

Exploring Organizational Structure

Ideas and Options for the Pembina Institute

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Abstract

At some point in the life of many organizations it becomes necessary to restructure. This paper was used by the Pembina Institute, a non-profit environmental organization, to explore different ideas and options for restructuring, enable creativity and innovation, and set the framework for a series of dialogues with staff before deciding on a final revised organizational structure. The author applies Henry Mintzberg's theories of organizational structure to provide a language for discussion. Three other organizations in the field of the environment (the David Suzuki Foundation, the Sierra Legal Defence Fund and Five Winds International) are studied, while interviews with Pembina Institute staff also contribute to the exploration of structural options. Finally, four distinct models for the Pembina Institute are presented, with a series of recommendations for how the organization might proceed.

Introduction

My interest in organizational structure stems from a desire to better understand what the most effective structure for the Pembina Institute might be. Pembina's diversity in approach is an inherent strength of the organization, but the coordination and integration of its social change efforts is a recognized weakness.¹ Effective coordination is partly addressed by having clear organizational objectives, which the Pembina Institute is currently refining. Once clear organizational objectives are established, it will be essential for the Pembina Institute to ensure its structure enables the various parts of the organization to coordinate and work effectively together.

Structure is clearly only one component of an organization, which also needs a vision and mission, clear strategies, principles and systems for decision making. A "chicken-and-egg" dilemma exists here: which comes first? In fact, all these components exist at any given time in an organization. Some may be formalized; some may be implicit. Furthermore, all these aspects evolve over time. As an organization's strategies and staff evolve, its structure too must evolve.

¹ At the full staff Assembly held in October 2002, six primary areas for the organization to address emerged:

- *Synergy and Integration: work systems.* Who does what? Work systems. Planning.
- *Effective communications.* Cross program pollination, information sharing, tools, team building.
- *Decision making.* Is consensus a valid model? New models? Values of organization that will affect a determination on this issue?
- *Bringing more focus while embracing diversity.* Geographic and program diversity, flexibility versus focus. Core business(es) versus heritage. Centralization.
- *Sustainability.* Stable long-term funding, walking the talk, personal sustainability, work/life balance, adequate compensation. Staff retention.
- *Advocacy versus money- making.* Following the funding opportunities versus finding funding for priority areas.

Organizational structure plays a significant role in the first four organizational issues Pembina is currently working through. Specific task groups have been established to explore each of these areas.

The purpose of this paper is to build a language around organizational structure to help the Pembina Institute explore different structural options as it evolves. Parallel to this work is an investigation into decision making and a process to bring focus to the organization's mission and strategies. This focus will be formulated as a set of social change objectives for the organization.

Currently, Pembina's structure is considered by the majority of staff to be too "siloed." This has been made increasingly evident through numerous examples of poor or limited coordination across "silos" in the organization.² The lack of coordination at the Pembina Institute is primarily due to the absence of an effective structure to enable communications, liaison and alignment between programs. This paper explores how the Pembina Institute might structure itself in order to take advantage of its diversity, while remaining focused on its primary social change objectives.

To explore this question, I make use of Henry Mintzberg's theories on organizational structure. In order to add additional perspectives, my research included the collection of ideas and reflections from some of the current staff at the Pembina Institute, as well as investigation of two other nonprofit environmental organizations and one for-profit environmental consulting firm.

Objectives

This paper seeks to accomplish the following objectives:

1. To provide the Pembina Institute with a common language to explore organizational structure

² Examples of missed opportunities for greater coordination include:

1. During the 2002 push for ratification of the Kyoto Protocol, very few cross-program opportunities to coordinate on this effort were identified and implemented;
2. Both the Energy Watch program and the Corporate Eco-Solutions Program work to change the practices of the corporate sector with an Alberta geographical focus, yet the strategies of these two are not coordinated and sharing of resources between these programs is very limited;
3. Reducing greenhouse gas emissions is a prevalent theme of much of the work of the organization, yet there is very little coordination between the education, advocacy and consulting programs.

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2. To better understand how Mintzberg's theories of organizational structure might help the Pembina Institute evolve its own structure over time
 3. To identify a preliminary set of structural options for the Pembina Institute as it evolves over time
 4. To identify criteria by which the Pembina Institute might evaluate its current structure and future structural decisions.

Limitations

There are three important limitations to acknowledge in this work:

1. This work uses Henry Mintzberg's design philosophy for organizations and does not consider other models.
2. This work looks at only a limited number of other organizations as sources of ideas and experience.
3. This work does not necessarily reflect the thinking of staff at the Pembina Institute.

Section One presents a short introduction to the Pembina Institute, including a description of the organization's "operational space." Section Two introduces Henry Mintzberg's theories on organizational structure, which provide a basis for the language to be used throughout the paper. Section Three examines the Institute's organizational structure historically and in terms of its current "organigraph," which describes the flows of information and interrelations. Section Four examines the structure of three other Canadian organizations of similar size working in the field of sustainability. Section Five summarizes discussions with existing staff at the Pembina Institute on necessary criteria for a functional structure for the organization. All these elements of research are pulled together in Section Six in which five different potential configurations of organizational structure for the Pembina Institute are presented and evaluated. Section Seven proposes a set of conclusions and recommendations.

PEMBINA INSTITUTE FOR APPROPRIATE DEVELOPMENT

“ Holistic and practical solutions for a sustainable world”

GUIDING INSIGHTS: The Pembina Institute for Appropriate Development was founded on the fundamental beliefs that:

1. The future of the human community is linked to the future of the biosphere.
 - ◆ Environmental, Economic and Social Sustainability are interdependent and must be pursued together.

OUR VISION: is of a world where sustainable communities take creative actions to protect the natural beauty and ecological health of the planet, allowing other species to flourish, and future generations of humanity to live satisfying and healthy lives.

This vision informs

OUR MISSION: *The Pembina Institute’s mission is to implement holistic and practical solutions for a sustainable world.*

As a caring and creative community spread across the country:

- ◆ **Our emphasis** is on sustainability. We focus on renewable energy, climate protection, and the clean, efficient use of natural resources.
- ◆ **Our approach** involves finding and applying innovative and equitable solutions in our advocacy; in the advice we give; in our education programs; and in our policy research.
- ◆ **Our uniqueness** derives from:
 - ◆ our creative service to individuals, communities, governments, and businesses within Canada and abroad, and the integrated insight this gives us;
 - ◆ our commitment to effective strategies that harness market forces or strengthen regulations in ways that provide long term benefit to both the environment and the economy; and
 - ◆ the combined strength of our distinctive programs and services.

This mission is sustained by

OUR VALUES:

- ◆ Excellence, Integrity and Respect
- ◆ Caring, Justice and Compassion
- ◆ Laughter, Joy and Balance

These values are held by our staff and members and are applied both to the quality of our work and to the relationships we strive to build.

PEMBINA INSTITUTE MISSION STATEMENT

A copy of this statement is posted in every Pembina Institute office.

1. About the Pembina Institute

The Pembina Institute for Appropriate Development is a Canadian nonprofit environmental organization. Internally it is described as

an independent, environmental non-governmental organization specializing in energy, climate change and environmental economics. The Pembina Institute engages in environmental education; policy research, analysis and advocacy; community sustainable energy development; and corporate sustainability management practices to advance environmental protection, resource conservation and sustainable resource management. The Pembina Institute's mission is: *To implement holistic and practical solutions for a sustainable world.* (See <http://www.Pembina.org>.)

The one-page vision and mission statement which appears at the head of this section is posted in each office of the Pembina Institute. As can be seen, this mission statement is relatively broad in scope. The organization does not exist to solve one single problem or issue; rather its emphasis is on the relationship between the environment and energy. The Pembina Institute's vision is ultimately about sustainable communities. In an effort to realize this vision, the organization has taken on a very broad range of activities.

The Pembina Institute's Operational Space

A useful way to better understand what an organization does is to look at its "operational space." One can define the "operational space" of an organization by three dimensions: issues, approaches and geography or "market."³ Figure 1 illustrates the first two dimensions, "issues" and "approach." The issues form vertical columns or "silos" in the voluntary sector, and their numbers reflect the diversity of problems in the world. The vertical axis indicates the various approaches NGOs take in achieving their social change objectives. Although there is no perfect means of categorizing the range of approaches, as

³ Throughout this paper the words "market," "client" and "audience" are interchangeable and mean the same thing for the Pembina Institute: the people whom the organization is trying to change, provide a service to or consult with.

one moves up the axis each approach tends to involve more formal institutional structures. Seven categories or types of approaches are illustrated in Figure 1.1.

- Direct Action – organized or unorganized civil disobedience, protests, blockades
- “Bricks & Mortar” – on-the-ground infrastructure and/or facility development
- Public Education – raising public awareness through the distribution of information
- Formal Education – working to develop and influence formal education curriculum
- Legal Action – working with various legal institutions and systems
- Corporate Policy – engaging the corporate sector to influence decisions and policy
- Policy Advocacy – advocating at the government level to influence policy

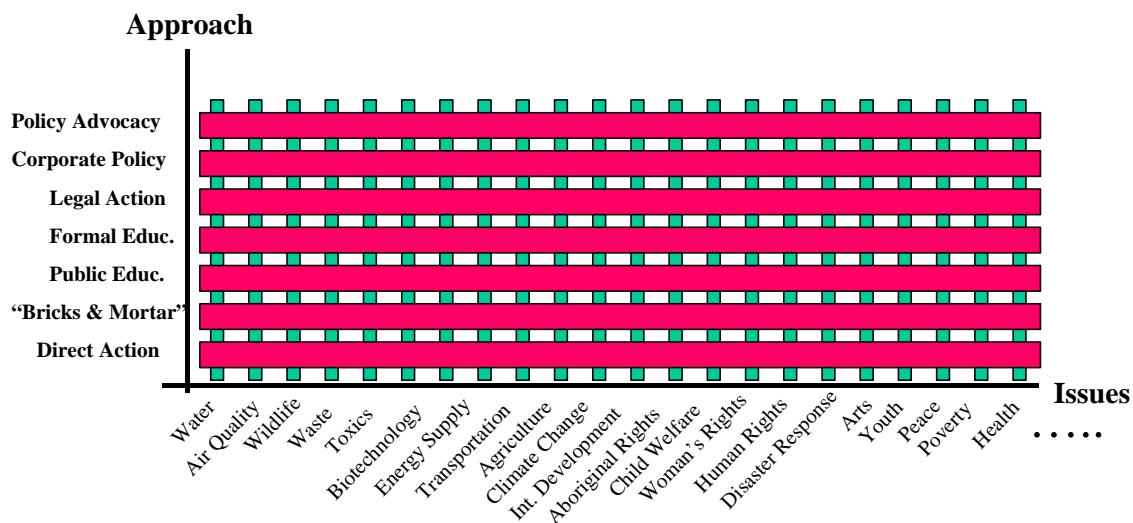


Figure 1.1. Two Dimensions of the Voluntary Sector

Figure 1.2 illustrates the complete operational space by adding the third axis, “geography” which can also be interpreted as the “market” of the organization. The range here is from local to global:

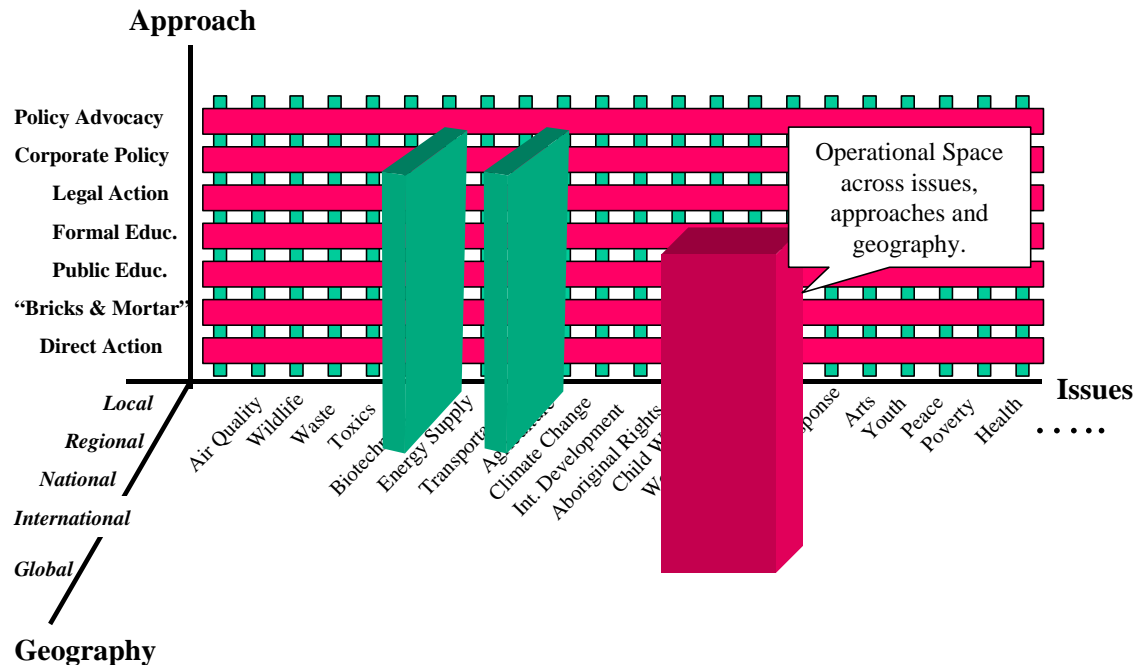


Figure 1.2. The Operational Space of the Voluntary Sector

The inevitable question every organization faces over its life is: how large should its operational space be? In which directions should it grow and in which should it limit its involvement?

Voluntary sector organizations most often begin from the grassroots on a specific issue, frequently with a specific approach and in a specific region. Over time, the grassroots organization expands its operational space in the three dimensions.

Consider the Pembina Institute’s history. The organization started as a result of a major sour gas leak (considered one of Canada’s greatest environmental accidents) in rural Lodgepole, Alberta. The small local group’s approach was to work toward changing government policy in order to ensure that similar accidents would never occur again. Following this, the group expanded its work into the area of waste and recycling, through community education and infrastructure development. In the beginning, the staff consisted primarily of public school educators. Over time, the organization’s focus expanded to address air quality issues and climate change. It increased its geographical scope to a provincial level and later to the national level. Approaches applied by the organization evolved vertically. Today, after sixteen years, the Pembina Institute’s operational space includes:

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- A wide range of environmental issues, including climate change, air quality, water quality, energy supply and transportation with some initial expansions in the areas of toxics, waste, biotechnology, international development and wildlife
 - A broad spectrum of approaches ranging vertically through community education to government policy analysis
 - A geographical scope, including local issues through to Canada-wide issues, including (more recently) these issues' international aspects.

Three tables

Table 1.1 shows examples of specific types of activities in which the Pembina Institute is involved, for each of the different approaches.

The Pembina Institute works with a wide range of audiences in a number of geographical regions. Table 1.2 lists the audiences and geographical regions with which the Pembina Institute is in some way associated.

Table 1.3 gives some idea of the breadth of the Pembina Institute's operational space by combining approaches, markets and specific issues areas in a single matrix.

