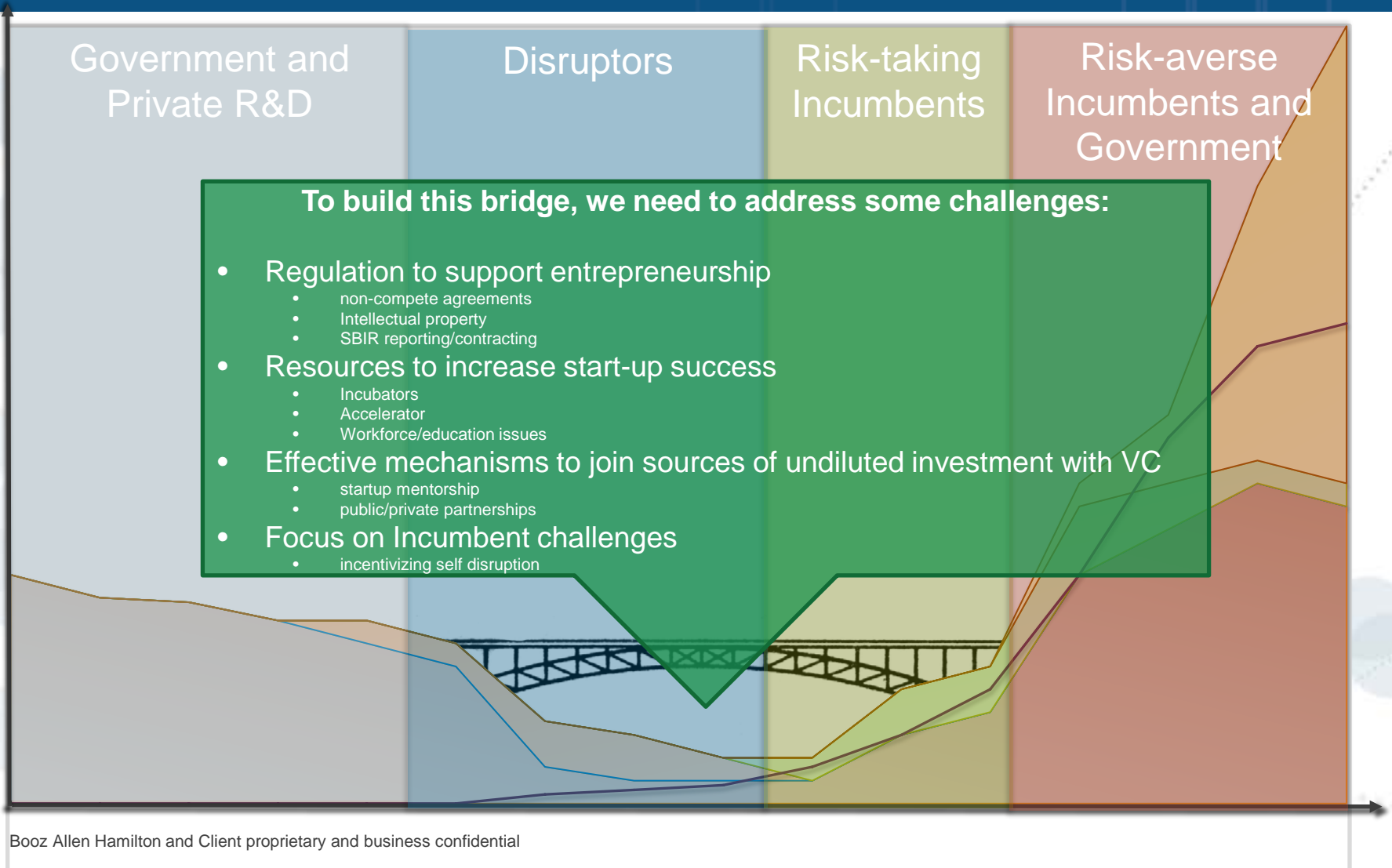
## “Technology Valley of Death”

A term of art in venture capital referring to the time for a startup’s initial capital contribution to revenue generation.

