

# NETWORKS, INNOVATION AND PUBLIC POLICY

Politicians, Bureaucrats and the Pathways  
to Change Inside Government

Mark Considine, Jenny M. Lewis  
and Damon Alexander



# Networks, Innovation and Public Policy

*Also by Mark Considine*

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to Change inside Government

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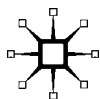
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# **Part I**

## **Innovation as Ideas within Institutions**

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# 1

## Innovation, Government and Networks

Innovation is the engine of the global economy. New products and new processes for getting things done have transformed consumer societies, altered the technology of war, and laid siege to the traditional world. The digital revolution has already delivered remarkable changes in entertainment, communication and information management. Email, the World Wide Web and the new cyberspace have altered forever what can be achieved through interpersonal communication. And equally true is the disparity and inequality in access to these powerful new resources both within countries and between them. So while titanic and mesmerizing, innovation cannot be value free. Even the most widely available improvements come at a cost and are distributed unevenly, whether by market or state.

But innovation is far more than a wellspring for new machines and consumer toys. It also drives quite fundamental changes in social technology – the human software we use to organize societies. Organizations are our most familiar bits of social technology. Offices, factories and universities are all structured around divisions of labour, rules, role definitions and performance management methodologies. We devise elaborate techniques for management, reward and motivation to contain and guide these intricate social machines. Mary Douglas (1987:9) points out that when these forms of social technology become embedded in whole societies they turn into ‘institutions’ – a form of human architecture that is able to ‘systematically direct individual memory and channel our perceptions’.

In other words, the way organizations and even whole societies think about certain common economic and social questions will tend to be governed by deeply inscribed habits of thought. This raises an important question about the relationship between human agency and the

organizational system, or institutions, that underpin it. Do certain kinds of institution produce characteristic pathways for new thinking? Do they habitually avoid or block other kinds of changes that are not intelligible to them? In other words, is innovation an essentially quixotic or creative process, capable of 'breakthroughs' and 'paradigm changing' outcomes? Or do we get only the innovations our institutions permit? Later in this book we will consider the idea that innovation obeys its own logic or path dependence – a tendency to keep innovating using the same methods – but for now we need only note that institutions are deeply implicated in the drama of the innovation process.

When we search the literature for insights into this puzzle we find that much of the achievement of innovation systems at both local and national level is indeed explained by the type of institutions being used to search for questions, collect data, apply creative effort, and distribute likely benefits. In other words, innovation systems can be viewed as highly structured, or even conservative. This tends to be just as true of scientific laboratories as it is of global car companies or computer manufacturers. Knowing the way they did things last year and the year before turns out to be a good indicator for explaining what they will do this year and next. And herein lies the nub of our problem. We like to imagine innovation as a form of creativity capable of producing seismic shifts in science and technology, and this popular image of dramatic breakthroughs and lightning-bolt inspiration seems to be flatly contradicted by the idea that innovation might also be a manufactured engagement driven by habituated methodologies.

Of course the apparent contradiction between these ideals can be reconciled by the metaphor often borrowed from the natural sciences, and imported to the political science literature by Baumgartner and Jones (1993) – the notion of punctuated equilibrium. If we think of institutions as the deep rut or action channel down which the wheels of any organizational system will run, then innovation might be thought of as their occasional changes of direction caused by seismic shifts in the environment, conflict inside the institution, plus accidents of perception and imagination on the part of even very habituated actors.

Latour and Woolgar (1979) famously describe just such a condition in their study of the Salk Institute in California. While these scientists observed the most rigorous structures of experimentation and proof, 'minor unpredictable events critically influenced the way they constructed their factual edifice... Who made a given claim was every bit as important as the nature of the claim itself' (Austin, 2003:203). These

then are the elements of our first puzzle: How much structure, how much informality, how much randomness is required to produce how much worthwhile change?

These questions have been examined in a variety of settings. Latour and his colleagues, Kuhn and his many followers, and a number of research participants have written about innovation and creativity inside scientific laboratories and medical research institutions. Coleman, Katz and Menzel (1957; 1966) have pioneered the study of innovation among professionals, and in particular doctors. There is also an impressive literature on industrial processes of innovation ranging from those focused on personal networks (Rogers and Kincaid, 1981; Rogers, 1995) to those more interested in regional relationships and institutions, including clusters (Hall and Preston, 1988; Kitschelt, 1991; Lazonick, 1993; Crouch et al., 2004). But only in a few cases do we find these studies addressing the process of innovation which includes government and the process of governing, and even where this does occur, it is more likely than not to focus upon the role of government in aiding the innovation of others – such as firms and research institutes (Lundvall, 1992; Dodgson and Bessant, 1996).

This is a curious disjuncture and seems to reflect a technocratic bias in the innovation discourse. The bright new things that qualify as innovations are evidently associated in the popular mind with consumption goods like TVs and dishwashers, or with high-tech breakthroughs such as computers and space craft. Governments obviously have a role in this type of innovation because they regulate industry and create important incentives for research and development. But this still does not tell us about government *as government*. This is our second puzzle: What kind of innovation model helps explain what governments do when they innovate?

Of course there is another literature which aims to capture some of this story. This is the research undertaken as part of public policy or public administration. But with some exceptions this too is a rather limited framework. Because government does a lot of things other than innovation this literature often fails to address this specific problem and instead provides us with important insights into other issues including accountability, efficiency, responsiveness and productivity. Creativity gets filtered out in the overwhelming effort to tether government to rules and other restraints upon tyranny and perfidy.

So we begin this story with the strong sense that governmental innovation is the poor relation in the new family of practices and theories concerning economic and organizational change. For example, in

an otherwise excellent account of innovation, Dodgson and Bessant (1996:4) define the aim of innovation policies as 'improving the capacity to innovate of firms, networks, industries and entire economies.' No specific mention is made of the public service, or bureaucracies, of NGOs or other public actors.

One place where we do see some evidence of innovation is in the public management literature. Here a lot seems to depend upon how you frame the question. If you ask who are the innovators, or entrepreneurs, you will be deluged with hero-myths about senior managers or Chief Executive Officers who reorganized departments, cut budgets and created new programmes. But if the question is framed in terms of the process of innovation or the institutions that account for its repeated success, a very different account emerges. Here the public management literature offers a series of recipes involving teams, supply chains, lateral thinking and risk taking. But the role of embedded resources and institutional channels appear less often, or mostly come to the fore as impediments to those acts of bravado around which the hero-myth is often constructed. Or on the other side of this same ledger, innovations become synonymous with any form of reform or change. So every time parliament passes a law a minister is hailed by colleagues as a great innovator and every programme implemented by the civil service is held up as a major break through.

This embracing definition of innovation is echoed in much of the public management literature and one can see why. Innovation provides a language for enacting political changes that will have pay-offs for stakeholders. 'Innovation should be a core activity of the public sector' according to Mulgan and Albury (2003:2) because innovation means improving performance and responding to citizens and users.

Those who have looked at innovation from a more institutional perspective tell a very different story. Innovation is not just a new story of management improvement. Repeated and successful acts of innovation occur when a whole system is tilted in favour of innovative outcomes. Lundvall's (1992) book on national systems of innovation points to such properties and to the very different histories driving them in different national systems. Hall and Preston (1988) provide an institutional account from a regional perspective. Crouch and his colleagues (2004) compare cities and regions and show how collaboration is structured by industrial structure intersecting with political institutions.

So here is our third puzzle. When governments innovate, how much is explained by political institutions and their histories, and how much by local actors and conflicts?

## Innovation in theory

These questions about the nature of innovation and the dynamics that drive it are not new. Innovation has long been identified in the foundation texts of the social sciences as a major source of social development. The classical texts by Adam Smith, Karl Marx and Emile Durkheim link patterns of growth and industrialization to new forms of economic innovation. This macro-perspective is continued in the work of Schumpeter (1939) and Kondratiev (1978), who discern patterns and cycles of macro-economic growth related to bursts of innovation and the competitive advantage they confer on a local economy.

At the micro-level, attention is centred around processes within the firm that generate incentives for creating and operationalizing innovative products and processes. In this vein we see much ink spilled by the different management schools trying to identify the innovation effect of good leadership, better pay, improved patent and copyright, and different cultural attributes of firms (Drucker, 1985; Kanter, 1985; Peters, 1988).

This literature can be summarized as three central questions –

- the product-versus-process question
- the radical-versus-incremental question and
- the normative question.

The product–process issue is a question about the nature of the activity we define as innovation. Is it better mousetraps, or is it also better training programmes for the people who design mousetraps? At the organizational level this means that an innovative change might be located either in the type of product being produced or in the method used to produce it. In service delivery agencies the notion of product would equate with the type of programme or activity. Most studies accept that innovation can be either product- or process-oriented.

The radical–incremental issue asks about the magnitude of the impact of innovations. Those favouring the ‘radical break’ criterion ask that we consider innovations as some form of recognized breakthrough or leap from current practice. Since many of the things that firms do might be considered to involve important changes to current practice, and since the macro-literature is more or less in consensus about the fact that innovation is a process of *paradigm change*, the definition of what constitutes an innovation becomes an assessment not just of the local effect, but of the impact of that local action upon more systemic conditions,



and ultimately upon the economy and society itself. In colloquial terms the better mousetrap may be no more than a further development of an existing type, or it may be a radical shift that eliminates the species and alters the ecosystem. A typical example often quoted is the shift from the icebox to the refrigerator.

The final dimension is the one concerning the normative importance of innovations and whether or not we assume that innovations are inherently good, or instead, judge them by whether or not they create systemic, directed change. Van de Ven and Rogers (1988) point out that there are serious dangers in the inherent positivism associated with much of the innovation literature. Kimberly (1981) argues that it is quite possible for innovations to have negative impacts, both on adopters and on society. Drugs with adverse side effects and industrial processes with negative environmental impacts are typical examples. Clearly, not all innovations produce improvement.

What these core questions suggest is not so much a set of criteria, but a number of continua by which innovations can be assessed. Better mousetraps, new drugs and improved childcare services may be less dramatic than space travel or gene technology, but might still be considered to be indicative of an innovation culture and of significant breakthrough improvements for vulnerable populations. This assessment process is further complicated by the fact that the impacts of innovations are difficult to measure at the time of creation and adoption. Either studies must wait the long march of history before making worthwhile judgments, or some interim evaluation must be used.

## **Adding power to the puzzle**

In trying to understand how governments think about innovation and how innovative work in the public sector is to be imagined and understood, we clearly must do more than apply private industry and scientific research nostrums to public organizations.

In studies of governmental innovation the research focus must be attentive to questions of political power and influence. The power question is as old as politics itself and is certainly too complex to be reduced to a few nostrums. Instead we will focus on two dimensions of this issue – the structural distribution of power in the political systems we are comparing (institutional power) and the power of political actors to influence the path to innovation (agency power).

The literature regarding local systems of power is dominated by a 10-year burst of energy in the United States during the 1960s. Floyd

Hunter's (1953) *Community Power Structure: A Study of Decision Makers* set the pace for a titanic race among sociologists and political scientists to solve the power problem. It is worth revisiting this community power debate, if only to see how both methods and theories evolved to the point where most agreed that nothing more was to be done – the problem had defeated them.

Hunter (1953:5) was a self-avowed structuralist in a time when pluralism was the dominant position among American social scientists. For him the power question was primarily one in which individuals and groups engaged in relationships which were 'both controlled and controlling'. This resulted in an elite view of power in which the powerful could be identified either through their reputation among other leaders or through their positions atop the main organizations in any community. So the elite view of community power used either a 'reputational' or a 'positional' method to locate the powerful (Ricci, 1971:90). As Hunter (1953:11) put it, in his city

the men [*sic*] of power were located by finding persons in prominent positions in four groups that may be presumed to have power connections. These groups were identified with business, government, civic associations, and 'society' activities. From the recognized, or nominal, leaders of the groups mentioned, lists of persons presumed to have power in community affairs were obtained. Through a process of selection, utilizing a cross section of 'judges' in determining leadership rank, and finally a further process of self-selection, a rather long list of possible power leadership candidates was cut down to manageable size.

The assumption driving this approach was that those in power would know who else was influential and that only they would be in a position to filter out the merely noisy from the really powerful. Critics claimed that the method was too loose and too subjective. Perhaps some key players could be invisible to others in the system. Perhaps the judges charged with starting the reputational 'snowball' would start it in the wrong place, resulting in a biased account.

The other approach adopted by elite theorists was the one focused upon position. C. Wright Mills (1956), Dye (1976) and Domhoff (1967) all drew their sample of powerful leaders from key organizations such as industry and the military and then analysed their ties, their views and their opportunities to influence political life. While persuasive in many ways, the positional approach was open to the common-sense criticism

that not every general is equally influential in Washington and not every trade union leader has the ear of a British cabinet minister.

Opposed to the elite account were the pluralists. They saw power as a widely distributed good in democratic systems such as the United States. For the pluralists any attempt to single out particular organizations such as business groups smacked of left-wing reasoning and even of Marxism. With the Cold War at its most ferocious, these tensions inside the academy were bound to end in conflict. The pluralists proposed an entirely different method for divining the contours of local power. Dahl (1961) argued that the best approach was to focus upon decisions and let these lead the way to influentials, rather than presume a cast of power-brokers and then study their activities. His research assistants, Nelson Polsby and Raymond Wolfinger would go on to champion this approach in a succession of important local studies.

Dahl and his colleagues accepted the key point made by their opponents that most decisions were made by a small group and that this group often had common class and ethnic ties. Nowadays we would add gender to this profile (Lewis and Considine, 1999; Lewis, 2006). But Dahl saw this as less important than the content of the key decisions made by governments, including decisions about budgets. He ranked such decisions according to how many people were affected, the types of resources involved and the degree to which decisions altered existing shares of the pie.

This 'decisional' approach came up with very different results to those produced by the elite theorists. In place of a single power elite he found a series of elites clustered around key policy fields and around the main electoral processes. Being a ward boss did not make one an influential in the health field. In his New Haven study, Dahl (1961:169) concluded that 'the most striking characteristic of influence...is the extent to which it is specialized; that is, individuals who are influential in one sector of public activity tend not to be influential in another sector.'

The struggle between these two camps reached an arid stalemate by the end of the 1970s and very few community power studies were undertaken after that point. Disagreements about methods concealed barely disguised political conflicts within the academy, with American political scientists often preferring a pluralist view and the sociologists opting for a more structural account. When, in 1977 Charles Lindblom wrote *Politics and Markets*, putting the question of the primary power of business into the rank of an antecedent power, most scholars on both sides had already given up the more behavioural approach to sourcing local influence. Once business (or 'capital') was accepted as the interest

above other interests, or the interest that must be accepted by all others before bargaining can occur in a capitalist system, what was left for contest seemed less important. This too was the lesson of Steven Lukes' (1974) *Power: A Radical View*. If real power is exercised by having people adopt positions that are in the interests of the regime and this happens without them having to be coerced, surely the day-to-day business of government is of little importance.

This damaging critique led mainstream researchers towards a new version of the community power approach, but this time with a focus upon the ideas and structuring of preferences that might answer Lukes' attack. Rather than study decisions or contests over resources, they now looked at 'agenda setting'. Jack Walker (1977) pioneered the method of discerning processes of 'issue selection'. But it was John Kingdon's (1984) study of *Agendas, Alternatives, and Public Policies* that put the influence question within a framework of 'pre-decision' cases. While Dahl could be criticized for only dealing with matters that had already been 'permitted' onto the agenda by those in a position to filter out any controversial questions, in Kingdon's cases the larger issues were still in play and there was at least a possibility to observe some of them being blocked, deflected and in other ways kept off the government's agenda. This would not satisfy the most hard-nosed structuralists for whom the issues were always and everywhere a step beyond the actions of any real actors, but it was an approach capable of re-igniting interest in the power debate after 10 years of disappointment.

Kingdon's study carefully described a model of policy making in which events and values set an agenda or established a political appetite. Then the various players promoted alternatives (options) 'from which a choice is to be made' (1984:3). This was followed by action from those in authority, then by implementation. In trying to pin down the implications of the 'agenda' metaphor he had created, Kingdon reached out for a Darwinian notion of natural selection. A large number of policy ideas exist, he said, in a policy primeval soup. This soup is regularly put through a sieve created by the demands for technical feasibility, budget workability, good fit with dominant values, and with the current national mood. Unfortunately this filter seemed to suggest that any form of serious conflict over basic questions or significant alternatives would most likely be eliminated at this stage. This was the first problem in this revised version of the Dahl 'decisional' approach: in seeking to make it a realistic approximation of the day-to-day politics of the US congressional system, Kingdon had developed a model which was better at explaining how interests found common ground rather than

any means which might exist either for interests to be thwarted or be relegated as a lower order contributor to the political food chain.

It would take the post-structuralists most of the 1990s to push the pre-decision case to its ultimate extreme by conceiving of the political discourse (part composed of 'dominant values' and part from the 'national mood'). For Foucault and his followers the real battle for power over the polity was fought out in the language, vocabulary, styles of thinking and the training of those making decisions. So instead of treating case studies of agenda setting simply as facts about actors, the post-structuralists treated them as the text written in the long hand of institutions responsible for the education of political actors. There is a link in this logic to the 'third face of power' that Lukes (1974:42) had described. He quoted approvingly from Matthew Crenson's air pollution study where the task was to explain 'things that do not happen' because the 'proper object of investigation is not political activity but political inactivity.'

For the Foucauldians this world of gaps, things never done, ideas never proposed, missing words, absences and elisions would prove a treasure trove of counter-cases to substitute for the actual policies described by mainstream political scientists. But as Lukes (p. 46) would acknowledge, it was one thing to suggest that people could be supposed to have an interest in not being poisoned, and therefore one could logically ask why any system 'failed' to articulate a case against polluters. But in many other cases the interest question was not so easy to secure. To show the counterfactual one has to be able to surmise that a group of individuals had a natural interest in some policy being developed in a different way. In the absence of their own words to this effect, arguments about what was 'missing' or 'blocked' in the policy agenda would become tendentious.

### **From structure to network: The new vocabulary of power**

As we have seen, studies of political communities which have sought to determine the structure of power relations among groups and individuals have faced some formidable obstacles. This produced a three-decade long impasse between pluralist and elitist accounts (Ricci, 1971; Stone, 1981). At the heart of this impasse was a fundamental divide in regard to the meaning of social structure itself. This was deepened by the ideological cleavages of the 1960s and 1970s which saw questions of class and the basic contours of capitalism called into question. As Lindblom (1977:222) noted from his own experience as a protagonist, discussing

the role of social class 'is a discouraging prospect. Furious controversies descend like swarming wasps on anyone who pokes the nest of class.'

But for Marxists and the other structuralists such as C. Wright Mills, any discussion of political power at the community level needed to include a recognition of the antecedent power of business. For this reason the structuralists favoured positional methodologies which started with an assumption that the leaders of local economic associations would figure in any map of political influence. In response to empirical studies that had shown a less hierarchical model of elite composition, the structuralists argued that business was protected by a consensual value system which prioritized growth and profitability, and as a result did not need to have so many actual representatives in the power elite (Molotch, 1976).

It is this fundamental relationship between elite composition and the nature of power that remains to be investigated in studies of power and local governance. But rather than re-test the old pluralist–elitist propositions we have the advantage of new theories of power and influence to enrich our research strategy. In particular the past 10 years have seen the emergence of a number of accounts of the power of networks at the local level. Before we consider why this might be important, let us recall that one of the fundamental problems in previous accounts of local power was the inability of researchers to map both individuals and institutions onto the same outline and their failure to agree on a means to link such local configurations of power with larger societal (or global) relationships. A third dimension of this impasse was the lack of any agreement about what forms of interaction between power-holders would constitute evidence of the exercise of power, with pluralists favouring decisions, and structuralists favouring background attributes such as the ownership of property or membership of elite families. The network approach offers an answer to each of these dilemmas by focusing on patterns of interaction, rather than decisions made or the characteristics of individuals. So we can add to our earlier three puzzles a fourth: How do network-based accounts help us to understand the relationship between power and innovation inside government?