Table 1.1. Pembina Institute Approaches

APPROACHES	PEMBINA INSTITUTE EXAMPLES
<p>Direct Action</p> <p>Organized or unorganized civil disobedience, protests, blockades</p>	<p>To date, the Pembina Institute has not engaged in direct action approaches.</p>
<p>“Bricks & Mortar”</p> <p>On-the-ground infrastructure and/or facility development</p>	<p>The Community and International Eco-Solutions Programs are facilitating on-the-ground infrastructure development of renewable energy and energy efficiency projects. This work involves relationship building and bridging, as well as applying a number of technical evaluation tools, such as community energy planning.</p>
<p>Public Education</p> <p>Raising public awareness through the distribution of information</p>	<ul style="list-style-type: none"> • Web sites such as mykyoto.ca, re-energy.ca, pembina.org, climatechangesolutions.com, • Numerous public-speaking engagements, • Media releases, • Preparation and distribution of reports.
<p>Formal Education</p> <p>Working to develop and influence formal education curriculum</p>	<p>The Education Program includes development of activities, resources and curriculum material for schools and teachers.</p>
<p>Legal Action</p> <p>Working with various legal institutions and systems</p>	<p>Energy Watch: activities in various utility board hearings, often involving legal support</p>
<p>Corporate Policy</p> <p>Engaging the corporate sector to influence decisions and policy</p>	<p>The Corporate Eco-Solutions Program works with companies to influence decision-making practices. A variety of specific tools and approaches are applied here including strategic planning, training and systems analysis.</p>
<p>Policy Advocacy</p> <p>Advocating at the government level to influence policy</p>	<p>The Climate Change Program, Sustainable Energy Policy Program, Ecological Fiscal Reform and Environmental Governance are all engaged in advocating appropriate government policy.</p>

Table 1.2. Audiences and Geographical Regions of Pembina’s Activities

PEMBINA’S AUDIENCES	Pembina’s Geographical Regions
- Corporations (Corp)	- Western Canada (WC)
- First Nations Communities (FN)	- Central Canada (CC)
- Municipalities/Small Communities (Munic)	- Northern Canada (NC)
- General Public (Pblc)	- Asia (As)
- School Teachers and Students (Schl)	- Latin America (LA)
- Post-secondary Students (Pst Sec)	
- Federal Government (Fed)	
- Provincial Government (Prov)	
- Other NGOs (NGO)	

Table 1.3. Pembina Institute Issue Areas

Approaches	TOPICS RELATED TO CREATING A SUSTAINABLE WORLD									
	Renewable / Sustainable Energy Technologies			Conventional Energy Technologies and Associated Environmental Impacts				Greenhouse Gas Emissions	Social Well-Being	Water Quality
	Electricity	Transport	Heat	Electricity	Transport	Heat	Efficiency			
Direct Action										
“Bricks & Mortar”	FN (WC, NC) Munic (WC, As, LA)	FN (WC, NC) Munic (WC)	FN (WC, NC) Munic (WC, As, LA)	FN (WC, NC) Munic (WC, As, LA)		FN (WC, NC) Munic (WC, As, LA)	FN (WC, NC) Munic (WC, As, LA)	FN (WC, NC) Munic (WC, As, LA)		
Public Education	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	Pblc (WC, NC, CC)	FN (WC, NC) Munic (WC, As, LA)	
Formal Education	Schl (WC, CC)	Schl (WC, CC)	Schl (WC, CC)	Schl (WC, CC)		Schl (WC, CC)	Schl (WC, CC)	Schl (WC, CC)	Schl (WC, CC)	
Legal Action				Corp, NGO & Prov (WC)		Corp, NGO & Prov (WC)	Corp, NGO & Prov (WC)	Corp, NGO & Prov (WC)		Prov (CC)
Corporate Policy	Corp (WC)	Corp (WC)	Corp (WC)	Corp (WC)	Corp (WC)	Corp (WC)	Corp (WC)	Corp (WC)	Corp (WC)	
Policy Advocacy	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO	Prov & Fed (WC, CC), NGO		

WC = Western Canada; NC = Northern Canada; CC = Central Canada; As = Asia; LA = Latin America

FN = First Nations; Munic = Municipal / Communities; Pblc = Public Education; Schl = School Education; Corp = Corporate; Prov = Provincial; Fed = Federal

2. Mintzberg's Theory of Organizational Structure

There are probably as many theories of organizational structures as there are researchers studying the topic. I have chosen Henry Mintzberg's theories because, when written in the late 1970s, they were derived from a fairly exhaustive survey of management theories current at that time. Since then Mintzberg's work has significantly influenced the majority of researchers in the field. Despite numerous critiques, the fundamentals of his work still stand true after twenty years. Given the limited time available to complete my own research and wishing to spend more time reflecting on the Pembina Institute's structure as opposed to comparing and reflecting on different theories, I have chosen to base my work solely on Mintzberg's book *Structure in Fives: Designing Effective Organizations* (1983; hereinafter cited as "ST5"). This chapter provides a brief introduction to Mintzberg's theories on organizational structure.

"Every organized human activity," Mintzberg writes, "from the making of pots to the placing of a man on the moon, gives rise to two fundamental and opposing requirements: the division of labour into various tasks to be performed and the coordination of these tasks to accomplish the activity." Accordingly Mintzberg defines organizational structure "simply as the sum total of the ways in which its labour is divided into distinct tasks and then its coordination is achieved among these tasks" (ST5, 2). His structure centres around five coordinating mechanisms, five structural parts of the organization and nine design parameters.

The five *coordinating mechanisms* are considered "the glue that holds organizations together" (ST5, 4) and explain the fundamental ways organizations coordinate their work:

1. Mutual adjustment
2. Direct supervision
3. Standardization of work processes

-
4. Standardization of work outputs
 5. Standardization of worker skills

The five *structural parts* of an organization (ST5, 9) are:

1. Operating core
2. Strategic apex
3. Middle line
4. Technostructure
5. Support staff

Figure 2.1 illustrates how Mintzberg sees these five structural parts fitting together.

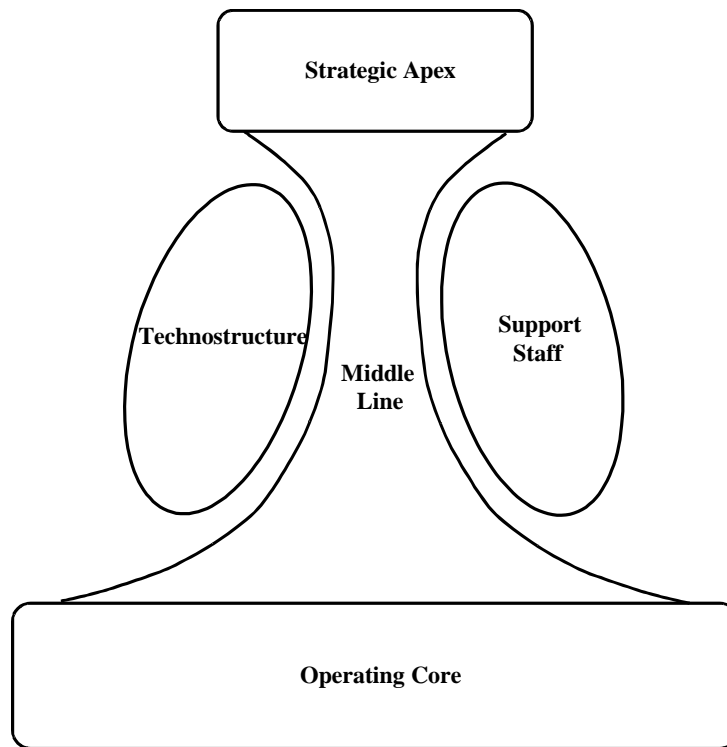


Figure 2.1. Mintzberg's Five Structural Parts of an Organization

Mintzberg also identifies nine *design parameters*, which fall into four groupings.

A. Positions

1. Operating core Job Specialization (breadth, scope and depth of control over the work)
2. Behaviour Formalization (position, workflow, rules)
3. Training (skills and knowledge) and Indoctrination (organizational norms)

B. Design of Superstructure

4. Unit Grouping (supervision, common resources, performance measures, internal coordination, based on knowledge, process and function time, output, etc.)
5. Unit size (“driven up” by standardization and similarity of tasks within the unit; employees’ needs for autonomy and the need for undistorted information in hierarchy; or “driven down” need for close supervision, complex interdependent tasks, non-supervisory duties of managers, need for access to management – and possibly also the degree to which staff are dispersed geographically)

C. Design of Lateral Linkages

6. Planning and Control Systems (for assessment of output or results)
7. Liaison Devices (officers; task forces and standing committees; managers; matrix structure)

D. Design of Decision-making Systems

8. Vertical Decentralization (dispersal of formal power decision making, delegation, coordination – down chain of authority)
9. Horizontal Decentralization (non-management control of decision-making process – individuals, technostructure, experts, the organization as a whole)

Of these nine design parameters, two stand out as most relevant to the Pembina Institute’s organizational configuration needs: *unit grouping* and *liaison devices*.

Unit Grouping

Deciding how to group staff into units is a key decision for all organizations. As the Pembina Institute evolves its structure, it will probably be important to consider carefully the extent to which staff are grouped by “function” or by “market.”

Grouping by Function

When grouped by function (knowledge, skill, work process or work function) the focus is on process interdependencies – often at the expense of the workflow. It encourages specialization, but detracts from the overall output. Individuals have an incentive to look after their own needs before they look after the needs of the overall organization. Furthermore, grouping by function makes it difficult to measure performance. “The functional structure lacks a built-in mechanism for coordinating the work flow” (ST5, 59). To make grouping by function work, especially where the work is unskilled, the organization tends to be more bureaucratic in order to formalize and standardize work functions.

For Pembina, grouping by function could mean grouping all the technical engineering staff together, all the policy analysts together, all the education specialists together, and so forth. As we shall see in the next chapter, in many ways the organization is currently very organized around functions. Many Pembina staff members would probably say that the current structure has encouraged specialization at the cost of the overall output of the organization and has created an incentive to “look after their own needs before the needs of the overall organization.”

Grouping by Market

Market-based grouping sets up relatively self-contained units to deal with particular workflows. “Ideally, these units contain all the important sequential and reciprocal interdependencies, so that only the pooled ones remain: each unit draws its resources and perhaps support services from the common structure and in turn contributes its surpluses or profits back to it” (ST5, 60).

At the Pembina Institute, grouping by market could be translated into grouping by target audiences of social change. For example, these audiences or “markets” could be corporations, communities, policy makers or others. Alternatively, grouping could be done by market region: Western Canada, Central Canada, International and so forth. A third market-based option could be around delivery of end objectives: for example, a particular reduction in national greenhouse gas emissions or other defined organizational objective.

Questions / Reflection for the Pembina Institute:

- What might Pembina’s structure look like if based on “functional grouping”?
- What might the structure look like if based on “market grouping”?

Liaison Devices

Given the organic nature of the Pembina Institute, the complexity of the work and the high interdependence required, it is expected that liaison devices will be important criteria to build into the organization’s structure. Here, each of Mintzberg’s liaison devices is briefly described.

Liaison Positions

“When a considerable amount of contact is necessary to coordinate the work of two units, a “liaison” position may be established formally to route the communication directly, bypassing vertical channels” (ST5, 82). A liaison position thus serves as the working communication channel between units. The position carries no formal authority; however the liaison person gains power from his or her knowledge.

An existing example of a liaison position at the Pembina Institute is anyone who participates in both the Policy Group meetings and the Eco-Solutions Group meetings. Andrew Pape-Salmon holds such a position as the Director of the Community Eco-

Solutions Program and Director of the Sustainable Energy Program. However, this is only because there are not two people available to hold the individual positions. With the addition of a new Director of the Community Eco-Solutions Program, this liaison position could no longer exist within the current organizational structure.

Task Forces and Standing Committees

In any organization, meetings are the primary means to facilitate mutual adjustment. Meetings can be either spur-of-the-moment or formalized. To facilitate liaison between units, two devices are used to institutionalize meetings (ST5, 83):

1. “The task force is a committee formed to accomplish a particular task and then disband.”
2. “The standing committee is a more permanent interdepartmental grouping, one that meets regularly to discuss issues of common interest.”

At the Pembina Institute, both task forces and standing committees are used as liaison devices. A task force may be established for any given project, from organizing the annual Gala to delivering a service to a client. The Development Committee and Management Team are two examples of standing committees at Pembina which have recently been formed.

Integrating Managers

A third liaison device defined by Mintzberg is the integrating manager: “When more coordination by mutual adjustment is required than liaison positions, task forces and standing committees can provide, the organization may designate an integrating manager – in effect, a liaison position with formal authority.” Mintzberg defines this authority of integrating managers as “the formal power of the integrating manager always includes some aspects of the decision processes that cut across the affected departments, but it never (by definition) extends to formal authority over the departmental personnel” (ST5, 83).

Examples of integrating managers in industry include brand managers in consumer-goods firms, who are responsible for both the production and marketing of particular products; or project managers at an oil company, who are responsible for integrating a number of functional activities.

The Pembina Institute currently has not formally defined any integrating managers.

Matrix Structures

The final liaison device defined by Mintzberg (ST5, 86–87) is the matrix structure, in which the organization avoids the choice between grouping by market or by function and instead utilizes both. Matrix structures set up a dual authority and sacrifice the principle of unity of command. “Line managers become equally and jointly responsible for the same decisions and are therefore forced to reconcile between themselves the differences that arise.” It has been suggested that the matrix structure is for organizations “prepared to resolve their conflicts through informal negotiation among equals rather than recourse to formal authority, to the formal power of superiors over subordinates and line over staff.”

Mintzberg defines two forms of matrix structure:

1. A permanent form where the interdependencies are relatively stable
2. A shifting form that is geared for project work where there is frequent shifting of necessary interdependencies, market units and people.

This shifting matrix structure is common in consulting think-tanks, where project work is most prevalent and the outputs change frequently. This is quite similar at the Pembina Institute, where the organization very frequently works as a group of project teams. According to Mintzberg, the matrix structure is an effective device for developing new activities, for innovation and for coordinating complex multiple interdependencies. However, it “is no place for those in need of security and stability . . . dispensing with the principle of unity of command creates considerable confusion, stress and conflict and requires from its participants highly developed interpersonal skills and considerable tolerance for ambiguity” (ST5, 88). In addition, Mintzberg warns that the matrix structure

also requires an increased cost of administration and communication because people have to spend time at meetings, as well as the need for an increased number of managers.

At this time, the Pembina Institute does not utilize a matrix structure.

Questions / Reflection for the Pembina Institute:

- What other examples of the use of liaison devices exist at the Pembina Institute?
- How might the organization best utilize liaison devices for coordinating work?
- What is the appropriate mix of the different liaison devices?
 - What liaison positions might the organization define?
 - How might integrating managers be utilized?
 - What might a matrix structure for Pembina look like?

Structure as Configuration

Mintzberg describes the design of effective organizations as a process of appropriately configuring the five structural parts (operating core, strategic apex, middle line, technostructure and support staff). Mintzberg identifies five “pure” organizational structure configurations (of course no organization will neatly fit into one of these, but will often be a combination). Table 2.1 summarizes these five configurations.

A Look at a Few Configurations Likely Applicable to the Pembina Institute

Below are brief descriptions for the “simple structure,” the “professional bureaucracy” and the “adhocracy” configurations. A number of these descriptions fit very closely to the Pembina Institute’s history, current organizational structure and situation.

Simple Structure

Most organizations begin with a Simple Structure. This, as Mintzberg says, “is characterized, above all, by what it is not – elaborated.” Typically, the Simple Structure

. . . has little or no technostructure, few support staffers, a loose division of labour, minimal differentiation among its units and a small managerial hierarchy. Little of its behaviour is formalized and it makes minimal use of planning, training and the liaison devices. It is, above all, organic. . . . Coordination in the simple structure is effected largely by direct supervision. Specifically, power over all important decisions tends to be centralized in the hands of the chief executive officer. Thus, the strategic apex emerges as the key part of the structure; indeed, the structure often consists of little more than a one-person strategic apex and an organic operating core. (ST5, 157–58)

The Pembina Institute started as a simple structure with a strong, charismatic leader (see section 3). As this key leader slowly removed himself from the organization, a number of attributes of this simple structure have remained, such as minimal use of planning, training or liaison devices. However, a tighter division of labour between groups has occurred, forming what many refer to as “silos,” which are not well connected.

Professional Bureaucracy

The Professional Bureaucracy is common in universities, general hospitals, school systems and other institutions. It is included here because some characteristics of this structure relate to the staff of the Pembina Institute – particularly the fact that the Institute has a number of professionally trained staff, such as engineers, biologists, educators, economists, social scientists and other scientists. According to Mintzberg,

The Professional Bureaucracy appears wherever the operating core of an organization is dominated by skilled workers – professionals – who use procedures that are difficult to learn, yet are well defined. This means an environment that is both complex and stable – complex enough to require the use of difficult procedures that can be learned only in extensive formal training programs, yet stable enough to enable these skills to become well defined – in effect, standardized. (ST5, 202)

The Pembina Institute might be considered a professional bureaucracy if, for example, the organization’s primary objective, its reason for existence, was to provide a platform for professionally trained people seeking to implement “holistic and practical solutions for a sustainable world.” The strategic apex, administration and support staff would then

focus on creating this space, and would not be involved in setting social change strategy. The organization would resemble a university structure or pure research think-tank.

