



# CHARTER

April 15, 2001

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## 1.0 BACKGROUND

In 1986, the Colorado Advanced Technology Institute (CATI) identified artificial intelligence (AI) technology as one of the advanced technologies that held promise for accelerating the economic development of the state of Colorado.

Until 1986, substantial research and development activity in AI had developed in the State's businesses and universities. However, no mechanism existed to coordinate, publicize, market, and expand this activity. In particular, no formal mechanism existed for identifying the needs of the Colorado private and public sectors with respect to AI and for matching these needs against the academic and research activity of the State's research universities.

Accordingly, CATI provided initial funding for, and has continued to support, the Colorado Institute for Artificial Intelligence (CIAI) to facilitate CIAI's establishment as a permanent, infrastructure institution that would function to fill the stated needs within Colorado in the field of artificial intelligence.

In April 1991, the Operating Board of CIAI voted unanimously to expand the technical scope of CIAI from artificial intelligence to advanced software applications while retaining CIAI's mechanism of funding technology transfer grants. Accordingly, the name of the institute was changed to the Colorado Advanced Software Institute (CASI).

In June 1999, CATI was abolished by the Colorado State Legislature. The Colorado Commission on Higher Education (CCHHE) became the funding agency for CASI.

## 2.0 MISSION, GOALS, AND OBJECTIVES

The Colorado Advanced Software Institute (CASI) is a partnership between industry, the public sector and Colorado's research universities. CASI's mission is to expedite shared development and transfer of emerging knowledge in advanced software technology among Colorado universities, industries, and public entities.

CASI achieves its mission by conducting a research and a small-scale service program. The research program, CASI's main activity, involves business-need driven, small-scale Technology Transfer Research Seed Grants and an undergraduate research / development program.

CASI activities further the following mission:

- Provides Colorado businesses with advanced software and software development processes from the research performed, thus giving businesses a competitive edge.
- Enhances the research capabilities of the faculty.
- Improves the quality and quantity of graduates from Colorado colleges and universities.
- Provides incentives to attract and retain superior faculty members at these institutions.

CASI's goals are achieved through the following objectives:

- (1) the funding of relevant, small-scale technology transfer projects. A key feature of these projects is that each supports at least one graduate student, thus contributing to the human resources foundation for advanced software activity in Colorado. Such projects address applied research topics of importance to industry or public entities and require the collaboration of a specific company or public entity that is a CASI member, thus contributing to the technological foundation for advanced software activity in Colorado. The means by which these requirements are accomplished are set forth in the annual Technology Transfer Grant RFP and related CASI policies.
- (2) the promotion of the potential of advanced software for the State of Colorado through a variety of service activities. CASI will serve as an information clearinghouse, point of contact, and advocate regarding software activity in Colorado, facilitating cooperation among government, academia, and the private and public sectors aimed at increasing the positive impact of advanced software on Colorado's economy. Specific CASI services are set forth in Section 10.0, CASI Services.

### **3.0 BENEFITS to BUSINESS / INDUSTRY and PUBLIC SECTOR**

Colorado business/industry and the public sector are the beneficiaries from this cooperative industry-university institute. Benefits of membership include:

- a right of first refusal to a royalty-bearing exclusive or nonexclusive license to the intellectual property developed in the course of CASI-sponsored research for use in its internal or external products, subject to the rights of the Collaborating Company to generated intellectual property as described in CASI's Intellectual Property Policy;
- assistance in matching business/industry and public sector needs in advanced software with the expertise at member universities;
- access to an increased pool of advanced degree graduates with advanced software-training available for recruitment, coupled with direct exposure to some of these people;
- access to the results of CASI-sponsored research through the distribution of each technology transfer project's interim and final reports;
- a vote in establishing CASI's Research Agenda and in selecting awards;
- a voice, through CASI's role as software advocate, in making universities more accessible and responsive to business/industry and public sector needs;
- increased state and national publicity regarding software work done in Colorado; and
- recognition of good corporate citizenship (CASI members' names are prominently displayed on all CASI documents).

**4.0 FOCUS**

CASI's research focus lies between basic research and advanced development. CASI's Research Agenda must be sufficiently applied to interest business/industry and the public sector yet be general enough to yield projects that several members might support. Hence, CASI's focus is at prototypical applications of a nonproprietary nature.

Whereas CASI's objective is to promote the general economic development of Colorado, CASI is dedicated to developing technology and human resources for the use of *all* businesses/industries and the public sector that contribute to Colorado's economic base.

