

BEFORE THE BOARD OF COUNTY COMMISSIONERS  
MULTNOMAH COUNTY, OREGON

In the Matter of Adopting the Regional Strategies )  
Application and Recommending the Application be )  
Submitted to the Oregon Economic Development )  
Commission and the Governor of the State of Oregon )  
for Consideration under the Regional Strategies )  
Program. )

RESOLUTION NO. 94-94

WHEREAS, the Regional Strategies Program was established by the Governor and the Legislature to strengthen regional economies and retain, increase, or lead to an increase in the number of family wage jobs in the State of Oregon; and

WHEREAS, the Regional Strategies Program requires two or more contiguous counties to join together to form a region; and

WHEREAS, the Regional Strategies Program requires the Region to develop a six-year, economic development Strategy, which focuses on the development of two or three key industries; and

WHEREAS, the Counties of Multnomah and Washington joined together to form the Multnomah-Washington Region for the duration of the economic development Strategy; and

WHEREAS, the Region appointed a Regional Strategies Board with majority representation primarily from the private economic sector; and

WHEREAS, the Region, through its appointed Regional Strategies Board, has developed a six-year, economic development Strategy for the Multnomah-Washington Region; and

WHEREAS, the Region's Strategy focuses on developing the key industries of metals, high technology, and biotechnology;

WHEREAS, the Region's Strategy meets the requirements of the Regional Strategies Program; and

WHEREAS, the Regional Board members have held a public hearing on the Region's Strategy in each county in the Region;


NOW, THEREFORE, BE IT RESOLVED that the governing body of Multnomah County adopts the Regional Strategies Application, attached as Exhibit A, and recommends that the Application be submitted to the Oregon Economic Development Commission and the Governor of the State of Oregon for consideration under the Regional Strategies Program.

ADOPTED this 24th day of May, 19 94

By

  
Beverly Stein, Chair  
MULTNOMAH COUNTY, OREGON

REVIEWED:

for   
Laurence Kressel, County Counsel  
of Multnomah County, Oregon

**Regional Strategies Application**  
**Multnomah and Washington Counties**

**( 5/16/94 - Submission to County Commissions)**

**Regional Strategies Application  
Multnomah and Washington Counties  
TABLE OF CONTENTS**

<b>I. Process Overview and Future Action Plan</b>	<b>1</b>
<b>II. Executive Summary</b>	<b>2</b>
<b>III. Strategy Context</b>	<b>2</b>
A. Regional Organization	2
B. Link to the State Strategic Plan and Benchmarks	3
C. Integration of Other Planning Efforts	3
<b>IV. Regional Economic Assessment</b>	<b>3</b>
A. Analysis of the Key Industries	3
B. Inventory of Resources	5
C. Identification of Resource Gaps and Opportunities	6
<b>V. Industry Selection</b>	<b>8</b>
A. Selection Rationale	8
B. Barriers to Industry Development	9
C. Link to Regional Vision and Long-Term Goals	9
D. Industry, Public and Educational Partnerships	10
E. Analysis of the Foundation of Industry Resources	12
<b>VI. Biotechnology Industry Strategy</b>	<b>14</b>
A. Industry Analysis (SWOT)	14
B. Long-Term Industry Benchmarks and Indicators	14
C. Prioritized list of activities to be addressed	14
<b>VII. High Technology Industry Strategy</b>	<b>15</b>
A. Industry Analysis (SWOT)	15
B. Long-Term Industry Benchmarks and Indicators	15
C. Prioritized list of activities to be addressed	15
<b>VIII. Metals Industry Strategy</b>	<b>16</b>
A. Industry Analysis (SWOT)	16
B. Long-Term Industry Benchmarks and Indicators	16
C. Prioritized list of activities to be addressed	16
<b>IX. Link to Regional Vision, Goals and Industry Barriers</b>	<b>17</b>
<b>X. Two Year Action Plan</b>	<b>19</b>
A. Biotechnology Industry Activities	19
B. High Technology Industry Activities	21
C. Metals Industry Activities	24
D. Cross-Industry Opportunities	27
<b>XI. Multi-Regional Opportunities</b>	<b>30</b>
<b>Strategy Evaluation Plan</b>	<b>31</b>
<b>Appendix A - Participants in Metro Region Process</b>	

**Regional Strategies Application  
Multnomah and Washington Counties  
(Draft 4/28/94)**

**I. Process Overview and Future Action Plan**

In February 1994, a Board of 10 private citizens from Multnomah and Washington Counties was selected by the Metro Region to participate in the Regional Strategies Program as defined by the State of Oregon. This Board conducted the following meetings to facilitate the process of arriving at the regional strategy included in this application:

Date	Time	Meeting Purpose
2/4/94	3:00pm - 5:00pm	Board Orientation, State Vision, Legal Issues, Workplan Development.
2/18/94	12:00pm - 5:00pm	Metro Region Overview, Review of Existing Regional Visions/Activities, Regional Vision & Goals Development, Industry Selection Criteria Development, Selection of Industries to Make Presentations to Board.
2/25/94	2:00pm - 5:00pm	Presentations by Biotechnology and Software Industry Associations and interested parties.
3/4/94	2:00pm - 5:00pm	Presentations by High Technology, Metals, Agriculture, and Aerospace Industries and interested parties.
3/10/94	2:00pm - 5:00pm	Presentations by Environmental Services, Film & Video, and Tourism Industry Associations and interested parties.
3/18/94	2:00pm - 5:00pm	Overview of OEDD Benchmarking/Performance Measurement Information, Board Selection of Biotechnology, High Technology and Metals Industries, Process Discussion to Develop Initial Strategies and Action Plans with Partners.
3/28/94	6:00pm - 9:00pm	Biotechnology Strategy Development with Oregon Biotechnology Association, Industry Firms, Educational Partners and Interested Parties
3/30/94	2:00pm - 5:00pm	High Technology Strategy Development with American Electronic Association, Industry Firms, Educational Partners and Interested Parties
4/4/94	6:00pm - 9:00pm	Metals Industry Strategy Development with Metals Industry Associations, Industry Firms, Educational Partners and Interested Parties
4/8/94	2:00pm - 5:00pm	Board Review of Strategy Development Process, Refinement of Strategic Direction and Funding Allocations for Selected Industries.
4/26/94	2:00pm - 5:00pm	Board Review of Draft Strategy Document, Further Refinement of Strategic Direction and Funding Allocations for Selected Industries.

The following Regional Strategies Application is the result of these activities to date. Meeting minutes and source documentation for statistics used in this application reside at the Portland Development Commission. Public review and adoption by the county commissioners took place during May. It is important to note that the timing of this process has been compressed during this biennium and has resulted in significant time constraints on all parties involved in the development of strategies and action plans identified in the following document.

In order to facilitate the mandated June 1 submission to the State of Oregon, broad based strategies and action plans have been identified and estimated funding levels were allocated. These funding levels are subject to change as projects within the identified action plans are finalized. Throughout this summer, sub-committees will work with partners from each industry to develop final funding allocations and selection of projects targeted for October, when the Strategic Plan is approved.

**Regional Strategies Application**  
**Multnomah and Washington Counties**  
**(Draft 4/28/94)**

**II. Executive Summary**

Three key industries were selected by the Metro Regional Strategies Board to participate in the Regional Strategies Program as defined by the State of Oregon. Selected industries are Biotechnology, High Technology and Metals. A Board of 10 private citizens from Multnomah and Washington Counties developed a vision statement and identified program goals and industry selection criteria. The Metro Region's vision is: *To Promote A Diverse and Sustainable Economy*. Strategies for industry development over a six year planning horizon were identified and two year action plans were developed in cooperation with representatives of private industry, educational institutions, industry associations, local government and economic development institutions.