Table 2.1. Mintzberg's Five Organizational Configurations

Configuration Type	Prime Coordinating Mechanism	Key Part of Organization	Main Design Parameters	Situational Factors
1. Simple Structure	Direct supervision	Strategic apex	Centralization, organic structure	Young, small; non-sophisticated technical system; simple, dynamic environment; possible extreme hostility or strong power needs of top manager.
2. Machine Bureaucracy	Standardization of work processes	Technostructure	Behaviour formalization, vertical and horizontal job specialization, usually functional grouping, large operating-unit size, vertical centralization and limited horizontal decentralization.	Old, large; regulating, non-automated technical system; simple, stable environment; external control.
3. Professional Bureaucracy	Standardization of skills	Operating core	Training, horizontal job specialization, vertical and horizontal decentralization.	Complex, stable environment; non-regulating, non-sophisticated technical system.
4. Divisionalized Form	Standardization of outputs	Middle line	Market grouping, performance control system, limited vertical decentralization.	Diversified markets (particularly products or services); old, large; power needs of middle managers.
5. Adhocracy	Mutual adjustment	Support staff in the Administrative Adhocracy; together with the operating core in the Operating Adhocracy	Liaison devices, organic structure, selective decentralization, horizontal job specialization, training, functional and market grouping concurrently.	Complex, dynamic, environment; young.

Adhocracy

The Adhocracy configuration is a structure that very closely resembles the Pembina Institute. It is intended for complex and dynamic environments where a high degree of innovation is required. The Adhocracy structure is capable of bringing multidisciplinary experts together into functioning ad-hoc project teams. Mintzberg describes the Adhocracy configuration as

[a] highly organic structure, with little formalization of behaviour; high horizontal job specialization based on formal training; a tendency to group the specialists in functional units for housekeeping purposes but to deploy them in small, market-based project teams to do their work; a reliance on the liaison devices to encourage mutual adjustment, the key coordinating mechanism, within and between these teams; and selective decentralization to and within these teams, which are located at various places in the organization and involve various mixtures of line managers and staff and operating experts.

Mintzberg's descriptions of Adhocracy relate closely to the Pembina Institute's current state. To highlight a few such features:

- The Pembina Institute is very organic, moving from project to project.
- It tends to group its staff in functional units – technical staff, policy staff, educational staff – and has tried to bridge between these groups by working on multidisciplinary market-based projects.
- It depends highly on being innovative in a complex and dynamic environment.
- It has highly distributed decision-making power among managers and non-managers.
- It formulates strategy organically as project decisions are made.
- It is currently at a point in its evolution of deciding whether to shift from the relatively pure adhocracy structure towards a more focused bureaucratic structure such as the professional bureaucracy.
- It is facing increased staff discomfort over the ambiguity in decision making and strategy.

-
- It exists to solve the very complex and ill-structured problem of finding “practical solutions for a sustainable world.”
 - It requires significant amount of time for internal communications to be effective.

In short, the Pembina Institute currently has a number of the characteristics of an Adhocracy.

Questions / Reflection for the Pembina Institute:

- What is the appropriate organizational configuration for the Pembina Institute? How closely aligned should the organization be to an Adhocracy, a Professional Bureaucracy, and the Simple Structure?

3. The Pembina Institute's Current Organizational Structure

In this section we will explore the current structure of the Pembina Institute and describe how it has evolved from a “Simple Structure” to its current configuration of “Professional Divisions-by-Function Adhocracy.” We will then utilize a technique of Mintzberg’s called *organigraphs* to help identify where the current structure falls short of being optimal.

Evolution of the Pembina Institute's Structure

During the first twelve years of the Pembina Institute’s existence, one can argue the organization had a “Simple Structure.” Rob Macintosh was a strong, charismatic leader. The organization was relatively centralized in Drayton Valley, Alberta, with individual operating staff members throughout Canada looking to Rob for leadership and guidance. The strategic apex of the organization was relatively small, as Rob was the “eyes and ears” for opportunities. In this form, the organization was highly entrepreneurial – continuously seeking opportunities to grow and attract highly talented staff. Coordination was accomplished through direct supervision and interaction with Rob.

After 1996, two changes occurred, which significantly affected the structure of the organization and no longer allowed it to operate effectively in the Simple Structure.

First, two additional offices were opened: one in Calgary and the other in Ottawa. Each of these offices began to attract new staff to those areas, including local hiring. In the past, Rob Macintosh had identified, hired and worked closely with all new staff; at each new office the new staff no longer had this connection with Rob. The vast majority of these staff members are highly trained professionals – economists, political scientists, environmental scientists, engineers and others. The number of full-time salaried staff grew from six to approximately thirty, while a number of the original staff withdrew from the organization (by 2002, only five staff had been part of the organization for more than

five years). The end result was a significant number of new staff, bringing new talent, passions and ideas.

Second, Rob Macintosh began to reduce his role in the organization. This signalled the need to develop a new structure. To accommodate the change in Rob's role and the increased size of the organization, it was decided to hire a full-time Executive Director – not to replace the role Rob had played, but to ensure adequate time was available for providing the necessary administrative support on a new footing. This strategic apex had to evolve as Rob withdrew.

To adjust for these significant changes, in December 2000 the Pembina Institute held its first strategic planning session where Rob Macintosh did not play a significant role. As a result of this session, the organization decided to significantly increase its support staff in the areas of communication, development and fundraising. The organization also clustered nine or ten program areas into three functional groups: Policy and Advocacy, Education and Eco-Solutions. Directors of these three groups – the Executive Director, the Director of Finance and a newly hired Director of Development – became known as the Management Team and formed the new strategic apex of the organization. Each functional group now works relatively independently as a division. Staff members within each division usually have similar training: the Eco-Solutions group consists mainly of engineering staff, the Policy Group, of policy specialists, and the Education Group, of professional educators. Each division or group tends to configure itself as an Adhocracy, bringing appropriate resources from the group to specific projects. The operating core of the organization is made up of professionals. As a result, the current configuration of the Pembina Institute can be described in Mintzberg's terms as a "Professional Divisions-by-Function Adhocracy" (see Figure 3.1).

The Pembina Institute's Organigraph as a Tool

Mintzberg's recent work has looked at activity flows of an organization and formulating "organigraphs," which help illustrate the relationships between an organization and its outside world (Mintzberg and Van der Hayden 1999).

Pembina Structure 2002

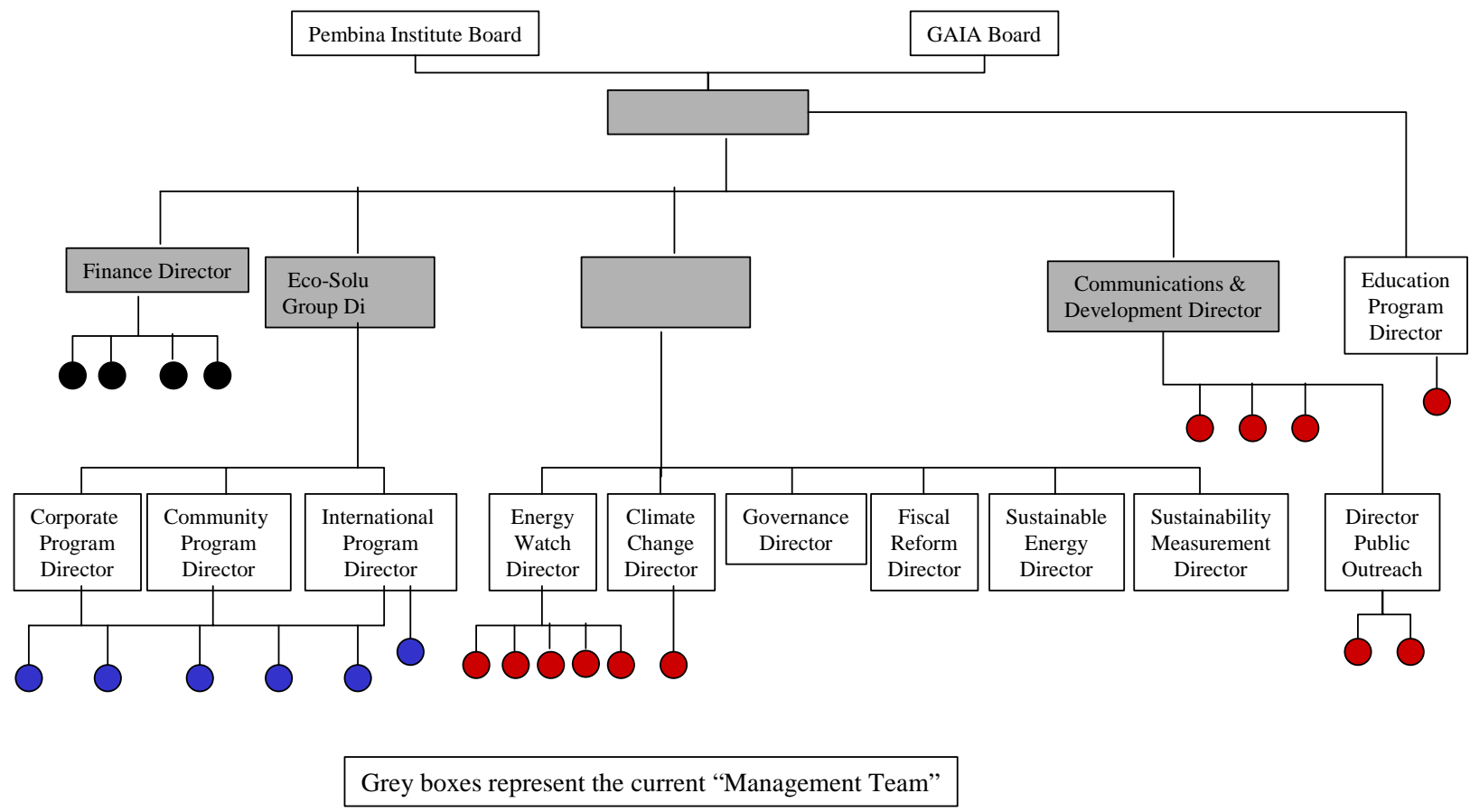


Figure 3.1. Organizational Structure for the Pembina Institute 2002

Below is a series of diagrams, building one version of an organigraph for the Pembina Institute. The first diagram (Figure 3.2) identifies the various audiences the Pembina Institute must interact with to complete its work. The second diagram (Figure 3.3) illustrates the primary means by which the audiences interact with the Pembina Institute. These are a collection of “front-line” people who most often have first contact with the audience. The third diagram (Figure 3.4) adds the network of staff that completes the work and tasks. Depending on the nature of the project or task, these people coordinate with each other, to various degrees; often this network directly involves the front-line. The fourth diagram (Figure 3.5) brings the components together and shows the flow of information and services. Here each front-line person acts as a hub, gathering information and requests from the audience and passing these along to the appropriate connections in the front line, or on the network.

Pembina’s organigraph highlights the diversity of the audience the organization must interact with. This is driven by its underlying vision of a “sustainable world,” which by definition encompasses all audiences. With such diversity in its audiences and in expectations from each audience, a very complex organigraph emerges. When one compares the current organizational structure of the Pembina Institute to the organigraph it becomes clear why the existing configuration is not optimal – “siloesd” and lacking coordination between programs and groups.

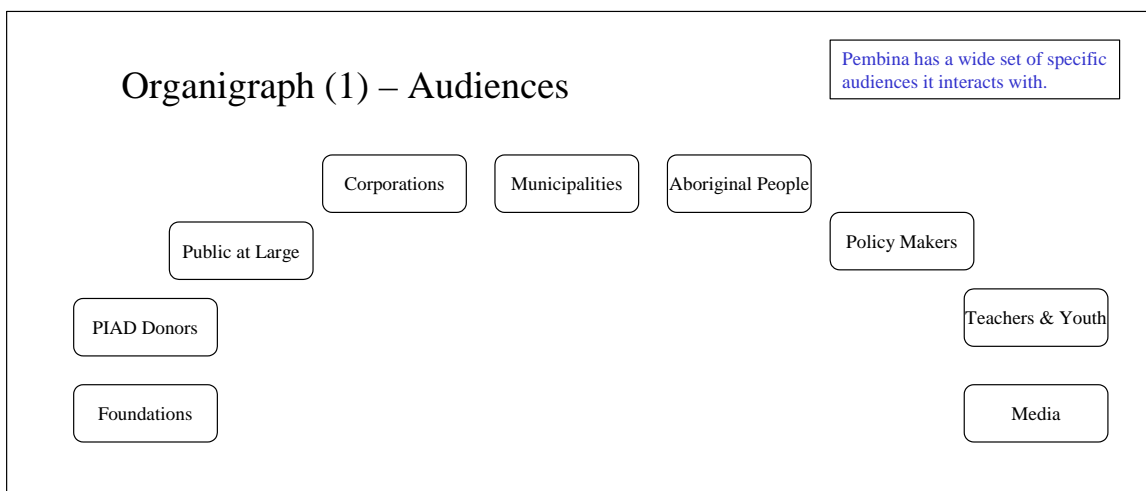


Figure 3.2. Pembina’s Audiences

Organigraph (2) – Front-Line

Each audience tends to interact directly with a specific person – defined here as the “front-line”.

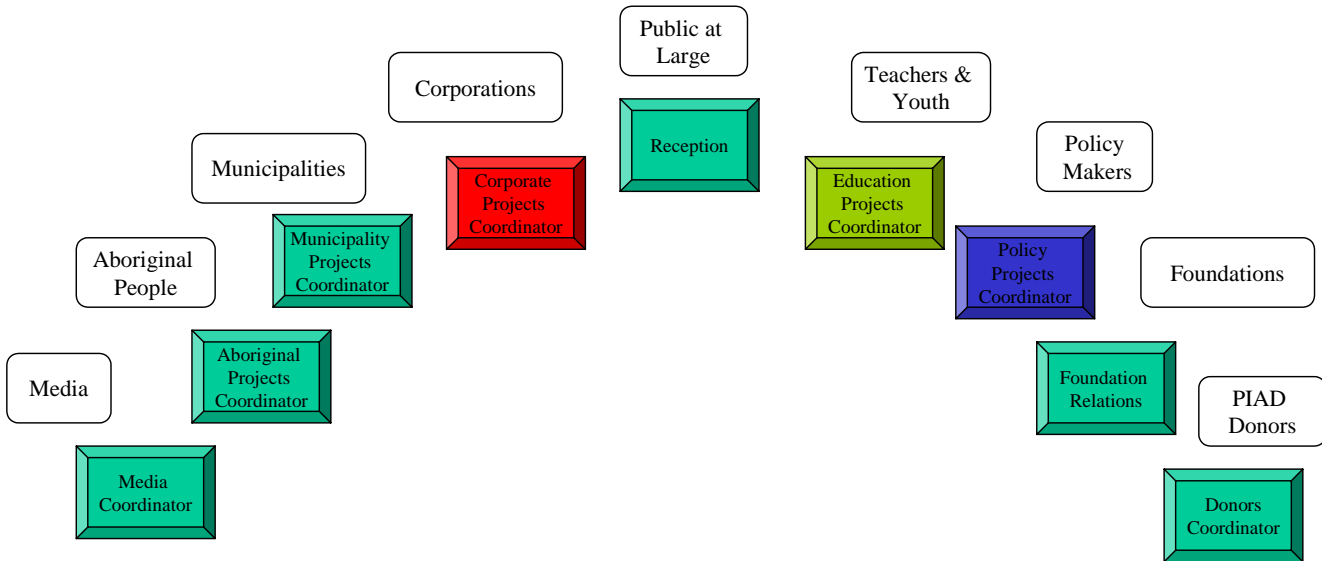


Figure 3.3. Pembina’s Front Line

Organigraph (3) – Operating Network

A network of staff coordinate around specific projects to complete the work and tasks for the various audiences.