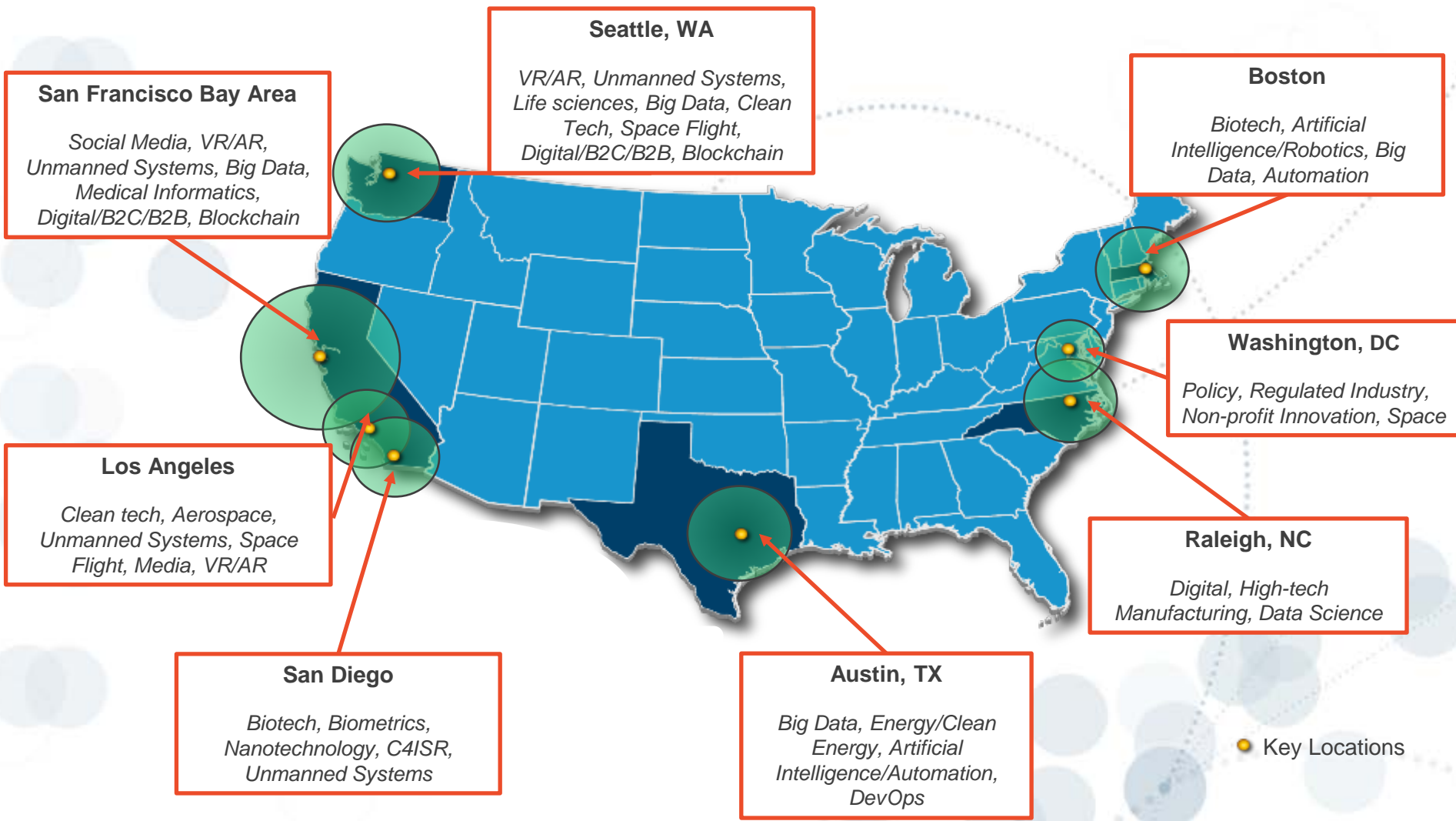
Four in five technologies fail to cross the valley of death.








