

Joint Legislative Committee on Semiconductors

January 30, 2023

**Mayor Travis Stovall
Keith Leavitt**

**Mayor, City of Gresham
Port of Portland**



SEIZING OPPORTUNITY

Initial Report and Subcommittee Findings
Oregon Semiconductor Competitiveness
Task Force

August 2022

Key Findings of the Industrial Lands Subcommittee

Oregon must have development-ready sites for the semiconductor industry in a range of sizes, configurations and locations:

- **Two (2) sites of 500+ acres**
 - *advanced R&D or production fabrication operations*
- **Four (4) sites of 50-100+ acres**
 - *Device manufacturers or equipment manufacturers*
- **Eight (8) sites of 15-35 acres**
 - *key suppliers to the ecosystem*



Recommendations for the Legislature

- Prepare and maintain a comprehensive statewide industrial lands inventory
 - *focused on opportunities in the semiconductor industry but also advanced manufacturing across all corners of Oregon*
- Support the legislative concepts proposed by DLCD (POP 207) and Business Oregon (L.C. #357).
 - *The funding for site readiness tools required to be competitive, however, needs to be substantially higher than called for in either of these concepts.*
- Create a strategic manufacturing fund within Business Oregon as part of the State's Regional Industrial Site Readiness Program (RSIS).
 - *Capitalize the fund this legislative session with an initial fun of at least \$300-500 million.*
 - *Limit application to land aggregation and site readiness for sites suitable for the semiconductor industry*
 - *The fund should be expanded to jump-start advanced manufacturing industries statewide*

Why the Port is Involved

- Leadership in industrial land and international trade
- Semiconductor industry critical to trade
- Advanced manufacturing = a more equitable economy
- Opportunity requires we are “all-in”



OREGON EXPORTS

Semiconductor Manufacturing

\$12.9 B

Oregon Semiconductor
Sales in 2019

2nd

Largest Producer in the U.S.

\$10.5 B

Oregon Semiconductor
Exports in 2020

3rd

Largest Exporter in the U.S.

\$3.9 B

Growth in Oregon
Semiconductor
Exports From 2010 to
2020

2nd

Largest Growth of
Semiconductor Exports in
the U.S. From 2010 to
2020



Semiconductors made up 42% of
Oregon's total exports in 2020

7.2%

Share of Oregon's GDP
Attributed to Computer &
Electronics Manufacturing

\$6.2 B

Increase in Computer &
Electronics Manufacturing
GDP From 2009 to 2019

Source: Oregon Employment Department

A critical opportunity for equitable economic dev

Semiconductor



Manufacturing



All other



- High school or below
- Some college
- Associate's degree
- Bachelor's degree
- Graduate degree

Source: ACS 2019, Oxford Economics tabulations

*Nearly half of semiconductor
industry workers have HS or
Community College degrees*

