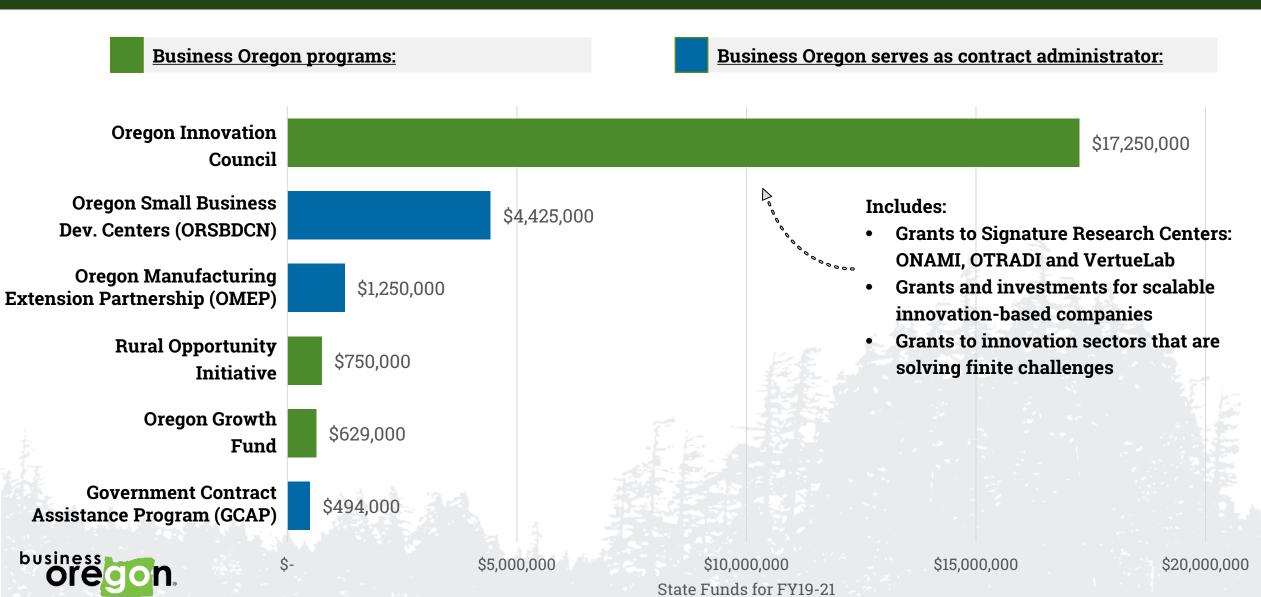
Innovation & Entrepreneurship in Oregon & Developing a 10-Year Innovation Plan

House Economic Development Committee

December 15, 2020



Oregon Invests in Innovation + Entrepreneurship



Oregon Values I&E Ecosystem Partners























































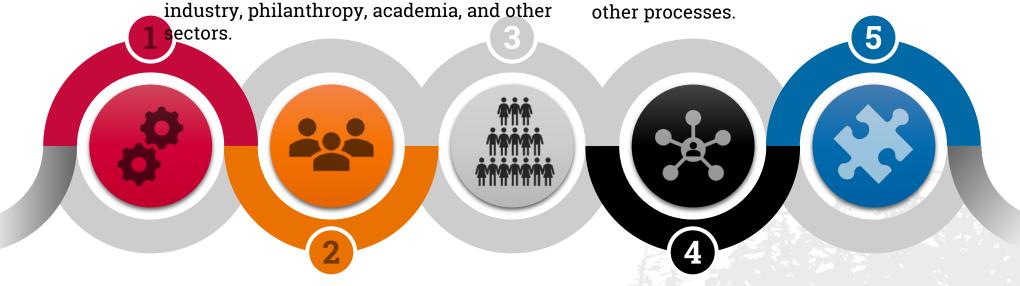
Our Innovation Plan's Five-Part Process:

FUTURES COMMISSION

Six total meetings and ongoing participation from thought-leaders throughout Oregon, including private industry, philanthropy, academia, and other

EXTERNAL OUTREACH

Opportunities for individuals from across the state to participate in the planning process through surveys and other processes.