The study of networks of various types is part of a larger body of work known as complexity theory dealing with the laws governing interactions in any complex whole. For example, scientists can now show that an apparently simple proposition such as the culling of the number of seals off the South African coast in order to boost fish populations (and thence improve the prospects of the fishing industry) is in fact very complex. Indeed, according to one estimate 'a change in the number of seals

would influence the hake population by acting through intermediate species in more than 225 million domino-like pathways' (Buchanan, 2002:16). The paradox of these ecological networks is that they often have both forbidding levels of complexity and amazingly simple rules of organization. These insights have been translated into social relations considerations, forming the basis for the 'six degrees' rule for links in the chain of human interaction (Watts, 2002). Granovetter's (1973) observation that links in a social network tend to be clustered with the result that 'strong ties' could be easily lost without much effect on the overall structure, but that 'weak ties' would more likely be decisive in re-organizing the system, is also important in highlighting that different groups of ties matter to different extents.

These two ideas from social network theory help point us towards a different way to investigate the community power puzzle and to make the many recent discussions of the importance of improved local governance more robust. If power is taken to mean agency, or the capacity to get things done, stop things being done and to have things organized in one's own interest, then power is certainly a property of relations between parts of a network. We might even say that power is the ultimate attribute of a network. But is this formulation not a new version of the old behaviouralist model of power? In that account the forms of power being identified were limited to actual transactions occurring between the parties. So if the 'structure' of the system somehow was already loaded against certain actors getting involved in transactions, they might not show up in the behavioural model.

In fact the network model can cope with both behavioural and non-behavioural structures (sometimes called active and passive attributes of networks). So, for example, the recently arrived refugee families living at the very edge of a local community might show up on no comprehensive audit of either power brokers or powerful organizations and interests. Yet a network map could be used to measure the social distance (and proximity) of such a group to others in their neighbourhood, and to these neighbours and those who are known to be influential in the same political system.

Connections based on social position can be distinguished from those based on activity. This could always be achieved using survey data of course. Audits of 'who do you know' can be compared and contrasted. But what network analysis makes possible is the comparison of network structures based on different configurations of connections and different types of ties (e.g. direct and indirect, passive and active). We might find that our newly arrived refugees have ties to their own community

and that within that group there are different levels of connectedness to the local political and economic elites. We could then see whether, for example, getting a job or using local services was more or less likely among those with connections outside this immediate community. This is the focus of network-based approaches to social capital, which we return to in the next chapter.

This distinction between passive and active connectedness provides a way to break the impasse between older debates about the nature of social structure, the impact of class and ethnicity, or the role of family and clan. Provided we can discern how actors are linked to one another by both direct and indirect means, we can distinguish the different patterns and even hierarchies within their interactions. Of course this is much easier said than done. As we will see in the next chapter, the methods for gathering network data impose large demands on the researcher. We each make dozens of different connections with other human beings every day, some casual, some intimate, many in between. These actors may interact with us as individuals, or they may represent the roles of member organizations. Sifting and filtering these different kinds of connections requires a clear sense of which kinds of networks are most important to the forms of power or agency that matter most. This use of social network analysis is a fertile ground that has, as yet, been largely unexplored.

To illustrate the potential of a network approach, we include here an example of a network map from one of the governments included in our study (Figure 1.1). This map of connections is based on advice seeking by the CEO and the mayor of this city. There are two distinct groups of actors in this map. The mayor talks to people outside the government and one other politician, and the CEO talks to a mixture of insiders and outsiders. There is a single person linking the mayor's immediate network to the CEO's, through another politician. A number of people talk to the CEO, but only one person (the 'other' bureaucrat) goes to the mayor for advice (indicated by the direction of the arrow heads). This visualization immediately raises a series of questions about how this pattern of advice seeking relates to the hierarchy of the municipality, the differences in the roles of politicians and bureaucrats, and most importantly, what the distance between the two arms of government might mean for governance and for innovation.

We have chosen to focus upon networks as critical in examining innovation in local governance. Innovation, as we said at the start of the chapter, is a central characteristic of contemporary economic life and, arguably, the abiding feature of advanced capitalist societies. Patterns



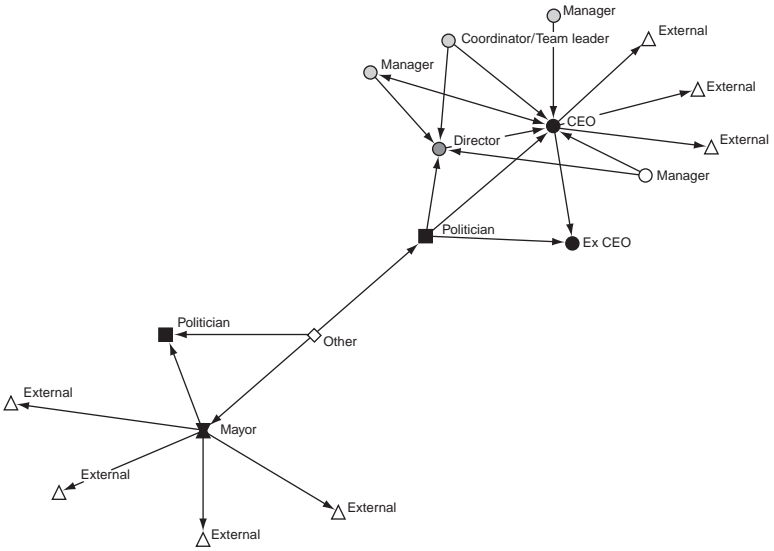


Figure 1.1 Oberon advice network around the CEO and Mayor

of technological and scientific development, when hinged to modern forms of management and finance, define the core features of a new global order. The kernel properties of innovation are also a neat embodiment of our larger questions about power and agency, and thus the flip-side to structures. On one side of this coin are the factors of social production of innovation invested in rules, organization, structure and due process. On the other, innovation shines as the promise of the new and the riches that might be found in alternatives.

Existing accounts of innovation and methods to promote it suggest a number of critical variables at national, sector and agency level. These include leadership, capital and forms of communication and trust (Schumpeter 1939; von Hippel 1988; Benkler, 2006). Our study aims to link our knowledge of networks with the problem of improving the understanding of the role of government. Networks are viewed as a key means to identify problems, learn about solutions, consult expert advisers and assist individuals to navigate more formal decision pathways. They are thus defined as forms of personal, organizational and technological interactivity which link actors and organizations. Within this context, innovation is defined as non-accidental efforts to reform public policies and programmes. We return to the role of networks in Chapter 3.

## Central questions and our approach

In this book, we link together the two previously distinct research traditions concerning governmental innovation and social networks, to develop an account of the way institutional roles and rules associated with governance structures intersect with, and are mediated by, the actor networks which drive the innovation process. Does a certain pattern of connections make innovation more likely? Or is connectivity only significant when associated with aspects of the formal structure of government? Do those who drive innovation occupy certain positions within networks?

At the wider level, by using network data and linking this to case studies of actual innovations, we can explain how different governments are informally structured so far as some of the embedded resources known to be important to innovation are concerned. These embedded resources include the getting and giving of advice and the obtaining and giving of strategic information (see also Lin 2001, on embedded resources). This follows our earlier work on front-line networking among public officials in different agencies (Considine and Lewis, 1999; Considine and Lewis, 2003a, 2003b).

First, we are interested in assessing the discursive drivers of innovation in a government setting. What does innovation mean to those engaged in the public sector? How is innovation framed by expectations and assumptions in the minds of politicians, bureaucrats and community leaders? Our hunch is that this normative realm is not the same as the private sector images of innovation, but that there will be some overlap in broad vocabulary and concepts, as outlined in Chapter 2. We are interested in finding similarities and differences in how public actors in different roles understand and interpret innovation. Do politicians define innovation differently to bureaucrats? And how important is your position in the hierarchy in forming your conception of innovation in the government context?

A second consideration is the more strategic aspect of innovation. What procedures and structures are helpful in generating change in government settings? What are the things that block the ability of actors to turn good ideas into changes on the ground? Again, our focus is on being able to identify not just which things are contributors to, and which things block innovation, but also how this varies depending on whether an actor sits on the political or bureaucratic side and whether organizational rank changes these evaluations. Our hypothesis is that governments might well develop their own characteristic 'culture' of

innovation, so we are interested in any normative and strategic characteristics that unite whole governments and distinguish them from others. This is also dealt with in Chapter 2.

Third, and in contrast to the formal positional attributes of actors discussed above, we are interested in informal actor networks as a means for signposting and deepening innovation pathways. What do connections between individuals tell us over and above formal hierarchical chains of command? Strategic action inside government is achieved through patterns of communication involving individuals in different domains such as different bureaux, political groups and key functional players such as CEOs and budget holders. We postulate that innovation is linked to situations where actors move outside the silos of their home divisions and across the role boundaries between politicians and bureaucrats. But is this borne out by the evidence? And if so, what kinds of encounters and crossings are most strongly associated with innovation?

Chapters 3 and 4 have networks as their focal point. In addition to this explicit focus on both formal structures and informal relationships, the innovation network literature highlights the paradox that entrepreneurship personifies a kind of radical individualism (usually defined as heroes and champions in the management literature), but that individuals are highly dependent on trust and cooperation from others (Jones, Conway and Steward, 1998). This complex relationship between novelty, creativity and structure suggests that innovation may be defined by a certain mix of network ties and positional types. Strong ties constrain access to innovative ideas while weak ties open up networks and provide access to new areas, in the same way that strong ties might create bonding social capital, but weak ties are needed to move out into a broader world (Granovetter, 1973).

Finally, governments are socio-economically and demographically diverse, with citizens who are wealthier or poorer, municipalities that are politically more left or right leaning, and different styles of executive power which generate different organizational cultures. We were therefore interested to compare a number of governments in order to see how the discourse and process of innovation might differ across them. As we note above, our expectation is that there is some composite of variables which suggest a *local culture of innovation* and we think this might be based upon the nature of politician–bureaucrat relationships, how much influence the community leaders have and the type of executive interactions among staff from different divisions and roles.

## **Municipal government in Victoria**

To accommodate these research interests, we chose municipal government, the third level of government in Australia's federal system as our focus, specifically, municipal government in Victoria. Though traditionally viewed as the domain of 'low politics' – the politics of rates, roads and rubbish (Jones, 1989:2) – the sector has taken on an increasingly important role in Victoria, and Australia more generally, as service delivery functions in key areas such as health, human services and community development have devolved from federal and state governments over the past two decades. In this sense, municipal government is now often at the coalface of delivering services and programmes to local communities and as noted by industry peak body the Municipal Association of Victoria (MAV), every time Victorian citizens leave their houses they use a multitude of services provided by their municipal government. These services include amongst other things:

foot and bike paths, public street lighting, litter bins, school crossings, library books, internet services, sporting facilities, community meeting spaces and places, swimming pools, public playgrounds, bus shelters, parking spaces, community banking and public tips to dog litter disposals, removal of dumped rubbish, youth and family counselling and support, baby capsule hire, childcare programs, preschools and kindergartens, school holiday programs, head lice and immunisation programs.

(MAV, 2004:42)

Municipal laws also play an important role in shaping the local economic, social and environmental amenity of towns and cities through their impact on important policy areas such as urban planning and land-use management, community safety, public health and environmental protection.

While the immediacy of this interface between citizens and government has its own attractions, focusing on the municipal level, more importantly, provided an opportunity for us to conduct a detailed comparative analysis across a relatively wide number of cases – an opportunity not easily afforded at the state or federal levels. Restricting our cases to the Victorian sector meanwhile allowed us to examine and compare cases operating under identical statutory and regulatory frameworks, with the same general taxing powers and common service obligations and expectations.

Despite limiting our attention to municipal governments in Victoria, we are confident that our results remain generalizable across a wide range of jurisdictions and government levels. Importantly in this context, in terms of governance structures, the general framework used by municipalities in Victoria is for all intents and purposes the same as the council-manager form of government used in larger US towns and cities and in municipalities across Finland, New Zealand, the Republic of Ireland, and England.<sup>1</sup> While there are variations in degree, under this framework, policy decisions are generally made by popularly elected representatives, with the administrative arm of government, headed by an appointed chief executive officer being responsible for implementing and administering municipal policy and for overseeing the day-to-day operation of the municipal organization.

Before progressing any further into the book, it is worth fleshing out some of the more specific details regarding the operation of municipal government in Victoria. As already noted, within the Victorian system policy and strategic direction at the municipal level is determined by an elected council, with the number of members varying between five and 12 depending on the size of the municipality.<sup>2</sup> Elected members serve 4-year terms (recently extended from 3 years) and are entitled to an annual allowance ranging from \$5000 to \$18,000, depending on the size of the municipality. Given the relatively meagre allowance provided, most elected members perform their role in only a part-time capacity, typically devoting between 15 and 25 hours a week to their position (MAV, 2004:19).

The Mayor, who is chosen by his or her elected colleagues and who acts as a symbolic head as well as fulfilling the functions of chair in municipal meetings, is entitled to a larger sum (\$36,000–\$57,000) in recognition of their much greater workload (MAV, 2004:20). As a result, they tend to be the only full-time or near full-time elected member.

For electoral purposes, municipalities may be either single entities, or divided into area-based electoral districts represented by either single or multiple elected members. Municipalities with single-member wards elect their representatives using a preferential system, while those with multi-member wards along with municipalities remaining as single entities use a proportional system. Voting in local elections is compulsory for all registered voters over the age of 18, with municipalities having the choice of conducting ballots by post or by attendance.

While the elected branch of government is responsible for formulating policy and setting the strategic direction of the municipality, in doing so, it is supported by a professional bureaucracy headed, as already

noted, by a council-appointed CEO who has responsibility for operational matters. The size and precise make-up of each municipal organization varies considerably from place to place, though typically, they are divided into 4–5 divisional silos, based around functions such as Community Services, Assets and Infrastructure, Corporate Development and Environment and Planning. Each division is headed by a Director who reports to the CEO and forms part of the Executive Management Team.

Finally, it is worth noting that unlike politics at the state and federal levels in Australia, municipal politics in Victoria is not completely dominated by political parties. Outside of a small number of inner city municipalities, it is relatively unusual for either of the major parties to openly stand or endorse candidates for office at the local level. It is also unusual for parties to openly control municipal business. This has left the field open for a wide range of independent community-based politicians to successfully stand for office and exert genuine influence at the local level, with relatively few municipalities under major party control.

### **The 11 governments in the survey**

To find appropriate cases we used a local government industry association as a research collaborator and through them called for expressions of interest from local governments interested in the innovation issue and willing to participate in a study. The 11 municipalities who volunteered represent a diversity of socio-economic status of citizens, urban-rural locations, political orientation and gender representation amongst elected members and officers. Table 1.1 outlines comparative information for these 11 municipalities. We have used pseudonyms to label these cities.<sup>3</sup>

These municipalities vary in size from 24,000 people (Bilstown) to more than 140,000 in Kilbourne. Median weekly household income varied widely too, with Bilstown again having the lowest, to Melville with the highest at more than twice as much. The inner city governments (Millside, Netherton, Oberon and Parkside) all cover relatively small areas of land, while Lassiter and Bilstown (rural municipalities) and Wallerstrum and Yarwood on the fringes of Melbourne were the largest. Wallerstrum was the only municipality which was all male at the time of the survey, most had a mixture, ranging from just more than half (Kilbourne) to 80 per cent (Oberon) of politicians being male. Millside and Netherton both had more female than male politicians.

To gain an approximate picture of the political orientation of our municipalities, we asked three experts involved in local government

*Table 1.1* Characteristics of 11 municipalities in study

Municipality	Total persons*	Median weekly household income*	Area (sq. km)*	Urban/rural†	% Male politicians‡
Bankview	114,222	\$800–\$999	62	Suburban	71.4
Bilstown	24,075	\$400–\$499	864	Rural	57.1
Kilbourne	141,912	\$800–\$999	114	Suburban	55.6
Lassiter	35,667	\$800–\$999	1747	Rural	66.7
Melville	107,920	\$1,000–\$1,199	114	Suburban	62.5
Millside	59,770	\$600–\$699	31	Inner city	42.9
Netherton	67,784	\$800–\$999	36	Inner city	44.4
Oberon	131,359	\$700–\$799	51	Inner city	80.0
Parkside	80,157	\$800–\$999	21	Inner city	71.4
Wallerstrum	114,082	\$800–\$999	490	Urban fringe	100.0
Yarwood	137,539	\$800–\$999	2470	Urban fringe	66.7

\* These data are taken from: ABS Census 2001: Basic Community Profile and Snapshot.

† Based on the following distinctions:

- Inner city – 10 km or less from Melbourne centre
- Suburban – more than 10 km and less than 30 km from Melbourne centre
- Urban Fringe – 30 km or more from Melbourne centre
- Rural – outside Melbourne metropolitan area.

‡ Based on politicians in place at the time of the survey (2002).

(but not in any individual local government) to rate them in rank order from ‘most left leaning’ to ‘most right leaning’. Parkside, as Figure 1.2 indicates, was regarded as being the most left leaning of these 11 municipalities, followed by Millside, then Lassiter and Oberon. From the other end, Kilbourne was seen as the most right leaning, standing out from the next group of Bankview, Bilstown, Melville and Netherton.

For this study, we surveyed all politicians and the top four levels of bureaucrats (the Chief Executive Officer, Directors, Managers and Team leaders/Coordinators). The survey ran from August to December in 2002. Questionnaires (self-completed) were distributed either at meetings of the top levels of staff or through the internal mail system, with up to two follow-up approaches made to non-respondents. This data collection was aided by having a liaison officer from each municipality who helped identify who was in the sample, as well as with organizing meetings and following people up (Table 1.2).

As we will see in the chapters that follow, this first survey instrument provided a series of normative and network measures with which to winnow and sort the different claims and counter-claims about the nature

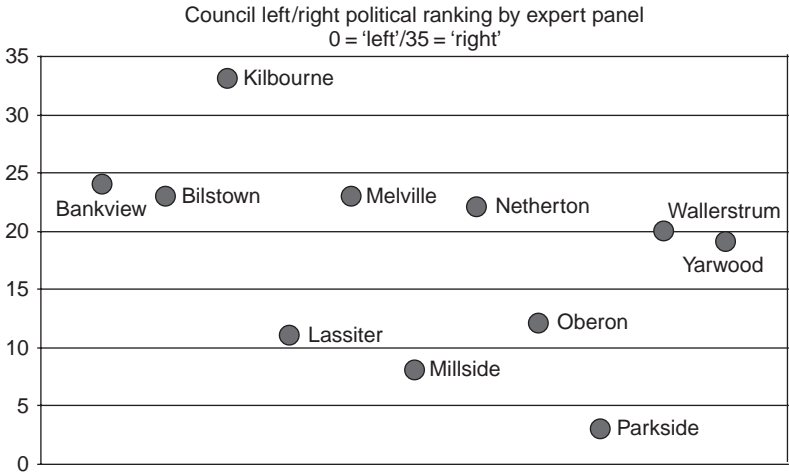


Figure 1.2 Political orientation of municipalities in the study

of innovation. This was our first step. After this we selected four of the cities to take to the case study stage during which we interviewed the key players to find out more about the innovations they were involved in, who were the innovators and to include the perspective of community

Table 1.2 Response rates for municipalities in study

Municipality	Staff identified in sample*	Returns	Response rate (%)	Politicians	Returns	Response rate (%)
Bankview	77	63	81.8	7	3	43
Bilstown	48	41	85.4	7	6	86
Kilbourne	88	78	88.6	9	7	78
Lassiter	66	51	77.3	9	4	44
Melville	54	45	83.3	8	7	88
Millside	65	57	87.7	7	2	29
Netherton	233	162	69.5	9	7	78
Oberon	93	74	79.6	10	8	80
Parkside	102	89	87.3	7	5	71
Wallerstrum	52	46	88.5	5	3	60
Yarwood	69	59	85.5	9	7	78
Overall	947	765	80.8	87	59	68

\* This is the number of staff identified from organizational charts and other information provided by the municipalities, as being at the top four levels – Chief Executive Officer, Director, Manager and Team Leader/Coordinator.



leaders. Finally, as we will see in the chapters on the four governments (Chapters 6–9), we developed a method to rate and select the best innovations from each of these four cities and to profile these using both network analysis and a case study narrative of what took place.