# Question: How can government and the private sector organize to bridge this divide?



# Booz Allen is investing in top eight US innovation hubs, helping to be a bridge for innovation.



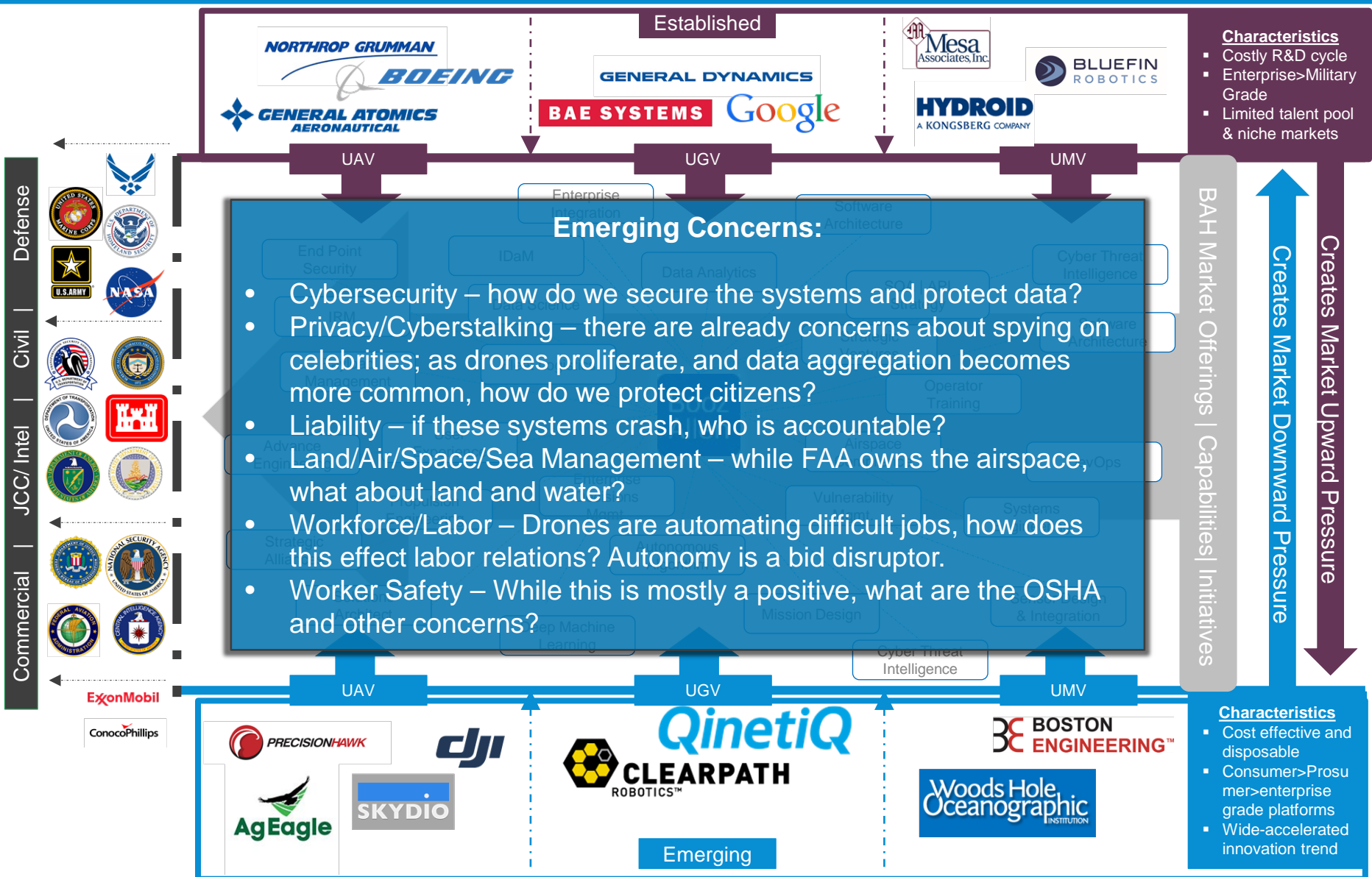
# Some interesting Case Studies...