**5.0 MEMBERSHIP**

There are four basic categories of membership: university, private sector, public sector and affiliated organizations. "Private sector" includes both for-profit and not-for-profit corporations. "Public sector" includes national, state, and local institutions.

**5.1 University Membership.** University membership consists of the universities of the state with graduate programs relevant to software research and applications. Additional academic members may be admitted at the discretion of the Operating Board.

**5.2 Private Sector Membership.** Private sector membership is open to all firms doing business in the state of Colorado. Membership is determined by payment of the annual dues of CASI, the amount of which is established yearly by the Operating Board.

**5.2.1 Multiple-level Membership.** There are five levels of membership.

All members have a full share of the roles and responsibilities of members of the CASI Operating Board. The level of membership is determined by the number of persons the business/industry or the public sector employs in the state of Colorado. The membership fee, percentage of cost sharing in CASI Technology Transfer projects, and voting privileges are tied to the level of membership. Dues are set annually by the Operating Board.

| Level | No. of Employees | No. of votes |
|-------|------------------|--------------|
| 1     | < 25             | 1            |
| 2     | ≤ 100            | 2            |
| 3     | ≤ 300            | 3            |
| 4     | ≤ 950            | 4            |
| 5     | > 950            | 5            |

**5.3 Public Sector Membership.** Public sector membership is open to public institutions at the national, state, and local levels. Public sector membership includes full participation in the research program, including the responsibility to review proposals.

**5.3.1 Tri-Level Membership.** Membership is open to national institutions, state agencies and local organizations.

**5.3.1.1** National institutions pay annual dues as established by the Operating Board at the level of membership determined by the number of employees in the state of Colorado and have the voting privileges of that level. As such, national institutions have a full share of the roles and responsibilities of members of the CASI Operating Board.

**5.3.1.2** State agencies pay no dues since the State supports CASI. Voting privileges of state agencies are based upon their number of employees.

**5.3.1.3** Local organizations pay the annual dues as established by the Operating Board at the level of membership determined by their number of employees and have the voting privileges of that level.

**5.4 Affiliated Organization Membership.** Affiliated Organizations must share CASI's goal of increasing collaboration between businesses, educational institutions, and the public sector. Affiliated Organization memberships are *ex officio* (non-voting). Affiliation rules and joint activities are approved by the operating board on a case-by-case basis.

**5.5 Membership Dues.** Business/industry and public sector members agree to pay annual dues to CASI as established by the Operating Board. The annual period of membership shall run from July 1 to the following June 30. Dues are prorated for the first membership year.

Since CASI is a nonprofit corporation, dues are tax deductible.

**6.0 AWARD COST SHARING**

An award's cost share percentage for all private and public sector members is based upon their membership level and successive project increments.

**6.1 Basic Cost Share.**

| Level | No. of Employees | Cost Share |
|-------|------------------|------------|
| 1     | ≤ 25             | 10%        |
| 2     | ≤ 100            | 20%        |
| 3     | ≤ 300            | 30%        |
| 4     | ≤ 950            | 40%        |
| 5     | > 950            | 50%        |

## 7.0 MANAGEMENT STRUCTURE

The management structure has three basic components: Director, Operating Board, and Policy Review Board. The Operating Board has an Executive Committee as its administrative component.

**7.1 Director.** The Director's site is the administrative home of CASI. It is located at one of the participating universities and may be relocated at the discretion of the Operating Board. This Office shall be located at a participating university as long as CCHE support continues.

**7.2 Operating Board.** This board consists of one representative from each campus of the participating universities, one representative from each business / industry member and one representative from each public sector member. A representative of CCHE also serves as an ex-officio member of the Operating Board. Each Operating Board member has the voting privileges of their membership level. All decisions of the Operating Board are decided by majority vote. The Operating Board Chairperson (see 7.3 below, Executive Committee) or, in his/her absence, one of the Vice Chairpersons chairs the Operating Board. The Operating Board shall establish three regularly scheduled meetings per year.

**7.3 Executive Committee.** This Committee consists of the Operating Board Chairperson and two Operating Board Vice Chairpersons. The Chairperson and one Vice Chairperson shall be Operating Board representatives from business/industry or the public sector; the other Vice Chairperson shall be a university Operating Board representative. All Executive Committee members serve for one term to coincide with CASI's fiscal year and are elected by the Operating Board at the last regular meeting of each fiscal year.

**7.4 Policy Review Board.** This board consists of the Executive Committee, the CASI Director, representatives of the administration of the five research universities and the CCHE representative. The CASI Director, the CCHE representative and the five university research administrator representatives are ex officio members. This board meets annually.