**III. Strategy Context**

**A. Regional Organization**

The Metro Region strategy was developed and is being submitted to the State of Oregon as a required exercise of the Regional Strategies Program. Our planning process has been led by a Board comprised of 10 private citizens.

Five Citizens were appointed by Multnomah County:

Name	Telephone	Title/Position	Company
Jim Harper	241-7506	Human Resource Director	Wacker Siltronic
Eva Parsons	274-6175	Director of People Development	Cellular One
Patricia Scruggs	246-6148	Consultant	
Darrell Simms	823-7203	Bureau of Environmental Services	City of Portland
Paul Warr-King	762-3018	Vice President	Key Bank

Five Citizens were appointed by Washington County:

Name	Telephone	Title/Position	Company
Betty Atteberry	645-4410	Executive Director	Sunset Corridor Assn.
Lyle Chadwick	643-5953	Certified Public Accountant	
Joyce Frank	648-2757	Branch Manager	Kelly Temporary Services
Jack Orchard	228-2525	Attorney	Ball, Janik & Novak
Morgan Pope	628-3562	Consultant	MDP Associates

Assisting the Board were individuals from various local governments, economic development agencies and industry associations. These participants have been identified in Appendix A. Considerable time and energy has been invested in making the Metro Regional strategy a dynamic and useful tool for regional economic development. The Board thanks each participant for their valuable contributions to the regional community.

## **B. Link to the State Strategic Plan and Benchmarks**

The Metro Region supports the State's vision, Oregon Benchmarks, by targeting the following:

- A. Value-Added Products, Global Business:** Economic opportunities are critical for the Metro Region's unemployed, under employed and underrepresented workers. Value added products in biotechnology, high technology and metals production/fabrication offer regional economic growth and development opportunities. Education and training is necessary for regional workforce participants to achieve international standards and achieve global competitiveness in all industry sectors.
- B. Diverse and Productive Industry:** The Metro Region will concentrate on boosting total payroll, per worker payroll, per worker value-added manufacturing, and percentage employment in value-added manufacturing in selected industries.
- C. Build a Superior, World Class Workforce:** Workforce development activities will receive particular emphasis in the form of education and training in addition to awareness programs for workforce opportunities in identified industries.
- D. Public Infrastructure Investment:** Real per capita outlays for facilities.

## **C. Integration of Other Planning Efforts**

A thorough review of all state and regional planning efforts was conducted by the Board and staff in order to assure consistency of strategic direction and avoid duplication of efforts. This review included: Oregon Shines, Oregon Benchmarks, Oregon Values & Beliefs, Portland Future Focus Strategic Plan, Prosperous Portland, Metro 2040, Washington County Economic Development, State and Regional Workforce Quality Committees, and other local government planning efforts.

## **IV. Regional Economic Assessment**

### **A. Analysis of the Key Industries**

The Metro Region has the most diverse economy in the state. All Oregon State key industries participate to some extent in the region's economy:

•Aerospace	•Fisheries	•Plastics
•Agriculture	•Forest Products	•Producer Services
•Biotechnology	•High Technology	•Software
•Environmental Services	•Metals	•Tourism
•Film & Video		

Employment statistics have been assembled by the State of Oregon Employment Department for 1992 covered employment in the Metro Region :

#### **Metro Region Industry Employment**

1.3% Agriculture
4.0% Construction
7.4% Finance, Insurance, Real Estate
13.2% Government
15.9% Manufacturing
26.5% Services
25.5% Trade
6.3% Transportation

The services industry group accounts for the most jobs in the Metro Region:

**Metro Region Employment in Service Industries**

24.0%	Business Services
4.6%	Education Services
26.3%	Health Services
8.1%	Hotel/Amusements/Museums
9.0%	Personal/Repair
12.7%	Professional/Legal
8.4%	Social Services
6.9%	Other Services

Employment in the trade sector is dominated by restaurants/bars and wholesaling:

**Metro Region Employment in Trade Industries**

7.1%	Auto Sales and Service
4.4%	Apparel and Accessories
24.1%	Eating/Drinking
9.2%	Food Stores
8.5%	General Merchandise
13.6%	Miscellaneous & Other Retail
33.0%	Wholesale

The manufacturing sector is the third largest employment group, accounting for approximately 16% of total employment:

**Metro Region Manufacturing Employment**

8.5%	Food Products
23.8%	Instruments/Electronics
10.5%	Machinery
14.0%	Metals
9.6%	Printing/Publishing
10.7%	Transportation Equipment
11.3%	Other Durables
11.7%	Other Non-Durables

Primary industries employment is different for Multnomah and Washington Counties. Of the top ten industries in Multnomah County, five are service industries and only one is in manufacturing. In Washington County, three of the top ten industries are service, while three are in manufacturing. Multnomah County has a much higher concentration of employment in finance, insurance, real estate, transportation, communication and utilities industries. Additionally, Multnomah County has almost twice the concentration of government employment than Washington County given the presence of several federal governmental agencies.

Washington County has a higher concentration of employment in "goods producing" industries - agriculture, construction, and manufacturing in addition to employment in wholesale firms. Manufacturing related employment accounts for over one-fourth of total Washington County employment as compared to 13% for Multnomah County and 17% for the state. Of particular importance to Washington County is high-technology manufacturing employment. In terms of recent industry growth, Washington County has surpassed both Multnomah County and the state in every sector of the economy.

The Metro Region's employment base has a high proportion of white collar jobs - executive, administrative, managerial, professional and specialty occupations, technicians, sales and administrative support. When compared to state employment statistics, the region is under-represented in its proportion of what has traditionally been considered blue collar employment - operators/fabricators, transportation/material movers, laborers, precision product, craftsman and repair.

Given the region's industrial mix, generally larger sized firms, relatively higher cost of living and concentration of white collar employment, a higher proportion of the work force is employed in more skilled, higher paying industries than the state as a whole:

**Metro Region Average Annual Payroll by Business Sector**

<b>Business Sector</b>	<b>Average Annual Payroll</b>	<b>Average as a % of Oregon's</b>
Total (all ownership & industry types)	\$26,762	114%
Wholesale Trade	\$33,892	111%
Manufacturing	\$33,595	113%
Transp./Comm./Utilities	\$32,417	107%
Construction	\$31,619	113%
Finance/Insurance/Real Estate	\$30,037	111%
Government	\$29,934	112%
Services	\$23,732	114%
Agriculture	\$20,353	142%
Retail Sales	\$15,200	109%

Within the region, Washington County has higher average salaries in manufacturing, wholesale & retail trade and the service sector. Multnomah County has higher average payrolls in finance, insurance, real estate, government, transportation, communication, utilities and construction.

