Washington State's Space Economy Opportunities

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Washington State Department of Commerce

Aerospace in Washington State

- The state's aerospace sector includes:
  - Commercial and Military Aircraft
  - Unmanned and Autonomous Systems
  - Urban Air Mobility
  - Advanced Flight Propulsion Technologies (electric, hydrogen, sustainable fuels)
  - Air Cargo
  - Airports
  - Airlines
  - Space

Why Space?





- Historical significance
- Economic diversity and resiliency
- New investment dollars
- Creates new jobs
- Provides new business opportunities to existing Washington aerospace companies
- Provides new employment opportunities to existing Washington aerospace workers.

Washington Space Industry

- An important part of Washington's economy for more than six decades
  - Boeing began building the Lunar Roving Vehicle (LRV) at their Kent facility in 1969, and the first vehicle was delivered just 17 months after the contract was signed. Three LRVs remain on the moon, and were designated as Washington State Historic Landmarks in October 2020.
  - Other projects included ICBMs and the International Space Station.
  - Redmond's Aerojet Rocketdyne's contributions to the national space program have been equally significant. Apollo 11 transported the first astronauts to the moon's surface and safely back home in 1969, and they have taken part in every space shuttle mission flown among many other milestones.
  - New entrants include
    - Blue Origin – Commercial space travel
    - SpaceX Starlink –High speed internet beta service domestically and internationally
    - LeoStella - Manufacturing small satellites cost-effectively and at scale.
    - Project Kuiper – Low Earth Orbit satellites high-speed broadband connectivity to unserved and underserved communities around the world
    - Starfish Space – Small space tugs to provide on-demand in space transportation services



LEO STELLA



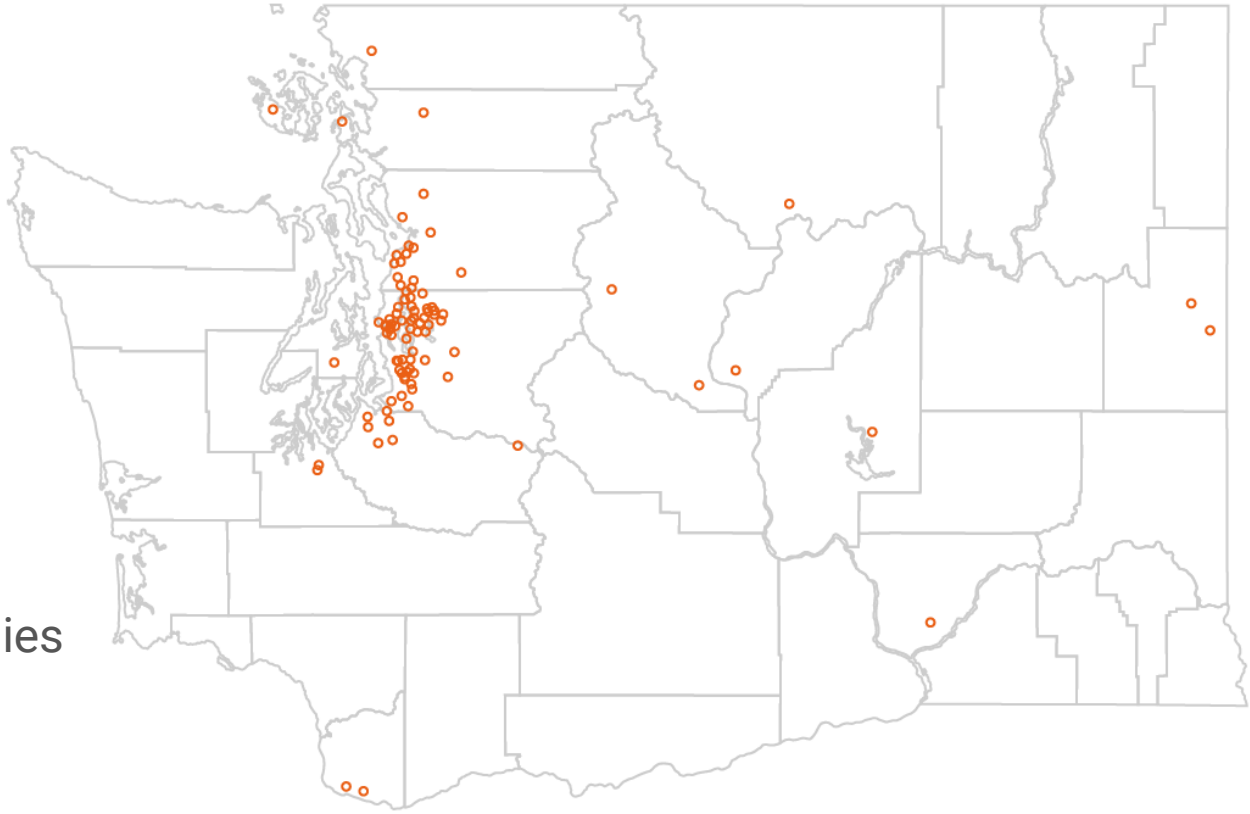
SPACEX



STARFISH SPACE

Space Industry Footprint

- Nearly 100 companies
- 38 cities
- Urban and rural



- Launch vehicles
- Propulsion
- Satellites and Imagery
- R&D
- Communication systems
- Cloud-based IT
- Training systems
- Landing gear
- Mission systems
- Fusion science
- Testing
- Ground stations

Space Economy Opportunities

- Recruitment of primes and subsectors
- Consider expansion of aerospace incentives or creation of new incentives to help support space entrepreneurs and startups
- Address specific workforce needs for space
- Ensure that infrastructure needs are met
- Recruit federal agencies
- Educate congressional and state delegations
- Marketing programs

Why is Space Relevant to You?

- SpaceX Project – Olympia Peninsula
  - The Hoh Tribe in Forks, Washington experienced issues with access to stable Internet
  - Department of Commerce's Broadband Office commitment to bringing high-speed Internet to all areas of the state by 2024
  - The Broadband Office worked with SpaceX Starlink to provide access to the tribe
  - Starlink satellites were installed on a number of homes
  - Reliable, high-speed Internet now provides opportunities for tele-health, remote work, online schooling

Opportunities for the Future

- Space Development Center
  - University run research, development, and testing labs
- Offices, training classrooms, and event hall for industry enabling entities
  - Aerospace and space workforce development groups
  - Business accelerators/incubators
  - Office space for eventual federal FTEs as part of small agency presence
- Business park with private space sector tenants

Prospective Partners













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