## 8.0 ROLES AND RESPONSIBILITIES

**8.1 Director.** This office is responsible for administering CASI: managing the budget, discharging the contractual obligations associated with CCHE's funding of CASI, managing the research funding activity, developing CASI membership, providing CASI services, developing the draft agenda for Operating Board meetings, and conducting formal evaluations of CASI's activity and effectiveness.

### 8.2 University Members

**8.2.1** Each campus of a member university shall designate a representative. This Campus Representative shall be responsible for (1) informing software researchers on the represented campus of CASI's Research Agenda development and other CASI activity; (2) informing CASI of all campus-wide software activity; and (3) representing his or her campus on the Operating Board.

**8.2.2** The administrations of member universities shall agree to waive all indirect costs levied on sponsored research for CASI-sponsored projects. This waiver does not apply to direct contracts between a university and a business/industry or public sector member of CASI. CASI-sponsored projects are limited in scope, as defined in the Requests for Proposals of the Technology Transfer and Undergraduate Research grant programs, which are published annually, and the announcement for the Unsolicited Technology Transfer grants.

### **8.3 Business/Industry and Public Sector Members**

**8.3.1** Business/industry and public sector members are responsible for serving on the Operating Board and the Policy Review Board, as defined in Sections 8.4 and 8.5.

**8.3.2** They shall periodically assess their own software technology needs and provide this information to CASI as a part of the annual Research Agenda process.

**8.3.3** Only they may participate in the collaborative projects CASI sponsors as defined in Section 9.1.

**8.3.4** They shall help disseminate the research results of CASI and support efforts to make software projects contribute to the economic development of Colorado.

### **8.4 Operating Board**

**8.4.1** The Operating Board is the policymaking body of CASI. As such, it has the right to issue or modify formal policies as appropriate, including but not limited to policies concerning CASI's intellectual property and the Research Program, from establishing the Research Agenda through safeguarding the reporting of results.

The Operating Board provides direction to the office of the Director regarding the administration of CASI and makes decisions regarding university membership and the Research Program. It establishes the Technology Transfer program's Research Agenda, determines the number of awards, and makes the award selections. Additionally, it determines the number and makes the selection of awards for the Undergraduate Research Grant program.

**8.4.2** The Operating Board Chairperson is the direct interface with the Director and primary representative and spokesperson of the Operating Board in all outside forums. The Chairperson convenes and sets the agenda for Executive Committee meetings, approves the agenda for Operating Board meetings, and chairs all Operating Board, Executive Committee, and Policy Review Board meetings. Either or both Vice Chairpersons may be designated by the Chairperson to act in his/her behalf in any of these roles or responsibilities.

**8.4.3** The Executive Committee is responsible for review of the annual program plan and budget before presentation to the full Operating Board, for an annual review of the Director's performance to include setting of objectives for the following year, for recommendation of actions concerning the Director's salary, for dismissing the Director, and for directing a search for a new CASI Director when required. As the executive leadership of the Operating Board, if necessary the Executive Committee may take actions without prior approval of the Operating Board. However, all actions of the Executive Committee shall be subject to approval by the full Operating Board.

**8.5 Policy Review Board.** This board is responsible for advising CASI. It reviews the Research Program of the previous fiscal year, the Operating Board initiatives, and recommends policy changes to the Operating Board.

## **9.0 CASI RESEARCH PROGRAM**

CASI's Research Program comprises the Technology Transfer Grant and the Undergraduate Research / Development Grant programs. These programs are defined in annual Requests for Proposals published and disseminated by CASI.

**9.1 Technology Transfer Grant Program.** The Technology Transfer Grant program funds one- or two-year seed grants to faculty at member universities in collaboration with a business / industry or public sector CASI member that address problems of interest to the collaborators. Each project in the Technology Transfer Grant program is intended to serve the goals of CASI: technology transfer between universities and Colorado business / industry or the public sector and human resource development in software for Colorado. Technology Transfer Grants are awarded via two mechanisms: via the annual Request for Proposals (CASI's regular program) and the Unsolicited Technology Transfer grant option.

**9.1.1 Research Agenda.** The Operating Board establishes by vote a Research Agenda for CASI's Technology Transfer Grants. The Research Agenda specifies the topics and application areas eligible for CASI funding. The Operating Board has an established policy that governs the Research Agenda process.

**9.1.2 Request for Proposals.** Upon approval of the Research Agenda, the Director will disseminate a Request for Proposals (RFP) for Technology Transfer Grants to software faculty at member universities, member company representatives, and, as necessary to generate a sufficient number of proposals, the population of software-involved corporations in the state. The RFP defines the "research package" that CASI funds. Requirements stated in the RFP ensure that the projects are scoped to meet CASI's technology transfer and human resources development needs.