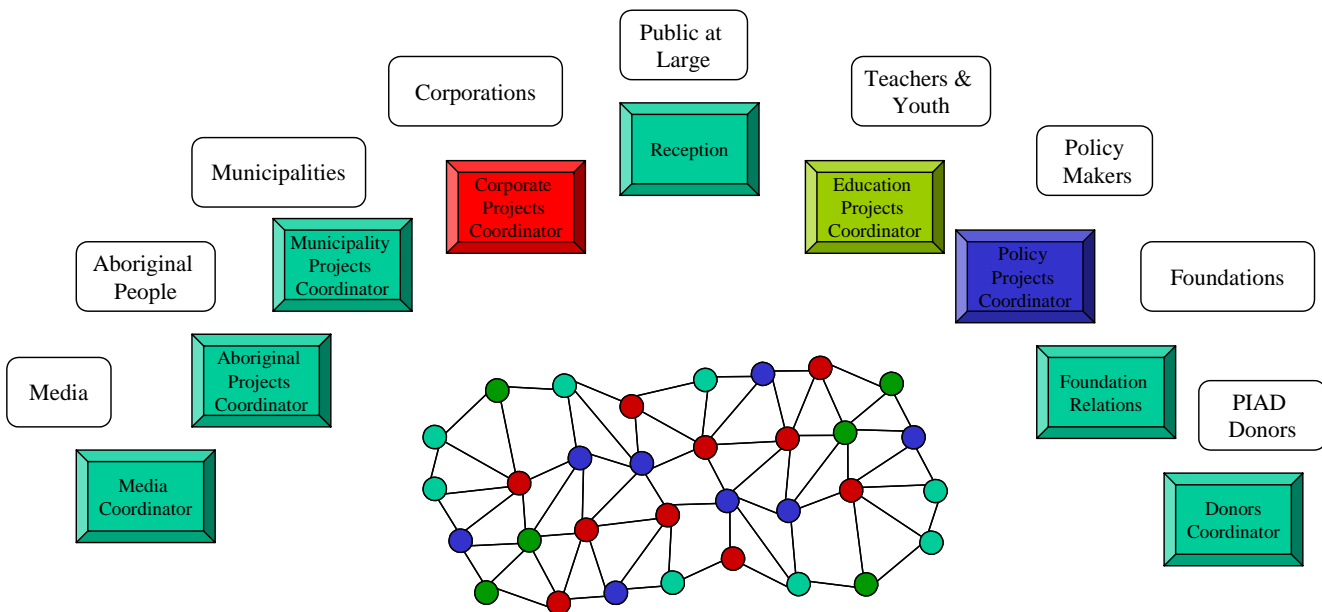


Figure 3.4. Pembina’s Operating Network

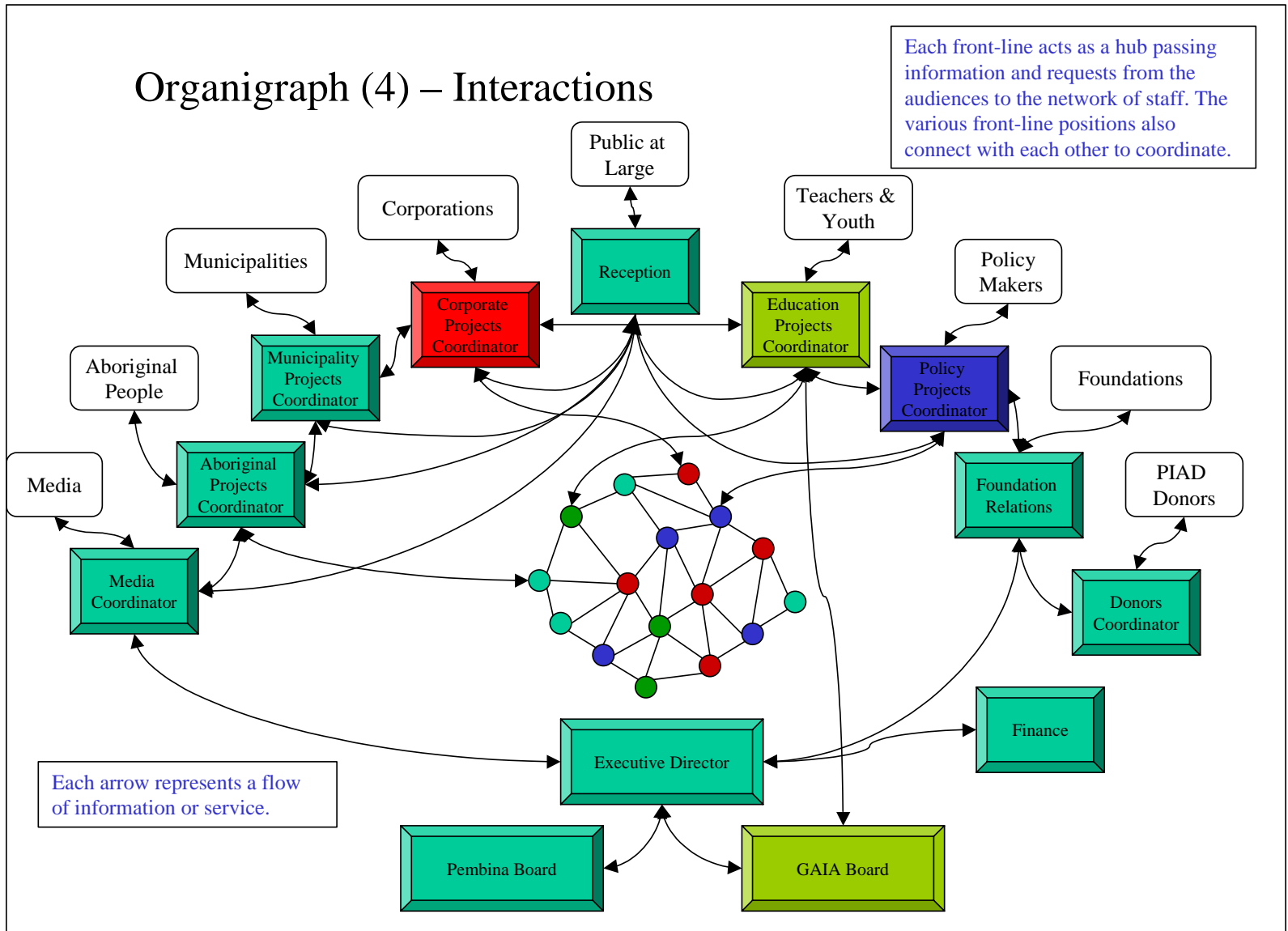


Figure 3.5. Pembina's Complete Organigraph

The organigraph also shows that the expectations of each audience most often require input from more than a single person, within the Pembina Institute. Most staff members will agree that some of the most successful projects have resulted from having a multi-program team working together to meet the audience's needs. Pembina's current organizational structure, with its distinct divisions, does not facilitate connections within the network. In many ways there are three separate networks, one for each division or group. In other words, the current structure does not effectively create a wide cross-functional network.

This structure also fails to provide sufficient linkage and alignment between members of the front line (see Figure 4.3). Often the best solutions for a particular audience are a result of more than one member of the front line working together in alignment. Although these necessary linkages do exist (see Figure 4.5), the current liaison devices of the existing structure do not adequately meet this need.

In short, it appears that the current organizational structure of the Pembina Institute is not optimal. The remainder of this paper will focus on collecting examples and information to formulate and evaluate alternative structures.

4. Learning from Other Organizations

In order to identify possible alternative structures, it can be useful to look at other organizations in the same field, to better understand how they are organized and reflect on how the Pembina Institute is comparable. Three such organizations used as case studies in this section are: (1) The David Suzuki Foundation, (2) Sierra Legal Defence Fund and (3) Five Winds International.

All three of these entities are similar in size to the Pembina Institute, and work in the area of sustainability. For each of the organizations, initial background research was completed, followed by personal discussions with at least one senior person. Although the discussions were not standardized interviews, the following question areas were explored for each:

- Describe the organizational structure in your own words.
- How centralized versus decentralized is the organization?
- What standardization exists?
- How does this standardization occur?
- Who is the target “market” (audience/region)?
- What is the organization’s niche?
- What are the organization’s core competences?
- How is the business plan or budget established? Who is involved?
- Where does decision-making power rest, and for what decisions?
- How are people organized within programs? Are programs project-based? Are people “fluid” across programs?
- How independent are programs and people?
- How does coordination between programs occur?
- Where else does coordination need to occur?

-
- What uses are made of liaisons, task forces, or committees?

The following pages summarize the structural features of each organization and compare them to the Pembina Institute. (For structural charts and additional facts about each organization, see Appendix.)

David Suzuki Foundation

The David Suzuki Foundation (DSF) is a Vancouver based charitable nonprofit environmental organization. I interviewed two staff at DSF: the Executive Director and a communications support person from the operating core.

The David Suzuki Foundation and the Pembina Institute have very similar mission statements and purposes. In other respects, however, the organizations are very different. Some of the key differences include:

- *Different issue areas.* Pembina and DSF both work on climate change and energy, but DSF also works in three other areas.
- *Source of funding.* DSF is funded entirely by foundations and private donations from members while the Pembina Institute is funded primarily by fee-for-service projects.
- *Niche/core competence.* DSF's core competence is in finding (or funding) good research and moving the results of that work into the public domain through various mediums, while Pembina's current niche is in completing detailed research work.
- *High profile* of the founder (David Suzuki) and board members. Pembina currently does not have a well-known, high-profile leader or board.

The David Suzuki Foundation's specialty is its ability to utilize the media and other forms of outreach communication. The organization's structure is highly oriented to this specialty in communications. The divisionalized, self-contained units each have a communications person from the Communications Group. The Director of Communications works directly with the Executive Director to set priorities and coordinate communications activities. The Communications Group is a highly influential technostructure for DSF, making the structure somewhat of a machine bureaucracy. Each of the units has professional scientists who seek

research work to draw from, but do not complete research themselves. The configuration of DSF can be described as “divisionalized-professional-machine-bureaucracy.”

Table 4.1. David Suzuki Foundation Organizational Structure

Operating Core	Approximately 3 to 6 staff in each unit – highly educated, some professionals.
Strategic Apex	Executive Committee (Executive Director, senior management and some Board members)
Technostructure	Communications team and Development team, strong influence from Communications Group for standardization and coordination
Support Staff	HR, Administration and Financial staff
Middle Line	Directors of each division
Unit Grouping	Market-based by issue area, with each unit described as “self-contained silos” (i.e., divisionalized)
Unit Size	3 to 6 staff per unit (9 staff report directly to the Executive Director)
Standardization	Standardization occurs in communication style and medium (primarily print).
Use of Liaison Devices	Directors meet weekly. Director of Communications is an integrating manager; mutual adjustment within each unit; communications liaison person.
Decentralization (vertical and horizontal)	Significant decision-making power allocated to each unit (vertically decentralized); significant power held by technostructure of the communications group (limited horizontal decentralization)
Overall Configuration	Divisionalized-Professional-Machine-Bureaucracy

The primary difference between DSF and Pembina is in their work processes. DSF’s specialty in communications allows it to have a strong technostructure, which acts to coordinate the outputs of the different distinct divisions. The divisions themselves have very different objectives, issues and audiences, and therefore can work separately. In contrast, the Pembina Institute’s research and analysis work requires greater alignment between the divisions, which cannot be adequately coordinated centrally by any part of the technostructure. The key lesson for Pembina to draw from DSF is that as Pembina grows its communications and development capacities (that is, its technostructure) it will be very important to establish how these groups should function across the content programs of the organization.

Sierra Legal Defence Fund

Sierra Legal Defence Fund (SLDF) is a charitable nonprofit environmental legal organization. The senior lawyer, who is also manager of the Toronto office, was interviewed for this work. He has worked with SLDF for eight years.

Sierra Legal Defence and the Pembina Institute share a common interest: Both want to realize change towards a more sustainable world. SLDF and Pembina have worked together in the past on a number of energy and air quality issues in Alberta. Some key differences between the two organizations include:

- SLDF works in a broader number of issue areas, while most of the Pembina Institute's issue areas relate to energy and the environment.
- Its funding base is far more foundation- and donor-based.
- Providing legal counsel is its niche or core competence.

The primary difference between SLDF and Pembina is in the nature of work each performs. Sierra Legal, like most law firms, is a professional bureaucracy; its work processes are highly defined by the training of its professional staff. This allows each of SLDF's offices to be essentially self-contained and independent. When appropriate, specialty resources can be shared between the two divisions, but this is the exception rather than the rule.⁴ In comparison, PIAD has numerous professional staff, but the nature of the work is far from standardized by their training. As a result, the need to share resources across Pembina is greater. Unless Pembina selected a narrow specialty, it would be difficult to emulate effectively Sierra Legal's structure. Sierra Legal's very effective use of standing committees to coordinate specific functions across the entire organization may provide a good example for PIAD to learn from.

An additional lesson for Pembina is from Sierra Legal's experience with creating a self-sufficient spinoff entity from its core. Over a five-year period starting in 1997, Sierra Legal collaborated with a number of First Nations in British Columbia to create a new independent

⁴ Before Fall 2002, the entire staff of the organization had never, in its seven years of existence, been together in one place. As a result of this meeting a small number of joint files or projects have been set up to help formalize sharing of expertise between the divisions.

organization called Environmental-Aboriginal Guardianship through Law and Education (EAGLE). What started as a program within SLDF to provide First Nations with legal support evolved into a separate organization. The two organizations have a memorandum of understanding in order to avoid conflicts of interest and enable them to share staff when possible and appropriate; but they no longer share board members or financial ties. Both organizations feel the process of creating a separate organization from the core was successful.

Table 4.2. Sierra Legal Defence Fund Organizational Structure

Operating Core	Largely professional staff – lawyers, engineers, scientists
Strategic Apex	Executive Director and selected standing committees (Litigation, Management)
Technostructure	Development, fundraising staff and communications staff in each regional office
Support Staff	Relatively large number of support staff provide office management, reception, IT support and finance
Middle Line	Regional coordination or managing lawyers
Unit Grouping	Organized by regional office (Toronto and Vancouver), divisionalized by region
Unit Size	6 to 8 professional staff based from each regional office
Standardization	Professional legal services standardized through training and regulatory system
Use of Liaison Devices	Standing Committees very prominent, mutual alignment of communications staff between offices, as well as finance staff
Decentralization (vertical and horizontal)	Significant decision-making power allocated to each regional unit to manage legal actions (vertically decentralized). Horizontally decentralization through professional operating core, which takes on significant decision making in specific cases or projects.
Overall Configuration	Professional Bureaucracy

Five Winds International

Five Winds International is a for-profit sustainability consulting group with offices in Germany, Canada and the United States. One of the company’s four founding directors was interviewed for this study.

Five Winds International can be best compared to the Pembina Institute's Corporate Eco-Solutions program, which offers very similar advisory services. In Pembina's corporate program, however, there are a number of key differences:

- Five Winds is focused on organizational growth and making a profit, while Pembina is first and foremost a social change organization.
- Five Winds is not as environmentally and socially selective in choosing clients, while Pembina is very careful as to who it does work for and accepts money from.
- Five Winds has offices located in three different countries, while Pembina's offices are all located in Canada.

Five Winds has experienced rapid growth since its beginning, with an average 40 percent growth rate in revenue each year since 1998. This is putting significant pressure on the organization to evolve from a simple/adhocracy structure. The company is currently completing a strategic planning process, which is defining a set of "core service lines" in addition to hiring a Chief Operating Officer specifically to implement organizational systems and grow the company. This is a clear move towards a more professional bureaucracy, which will likely retain elements of adhocracy in approaching various project-based assignments.