Logo	Description	Mechanisms
	<p>CoMotion is a collaborative hub for expanding the societal impact of UW by connecting to local and global innovation ecosystems</p>	<ul style="list-style-type: none"> <li>• Incubation</li> <li>• Shared Resources</li> <li>• IP support</li> </ul>
	<p>A community space in Seattle for health care innovation established by The Regence Group to grow the Washington State Health Care Innovation sub-sector.</p>	<ul style="list-style-type: none"> <li>• Reverse Pitch Events</li> <li>• Mentorship</li> </ul>
	<p>PortTechLA brings together entrepreneurs, strategic partners, and investors to accelerate innovation, advance clean technologies and create economic opportunities related to the port.</p>	<ul style="list-style-type: none"> <li>• Pitch Events</li> <li>• Seed Funding for Startups</li> </ul>
	<p>LightSpeed Innovations is a start-up accelerator with a mission to re-invigorate the Southern California Aerospace Industry.</p>	<ul style="list-style-type: none"> <li>• Acceleration program for startups</li> <li>• Shared resources</li> </ul>
	<p>DIUx (SF, Boston) – accelerates innovative technology into the hands of the men and women in uniform.</p>	<ul style="list-style-type: none"> <li>• Customer Validation</li> <li>• Streamlined acquisitions</li> <li>• Interagency coordination</li> </ul>





Unmanned systems will have a dramatic effect on the technology and regulatory landscape from security to labor and education.



Sources: Strategic Ventures Analysis

# Experiential Technology is on the brink of commercialization – it will dramatically effect the way we work.

## Virtual Reality



Oculus Rift



HTC Vive



Samsung Gear VR



Leap Motion (Hand Tracking)



## Augmented Reality

MS Hololens



Google Project Tango

Daqri Industrial Helmet



PTC Vuforia

## Horizon Technologies

Lightfield Displays (Zebra Imaging, NVIDIA)



Brain-Computer Interface (Muse, Emotive)



Voice Recognition/Control (Amazon Echo, Siri)



Sensory Extension (VEST, SuperVentures)



Eyefluence (Eye Tracking)

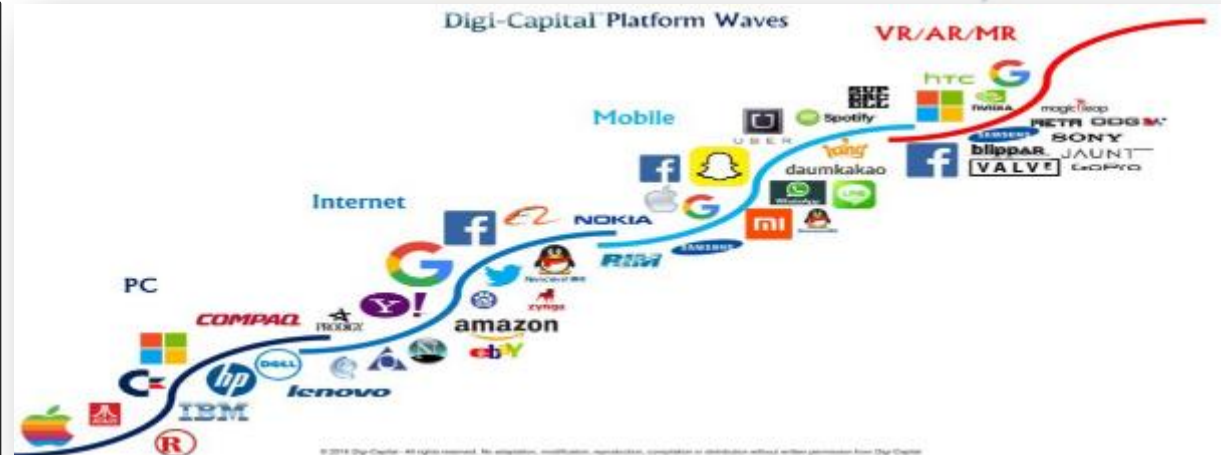


Sand Display (US Army)