So to summarize our approach to understanding innovation inside government, we wish to explain the contribution of key relationships among actors and central governmental structures to the process of innovation. To do this we had first to understand how actors framed the question of innovation itself, how they created expectations about what it might deliver, and how they evaluated or rated their own institutions in achieving innovation. We wanted to know how they narrated their own roles in creating changes that could be called innovations. Were there substantial differences between politicians and bureaucrats, and between different governments? Were different groups of public officials likely to approach innovation in different terms? What role was played by the formal machinery of government when compared to informal networks? Did the two connect, or were they alternate pathways of action? Where did the power to innovate and to block innovation lie?

In the final chapter (Chapter 10) we draw all of this together to examine the relative importance of norms, formal positions and informal connections, to innovation. Here we return to the set of questions laid out at the beginning of this chapter, to make claims about the relative importance of structure and informality, the utility of different models of innovation, the establishment of innovation as a central concern of governments and hence of both politicians and civil servants, and just how helpful a network-based approach is to an analysis of power and innovation inside government.

The next chapter begins this journey by examining innovation as a set of theories about organizations and by examining innovation as it specifically relates to the government context. Different views of innovation proposed in the literature are examined as a first step to developing methods for understanding how those involved frame and conceive of innovation, and how they understand the relationship between innovation and their own governmental structures and processes.

# 2

## Innovation and Public Policy

The past two decades have witnessed a fundamental transformation in the nature, role, and responsibilities of the public sector in most modern liberal democracies. Mounting community demands for better, more responsive and more efficient service delivery, coupled with a desire to restrain spending, have placed increasing pressure on public service agencies not only 'to do more with less', but to do so more transparently and with greater consultation with local communities. These pressures have dramatically transformed not only the kinds of services traditionally provided by government, but also the manner in which they are delivered. City government has been at the forefront of this reform agenda. The sector's subordinate position and subsequent vulnerability to cost shifting from the levels of government above it has resulted in an increasing range of services and responsibilities being transferred downwards from stronger central governments as revenue pressures on all levels of government have increased. At the same time, a greater focus on the principle of subsidiarity in governance circles has led to the devolution of both policy development and service delivery functions to the local community level, significantly broadening local government's traditional role.

As Bartlett and Dibben note, as a corollary of these pressures to do more with less and to discover and develop new, more effective ways of doing things, there has been an increased focus upon how the public sector manages change and innovation (2002:108). Despite this somewhat belated attention, public sector focussed innovation research still lags far behind the mammoth body of literature devoted to its private sector counterpart. In the United States, the *Reinventing Government* reforms adopted by the Clinton administration throughout the mid-1990s have given rise to a small but growing body of literature

examining the role of public sector entrepreneurs in reforming the traditional role and function of public bureaucracies at all levels of government (see, e.g., Osborne and Gaebler, 1992; Teske and Schneider, 1994; Watson, 1997; Moon, 1999; Borins, 2000a, 2000b, 2001; Gabris, Golembiewski and Ihrke, 2000). Outside North America, a similarly modest number of studies have emerged, again largely in the wake of public sector management reforms sweeping across most modern democracies in response to changing economic and political realities (see, e.g., Osborne, 1998; Morris and Jones, 1999 [South Africa]; Martin, 2000; Newman, Rain and Skelcher, 2001; Bartlett and Dibben, 2002; Jones, 2002 [Australia]; Walker, Jeanes and Rowlands, 2002 [Great Britain]; Walker, 2004, 2006; Boyne et al., 2005).

The majority of these studies focus almost exclusively upon organizational change and innovation in public sector administration and management. A few are notable exceptions (Osborne, 1998; Newman, Rain and Skelcher, 2001; Bartlett and Dibben, 2002; Walker, 2006). Beyond these narrow confines, it turns out we know very little about governmental innovation, except to say that it has something to do with 'policy development', 'implementation skill' and 'institution building' rolled into one (Beyle, 1988; Brooks, 1988).

This absence of a systemic and comprehensive body of research focusing on public sector innovation in a broader context is, in many respects, quite surprising. As Walker notes, evidence and practice tells us that public organizations innovate (2004:3). After all, most people involved with government value improvements in the way things get done, and there is always room for innovation in terms of what is produced for citizens and clients (Savage, 1978; Hall and Preston, 1988; Lazonick, 1993). The large volume of studies examining private sector innovation can no doubt provide us with a range of lessons that are directly relevant to the public sector. Equally however, there is no doubt that the unique nature of the latter and the significant contextual differences between the two sectors render many of these lessons redundant.

Despite the widespread adoption throughout the 1980s and 1990s of private sector corporate management practices associated with New Public Management (NPM), government continues to involve a range of managerial and technical procedures that are often very different in form, purpose and content to those found in private industry. Government action is often more complex than its private sector counterpart and involves actors with quite different attributes. Politicians and bureaucrats not only have different roles to their private sector

counterparts, but they also have different constituencies, different skills and motivations (March and Olsen, 1989). As Teske and Schneider note, unlike private sector entrepreneurs, who can usually be modelled as single-mindedly pursuing monetary profits, the motivations of public sector bureaucrats are often more multifaceted and more difficult to formulate (1994:332).

Entrepreneurial actors within the public sector also face a range of different constraints to their private sector counterparts. There is, for example, a much greater emphasis on accountability in the public sector, with officials involved in innovation having to keep a close eye on the budgetary implications of developing and implementing innovations and to justify innovation expenditure against competing and often conflicting priorities. As Borins notes, this increased focus on accountability and the imposition of strict internal and external controls aimed at minimizing corruption and ensuring due process has the potential to restrict the entrepreneurial behaviour of innovative actors within public sector bureaucracies (2000a:500). Political constraints and media pressure – what Borins describes as ‘management in a fishbowl’ – constitute further elements of the innovation puzzle unique to the public sphere.

In short, public sector innovation is different. It occurs in a unique institutional and environmental context. It is driven by a unique and exceedingly complex mix of motivations, and it faces a unique set of internal and external constraints. The governmental innovation story therefore needs to take explicit account of the specific relationships and action channels which privilege certain forms of action and restrain others within the public sector environment, as well as the normative frames that actors use to calibrate their actions and to attempt to influence the actions of others.

Within the small body of literature devoted to public sector innovation, most research has relied heavily upon case study examinations of either specific innovations or innovators themselves. More recently, attempts have been made to develop a more systematic and integrated theory of innovation inside government (Teske and Schneider, 1994:331). What this research generally tells us is that public sector innovation is the product of a complex interaction between behavioural, cultural, structural and environmental conditions (Newman, Raine and Skelcher, 2001:62), with the individual qualities and values of key actors; externally driven demands for change (from citizens, service users and governments alike); institutional procedures and organizational culture; and internal and external networks, all playing a crucial role in shaping both the nature and the extent of innovation.

In the first chapter, we identified a number of different traditions in thinking about innovation, which are centred around whether it is the product or the process that defines innovation, whether it is about major shifts or minor adjustments, and whether innovation is seen to be always and everywhere a 'good' thing. This second chapter extends this discussion to examine theories of innovation in more detail.

### **The role of the 'innovation hero'**

As Teske and Schneider suggest, the biographical nature of most studies of bureaucratic entrepreneurship and innovation has tended to emphasize the critical role played by leaders 'whose actions produced innovative or unexpected policy changes' (1994:331). This 'Great Man' model, as Morris and Jones (1999:3) describe it, assumes that innovation is driven by a select few who alone possess the requisite attributes necessary to steer change through the institutional and organizational labyrinths of public sector organizations. Whilst this approach offers little hope of developing a systematic theory of public sector innovation (Teske and Schneider, 1994:331), and may be criticized for over-simplifying what is a complex and multi-faceted phenomena, there is no disputing that the personalities and actions of individual actors are critical to explaining innovative bureaucratic change (Wilson, 1989, cited in Teske and Schneider, 1994:331). The role of elected politicians, in particular, is likely to be crucial, given their influence over the policy agenda and control over the allocation of resources (Walker, 2006:315).

What then are the individual attributes that set successful innovators apart from their colleagues in the public sector, and how do they successfully navigate through the interminable minefield of obstacles and barriers that constrain the innovation process? According to Martin, innovation is driven by innately curious and well-placed individuals with an inherent confidence in their ability to succeed (2000:6). Seniority, it is suggested, provides a vantage point from which innovative managers can take a broader view both across and outside of their organization, and thus entertain potential avenues for innovation which others may not consider. It is this fusion of organizational seniority and personality that is the 'cradle of innovative behaviour' (Martin, 2000:7). This point has an obvious resonance with the individual level social capital literature, which identifies both innate (personal) attributes and positional factors as network resources that can be accessed (Lin, 2001), although there the position relates to networks rather than hierarchies.

Importantly, given the internal conflict which usually accompanies innovation (Jones and Beckinsale, 1999:2), seniority and organizational experience may also provide potential innovators with better access to crucial political networks, and with a greater understanding of potential blockages associated with organizational politics. This may allow them to foresee potential problems and to strategically manage the innovation process more successfully than those lacking such organizational resources.

Optimism, a propensity for risk-taking, and a strong sense of purpose are further traits almost universally identified in the literature as defining characteristics of the successful public sector innovator. Sanger and Levin, for example, suggest that innovative public managers are risk-takers 'with an opportunistic bias towards action and a conscious underestimating of bureaucratic and political obstacles their innovations face' (cited in Moon, 1999). Martin similarly emphasizes that innovators need to maintain a sense of optimism in order to counter the 'pessimism and conservatism that often characterises many public sector bureaucracies' (2000:7). Morris and Jones (1999) study of entrepreneurship within the South African public sector largely echoes these findings, identifying self-confidence, strong drive, strong leadership abilities, high-level organizational skills, vision and self-discipline, as the attributes are most closely associated with entrepreneurial behaviour.

Where these studies concentrate on identifying the key attributes of innovative public sector actors, Jones (2002) broadens his focus to examine the role these individual personality traits and motivations play in shaping the innovation process itself. His case-study-based comparative analysis of public sector reform in four local governments in New South Wales identified a link between the reform route adopted by each government and the personality and behavioural traits of their general managers. 'Frame-breaking managers' were typically driven by short-term career-based goals, were charismatic and cultivated high public profiles. As Jones describes, they 'were recognised as "big picture", visionary people with a tendency to *hurry* into projects, often cutting corners and ignoring details...' (2002:50). 'Evolutionary managers', on the other hand, tended to be more secure and established in their careers, to show more patience, tolerance and attention to detail, and tended to operate with longer-term perspectives (Jones, 2002:50). As each of these studies attest, as with private sector innovation, the specific character, values, and outlook of key individual actors play a crucial role in shaping the innovation process within the public sector.

## **External pressures for innovation**

While internal conditions and personal attributes tell us a great deal about the way governments operate, external conditions are often viewed as paramount. Innovative public sector actors and the innovations they create do not exist in a vacuum, but are immersed within a broader environmental context (Newman, Raine and Skelcher, 2001:62). This external environment is characterized in the research literature on innovation as having several attributes. For example, it is often seen as highly turbulent and dynamic (Morris and Jones, 1999:1) with constantly shifting political, economic, and administrative contexts, rapid technological development, and changing community demands together constituting an institutional and environmental setting characterized by an almost constant state of flux. In this environment public agencies can be expected to seek new solutions to meet the needs of their citizens and service users (Walker, 2006:315).

Though clearly influential at all levels of government, the impact of external environmental change on public sector innovation is perhaps most pronounced within the local government sector. As Caulfield notes, given the sector's subordinate position, reform agendas are often forced upon local governments by national and regional governments (2003:16). Reform of funding arrangements between central and local levels, along with changes in the political affiliations, administrative and legislative frameworks, and policy agendas of central or regional governments, invariably filter downwards and play a key role in instigating change and innovation at the local level. As Boyne et al. note, public sector organizations are often forced to adopt an innovation in response to an 'authority decision' (2005:419). Indeed, many of the recent changes in the structure, role and function of local government in Australia, the United States and Britain can be viewed in this light, with the commercialization of service provision and the adoption of private sector management and organizational models driven largely by policy directives and budgetary constraints imposed from above.

In the Australian context, these developments, plus a broader federally driven micro-economic reform agenda incorporating the implementation of National Competition Policy, industry deregulation, privatization, industrial relations and welfare reform, have proven a major catalyst for innovative reform both in public administration and in public sector service delivery at the local level throughout the 1980s and 1990s. State imposed cost-cutting initiatives over the same period, particularly in Victoria, South Australia and Tasmania, where

forced amalgamations have drastically reduced the number of local government authorities, have had a similar impact in terms of forcing change and innovation (Baker, 2003:117). According to Martin, these federal and state-driven structural changes have been the major driver of reform and innovation in Australian local government over the past 15 years (2000:7).

Similar external influences have been at work in the United States, where the Clinton administrations' *National Partnership for Reinventing Government* has served as the vehicle for NPM implementation, with local government again carrying a large portion of the burden for implementing cost-cutting reforms. In Britain, pressure for change and innovation from above has also been influential with local government reform forming a key plank of central government administrations for two decades (Newman, Raine and Skelcher, 2001:61). These pressures have included cost-cutting initiatives associated with the implementation of Compulsory Competitive Tendering (CCT) by the Thatcher government which radically altered traditional modes of service delivery at the local government level. The rationalization of local authorities and the implementation of new governance regimes incorporating a greater focus on quality assurance, customer satisfaction, and strategic management implemented under the auspices of the Major government's *Citizen's Charter* have similarly acted as a catalyst for change and innovation (Wilson and Game, 2002:328–335).

More recently, as Newman, Rain and Skelcher note, the Blair government's extensive *Local Government Modernisation Agenda* has been used to foster innovation in local government (2001:62–63). This agenda, part of a broader shift in national political climate following the election of the Blair Labour government in 1997, they argue, '...can be viewed as releasing latent energies and ideas, blocked or constrained during previous administrations' (2001:62).

Whilst these centrally imposed reforms of the institutional and financial frameworks of government have acted as major catalysts for change, increasing grass-roots level demands, for both new services and improvements in service delivery, have also forced local governments to become more innovative in meeting the needs of citizens and service users. According to Walker's study of innovation in English upper-tier local authorities, these user and citizen demands act as important drivers of local government innovation, particularly in the areas of new product development, technological innovation and the development of new partnerships with service users and stakeholders (2006:327). Teske and Schneider similarly note the catalytic role played by local communities



in fostering innovation in US local government agencies, with 40 per cent of respondents in their study identifying the need to meet citizens' demands as a primary driver of new ideas and policies (1994:336).

As these examples suggest, external environmental factors often play an important role in fostering innovation, but they may also constitute an important barrier to change. Community-driven innovation is by its nature, often the source of considerable conflict. Pressure from local communities and the political turbulence it creates can often thwart change and innovation (Walker, 2006, 2007). Once again, given local government's close proximity to local community concerns, this leaves the sector particularly vulnerable to pressures to resist innovative reform. As Teske and Schneider suggest,

The relatively small size of the voting public may also allow voters to hold bureaucrats more directly accountable. Local interest groups can also constrain managers by ringing 'fire alarms' to which politicians will attend (McCubbins and Schwartz, 1984), while the openness of local governments allows individual citizen demands to act as constraints.

(1994:333)

Local socio-economic and demographic conditions constitute further external influences shaping the innovative capacity of public sector organizations and the types of innovations they adopt, though empirically, their impact remains largely unexplored.

In one of the few studies to empirically test the impact of such factors, Walker (2004) found that 'ethnic diversity' was negatively related to new product, partnership and organizational innovation, and that 'working in partnership innovations' (where local agencies develop partnerships with other departments and work closely with service users) were more likely to be found in prosperous and ethnically homogenous councils. This, he notes, is broadly congruent with earlier research by Walker and Enticott which found that management reforms were more likely to occur in areas suffering low levels of deprivation (2004:429). Later, more fine-grained research by Walker confirmed the negative impact of diversity on ancillary innovations, although the results also suggested a positive relationship between diversity of need and organizational innovation (2007:18).

These findings are not surprising. On top of the more obvious revenue implications, high levels of social deprivation, ethnic diversity and increased demand for services may limit the availability of time

and financial resources organizations can devote to developing new innovations. At the same time, limited resources exponentially increase the risk and political fallout associated with failure, further limiting the likelihood of innovation. Increased levels of social isolation and exclusion in ethnically diverse and low-income areas may also limit the formation of crucial citizen/agency networks, undermining the capacity of government organizations to tap into local knowledge and citizen-based human capital in the development of innovations. Though conversely, it could also be hypothesized that these challenges may foster innovation by forcing public sector agencies to develop innovative responses to citizens and communities with high needs.

As a final point, it is also worth noting that where centrally imposed changes to political and administrative arrangements may force public agencies to innovate, the same frameworks may actively discourage the formulation of innovative responses to localized demands. As Newman, Rain and Skelcher point out, the Blair Government's introduction of the Local Government Modernization Agenda has been credited with stimulating a wide range of innovative reforms in local government. But many respondents to their study also noted that these changes had, in many areas, reduced local autonomy and the capacity to respond to local issues and agendas by demanding conformance with centrally imposed guidelines, and through the increased emphasis upon performance indicators focussing primarily upon input or output measures (2001:67).

## **Organizational influences**

If individual values, attributes and personality traits, and the external environment play a key role in instigating and shaping innovation, organizational factors similarly emerge from the literature as key influences over the nature and extent of innovation in both the public and the private sectors. Indeed, in the eyes of many innovation theorists, it is these organizational factors that serve as the primary determinants of innovation (Damanpour, 1991:557). Given that much of the innovation research has its origins in the disciplines of management and organizational studies, this emphasis on 'organization' should come as no surprise.

In an extensive meta-analysis of the literature examining organizational innovation conducted in 1991, Damanpour identified and tested the influence of 13 organizational determinants of innovation including structural, process, resource and cultural variables (1991:557). His findings suggested that innovation in an organization was positively

correlated with a high level of specialization (the presence of specialists with different skill sets and a broad corporate knowledge base); with high levels of functional differentiation; with high levels of professionalism; positive attitudes towards change at the managerial level; high levels of technical knowledge resources; with 'administrative intensity' (the presence of a high proportion of managers); with the ready availability of resources (what he terms 'slack resources') and in organizations with extensive internal and external communications networks. Conversely, innovation was stifled in organizations characterized by high degrees of centralization in the decision-making process. Overall, the degree of formalization, vertical differentiation, and managerial tenure were found to exert no significant influence. However, further analysis revealed that the impact of these factors varied according to the type of organization examined, with innovation within not-for-profit organizations positively related to specialization and positive managerial attitudes towards change, and negatively correlated to greater levels of centralization and formalization.

Similar results have been reported in other studies of public sector innovation since Damanpour's work was published. Moon's (1999) study of managerial entrepreneurship in both private and public sectors, for example, found that structural, cultural and environmental factors at the organizational level each play an important role in promoting change and innovation. In terms of structure, Moon's results indicated that innovation was associated with minimal levels of hierarchy, low levels of internal process and task formalization, and high levels of specialization and technical expertise. The impact of centralization, in comparison, was found to be more complex than that found by Damanpour, with highly centralized organizations producing entrepreneurial senior managers whilst at the same time stultifying the risk-taking behaviour of those further down the hierarchy. In terms of environment, Moon (1999) suggests that innovation is associated with minimal legal and regulatory burdens, whilst an organizational culture characterized by mission clarity, trust between leaders and ordinary members of the organization, and a strong sense of ethics within the organization similarly promotes entrepreneurial behaviour.