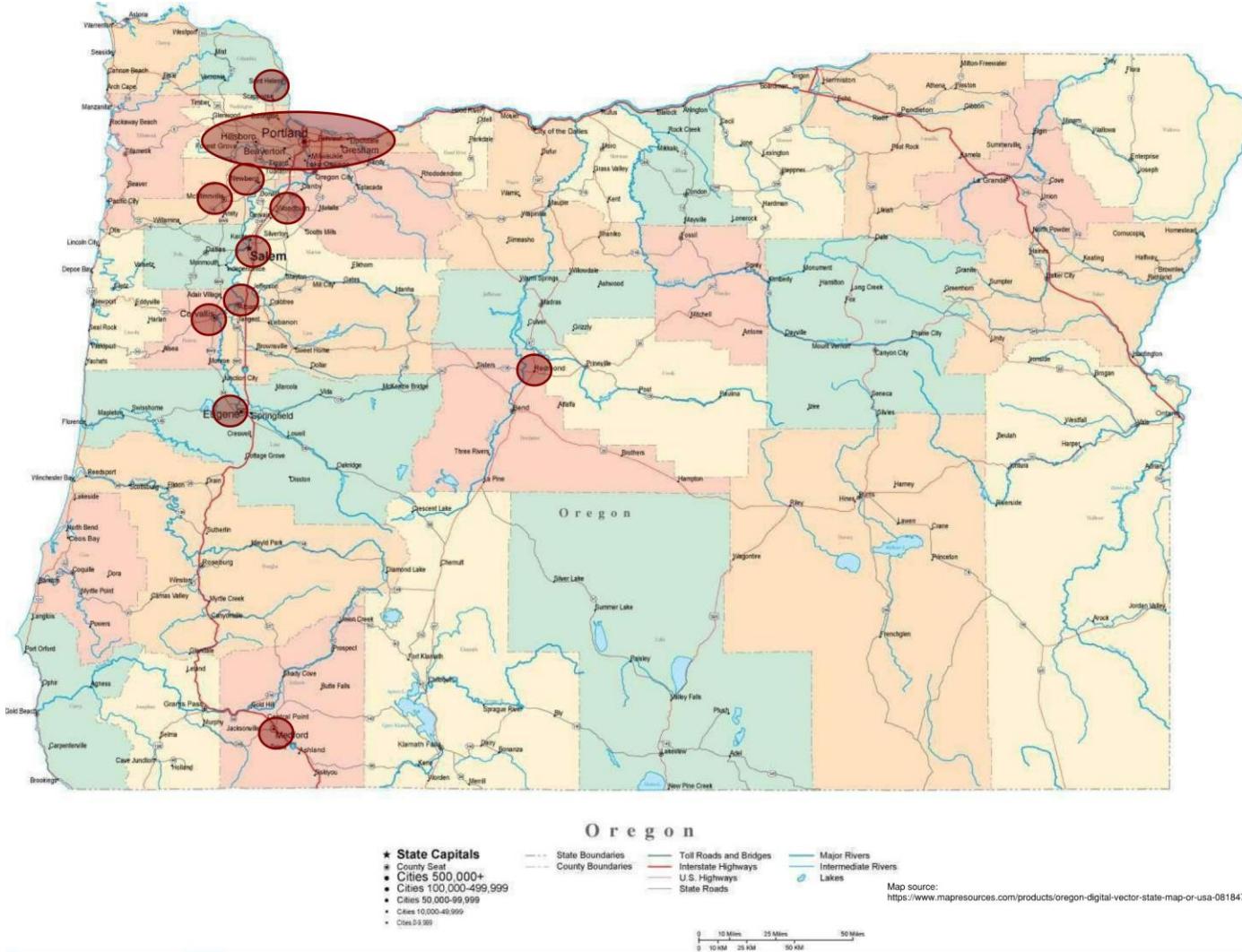
Portland Metro Industrial Site Readiness

Mackenzie served as the lead Industrial Lands consultant for each of the analyses over 10 years