SITUATIONAL ANALYSIS

An analysis of Oregon's innovation ecosystem based on a thorough review of previous and ongoing qualitative and quantitative research.



SIX FOCUS GROUPS

- Availability of Risk Capital
- Availability of Value-added Entrepreneurial Services
- Connectivity of Industry Clusters
- Regional + Geographic Models
- Diversity, Equity, Inclusion Models
- Emerging Market Opportunities

STRATEGY DEVELOPMENT

Synthesizing input to develop a 10-year innovation plan with actionable short- and long-term strategies.

Futures Commission Members



Matt Abrams
The Abrams Group



Marcelino Alvarez Fresh Consulting



Larry Bekkedahl
Portland General Electric



Ann Bunnenberg
Cytolmage



Bob Cowen
Hatfield Marine Science
Center



Piper Crowell



Chris Cummings
Business Oregon



Carol Dahl
The Lemelson Foundation



Bruce Daucsavage
Ochoco Lumber



Su Embree DHM Research



Scott Goering
Battery Ventures



Rep. David Gomberg State Legislature



Jessica Gomez Rogue Valley Microdevices



Kanth Gopalpur Kestrel Advisors



Rita Hansen Onboard Dynamics



Futures Commission Members



Julie Harrelson Cascade Seed Fund



Paula Hayes
Hue Noir Cosmetics



Don Hendrickson
OMIC R&D, Boeing (ret.)



David Howitt Meriweather Group



Danny Jacobs ohsu



Sen. Betsy Johnson State Legislature



Paul King
Ampere Scientific



Juanita Kurtin
OSRAM Opto Semiconductors



Jenn Lynch
Portland Seed Fund



Nagi Naganathan Oregon Institute of Technology



Skip Newberry
Technology Association of
Oregon



Nitin Rai Elevate Capital



Sam Tannahill Rex Hill Vineyards



Irem Tumer
Oregon State University



Pia Wilson-Body
Intel Foundation



Duncan Wyse
Oregon Business Council



The Oregon Innovation Plan is a data-driven strategy, built on:

Previous Studies:

- Business Oregon's Strategic Plan (2018-2022)
- Oregon InC's Innovation & Entrepreneurship Benchmarking and Best Practices Study (2018)
- Oregon Innovation Index (2018)
- Oregon Capital Scan (2020)

Extensive Outreach:

- In-depth informational interviews with 80+ key individuals
- Focus groups with 150+ subject matter experts participating
- More than 250+ survey responses across a multiple surveys



TEConomy's Experience in Public/Private Innovation Plans



Focus on Technology + Economic Development

- We help clients compete in the global, knowledge-based, innovation economy.
- We focus on **innovation-based economic development**, including strategic planning, best practices, program design, and implementation assistance.

Long History as Consultants and Practitioners

- TEConomy's Principals transitioned in 2015 from a **20-year history** as the former Battelle Technology Partnership Practice.
- Our team has more than 100 years of combined experience working in this field.

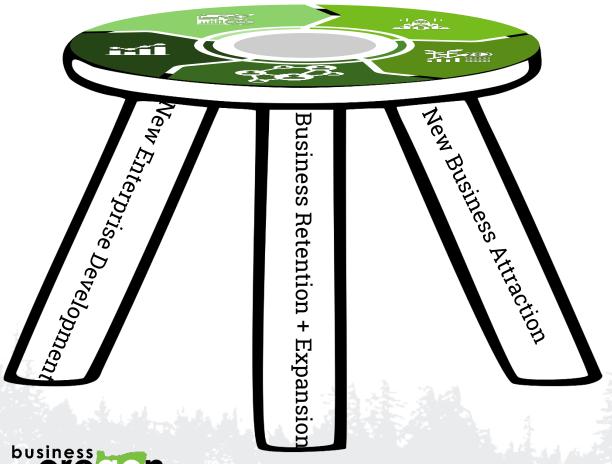
Acute Understanding of National Landscape

- Consulting with many of nation's leading economic development initiatives, in states ranging from Ohio, North Carolina, Georgia, Virginia, Arizona, Michigan, and Connecticut, among others.
- Providing **thought leadership** for industry, trade organizations, and public-private-partnerships, in the USA and internationally.



