Concordia University
Plan for Operation and Maintenance of CFI-Funded Infrastructure

1. Introduction

The following document outlines the overall strategy and operative guidelines, including responsibilities, monitoring, financial allocation, and reporting, of operation and maintenance related to research infrastructure funded by CFI. The operation and maintenance (O&M) procedures currently in place were developed by the Vice-President, Research and Graduate Studies in consultation with the Associate Deans – Research, in the four Faculties, and implemented in May 2010 (replacing the former plan from October 2006). This plan is reviewed periodically and adapted if necessary.

While this Plan is meant to cover O&M procedures for CFI-funded infrastructure, it is also used to cover infrastructure O&M needs of research infrastructure in general.

2. Overall Strategy for Operation and Maintenance Planning

Concordia University is responsible for the operation and maintenance of CFI-funded infrastructure. The aim of the plan is to allow easy diagnosis and reporting so that any issue related to O&M can be addressed before it adversely affects the research activities, operation and sustainability of the infrastructure. Continuous monitoring of the infrastructure will allow for multi-year O&M planning taking into consideration specific factors such as how the equipment is used, expected duration of its useful life for research, its uniqueness and how critical the infrastructure is for research.

Action Plan for O&M

- Optimize resources, for example pooling funding for several projects to allow hiring technical support staff with adequate skills who can serve several installations for longer periods of time (platform approach);
- Facilitate access to funding by individual project leaders by channeling the administration of expenses and record keeping through existing organizations in the Faculties; and
- Evaluate the O&M needs on an annual basis in order to optimize the use of available resources, taking into consideration equipment, components, and systems.

Allocation of Funding from the CFI Infrastructure Operating Fund

The institutional CFI Infrastructure Operating Fund (IOF) is an important source of funding for O&M expenditures for infrastructure. Each eligible CFI project generates IOF funding (calculated at 30% of the finalized CFI contribution for the infrastructure project) that can be spent on O&M over the life of a CFI-funded infrastructure. The IOF funding generated by Concordia projects is shared between the Faculties based on the formula for generation of IOF. The institutional IOF allocation is requested from the CFI annually and divided between the Faculties based on project eligibility and forecasts.

Other Sources of Funding for O&M

Other sources of funding for O&M can be donations, user fees, external grants and contracts (individual or team), indirect costs of research funding, and internal support programs offered by the VPRGS and
each Faculty (such as the VPRGS Facility Optimization program, the VPRGS Infrastructure Support for University-recognized research units, and the VPRGS funding allocated for CRC Renewal Infrastructure Upgrades).

3. Operating Guidelines for O&M of CFI-funded Infrastructure

The institution is responsible for the CFI-funded research infrastructure and to ensure that adequate funding is available for O&M. The planning of O&M needs and expenditures is a joint responsibility shared by the Faculties, the Project Leaders and the central services (Office of the Vice-President, Research and Graduate Studies, Office of Research, and Financial Services).

These Operating Guidelines outline key activities, roles and responsibilities related to the management of the overall O&M needs for CFI-funded projects at Concordia. A timeline of the key activities of the CFI-IOF program is described in Appendix A.

Initial O&M Sustainability Plan at the CFI Project Concept Stage
At the application stage of a new CFI project, a Sustainability Plan for O&M of the requested infrastructure must be developed. This Plan is developed as a team effort, involving the designated Project Leader (faculty member), the appropriate Associate Dean – Research and/or Associate Dean – Facilities, and the CFI Liaison in the Office of Research. The developed Sustainability Plan includes a five-year forecast of expenditures and expected sources of funding along with a description of the management structure for the infrastructure. Relevant information from this Plan is presented in the CFI application.

It is expected that the Sustainability Plan will guide the O&M activities and expenditures for the infrastructure from the time when it will be implemented throughout its useful research life. On a case by case basis and for very unique and critical equipment, an emergency plan can be developed and included in the initial O&M planning stage, taking into consideration expected usage of the infrastructure and risk assessment analysis (for example, potential strains on O&M funding sources and shortfalls in expected revenues).

Other sources than the IOF such as external grants or internal support can be included in the initial O&M plan. Any internal support must be approved at the appropriate level at the application stage (for example by the Vice-President, Research and Graduate Studies, the Faculty Dean or the Department Chair) and made available to the Project Leader when the CFI-funded project becomes operational. External sources of funding (grants and contracts, user fees, donations, etc.) may also contribute to the overall O&M budget and it is the responsibility of the Project Leader to secure these in a timely fashion.

Management and Forecasting – Faculty Approach
Each Faculty is responsible for monitoring resources related to O&M for its CFI-funded infrastructure installations. This approach allows the Faculties to oversee the need for O&M and plan for multiyear support, in particular as it pertains to the management of the CFI IOF program allocation (as an example, the hiring of technical support staff with adequate skill and training who can serve several installations for longer periods of time). The Associate Dean – Research and/or Associate Dean – Facilities work closely with the Project Leaders and prepare an annual forecast plan for its eligible projects.
The Faculties are also responsible for the approval and monitoring of actual O&M expenditures throughout the year. To this effect, the Budget Office in each Faculty is responsible for managing the Faculty account for the CFI IOF funding, monitoring and keeping adequate records of expenditures – including Purchase Order documentation, Due Diligence Reports, and any other document required by the CFI for audit purposes (such as the CFI form for O&M personnel). The Faculty provides information to the Office of Research twice a year on actual and forecasted expenditures, notably for the purpose of annual reporting to the CFI.