Themes of trust, mission clarity, and strategic direction were also emphasized by Gabris, Golembiewski and Ihrke (2000), whose study of local government in the Chicago area, noted a close association between the leadership skills and credibility of each municipality's Chief Administrative Officer and perceptions of successful government innovation. While in one of the few studies examining innovation in Australian

local government, Martin (2000) notes the significance of organizational flexibility, and cross-organizational boundary spanning in generating new ideas and experimentation.

Interestingly, more nuanced research by Walker (2004, 2006) found that different organizational attributes were associated with different kinds of innovations. New product innovations were linked with a propensity for risk taking, with rational planning, and with the use of performance management regimes. Technical innovations were associated with governments that successfully integrated objectives and priorities and which were rational planners. Partnership innovations were more likely to emerge in authorities that were risk-takers and rational planners with organizations characterized by centralized bureaucratic structures. Market-orientated innovations were more common in authorities that had adopted performance management regimes, that took risks yet tended to be rational planners, whilst organizational innovations were linked with risk-taking and bureaucratic centralization.

Empirical studies suggest that organizational size also shapes innovative capacity with larger organizations able to take advantage of greater opportunities for cross-fertilization of ideas, and to draw on a more diverse range of skills (Walker and Enticott, 2004:427). Access to resources is also identified as an important determinant of innovative capacity, with greater resource levels enabling an organization to explore new ideas, absorb the inevitable failures, and adequately fund the implementation process (Walker and Enticott, 2004:427).

This review of the public sector innovation literature, particularly that focussing upon innovation within the local government sector, clearly illustrates the multi-layered nature of the innovation puzzle. The nature of public sector innovation and the specific innovation pathways adopted are heavily influenced by the individual attributes, motivations and actions of key actors, by the institutional and organizational realities they face, by the social ties they establish, both within and outside of the organization, and not least by a broad array of external catalysts and constraints.

## **Innovation norms and procedures**

As Newman, Raine and Skelcher emphasize, innovation, at its core, is a socially constructed concept (2001:62). Before we can adequately explain the impact of relationships and structures on innovation, it is therefore necessary to examine how actors frame the issue of innovation, how they create expectations about what it might deliver and how

they evaluate or rate their role in achieving innovations. In short, we first need to comprehend how the actors perceive and understand innovation itself. Are there substantial differences between politicians and bureaucrats, and between different governments? Do different groups of actors (in terms of seniority or portfolio) see innovation in different terms? Do politicians and bureaucrats see governmental structures and procedures differently and are they therefore more likely to employ different approaches to achieve innovation?

To this end, to discern the underlying assumptions, tacit understandings and norms with regard to innovation inside government, we asked our survey respondents, both politicians and bureaucrats, to rate and position their views according to a series of statements concerning the nature of innovation.<sup>4</sup> The 16 statements used in the questionnaire are listed in Box 2.1.

### Box 2.1 'Innovation norm' items

Defining innovation	<ol style="list-style-type: none"> <li>1. Innovation means making small continuous improvements</li> <li>2. Develop or adapt new technology</li> <li>3. Making major changes</li> <li>4. Planned effort to improve process, service, programme</li> </ol>
Innovation and government	<ol style="list-style-type: none"> <li>5. Work closely with community</li> <li>6. Not something governments do</li> <li>7. Resolving conflicting priorities</li> <li>8. Accountability requirements limit innovation</li> </ol>
Innovation structures and people	<ol style="list-style-type: none"> <li>9. Need to move outside regular channels</li> <li>10. No difference between roles of experts, politicians, managers</li> <li>11. See myself as an innovator</li> <li>12. Structures encourage innovation</li> <li>13. Politicians identify needs, officials create innovations</li> <li>14. Organization values innovative individuals</li> <li>15. My strength is adapting innovations to my situation</li> <li>16. Difficult to be innovative in our organization</li> </ol>

Each respondent was asked to indicate their level of agreement with these statements on a five-point Likert scale, ranging from strongly disagree to strongly agree. The 16 items on the meaning of innovation were then factor analysed using principal components analysis, in order to determine underlying or latent structures in the ways norms of innovation were being understood across this population of key decision-makers. The detailed results of the factor analysis are shown in Appendix A.

This investigation showed that five factors or positions described the way innovation was being understood and defined. These five positions are shown in Box 2.2 with a summary statement that encapsulates each factor. We have called them *Institutional*, *Structural*, *Sceptical*, *Incremental* and *Adaptive* innovation norms because these labels best sum up the central feature of each position. The *Institutional* factor refers to innovation being seen to mostly concern internal structures and organizational factors. The *Structural* position refers to innovation being seen as a more radical, externally driven activity and based in part upon conflict. The *Sceptical* type refers to innovation being seen as of limited relevance and having an uncertain role in government. *Incremental* refers to those who agreed that innovation is mostly about small and planned efforts, while *Adaptive* refers to innovation being viewed as based on adapting ideas from elsewhere and as being quite different in government.

The resulting factor scores for these five latent norms were then used in a series of analysis of variance (ANOVA) and *t*-tests, to determine whether there were significant differences between governments, between politicians and bureaucrats, and between people in different positions. In the tables in this chapter and in the Appendices,

### Box 2.2 The five normative positions on innovation

<p>Institutional = 'Innovation relies on organizational factors'          Structural = 'Innovation is about large external changes'          Sceptical = 'Uncertain if government has a role in innovation'          Incremental = 'Innovation is about small, planned improvements'          Adaptive = 'Innovation means adapting things from elsewhere'</p>
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*Table 2.1* Institutional innovation norms (mean factor scores)

Government	Bankview	0.614
	Bilstown	-0.080
	Kilbourne	-0.132
	Lassiter	0.142
	Melville	0.314
	Millside	-0.027
	Netherton	-0.368
	Oberon	-0.197
	Parkside	0.171
	Wallerstrum	0.349
Yarwood	-0.087	
Position	Mayor	0.280
	Politician	0.083
	CEO	0.644
	Director	0.422
	Manager	0.033
	Coordinator/Team Leader	-0.075
	Other	-0.087

standardized mean factor scores are given. These scores have a mean of zero, so anything above zero is above the mean for all groups, and negative scores indicate groups that are below the mean. It should be noted that not all of these demonstrated statistically significant differences between groups. Only those results significant at  $p < 0.05$  are discussed in the remainder of this chapter.<sup>5</sup>

Significant differences were found for the institutional type across governments and across positions, but not between politicians and bureaucrats. So the view that innovation rests on internal structures and organization varies across different places and positions. As the results in Table 2.1 show, Bankview scored highest on the institutional type, while Netherton scored lowest. Across positions, CEOs identified most closely with the institutional norms, followed by Directors then Mayors, then Politicians and Managers, while Team Leaders/Coordinators identified least with this norm.

The structural view of innovation was also significantly different across governments, with Parkside and Yarwood being most closely aligned with this view of innovation, and Wallerstrum, Bilstown and Melville the least aligned with this view (Table 2.2). The difference was also close to significant for politicians versus bureaucrats, with politicians more likely than bureaucrats to view innovation as a structural

*Table 2.2* Structural innovation norms (mean factor scores)

<b>Group</b>	<b>Mean factor scores</b>
Bankview	0.190
Bilstown	-0.255
Kilbourne	-0.181
Lassiter	-0.120
Melville	-0.238
Millside	0.058
Netherton	-0.014
Oberon	0.016
Parkside	0.265
Wallerstrum	-0.260
Yarwood	0.260

issue. This reinforces the earlier point about the importance of position. Politicians are more outwardly focussed and this influences the way they treat the innovation question. It also points to interesting differences in the level of external focus across these governments.

Whether one was likely to adopt a sceptical view of innovation (seeing it as little to do with government) also varied significantly across organizational positions and was close to being significant across governments. As the results in Table 2.3 show, Mayors and ‘Others’ (generally people at the fifth level down in organizational terms) were the most sceptical about whether government could contribute much to innovation, followed by Team Leaders/Coordinators and Managers. Politicians and Directors were less sceptical and CEOs were the least sceptical about innovation.

*Table 2.3* Sceptical innovation norms (mean factor scores)

<b>Group</b>	<b>Mean factor scores</b>
Mayor	0.119
Politician	-0.170
CEO	-0.999
Director	-0.192
Manager	-0.046
Coordinator/Team Leader	0.040
Other	0.143



Incremental and Adaptive views of innovation did not show statistically significant variations across governments, between politicians and bureaucrats, or across positions. What this tells us is that although these two positions describe coherent sets of attitudes among the total survey population in these 11 governments, these do not vary substantially across major categories of interest in this study.

To summarize, we found five different normative frames of innovation based on the outlook of these government actors. Three of these – institutional, structural and sceptical – point us to important and significant differences based on which government you come from and which position you occupy in that government. This suggests very strongly that there are local ‘cultures’ of innovation which shape and are shaped by how individuals within these organizations see innovation.

### **From norms to procedures: What helps or hinders innovation?**

While there are different outlooks among these key actors in regard to the part played by institutional procedures, all are implicated in a governmental process which demands some engagement with this regulated environment. We wanted to know how these actors would evaluate different parts of this procedural realm. Which potential pathways towards innovation would be most important to them? Where would they locate the chief impediments to innovation? Our method for delving into these issues was to identify the main institutional features, procedures and sites at the municipal level and then to construct a list of items for our politicians and bureaucrats to rate as either helpful or a hindrance to innovation. Thirteen items were selected, ranging from the official municipal statutory meeting, to key organizational structures such as the annual budget, through to the main political institutions such as the electoral system. A full list of these items is provided in Box 2.3. Because we chose to compare local governments and local government actors from within the State of Victoria, and hence from within a common legislative framework, we can be confident that they are actually assessing the same kinds of institutional pathways and procedures, albeit in different locations.

As with the innovation norms discussed earlier in the chapter, strongly coherent groups of variables emerged from a factor analysis of these procedural items (full factor analysis results are provided in

### Box 2.3 What procedures help and hinder innovation?

- |   |   |
|---|---|
| 1. Annual budget process                  | 8. Divisional structure of Municipality   |
| 2. Municipal corporate plan               | 9. Quality of proposals from officers     |
| 3. Municipal statutory committee meetings | 10. Municipal election campaigns          |
| 4. Municipal advisory committee meetings  | 11. State govt. regulation of local govt. |
| 5. Municipal meetings                     | 12. Values and culture of Politicians     |
| 6. Pay and promotion system               | 13. Quality of proposals from Politicians |
| 7. Values and culture of Executive        |   |

Appendix A). We found three different positions, expressing different views of the instruments most likely to help and hinder innovation. We have called these *Political*, *Managerial* and *Electoral* (Box 2.4). The position that we have called *Political* covers assessments of all the formal legislative procedures of local government such as municipal meetings and committees. The annual budget process and the corporate plan load on both this factor and the *Managerial* factor, reflecting the fact that these items are seen as part of both political and internal management procedures. *Managerial* includes the internal management procedures associated with the organizational machinery of each municipality and its staff, but not politicians. These include assessments of pay and performance systems and the role of divisional structures and quality procedures. The items making up the *Electoral* factor centre on the role played by elections, state government regulation and the culture, values and other characteristics of local politicians, so far as innovation is

### Box 2.4 The three types of innovation procedures

Political = Budget, committee meetings and municipal meetings
Managerial = Corporate plan, structure, systems and officials
Electoral = Elections, state government and municipal politicians

concerned. The results of the analyses of variance and *t*-tests presented in Tables 2.4–2.6 again present standardized mean factor scores with a mean of zero. In this case, positive scores indicate that this group saw the factor as helping, while negative scores indicate the factor was seen as hindering.

Politicians favour the set of procedures we call Political. The view of whether political procedures help or hinder innovation varies significantly between bureaucrats and politicians, with politicians being far more positive about what this set of procedures delivers for innovation than bureaucrats (Table 2.4). This suggests that politicians value those instruments over which they have most control. As the results in Table 2.4 indicate, Mayors and other politicians see these procedures as helping, while bureaucrats at almost all levels see them as hindering innovation. This is a very important finding because it highlights the fact that the normal decision-making structures are not seen as helping innovation by those in different positions. Instead, there is a clear demarcation, and possible conflict, in the experience of the two groups whose cooperation is most needed in order for new programmes or procedures to be enacted.

Managerial procedures and their impact on innovation differ significantly between governments and across positions (Table 2.5). At one extreme, respondents at Bankview and Wallerstrum view these procedures as helping innovation. At the other extreme, Netherton and Oberon see them as hindering. In terms of differences across positions, CEOs were the most positive about managerial procedures helping innovation, followed by Directors then Mayors. It should be noted that Mayors are the only full-time politicians and as such spend more time in the Town Hall than their colleagues. Managers and Politicians are

*Table 2.4* Political procedures (mean factor scores)

	Group	Mean factor score
Politician vs Bureaucrat	Politician	0.477
	Bureaucrat	-0.035
Position	Mayor	0.319
	Politician	0.515
	CEO	-0.107
	Director	-0.076
	Manager	-0.016
	Coordinator/Team Leader	-0.073
	Other	0.040

Table 2.5 Managerial procedures (mean factor scores)

Government	Bankview	0.465
	Bilstown	-0.183
	Kilbourne	0.130
	Lassiter	-0.043
	Melville	0.069
	Millside	0.097
	Netherton	-0.266
	Oberon	-0.260
	Parkside	0.013
	Wallerstrum	0.501
Yarwood	0.013	
Position	Mayor	0.343
	Politician	0.104
	CEO	1.035
	Director	0.420
	Manager	0.140
	Coordinator/Team Leader	-0.157
	Other	-0.158

next in line and Team Leaders/Coordinators and others see this set of procedures as hindering rather than helping.

The assessments which decision-makers made about electoral procedures also varied significantly across governments, but interestingly not across positions or between politicians versus bureaucrats. As Table 2.6 suggests, respondents at Kilbourne viewed electoral procedures as a major hindrance to innovation, the mean factor score is almost triple that of the next most negative government – Bankview. At the other end of the spectrum, those at Parkside saw them as a major help to innovation. Clearly, the view of how helpful the democratic process of electing local politicians is, and whether the environment set by the state government impacts positively or negatively, varies from place to place.

To summarize the findings on innovation procedures, we found that politicians are most positive about the role of political procedures, while CEOs and top officials are actually quite negative about this in relation to innovation. Whether you favour managerial or electoral procedures for innovation is likely to depend on what government you work in. But regardless of this, you are more likely to favour managerial procedures if you are a CEO, a Mayor, or a senior bureaucrat, who tend to be more optimistic about what structures and official organizational

Table 2.6 Electoral procedures (mean factor scores)

Bankview	-0.272
Bilstown	-0.135
Kilbourne	-0.777
Lassiter	-0.047
Melville	0.100
Millside	0.128
Netherton	0.074
Oberon	-0.063
Parkside	0.584
Wallerstrum	0.224
Yarwood	0.000

procedures can contribute to innovation. If you are further down the hierarchy, you are likely to regard these organizational procedures as an impediment to innovation.

The results thus far indicate that there are more or less coherent normative positions among these actors with respect to two different dimensions – the manner in which innovation is defined and conceptualized, and the role played by key governmental procedures in aiding or constraining innovation. So, are these different dimensions of norms and procedures related to one another? Using bi-variate correlation analysis, we can see that the institutional norm is significantly associated with each of the three procedural types, but is *most strongly correlated* with managerial procedures (Table 2.7). That is, people who view innovation as being primarily about internal structures and organization

Table 2.7 Correlations\* between innovation norms and procedures

	Political	Managerial	Electoral
Institutional	0.17	0.47	0.13
Structural			
Sceptical			
Incremental	0.17		
Adaptation			

\* Spearman rank correlation coefficients ( $\rho$ ), significant at  $p < 0.01$  shown. Note that because orthogonal rotation of the factors was used, there are no significant correlations amongst the five innovation norms, or amongst the three innovation process factors.

also see factors such as pay and promotion systems, the values and culture of the executive management team, and the organization's divisional structure as most helpful to the innovation process. Not surprisingly, given that it conceptualizes innovation as being primarily about major and externally induced change, the results suggest that the structural norm of innovation is not related to any of these internal procedures. Similarly, neither the sceptical nor the adaptive norms of innovation are correlated with them. Intuitively this makes sense for arguably if the view of innovation is limited and uncertain, or if innovation is seen as being primarily about adaptation from elsewhere, then procedures are not likely to be seen as important to innovation. The other remaining significant correlation is between the incremental norm and political procedures, with people viewing innovation as being about small, planned and continuous improvement, also seeing the municipality's formal meetings and budget procedures as helpful to innovation.

Against the background of these results, we can usefully generalize about several important aspects of the relationship between governance and innovation. First, we can incorporate into the discussion about innovation an awareness of important normative dimensions and positions. It is plainly not enough to talk about innovation as a series of structural relationships between actors or institutions and to fail to take into account that all such actors operate from within a normative frame. What we have shown with respect to these 11 governments is that these actors do have coherent normative positions and that they often differ by municipality, by role and by place in the hierarchy.

The significant differences we found for the institutional and structural frames across governments suggest that a different 'culture' of innovation exists in different places. Adherence to the institutional frame is also associated with the role occupied by the respondent – that is, where you sit in the organizational hierarchy helps determine how you think. CEOs identified most closely with this institutional frame, followed by Directors then Mayors, then Politicians and Managers, while Team Leaders/Coordinators identified least with this set of norms. Perhaps unsurprisingly then, those lowest in the hierarchy were far more likely to be sceptical about the innovative potential of their organization's structures. The structural view of innovation was close to statistically significant for politicians compared to bureaucrats, with politicians more likely than bureaucrats to view innovation as a structural issue. This confirms a view that politicians are far less interested in

the internal procedures of innovation than in external results. A number of tensions in the way innovation is being understood in the governmental setting have been highlighted by this examination of innovation norms.

Having established the normative basis for this analysis, we then examined the role of actual governmental procedures and asked our politicians and bureaucrats about the main institutions and instruments used in local government. Strongly coherent groups of variables emerged from the factor analysis of things such as the role of key meetings, the budget and corporate plans. We found three different positions, expressing different views of the instruments most likely to help and hinder innovation, and labelled these as political, managerial and electoral procedures. Politicians were more positive about the role of political procedures than bureaucrats, perhaps because it is they who have formal control over this part of the governmental process. Perceptions of the impact of managerial procedures on innovation were found to vary significantly across the 11 governments, with two governments quite negative in regards to this factor and two highly positive. Views on the impact of this set of procedures on innovation also varied significantly across roles and positions. Perhaps predictably CEOs were the most positive about managerial procedures, since they have direct statutory control over these levers and incentives. Next most enthusiastic were Directors, then Mayors. As we noted, Mayors are the only full-time politicians and as such spend more time in the Town Hall than their colleagues. Two propositions can be drawn from this. Either their greater proximity to the bureaucrats affords them a chance to see how managerial systems work to the advantage of innovation or their close location leads to their capture by bureaucrats. Finally, the results indicate that assessments of the impact of electoral procedures varied significantly across the governments, but not across different positions or between politicians and bureaucrats. Plainly some municipalities have had bad experiences with electoral contests and politicking by elected members, while others have enjoyed a history of positive engagement, even where this includes the necessary competition for positions.

This first phase of the study shows that the concept of innovation has a number of different normative frames which can help in understanding the meaning of innovation inside municipal governments. These frames vary in relation to where an individual sits within the hierarchy and whether they are on the political or bureaucratic side of the fence. The impact of different sets of procedures has also been identified

in this section. It is not surprising that politicians most favour those procedures that are about municipal meetings and the budget process where they have substantial input and control. Neither is it surprising that those with the most positive view of managerial procedures are CEOs, Directors and Mayors. More and less positive views on electoral procedures most likely reflect the extent to which the cycle of electing local politicians is seen as part of the democratic process or as a nuisance that interferes with the smooth running of municipal government business.