Innovation Ecosystems Fuel 21st Century Economic Development

A **robust innovation ecosystem** serves as the foundation of the three-legged economic development stool



New Enterprise Development Encouraging the creation of new

Encouraging the creation of new businesses that meet global demand.

Existing Business PromotionSupporting established businesses

Supporting established businesses with the resources they need to scale and sustain their operations.

New Business Attraction

Enticing companies from outside of Oregon to locate in the state as a result of the vibrancy of the innovation ecosystem and its clusters.



Innovation Continuum – the Ideal State

Ideation

Commercial Viability

Market Entry

Growth & Scalability

Activities at Each Stage Idea development/ invention, market assessment, and (if appropriate) IP creation Customer discovery, new product development, proof-of-concept testing, prototype development, and validation/market testing

Finalize commercial products, add key team members, execute business plans, marketing plans, manufacturing plans, develop supply-chains, and generate early revenues

Generate operating capital to expand markets, scale manufacturing, re-examine team member mix, generate new employment, and begin new product development—continuous innovation cycle

Types of Assistance Entrepreneurs Need Guidance/coaching on gathering insights for business concept development Domain specific market knowledge on differentiation, positioning, timing to complete and validate a full business model

Execution of business plans, investor outreach, product launch, and business development for first customers

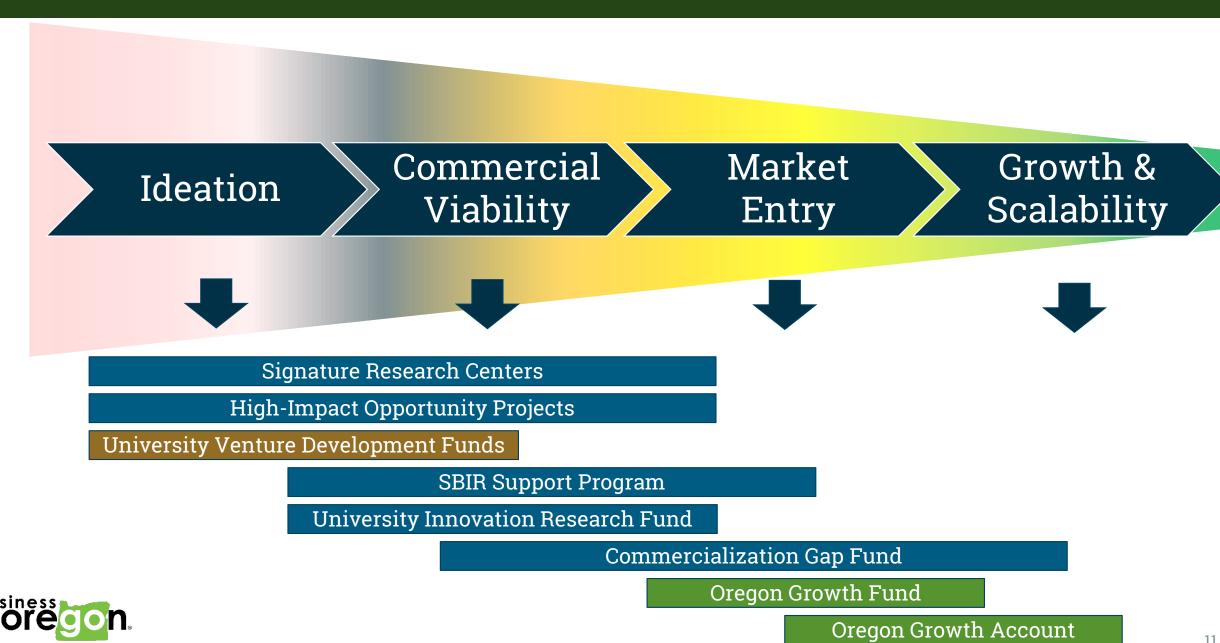
Building management team, positioning for IPO, entry into new markets, and expanding market presence