## Emerging Concerns:

- Privacy
- Cybersecurity
- Biometric Security
- Public Safety
- Data Ownership





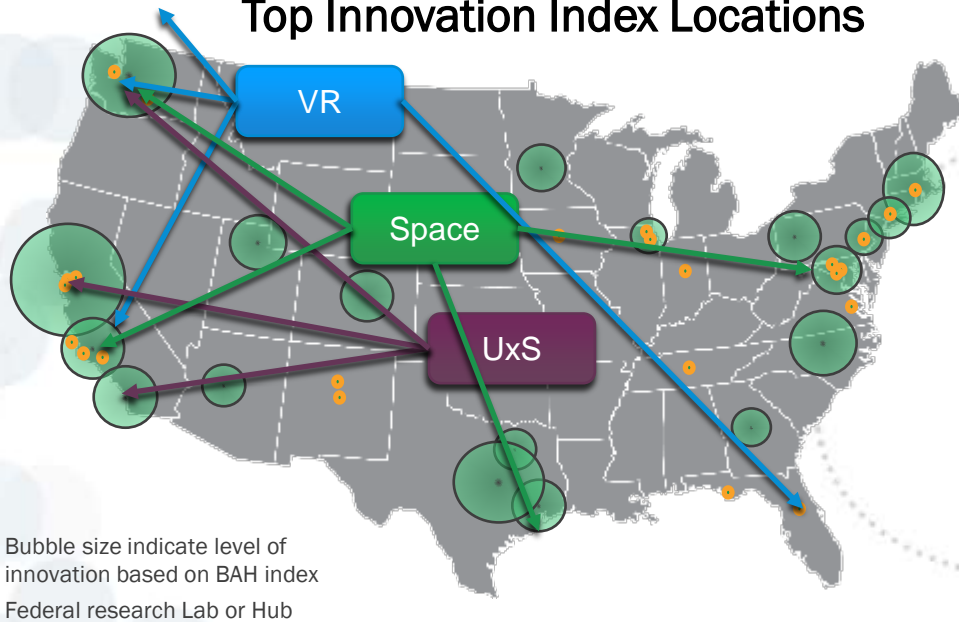


SW Seattle St

1845

# Innovators cluster around a mix of incumbent industries, universities, and research labs.

## Top Innovation Index Locations



## Innovation Hub Attributes

- + Concentrations of accelerated ideation and entrepreneurship
- + Formal and informal network of investors, entrepreneurs, patents, and cutting-edge companies
- + Tend to have mixed economies with incumbent business, university and government research labs, and start-up activity

	Booz Allen Innovation Index Rank	Booz Allen Innovation Index Value	Focus
1	San Francisco	2.26	Social Media, VR/AR, Unmanned Systems, Big Data, Medical Informatics, Digital/B2C/B2B, Blockchain
2	Seattle	1.52	VR/AR, Unmanned Systems, Life sciences, Big Data, Clean Tech, Space Flight, Digital/B2C/B2B, Blockchain
3	Austin	1.47	Big Data, Energy/Clean Energy, Artificial Intelligence/Automation, DevOps
4	Boston	1.31	Biotech, Artificial Intelligence/Robotics, Big Data, Automation
5	Raleigh	1.31	Digital, High-tech Manufacturing, Data Science
6	San Diego	1.24	Biotech, Biometrics, Nanotechnology, C4ISR, Unmanned Systems
7	Los Angeles	1.22	Clean tech, Aerospace, Unmanned Systems, Space Flight, Media, VR/AR

Based innovation metrics (venture, capital, patents, growth projection, startup activity, startup success, federal R&D funding), Booz Allen ranked innovation economies.

	Booz Allen Innovation Index Rank	Booz Allen Innovation Index Value	Innovation Cities Index	24/7 Wall Street Most Innovative Cities	Forbes Inventive Cities	Ewing Marion Kauffman Foundation, Startup Rating
1	San Francisco	2.26	Boston	Boston	San Diego	San Jose
2	Seattle	1.52	New York	San Francisco	San Francisco	Seattle
3	Austin	1.47	San Francisco	New York	Boston	Denver
4	Boston	1.31	Seattle	Seattle	Minneapolis	San Francisco
5	Raleigh	1.31	Los Angeles	Los Angeles	Seattle	Washington, DC
6	San Diego	1.24	Washington, DC	Philadelphia	Raleigh	Raleigh
7	Los Angeles	1.22	Philadelphia			Austin
8	Salt Lake City	1.11	Chicago			Portland
9	Houston	1.05	Dallas			
10	Denver	1.02	Austin			
11	Pittsburgh	1.02	Raleigh			
12	Washington, DC	0.96	San Diego			
13	Minneapolis	0.94	Orlando			
14	Phoenix	0.84	Portland			
15	Dallas	0.83	Minneapolis			
						*Filtered to only include cities > 500,000 *Included cities that can be supported from relevant main office

