

3.0

VISION & LEADERSHIP

"It's crucial not to be guided too much by what is possible, if it's possible its boring, and we don't want to be boring, so let's figure out what is impossible and get as close as we can to that."

– Dr. John Robinson, CIRS Project Sponsor UBC Sustainability Initiative



Image 3.1 CIRS viewed along West Mall from the North.
Photograph by Martin Tessler

3.1 Overview

The CIRS vision is to be the greenest building in North America and an internationally recognized leader in accelerating the adoption of sustainable building and urban development practices. It uses a living laboratory approach to contribute knowledge, lessons and models for use by others around the world. The project is a framework for change with the inherent capability to progress and adapt over time in response to lessons learned and changing needs. It is an open place for researching and teaching sustainability; supporting collaborations between academia, government, industry, professionals, non-governmental organizations and the public; and spreading the seeds of sustainability through its interactions with a wide range of people.

The project was conceived in 1999 by Dr. John Robinson as part of the Sustainable Development Research Initiative at UBC (now the Institute for Resources, the Environmental and Sustainability), in response to a need for demonstrated sustainability research in design and building practices – a showcase of applied sustainability principles. The vision was refined in discussions with Peter Busby and other key team members, and then honed as design progressed. A strong personal relationship developed between John Robinson and Peter Busby that allowed them to effectively lead the varied assortment of stakeholders through the realization of this project.

LESSONS LEARNED

Create a Vision
Be Ambitious
Educated Leadership
Develop Partnerships
Communicate the Vision

1.0	Executive Summary
2.0	Project Background & Overview
3.0	Vision & Leadership
3.1	Overview
3.2	Description
3.3	Campus Context
3.4	Goals & Targets
3.5	Benefits
3.6	Challenges
3.7	Lessons Learned
4.0	Goals & Targets
5.0	Partnerships
6.0	Research
7.0	Building Design
8.0	Design Process
9.0	Structural System & Wood
10.0	Building Materials
11.0	Energy Systems
12.0	Rainwater System
13.0	Reclaimed Water System
14.0	Landscape & Site
15.0	Living Roof & Living Wall
16.0	Lighting
17.0	Ventilation
18.0	Building Rating Systems
FUTURE SECTIONS TO BE ADDED:	
19.0	Monitoring & Measurement
20.0	Construction
21.0	Commissioning & Performance Testing
22.0	Inhabitants vs. Occupants
23.0	Community (food...)
24.0	Operations & Maintenance
25.0	Continual Evaluations

AGENTS

Core Team:

- John Robinson
(project sponsor)
- Peter Busby
(project architect)
- Alberto Cayuela
(project manager)

Champions of the Vision:

- Partners (industry)
- Advisors
(steering committee)
- Champions advocated
for the project and spread
support in their communities

3.2 Description

Leadership Model

CIRS project participants and supporting organizations agree that the project would not have been realized without the benefit of a highly dedicated leadership. The vision was protected and nurtured by a core team whose passion and depth of expertise inspired innovation and advanced the design concept and philosophy. The leadership model was initially not explicit, but did evolve to become formalized and became the driving force behind the project.

Although the creation of CIRS relied heavily on the integrated design process and the collective knowledge of a wide-ranging group of experts and stakeholders, the leadership involved a core team of three: Dr. John Robinson, project sponsor, Peter Busby, design director, and Alberto Cayuela, project manager. This core leadership team became the guardians and advocates of the vision, and through their perseverance ensured that the concept of the most sustainable building in North America would become a reality. Peter Busby challenged the design team and consultants to be ambitious in setting goals and achieving design solutions in service of its ideals. Dr. John Robinson and Alberto promoted the concept to the stakeholders, procuring the support of industry partners, funding agencies and ultimately the building operators and inhabitants.

Although, the core leadership team was the driving force behind the vision and the realization of the CIRS project, certain outreach efforts early in the process created a series of project champions who became leaders in their own communities. A steering committee was formed very early in the process, comprised of a diverse group of representatives from key organizations - including UBC, other academic institutions (Emily Carr University, BC Institute of Technology, Simon Fraser University), Metro Vancouver (originally the Greater Vancouver Regional District) and important partners such as BC Hydro, local power utility. The members of the steering committee acted as advisors to the leadership team, but also advocated for the project within their own establishments and provided a powerful base of support for the project. The design charettes expanded the group of champions by including an extensive group of experts and stakeholders who through their participation in the problem solving and design engagements at the charettes took ownership of the project.

