

BIOSCIENCE, BIOMEDICAL AND LIFE SCIENCES DRIVING INNOVATION AND EMPLOYMENT

Leadership Summit Discussion Draft, December 5, 2016

Oregon's bioscience, biomedical and life sciences cluster has experienced steady and significant growth in the past decade. In the 2016 Economic Impact Study completed by Pinnacle Economics¹, *private* bioscience employment increased 73 percent between 2002 and 2014, and life sciences *research* employment increased 55 percent.

The Bioscience sector continues to have a statewide reach and is well represented outside of the Portland area, with a private bioscience entity existing in almost every county in the state. Out of the 793 total statewide private bioscience entities, 360 private bioscience firms (49 percent of private bioscience) were located outside of Portland.

As defined by Battelle's most recent 2014 study², private bioscience includes the following five sectors: 1) medical devices and equipment manufacturing, 2) drugs and pharmaceutical manufacturing, 3) research, testing, and medical laboratories, 4) bioscience-related distribution and 5) agricultural feed stocks and chemicals manufacturing.

The bioscience sector stands to be the leader in collaborative work across Oregon's traditional sectors. This sector is a driver of innovation in such clusters as high technology with emerging digital health, health IT, IoT devices, wearables and devices sectors, in conjunction with life sciences research in outdoor gear and apparel, as well as advanced manufacturing, food and beverage, and its impact on human health.

This industry continues to be a cornerstone in philanthropic giving, as evidenced by the Knight, Moore and Boyle family's donations of more than \$2 billion dollars to university health and wellness research and by non-local funding as well. In 2014, the National Institute of Health funded \$301.1 million in medical research in Oregon, representing new dollars for the Oregon economy. In the past two years alone, the startups located within Oregon's premiere bio/digital health incubator, the OTRADI Bioscience Incubator (OBI), raised over \$26 million.

Bioscience's Economic Impact on Oregon¹

Total **Direct** Employment: 17,874

Diverse Work Force: 44 % women 22% minorities

Average Annual **Wage**:

- Private Bioscience \$70,367
- Life Sciences Research Institutions \$87,085

Exports: \$3.8 billion

Total Output: \$10.3 billion

Oregon Bioscience Trade Association 2017 Agenda

1. **Improve Oregon's environment for biotechnology and life sciences companies.** We aim to create both productive business incentives and an entrepreneurial climate that boosts Oregon's expanding bioscience industry. We support policies that reward innovation, and facilitate commercialization of scientific breakthroughs.

¹ Pinnacle Economics, Economic Impact Study: Profile the growth of Oregon's Bioscience Industry, 2014

² Battelle, State Bioscience Jobs, Investments and Innovation, 2014

- 2. Foster collaboration between industry experts and government leaders.** We seek to bring together a wide range of companies, research institutes, and local and state government representatives with the shared goals of growing our existing bioscience sector and welcoming new companies to our state. We will support initiatives that help build the pool of public and private investment capital and address other needs for emerging, existing, or relocating companies.
- 3. Support the expansion of a highly skilled, diverse workforce.** The bioscience sector provides substantial wages and a diverse workforce throughout the state. We support policies and programs that provide education and workforce training, for example, Oregon Talent Council grant to Oregon Bioscience Association to prepare potential employees for careers in our sector, including retraining under-employed workers.
- 4. Maintain access and encourage adherence to health care products and services.** We advocate for stable access to health care services and products for Oregonians. We carefully analyze policy proposals and allocation of public resources that may affect consumers' ability to receive the best available medical care, therapies and devices, and ultimately achieve optimal health outcomes.