Source: Please see the Appendix for the methodology used to define this index. [Innovation Cities Index \(2012\)](#) [24/7 WallSt.com Most Innovative Cities in America \(2011\)](#) [Forbes Most Inventive Cities \(2013\)](#) [Entrepreneur.com Best Tech Startup Cities \(2013\)](#)

\*Filtered to only include cities > 500,000  
\*Included cities that can be supported from relevant main office

# Booz Allen defined ranked Innovation Hubs based on a variety of factors relevant to innovation.

$$\text{Innovation Index} = \sqrt{\frac{P}{\text{Pop}} + \frac{V}{\text{GDP}} + \frac{S \cdot S_e}{\text{Pop}} + \frac{G}{\text{GDP}} + B}$$

Variable	Measure	Description	Source
P	Patents	A patent represents an invention and thus a good stand-in for innovation. However, not all industries file patents at the same rate, i.e. the life sciences tend to require more patents than B2C and B2B technology companies.	data extracted on 09 Oct 2013 05:34 UTC (GMT) from OECD.Stat
V	Venture Capital Spending in 2012	Venture capital investments are hard to measure by city, but the Martin Prosperity Institute researched individual deal and published this data using 2012 filings.	<a href="http://www.theatlanticcities.com/jobs-and-economy/2013/06/americas-top-metros-venture-capital/3284/">http://www.theatlanticcities.com/jobs-and-economy/2013/06/americas-top-metros-venture-capital/3284/</a>
S	Crunchbase Startups and Incubators & SBIR Recipients	CrunchBase is the free database of technology companies, people, and investors that anyone can edit. Theoretically, a company listed in CrunchBase will likely be started by a reasonably engage/influential founder. SBIR recipients represent start-ups with a stable revenue stream	<a href="http://crunchbase.com">http://crunchbase.com</a> <a href="http://sbir.gov">http://sbir.gov</a>
Se	Established Startups	Some economies have fostered startups that have grown in to industry leaders. Arguably, these pack leading startups should carry more weight than your average startup.	Fortune 1000 list
G	Future Growth Projection	McKinsey conducted a study in 2010 predicting the growth prospects through 2025 given current economic conditions and trends.	<a href="http://www.mckinsey.com/insights/economic_studies/global_cities_of_the_future_an_interactive_map">http://www.mckinsey.com/insights/economic_studies/global_cities_of_the_future_an_interactive_map</a>
B	Buzz	There are several innovative city indexes that take in to account some of the above factors as well as availability of educated/skilled talent, schools, likelihood that employees would move to the city, regulation, and work/life balance. This measure is just an average of these rankings	<a href="http://www.entrepreneur.com/article/227829">http://www.entrepreneur.com/article/227829</a> ; <a href="#">Innovation Cities Index (2012)</a> ; <a href="#">24/7 WallSt.com Most Innovative Cities in America (2011)</a> ; <a href="#">Forbes Most Inventive Cities (2013)</a> ; <a href="#">Entrepreneur.com Best Tech Startup Cities (2013)</a>
Pop	Population	Based on U.S. Census 2010 data and 2012 projections	<a href="http://en.wikipedia.org/wiki/List_of_Metropolitan_Statistical_Areas">http://en.wikipedia.org/wiki/List_of_Metropolitan_Statistical_Areas</a>
Gdp	Gross Domestic Product	U.S. Department of Commerce. September 13, 2011 – These are all Metro area statistics with San Jose listed in San Francisco, Baltimore listed in Washington, DC, and Providence listed in Boston.	<a href="http://en.wikipedia.org/wiki/List_of_U.S._metropolitan_areas_by_GDP">http://en.wikipedia.org/wiki/List_of_U.S._metropolitan_areas_by_GDP</a>