## **B. Inventory of Resources**

Multnomah and Washington Counties have many resources as a major metropolitan area including:

- **Growing Population and Labor Force**
  - Metro Region population: 963,500 (15% growth by the year 2000)
  - Metro Region civilian labor force: 525,700 (20% growth by the year 2000)
  - The rate of unemployment is lower than in most of the state
- **Diversified and Stable Economy**
  - Broad manufacturing and service sector base
  - Excellent location for worldwide manufacturing
  - The largest economic region in the state
- **Superior Transportation Connections**
  - Integrated highway, rail and marine facilities
  - Terminus of three transcontinental railroads
  - World class seaport - 110 miles inland from Pacific Ocean
  - Expanding national and international air service



- **Regional Financial and Service Center**
  - Portland metro area is the nation's 27th largest metropolitan area
  - The service sector is the fastest growing segment
  - Developed urban area 30 miles in diameter
- **Educated and Productive Workforce**
  - Region's workforce is the largest in the state
  - There are significant training institutions in the region
  - The workforce is the most diverse in Oregon
  - Education levels are higher than the state average
  - Comprehensive training programs
- **Abundant Energy and Water Resources**
  - Diversified supply/stable rates
  - Rates are among the lowest in the nation
  - Resources adequate to meet long-term future needs
  - Quality service providers
- **Excellent Living Environment**
  - Quality of education
  - Affordable living
  - Natural beauty
  - Cultural excellence
  - Superior quality of life

### **C. Identification of Resource Gaps and Opportunities**

The Metro region also has resource gaps and opportunities:

- **Growing Population and Labor Force**
  - From 1980 to 1990, the population of Multnomah County grew (adjusted for annexations) while Washington County grew 27%
  - The numbers and pockets of unemployed are the largest in the state
  - The supply of labor is growing faster than new jobs are being created
  - Unemployment and discouragement is greater in some minority groups and neighborhoods than in the general population
  - Wages continue to decline
  - 85% of workers needed for the new technologies and sophisticated jobs are already working: limited number of **skilled** workers in unemployment pool
- **Educated and Productive Workforce**
  - Employers are concerned about the skill levels of existing workers
  - Training is not widely available for current entry level workers (SCANS report)
  - New workforce entrants have skill levels below what employers need and expect
- **Unsettled Tax Environment**
  - Current Oregon State tax structure viewed as not stable or predictable
  - Employers concerned about future tax burden on business
  - Impact of Measure 5 on infrastructure and education viewed negatively

### •Disparate Economic Development

- Between 1980 and 1990, the region's per capita income increased by 49% while Portland's per capita income increased by only 27%
- In 1980, Portland's wages were 9%-22% higher than those of the region. By 1990, Portland's wages were 2% higher in manufacturing and 5% lower in the service sector. Higher paying jobs continue to locate outside the city
- In 1980, Portland's unemployment rate was 17% higher than the region's. By 1990, the gap had widened to 32%
- In 1980, Northeast Portland's unemployment rate was 29% higher than the region's. By 1990, the gap had increased to 113%
- The ethnic minority population in North/Northeast Portland is 42.3% as compared to 8% for the Portland/Vancouver metro area
- Unemployment rates are higher for ethnic minority groups:

#### Unemployment Rates in Metro Region (Region Total: 5.4% March 1993)

	Multnomah County	Washington County
African Americans	12.7%	8.0%
Native Americans	12.2%	11.1%
Hispanics	7.7%	6.5%
Asians/Pacific Islanders	5.8%	3.7%

- Measure 5 impact on public education concerns employers expectations
- The 27% drop-out rate for youth in North/Northeast Portland and high crime rate for the area demand a specific planned approach to stimulate economic development for the area.

## V. Industry Selection

### A. Selection Rationale

The vision statement selected by Metro Region's Board is: *To Promote A Diverse and Sustainable Economy*. Components of this vision are as follows:

#### Jobs/Employment

- Equitable Distribution - Geographical/Socio-Economic
- Value Added
- Economically Self-Sufficient (Family Wage)
- Tied to Business Needs/Opportunities
- Attract/Expand/Maintain Jobs

#### Training/Retraining/Education

- Sustainable/Self Perpetuating
- Available to All People
- Improve K-Career, Community College & Higher Ed
- Impact Existing Residents
- Balance Between Availability & Jobs

#### Livability

- Environmental Quality Maintained
- Widespread Prosperity
- Support Social & Physical Infrastructure

#### Economy

- Diverse Based on Knowledge & Skills
- Global
- Attract/Expand/Maintain Business
- Investment
- Stable and Predictable Taxes & Regulatory Environment

Consistent with the region's vision, the Board developed the following list of long-term goals which also served as selection criteria for the Metro Region's three key industries:

- GOAL #1: Create and retains jobs that lead to economic self-sufficiency
- GOAL #2: Continuously develop, educate and train workforce
- GOAL #3: Link jobs to all region residents
- GOAL #4: Build regional public and private wealth and economic capacity
- GOAL #5: Positively affect low income communities
- GOAL #6: Enhance quality of life
- GOAL #7: Provide full-range of job opportunities
- GOAL #8: Link business needs with educational system
- GOAL #9: Create entrepreneurial opportunities
- GOAL #10: Link private, educational, general governmental sector to economic agenda
- GOAL #11: Attract, expand, retain companies and jobs within key industries
- GOAL #12: Equitable distribution of jobs (geographic and socio-economic)

All 13 of Oregon State's key industries were invited to make presentations to the Metro Regional Strategies Board. These presentations were to be made in person and were to address the previously stated selection criteria. The following nine industry groups responded by making presentations to the Board:

- ◆ Aerospace
- ◆ Agriculture
- ◆ Biotechnology
- ◆ Environmental Services
- ◆ Film & Video
- ◆ High Technology
- ◆ Metals
- ◆ Software
- ◆ Tourism

Independent evaluation of each of these industry groups led the Board to select **Biotechnology**, **High Technology** and **Metals** as the targeted industries for this strategy. This assessment was based upon a review of the Board's long-range goals and an evaluation by the Board of the opportunities each industry has to accomplish these stated goals.

The Metro Region has determined that the following economic components are critical to the success of all industries in the region:

- **Education and Training**
- **Business Infrastructure Development**
- **Marketing and Recruitment**
- **Management and Technical Assistance**

## **B. Barriers to Industry Development**

Group discussions with industry businesses, industry associations and regional community representatives revealed the following barriers to industry development within the Metro Region:

- Availability of properly educated and skilled workers
- Improvement in new labor force work habits
- Infrastructure needs: wet labs, new business facilities
- Accessibility of management and technical assistance
- Effective marketing and recruitment programs

## **C. Link to Regional Vision and Long-Term Goals**

Linkage to the Metro Region's vision and long-term goals is accomplished by providing the means to overcome stated barriers to development in the biotechnology, high technology and metals industries. Job creation, workforce education, training and development, economic self-sufficiency, regional wealth and economic capacity, and other regional goals are linked directly to the vision of a diverse and sustainable economy.

From the Metro Regional Strategies Board's discussions with key industries, there are serious concerns regarding skill levels within the available workforce at all levels of employment from entry level to postgraduate scientists and technicians. Required entry level skills are much higher than they have ever been. The linkage between available workforce skills, job creation and economic development is clear. While specific needs are required by different key industry sectors, much of the required skills are similar across the region's selected key industries.

A key concept in the region's strategy for economic development is the need to focus on workforce education, training and development in all selected industries. While this is one of several strategic components, it is considered to be the critical success factor toward sustainable economic development for the region. A core concept is that change needs to occur in workforce education from K-12 through community colleges and four-year colleges and universities. This change has to be driven by the educators themselves and therefore, the education workforce needs to be developed in

order to enact change in the preparation of the labor force.