In many respects, Five Winds is currently in the position Pembina was approximately three years ago, following a period of rapid growth and beginning to search for its new identity as a larger organization. Five Winds' hiring a Chief Operating Officer is similar to Pembina's hiring of a full-time Executive Director three years ago. In other respects, the two are currently at a similar crossroads, having to select what Five Winds calls "core service lines." The adhocracy configuration has served Five Winds very well by being flexible and allowing entrepreneurial innovation to meet client needs. This is likely to remain a key asset for the company. Similarly, Pembina is likely to benefit from enhancing its ability to form cross-functional multidisciplinary teams to advance its social-change objectives. Pembina will also need to maintain its entrepreneurial skills. As Five Winds grows, it will probably maintain a strong strategic apex, with limited decentralization of decision-making power, since the directors of the company are the owners and principals. In comparison, Pembina, as a nonprofit organization, is unlikely to retain its staff without maintaining a more consensus-oriented decentralization of power. An additional lesson for Pembina is Five Winds' use of a monthly company-wide conference call. This has been an effective liaison device for Five

Winds, working across three different countries, and may be an effective means for Pembina to keep its staff in touch with organizational activities.

Table 4.3. Five Winds Organizational Structure

Operating Core	Largely professional staff – engineers, scientists organized around projects.
Strategic Apex	Four founding directors of the company.
Technostructure	Does not exist.
Support Staff	Relatively small number.
Middle Line	Does not really exist, with exception of one U.S. staff member having a team of 3 reporting to him.
Unit Grouping	Primarily by project but a natural grouping around regions / countries. Predominant approach is “all-for-one.”
Unit Size	Less than seven in any given office / region.
Standardization	Non-existent.
Use of Liaison Devices	Management team meetings bi-weekly (phone), three times face-to-face annually; annual company retreat; monthly company-wide conference call; frequent movement of staff between projects and regions.
Decentralization (vertical and horizontal)	Vertically centralized with most decisions occurring at the top by the directors. At the project level, horizontal decentralization with team members having significant decision-making power. At organizational level, limited horizontal decentralization with majority of control held by corporate directors.
Overall Configuration	Simple-Adhocracy

5. Organizational Structure Criteria Identified by Staff

In addition to drawing upon other organizations for ideas, it is essential in any discussion on organizational structure to incorporate as many views and ideas as possible from staff members. This section highlights the ideas and feedback collected through a number of individual and small group conversations and interactions with Pembina staff. Approximately one-third of the staff from the Pembina Institute were engaged and explored the following questions:

- How would you describe our current structure?
- What does the current structure do well?
- Where does the current structure not serve us well?
- Where does coordination need to occur in the organization?
- What things could be standardized in the organization?
- What must our structure enable us to do? What criteria would we use to judge or evaluate our structure?

When reflecting on the current organizational structure, staff described the organization as “siloesd” groups of independent individuals working on a variety of projects. It was generally felt the siloes are not serving the organization well due to a lack of coordination and interaction between staff from different programs or groups. However, people generally feel the structure serves the organization well with respect to allowing flexibility and freedom to identify and complete projects. The siloes also serve well in providing clear fiscal responsibility for a program.

With respect to where coordination needs to occur across the organization, the following areas were identified:

-
- Strategic planning
 - Strategic management of issues, audiences and approaches
 - Budget planning and tracking
 - Project development, implementation and leadership
 - Fundraising efforts
 - Public outreach efforts
 - Staff services (human resources)
 - Office operations
 - Internal systems
 - Volunteers

Through the various discussions, the following areas for potential standardization were identified:

- Report formats, look and “feel”
- Logo and “branding”
- Financial reporting
- Media releases
- Proposal formats
- Hiring processes
- Training and orientation of new staff
- Recruitment of volunteers
- Budget development

On the topic of what the organizational structure must do in order to be effective, the following criteria emerged:

- Enable effective coordination of strategies and realization of organizational objectives
- Promote efficient use of administrative support

-
- Encourage entrepreneurial activities
 - Respond effectively to the needs and expectations of the organization’s “clients”
 - Bridge the silos and enables staff to be available across the organization
 - Enable synergies across the organization
 - Reinforce creativity and innovation
 - Allow both specialists and generalists to coexist
 - Recognize the strengths and talents of individuals
 - Lend itself to open communication
 - Allow both a formal and informal structure to coexist
 - Enable the sharing of experiences and knowledge across the organization

From the staff discussions and emerging criteria, three themes emerge. The first theme is related to meeting the diverse needs of the staff. A useful concept here is Peter F. Drucker’s thinking on “knowledge work.” The Pembina Institute is a collection of what Drucker (2000) calls “knowledge workers”:

In a knowledge-based organization, it is the worker’s productivity that makes the system productive. In a traditional workforce the worker serves the system; in a knowledge workforce the system must serve the worker.

A number of criteria identified by staff relate to this need and may be characterized as *enabling diversity in staff skills and knowledge* in order to function most effectively together.

The second theme emerging from the staff is related to promoting and enabling entrepreneurship. One trademark of the Pembina Institute is its entrepreneurial nature. Drucker provides a useful view on entrepreneurship (ibid.):

Today, much confusion exists about the proper definition of *entrepreneurship*. Some observers use the term to refer to all small businesses, others, to all new businesses. In practice, however, a great many well-established businesses engage in highly successful entrepreneurship. The term, then, refers not to an enterprise’s size or age but to a certain kind

of activity. At the heart of that activity is innovation: the effort to create purposeful, focused change in an enterprise's economic or social potential.

This definition of entrepreneurship, as the focused effort of creativity and innovation for purposeful change, is useful for the Pembina Institute in thinking through criteria for its organizational form. Staff identified the need for flexibility and innovative entrepreneurship and might be summarized as *enabling entrepreneurial creativity and innovation* in order to meet clients'⁵ needs and expectations.

The final common theme among the identified criteria is one of coordination across the organization. One might combine this theme and define a third organizational structure criterion as *enabling effective coordination of learning, strategy and tactics across the organization*.

Having explored organizational theory, other organizational structures and identified internal criteria, we are now prepared to propose and evaluate a number of options for reconfiguring the Pembina Institute. The following chapter draws from these staff defined criteria and Mintzberg's theories to formulate and provide a preliminary evaluation of a few options for organizational structure at the Pembina Institute.

⁵ The use of the word "client" here is broader than the traditional service sector use and is intended to include the primary audiences of the organization. The words "client," "market" and "audience" are interchangeable in this paper.

6. Formulating Structural Options for the Pembina Institute

Applying the Theory: Internal and External Learning

This section brings together Mintzberg’s theories, examples of other organizations and internal discussions to formulate a number of options for the organizational structure of the Pembina Institute. Each option is discussed and evaluated for its potential strengths and weaknesses. At this time, it is believed the Pembina Institute is best advised to maintain (if not enhance) its ability to respond innovatively to opportunities in an organic manner and therefore each option retains the characteristic of the adhocracy configuration. The organization will only be able to move from an adhocracy to a more professional bureaucracy once it identifies and establishes a more standardized service or function. Furthermore, the Pembina Institute is unlikely to significantly change the professional nature of the staff it attracts and retains. The current function of the organization requires highly trained professional staff. As a result, each option discussed below is a modification of an organization grounded in Mintzberg’s “profession adhocracy” configuration. The options evaluated here are summarized in Table 6.1.

Improving the Current Structure with Liaison Devices

The current structure of the Pembina Institute (Figure 3.1) could be greatly improved by adding specific liaison devices to overcome the predominant concern of lack of integration and collaboration between existing silos or divisions. Two liaison devices – liaison positions and standing committees – could greatly improve the bridging between the existing functional groups (Eco-Solutions, Policy and Education).

Liaison Positions

To bridge the existing gaps, an individual from each group could be designated as an informal liaison between the three groups. For example, a person from the Policy Group

would participate in the meetings of the Eco-Solutions Group, and vice-versa. Similarly a person from the Eco-Solutions Group and the Policy Group would participate with the Education Group. The role of these liaisons would be to inform each group of activities and directional thinking and identify opportunities for synergies.

Table 6.1. Summary of Structural Options for the Pembina Institute

Structural Option	Brief Description	Mintzberg Configuration
Current Structure (Function Based) + Liaison Devices	Improve the current (2002) divisions-by-function structure by establishing specific liaison devices, including liaison positions and standing committees.	Professional Divisions-by-Function Adhocracy
Market-based Structure	Form specific market-based groups or divisions to respond specifically to the needs of the particular audience. Each division would work as an independent professional adhocracy.	Professional Divisions-by-Market Adhocracy
Issue-based⁶ Structure	Form issue-orientated groups or divisions to work on moving specific issues forward. Each division would work as an independent professional adhocracy.	Professional Divisions-by-Issue Adhocracy
Geographic Divisions	Form independent divisions by geographic location. Each division would focus on addressing issues and audiences in its respective region. Sharing of resources across divisions would be minimized. Each division would work as an independent professional adhocracy.	Professional Divisions-by-Region Adhocracy
Shifting Matrix	Form a matrix-based structure bringing the market based and issue based structures together. Staff assigned to specific market based programs for reporting purposes, but available to all programs depending on project need.	Professional Matrix Adhocracy

Standing Committees

The second liaison device that could help bridge the existing divisions is the formation of specific standing committees. These standing committees would be designed specifically to align the divisions either around audiences or issues (see below).

Issue-based standing committees could be formed to meet and align on how best to move a specific issue area forward. These committees would consist of representatives from a

⁶ “Issue” here could also be interpreted as “social change objective”: that is, in which area, or around what specific issue, does the organization wish to see change occur?

number of program areas and from all three groups. They would also include a specialist for each particular issue. For example, a standing committee on the climate change issue may be formed with members from the Corporate Program, the Communities Program, the International Program, the Energy Watch Program and the Education Group. This committee would be led by the existing Climate Change Program. The Climate Change Standing Committee would be responsible for formulating strategy to advance the objectives related to climate change and to report on progress in meeting these objectives. Drawing on the discussion of Pembina’s operational space in Section 2, additional issue-based standing committees might be formed around Renewable/Sustainable Energy and Conventional Energy.

Alternatively (or in addition), standing committees could be formed around any number of specific audiences or markets (see Figure 3.2). For example, a Standing Committee on Corporations could be formed to identify opportunities and strategies for influencing this portion of society while meeting its needs. Again, members of this committee would be drawn from multiple programs.

With respect to meeting the criteria defined by the staff in Chapter 6, Table 7.2 below summarizes the author’s perspective.

Table 6.2. How Modifications to Current Structure Meet Staff Criteria

Staff Criteria	Ability of Structure Meet Criteria
Enables diversity in staff skills and knowledge to most effectively function together.	Moderate – Staff will be dependent on the standing committees to recognize opportunities for synergies.
Enables entrepreneurial creativity and innovation to meet clients’ needs and expectations.	Poor to Good – Audience-based standing committees will be able to identify innovative means to meet clients’ needs. But any audience without a focused multi-functional committee may actually experience reduced attention and service.
Enables effective coordination of learning, strategy and tactics across the organization.	Poor to Good – Issue-based standing committees will be able to effectively coordinate strategies and tactics across the organization for the particular issue. However, any issue without a focused committee will likely not be well coordinated, and could be lost altogether.

Modifying the existing structure by adding liaison devices will likely improve the effectiveness of the organization. However, this solution does have some significant drawbacks and potential pitfalls. First, standing committees will take additional time and resources to coordinate, participate in and report on. Second, these standing committees may be seen as “exclusive” by others in the organization. Third, to be manageable, the organization will have to limit the number of standing committees. This poses the risk of losing attention to other issues or smaller audiences not having standing committees if this becomes the predominant means of coordination across the organization. Finally, the formation of committees may themselves form new silos.

Table 6.3. Current Structure with Enhanced Liaison Devices

Strengths	Weaknesses
Relatively simple to implement	Requires a significant number of additional meetings of the standing committees to remain aligned and formulate strategy. Attendance is essential otherwise the legitimacy of the committee breaks down.
Forces focus on specific audiences and/or issue areas (if it has a standing committee, significant time and effort will be dedicated to the area)	Committees may be required for both issues and audiences to ensure adequate attention is given to each. This could become very cumbersome and inefficient.
	For the Pembina Institute the synergies between both its audiences and issues are significant; e.g. there is great overlap between sustainable energy and climate change. There is a risk that the standing committees could form new silos unless there is conscious bridging between them.
	May not be the most effective means to align specific programs still separated by the groups – e.g. Energy Watch and Corporate Eco-Solutions
	Smaller audiences (e.g. First Nations) or lower-profile issues may not have a standing committee, and therefore would not receive significant attention and could become isolated. These isolated areas would either cease to exist or struggle to form independent “turf.”

Market-based Structure

In the market-based structure proposed here and shown in Figure 6.1, six groups would be formed. The communications and the development groups would provide essential support to the four markets or primary audiences (corporations, communities, future decision makers and policy makers). The management team would be made up of the directors of each division. This management team would be responsible for organizational operations and may or may not become responsible for coordinating strategy. In order to bridge across market divisions more effectively, liaison devices similar to those described in the modifications of the current structure would likely be required. In this model, each division would essentially be self sufficient, but would draw upon common infrastructure resources.

To form this structure a number of significant changes would be required. The twelve current content related director level positions would be reduced to four unless sub-programs were maintained in each of the divisions. With respect to meeting the criteria defined by staff in Section 5, Table 6.4 below provides one analysis.

Table 6.4. How a Market-Based Structure Meets Staff Criteria

Staff Criteria	Ability of Structure to Meet Criteria
Enables diversity in staff skills and knowledge to most effectively function together	Poor to Moderate – Staff will be dependent on standing committees to recognize opportunities for synergies. Some potential for increased synergy through combining programs such as Energy Watch and the Corporate Eco-Solutions Program.
Enables entrepreneurial creativity and innovation to meet clients’ needs and expectations	Poor to Good – The market structure will ensure focused attention is given to the clients, but if each division does not contain all the necessary skill sets and knowledge it may not be able to meet the clients’ full expectations. This will depend on the organization’s ability to share resources across divisions through the use of the liaison devices.
Enables effective coordination of learning, strategy and tactics across the organization	Poor to Good – Issue-based standing committees will be able to effectively coordinate strategies and tactics across the organization for the particular issue. However, there is a risk a division may not have access to adequate resources and skills required to implement the coordinated strategy. It is also likely new silos would be formed around each market.

A market-based structure faces many of the limitations of modifying the current structure. It will require standing committees for specific issues, but may not require audience-based standing committees. The restructuring process using this model could also potentially result in the loss of a number of current staff depending on how the director positions are selected.

Table 6.5. Market-based Structure

Strengths	Weaknesses
Forces focus on specific audiences	Potential for new silos to be created around the four primary audiences.
Brings together some of the existing programs into more focused groups	Requires a significant number of additional meetings of the standing committees to remain aligned and formulate strategy. Attendance is essential otherwise the legitimacy of the committee breaks down.
	Requires a significant reorganization of staff, which may result in the loss of a number of people.
	Smaller audiences (e.g. First Nations) or lower-profile issues may not have a standing committee, and therefore would not receive significant attention and could become isolated. These isolated areas would either cease to exist or struggle to form independent “turf.”