# 3

## Networks as Interactions and Structures

The previous chapter showed the importance of innovation norms and procedures in our city governments, and provided some clues on local innovation culture and variations across roles and positions. To better understand the way governments create innovations we now shift our attention to the role played by a certain class of objects called embedded resources. Such resources are produced within the work-based social networks of politicians, bureaucrats and key community leaders. There is a long tradition in innovation research which shows that these forms of connectedness and exchange inside networks shape the way ideas are communicated and influence the way new products and methods are distributed. Much of this research points to the critical role which networks play in the *diffusion* of innovation. Rogers (1995:5) provides the classic formulation of this approach; 'Diffusion is the process by which an innovation is communicated through certain channels over time among members of a social system'.

As Valente (1995:2) points out, the 'research (on diffusion) has been greatly enhanced by network analysis because it permits more exact specification of who influences whom during the diffusion process.' Of course there is an implied distinction in much of this research between the creation of innovations and their distribution to potential users. So, for example, in the classic studies by Coleman, Katz and Menzel (1957), Rogers and Beal (1958) and Rogers, Ascroft and Röling (1970), the focus was upon the adoption of new drugs by physicians or of new cultivation practices by farmers. In other words the innovations themselves were not part of the study, just their communication across a defined population of early and late adopters.

We began the book by suggesting that our understanding of the character and dynamics of innovation inside government would require a somewhat different approach. Certainly we would benefit from a better understanding of the role of work-based social networks. But these cannot be easily contained to questions only to do with diffusion. We also have to consider their role in the actual creation of innovations. In public policy and programme development there is rarely a defined research and development (R&D) division creating innovations or importing them for local distribution. Instead the innovation process and innovation events are likely to be endogenous to the organization and the system of relations with stakeholders, suppliers and regulatory agencies.

This is the approach we have taken. All our respondents are considered to be potential innovators as well as parts of a diffusion or communication network. All the work areas and functions of these governments are considered a potential site for innovation.

Networks, we acknowledge from the start, are ubiquitous and slippery attributes of human organization. To pin them down to something tangible we have looked to a range of approaches, including social network analysis, and sought to adapt techniques and measures to fit the needs of a strongly political and power-sensitive search. The central focus in using a number of concepts and measures has been to explain how the pattern of connectedness between key actors, both inside and outside government, impacts upon their capacity to innovate. In this chapter we examine such networks in more detail, but first it is important to clarify the kind of analytical frame we will use to situate these questions.

It is clear that the rather innocent term 'network' can be used to describe a diverse set of relationships, meanings and engagements from loose social clubs to criminal organizations. We are interested here in only one crucial part of this more general debate – the particular contribution which social networks make to innovation. In this field there is a substantial research literature which can be divided into three parts. At the *macro-level* socio-technical systems theories which go back to Emery and Trist (1965) provide a means to define the sets of connections between system participants which determine the 'causal texture' through which organizations achieve either dynamism or inertia. This provides an institutional-historical account in which the network is defined as 'exchanges and discussions within a group (which) typically have a history, and this history results in the routinization and stabilization of linkages among members' (Marsden, 1981:1210).

However, this approach tends to limit networks to structures that control uncertainty and reduce risk. It has great difficulty in addressing the changing norms and meaning structures of the actors involved, particularly wherever the personal contact networks of actors are not synonymous with a formal organization or groups of organizations. Another macro-level account is provided by actor-network-theory (ANT) which seeks to identify the network as a common code, narrative system or producer of programmes and anti-programmes (Law and Hassard, 1999).

A second tradition with a *meso-level* focus is policy network research. Whether as coalitions, corporatist institutions or iron triangles, this approach tends to define the network as a form of representational closure designed to share or control resources (Benson, 1982; Rhodes and Marsh, 1992; Considine, 1994). This extends to studies of policy inertia created by particular types of networks (Wistow, 1992; Lewis, 1999). Here the network is largely synonymous with a set of resource dependencies capable of mobilizing bias or sustaining a beneficial inertia (Scharpf, 1997). The same is true of those researching industrial networks (including industrial clusters, hubs etc). As Lundvall (1992), Lazonick (1993), Kitschelt (1991) and others have shown, innovation is here defined by systems of co-production and joint action within webs or clusters of producers, suppliers and financiers. In other words the network is united by a logic of economic exchange.

These accounts of organizational networks all share a problematic dependence upon what Dowding (1995:137) rightly calls a *de facto* method. He points out that the categorization of groups as a 'network' and the use of data on inter-dependence to infer some collective identity is problematic. These approaches often 'fail because the driving force of explanation, the independent variable, is not network characteristics *per se* but rather characteristics of components within networks'. In other words these meso-level accounts omit the link between observed network activity and more general categorizations and typologies. Passive attributes often fail to explain active dispositions because researchers simply assume that one leads to the other.

The third major research tradition is social network analysis, on which the sub-field of innovation diffusion studies is based. This approach has a much better grip on the *micro-level* processes of communication which are almost entirely absent from many other approaches. By concentrating on the means by which new ideas move out of the laboratory and into everyday use through inter-actor ties, these studies have generated

an impressive understanding of the innovator's predicament. The work of Coleman, Katz and Menzel (1957, 1966) and Beal and Bohlen (1955) explain the actual channels through which new ideas and techniques are communicated by innovators, early adopters and late adopters. It also shows the importance of social connectedness and interpersonal communication (Rogers and Kincaid, 1981; Valente, 1995). Social network analysis helps us to understand how actors are connected with, trusting of, obligated to, and dependent upon exchanges with particular others (Burt, 1992). Only quite recently has it been applied to considerations of who controls the policy agenda and how ideas are located in networks (e.g., Lewis, 2005, 2006). Social network analysis is also the tradition in which both models and methods of measurement are most developed (see, e.g., Wasserman and Faust, 1994; Degenne and Forse, 1999). We return to a more detailed discussion of these methods later in this chapter.

Unfortunately this tradition has so far contributed little to our understanding of governance. In the first place these studies often focus on individuals, yet governmental innovation is almost always a process of meso-level or inter-organizational effort, even when played out through forms of informal leadership. A second problem is that the innovation diffusion studies depend upon 'backward-mapping' a single, product innovation in order to show how different individuals participate (or not) in the process of adoption. This has given the approach a bias in favour of technological innovations at the expense of innovations of a more iterative or organizational kind. It has been easier to show how the uptake of a new drug therapy spreads among doctors than it has been to model the way a new system for organizing local childcare is developed and shared across communities and states.

In the first chapter we discussed how theories and methods for dealing with power had moved from reputational and positional analysis to decision-based approaches, and then to issues and pre-decision agenda setting accounts, and finally to discourse analysis. Complexity theory has also entered this field as a means to try and understand the character of dynamics in a whole field – usually called the 'system', which is generally an abbreviation for the system of relations. Complexity describes the effect of non-linear relations – that is, a pattern of influence or change among actors that cannot be fitted into simple linear expressions of cause and known and proportionate consequence. The social world can therefore only be understood by measuring indicators of the character of systems as a whole (Byrne, 1998), since almost all human actions rebound and cause multi-level change.

Perhaps most directly relevant to this systemic view is Luhmann's argument that society is the aggregate not of individuals, but of communication (Rasch, 2002). Perceptions remain locked up within consciousness until actors communicate them to others. The social world, and any human organization, is therefore constructed as a network of communications. In relation to innovation, this approach suggests that ideas always exist within and because of such networks. It makes no sense to ask about the ideas that people come up with, without also knowing who they communicate with and how these people are connected to others in the system.

Many scholars also argue for the importance of communication networks in shaping new 'milieux of innovation' (Castells, 1996: 36; Hall and Preston, 1988). Such networks include connections between firms, between governments and civic agencies, and between interest groups and social movements. Network communication is also held by many social theorists to signal a new condition of social exchange among individuals and is viewed as significantly different to traditional, hierarchical forms of affiliation (Lyon, 1988; Postman, 1992; Beck, 2000). Perhaps the most scathing of these accounts is that of Zygmunt Bauman (2003:xii), who contrasts the 'connections' in a network with a more demanding human bond expressed in conventional relationships: 'Network stands for a matrix for simultaneously connecting and disconnecting... In a network, connecting and disconnecting are equally legitimate choices', whereas in relationships (according to Bauman) there is some greater expectation of continuity and of obligation.

As an analytic category the network is also invoked as the most important site for research into social structure. For example, Latour (1993:122) claims that 'the two extremes, local and global, are much less interesting than the intermediary arrangements that we are calling networks'. On the other hand networks among interests and institutions are just as frequently identified with various forms of veto or restriction on processes of innovation. For example, within the growing literature on policy interdependency '... conflicts of interests between interdependent actors are the main reason why policy processes give rise to chaotic and lengthy debates and stalemates, with the result that urgent societal problems remain unsolved' (Termeer and Koppenjan, 1997:79).

There are many different approaches to examining and measuring such networks, their interconnectedness and forms of complexity. Connectionist models, based on neural networks, indicate that it is the

overall patterning and weighting of connections, rather than individual connections, that determine network structure (Cilliers, 1998). In social network terms, this highlights that while the strength of individual ties between actors is important, it is ultimately the patterning of ties across an entire network that is crucial in determining network structure. This is useful in thinking about how well worn paths between individuals and within organizations, based on previous interactions and habitual processes, might impact on innovation. If an actor with a good idea has a set of established channels to use in attempting to implement change of some kind, then it depends on whether those channels are the right ones for this particular idea. And if the actor needs to move outside those channels to innovate, then his or her ability to do so becomes crucial.

Physicists have been concentrating on networks as small worlds, and this research provides some useful insights too. These networks have a small number of highly connected individuals (or nodes) and many individuals with a small number of connections. That is, the number of ties per node follows an inverse exponential curve (Barabasi, 2002). This pattern occurs in all kinds of networks, from the World Wide Web to interpersonal relationships, to ecological systems, because network growth is not random. New connections are made based on popularity, which is itself a function of longevity. Popularity attracts new ties, so those actors with many connections make more new connections than those with fewer links. Barabasi (2002) refers to this as preferential attachment. This has clear relevance to innovation, since we would like to explore the relationship between popularity and innovation. Are innovators highly popular in networks with many ties or do they have a more limited number of connections that are much more strategic somehow?

## **The role of networks in fostering innovation**

The central role these networks play in facilitating innovation and shaping innovation pathways at the organizational, sectoral and national level has been increasingly recognized within the private sector innovation literature (see, e.g., Lundvall, 1992; Nelson, 1993; Conway, 1995; Jones, Conway and Steward, 1998; Jones and Beckinsale, 1999; Love, 1999). The importance of internal and cross-organizational relationships is also generally acknowledged within the public sector literature, particularly in the context of the diffusion of innovative ideas and practices. Few studies, however, have tested the impact of networks

on the innovation process empirically or examined the structure and behaviour of innovation networks within the public sector in a systemic fashion.

In his study of innovation strategies in Australian local government, Martin notes the role networks play in promoting trust and facilitating the free flow of information between actors both within and across organizational boundaries. In doing so, he argues, networks help mitigate barriers in the decision-making process associated with environmental uncertainty whilst promoting social learning of adaptive responses amongst linked organizations (2000:9)

They [municipalities] learn from each other at conferences and seminars and implement their own version of an innovation developed by another council... Being part of a wider network of local government councils provides significant opportunities for innovation for those councils who encourage their staff to mix with other councils learning about new and different ways of working. It is the seed-bed of much change in Australian local government.

(2000:9–10)

Borins likewise notes how the encouragement of both inter- and intra-organizational learning through conference attendance, workshops and other knowledge-sharing mechanisms plays an important role in fostering innovation diffusion (Borins, 2001:317). Walker (2007:6) and Walker and Enticott (2004:426) similarly describe how environmental scanning through professional networks encourages the development and diffusion of innovation by enabling public sector organizations to borrow proven ideas and strategies from one another and adapt them to their own circumstances.

As well as their role in fostering internal and cross-organizational learning and adaptation, research suggests that networks also play an important role in shaping the normative frameworks through which actors and organizations perceive and respond to outside developments, including pressures and opportunities for innovation. As Kloot and Martin note, local governments pay close attention to how neighbouring and similar local governments address new issues and opportunities (cited in Martin, 2000:9). Observing comparable agencies provides a frame of reference through which individual actors and organizations may assess not only the efficacy and relevance of specific examples of innovation, but also the appropriateness or otherwise of

action or inaction at a broader level. As Newman, Raine and Skelcher explain,

[I]nnovations may be adopted where they are perceived to be becoming widespread practice elsewhere, with adoption viewed as providing additional organizational legitimacy.

(2001:67)

In this sense, the authors note the important influence of professional and industry-based networks in the United Kingdom, such as the New Local Government Network, in shaping local-level responses to the Blair government's Local Government Modernization Agenda. Through the medium of local government networks, they argue, informal norms or dominant 'logics of appropriateness' took on an institutionalized form, which in turn shaped the behaviour of members and officers (2001:67). The effects of these institutionalized norms on innovation were, however, far from uniform.

The embeddedness of networks at different organizational levels, the receptivity of local authority culture to new ideas, and the stance towards partner agencies were all highly significant in mediating the impact of networks and partnerships on the innovative capacity of a local authority. It was notable that authorities with strong organizational boundaries, weak networks and low staff turnover tended to be those with less extensive patterns of innovation.

(Newman, Raine and Skelcher, 2001:65–66)

At the individual level, a number of studies have likewise noted the influence of network membership on the innovative capacity of public sector managers and elected officials. Teske and Schneider, in their study of bureaucratic entrepreneurship within the US local government sector for example, found that two-thirds of the city managers identified as 'entrepreneurial' were active in professional organizations, with the latter identified as the source of new ideas and policies in 75 per cent of cases (1994:336). Professional networks were found to provide an important 'vetting' function, with managers unlikely to introduce new policies or ideas at odds with professional networks and norms.

Whilst the role of networks is normally viewed as fostering innovation through the diffusion of new ideas and alternative strategies, both Teske and Schneider and Newman, Raine and Skelcher's findings suggest that these networks may also have a constraining influence by encouraging



conformism to dominant perceptions of appropriate behaviour. In other words, patterns of connectedness can explain both the traffic in new ideas and the roadblocks impeding change.

We used a number of generalized network measures to examine those important external connections for our city governments. These were: A contact matrix designed to measure the level of interaction each individual has with a range of government, private sector and third sector actors; membership of associations; and attendance at conferences. These are measures that are often taken to indicate engagement with peers that are broader than the particular organizations that individuals work in. They each constitute different ways of finding out what others in the field are doing and indicate the permeability of organizational boundaries and the extent to which organizations are either internally focused or outward looking. They allow us to see whether different municipalities have different networking cultures, and whether people at different levels and in different roles do more or less of these types of 'networking'. Of course, we expect that innovation is linked to having some level of connectedness with peers outside the organization.

To understand the impact of communication and interaction among the different parts of government and to see how this might help explain innovation, we also employed social network analysis in a number of ways to map engagements among politicians, bureaucrats and community leaders. In Chapter 4, we look at the direct contacts that take place between individuals and show how these ties reveal larger structures and patterns in these networks. We then go on to explore how such structures help explain local innovation pathways and outcomes in Part II of this book. But before looking at individual-to-individual relationships we examine the different types of engagement people had with key agencies and roles.

Politicians and bureaucrats were asked how frequently they had some form of direct contact with people in a range of different organizations, in regard to municipal business. The list covered local government, community sector organizations and state and federal governments, with people asked to include communication by phone, email, or in person, but to exclude bulk email circulars. The engagement matrix used in the questionnaire is shown in Box 3.1.

We then looked for significant differences across the mean scores for the frequency of contact (after recoding so that larger scores mean more frequent contact). As in the previous chapter, only those significantly different across governments or positions (based on analysis of variance and *t*-tests) are discussed here.

**Box 3.1 Engagement matrix**

	Daily	Weekly	Monthly	Less than monthly	Never
1. An officer in another municipality	1	2	3	4	5
2. A politician from another municipality	1	2	3	4	5
3. An officer in the Department of Infrastructure	1	2	3	4	5
4. An officer from another state government department	1	2	3	4	5
5. An officer from a federal government department	1	2	3	4	5
6. A representative of a business association	1	2	3	4	5
7. A leader of a medium or large private firm	1	2	3	4	5
8. A representative of a resident's group	1	2	3	4	5
9. A representative of a trade union	1	2	3	4	5
10. A representative of a community sector peak organization	1	2	3	4	5
11. A manager of a non-profit organization	1	2	3	4	5
12. An officer from the Municipal Association of Victoria	1	2	3	4	5
13. An officer from the Victorian Local Governance Association	1	2	3	4	5

## Networking with local government organizations

The results suggest that governments do have discernible patterns of engagement with the key actors and agencies in their immediate environment. Some are extroverts and interact very frequently with others in a range of different organizations. Some appear more introverted and do less interacting across the board. The prime target and source of external engagement across the board is the local government sector – both politicians and bureaucrats in other municipalities, and contacts in local government peak organizations – the Victorian Local Governance Association (VLGA) and the Municipal Association of Victoria (MAV). Results across these four target groups are provided in Table 3.1.

Of the four local government actors we included in the matrix, contact with bureaucrats in other municipalities is the most common form of contact. This is the basic method by which communication occurs around this external environment. When we look more closely we see that this form of contact varies significantly across different governments with Netherton the lowest, followed by Parkside. We might think of this as suggesting a high disposition towards functional relationships in some governments.

Contact with the VLGA, MAV and politicians at other municipalities were all at lower levels compared with external local government bureaucrats. What is more, this was similar across municipalities. The ‘go to’ people are less likely to be in the peak organizations and even less likely to be politicians from another municipality. While there are

*Table 3.1* Interactions with local government organizations: Municipality

	External bureaucrat	External politician	MAV	VLGA
Bankview	2.35	0.34	0.92	0.59
Bilstown	2.51	0.68	1.02	0.61
Kilbourne	2.28	0.54	0.85	0.53
Lassiter	2.55	0.68	1.12	0.73
Melville	2.44	0.93	1.27	0.80
Millside	2.54	0.46	1.00	0.61
Netherton	1.77	0.49	0.67	0.45
Oberon	2.47	0.95	1.08	1.04
Parkside	2.01	0.59	0.99	0.60
Wallerstrum	2.37	0.41	0.98	0.64
Yarwood	2.27	0.81	0.93	0.53
Total	2.32	0.63	0.99	0.65

Table 3.2 Interactions with local government organizations: Politician/bureaucrat

	External bureaucrat	MAV	VLGA
Politician	1.97	1.25	1.40
Bureaucrat	2.26	0.91	0.56

significant variations across governments, perhaps the most interesting aspect is that the levels tend to rise and fall together for each government. That is, if a particular government has a relatively high level of interaction with the MAV, it will also be relatively high with the VLGA and with external politicians. If it is low in its level of contact with outside bureaucrats it will also be low on the other counts as well.