Sources of Risk Capital Sweat equity, friends and family, R&D grants, university resources Proof-of-Concept and Prototype development funds, SBIR/STTR, R&D grants, university resources, pre-seed, angels

Angel investors, formal VC investments including seed, Series A, and Series B, convertible debt, forgivable loans

Later rounds of venture capital funding, mezzanine/SBIC, SBA (7)a loans, loans for working capital

Oregon's Current Programs are Fostering Oregon's Innovation Ecosystem



However, there are still challenges that remain that need to be addressed



Commercial Viability

Market Entry

Growth & Scalability









Challenges:

Need to "broaden the funnel" increasing the number of startup ideas and inventions, reaching all people in all places

Need for both value-added services as well as nondilutive sources of capital

Challenges:

Need for domain expertise with understanding of market opportunities

Need for resident seed funding and organized angel investments

Need for diverse mentors, serial entrepreneurs, and other service providers to help startups with business expertise

Challenges:

Need for skilled technical talent at all levels

Need for resident sources of risk capital that can lead deals and foster syndication

Challenges magnified for women and BIPOC entrepreneurs, and those in underserved geographic areas

Challenges:

Lagging growth in advanced industry/ cluster development

Losing innovative companies and talent to other states

Social and political environment is not always in-tune with innovation-based economic growth



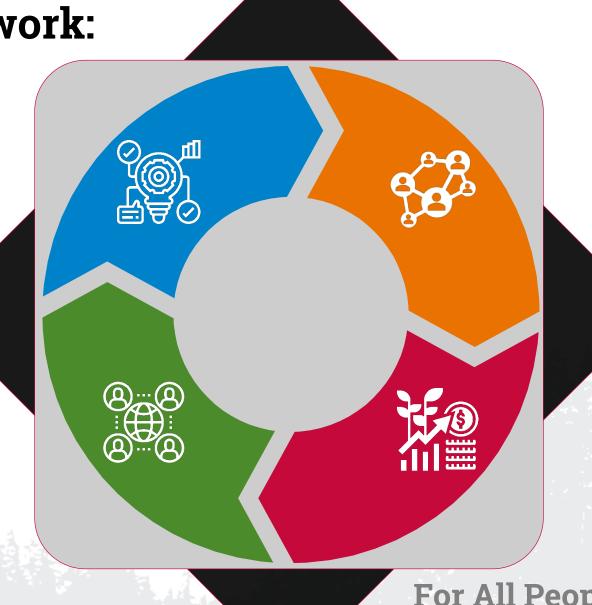
Innovation Plan
Strategic Framework:

Foster Ideation

Foster the commercialization and deployment of new products demanded by both Oregon's existing industrial base and emerging markets

Tell the Story

Promote Oregon as a place to start and grow an innovative company



Strengthen the Ecosystem

Develop the requisite entrepreneurial support services to address the continuum of needs from early-stage startups to scalable enterprises