Work-based learning experiences will be developed through partnerships between education and private industry to introduce a real, functional school-to-work component into the educational system. Work-based learning will tie directly to education reform in the state of Oregon by connecting with CAM (Certificate of Advanced Mastery) development. Standards will be developed and used by education and industry to define what it takes to be successful in school and in the world of work.

Initiatives in this area of workforce education, training and development tie directly to the \$335,000 in Workforce Quality Committee funds dedicated to school-to-work in the Metro Region (Region 2), strengthens the region in its efforts to receive a significant portion of the \$8 million which Oregon may receive from the School To Work Opportunities Act, and strengthens the proposed application to the Federal Government for \$5-800,000 in additional direct funding.

Additionally, the need for change will require the key industries to become more knowledgeable of the education process, the educational delivery systems, and how they can assist that process both in the schools and in the work place. Linking the key industries to schools, work-based learning, skills development and adult retraining are all components of education, training and workforce development embraced by the Metro Region Board for all three selected industries.

Additional linkage to the region's vision and goals is provided by infrastructure development, marketing and recruitment, and management/technical assistance in the biotechnology and high technology industry sectors. These initiatives are industry specific and will be addressed in the biotechnology and high technology industry strategies.

Infrastructure requirements for industry development include business facilities, laboratories and resource/development centers. During the early stages of commercialization, biotechnology facilities and other shared facilities can provide business expertise, access to expensive equipment, and networks of managerial and technical resources often otherwise unobtainable by small start-up companies. Infrastructure needed to support the high technology industry can also assist software development through accessibility to various hardware formats and operating system platforms in a high technology resource/development center.

Marketing and recruitment are components of the region's economic development plan for the biotechnology and high technology industry sectors. Recruitment of out-of-state firms by advancing the Metro Region's reputation as a biotechnology and high technology center strengthens the employment base, builds economic capacity and grows recognized clusters within these industry sectors which create additional growth opportunities.

Management and technical assistance requirements vary by industry sector. The environmental biotechnology industry segment needs assistance developing a contract procurement center. The high technology industry needs funding for an industry benchmarking program and performance measurement system to evaluate competitiveness for long-term growth and development.

## **D. Industry, Public and Educational Partnerships**

### **Biotechnology Industry Partnerships**

- Oregon Biotechnology Association
- Oregon Biotechnology Foundation
- Oregon Environmental Technology Association
- Oregon Health Sciences University
- Oregon Graduate Institute
- Industry Partners (companies within industry)
- Portland State University

### High Technology Industry Partnerships

- American Electronics Association
- Lintner Center for Advanced Education
- Oregon Graduate Institute
- Oregon Center for Advanced Technology Education
- Software Association of Oregon
- Industry Partners (companies within industry)
- Portland State University
- Oregon Joint Graduate

### Metals Industry Partnerships

- Oregon Metals Industry Council
- Oregon Precision Metal Fabricators Association
- Oregon Advanced Technology Consortium
- Industry Partners (companies within industry)

### Educational Partnerships

- Mt. Hood Community College
- Mt. Hood Regional Consortium (Vocational/Technical Education)
- National School to Work Opportunities Act
- Oregon Business Council - Education Subcommittee
- Portland State University
- Portland Community College
- Portland Area Vocational Technical Education Consortium
- Region 2 Workforce Quality Committee
- The Private Industry Council
- Portland State University
- Oregon Joint Graduate Schools of Engineering

## **E. Analysis of the Foundation of Industry Resources**

### Biotechnology Industry Resources

- Industry is highly dependent on access to high-level research facilities and programs. Companies usually emerge as an outgrowth of scientific discoveries in academic research labs around the country.
- Technology Transfer Opportunities:
  - Advanced Science & Technology Institute
  - Oregon Health Sciences University
  - Oregon Graduate Institute
  - Oregon Regional Primate Research Center
  - Good Samaritan Hospital's Dow Neurological Sciences Institute
  - Emanuel Hospital
  - Portland State University
  - Veteran's Administration Hospital
- Industry requires highly skilled and technically trained employees
  - Community College/university and specialized training of lab technicians
- Biotechnology Industry is in its infancy but substantial growth is expected
  - The world market for biotechnology derived products is expected to grow at an annual compound rate of 25%, from \$6 billion in 1992 to around \$60 billion by the year 2000.
- Emerging cluster of biotechnology companies in the region aids industry recognition as a center for future industry growth.
- Biotechnology applications are well suited for Oregon:
  - Forest products, agriculture, aquaculture, bioremediation, and environmental services are areas where existing Oregon industries can develop and utilize biotechnology applications. Applying biotechnology to established Oregon industries can provide those industries with a competitive edge in the market.

### High Technology Industry Resources

- Industry requires highly skilled and technically trained employees
- Education from K-12, community college, and four year colleges and universities is critical success factor for sustainable high technology industry growth. Additional specialized/technical training needed.
- Trend is away from positions performing tedious jobs and moving toward positions involving higher level tasks that require greater training.
- Large regional high technology industry base is expected to enjoy moderate growth over the next decade.
- Growth opportunities exist in electronic design automation, parallel computing, pen-based and notebook computers, multi-media, networking, color printers/plotters and other output devices, optical scanning, compact disc-read only memory (CD-ROM), and flat panel displays.
- Regional industry success due to geographic location, proximity and penetration of international markets.
- The greater Portland metropolitan area has the second largest concentration of Japanese semiconductor-related companies in the U.S. (after the San

Francisco Bay area).

- Existing regional cluster of high technology companies is large and sustainable. A critical mass of companies (industry food chain):
- 1,700+ high-technology firms statewide (85% in Portland Metro area)
- World class companies in many sectors (computers, semiconductors, software, instruments)
- Enabling the high technology industry, the software industry in Oregon is mostly technical and applications oriented, not consumer-based.

#### Metals Industry Resources

- Oregon has a critical mass of specialty metals firms with unique technology.
- Precision Castparts (structural investment castings), ESCO (steel castings, plate, bar and coil), TiLine and ORMET (titanium), VARICAST and Teledyne Wah Chang (primary zirconium and hafnium mill products).  
The Metro Region has a significant share of these firms. Segments of the metals industry producing value-added products are experiencing growth.
- A strong metals industry is essential to other industries (i.e., transportation equipment, aerospace and high technology). The industry outlook for firms that can enter niche markets and add value to its products is excellent.
- Increased skill requirements in the metals industry are due to greater use of computerized and electronic equipment but jobs are readily available to high school graduates who have basic skills in reading, writing, math and comprehension.
- Metal industry participants in the region are beginning to develop effective education and training programs in partnership with local community colleges to meet the need for skill upgrades and entry level training.
- Potential growth in the metals industry requires a skilled and educated work force, ability to comply with tightening environmental laws, low-cost electric power availability, transportation access with favorable rates, and considerable capital investment in modern equipment and facilities.
- Oregon metals firms generate over 90% of sales revenue from outside markets, but are predominantly locally owned.



## **VI. Biotechnology Industry Strategy**

### **A. Industry Analysis (SWOT)**

In conjunction with representatives of private industry, educational institutions, industry associations, local government and economic development institutions, the Board has determined that the following elements are "missing-links" or areas in need of improvement for the biotechnology industry in the Metro Region:

1. Education, training and workforce development initiatives must be supported.
2. Business infrastructure requirements within industry need to be addressed.
3. Marketing and recruitment efforts need to be assisted.
4. Managerial and technical assistance needs to be provided.