Comparing politicians and bureaucrats rather than differences across governments, we can see significant differences between the level of interaction each set of actors has with local government organizations. As Table 3.2 shows very clearly, of all the external interactions they have, both politicians and bureaucrats interact most frequently with bureaucrats in other municipalities. This is slightly more likely to be true of bureaucrats, but the politicians are not far behind. The other noticeable difference is that politicians carry more of the weight so far as contact with representative organizations is concerned, their level of interaction with both the MAV and the VLGA being significantly higher than that for bureaucrats.<sup>6</sup>

There were also significant differences in the way bureaucrats in different roles engage with outside agencies and actors (see Table 3.3). We could summarize this as a case of like attracting like, or birds of

Table 3.3 Interactions with local government organizations: Position level

	External bureaucrat	External politician	MAV	VLGA
Mayor	1.82	2.18	1.64	1.64
Politician	2.00	2.32	1.15	1.35
CEO	2.80	2.10	1.90	1.60
Director	2.57	1.04	1.73	1.04
Manager	2.43	0.57	1.04	0.59
Coordinator/Team Leader	2.13	0.29	0.73	0.41
Other	2.15	0.41	0.76	0.58

a feather flocking together. Politicians and mayors had the most contact with politicians in other local governments. Bureaucrats at all levels reported the most contact with their fellow bureaucrats in other municipalities. Among the bureaucrats this pattern of interaction was also scaled by hierarchical placement with the interaction highest for CEOs, and declining in an almost linear fashion as we move down the ladder from senior to more junior positions. CEOs and politicians were similar in terms of their levels of contact with external politicians, but other officials had much less contact with the latter. Mayors, politicians and CEOs also recorded the most frequent contact with the MAV and VLGA, with Directors also quite strongly connected to the MAV.

### **Networking with non-government organizations**

As well as asking about interactions with other office holders and government associations we wanted to know about the level of contact with local non-government groups. Obviously these broad categories conceal a great diversity of different groups and associations and we cannot assume that they would be exactly the same from municipality to municipality. Nonetheless we felt it was important to know whether these interactions rated as highly as the more functional interactions with other governments or with peak organizations. With this in mind, we included questions about the interactions with business associations, firms, residents associations, trade unions, community and not-for-profit organizations.

The results suggest that there are quite interesting differences in patterns of interaction in this area. Table 3.4 shows the differences across governments that were statistically significant. As the table indicates, communication with trade unions was the lowest of the interaction types across all our 11 municipalities, with contact with residents groups the highest at all places with the exception of Kilbourne. Engagement with community sector and non-profit organizations was at similar levels across all governments, although there were some significant differences. The level of interaction with business associations and firms was not statistically significantly different across any of our governments.

The place where difference shows up most strongly is with regard to residents groups. Melville reported the highest level of contact with these groups, and Netherton and Wallerstrum the lowest. Melville is also the highest for community sector and non-profit organizations,

Table 3.4 Interactions with non-government organizations: Municipality

	Residents group	Trade union	Community sector	Non-profit organization
Bankview	1.53	0.98	1.16	1.35
Bilstown	1.88	0.59	1.39	1.70
Kilbourne	1.53	0.69	1.37	1.65
Lassiter	1.67	0.76	1.37	1.43
Melville	2.18	0.82	1.82	1.69
Millside	1.74	0.77	1.14	1.28
Netherton	1.32	0.70	1.14	1.19
Oberon	1.89	1.10	1.61	1.67
Parkside	1.78	0.78	1.38	1.42
Wallerstrum	1.40	0.60	1.18	1.31
Yarwood	1.86	1.00	1.50	1.46
Total	1.71	0.80	1.37	1.47

with Bankview, Millside and Netherton the lowest for interaction with these groups. Interestingly, the level of contact across these four organizational types also rises and falls consistently here, indicating that where a government has a higher level of contact with one organization, then it is likely to be higher for other organizations too. This reinforces the point made earlier, that governments tend towards patterns of extroversion or introversion which persist across different target groups and interactions.

When we break these measures down into our main categories – politicians and bureaucrats, and then into different roles within government – we again see a number of interesting patterns. As one might expect, politicians have more interaction than bureaucrats with both business associations and residents groups (Table 3.5). But interestingly there were no other significant differences between politicians and bureaucrats in relation to engagement with non-government organizations.

Table 3.5 Interactions with non-government organizations: Politician/bureaucrat

	Business association	Residents groups
Politician	2.38	2.72
Bureaucrat	1.61	1.56

**Table 3.6** Interactions with non-government organizations: Position level

	Business association	Private firm	Residents groups	Trade union	Community organization	Non-profit organization
Mayor	2.27	2.27	2.73	0.73	1.91	2.27
Politician	2.40	2.11	2.72	0.94	2.04	2.28
CEO	2.20	2.30	2.60	1.30	1.70	1.80
Director	1.84	1.90	2.27	1.28	1.81	1.71
Manager	1.77	1.63	1.74	0.98	1.44	1.52
Coordinator/ Team Leader	1.50	1.38	1.41	0.74	1.17	1.36
Other	1.51	1.41	1.34	0.51	1.15	1.04

While patterns across politicians and bureaucrats may be similar, the results indicate some really interesting differences within these two groups. For example, examining differences in the level of contact with non-government organizations across positions, we can see that politicians and CEOs have the most contact with resident groups, with the level falling down the hierarchy (Table 3.6). A similar pattern occurs for business associations and private firms, and in general terms for community and non-profit organizations. Indeed, the only clearly different pattern across positions is for communication with trade unions, which is highest for CEOs and directors. Again, this appears to be functional contact, related to specific management roles.

### **Networking with state and federal government organizations**

The final category of external interaction relates to the way local government actors interact with the key state and federal government departments. Evidently all municipalities behave in a similar way from this perspective, as we found no significant differences across municipalities in terms of interaction patterns in any of the three categories – an officer from the Department of Infrastructure (DOI – responsible for local government at this time), an officer from another state government department or an officer from a federal government department. There were, however, differences apparent across roles, with bureaucrats reporting significantly more interaction than politicians with officers from state government departments other than the DOI (Table 3.7).

Table 3.7 Interactions with state and federal government departments: Politician/bureaucrat

Politician	1.38
Bureaucrat	1.54

There were also more differences across positions, as can be seen in Table 3.8. Not surprisingly, the lowest levels of contact were with federal government departments, since it is state government that has the main responsibility for municipalities, and provides significant amounts of direct funding. The Department of Infrastructure had direct responsibility for local government when the survey was conducted. However, other state government departments also provide substantial funding to local governments. Communication with state government departments other than the DOI was higher across all positions, with the exception of mayors.

### Conference attendance and membership of associations

We have already examined, through the contact matrix, how patterns of external contact differ markedly from place to place. In this section we examine two other proxy measures of external interaction – attendance at conferences; and membership of associations. Both activities suggest a willingness to give and get new ideas, a propensity to trade information and a disposition to scan the professional environment for valuable advice and perhaps for the development of new skills. Thus, we envisage

Table 3.8 Interactions with state and federal government organizations: Position level

	DOI officer	State govt. dept.	Federal govt. dept.
Mayor	1.55	1.09	0.55
Politician	1.30	1.44	0.72
CEO	1.70	2.20	1.20
Director	1.55	1.88	0.88
Manager	1.21	1.61	0.77
Coordinator/ Team Leader	0.87	1.44	0.60
Other	1.05	1.51	0.62



*Table 3.9* Conference attendance: Municipality

Municipality	Mean scores
Bankview	0.75
Bilstown	1.15
Kilbourne	1.27
Lassiter	1.22
Melville	1.56
Millside	1.39
Netherton	1.01
Oberon	1.27
Parkside	0.81
Wallerstrum	1.22
Yarwood	1.25

both activities will most likely make important contributions towards innovation.

As part of our survey of governments, we asked our respondents whether they had been to any conferences in the last 12 months, and if they had, to list them. They were also asked whether they were members of any professional organizations, trade unions or industry groups, and to list these also. Mean scores across a range of groups and positions for both activities are provided in Tables 3.9–3.11. As in previous sections, only comparisons where there are statistically significant differences across groups are discussed.

As the results suggest, in terms of differences between municipalities, it is conferencing that appears to be the activity that best distinguishes external interaction patterns. The highest level of conference attendance (a mean of almost 1.6 conferences per year) was recorded at Melville, with Millside recording a slightly lower mean of 1.39 (see Table 3.9). The lowest conference attendance figures were reported by those who worked at Bankview and Parkside, each with around half that rate of conference attendance per year.

*Table 3.10* Conference attendance and association membership: Politician/bureaucrat (mean scores)

	Conference attendance	Association membership
Politician	2.00	1.51
Bureaucrat	1.06	1.33

Table 3.11 Conference attendance and association membership: Position level (mean scores)

	Conference attendance	Association membership
Mayor	2.73	1.09
Politician	1.83	1.60
CEO	2.70	3.10
Director	1.31	2.12
Manager	1.30	1.40
Team Leader/Coordinator	0.87	1.19
Other	0.97	1.14

Both conference attendance and association membership were significantly different between politicians and bureaucrats, and across positions. Table 3.10 shows that politicians attended conferences at almost twice the rate of bureaucrats, while membership of associations was much more comparable, at 1.51 for politicians and 1.33 for bureaucrats.

Table 3.11 shows the mean scores for these two proxies for networking activities by position. It is clear from the results that mayors and CEOs are the biggest conference attendees, with a mean of 2.73 and 2.70 conferences per year respectively. They are followed by politicians at 1.83. CEOs are the members of most associations (more than three), followed by directors (with a mean of 2.12 associations), and then politicians (at 1.60).

This chapter has used a number of measures of networking in terms of external interactions to investigate the way our 11 city governments interact with their external environments. We used measures which are capable of representing both personal and organizational interactions. In each case the politicians and bureaucrats giving us information were reporting their own direct experiences, not their opinions or attitudes to engagement, but their actual contacts and interactions. This provides a very clear picture of the differences and similarities between different municipalities and between those who occupy different roles.

The remarkable thing about the picture that emerges is just how characteristic the patterns are. It really makes a big difference which city government you work for and it matters a lot what role you play. Some of these differences follow the tracks laid down by the institutional requirements of the job. For example, the more senior people spend more of their time on external relations than those who are more junior.

And the politicians have more interest in the representative organizations in the sector than anyone else except CEOs. The most fundamental building block in this governmental system is the direct contact that takes place when officials or politicians in one municipality seek information or help from an official in another city government. The 'go to' people are less likely to be in the peak organizations and even less likely to be politicians from another municipality. While there are significant variations across municipalities, perhaps the most interesting aspect is that the levels tend to rise and fall together for governments. Whether we measure contact with other bureaucrats, with politicians in other municipalities, or interactions with key associations such as unions and resident groups, the main pattern is for the government to have a distinct style and for the various office holders to follow in that track. Some are also significantly more engaged in external relations than others, suggesting that governments as a whole have characteristic forms of extroversion and introversion.

The politicians perform best in maintaining engagements with peak organizations and with politicians from other municipalities. They do not have as significant an engagement with the state government when compared with bureaucrats. While they have more involvement with resident groups in their municipality, CEOs are not far behind. This suggests that politicians may not be as distinctive or functionally separate as previously imagined. On many of these measures their roles seem to overlap significantly with those of CEOs and other senior managers.

When we look at two likely sources of innovation diffusion – conferences and professional associations – these same distinctions appear. Politicians go to more conferences and have higher membership rates than the average bureaucrat. But when position in the hierarchy is included in the story, senior bureaucrats do better than the average politician with regard to memberships, and the differences with regard to conferencing are marginal.

How do we relate these findings to our interest in innovation? Can these more general patterns of interaction suggest likely sources of innovation, methods for solving problems or routes through which new ideas might flow? The provisional answer to these questions is that this map of interactions, contacts, associations and other external relations provides one key dimension of the *opportunity structure* for innovation. This external dimension would be a key determinant of innovation if we supposed that most new ideas flow in from somewhere else, or if we had a model of innovation which presumed a high level of cross-fertilization

of ideas before any single innovation was likely to be adopted internally (von Hippel, 1977; Arthur, 1989).

Of course, in a more market-oriented model of innovation we might expect there to be a different, more conflicted relationship between extroversion and innovation because competition would make it dangerous to tell anyone outside the organization anything much about the internal innovation agenda. And there might be payoffs for organizations who avoided 'group think' or converged thinking in regard to the solving of current problems.

What this chapter has shown is that there are important, non-trivial differences in the way these governments deal with their environments, and some differences in the way those in different roles interact. Later in the book we will show just how much weight can be placed on these forms of extroversion in the explanation of who innovates and what innovations they produce. However, we first move on to look at our other measures of networks – the direct mapping of ties between individuals. This is the subject of Chapter 4.

# 4

## Networks and Key Actors

Up until now we have focused on the networking that politicians and bureaucrats do outside their organizations, through three measures of external interactivity – a contact matrix, conference attendance and membership of associations. This demonstrated that there are substantial differences in the way these governments deal with their environments, and some differences in the way those in different roles interact.

While these give an important ‘first cut’ so far as networks are concerned and they certainly help us to distinguish the striking differences between these governments, they are not network measures in the sense of examining the interpersonal ties (including reciprocal connections) between individuals in a system. They cannot do more than suggest how local patterns of communication might be impacted by these broader external linkages. The focus of the book now moves to social network concepts and methods, and to an examination of the networks that are formed through individual ties at work, in political life and in the interactions with colleagues, and colleagues of colleagues. This provides more detailed network information, to be used in the search for explanations of who innovates and what innovations they produce, and how this relates to network structures.

Network scholars tend to favour either structural explanations of outcomes or accounts of unique individual agency to show why things happen. In the approach used here, it is the interplay of structures with the forms of agency inside networks which is most appealing from a theoretical standpoint. Knowledgeable, reflexive actors do not and cannot behave without reference to their surrounds. Instead they find reference points, cues, norms and habits which define forms of embeddedness. Whether they know it or not, they draw on systems and structuration in

developing their action strategies, such as those required for innovation. The rules and resources they draw upon are confirmed and elaborated by this continuous referencing. This of course is what we broadly define as the structure part of social structure (Giddens, 1984). Reflexive agency can influence crucial system changes (or innovations), but this happens from a given starting point, not from the innocent conspiracy of circumstance (Byrne, 1998).

Actors are situated in these webs and spirals of continuing interaction with each other, which, as was noted earlier, is expressed through communication of one type or another. Communication networks are a type of informal social structure, but are of a potentially different form to that created by formal institutions where rules and routines govern conduct.

Including communication networks as an explanatory variable in thinking about innovation allows us to analyse how institutions and informal structures interact. Even in examining communication networks there is an important distinction to be made between the ties that are caused by formal roles of officials (up and down the hierarchy) and informal personal ties that more closely reflect social networks. It further leads to an exploration of whether it is organizational structures, inter-personal networks or individual actors that matter most. And to fully understand this we also need to understand how the ties between actors facilitate access to certain resources and enable action – in this case action to promote innovation.

In social networks, the patterns of connection between actors reveal who is likely to be obligated to whom, who is dependent on exchanges with certain others and who is apt to be trusted. In short, network connections indicate who has local power – or in Burt's (1992) language – who has structural autonomy and who exercises control. Another important point to note is that the use-value of these ties is strictly determined by proximity. Anyone more distant than a friend of a friend, or the confidant of a confidant, is a stranger. That is, in extracting resources or exerting influence, anything much beyond two degrees of separation represents a serious impediment to engagement (Watts, 2002).

Taking this kind of network approach to the research task means moving away from concentrating on isolated individuals (and their opinions or preferences) to instead seeing actors as parts of a broader structure of connectedness. Examining networks shifts the focus from atomized actors to people linked in an interconnected space, where actors are important reference points. Using network theories to

guide research on innovation therefore requires a distinctive approach to the collection of information and to data analysis. This is a relatively new but rapidly growing field of inquiry, with substantial methodological challenges. Social network analysis (SNA) tools and techniques for collecting, analysing and presenting these relational data are discussed next.

Networks of all types consist of a set of entities, or nodes linked by some form of relationship, or tie, and delineated by some specific criteria, or attribute. The important question then is what exactly defines a node, a tie or a boundary (Diani, 2003). Social network approaches to this question focus on individuals as nodes and relations between them as ties. Relationships may be based on a wide range of things such as proximity (neighbours), affect (friendship) or function (work roles). In other words, actors are connected in relation to some criteria, whether this is influence, or the communication of information. Ties can be single or multiple and may also differ in terms of direction, content, intensity and strength. The boundaries around a network can be defined by nominalist criteria (the set of actors involved is predefined by the analyst's view of which groups are involved in a policy sector) or by realist criteria, to include only those people that are actually related to each other somehow (Diani, 2003).

In discussing network analysis, Knoke and Kuklinski (1982) distinguish between approaches based on attributes (intrinsic characteristics such as age, income or attitudes) and relationships (actions and qualities that exist only when two or more entities are examined together). They are not mutually exclusive as measurement properties, despite being conceptually distinct. Relational measures capture properties that cannot be measured by aggregating individual attributes, allowing us to see the effect of informal structure on formal organizations.

A different approach is to use network ideas in thinking about social capital. Nan Lin defines social capital as 'the resources embedded in social networks accessed and used by actors for actions' (2001:25). This definition is more useful to our task of understanding innovation than others that talk about generalized levels of trust, civic engagement and other group level concepts (e.g., Putnam) because it focuses on social relations and actors' connections and access to network resources, rather than how groups develop and maintain collective assets which enhance their life chances.

Of interest in this study is the notion that actors have both personal resources, based on fully owned attributes such as education, and social resources, based on relationships. Both of these are used to

access resources, and so we need to pay attention to social relationships as well as individual attributes in examining how innovation occurs. While some initially argued that social capital is best understood as resources provided by strong ties, many now argue that a better conceptualization sees it as a mixture of ties that bridge strategic network locations and/or significant organizational positions. That is, social capital does not require network density or many strong ties, but needs 'bridges' (Burt) or so-called 'weak ties' (Granovetter) to facilitate the flow of information and the creation of influence.

Burt's (1992) concept of structural holes assumes competition among individuals for the creation and use of social capital. A structural hole is a place where the lack of a tie limits the potential for reaping benefits between two actors. An actor who then makes this link benefits from this by providing the bridge between actors who are not otherwise connected. According to Burt, an actor with a large number of indirect ties has a high level of effectiveness in linking to others. A dense network (one that has a high proportion of the system's total possible linkages) is inefficient in that it returns less diverse information. This is the case where everyone knows everyone else in the group and few have ties outside the group. If an actor puts more time and energy into adding non-redundant contacts, or contacts with those not already connected to his or her network, he or she becomes efficient in that key contacts are with one member of each subgroup rather than with each subgroup member. In other words, Burt's work alerts us to the strategic importance of actors who bridge parts of a system that would not otherwise be connected. Obviously this is of profound importance in studies of innovation where key parts of the innovation process such as ideas, advice and information need to be transmitted and transformed by a range of actors.

It is also important to think about these relationships among actors in a network as generating embedded resources, which are likely to be linked to the ability of an organization to innovate. As the preceding discussion highlights it is essential to take into account the types of ties that connect actors, and their positions within the overall network structure. Not all networks are created equal. More ties are not necessarily better. Long pathways across a network may be less problematic than short ones with chasms dividing important actor groups. What matters is just how effective the networks enable actors to become in their efforts to create and exchange resources in an efficient manner, by joining up otherwise disconnected components of a system – in this case a governmental system.



## **Our two networks: Advice and strategic information**

These general propositions about the character of networks point to the structures and categories that sustain the field of social network analysis. Yet while networks can be comprehensively described as consisting of nodes, ties and boundaries, it is no simple matter to collect the necessary data once we move away from a focus on individuals to a focus on connections. We can ask individuals who they know or the types of people they have most interaction with. But to then ask all those on the resulting lists who they interact with, and all those on their lists, is no small undertaking. Yet without some sense of the overall pattern of ties, much of the promise of network analysis evaporates.

In collecting data for this study we chose to use what are called name generators – a widely used means for collecting network information based on a range of relationships. It is a similar method to the earlier reputational approach used in studies of influence, adapted for use in Lewis and Considine (1999). Name generators invite actors to name the people with whom they interact in regard to some critical issue such as the getting or giving of advice or information, or the solving of a problem (Burt, 1984; Straits, 2000). They can also be used to map the affective realm by asking people to list their friends or close acquaintances (Kirke, 1996). For this research, we decided to seek network information from all those in our survey group. That is, all those working in these municipal governments down to the fourth layer of the seniority system. This would include all those politicians and bureaucrats whose normal work might involve some form of innovation or could block or influence the innovations being developed by others.