**On-going Review of O&M Needs**
The Project Leader is best suited to oversee the day-to-day operations of the infrastructure and for identifying changes that will affect its O&M needs. Once a year, and in collaboration with the Faculty, the Project Leader prepares a forecast of O&M needs and expenditures for the coming year and is responsible for ensuring that the actual spending is in line with the forecast and/or approved allocation. The Faculty also reviews information on expected useful life of the infrastructure and its components provided by the Project Leader in the CFI annual Project Progress Reports.

The Project Leader oversees the O&M activities and submits purchase requisitions and requests to the Faculty for approval and record keeping. In cases where the actual needs or the CFI-funded infrastructure deviate from the forecast (for example if additional maintenance is needed during the year), the Project Leader is responsible for alerting the Faculty so that the forecast can be revised and, when appropriate, additional funding be made available.

In emergency situations (such as when a piece of equipment unexpectedly breaks and funds are not available to repair or replace), the Project Leader will alert the Faculty as soon as possible so that an emergency action plan can be worked out in a timely fashion. In such situations, it is expected that sources of funding available to the Project Leader (such as research grants and contracts, user fees, etc.) will be drawn upon in priority, followed by Faculty funding sources (such as funding from the indirect costs of research programs and the Faculty operational budget). If needed, an approach can be made by the Faculty for special VPRGS funding when other funding sources are not sufficient.

There is a joint responsibility between the Project Leader and the Faculty for ensuring that the infrastructure is used to its full capacity and that adequate O&M is performed. Depending on the nature of the infrastructure, this responsibility can be delegated, for example to a technical staff person.

At the end of the CFI reporting period for a given CFI infrastructure, the Project Leader, the Faculty and the CFI Liaison will meet to discuss the status of the infrastructure, its expected utilization, accessibility and relevance going forward, as well as its ongoing operation and maintenance needs.

### 4. Administration and reporting

The University, through the Office of Research and Financial Services, is responsible for yearly reporting to the CFI on spent IOF funding and providing a forecast for future funding. The OOR coordinates the O&M administrative activities and communicates with the Faculties, Project Leaders and Financial Services throughout the year to ensure that these activities are done according to the appropriate policies and in a timely fashion. All reports on expenditures and forecasts for future years are collected and aggregated by the Office of Research and sent to Financial Services for verification. It is the
responsibility of the Office of Research to inform stakeholders of roles, responsibilities, eligibility (projects and expenditures) and changes to the IOF program while Financial Services is responsible for the on-going managing and monitoring of accounts and for submitting the IOF Annual Report and Request for Next Installment to the CFI.
## APPENDIX A:

### CFI IOF – Annual Activity Plan

<table>
<thead>
<tr>
<th>Period</th>
<th>Office of Research and Financial Services</th>
<th>Faculties</th>
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<tbody>
<tr>
<td>Ongoing</td>
<td>OOR: coordinate the administrative activities and communicate with AD, PL, and FS to ensure that the administration is done in a timely fashion and policies and guidelines are applied; answer questions. FS: on-going monitoring of accounts.</td>
<td>Review, monitoring and approval of expenses submitted by PL (verification of eligibility). Contact OOR with questions when in doubt.</td>
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<td>January-February</td>
<td>OOR reviews December 31 account status prepared by AD, and asks AD to prepare the forecast for the coming year. List of eligible projects is provided to the AD.</td>
<td>Faculties prepare IOF account status as of December 31 (allocations vs. expenditures) and send to OOR for review/monitoring.</td>
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<td>April</td>
<td>OOR asks AD to prepare the financial statements for the current (closing) year.</td>
<td>Each Faculty (AD and Controller) contacts the PLs regarding expenditures for the coming year. Reviews changes to the O&amp;M needs for individual infrastructure installations with the PL. Each Faculty prepares a Faculty-based forecast plan for the coming year to send to the OOR (by May 10). Each Faculty (ADR and Controller) summarizes all the actual expenditures and send to the OOR along with the backup (CFI forms, due diligence statements, etc.) by May 15.</td>
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<tr>
<td>May</td>
<td>OOR/FS aggregate the forecasts and the actual expenditures from all AD and verify the backup material. Over/under-spending of the forecasted amounts in each Faculty IOF account is reconciled at the institutional level. OOR informs each AD of the account status.</td>
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<tr>
<td>June</td>
<td>FS submits the <em>Annual Report and Request for Next Installment</em> to CFI (due on June 15).</td>
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<td>July-September</td>
<td>OOR informs the AD when the annual installment is available from CFI and if there are any modifications from the forecast plan. Funding (amount as per forecast) is transferred to the Faculty IOF accounts.</td>
<td>Each Faculty (AD and Controller) contacts the PL of all eligible projects to inform about the IOF allocated amount for the current year and the process of submitting expenses for approval.</td>
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**Acronyms:**
- PL: Project Leader
- OOR: Office of Research
- FS: Financial Services, Restricted Funds
- AD: Associate Dean – Research and/or Associate Dean – Facilities
- Controller: Appropriate Financial Manager/Account Administrator in the Faculty