### **B. Long-Term Industry Benchmarks and Indicators**

1. An increase in the number of biotechnology companies and jobs within the Metro Region.
2. Strong linkages between the biotechnology and environmental service industries (i.e., environmental biotechnology).
3. Focused educational initiatives in biotechnology and environmental biotechnology.
4. Availability of adequate business infrastructure resources within biotechnology industry to assist start-up companies and growing biotechnology businesses.
5. Managerial and technical assistance programs available to facilitate industry growth and development.
6. Industry recognition of the Metro Region's reputation as a biotechnology center.

### **C. Prioritized list of activities to be addressed**

- Activity #1.** Advance biotechnology/environmental biotechnology training and education programs for students, educators, and workforce participants. Increase the information flow about biotechnology and environmental biotechnology to schools and industry.
- Activity #2.** Create a biotechnology business facility and environmental biotechnology resource and development center within the Metro Region. Provide linkage to available contract procurement resources.
- Activity #3.** Develop effective marketing and recruitment capabilities to attract well regarded out-of-state firms.

- Activity #4.** Create business development and growth programs for emerging biotechnology companies which include information resources and management/financial counseling at critical stages of development.

## **VII. High Technology Industry Strategy**

### **A. Industry Analysis (SWOT)**

In conjunction with representatives of private industry, educational institutions, industry associations, local government and economic development institutions, the Board has determined that the following elements are "missing-links" or areas in need of improvement for the high technology industry in the Metro Region:

1. Education, training and workforce development initiatives must be supported.
2. Business infrastructure requirements within industry need to be addressed.
3. Marketing and recruitment efforts need to be assisted.
4. Managerial assistance needs to be provided to smaller firms and developing segments within the industry.

### **B. Long-Term Industry Benchmarks and Indicators**

1. Strong linkages between the high technology industry and educational system providing integration of industry needs into educational curriculum in K-12, community colleges and four year college and universities.
2. Availability of adequate business infrastructure resources within high technology industry to assist start-up companies and growing high technology businesses.
3. Continued industry recognition of the Metro Region's reputation as a leading high technology center.
4. Management and technical assistance programs available for start-up companies, smaller businesses and industry support initiatives.
5. Sustain existing industry employment levels in the region and attract new job growth through industry development.

### **C. Prioritized list of activities to be addressed**

- Activity #1.** Link educational system curriculum to high technology industry requirements. Provide high technology training and education programs for students, educators, and workforce participants.
- Activity #2.** Fund the development of an industry benchmarking program and performance measurement system.
- Activity #3.** Create a software/hardware laboratory for testing compatibility of software applications with various hardware/operating systems.

- Activity #4.** Fund a Multimedia market study for industry development within the Metro Region.
- Activity #5.** Improve and develop effective marketing and recruitment capabilities to attract well regarded out-of-state firms.
- Activity #6.** Create business development and growth programs for emerging high technology companies which include information resources and management/financial counseling at critical stages of development.

## **VIII. Metals Industry Strategy**

### **A. Industry Analysis (SWOT)**

In conjunction with representatives of private industry, educational institutions, industry associations, local government and economic development institutions, the Board has determined that the following elements are "missing-links" or areas in need of improvement for the metals industry in the Metro Region:

1. Education, training and workforce development initiatives must be supported.
2. Managerial and technical assistance needs to be provided.

### **B. Long-Term Industry Benchmarks and Indicators**

1. Strong linkages between the metals industry and educational system to provide integration of industry needs into educational curriculum in K-12, community colleges and four year college and universities.
2. Increase jobs in the metals industry and attract qualified and motivated workforce participation.
3. Availability of technical and management assistance programs for smaller businesses within the industry.

### **C. Prioritized list of activities to be addressed**

- Activity #1.** Link educational system curriculum to metals industry requirements. Provide metals industry training and education programs for students, educators, and workforce participants.
- Activity #2.** Increase the information flow about opportunities in the metals industry to students in the region's schools.
- Activity #3.** Create business development and growth programs for emerging metals companies which include information resources and management/financial counseling at critical stages of development.
- Activity #4.** Assist metals industry in providing permanent placement of workers within industry companies in the Metro Region.

## IX. Link to Regional Vision, Goals and Industry Barriers

Linkages of specific activities to identified industry barriers are made as follows:

<b>Industry Barriers</b>	<b>Biotechnology Industry Activities*</b>	<b>High Technology Industry Activities*</b>	<b>Metals Industry Activities*</b>
<b>Linkage</b>			
Availability of properly educated and skilled workers	#1	#1	#1, #2, #3
Improvement in labor force work behavior expectations	#1	#1	#1, #2
Infrastructure needs: wet labs, new business facilities	#2	#3	-
Accessibility of management and technical assistance	#4	#2, #4, #6	#3
Effective marketing and recruitment programs	#3	#5	-

\* Activities indicated by number - see industry strategies for specific details for each activity.

Linkages of activities to long term economic development goals developed by the Metro Region Board are made in each industry by varying degree as follows:

Regional Strategies Goals Linkage		Biotechnology Industry	High Technology Industry	Metals Industry
Goal #1	Create and retain jobs that lead to economic self-sufficiency.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #2	Continuously develop, educate and train workforce.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #3	Link jobs to all region residents	<i>Moderate Degree</i>	<i>Moderate Degree</i>	<i>High Degree</i>
Goal #4	Build regional public and private wealth and economic capacity.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #5	Positively affect low income communities.	<i>Moderate Degree</i>	<i>Moderate Degree</i>	<i>High Degree</i>
Goal #6	Enhance quality of life.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #7	Provide full-range of job opportunities.	<i>Moderate Degree</i>	<i>Moderate Degree</i>	<i>High Degree</i>
Goal #8	Link business needs with educational system.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #9	Create entrepreneurial opportunities.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #10	Link private, education, government sectors to economic agenda.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #11	Attract, expand, retain companies and jobs within key industries.	<i>High Degree</i>	<i>High Degree</i>	<i>High Degree</i>
Goal #12	Equitable distribution of jobs (geographic and socio-economic).	<i>Moderate Degree</i>	<i>Moderate Degree</i>	<i>High Degree</i>

## **X. Two Year Action Plan**

### **A. Biotechnology Industry Activities**

**Activity #1.** Link educational system curriculum to industry requirements. Provide biotechnology, environmental biotechnology training and education programs for students, educators, and workforce participants. Increase the information flow about biotechnology and environmental biotechnology industry opportunities to schools and industry.

**Timeframe:** This project will be implemented starting in December 1995 with measurable results by September 1996.

10/94-12/94	Solicit industry involvement in program development
1/95-12/95	Develop specific training and education programs
12/95-9/96	Implement programs with schools and industry

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**

Oregon Biotechnology Association  
Oregon Biotechnology Association member companies  
Oregon Environmental Technology Association  
Region 2 Workforce Quality Committee  
The Private Industry Council  
Public education systems

**Link To Oregon Benchmarks:**

Build a Superior, World Class Workforce  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #2, #3, #5, #6, #8, #10, #12

**Performance Measure (by 9/96):**

- Involve a minimum of two biotechnology companies and two environmental services companies in the creation of training and education programs for students, educators, and workforce participants
- Employ teachers in biotechnology and environmental biotechnology industry summer internships.

**Activity #2.** Create a biotechnology business facility and environmental biotechnology resource and development center within the Metro Region. Provide linkage to available contract procurement resources.