As we have seen already, relations (or ties) between actors in a network have both content and form. Content is the substantive type of relation represented by a connection, such as friendship. Form is either the intensity or strength of that connection or the level of joint involvement in the same activities (Burt, 1984). Relation content can cover anything that the analyst can conceptualize and operationalize (Knoke and Kuklinski, 1982). But when the focus is upon innovation there are a smaller number of likely dimensions to understand. It is less important to know who the actor's friends are, and more pressing to understand who an actor gets ideas from, or who comes to him or her to discuss common problems.

In this study we chose two types of such ties to measure in order to generate maps of network structures. The first was the patterns of

communication relations between actors seeking advice. This dimension has been used in other studies seeking to understand how innovation is disseminated (Coleman, Katz and Menzel, 1966; Rogers and Kincaid, 1981). The second was more instrumental, and focused on relations between actors contacting each other to secure strategic information. The actual questions we used are presented in Boxes 4.1 and 4.2.

While our study set a boundary around those who were asked to participate, being all politicians and bureaucrats down to level four, the two kinds of networks generated are unbounded (being based on name generators). That is, in relation to seeking advice, actors could nominate anybody at all, while in the case of strategic information, actors were asked to nominate anyone from within their own municipal government. While name generators could effectively be unlimited in the number of nominations actors give, we chose to limit the scope to five names each on the assumption that this would be a manageable number for the actors to recall and describe with a high degree of validity (see Boxes 4.1 and 4.2). There is a danger that longer lists, while giving more information, might open the door to various kinds of

**Box 4.1 Question for collecting network ties based on advice**

Looking back over the last 6 months, who are the people you went to most when you wanted to *get advice* on a work-related issue (including career, job or programme advice)?

- List up to five people either *inside or outside* this organization
- Use the right-hand column to indicate each person's position and organization (e.g., Manager of X, Organization Y, or relationship to you if this is not relevant (e.g., friend, former colleague etc.)).

Name	Position & organization/relationship to you
1. _____	
2. _____	
3. _____	
4. _____	
5. _____	

### Box 4.2 Question for collecting network ties based on strategic information

Over the last 6 months, who did you go to most when you wanted to get *strategic information* about something in the Government/organization (including background information not yet available in reports etc)?

- List up to five people inside this organization
- Use the right-hand column to indicate each person's position (e.g., Manager of X).

Name	Position & organization/relationship to you
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

self-congratulation or desirability bias – the ‘look at me, I know lots of important people’ effect.

In explaining what we learned from mapping these networks we have pursued three themes. We wanted to know about the structural properties of these networks and the way they are impacted by organizational conditions such as size, the number of bureaucratic divisions and the different characteristics of individual municipal governments. It was also important to understand the characteristics of individual actor networks within each local government. What patterns were there in their ties with one another? Did this vary according to whether they were politicians or bureaucrats? From here we could hope to explain the strategic positions of certain key actors or groups of actors. Which actors hold strategic positions as the ‘go to’ people within a given municipality? Are these the same kinds of actors across the board, or does locality matter more? We are positing that these might turn out to be important in explaining innovation inside government.

## **The structural properties of networks**

At an intuitive or commonsense level it seems plausible to suppose that different governments might have their own patterns of interconnectedness evidenced by characteristic sets of ties. It also makes sense to suppose that these would impact the processes used to get work done, especially when that work involved new or non-routine actions. The structural properties of networks are the things that help us distinguish such differences in who is linked to whom through different networks. What we find using these measures is that our 11 municipal governments have some quite systematic differences, but that certain basic network characteristics also persist across all 11 and may constitute a more generic governmental network type, at least for municipal governments of this sort.

For example, we see a number of indications that some governments are more extroverted or outward looking than others. That is, they form more ties with actors outside their own ranks and divisions and more ties across the boundaries between different role groups such as politicians and bureaucrats, and between the sexes. This speaks to a major theme of the book which is the extent to which a culture of interactivity, connectedness and thus of rich communication might underpin the innovation potential of these governments.

As well as important differences, there are some interesting common tendencies. For instance, the ties that other actors form to politicians in regard to the getting or giving of strategic information are rather similar everywhere. The study also reinforces the proposition that networks differ quite a lot according to the content issue they address. The networks formed in order to exchange strategic information are different to those used to give and get advice. This latter resource seems to involve more intimate ties among those who are closer and more alike than is true of the information networks. We will return to this discussion of the more general patterns and their significance for innovation later, but first we will dig a little deeper into the structural properties of networks in these 11 governments.

Before we examine the networks there are some things to note about these data. As Table 4.1 indicates, the number of respondents varies by municipality. This has less to do with varying response rates than the actual size of these local governments – the number of people identified at the top four levels of each of them differs, and the number of politicians in each municipality differs – generally the bigger cities have larger governmental systems. The number of politicians who responded

*Table 4.1* Structural properties of respondents and governments

Government	Politicians	Bureaucrats	Males	Females	Total respondents	Number of directorates
Bankview	3	60	42	21	63	6
Bilstown	6	35	24	17	41	6
Kilbourne	7	71	38	40	78	7
Lassiter	4	47	27	24	51	5
Melville	7	38	34	11	45	6
Millside	2	55	36	21	57	7
Netherton	7	155	113	49	162	8
Oberon	8	66	43	31	74	7
Parkside	5	84	48	41	89	7
Wallerstrum	3	43	38	8	46	8
Yarwood	7	52	40	19	59	7

to the survey varies from two in Millside, to eight in Oberon. This needs to be borne in mind when interpreting the following section of this chapter on ties between the different groups. The number of bureaucrats who responded in ten of these local governments varies from 35 up to 84, with 155 respondents from one very large municipality (Netherton). The male/female split was in some cases quite balanced, but was heavily weighted towards men in others. Finally, some governments had fewer directorates than others at the time the survey was conducted, but they all ranged between five and eight.

## Networks as groups and boundaries

Using the number of times each actor was nominated as someone that one of our respondents went to for advice as our measure (in-degree ties) we examined flows within networks and across a number of key boundaries. The first of these examine how much network activity was internal and external to each particular government, expressed as percentages to standardize across governments of different sizes. For this discussion we will use the networks based on who gets and gives advice to whom. In this case we had asked politicians and bureaucrats to tell us about their range of advisors either internal or external to the organization.

As the results in Table 4.2 show, Bankview and Parkside were the most likely to get their advice internally and Oberon's staff and politicians were the most likely to seek external assistance. Politicians had the most

Table 4.2 Advice networks: Percentage of ties 'external', to 'politicians' and to 'bureaucrats'

Government	Percentage of ties that are external	Ties to politicians (% of internal)	Ties to bureaucrats (% of internal)
Bankview	27	1	99
Bilstown	37	2	98
Kilbourne	36	4	96
Lassiter	34	13	87
Melville	33	5	95
Millside	37	2	98
Netherton	34	1	99
Oberon	39	7	93
Parkside	27	7	93
Wallerstrum	37	1	99
Yarwood	29	7	93

stable role in advice networks. The percentage of internal ties to politicians was remarkably similar across the 11 governments, with Lassiter standing out as having more advice ties to politicians than in other governments at 13 per cent, whereas all the other governments varied between 1 and 7 per cent. Perhaps this reflects the very specific functions of politicians and the more varied roles played by bureaucrats in these systems. We will come back to this when we talk about the link to innovation later in the book.

As we have noted already, innovation suggests a different work style to the regular process of bureaucracy and government. Something has to change so that change itself is possible. Given that innovation implies a capacity to reach out of normal work routines and communicate with potential collaborators, suppliers or decision-makers elsewhere in the system, we need to know which actors have the most diverse ties. The alternate position is the more familiar 'birds of a feather flock together' syndrome where those of similar role, gender and position form more ties with one another.

We are more interested in networks that cross role or position boundaries. External links are important in accessing resources, building coalitions of support and finding important new ideas, while internal links have a strong gravitational pull, simply because of propinquity. We mapped this as the extent to which ties are either within or between politician and bureaucrat groups, within or between gender groups, or within and between people in different functional directorates such

as engineering, corporate services, community services and so on. Krackhardt and Stern (1988) devised an index for measuring the extent to which links are internal or external (within or between) groups. Their index of the relationship between external and internal links shows the extent to which people are forming ties outside their group. The index ranges from  $-1.0$  to  $+1.0$ , with higher scores indicating more external ties.

These indices have been calculated for each of the 11 governments, based on links among politicians, bureaucrats, men and women, directorate members (internal networks), and between these same groups (external networks). The results are shown in Tables 4.3 and 4.4.<sup>7</sup> They all point to the conclusion that propinquity rules. They also show that individual governments are very different in the extent to which their key actors have most communication with others like themselves.

As the Politician–Bureaucrat Index column of Table 4.3 indicates, propinquity is a powerful influence. There is mostly an internal focus (strongly negative scores), indicating a strong propensity to form links within these two groups rather than between them. Of course, we need to remember that the two groups are of very unequal size so the opportunity to form links is somewhat loaded. For this reason, we have included calculations of the ratio of politicians to bureaucrats in Tables 4.3 and 4.4 as well as the ratios for males to females and the number of directorates in each government. There is more limited statistical opportunity for politicians to form links with other politicians, and for

Table 4.3 Advice networks: External–internal indices

Government	Politician/ Bureaucrat ratio	Politician– Bureaucrat index	Male/ Female ratio	Male– Female index	Number of directorates	Directorate index
Bankview	0.05	–0.91	2.0	–0.75	6	–0.34
Bilstown	0.17	–0.71	1.4	–0.79	6	0
Kilbourne	0.10	–0.86	1.0	–0.67	7	–0.32
Lassiter	0.09	–0.74	1.1	–0.70	5	–0.35
Melville	0.18	–0.68	3.1	–0.73	6	–0.17
Millside	0.04	–0.92	1.7	–0.73	7	–0.40
Netherton	0.05	–0.93	2.3	–0.72	8	–0.38
Oberon	0.12	–0.75	1.4	–0.44	7	–0.27
Parkside	0.06	–0.85	1.2	–0.62	7	–0.38
Wallerstrum	0.07	–0.89	4.8	–0.82	8	–0.16
Yarwood	0.13	–0.78	2.1	–0.64	7	–0.25

officials to form links with politicians when they are small in number as well as small as a proportion of the total network. We can certainly see differences between governments. Bilstown, Melville, Oberon and Yarwood have the most external links, and they also have the highest ratio of politicians to bureaucrats. So in this case of scarcity of internal ties for politicians, this index seems closely related to opportunity to form ties, and so we must be cautious about drawing conclusions on the basis of these data. But when we look at some of the groupings where the overall size and thus opportunity is not so loaded, important differences emerge.

For example, the ratio of males to females is closer to a 50-50 split, with most of the 11 governments falling in the range of 1:1 to 2:1. The samples from two governments have many more males than females – at 3.1:1 for Melville and at 4.8:1 for Wallerstrum. In these two governments there is very low interaction between the genders as compared to the ties among same gender actors. In other words they have the lowest scores for the male–female index. This might still suggest the same sample size differences we saw with politicians except for the fact that in two other governments with closer ratios (Bilstown and Millside) there are similarly loaded scores. The tendency to flock together is not confined to those with limited opportunities to find people outside their group. Oberon has the highest score in relation to advice – that is, more people have networks that include others of the opposite sex – followed by Parkside and Yarwood.

Bilstown government has the highest score and thus the greatest diversity on the directorate index for advice, with a score of zero indicating a balance between external and internal ties. Other governments with a propensity to be more externally focused are Melville and Wallerstrum followed by Oberon and Yarwood. Millside is the least externally connected across directorates. With the number of directorates falling within a relatively small range, this index is the most comparable across governments. Overall, these measures point to important differences across governments, some of which relate to structural differences such as role or gender, and others which do not and must therefore be seen as indicators of the independent impact of these local networks within governments. In this regard we can point to the external strength of Oberon and Yarwood and the strongly internally focused disposition of Bankview and Millside.

If this is the case for advice networks, is it also true for the networks these same actors use to find strategic information? The same indices were also created for each government, based on their strategic



information ties. These are shown in Table 4.4. Interestingly, with few exceptions these indices are higher (more external) than the indices for advice ties, for the same comparison and the same governments. This shows the greater reliance upon close networks among actors for advice, while the search for strategic information causes the same actors to reach further into diverse networks.

Similarly to the Politician–Bureaucrat index based on advice, this index is strongly negative (internal) for all governments, and may be impacted by the ratio of politicians to bureaucrats. For the male–female index, Melville and Wallerstrum are again the lowest (the most internally focused) and have the highest male to female ratios. Oberon Government again heads the list with the greatest external focus, and Millside and Netherton are also relatively high in terms of levels of exchange between men and women for the purpose of gaining strategic information.

The final column of Table 4.4 contains the only positive index scores of all these measures. The positive scores for four of the governments indicate that these actors are more likely to go outside their directorates to seek strategic information than they are to seek it inside their own directorate. These are the only four examples of where birds of a different feather flock together. Bilstown and Wallerstrum are the highest on this index, followed by Yarwood. The most internally focused governments are Bankview and Netherton. There does not appear to be a clear single pattern of either stronger external or internal focus across all governments, in relation to strategic information ties.

*Table 4.4* Strategic information networks: External–internal indices

Government	Politician/ Bureaucrat ratio	Politician– Bureaucrat index	Male/ Female ratio	Male– Female index	Number of directorates	Directorate index
Bankview	0.05	–0.94	2.0	–0.71	6	–0.22
Bilstown	0.17	–0.67	1.4	–0.70	6	0.22
Kilbourne	0.10	–0.73	1.0	–0.70	7	–0.10
Lassiter	0.09	–0.73	1.1	–0.68	5	–0.10
Melville	0.18	–0.66	3.1	–0.76	6	0.02
Millside	0.04	–0.87	1.7	–0.61	7	–0.07
Netherton	0.05	–0.82	2.3	–0.65	8	–0.17
Oberon	0.12	–0.79	1.4	–0.53	7	–0.08
Parkside	0.06	–0.73	1.2	–0.72	7	–0.09
Wallerstrum	0.07	–0.85	4.8	–0.76	8	0.20
Yarwood	0.13	–0.65	2.1	–0.71	7	0.17

### Forming networks: Up, across or down?

A final analysis of the propinquity question relates to whether or not people mostly connect up or down the hierarchy within their government or tend rather to choose people at the same level for information and advice. Understanding these directional flows is important to our view of innovation because it suggests both the way ideas and proposals might be generated and also how key gatekeepers or veto points might emerge inside government. If all the traffic is up and down the hierarchy, then informal networks may not play a distinct role, but simply reinforce formal structures.

Table 4.5 shows the directional flows for each government and for both advice and strategic information expressed as a percentage of ties for each government (across the three columns). At first glance it confirms what we already suspect about government – that hierarchy rules. Formal structure creates the tracks down which informal processes tend to work. Without exception, the majority of people across all governments, and for both types of network, mostly nominate upwards in hierarchical terms. But this is not the only story to be told. The second largest percentage of ties is lateral – that is, to others at the same level within the government. These are a non-trivial component of the flow of interactions. For most governments, less advice ties are sent upwards than strategic information ties, and more advice ties are sent to others at the same level than strategic information ties. This underscores the

Table 4.5 Hierarchical links for 11 governments: Percentage of ties up, across and down

Government	Advice			Strategic information		
	Down	Across	Up	Down	Across	Up
Bankview	12.3	40.2	47.5	12.6	34.4	53.1
Bilstown	24.3	21.6	54.1	23.2	18.8	58.1
Kilbourne	16.6	22.8	60.7	24.5	20.4	55.1
Lassiter	20.5	33.7	45.8	22.1	22.1	55.8
Melville	27.0	33.7	39.3	32.6	21.7	45.7
Millside	25.8	25.8	48.4	17.7	28.7	53.6
Netherton	11.5	47.0	41.5	15.5	36.6	47.9
Oberon	20.2	31.6	48.3	21.4	33.0	45.6
Parkside	20.9	38.8	40.2	14.7	25.0	60.4
Wallerstrum	18.7	27.5	53.9	24.6	24.6	50.7
Yarwood	27.8	28.5	43.8	23.7	25.8	50.5

earlier point that network content or rationale is critical in explaining the pattern of ties.

There are differences across governments, which are reasonably comparable since the same ranks and roles in each government were included in the survey (Politicians and the top four levels of CEO, Directors, Managers and Team Leaders/Coordinators). Kilbourne, Bilstown and Wallerstrum were out of step with the norm and had the highest percentages of ties sent upwards for advice. These appear to be centrally controlled systems with more than half the ties flowing upwards. Because this is also the case with the strategic information ties of these three we can think of them as having afferent networks – or networks which bring actors inwards to the centre.

Parkside and Bilstown are heavily weighted towards upwards ties for strategic information, while Netherton has the largest number of collegial ties – or ties going to people of similar rank for both advice and strategic information. Yarwood and Melville have the most downward or referent advice ties, while in Melville people look downward for strategic information more often than in any other government.

Because we know that the institutional settings and other structural conditions in each of these 11 governments are much the same, these afferent, collegial and deferent networks can only mean that the internal culture of these systems has evolved in a characteristic way and is somewhat independent of formal structure. We can also see clearly from these data that it matters what type of information is being sought, with a higher level of collegiality existing for advice seeking than for strategic information. In the next section we turn to a consideration of how particular actors are located in such networks and what this might tell us about their role in innovation.

## **Visualizing networks**

We have already noted how actual network configurations differed markedly from government to government and that the advice and strategic information networks themselves were quite distinct, with different patterns of connectivity evident in each municipality. We can demonstrate this diversity in a number of ways and using a broad array of formal measures commonly used in social network analysis. Before examining these measures though, it is useful to gain a picture of what these networks look like by mapping their structure in a sociogram. There are various ways to do this, and with 11 separate governments and two distinct types of networks under examination, we have no

shortage of potential examples to examine. A selection of four of these sociograms or network maps is provided in the following discussion to illustrate the typical patterns observed.

Figure 4.1 shows a sociogram of the advice network at Bilstown, a rural government on the Victorian Coast.<sup>8</sup> Each node (circles, squares and diamonds) represents an individual at Bilstown who completed the survey. The shades represent the organizational directorate each individual belongs to, with arrows depicting the direction of advice seeking – that is, who goes to whom to get advice. Politicians are drawn as squares. Plotting the network by organizational division allows us to see quite clearly how much the flow of advice at Bilstown is shaped by divisional boundaries within the organization, with relatively few individuals seeking advice from outside their own silo. People working in ‘Assets’ are clustered in the bottom left corner of Figure 4.1, while those in ‘corporate Services’ are located in the top right corner. This segmentation by directorate is a fairly consistent pattern across all the municipalities we studied. This figure also shows clearly that there is a central actor in each division, with a large number of in-ties (arrowheads pointing to them), which indicates many people go to them for advice.

