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## Information Report on State Support of Technological Innovation and Applied Research

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# Information Report on STATE SUPPORT OF TECHNOLOGICAL INNOVATION AND APPLIED RESEARCH

To the Board of Governors, City Club of Portland:

#### I. INTRODUCTION

On June 19, 1985, the Oregon legislature passed House Bill 2937, which established the Oregon Resource and Technology Development Corporation (ORTDC). The mission of the ORTDC is to foster innovation and assist in developing new products and processes in Oregon's advanced technology industries and in existing resource-based industries. ORTDC is financed by an allocation of funds made available from the Oregon Lottery. ORTDC is expecting an estimated \$5.5 million from lottery proceeds in the 1986-87 biennium.

Creation of the ORTDC allowed Oregon to play a role in funding scientific and technical research. The ORTDC also involved the State's higher education system in facilitating industry use of ideas developed in academic settings (Section 9, HB 2937). Since the issue of setting research and development priorities is closely tied to economic development, one of the Club's premier issues, your Committee believed it could play a valuable role by giving the efforts of the ORTDC more public visibility. The following Information Report describes the structure and functions of the ORTDC.

#### II. BACKGROUND

September 1985, then-Governor Atiyeh appointed a tenmember Board of Directors of the ORTDC. In late spring 1986, selected John Beaulieu as President of Board Corporation. Mr. Beaulieu has served as General Manager for American Standard, has had experience in investment banking and was founder of a mid-tech startup company. By fall 1986, the Corporation developed three major programs to meet its The three programs include: (1) a "Seed Capital "Early Round Financing" in the \$50,000 to \$250,000 mission. Fund" or range; (2) an Applied Research Grant and Contract Fund requiring one to one matching for private enterprises or educational institutions; and (3) a Technical Information and Support Funding criteria and a review process for applications have been established and proposals for funding are now under consideration.

In March 1987, the first venture capital awards were announced. As of March 5, 1987, ORTDC has reviewed 151 applications for the Seed Capital Fund (88% of total applications) and Applied Research Fund (10% of total applications). Of that total, 33% represents requests from the high tech industry, 15% from the wood products industry, and 3% from the

agricultural products industry. A total of 56% of these applications were generated by firms in the Portland area, 21% from the Willamette Valley, and 33% from the balance of the State. Eighty-nine applications, or 59%, already have been rejected with the remainder funded or in process of evaluation. Six Seed Capital Fund projects have been funded: Esam, Inc./\$250,000 for operations, marketing, and product development of computer products for severely communications and muscontrol-disabled individuals; and Ralin, Inc./\$250,000 for manufacturing and marketing pulse meters to monitor heart rate during exercise; Natural Technologies, Inc.,/\$100,000 for research and development of an electric breast pump for lactating mothers, with related medical supplies; Hood River Brewing/\$250,000 for new facilities to produce and market specialty ales; Pace Ventura International/\$250,000 for develof business English training videotapes for USIA: Cabana RV Inc./\$50,000 for fifth wheel trailer with expandable pods. In addition, two grants have been made from the Applied Research Fund: Drs. Hian Lauw (OSU) and Ben Klassens (Delft University, Holland)/\$100,000 for research and development of a laboratory prototype power converter and electronic control system; and Antivirals, Inc./\$100,000 for research and development of a genetic probe for diagnosing viral infections.

#### III. DISCUSSION

Several states have established agencies designed to support and encourage the startup of new technology-based indus-Connecticut Product Development Corporation (1975); Development Corporation (1978); Technology Massachusetts Tennessee Technology Foundation (1982): Michigan Venture Capital Fund (1982); Ohio-Thomas Alva Edison Partnership Program (1983); Virginia-Center for Innovative Technology (1983);Illinois Venture Capital Pool; Wisconsin Community Capital Corp.; Pennsylvania-Ben Franklin Partnerships (1983); and Arkansas Science and Technology Authority (1984). Descriptions of several of these programs are available in the City Club office.

As mandated by the enabling legislation, ORTDC will be supporting technological innovation in the State's established industries of agriculture, forestry, fisheries and metallurgy. ORTDC also will support the development and implementation of innovations or new technologies in existing resource, technology-based and emerging trade-sector industries. ORTDC is taking an active approach to funding by encouraging the pursuit of business ventures by individuals who have created technological innovations. ORTDC is planning to provide venture capital support in the range of \$50,000 to \$250,000, whereas typical private sector venture capital investment is over a million dollars. The ORTDC is required to maintain a self-perpetuating fund; therefore, a necessary criterion for all seed capital financing is the economic viability of the business to be supported. Trade-sector industries are to be

supported over service-sector industries and the jobs to be created are to be located in rather than out of state. Since the State is not permitted to acquire private equity and security, ORTDC has purchased stock conversion rights, will use royalties, and may use other transaction forms.(1)

Several issues continue to warrant attention by City Club members:

Is the ORTDC funded at a level sufficient to accomplish the charge given it by the legislature? For example, should there be biennial appropriations for staff support to create a one-stop research and technology information center for entrepreneurs? Such a center could serve as a clearing house to provide information about human and physical resources which might be of assistance to an embryonic company. Under the present single appropriation, funds for staffing must come from the same pool as the funds to be used for venture capital.

Is there sufficient recognition in Oregon of the importance of investment in higher education which generates technological innovation and creates a supportive environment attractive to technology-based companies?

Respectfully submitted,

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Approved by the Research Board on May 14, 1987 for submittal to the Board of Governors. Received by the Board of Governors on May 18, 1987 and ordered printed and distributed to the membership. NOTE: BECAUSE THIS REPORT CARRIES NO CONCLUSIONS OR RECOMMENDATIONS NO OFFICIAL ACTION IS REQUIRED OF THE MEMBERSHIP.

<sup>1.</sup> Response to opinion request OP-5930 from Larry D. Thompson, General Counsel, Attorney General's office to Stan Timmerman, Chairman, Legal Subcommittee, ORTDC, 2/21/86.

#### APPENDIX A Persons Interviewed

Wayne Embree, formerly with the State Economic Development Commission, now with ORTDC

John Beaulieu, President, ORTDC

Michael C. Mulder, Director, Applied Research Center, University of Portland, and Board member, ORTDC George Forester, Chairman, S.E.E.D.S.

#### APPENDIX B <u>Bibliography</u>

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