SITES BY TIER

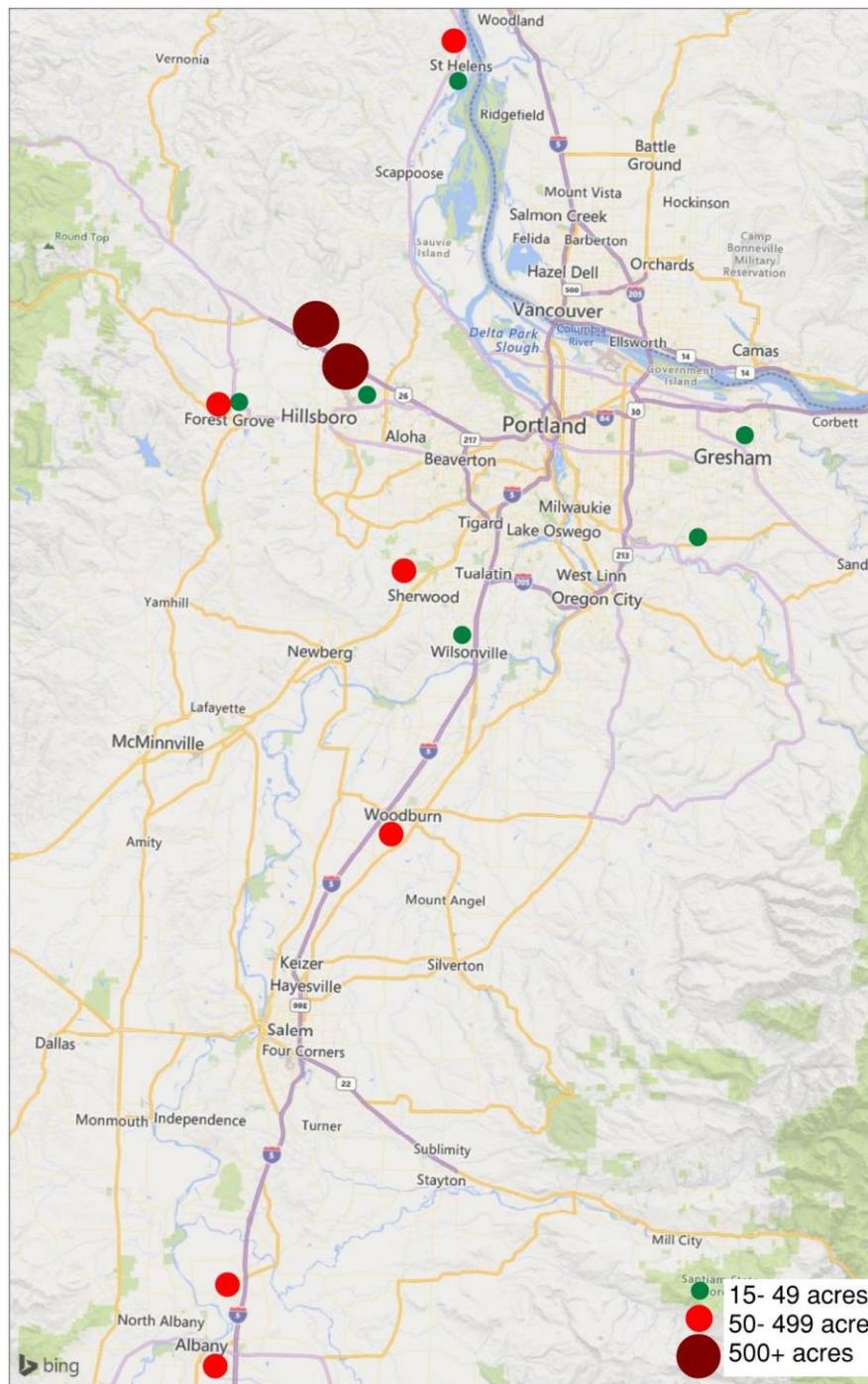
	2011 Inventory	2014 Inventory	2017 Inventory	2022 Inventory
Tier 1	9	14	10	2
Tier 2	16	17	11	6
Tier 3	31	23	26	20
Total	56 sites	54 sites	47 sites	28

Industrial Sites in Areas of Focus



Most suitable
sites for
semiconductor-
related use

Source: Mackenzie. Engineers & Architects based on Industry siting criteria



Semiconductor Siting Criteria

CRITERIA	R&D and/or fab	Device manufacturers or major semi. Equipment manufacturers	Key suppliers to semi. cluster
Acres	500+	50 - 100	15 - 35
Site Building Ready	18-24 months	12 months	6 months
In UGB	Y	Y	Y
Zoning	Industrial	Industrial	Industrial
Distance to Int'l Airport	< 1 hour	< 2 hours	< 1 hour
Distance to Major Hwy	< .5 miles	< .5 miles	< .5 miles
Distance to Industry Cluster		< 2 hours	< 1 mile
Electricity Demand	100 - 300 MW	10-100 MW	1-5 MW
Site Slope	< 4% preferable	< 4% preferable	< 4% preferable
Existance of Wetlands	delineation complete, mitigation plan in	delineation complete, mitigation plan in	none
Water Demand	10-40 mgd	1-10 mgd	1 mgd
Water Line Size			
Sanitary Sewer Demand	10-40 mgd	1-10 mgd	1 mgd
Sewer Line Size			
Region population	capable to support 10,000 + employees	capable to support 2,000 + employees	capable to support 500 + employees
Site infrastructure	plan in place, funding identified	plan in place, funding identified	in place

