

# Joint Legislative Committee on Semiconductors

January 30, 2023

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**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 fund 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*



An aerial photograph of a port city, likely Seattle, showing a large body of water, industrial areas, and a city skyline in the distance. A large, semi-transparent circular overlay is positioned on the left side of the image, containing text. The background shows a wide river or bay with several large industrial buildings and a ship docked. In the far distance, a snow-capped mountain peak is visible under a blue sky with light clouds.

# 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

2<sup>nd</sup>

Largest Producer in the U.S.

\$10.5 B

Oregon Semiconductor  
Exports in 2020

3<sup>rd</sup>

Largest Exporter in the U.S.

\$3.9 B

Growth in Oregon  
Semiconductor  
Exports From 2010 to  
2020

2<sup>nd</sup>

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

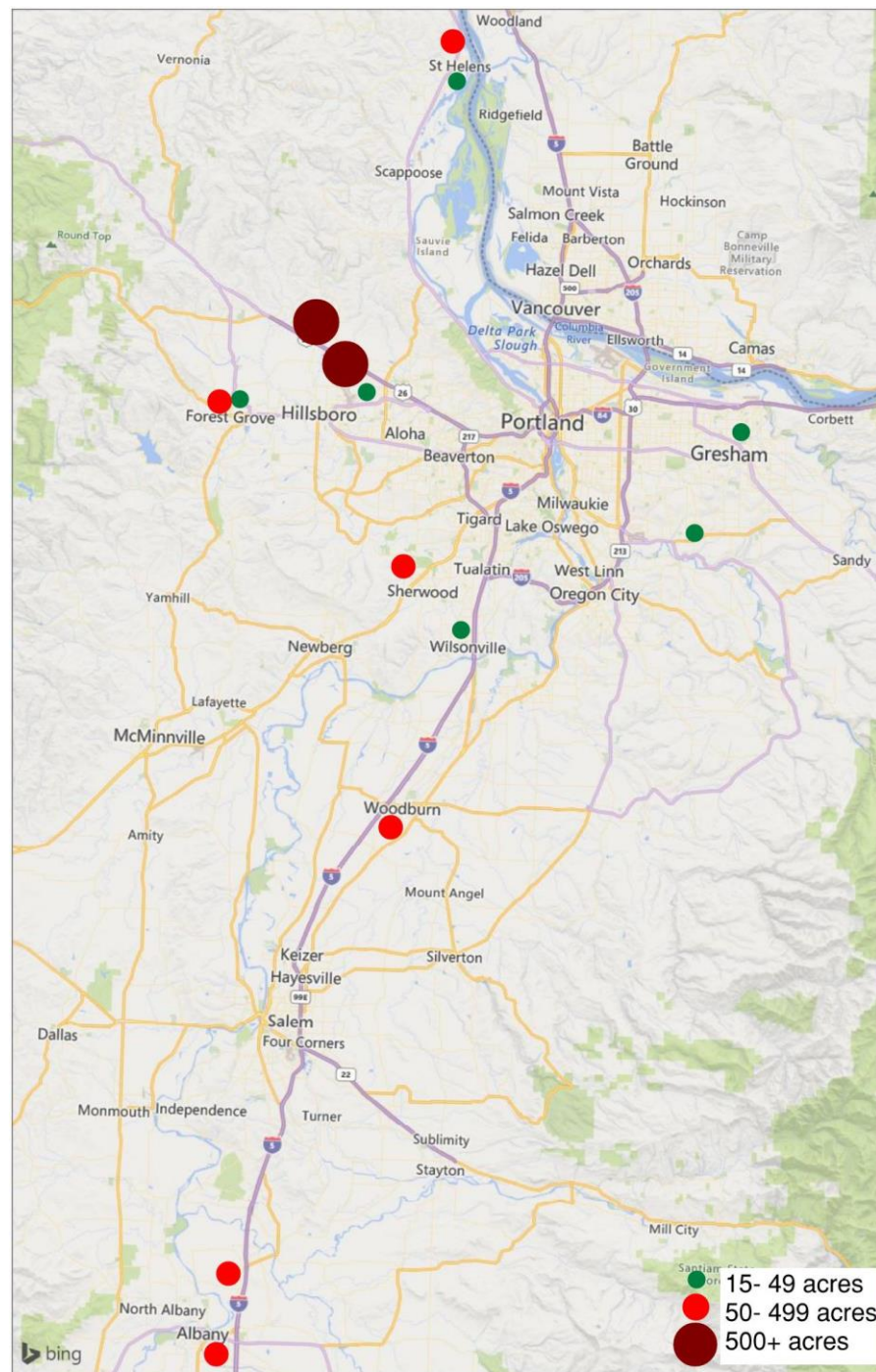
## SITES BY TIER

	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





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
Existence 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