Market Based

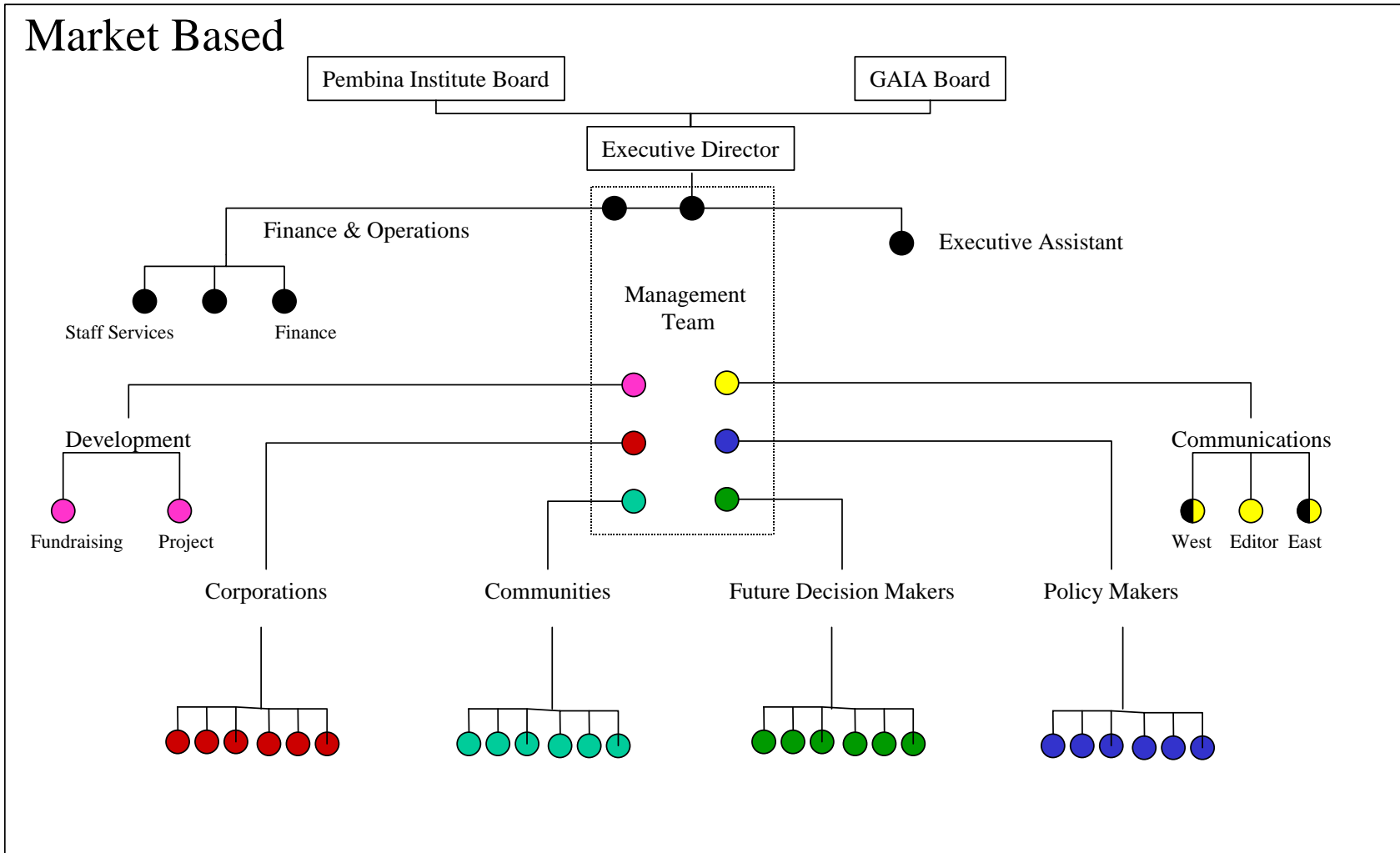


Figure 6.1. Market-based Structure

Issue-based Structure

The issue-based structure shown in Figure 6.2 is relatively similar to the market-based model except that the program groups are organized around issues or “social change objectives.” The communications and the development groups would provide essential support to the primary social change objectives or issue areas (such as the three issue areas – sustainable energy, climate change and conventional energy – which illustrate the operational space of the Pembina Institute in Section 1). The management team would consist of the directors of each issue area; it would be responsible for organizational operations and possibly for coordinating strategy as well. The directors of each social change objective would be responsible for working with their team to devise strategies and implementation plans to accomplish those objectives. As in the market-based structure, liaison devices would likely be required to coordinate between the issue areas. In this model, each division would essentially be self sufficient, but would draw upon common infrastructure resources. Each division would consist of a multidisciplinary team. This structure is similar to that of the David Suzuki Foundation.

Forming this structure requires a number of significant changes. The twelve current content related director level positions would be reduced to the number of primary issue areas, in this example three. With respect to meeting staff-defined criteria, Table 6.6 below provides one analysis.

Table 6.6. How an Issue-based Structure Meets Staff Criteria

Staff Criteria	Ability of Structure to Meet Criteria
Enable diversity in staff skills and knowledge to most effectively function together	Poor – Staff will be dependent on standing committees to recognize opportunities for synergies, but will most likely be inclined to focus on their issue area.
Enable entrepreneurial creativity and innovation to meet clients’ needs and expectations	Poor to Moderate – The issue-based structure is not client-orientated. It focuses first and foremost on the issue area. Creativity and innovation will be essential to accomplishing the social change objectives, but direct entrepreneurial drive to the market comes second in this structure. However, clients within a particular issue area are likely to have access to a multidisciplinary team.
Enable effective coordination of learning, strategy and tactics across the organization	Poor – The issue-based structure does not lend itself well to easy coordination across the divisions. One way to possibly mitigate the issue of silos would be to set up market-based standing committees.

A completely issue-based structure for the Pembina Institute would be a significant change. It would face a number of limitations with respect to coordination and having a clear line of sight to its audiences. Many NGOs are organized around issues. During discussions with David Suzuki Foundation staff, it became clear that coordination between the issue areas was difficult. An issue-based structure is prone to forming strong silos. The Pembina Institute would have to consciously build in mechanisms to overcome this limitation. As with the market-based structure, a transition to a purely issue-based structure would likely result in the loss of a number of staff, depending on how (and which) issues were chosen.

Another consideration is the role Pembina plays among Canadian ENGOS. The Pembina Institute is seen by many as a “bridging” organization between the corporate sector, the government and issue-focused NGOs. The organization must carefully understand its broad role among ENGOS, before choosing to take on an issue-based structure.

Table 6.7. Issue-based Structure

Strengths	Weaknesses
Forces focus on specific social change objectives	Potential for new silos to be created around issue areas.
Could bring together strong multi-disciplinary teams focused on specific issues	Potential lack of attention to clients or audiences, leading to a weakening of the Pembina Institute’s entrepreneurial nature.
	Requires a significant reorganization, which may result in the loss of a number of people.
	This model requires careful selection of issue areas. Decisions will be required on how many issue areas are sustainable for the organization and when to add or remove issue divisions.
	This model may not adequately differentiate the Pembina Institute from other issue focused ENGOS.

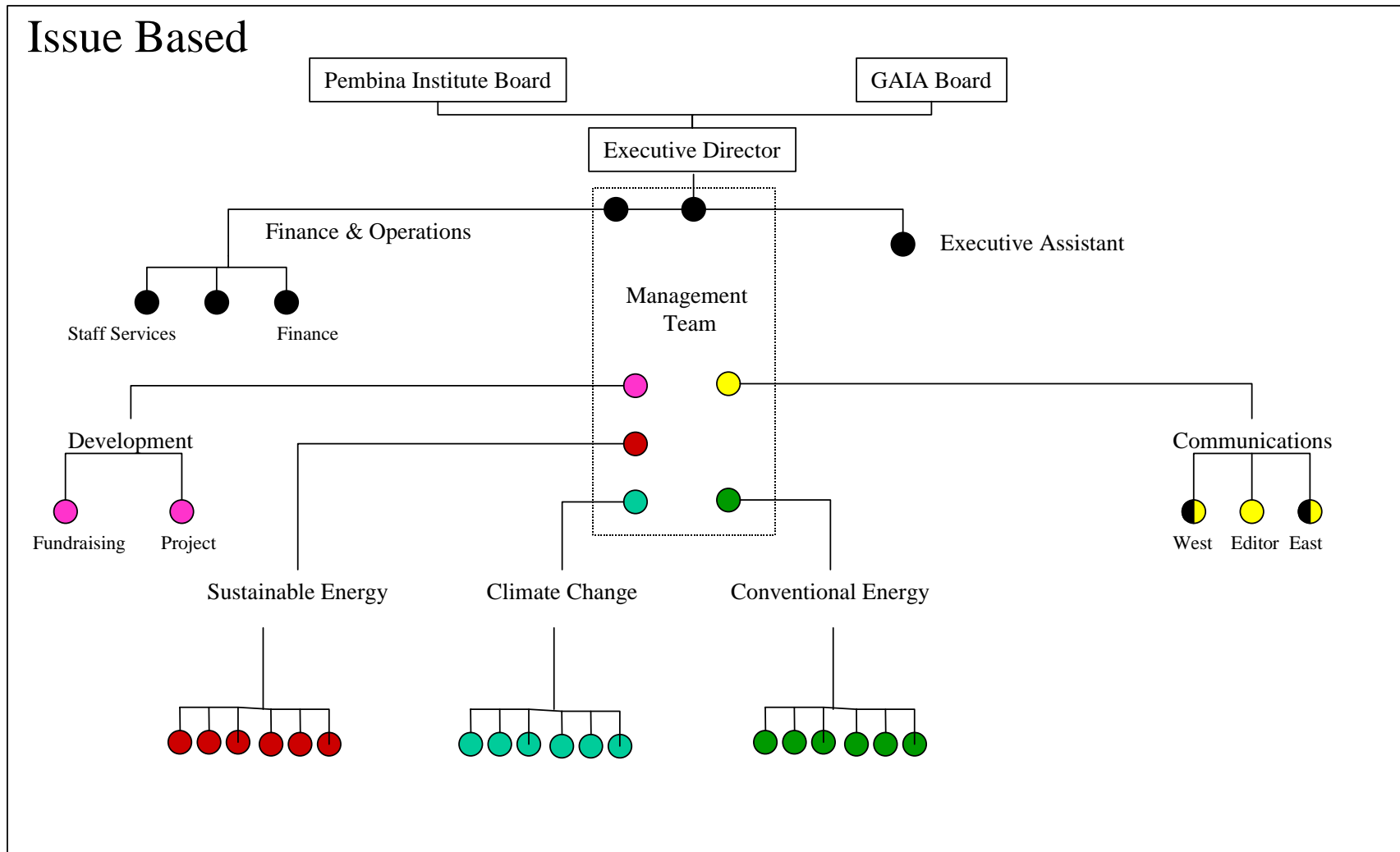


Figure 6.2. Issue-based Structure

Geographic Divisions

If the Pembina Institute were to formally organize itself by geographic location, it would likely break into two divisions: a Western Canadian Office and a Central Canadian Office. Existing programs might then be placed within one of these offices. Figure 6.3 shows one possible structure based on geographical division. In this model each regional office becomes its own self-sufficient entity with its own financial and communications support. Strategy is primarily formulated and driven at the regional office level. The management team helps coordinate efforts between the offices, but generally, only limited sharing of resources between the offices can be expected to occur. Within each regional office the individual programs would focus on their change objectives, working relatively independently, but where possible sharing resources and skills within the office as a professional adhocracy. This structure is similar to that of the Sierra Legal Defence Fund, which has a Vancouver office and a Toronto office working relatively independently.

The Pembina Institute could easily evolve into this structure from its current situation. In many ways the Calgary and Ottawa offices are relatively independent and house very distinct program areas. In comparison to the staff criteria, Table 6.8 provides one view.

Table 6.8. How Geographic Divisions Meet Staff Criteria

Staff Criteria	Ability of Structure to Meet Criteria
Enables diversity in staff skills and knowledge to most effectively function together	Poor – Within the regional office, increased sharing of expertise is possible, but this structure would likely form strong regional silos, making it difficult to share skills.
Enables entrepreneurial creativity and innovation to meet clients’ needs and expectations	Poor to Moderate – Each regional office would likely become very attentive to its local clients. However, since each office would have more localized skill sets, providing a multidisciplinary team to serve the local audience would be more difficult. As a result, each office would likely be limited in the services it could provide.
Enables effective coordination of learning, strategy and tactics across the organization	Poor – Regional divisions do not make it easy to coordinate efforts. With increased focus on regional needs, coordination and sharing across the organization become less important.

A structure based on geographic divisions is unlikely to be optimal for the Pembina Institute. This structure could be more successful if a multidisciplinary team were built in each region and a set of standardized services were developed. For example, if both regions had a full set of teams (Corporate Consulting, Community Solutions, Policy, Advocacy, etc.) and if the

services were relatively standardized, this model could work. That is how the Sierra Legal Defence uses this model successfully: each regional office has standardized legal services provided specifically for the region. Because the Pembina Institute does not have a set of standard services (responding instead to emerging opportunities and situations) and because Pembina currently has very different skill sets in each of its offices, it is unlikely that dividing the organization by regional offices is a practical configuration today. It is expected this configuration would strongly reinforce silos and significantly limit coordination across the organization.

Table 6.9. Geographic Divisions

Strengths	Weaknesses
Forces focus at the regional level	High potential for strong geographic silos.
Strengthens interaction and responsibility in the regional offices	Potential reduced ability to provide truly multidisciplinary solutions to clients given the current division of skills in each office.
	Limits motivation and ability to coordinate efforts and strategies organization wide.

Geographic Divisions

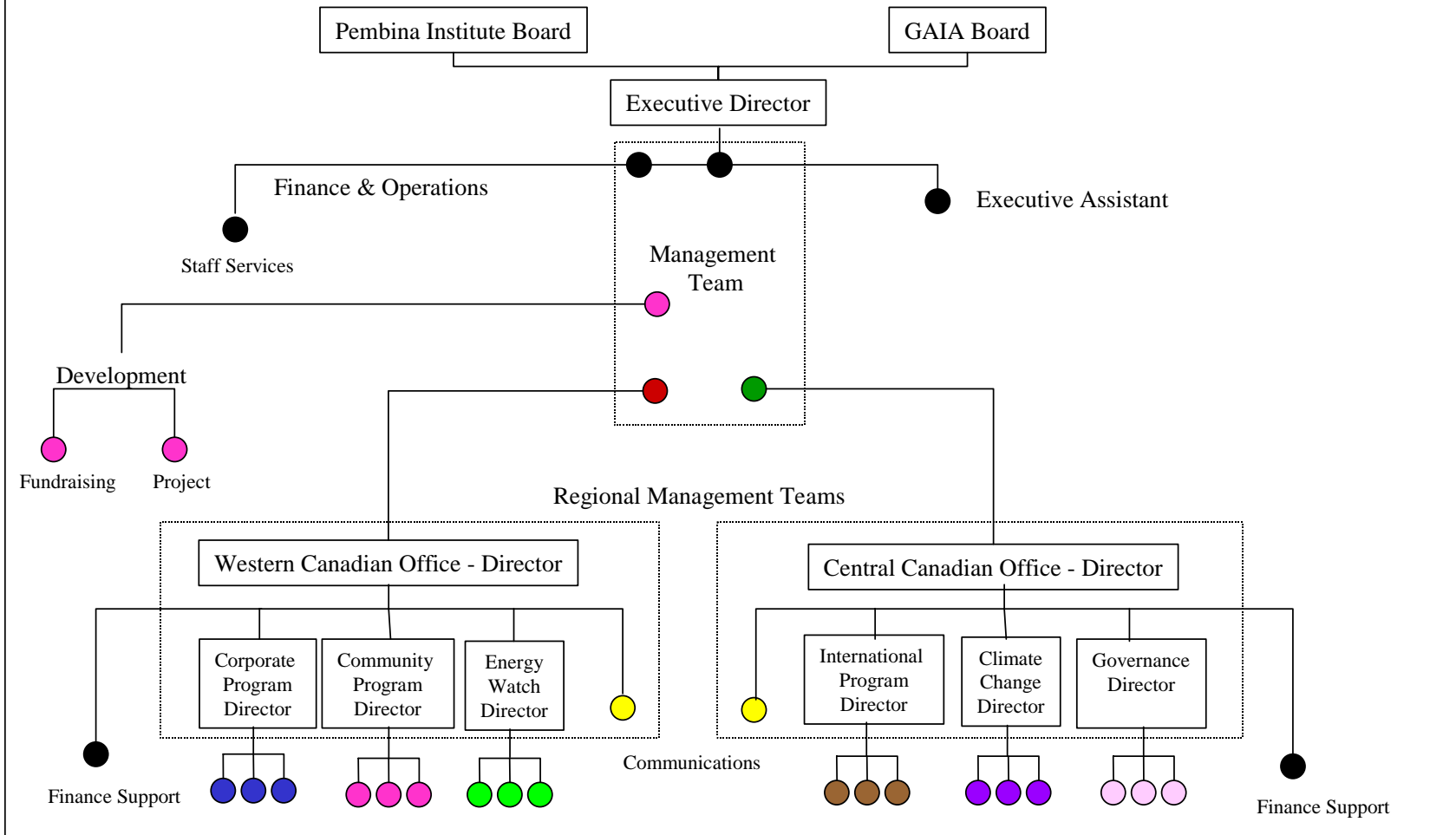


Figure 6.3. Structure Based on Geographic Divisions

Shifting Matrix Structure

The matrix structure allows an organization simultaneously to take advantage of both a market focus and a service or “issue” focus. It requires middle management (program directors for the Pembina Institute) to take equal and joint responsibility for decision making and strategic management. In a *shifting* matrix structure, staff is relatively fluid throughout the organization and members form different teams to meet client and strategic needs. A matrix structure may be formed in a number of different configurations for the Pembina Institute. One configuration is presented here, illustrated in Figure 6.4, with the following proposed characteristics:

- Each staff member is assigned to an audience-based program (Corporations, Communities, Future Decision Makers) for the purpose of reporting, but all staff members are available for, and expected to work on, different projects across the organization. (This is the “shifting” part of the matrix structure.)
- Within each audience-based program, two program leaders representing different approaches for the given audience work together to align strategy. Members of each audience-based program are focused on the client and on realizing social change objectives within that program. While completing the core services within each program, the staff identify and seek specific policy lessons and changes, in conjunction with the Issue Area Policy Leaders (Sustainable Energy and Climate Change).
- The Issue Area Policy Leaders work closely with each of the three audience programs to extract suggestions for policy-making, prioritize lobbying and campaign for policy change. The policy change model is based on “learning by doing” within each of the three audience-based programs. The policy lobbying effort also draws on allies from the client networks formed by each of the audience-based programs.
- Strategic management is very organic within the programs and across the strategic management team, but is driven by over-arching, organization-wide social change objectives. The Strategic Management Team includes the executive director, the directors of each audience-based program, the issue-based policy leaders, the Communications Director and the Development Director.