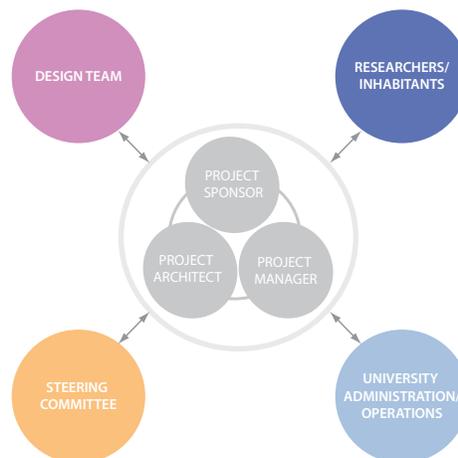


Image 3.2 Leadership Model Diagram

Leadership Strategies

In order to maintain momentum and focus over the course of the extended project timeline, the leadership team applied a series of strategies. Dr. John Robinson illustrated strategies using a series of metaphors as described below:

The Needle in the Groove

“With a vinyl record, you have to constantly hold the needle in place to create a new groove or it will just fall back into the old one.”

Leading an ambitious and innovative project like this one involves persistence, perseverance, and continuous championship of the vision for it to become reality.

The CIRS project went through a number of iterations. In one variation, approval from the City of Vancouver was required and therefore compliance with the City’s Building By-law. The high-performance goals set for the CIRS project and the innovative integrated building systems that were developed, were not in accord with the prescriptive requirements of the building by-law. The leadership team worked with multiple administration levels at the City to gain exemptions from certain requirements by demonstrating an equivalent performance-based result. This was not only a significant result for CIRS but the equivalencies will be available for other building projects in Vancouver.

Plate Spinning

“You must maintain a certain agility and constant attention to keep multiple plates spinning on top of sticks”.

The project had many stakeholders, including multiple offices and agencies involved in the approval processes. The leadership team was continually and frequently engaged with these various stakeholders in order to maintain momentum and demonstrate the unique project value to each.

On campus, many university offices had veto power over part or all of the CIRS project, including UBC Treasury, UBC Development, Office of University Counsel, Office of the Provost, Vice-President of Administration and Finance and Vice-President of Research. As a unique project on campus, no established coordination structure existed to facilitate communication about the project between them. It fell to the leadership team to keep in continuous contact with key representatives from each of these offices, informing them of current progress, addressing concerns, and satisfying requests.

DESIGN PROCESS

Design Process: Vision development at beginning of process, leadership carried throughout.

Construction: Vision and leadership continued throughout.

Commissioning:

Operations:

COSTS

The leadership team was persistent in their constant efforts to generate funding for the project from a wide variety of sources, including research and academic grants, and industry partnerships and in-kind contributions. The vision provided a compelling instrument for engaging partners and a driving force behind the grant applications.

There were significant costs upfront in this project that are not typical of most building projects – “soft costs” for the charrettes and initial design development, and the overhead costs for the efforts of the leadership team to keep the project going in the beginning and to get funding. These upfront costs however, reduced costs in the long run, by creating a more visionary design and a more integrated building and building process.

Brick Laying

“You must show constant and unceasing progress, even if it’s only in very small increments.”

The leadership team met with stakeholders and other interested parties on a regular basis to communicate progress and project developments. This served to maintain momentum and generate enthusiasm no matter how small the progress.

Dr. John Robinson created a PowerPoint presentation that became the ongoing record of the project. It was updated prior to every new meeting or presentation with project progress and constantly revised based on feedback he received from audiences. Part of the challenge was to convey technical information and strategies clearly and compellingly and to make the presentation understandable and engaging for everyone including university administrators, industry partners, professionals and the general public. Emphasizing simple, yet singular concepts such as the building improving both the ecological health of its surrounding and the health, productivity and happiness of its inhabitants helped generate enthusiasm and resonated with audiences and stakeholders.

Mosaic

“You must be the grout that holds multiple pieces together in a whole.”

The leadership team worked to organize the many strengths of the different partners and organizations involved with the design, construction and operation of the project. The team actively sought ways to best fit and align each stakeholder’s contributions and agendas within the vision.

In order for CIRS to be an effective force for accelerating sustainability, it requires the active engagement of partners in the building industry, academia, governmental and non-governmental agencies operating collectively. These groups were involved to varying degrees in different aspects of sustainability: production of building materials and product, development of policies and enforcement of regulation, research, community engagement and public education of environmental issues.. Each of these groups brought different strengths and contributions to the table that the leadership team needed to evaluate individually and coordinate as a whole to create the optimal mixture of involvement for the project. Some of the partners and their contribution level changed as the project evolved.