**9.1.3 Award Selection.** Proposals submitted in response to the Technology Transfer Grant RFP undergo to a formal review process as stated in CASI's Proposal Review Process policy. The board may introduce a pre-screening process to reduce the number of reviewed proposals. The reviews are distributed to all members of the Operating Board. The Operating Board selects proposals for funding following its Selection Procedure policy.

- 9.1.4 Publication of Research Results.** CASI members recognize that the publication of research results is of fundamental importance to the mission of CASI. They therefore agree that the publication of concepts and ideas that are developed directly out of Technology Transfer Grant research will be a prime objective of CASI and will be promptly accomplished.
- 9.1.5 Reporting Safeguards.** Confidential or proprietary information that has been identified by a collaborating business or industry will be protected through CASI's Reporting Safeguard Policy.
- 9.1.6 Reporting.** All reports are disseminated to the CASI membership subject to reporting safeguards as described in CASI's Reporting Safeguard Policy . Final reports are made available to the public as soon as possible thereafter through publication of a notice of recent CASI technical reports.
- 9.1.7 Research Symposium.** On an annual basis, after conditions of CASI's Reporting Safeguard Policy have been met and before public release of final reports, CASI shall hold a research symposium for members only and special guests invited at the discretion of the CASI Director at which the principals of Technology Transfer Grant projects will present the results of their research.
- 9.1.8 Rights to Generated Intellectual Property from Technology Transfer Grants.** "Intellectual property" is defined as any invention (whether or not patentable), copyright, or trade secret to the extent it is created in the course of performance of work within the scope and time period (including any time extensions) of a CASI Technology Transfer grant. Rights to generated intellectual property are described in CASI's Intellectual Property Policy.
- 9.1.8.1** Any discrepancies between the language of CASI's Intellectual Property policy and the policies of Colorado Advanced Technology Institute shall be resolved in favor of CASI's policy.
- 9.1.8.2** This Charter shall be interpreted to be in compliance with the laws of the State of Colorado.
- 9.1.8.3** CASI will apply its best efforts to obtain assurances from primary contractors for CASI Technology Transfer Grants that the intellectual property established by performance of participants under such CASI grant is original and unencumbered, but CASI otherwise disclaims any warranties of any kind with respect to the intellectual property.
- 9.1.8.4** Not included as intellectual property associated with a Technology Transfer Grant are those rights to previously developed intellectual property involved in the project as specified by prior disclosure in the grant's proposal.

**9.2 Undergraduate Research / Development Grant Program.** CASI offers an opportunity for undergraduate students to participate in research activities or in a sizeable, practical software development project. This program is offered to qualified undergraduates at any state or privately funded baccalaureate degree-granting institution of higher education in the State of Colorado. This program is open to undergraduate students and their faculty at Colorado universities and baccalaureate-granting undergraduate institutions.

For research projects, the objective is to train an undergraduate student in how to do software related research, to prepare the student for graduate school and to attract the student to post-baccalaureate studies. For development projects, the objective is to train the student how to plan and execute a sizeable software project with practical value.

**9.2.1** As directed by the Operating Board, the Director disseminates a Request for Proposals for Undergraduate Research / Development Grants to identified faculty and appropriate offices in the identified institutions of higher education in Colorado. The RFP describes the Undergraduate Research / Development program.

**9.2.2** The number of awards offered in any fiscal year is determined by the Operating Board.

**9.2.3** The Operating Board makes the selection(s) from among applications submitted to the Board.

## **10.0 CASI SERVICES**

**10.1 Matching Service.** CASI will attempt to help match the needs of its business, industry, and public entity members with the capabilities of its university members for the purpose of establishing direct contracts between the business, industry, and public entity members and the universities, independent of CASI-sponsored research.

**10.2 World Wide Web.** CASI's World Wide Web pages highlight CASI's Research Program activities, such as project descriptions of its on-going Technology Transfer grants, links to the researcher's web pages, and links to member company web pages.

## **11.0 CORPORATE STATUS**

CASI shall continue as a program of C CHE, at C CHE's discretion, indefinitely as long as its programs are aligned with C CHE's own goals.

The State of Colorado is an equal opportunity employer. CASI, as a program of C CHE, conforms to the principle of nondiscrimination in the areas of race, ethnicity, gender, age, religion, or mental or physical disability.

## **12.0 MODIFICATION OF THIS CHARTER**

This Charter will serve as a working document for the establishment of CASI. It may be modified by the Operating Board if 51% of the total membership votes in support of the modification.