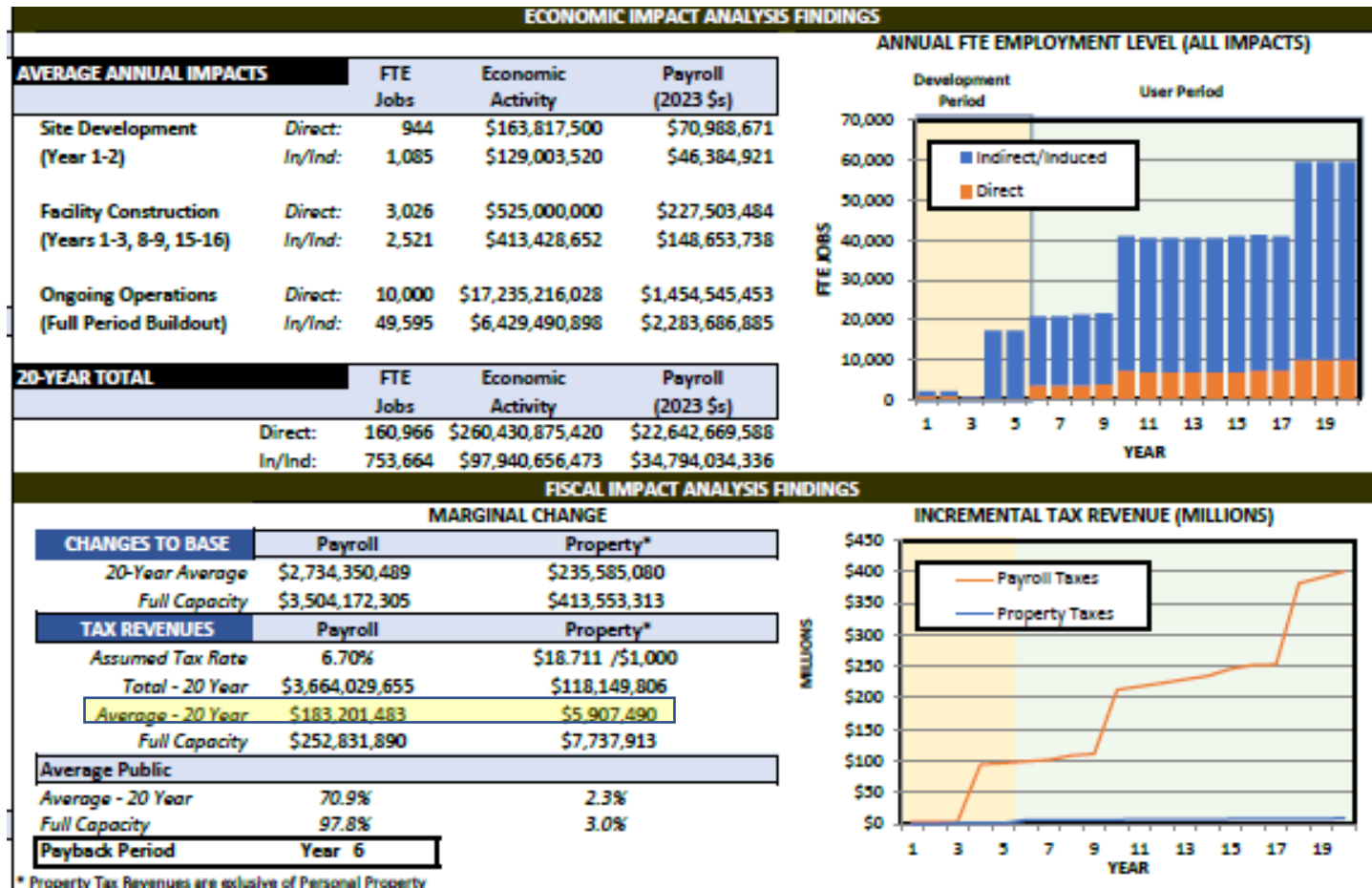
	<b>Recommended by Semiconductor Task Force</b>
R&D Campus and/or fab +/- 500 acres	2
Device manufacturers or Fab./Equipment Supplier 50-100 acres	4
Key Materials Supplier 15-35 acres	8



# 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"> <li>• Albany               <ul style="list-style-type: none"> <li>○ Within 2 hours of PDX</li> </ul> </li> <li>• Columbia City               <ul style="list-style-type: none"> <li>○ No proximity to industry cluster.</li> <li>○ Ready within 6 months</li> </ul> </li> <li>• Millersburg (3)               <ul style="list-style-type: none"> <li>○ Within 2 hours of PDX</li> </ul> </li> <li>• St Helens               <ul style="list-style-type: none"> <li>○ No proximity to industry cluster</li> <li>○ Ready within 6 months.</li> </ul> </li> <li>• Woodburn</li> </ul>
Key Materials Supplier 15-35 acres	8	1	<ul style="list-style-type: none"> <li>• Same Woodburn site</li> </ul>

# Projected Return on Investment



\* Property Tax Revenues are exclusive of Personal Property

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