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- Communications development staff provide support to each program and the policy team to help realize their objectives.
 - The Operations Management Team would consist of a representative from each functional group, in addition to the Executive Director and Director of Finance. This team would deal with internal systems, financial reporting, personnel and other operational matters.

For the Pembina Institute to reorganize into the proposed shifting matrix structure, the following changes would be required:

- The existing Corporate Eco-Solutions Program and the Energy Watch Program would join to form one audience-based program focused on changing the corporate sector. The two directors of this new program would represent different approaches – one on consulting solutions, the other on watchdog and advocacy – and would align strategy to realize the desired changes in corporate practice.
- The existing Community Eco-Solutions Program and International Eco-Solutions Program would join to form one audience-based program focused on facilitating the development of sustainable communities. The two directors of this new program would represent different focus audiences, but would share common tools in realizing the desired change.
- The existing Education Team would become a program focused on “future decision makers.” The two directors would represent different approaches – formal education through school curriculum and informal education through youth outreach activities – and would align strategies to help realize organizational change objectives.
- The existing Policy Group would become a group led by two policy issue directors: Climate Change and Sustainable Energy. These two policy directors would work with the audience-based program directors to identify and prioritize policy change objectives. Between them they would align their strategies given the synergies between the two policy issue areas. In the future, additional policy directors could be added, depending on the social change objectives of the organization. The current Governance Program, Ecological Fiscal Reform Program and Sustainability Measurement Program would remain as areas of specific expertise within the Policy Group, but would focus this expertise in alignment with the policy change objectives

identified in conjunction with the Corporate, Communities and Future Decision Makers programs. Staff within the new policy group would have to be interested in working closely on joint projects in each of the audience-based programs.

- The existing positions of Eco-Solutions Director and overall Policy Group Director would cease to exist.

In short, a number of significant changes are required for the Pembina Institute to restructure in the proposed shifting matrix. Table 7.6 provides one evaluation of the shifting matrix structure against the staff defined criteria.

Table 6.11. How a Shifting Matrix Structure Meets Staff Criteria

Staff Criteria	Ability of Structure to Meet Criteria
Enables diversity in staff skills and knowledge to most effectively function together	Strong – This structure expects the issue-based policy expertise to closely interact with the audience-based teams, which will help ensure a diversity in skill sets work together to realize overall social change objectives.
Enables entrepreneurial creativity and innovation to meet clients’ needs and expectations	Strong – The audience-based programs are focused on their clients’ needs and will have to be entrepreneurial to do so. With expected access to policy expertise and other staff across the organization, these programs will be able to provide very multidisciplinary, holistic services.
Enables effective coordination of learning, strategy and tactics across the organization	Good to Strong – The Strategic Management Team representing all the different functions of the organization becomes an important component to coordination of organizational strategy. However, this structure also relies heavily on regular informal mutual adjustment and alignment between directors and staff. To accommodate this, staff will have to have well-developed interpersonal communication skills and sufficient time to interact both formally and informally on various projects.

The shifting matrix configuration offers a number of strengths to the Pembina Institute and has the greatest potential to meet the criteria defined by the staff. The combination of both audience-based and issue-based teams aligns very well with the flow of information and interaction expected from external audiences illustrated in the organigraphs in Section 3. It also enables the organization to maintain its current operational space as defined in Section 1, while enhancing collaboration across the organization. The one caution about this configuration is that because each program is led by two directors with equal responsibility for aligning strategy, “dispensing with the principle of unity of command creates

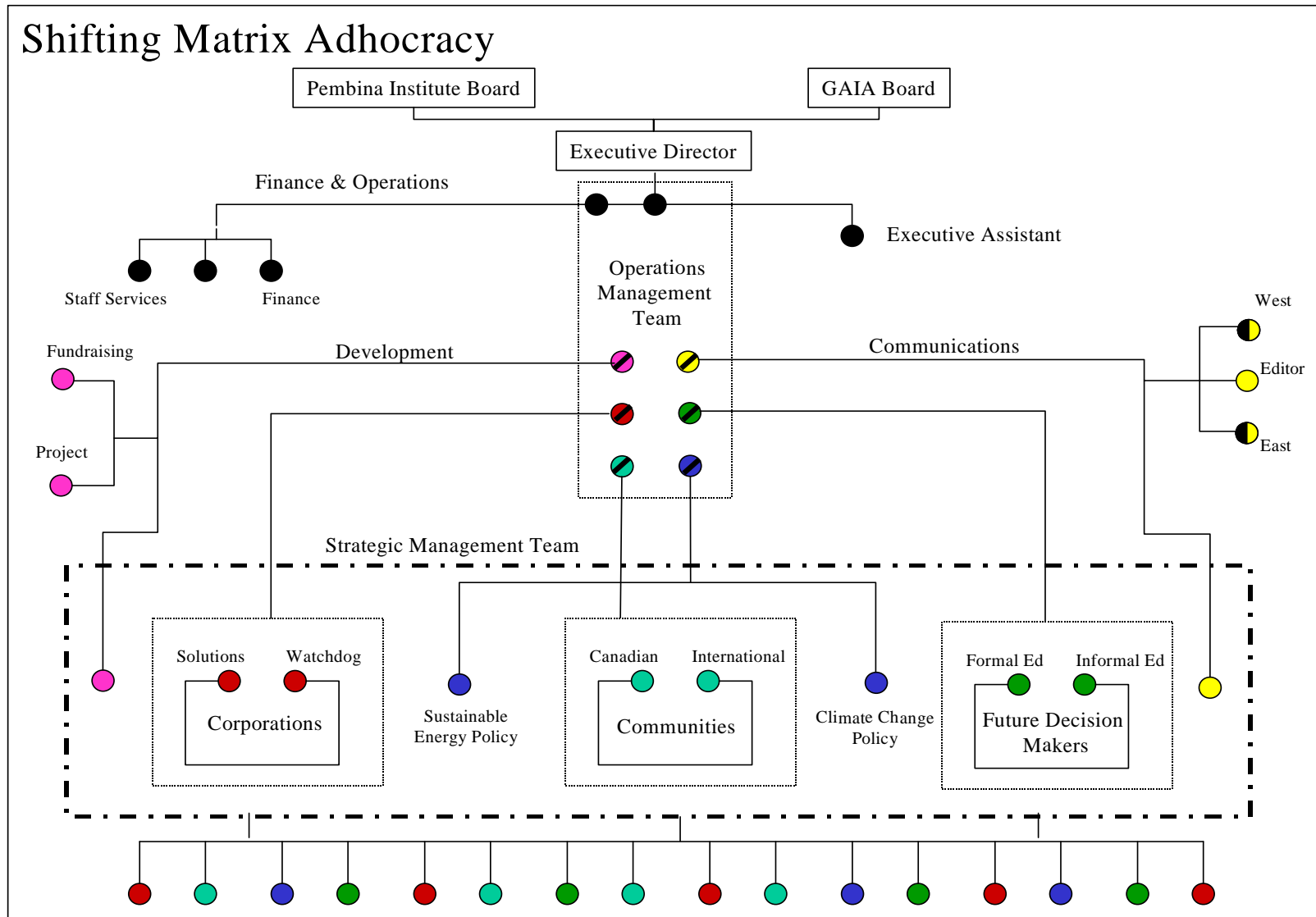
considerable confusion, stress and conflict and requires from its participants highly developed interpersonal skills and considerable tolerance for ambiguity” (Mintzberg 1983, 88).

If the Pembina Institute moves into this direction, it must be prepared for and committed to spending time in meetings to align thinking and consciously share learning between the audience-based programs and issue-based policy teams. However, in comparison to the existing structure and the other structures explored here, a matrix structure appears to offer the greatest potential for meeting the demands of the Pembina Institute.

Table 6.12. Shifting Matrix

Strengths	Weaknesses
Enables focus on audiences	Requires staff to spend significant amounts of time aligning and sharing learning.
Enables multi-disciplinary teams to be entrepreneurial and meet audience expectations	Requires significant restructuring of the organization.
Enables sharing of skills and knowledge across the organization	
Enables coordination between the audience-based programs and issue-based policy areas	

Shifting Matrix Adhocracy



NOTE: A circle with a diagonal line (found in the Operations Management Team) indicates a program representative, not an additional staff person.

Figure 6.4. Matrix Structure

Further Considerations for Configuring the Pembina Institute

This paper has presented five different possible new configurations for the Pembina Institute. Numerous other combinations exist. Here a few additional considerations are briefly discussed for the organization to consider while evolving its structure.

Operational Liaison Options

Regardless of the structure toward which the Pembina Institute evolves, it will be essential to ensure that appropriate liaison devices are established and consciously built into the structure. These devices should be evaluated for their effectiveness on a regular basis. The use of standing committees is one recommended means for liaison between different units. Ideas for standing committees for Pembina are listed in the table below. These are specifically for operations and not for strategy, which have been discussed in the possible configurations above.

Creating Separate Entities

Another modification to the structural configurations presented is to follow the example of Sierra Legal Defence and formulate separate entities from specific programs. To create a separate organization from the larger existing organization requires long-term planning and commitment from staff to build the new entity's capacity and enable it to survive on its own. For the Pembina Institute, a number of potential programs could be "spun-off" into separate, self-sufficient organizations, including:

- A self-contained corporate consultancy (which may even be established as a for-profit company)
- An organization dedicated to community development in Canada or to First Nations communities
- A fully separated formal education organization, or an organization specifically for international development

Table 6.13. Liaison Options

Standing Committee	Liaison Responsibility	Membership	Format / Frequency of Meeting
Development and Fund Raising	Ensure coordination of foundation and donor funding needs and opportunities between unit groups	Unit group Directors Development Leader Executive Director Invited additional staff (as-appropriate)	Standard agenda, pre-brief prepared. Every 6 weeks (1 to 2 hours)
External Communications	Ensure coordination and awareness of external messaging to all audiences	Unit group Directors Communications Leader Executive Director	Quick communication flashes only – “What external messages are occurring this week?” Brief minutes to all staff and board. Weekly (30 minutes)
Personnel and Internal Systems	Ensure coordination of meeting staff needs, hiring, performance growth, movement of staff, development of internal policies and systems, etc.	Unit group Directors Administrative Leader Executive Director	Standard agenda. Every 6 weeks (1 to 2 hours)
Budget	Ensure coordination of awareness and accountability of organizational budget – both on-going and annual development	Unit group Directors Finance Leader Development Leader Executive Director	Standard agenda, financial summary supplied beforehand. Monthly (2 nd Monday) (45 minutes to 1/2 hrs)
Long Range Operational Planning	Ensure coordination of longer-term planning (5 to 20 years)	Executive Director Selected team and Board members	Evolving agenda

Note: Membership above has not generally included Board members, however, as the Board evolves it is likely very useful to have a selected Board member associated with each standing committee.

The potential advantage of separating the organization into two or more separate entities lies in the possibility of simplifying the overall organigraph of each, by allowing clear organizational focus on a particular audience. The disadvantage lies in the possibility that the organization might eventually lose the synergies between people and thus lose the capacity to take a truly holistic approach. This would be a serious structural change, and must be evaluated and planned very carefully.

Centralization Versus Decentralization of Communications Functions

The Pembina Institute has made significant investments in building its external communications capacity. During the year-long national debate in 2002 on whether or not Canada should ratify the Kyoto Protocol, the Pembina Institute had its most active year of media coverage in its fifteen-year history. It is expected, as Pembina's reputation continues to grow, that the organization will have more need for communications. As the Institute considers different models of structure it is important to consider the degree of centralization versus decentralization for this function. Key questions for the organization to consider will be:

- To what extent should all communications functions be coordinated from one central location?
- Should there be communications staff assigned to certain regions?
- What authorizations are required for different types of external communications?

This paper will not explore these questions, but leaves them for the Pembina Institute to consider during its structural evolution.

Table 6.14 Structure and Mindset

Structural Element	Mindset Required
Strategic Apex	<ul style="list-style-type: none"> • We must engage the middle-line and operating core in strategic thinking and management. • We must identify synergies. • We should consciously split operations management from strategic management – not try to do it all under one committee.
Operating Core	<ul style="list-style-type: none"> • We must look for synergies. • We must get involved in strategic thinking.
Middle-Line	<ul style="list-style-type: none"> • We must balance focus and diversity. • We must look for synergies. • We must report and share on success and learning.
Support Staff	<ul style="list-style-type: none"> • We should standardize where it is effective.
Technostructure	<ul style="list-style-type: none"> • We should standardize where it is effective. • We need to balance centralization vs. decentralization.

Changes to Structural Elements

Overall changes to the structure will also require mindset changes for each of the five structural elements of the Pembina Institute – the strategic apex, operating core, support staff, technostructure and middle-line. The table above provides some ideas on expected mindsets required for each element common to any structure the organization assumes.

7. Conclusions and Recommendations

The objectives of this paper were:

1. To provide the Pembina Institute with a common language to explore organizational structure
2. To better understand how Mintzberg's theories of organizational structure might help the Pembina Institute evolve its own structure over time
3. To identify a preliminary set of structural options for the Pembina Institute to which it may evolve over time
4. To begin to identify criteria by which the Pembina Institute might evaluate its current structure and future structural decisions

Henry Mintzberg's organizational theory has proven to be very useful in discussing and evaluating possible configurations for the Pembina Institute. The five configurations presented in this paper were developed and briefly evaluated against a preliminary set of criteria defined by Pembina Institute staff. This paper will hopefully provide the Pembina Institute with a starting point to further explore and evolve its organizational structure. My conclusions and recommendations for the organization are as follows:

1. Mintzberg's language and theories provide a useful framework for discussing and sharing ideas on organizational structure. The structural elements, liaison devices and basic configurations will be useful for the Pembina Institute as it evolves. The Pembina Institute should develop staff competence in this language of organizational structure to help it evolve over time.
2. One model does not fit all. The Pembina Institute should learn from other organizations, but should realize that it is unique and will require a unique configuration in order to be successful.