**Timeframe:** This project will be completed by April 1996.

10/94-3/95 Solicit industry involvement in facility design

10/94-3/95 Solicit industry involvement in providing additional funding

4/95-7/95 Identify site location

8/95-3/96 Prepare site for facility start-up

4/96 Facility start-up

**Estimated Investment:** \$250,000

**Potential Funding Partners:**

Oregon Biotechnology Association

Oregon Biotechnology Association member companies

**Link To Oregon Benchmarks:**

Public Infrastructure Investment

Value-Added Products, Global Business

Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #7, #9, #11

**Performance Measure:**

·Start-up facility on time and within budget

·Attract at least two start-up businesses by 4/96 opening date

·20 jobs for will be created by companies in facility by 9/96

**Activity #3.** Develop effective marketing and recruitment capabilities to attract well regarded out-of-state firms.

**Timeframe:** This project will be completed by July 1995 with measurable results by September 1996.

10/94-6/95 Develop marketing and recruitment tools (i.e., trade show booth, literature, brochures, etc.).

7/95-9/96 Attend industry trade shows, deliver marketing materials to well regarded out-of-state companies.

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**

Oregon Biotechnology Association and member companies.

Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business

Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #6, #7, #11

**Performance Measure (by 9/96):**

·Attend one national or regional trade show

·Obtain at least two bona fide leads on well regarded biotechnology companies interested in locating in the Metro Region

**Activity #4.** Create business development and growth programs for emerging biotechnology companies which include information resources and management/financial counseling at critical stages of development.

**Timeframe:** This project will be implemented by December 1995 with measurable results by September 1996.

10/94-12/95	Solicit industry involvement in program development
1/95-12/95	Develop specific development and growth programs
12/95-9/96	Implement programs

**Estimated Cost:** Included in Cross-Industry Strategy Funding  
Public education systems

**Potential Funding Partners:**  
Oregon Biotechnology Association and member companies.

**Link To Oregon Benchmarks:**  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #6, #7, #9, #10, #11

**Performance Measure:**

- Involve a minimum of two biotechnology companies in the creation of business development and growth programs.
- Survey of five companies in this industry will be made to evaluate program by 9/96

## **B. High Technology Industry Activities**

**Activity #1.** Link educational system curriculum to industry requirements. Provide training and education programs for students, educators, and workforce. Increase the information flow about high technology industry opportunities to schools and industry.

**Timeframe:** This project will be implemented starting in December 1995 with measurable results by September 1996.

10/94-12/94	Solicit industry involvement in program development
1/95-12/95	Develop specific training and education programs
12/95-9/96	Implement programs with schools and industry

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**  
American Electronics Association  
American Electronics Association member companies  
Region 2 Workforce Quality Committee  
The Private Industry Council  
Public education systems

**Link To Oregon Benchmarks:**  
Build a Superior, World Class Workforce  
Value-Added Products, Global Business



Diverse and Productive Industry

**Link to Long-term Goals:** #2, #3, #5, #6, #8, #10, #12

**Performance Measure (by 9/96):**

- Involve a minimum of two high technology companies in the creation of training and education programs for students, educators, and workforce.
- Employ teachers in high technology industry summer internships.

**Activity #2.** Fund the development of an industry benchmarking program and performance measurement system.

**Timeframe:** This is a project in the formative stages. The development of high technology industry benchmarks and performance measurement is a continual process over the two-year action plan period.

**Estimated Cost:** \$25,000 (see Multi-Regional Opportunities for additional funding)

**Potential Funding Partners:**

American Electronics Association  
American Electronics Association member companies  
Software Association of Oregon  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #10, #11

**Performance Measure (by 9/96):**

- Benchmarking to include participating industry companies
- Survey of ten companies will be made to evaluate program

**Activity #3.** Create software/hardware laboratory for testing compatibility of different software applications with various hardware/operating system platforms.

**Timeframe:** This project will be completed by April 1996.

10/94-3/95	Solicit industry involvement in design of laboratory
4/95-7/95	Identify site location
8/95-3/96	Prepare site for start-up
4/96	Start-up

**Estimated Cost:** \$135,000

**Potential Funding Partners:**

American Electronics Association  
American Electronics Association member companies  
Software Association of Oregon  
Public education systems

**Link To Oregon Benchmarks:**

Public Infrastructure Investment  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #7, #9, #11

**Performance Measure:**

- Start-up laboratory on time and within budget
- Laboratory to be used by at least ten area companies by 9/96

**Activity #4.** Fund a Multimedia market study for industry development within the Metro Region.

**Timeframe:** This project will be completed by September 1996.

10/94-3/95	Solicit industry involvement in design market study
4/95-5/95	Identify research firm to conduct study
6/95-8/96	Conduct market study
9/96	Publish study results and recommend future action

**Estimated Cost:** \$50,000

**Potential Funding Partners:**

American Electronics Association  
American Electronics Association member companies  
Software Association of Oregon  
Oregon Film & Video Office  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #7, #9, #11

**Performance Measure:**

- Include representation from high technology, software and film & video industries in the design, implementation, and evaluation of study results.
- Complete market study on time and within budget.

**Activity #5.** Develop effective marketing and recruitment capabilities to attract viable out-of-state firms.

**Timeframe:** This project will be completed by July 1995 with measurable results by September 1996.

10/94-6/95	Develop marketing and recruitment tools (i.e., trade show booth, literature, brochures, etc.).
7/95-9/96	Attend industry trade shows, deliver marketing materials to well regarded out-of-state companies.

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**

Metro Region High Technology Companies  
American Electronics Association  
Software Association of Oregon  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #6, #7, #11

**Performance Measure (by 9/96):**

- Attend one national or regional trade show
- Obtain at least two bona fide leads on well regarded high technology companies interested in locating in the Metro Region

**Activity #6.** Create business development and growth programs for emerging high technology companies which include information resources and management/financial counseling at critical stages of development.

**Timeframe:** This project will be implemented by December 1995 with measurable results by September 1996.

10/94-12/95	Solicit industry involvement in program development
1/95-12/95	Develop specific development and growth programs
12/95-9/96	Implement programs

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**

Metro Region High Technology Companies  
American Electronics Association  
Software Association of Oregon  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #6, #7, #9, #10, #11

**Performance Measure:**

- Involve a minimum of two high technology companies in the creation of business development and growth programs.
- Survey of five companies in this industry will be made to evaluate program by 9/96

**C. Metals Industry Activities**

**Activity #1.** Link educational system curriculum to metals industry requirements.

Provide metals industry training and education programs for students, educators, and workforce participants.

**Timeframe:** This project will be implemented starting in December 1995 with measurable results by September 1996.

10/94-12/94	Solicit industry involvement in program development
1/95-12/95	Develop specific training and education programs
12/95-9/96	Implement programs with schools and industry

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**

Oregon Metals Industry Council  
Oregon Precision Metal Fabricators Association  
Oregon Advanced Technology Consortium  
Region 2 Workforce Quality Committee  
Industry Partners (companies within industry)  
The Private Industry Council  
Public education systems

**Link To Oregon Benchmarks:**

Build a Superior, World Class Workforce  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #2, #3, #5, #6, #8, #10, #12

**Performance Measure (by 9/96):**

- Involve a minimum of two metals industry companies in the creation of training and education programs for students, educators, and workforce.
- Employ teachers in metals industry summer internships to link curriculum development to industry needs/opportunities, create industry understanding, and bring the message of availability of family wage jobs to students as an acceptable career choice.

**Activity #2.** Increase the information flow about opportunities in the metals industry to students in the region's schools.