3.3 Campus Context

The UBC Campus Plan supports the intention to create a truly sustainable campus: “The Campus Plan, building on the University’s significant achievements in sustainability, will deliver continuous improvements in sustainable land use, buildings, infrastructure and landscape over time, and encourage systems-based integration of these elements as part of using the campus as a living laboratory for sustainability solutions and innovation. Sustainability principles underpin the plan’s policies and will inform its implementation” (Campus Plan Policy, 4.1 Sustainability, Policy 1, pg 13). In addition, the vision for UBC’s strategic plan includes the intention to “foster global citizenship, advance a civil and sustainable society and support outstanding research to serve the people of British Columbia, Canada and the world” (Place and Promise: The UBC Plan).

CIRS is an important demonstration of how sustainable development might be approached and applied across the campus to help realize the goals of the Campus Plan. CIRS has strengthened the legitimacy of the campus sustainability goals and inspired the idea of campus infrastructure as a living laboratory of applied sustainability. Moreover, it has demonstrated the power of integrating academic research with physical campus infrastructure, and the benefits of extending the reach of a project outside institutional boundaries. This new paradigm for process and development is a catalyst for the new sustainability agenda at UBC.

3.4 Goals & Targets

The lists of measurable and distinct goals were created as means and methods to achieve the vision of the CIRS project. A complete list of the goals and targets can be found in Section 4.0 Goals & Targets.

RATING SYSTEMS

The project vision was not developed to fit a rating system. Rating systems were used as tools to measure and verify project performance, and as mechanisms for accountability.

More information on the how rating system were used during the design and construction of CIRS can be found in Section 19.0 Rating Systems.

RELATED SECTIONS

[4.0 Goals & Targets](#)[5.0 Partnerships](#)[6.0 Research](#)[7.0 Building Design](#)[8.0 Design Process](#)[19.0 Monitoring & Measurement](#)[20.0 Inhabitants vs. Occupants](#)

3.5 Benefits

The vision and leadership of CIRS benefitted the project in the following ways:

Sustained Integrity and Momentum

- The project leadership group sustained the integrity of the project vision through changes and challenges. The vision for the project acted as an evaluation framework for decision making throughout both the design and construction phases of the project and is a benchmark for performance after occupancy. The vision was compelling and engaged a wide range of partners and stakeholders (academic, industry, professionals and the public) and maintained enthusiasm in the project.

Created Widespread Support

- The dedicated leadership team protected the vision over time and through multiple project iterations. They fostered support and maintained project momentum through changes and idle periods. The vision inspired champions within partner organizations, who then spread support and knowledge of the project into their respective organizations, professional fields and communities.

3.6 Challenges

The vision and leadership of CIRS was challenging for the project in the following ways:

Educating Stakeholders

- A key task of the project team was educating the stakeholders regarding the complex issues of sustainability involved in the project and ambitious goals set for CIRS. The project vision had to be communicated effectively to different types of audiences, including building professionals, academics and the general public.

Maintaining Momentum and Integrity

- The project team had to maintain the momentum and the integrity of the project through multiple iterations involving different project stakeholders and contexts. Throughout these changes the contribution of partners, including academic researchers and industry partners, had to be evaluated for their continued value and alignment with the vision of CIRS.

3.7 Lessons Learned

The experience gained through the vision and leadership of CIRS provided valuable lessons to apply to future projects. Some of the key lessons are:

Create an Ambitious Vision

- The project vision should be ambitious and non-negotiable. It should inspire the project team and ensure that even if the vision is not quite achieved, the final project will far surpass current practice. A strong and clear vision will become self-sustaining, carrying the project forward and attracting a wide range of support.

Educate the Stakeholders

- Project leaders and stakeholders must be educated and knowledgeable about sustainability issues as well as the current status and future direction of the field, in order to act as effective agents and advocates for a high performance sustainable project.

Develop Project Champions

- Build a group of project champions comprised of advisors, consultants and partners in a wide variety of fields. They can spread knowledge of the project and further develop a network of support within their own communities and organizations. The engagement and backing of outside organizations helps build confidence in an ambitious and innovative project

3.8 Future Learning

Additional lessons learned over the operational life of the building will be added at periodic intervals

RESOURCES

- *John Robinson's Powerpoint pg# or link*