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3. The Pembina Institute's current organizational configuration is not optimal. The organization should move to make structural changes as it completes its process of identifying and selecting focused social change objectives.
 4. Well-designed liaison devices (standing committees and liaison positions) may significantly improve the current structure. As an interim solution, the Pembina Institute should consider setting up a selected set of standing committees for both operations and strategy.
 5. Market-based, issue-based and geographic divisional configurations are not considered to be optimal solutions for the Pembina Institute.
 6. The matrix structure has significant potential to meet the needs of the Pembina Institute. The organization should carefully consider different options within the matrix configuration framework if it chooses to make a significant structural change. If the Pembina Institute decides to evolve into a matrix structure, it will be very important for the staff to increase their interpersonal communications skills as this structure requires significant mutual alignment between individuals with a reduced reliance on formal authority.

Pembina's situation will inevitably evolve, as all organizations do. Its current dynamic and unstable operating environment is unlikely to change as long as the organization chooses to work in the area of helping to create a sustainable world. This environment will require the organization to organically change its structure. However, with an organizational framework grounded in, and guided by Mintzberg's theories, Pembina will be better equipped to self-diagnose its structural strengths and deficiencies throughout this period of change.

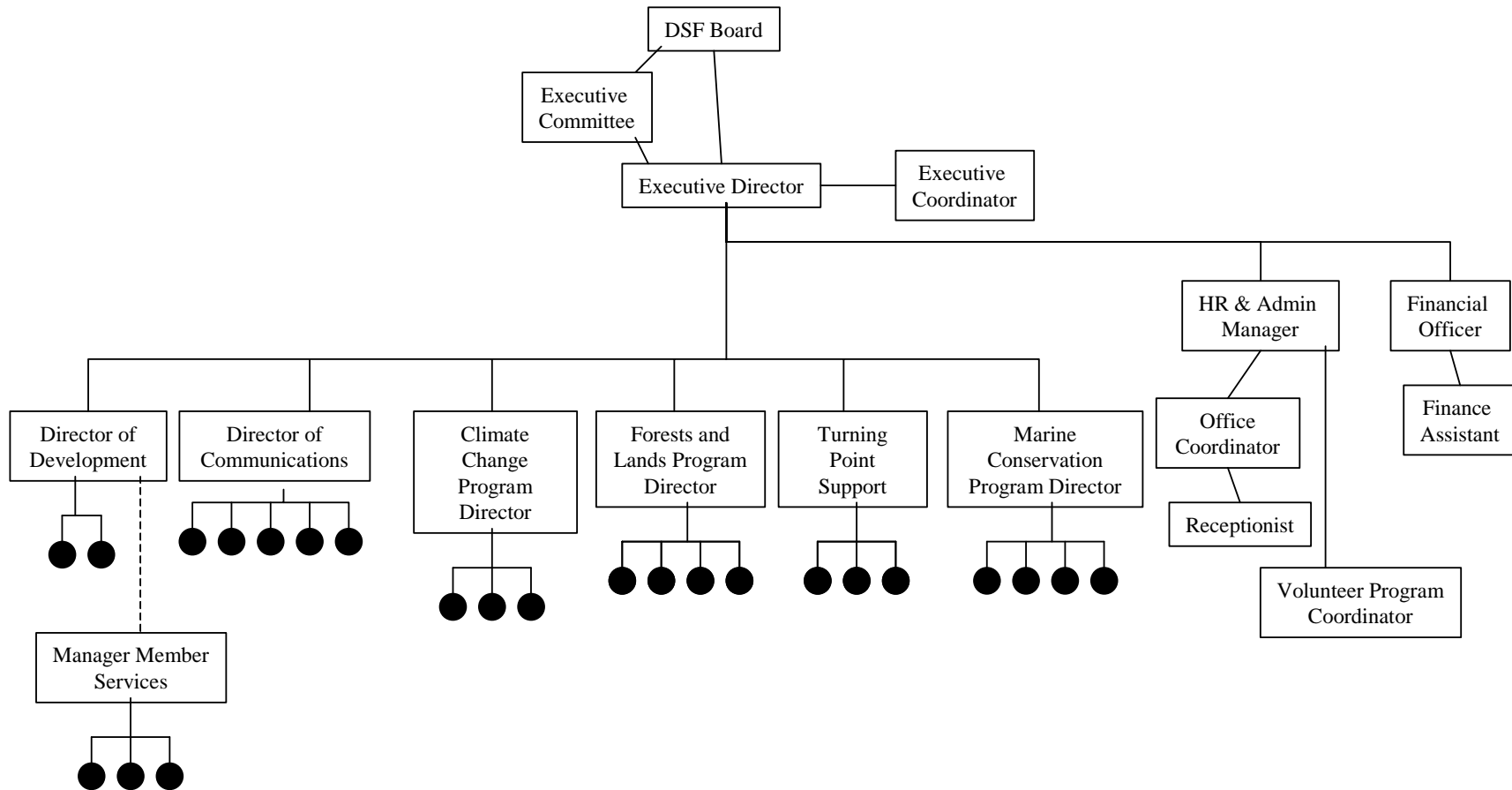
Appendix: Organizations Used as Case Examples

David Suzuki Foundation

Type	Nonprofit charitable environmental organization
Mission Statement	“The David Suzuki Foundation works through science and education to protect the balance of nature and our quality of life, now and for future generations.”
Issue Areas	<ul style="list-style-type: none"> ▪ Oceans and sustainable fishing ▪ Forests and wild lands ▪ Climate change and clean energy ▪ The web of life <p>DSF has a British Columbia focus with some national work.</p>
Approaches	<p>Four approaches:</p> <ol style="list-style-type: none"> 1. “Research: The David Suzuki Foundation seeks out and commissions the best, most up-to-date research to help reveal ways we can live in balance with nature. 2. “Application: We support the implementation of ecologically sustainable models - from local projects, such as habitat restoration, to international initiatives, such as better frameworks for economic decisions. 3. “Education: We work to ensure the solutions developed through research and application to reach the widest possible audience and help mobilize broadly supported change. 4. “Advocacy: We urge decision makers to adopt policies which encourage and guide individuals and businesses, so their daily decisions reflect the need to act within nature’s constraints.”
Annual Budget	\$5,600,550 (2001)
Sources of Funding	<ul style="list-style-type: none"> ▪ Foundation Grants: 58% ▪ Individual Donors: 41% (40,000 members) ▪ Interest & Other: 1% ▪ Accepts no government funding.
Number Staff	35 full-time staff
Office Locations	Vancouver
Niche / Core Competences	Locating expert thinking and research and bringing that information to the public through a variety of communications mediums
Nature of the Board	High-profile board of directors including David Suzuki, Tara Cullis, Jim Fulton, Stephen Bronfman, Wade Davis. Honorary Board Members include Margaret Atwood, Paul Ehrlich, Gordon Lightfoot, Maurice Strong, E.O. Wilson and the pop singer Sting.
Founding Year	1990
Historical Roots	“After broadcasting the radio series, It’s a Matter of Survival, David Suzuki received over 17,000 letters from listeners, many asking for advice and solutions. In 1989 David Suzuki and Tara Cullis invited a dozen concerned people to a “think-tank” retreat on British Columbia’s Pender Island. Inspired by those discussions, the Foundation was incorporated on September 14, 1990 and officially opened its doors on January 1, 1991.”
Other Comments	

SOURCES: DSF Web site <http://www.davidsuzuki.org/>; DSF Annual Report (2001)

David Suzuki Foundation Structure 2002



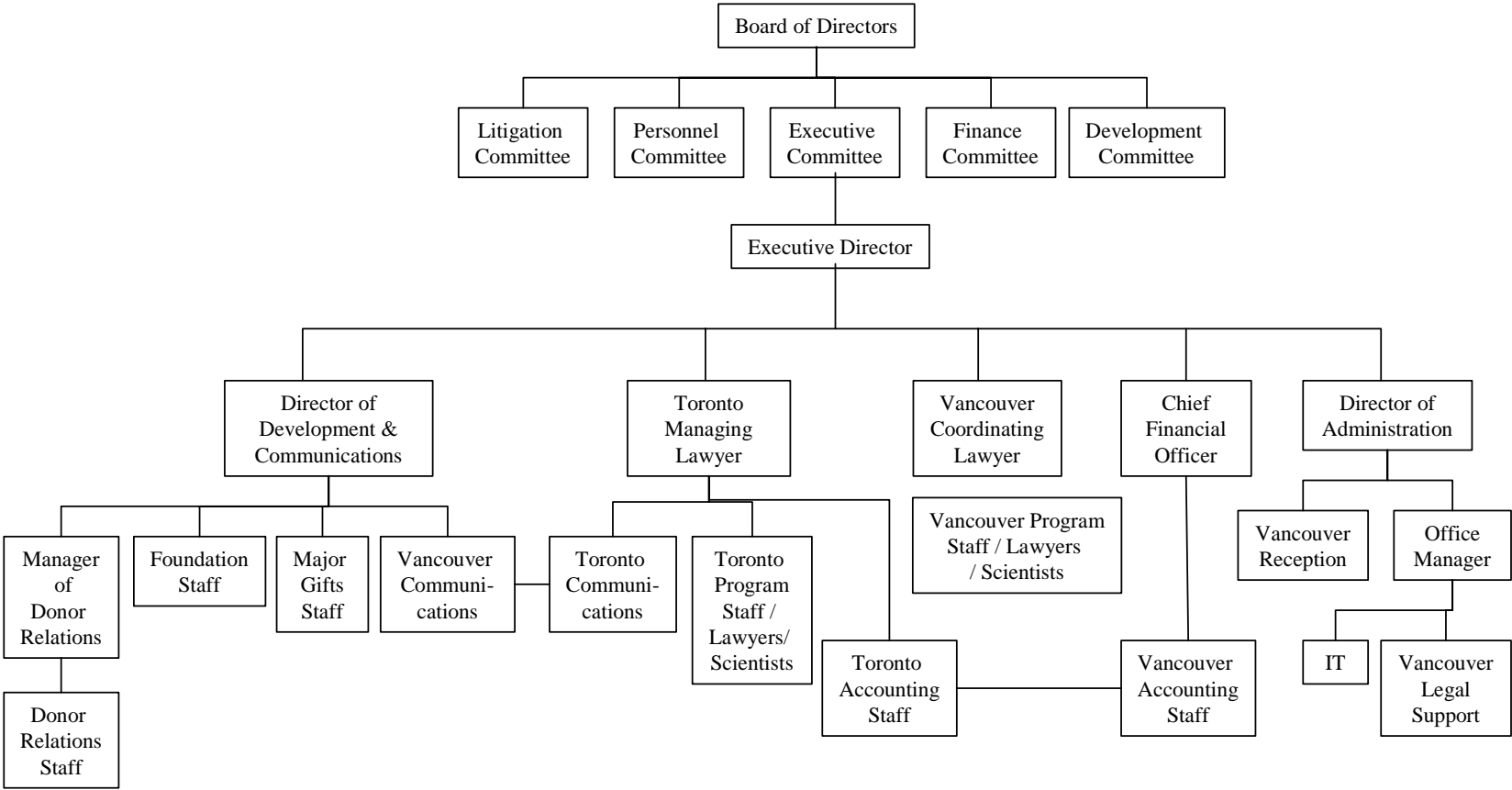
Organizational Chart of the David Suzuki Foundation

Sierra Legal Defence Fund

Type	Nonprofit charitable environmental organization.
Mission Statement	“Sierra Legal Defence Fund is Canada’s foremost national nonprofit organization dedicated to enforcing and strengthening the laws that safeguard our environment, wildlife and public health.”
Issue Areas	<ul style="list-style-type: none"> • Forestry, mining, fresh water fisheries, marine fisheries • Advocates rights, First Nations rights • Air issues – air quality, reducing emissions, child health, transit, oil sands, others • Parks, wildlife and biodiversity • Toxics • Water quality
Approaches	<ul style="list-style-type: none"> • Advancing strategic litigation • Coordinating cooperative efforts • Developing effective legislation • Offering strategic counsel • Preparing scientific analysis and research
Annual Budget	\$4,463,000
Sources of Funding	Foundation grants: 46% Individual donations: 45% (20,000 individual supporters) Cost recoveries: 4% Community Groups: 4% Other: 1%
Number of Staff	40
Office Locations	Vancouver (HQ), Toronto
Niche / Core Competences	Providing free legal services to environmental groups and concerned citizens on a wide range of issues.
Nature of the Board	Relatively well tied into the organization through various board committees. Full board meets twice a year. Litigation Committee has final authority on new cases to pursue and is therefore quite involved with ongoing strategic management of the organization.
Founding Year	1990
Historical Roots	Founded in 1990 by a Canadian lawyer who worked with the Sierra Club Defence Fund in the United States, which began in the early 1970s.
Other Comments	

SOURCES: Web site <http://www.sierralegal.org/>; Annual report (2001).

Sierra Legal Defence - Structure 2002



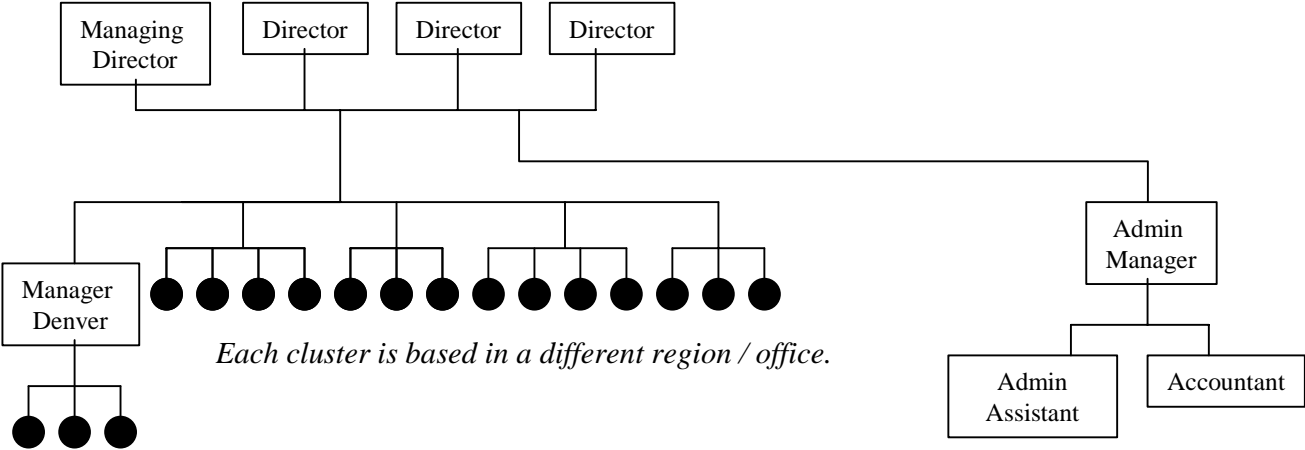
Organizational Chart of Sierra Legal Defence Fund

Five Winds International

Type	Private for-profit sustainability consulting company
Mission Statement	Five Winds International is a management-consulting firm that helps organizations improve the economic, environmental and social performance – the sustainability – of their operations, products and services. Our strength is helping integrate environmental and social considerations into the core business activities of organizations.
Issue Areas	<ul style="list-style-type: none"> • Business management and commerce • Sustainable development policy and planning • Environmental management and policy • Government policy and international development
Approaches	<ul style="list-style-type: none"> • Fee for service work in the fields of <ul style="list-style-type: none"> ○ Mechanical, chemical and metallurgical engineering ○ Industrial design and communications ○ Environmental science and resource management ○ Toxicology, biology, geography and physics • Training and education
Annual Budget	\$1,700,000 U.S. (approx. \$2.7 M Canadian) (2002 Revenue)
Sources of Funding	100% fee-for-service to corporate and government sectors
Number of Staff	25
Office Locations	Ottawa, Toronto (Canada), Stuttgart (Germany), Philadelphia, Denver, Houston (United States)
Niche / Core Competences	Understanding of the relationship between business and the environment in order to integrate sustainability issues into business decision-making practices.
Nature of the Board	None (private company)
Founding Year	1998
Historical Roots	
Other Comments	Focus of the organization is on corporate growth. Seven strategies have been defined for this growth (not publicly available).

SOURCES: Five Winds Web site [http:// www.fivewinds.com](http://www.fivewinds.com) and interview.

Five Winds International Structure 2002



Organizational Chart of Five Winds International

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