**Timeframe:** This project will be implemented starting in December 1995 with measurable results by September 1996.

10/94-12/94	Solicit industry involvement in program development
1/95-12/95	Develop specific training and education programs
12/95-9/96	Implement programs with schools and industry

**Estimated Cost:** \$100,000

**Potential Funding Partners:**

Oregon Metals Industry Council  
Oregon Precision Metal Fabricators Association  
Oregon Advanced Technology Consortium

Region 2 Workforce Quality Committee  
Industry Partners (companies within industry)  
The Private Industry Council  
Education Service Districts  
Public education systems

**Link To Oregon Benchmarks:**

Build a Superior, World Class Workforce  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #2, #3, #5, #6, #7, #8, #10, #11, #12

**Performance Measure:**

- Involve a minimum of two metals industry companies in the creation of information programs for students, educators, and workforce.
- Develop coalition of metals industry associations to provide input into educational needs and program development.
- Disseminate information to twelve area schools by 12/96.
- Increase the availability of a sufficiently skilled and interested work force pool from which to hire.

**Activity #3.** Create business development and growth programs for emerging metals companies which include information resources and management/financial counseling at critical stages of development.

**Timeframe:** This project will be implemented by December 1995 with measurable results by September 1996.

10/94-12/95	Solicit industry involvement in program development
1/95-12/95	Develop development and growth programs
12/95-9/96	Implement programs

**Estimated Cost:** Included in Cross-Industry Strategy Funding

**Potential Funding Partners:**

Oregon Metals Industry Council  
Oregon Precision Metal Fabricators Association  
Industry Partners (companies within industry)  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #6, #7, #9, #10, #11

**Performance Measure:**

- Involve a minimum of two metals companies in the creation of business development and growth programs.
- Survey of five companies in this industry will be made to evaluate program by 9/96

**Activity #4.** Assist metals industry in providing permanent placement of workers within

industry companies in the Metro Region.

**Timeframe:** This project will be implemented by January 1995 with measurable results by June 1995.

10/94-12/94 Solicit industry involvement in program development  
1/95 - Implement programs

**Estimated Cost:** \$30,000

**Potential Funding Partners:**

Oregon Metals Industry Council  
Oregon Precision Metal Fabricators Association  
Industry Partners (companies within industry)  
Region 2 Workforce Quality Committee  
The Private Industry Council  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #2, #3, #5, #6, #7, #11, #12

**Performance Measure:**

- Currently, there are several hundred metals related jobs in the region. Successful implementation of this program should eliminate this large backlog of unfilled jobs.
- Hire minorities and economically disadvantaged workers to fill existing and new positions within the metals industry.

**D. Cross-Industry Opportunities**

**Activity #1. Education and Training Initiatives**

Link educational system curriculum to biotechnology, high technology and metals industry requirements. Provide training and education programs, including skill upgrading and retraining, for students, educators, and existing workers. Increase the information flow about biotechnology, high technology, and metals industry opportunities to schools and industry.

**Timeframe:** This project will be implemented starting in December 1995 with measurable results by September 1996.

10/94-12/94 Solicit industry involvement in program development  
1/95-12/95 Develop specific training and education programs  
12/95-9/96 Implement programs with schools and industry

**Estimated Cost:** \$325,000

**Potential Funding Partners:**

American Electronics Association  
Oregon Biotechnology Association

Oregon Environmental Technology Association  
Oregon Metals Industry Council  
Oregon Precision Metal Fabricators Association  
Oregon Advanced Technology Consortium  
Region 2 Workforce Quality Committee  
The Private Industry Council  
Software Association of Oregon  
Industry Partners (companies within industries)  
Public education systems

**Link To Oregon Benchmarks:**

Build a Superior, World Class Workforce  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals: #2, #3, #5, #6, #8, #10, #12**

**Performance Measure (by 9/96):**

- Involve a minimum of two industry companies from each industry segment (biotechnology, high technology, metals) in the creation of training and education programs for students, educators, and workforce.
- Employ teachers in each industry (biotechnology, high technology, metals) using summer internships to link curriculum development to industry needs/opportunities, and create industry understanding.

**Activity #2. Business Development and Growth Initiatives**

Create business development and growth programs for emerging biotechnology, high technology, and metals companies which include information resources and management/financial counseling at critical stages of development.

10/94-12/94	Solicit industry involvement in program development
1/95-12/95	Develop specific development and growth programs
12/95-9/96	Implement programs

**Estimated Cost: \$200,000**

**Potential Funding Partners:**

American Electronics Association  
Oregon Biotechnology Association  
Oregon Environmental Technology Association  
Oregon Metals Industry Council  
Oregon Precision Metal Fabricators Association  
Oregon Advanced Technology Consortium  
Region 2 Workforce Quality Committee  
Software Association of Oregon  
Industry Partners (companies within industries)  
Public education systems

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals: #1, #4, #6, #7, #9, #10, #11**

**Performance Measure:**

- ◆ Involve at least two companies from each of the three key industries selected by the Metro Region Board to participate in the development of resources and programs to be included in this project.
- ◆ Survey five companies from each key industry once the program is operational for six months to determine usage characteristics and program effectiveness.

**Activity #3. Marketing and Recruitment Initiatives**

Improve and develop effective marketing and recruitment capabilities to attract well regarded out-of-state firms.

**Timeframe:** This project will be completed by July 1995 with measurable results by September 1996.

10/94-6/95	Develop marketing and recruitment tools (i.e., trade show booth, literature, brochures, etc.).
7/95-9/96	Attend industry trade shows, deliver marketing materials to well regarded out-of-state companies.

**Estimated Cost:** \$200,000

**Potential Funding Partners:**

Local Industry Partners  
Industry Associations  
Portland State University

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #6, #7, #11

**Performance Measure (by 9/96):**

- Attend at least one national or regional biotechnology trade show and at least one national or regional high technology trade show
- Obtain at least two bona fide leads on well regarded biotechnology and high technology companies interested in locating in the Metro Region

**Activity #4. Electronic Equipment Repair Training Initiative**

Biotechnology, high technology and metals industry firms are increasingly reliant on electronic equipment. This initiative will provide training programs for the development of local repair technicians to facilitate the continued operation of this critical equipment on a timely basis.

**Timeframe:** This project will be completed by December 1995 with measurable results by September 1996.

10/94-12/94	Solicit industry involvement in program development
1/95-12/95	Develop specific training and education programs
12/95-9/96	Implement programs



**Estimated Cost:** \$70,000

**Potential Funding Partners:**

Local Industry Partners  
Industry Associations  
Public education systems

**Link To Oregon Benchmarks:**

Build a Superior, World Class Workforce  
Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #2, #4, #7, #8, #10, #11

**Performance Measure (by 9/96):**

·Involve a minimum of two industry companies from each industry segment (biotechnology, high technology, metals) in the creation of these programs.

## **XI. Multi-Regional Opportunities**

In partnership with the Benton, Lane, Lincoln, Linn Region and the Mid-Valley Region, the Metro Region would like to pursue multi-regional funding for continued development of the high technology industry benchmarking program and performance measurement system. Initial seed money for this project is included in High Technology Activity #3.

**Timeframe:** This is a project in the formative stages. The development of high technology industry benchmarks and performance measurement is a continual process over the two-year action plan period.