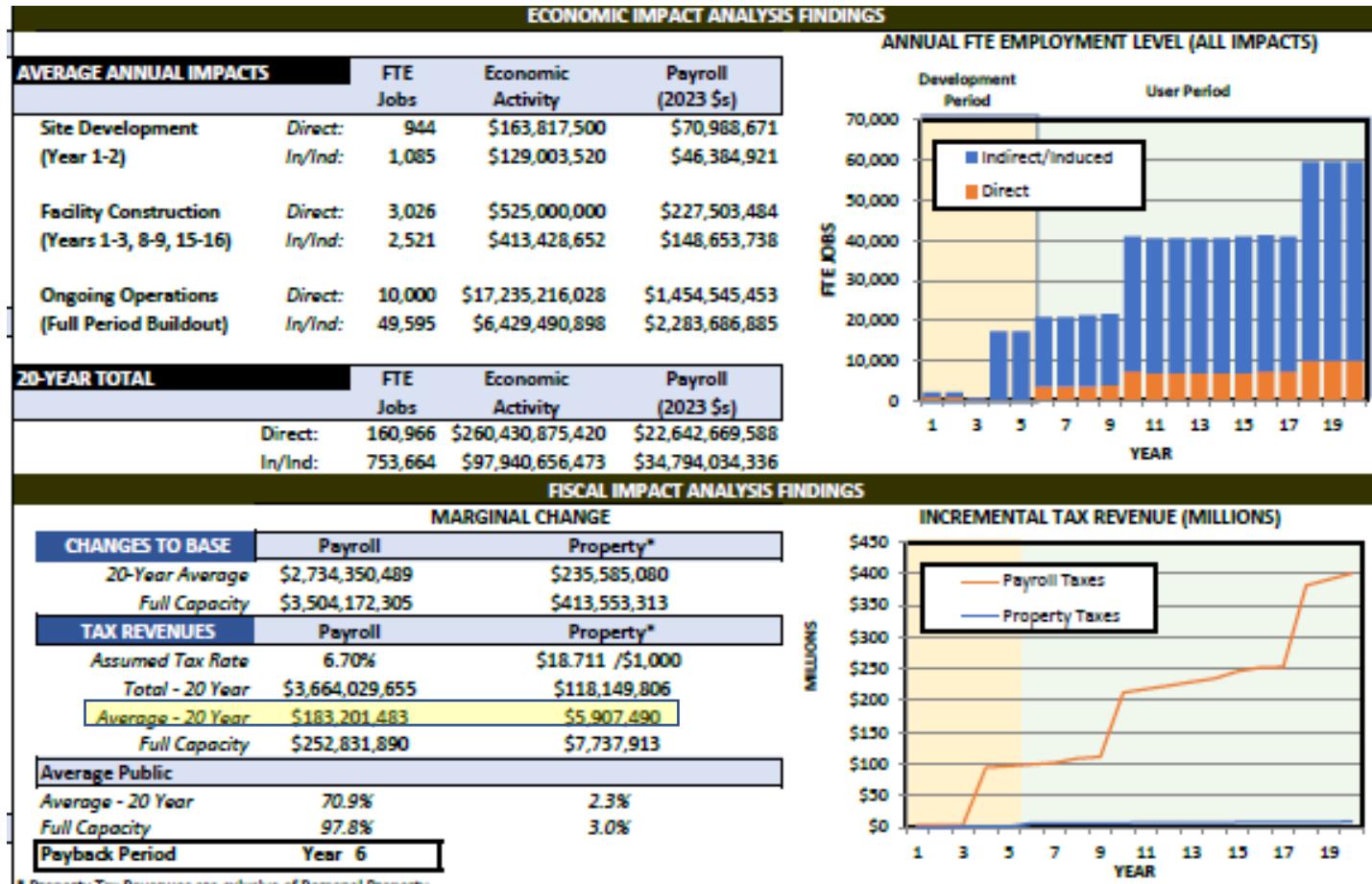
Key Findings

	Recommended by Semiconductor Task Force
R&D Campus and/or fab +/- 500 acres	2
Device manufacturers or Fab./Equipment Supplier 50-100 acres	4
Key Materials Supplier 15-35 acres	8

Key Findings

	Recommended by Semiconductor Task Force	Finding	Location
R&D Campus and/or fab +/- 500 acres	2	0	
Device manufacturers or Fab./Equipment Supplier 50-100 acres	4	7	<ul style="list-style-type: none">• Albany<ul style="list-style-type: none">○ Within 2 hours of PDX• Columbia City<ul style="list-style-type: none">○ No proximity to industry cluster.○ Ready within 6 months• Millersburg (3)<ul style="list-style-type: none">○ Within 2 hours of PDX• St Helens<ul style="list-style-type: none">○ No proximity to industry cluster○ Ready within 6 months.• Woodburn
Key Materials Supplier 15-35 acres	8	1	<ul style="list-style-type: none">• Same Woodburn site

Projected Return on Investment



Source: Johnson Economics based on 3-phase Advanced R&D Campus