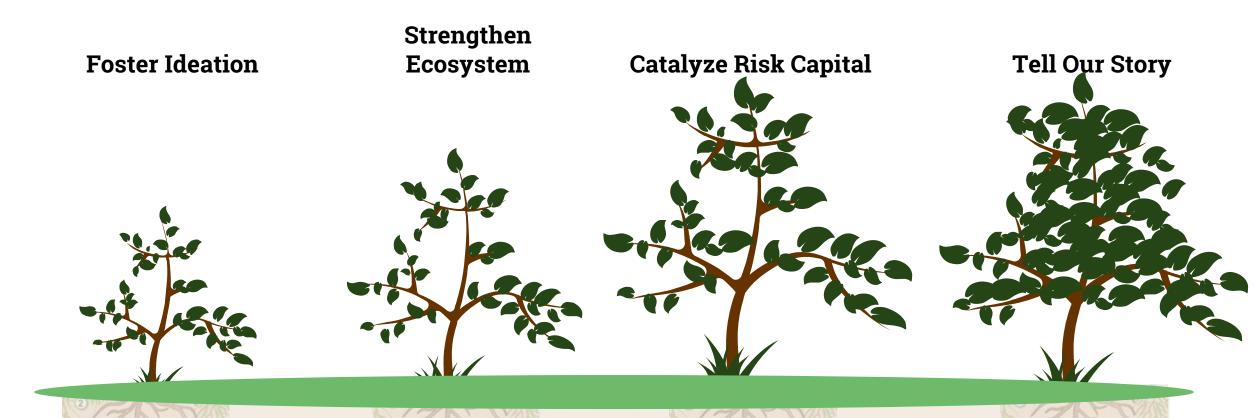
Catalyze Risk Capital

Provide access to resident risk capital at all stages of development

oregon

For All People...
in All Places.

Innovation Plan's Success Relies on Three Critical Dependencies: A Robust R&D Enterprise, Supply of Requisite Talent, and High-Quality Digital Infrastructure



A Robust R&D Enterprise Capable of Tackling Our Toughest Problems

A Thriving Talent Base, With Accessible Pathways for New Skill Development

Pervasive, Affordable, and High-Quality Digital Infrastructure (Broadband)

Innovation Plan: Strategic Framework



Strategy 1: Foster the commercialization and deployment of new products/services within Oregon's existing traded-sectors as well as emerging markets

- Action 1. Support Centers of Innovation Excellence that Leverage Oregon's Existing Traded-Sector Strengths and Emerging Market Opportunities
- Action 2. Create sources of non-dilutive capital to catalyze the commercialization of new innovations
- Action 3. Support early-stage innovation within Oregon's university, college, and other research settings ensuring opportunities for all people in all places to connect to resources



Strategy 2: Strengthen a Systemic, Regionally-based Entrepreneurial Service Delivery System

- Action 4. Create Regional Innovation Hub designations that will fund and incentivize collaboration to build and advance innovation-focused ecosystems ensuring opportunities for all innovation-based businesses in regions throughout Oregon
- Action 5. Link Talent to Innovation Efforts



Strategy 3: Catalyze Access to Risk Capital so that All Oregonians in All Places can Access the Financial Resources Required to Grow and Scale their Marketable Innovation

- Action 6: Incentivize angel investments in Oregon's promising innovation-based firms
- Action 7: Foster the further development of Oregon's risk capital stack by expanding the resources of the Oregon Growth Fund
- Action 8: As deal flow increases across the state, focus efforts to drive more of the Oregon Growth Account's investments to OR's businesses



Strategy 4: Brand Oregon as The Place for Innovation – Tell Our Story

- **Action 9**. Develop Oregon's Innovation Brand and market within the state the brand should be aligned with and leverage Oregon's existing strengths
- Action 10. Develop an External Marketing Campaign that showcases Oregon's unique identity and competitive strengths in innovation

Economic + Societal Outcomes

In addition to traditional economic development benefits, support for innovation can positively influence a variety of factors related to a **more prosperous Oregon**.



Good, High-Paying Jobs

Orient the economy around better paying jobs with higher growth potential.



Improved Quality of Life

Expand access to the kinds of products, services, and treatments that improve well-being.



Global Competitiveness

Position Oregon as a national and global leader in critical innovation sectors.



Help the state weather future economic, environmental, and social challenges.



Educational Attainment

Inspire future generations of Oregonians to reach their full potential by supporting a culture of education and building capacity at Oregon's schools, colleges, and universities.



Access + Opportunity

Encourage participation among populations presently unrepresented in the innovation-economy.



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