**Estimated Cost:** \$75,000 (see High Technology Industry Activity #2 for additional Metro Region funding for this project)

**Potential Funding Partners:**

American Electronics Association (and member companies)  
Software Association of Oregon (and member companies)

**Link To Oregon Benchmarks:**

Value-Added Products, Global Business  
Diverse and Productive Industry

**Link to Long-term Goals:** #1, #4, #10, #11

**Performance Measure (by 9/96):**

·Benchmarking to include participating industry companies  
·Survey of ten companies will be made to evaluate program

## STRATEGY EVALUATION PLAN

This is the evaluation plan for measuring and monitoring strategy performance as part of the proposed regional strategy, as required by OEDD. It is designed to provide an efficient self-feedback mechanism for the Board and the Implementors of the Key Industry activities. Evaluation activities will include both ongoing and formalized involvement of the Key Industries. It is also designed to provide OEDD/Economic Development Commission with appropriate reports and information regarding the cost-effectiveness of the Region's strategies and activities.

The intent of the Board is to require individualized evaluations of activities which provide quality information with as little administrative expense as possible. To minimize evaluation costs, outside audits of activities are not proposed; instead the Board expects accurate pictures of the results of the activity from each contractor with appropriate verification performed by the strategy staff. Evaluation procedures and criteria will be outlined in the contract for each project. In cases where the staff (PDC) is the project implementor, an appropriate evaluation oversight process involving the Key Industry, the Board or an outside oversight group will be utilized, as approved by the Board.

Regarding timeliness of evaluations, this plan contemplates an evaluation of activities undertaken with Regional Strategy funds at the end of each biennium (process evaluation) and an evaluation of the results of the project on the biennial anniversary of the project's funding or the end of the project, whichever is most appropriate (product evaluation). Additionally, the board will conduct less formal progress reviews with the industry associations at least one or two times each year.

In place of "regional benchmarks" the Metro Board selected a regional vision and key components and twelve long-term goals (see Section V - Industry Selection). The draft performance measures identified for the draft activities are linked with the long-term goals identified by the Board; finalized performance measures will be analyzed by the staff to insure appropriate linkage to the Board's long-term goals and the goals of the Oregon Legislature regarding Regional Strategies funding (e.g., family-wage job development/retention and key industry strengthening/diversification)).

The Board concludes that measuring the effect of the strategies and projects in terms of long-term benchmarks is impractical; factors including global market forces, entrepreneurial competence, luck, federal and state regulations, governmental business climate decisions and other factors will have far greater effect on the macroeconomic statistics than the resources of the regional strategies program. Therefore, the Board will not attempt to measure the effect of the strategy in broad benchmark measures.

Furthermore, long-term benchmarks are not yet established for the Metro region. Multnomah County is presently establishing economic prosperity benchmarks with conclusion of the process expected towards the end of 1994. Washington County has not begun a benchmarking process. As long-term benchmarks are established for the Metro region through official actions, the Board will consider the benchmarks in future strategy work.

The Board will require, through funding contracts with contractors, prudent and professional management of activities. This will include the ability and commitment by the contractor to react quickly to situations when activities are not progressing as expected. Evaluations of the process will likely include simple customer satisfaction surveys when the activity is meeting expectations; if the activity is having difficulty a more stringent evaluation of the process will be required, including focus groups (conducted by outside facilitators if necessary).

To assist contractors in assessing the product and particularly the cost-effectiveness of their products from the various activities undertaken, the staff and board will work with academic and/or private-sector resources

over the summer of 1994 to devise a cost-effectiveness analysis template. The goal of the template will be to provide a tool for self-analysis of activity "product" by contractors of activities while providing some uniformity in product evaluation methodology for the staff and the Board. The cost-effectiveness tool will help the contractors, staff, and Board evaluate the individual activity and the overall industry strategy in both quantitative and qualitative aspects (including unintended consequences). It is expected to include return on investment considerations and an examination of alternatives for achieving the desired results.

#### CALENDAR OF EVALUATION PLANNING AND IMPLEMENTATION:

June 1, 1994      Strategy application completion.  
June 2 - Sept.    Strategy refinement including individual performance measures and evaluation plans finalized for each activity. Staff and board develop cost-effectiveness analysis tool.  
April 1, 1995      Preliminary evaluations of activity process prepared for Board review.  
May 1, 1995      Evaluations of activity process completed by contractors.  
May 15, 1995      Review of process evaluations by staff and Board.  
May 1, 1996      Mid-course evaluations of activity process completed by contractors.  
May 15, 1996      Review of process evaluations by staff and Board in consultation with industry associations.  
October, 1996      Evaluations of product completed by contractors.  
November, 1996      Review of product evaluations by staff and Board in consultation with industry associations.  
May 1, 1997      Evaluations of activity process completed by contractors.  
May 15, 1997      Review of process evaluations by staff and Board in consultation with industry associations.

....etc.

Reporting to assist OEDD with legislative reports and other requirements will be provided by the staff in consultation with contractors.

## **Appendix A - Participants in Metro Region Process**

### ***Aerospace Industry Participants***

Paul Meyerhoff	Aerospace Industry Association of Oregon
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### ***Agriculture Industry Participants***

Eric Azariah	Oregon Department of Agriculture
Cathi McLain	Oregon Department of Agriculture
Ray Steinfeld	Steinfeld Pickles Company

### ***Biotechnology Industry Participants***

Barbara Anderman	Oregon Biotechnology Association
David Clark	Perkins Coie
Dean Kruse	Portland Community College
Dr. Nanette Newell	Oregon Biotechnology Association
Richard Polley	Klarquist, Sparkman - Attorneys at Law
Richard Sessions	Vollum Institute, OHSU
Dr. George Weber	Wesman Foods, Inc.

### ***Environmental Services Industry Participants***

Bill Snyder	Oregon Environmental Technology Association
Andy Sloop	Metro Regional Services

### ***Film & Video Industry Participants***

David Woolson	Oregon Film & Video Office
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### ***High Technology Industry Participants***

Mike Bosworth	OrCad, Inc.
Jim Craven	American Electronics Association
Charmagne Ehrenhaus	Lintner Center
Bob French	Intel
Jim Hurd	Planar Systems, Inc.
Ken Maddox	Software Association of Oregon
Bruce Shafer	PC-Kwik, Inc.

### ***Metals Industry Participants***

Kathleen Curtis Dotten	Oregon Metals Industry Council
Dan Ten Eyck	Reynolds Metals
Warren Rosenfeld	Calbag Metals
John Seaver	Oregon Precision Metal Fabricators Association

Vicki Tagliafico

Howard Werth

Oregon Steel

Gunderson

***Software Industry Participants***

Ken Maddox

Bruce Shafer

Software Association of Oregon

PC-Kwik, Inc.

***Tourism Industry Participants***

Court Carrier

Carol Clark

Gene Leo

Cletus Moore

Mt. Hood Community College

Washington County Visitors Association

Portland Oregon Visitors Association

Urban League

***Other Participants***

Robert Alexander

Mark Clemmons

Elaine Cogan

Marcia Douglas

Jerry Gillham

Elizabeth Goebel

Steven Goebel

Marcy Jacobs

Christopher Juniper

David Lawrence

Anne Mulroney

Betty Mills

Lisa Nisenfeld

Janet Young

Forest Grove/Cornelius

Portland Development Commission

Cogan, Owens, Cogan Consultants

Portland City Schools

City of Gresham

City of Portland

City of Portland

Oregon Economic Development Department

Portland Development Commission

City of Hillsboro

City of Beaverton

Gresham Chamber of Commerce

Portland Development Commission

Tualatin