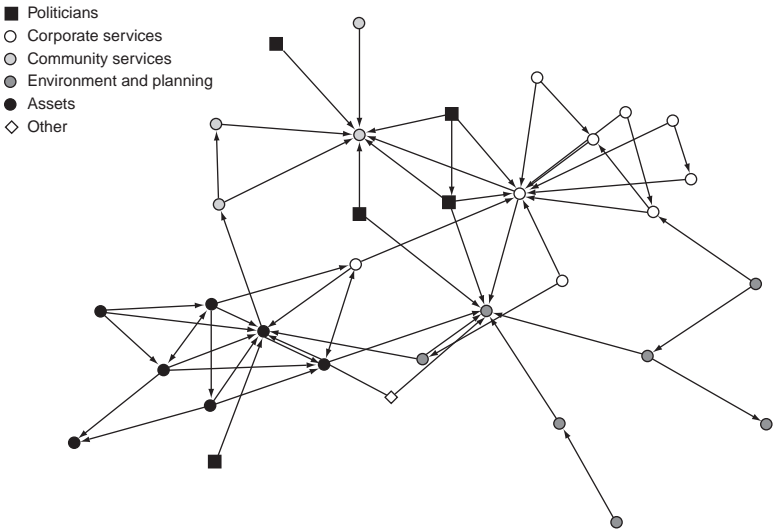


Figure 4.1 Advice network by organizational directorate: Bilstown

In Figure 4.2 the strategic information network at Melville is shown, this time with nodes of different shapes and shades referring to the individual's position in the organization. Again, we can see quite a distinct configuration of nodes and ties within the network. The CEO (black circle), with a large number of ties, is placed in the centre of the network, and is quite clearly surrounded by a ring of directors (dark grey circles) from each of the directorates within this government. The Mayor (black hourglass) and a number of other politicians (black squares) are also quite centrally placed and appear closely integrated with these senior members of the executive. Surrounding this inner group of senior bureaucrats and politicians, there is a ring of middle-managers (light grey), with coordinators/team leaders, and 'others' generally placed on the periphery. Examining the network placement of actors by position this time, as opposed to divisional membership, reveals a pattern of strategic information seeking which closely conforms to a traditional hierarchical bureaucracy. Again, this pattern is quite common amongst our 11 municipal governments, although its strength varies from place to place.

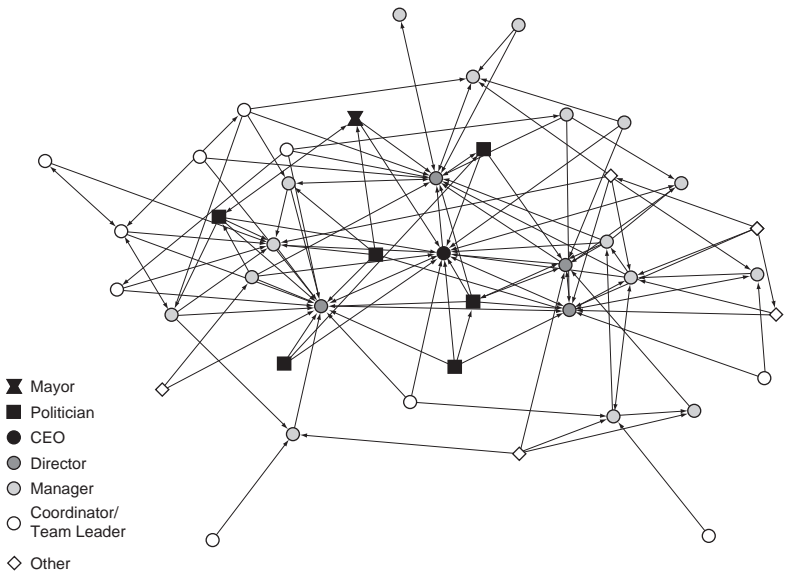


Figure 4.2 Strategic information network by position: Melville

Given the size and complexity of some of the networks in the larger municipalities involved in this study, it can be quite difficult to visually identify some of the patterns and peculiarities evident in their different configurations. One way around this problem is to strip away some of this ‘clutter’ by limiting the types of ties or relationships included in the sociograms. Limiting inclusion to those actors holding reciprocal relationships – that is, where A nominates B as a source of advice and B likewise nominates A – is one method of doing this. These two directional ties are held to be a stronger form of relationship, because the ties are reciprocated. These reciprocal relationships may be viewed as a positive, in that they may provide superior access to resources and support than unidirectional ties. However, it may also mean that the actors involved are more constrained in their behaviour because of the strength of these types of relationships.

Figures 4.3 and 4.4 provide two very different examples of reciprocal tie patterns for the strategic information networks at two municipalities involved in our study. Because we asked our respondents to limit their strategic information ties to those inside their own government, we would expect greater levels of reciprocity for this than for advice seeking. In Figure 4.3 we can see quite clearly that there are relatively few reciprocal ties linking actors at Bilstown. Indeed, there are just six reciprocal ties across the entire strategic information network, with the most

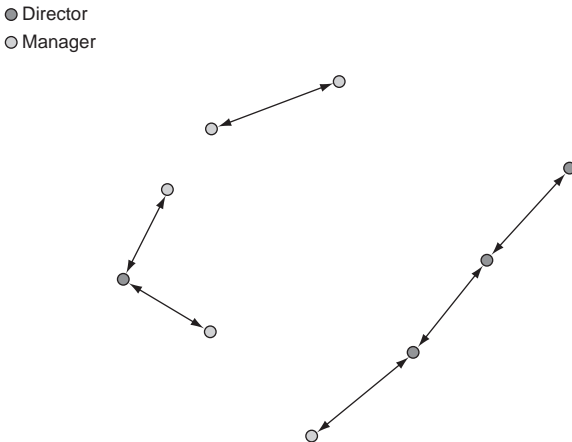


Figure 4.3 Strategic information network reciprocal ties: Bilstown

complex structure a simple chain linking three of the directors and a manager. No politicians appear in this map, indicating that in this case, there are no reciprocal ties amongst politicians or between politicians and bureaucrats.

In contrast, Figure 4.4 shows a much denser concentration of reciprocal relationships within the strategic information network at Millside. Here we can see an elaborate network structure with 16 actors, including the CEO, five directors, six managers, two coordinators/team leaders and two others linked together, with the CEO and two directors in particular playing important linking functions. There are also three other sets of dyads (two actor sub-sets) and a single triad (three actor sub-set) linked through reciprocal ties. Again, no politicians appear, even in this more elaborately connected government. This was reasonably common amongst our 11 governments, but there were exceptions where politicians had reciprocal ties with each other and with bureaucrats. We will explore how these sorts of patterns differ across all 11 municipalities in more detail in the next section.

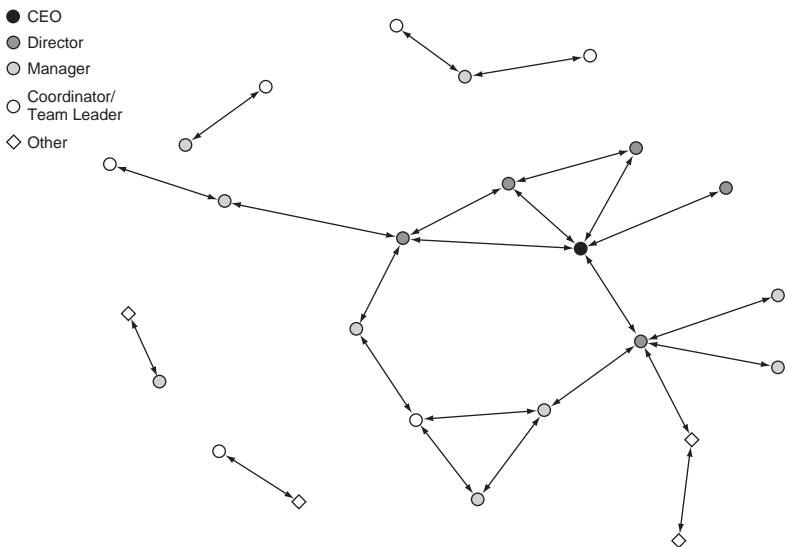


Figure 4.4 Strategic information network reciprocal ties: Millside

## **Network centrality and positions**

While mapping ties between actors gives an overall picture of network structure, it is sometimes difficult to see overall patterns and more localized configurations, especially when the numbers of actors in the network are large. In larger networks, a more useful approach to examining and comparing network structures and the roles played by different actors is to use specialized measures from social network analysis. For our purposes, we have simplified this task by presenting three common measures of centrality – a family of analytical tools measuring the prominence of actors in a social network (Wasserman and Faust, 1994).

The first, in-degree centrality, provides an indication of the popularity or prominence of an individual actor, and is based on the number of ties directed towards an individual. Given that this measure is dependent upon network size, a normalized figure which makes results comparable across networks (governments) of different sizes is used in preference to the raw in-degree score of each actor (Scott, 2000).

The second measure, betweenness centrality, provides a measure of the strategic importance of a given actor within a network (Hanneman and Riddle, 2005).

In simple terms, an actor is seen as being 'between' two other actors if he or she lies on the shortest path linking them. To enable cross-municipal comparisons we again use a normalized measure, with a betweenness score of 55 indicating that an actor serves as the shortest conduit between pairs of actors in 55 per cent of cases within the network. Once again, we can surmise that being in this position of potentially controlling flows of information is an important strategic resource for innovators, allowing them to push through potential barriers that may block others less well-placed within their organization.

The third measure, eigenvector centrality, moves beyond simply measuring popularity and prominence by taking into account the strategic positioning of an individual actor within a network. In simple terms, in calculating individual eigenvector centrality, more weight is given to ties to actors who themselves have high in-degree centrality scores than to ties to actors who are relatively isolated. Ties to actors with multiple connections potentially provide access to a larger proportion of the network and thus more extensive resources, than ties to those with fewer connections.

Calculating means for these measures for three groups – politicians, senior executives (CEOs and directors) and middle-managers – at each



of our 11 municipalities, enables us to compare the overall structure of both advice and strategic information networks and to examine how the roles played by different actors varies across governments.

Table 4.6 shows clearly that for the advice networks, senior executives dominate in terms of popularity as measured by normalized in-degree and in terms of strategic position as measured by betweenness and eigenvector centrality. This pattern is replicated in every municipality, with senior executives averaging almost three times the score of politicians and middle-managers on the in-degree measure; six times both groups on betweenness centrality; and almost tripling the politicians and doubling the middle-managers on the eigenvector centrality score. There is some variation in the extent of this domination across the 11 municipalities. For example, at Parkside, the mean in-degree figure for politicians is just over half that of senior executives, while at Lassiter and Kilbourne, the level of executive domination is also well below average. Similarly on the betweenness measure, politicians at Netherton hold up relatively well, while on the eigenvector measure, the politicians at Parkside and Lassiter are relatively prominent. In terms of in-degree, politicians were most central at Parkside, where the mean in-degree score was 7.7, at Melville (7.0) and at Yarwood (6.8), and least central at Netherton (1.9) and Kilbourne (4.1).

While the pattern of senior executive dominance across the advice networks is universal and unambiguous, the relative centrality of politicians and mid-level bureaucrats is at a similar, lower level overall. On the normalized in-degree centrality measure, middle-managers, appear more central at six of the municipalities – Bankview, Bilstown, Kilbourne, Millside, Netherton and Wallerstrum, while politicians are more central at five – Lassiter, Melville, Oberon, Parkside and Yarwood. Politicians at Oberon and Yarwood also score higher than middle-managers on the betweenness measure, as do those at Netherton. Interestingly though, politicians at all municipalities bar Bankview and Bilstown, score higher than the middle-managers on the eigenvector measure, suggesting that generally they are better positioned in the advice networks. The standard deviation figures on these measures are high in comparison with the mean for politicians and middle-managers at most municipalities. This suggests quite a bit of variation between actor's scores, that is, some politicians and mid-level bureaucrats were relatively popular, while others were very much on the periphery.

In terms of the relative centrality of each group of actors, the pattern is quite similar for the strategic information networks (Table 4.7). Senior executives again tend to dominate on all three centrality measures.

Table 4.6 Advice network centrality measures

	Position	Normalized In-degree		Betweenness		Eigenvector	
		Mean	SD	Mean	SD	Mean	SD
Bankview	Politicians	4.2	1.2	0.2	0.2	10.2	4.8
	Senior Executives	18.2	4.5	17.2	9.3	46.9	10.1
	Middle-managers	5.5	4.1	2.1	4.2	9.7	10.3
Bilstown	Politicians	4.8	3.9	0.6	0.9	14.7	11.8
	Senior Executives	21.1	8.6	18.0	12.4	39.5	12.6
	Middle-managers	6.4	5.3	2.0	3.4	15.2	12.8
Kilbourne	Politicians	4.1	2.6	1.7	2.0	12.0	10.7
	Senior Executives	14.5	5.1	13.3	5.8	32.4	14.9
	Middle-managers	4.6	3.5	1.9	2.9	9.7	8.8
Lassiter	Politicians	11.5	4.1	2.3	1.7	32.3	10.5
	Senior Executives	21.5	3.4	15.1	4.7	41.6	5.8
	Middle-managers	7.7	4.3	2.7	3.7	11.6	8.0
Melville	Politicians	7.0	2.7	0.8	0.7	22.4	7.4
	Senior Executives	20.9	6.8	15.6	8.3	41.7	14.1
	Middle-managers	6.4	4.1	3.6	4.2	11.2	9.4
Millside	Politicians	5.5	2.6	0.3	0.4	20.9	7.5
	Senior Executives	21.2	5.2	20.0	8.1	46.3	9.1
	Middle-managers	5.8	3.2	1.7	2.7	9.1	6.2
Netherton	Politicians	1.8	2.1	3.3	5.0	11.1	16.3
	Senior Executives	6.2	1.5	7.7	5.8	37.3	8.2
	Middle-managers	2.0	1.4	1.6	2.6	5.8	6.5
Oberon	Politicians	4.2	3.2	3.6	6.7	17.6	13.9
	Senior Executives	11.8	3.5	15.5	8.5	33.7	16.9
	Middle-managers	3.7	2.8	1.7	3.1	8.4	8.0
Parkside	Politicians	7.7	2.7	1.8	1.5	27.5	13.2
	Senior Executives	13.8	4.7	11.7	8.6	38.8	11.9
	Middle-managers	3.7	2.3	2.0	3.0	5.6	6.7
Wallerstrum	Politicians	5.2	3.4	0.3	0.3	15.3	9.6
	Senior Executives	18.4	7.6	12.9	8.3	36.0	16.9
	Middle-managers	6.9	4.6	2.3	4.1	11.4	10.2
Yarwood	Politicians	6.8	3.3	2.4	4.6	19.2	10.2
	Senior Executives	17.0	5.2	15.4	5.6	39.2	14.5
	Middle-managers	5.4	3.5	1.7	2.5	9.5	7.6
Total	Politicians	5.6	3.6	1.9	3.5	18.3	12.3
	Senior Executives	16.6	6.7	14.6	7.9	39.0	12.8
	Middle-managers	4.6	3.7	2.0	3.2	8.7	8.5

Table 4.7 Strategic information network centrality measures

		Normalized In-degree		Betweenness centrality		Eigenvector centrality	
		Mean	SD	Mean	SD	Mean	SD
Bankview	Politicians	5.9	1.2	0.8	0.9	9.5	0.9
	Senior executives	25.4	3.1	12.3	4.1	41.1	6.1
	Middle-managers	8.2	5.9	2.1	3.9	12.7	8.9
Bilstown	Politicians	7.7	3.2	1.0	2.1	16.5	8.1
	Senior executives	32.1	11.4	17.1	11.0	43.4	14.0
	Middle-managers	9.6	7.4	1.8	3.2	15.1	10.3
Kilbourne	Politicians	6.8	1.2	0.2	0.3	18.4	2.2
	Senior executives	21.9	6.2	9.5	4.5	35.8	8.8
	Middle-managers	6.6	5.5	1.6	2.9	10.1	7.0
Lassiter	Politicians	11.0	10.1	1.5	2.5	17.3	13.3
	Senior executives	36.5	3.0	14.6	5.9	45.6	2.8
	Middle-managers	10.3	6.6	1.8	3.0	12.7	8.4
Melville	Politicians	11.2	3.3	0.6	0.4	21.6	6.1
	Senior executives	35.2	7.8	17.1	6.2	43.7	8.9
	Middle-managers	9.6	5.1	1.6	2.3	12.9	7.1
Millside	Politicians	9.1	5.2	0.5	0.6	23.2	9.2
	Senior executives	25.2	6.2	13.8	5.1	39.8	12.1
	Middle-managers	8.1	4.6	1.6	2.4	11.5	6.9
Netherton	Politicians	3.4	1.4	2.8	2.2	15.3	6.6
	Senior executives	2.0	0.9	1.2	1.0	7.4	5.7
	Middle-managers	2.5	1.3	1.8	1.9	9.5	6.1
Oberon	Politicians	5.7	2.3	0.9	0.8	12.2	7.8
	Senior executives	21.2	8.3	13.9	8.2	36.3	15.7
	Middle-managers	6.2	4.0	1.5	2.6	10.6	7.2
Parkside	Politicians	8.6	5.1	1.7	3.0	20.1	10.2
	Senior executives	22.7	5.7	12.3	3.9	37.9	10.4
	Middle-managers	5.1	3.5	1.0	1.5	7.8	7.2
Wallerstrum	Politicians	11.1	2.2	0.6	0.2	21.7	3.9
	Senior executives	25.7	7.4	11.1	6.2	37.2	9.6
	Middle-managers	9.9	5.3	2.2	3.0	12.7	8.5
Yarwood	Politicians	9.0	3.0	0.3	0.3	18.3	6.9
	Senior executives	27.5	4.8	8.7	5.6	36.1	8.2
	Middle-managers	9.3	7.0	2.0	4.4	12.0	9.0
Total	Politicians	7.9	4.3	1.0	1.6	17.5	7.6
	Senior executives	24.6	10.3	11.8	6.8	36.5	13.2
	Middle-managers	6.7	5.5	1.7	2.7	10.9	7.7

The only exception is Netherton, the largest of our municipalities in terms of organizational size, where they are outranked by both politicians and mid-level managers on in-degree, betweenness and eigenvector centrality measures.

On the in-degree measure politicians were most prominent at Lassiter, Melville and Wallerstrum, and least nominated as sources of strategic information at Bankview, Netherton and Oberon. Middle-managers were most prominent at the same three municipalities (Lassiter, Melville and Wallerstrum) and least prominent at Parkside.<sup>9</sup> Once again though, the relatively high standard deviations for these figures indicate a high degree of variation in the scores of individual managers within each municipality.

Looking at the betweenness measure, we can see that the highest scoring politicians were at Netherton and Parkside, with those at Kilbourne and Yarwood at the low end of the scale. In all cases except Netherton and Parkside, politicians, on average, were less likely than mid-level bureaucrats to be a conduit between other pairs of actors for the flow of strategic information. In comparison to the mean betweenness scores of the senior executives, though, both groups play only a relatively minor role in linking other actors.

The eigenvector centrality scores indicate that the senior executives dominate each network in terms of either occupying or being tied to those who occupy central positions with many connections. Overall, politicians were better connected than mid-level bureaucrats. In all governments except Bankview, the politicians had higher eigenvector centrality scores than middle-managers. Moreover, at Bankview, the standard deviation was also very low, signifying that the peripheral placement of politicians in the network was quite uniform.

To summarize then, in both advice and strategic information networks we see that senior executives are most likely to be the 'go-to' people, as well as being those more closely tied to others who are central in the networks. This pattern, despite some variations, is universal across the 11 municipalities and is consistent for both types of networks. The picture for politicians and mid-level bureaucrats is more mixed. The relative popularity of both groups is quite similar, but varies from municipality to municipality. In terms of strategic positioning, it is the bureaucrats who tend to serve more often as 'connectors' between otherwise independent actors at most municipalities. However, it is the politicians that are more likely to be connected to the most prominent actors in each network.

## The networks of CEOs and Mayors

In this next section we shift our focus from broader network structures and characteristics to the direct network ties (both inwards and outwards) surrounding two groups of key actors – Mayors and CEOs. To do this, we examine in detail the ego networks of Mayors and CEOs – that is, their immediate network surrounds comprising all actors with a direct tie (either in or out or reciprocal) to each of these actors.

Table 4.8 summarizes the advice ego networks for the CEO, the Mayor, and then the CEO and the Mayor combined, for each of the 11 governments. The first column describes each CEO's ego network in terms of the number of actors, and the number of them who are politicians, bureaucrats, and external to that particular government. The second column presents the same information for each Mayor's ego network. The third column describes what the Mayor's ego network adds to the CEO's when they are combined. The final column indicates the direction of the CEO–Mayor tie.

A notable characteristic of CEOs' ego networks is that they are quite elaborate, while the Mayors' networks contain fewer ties. The third column in this table indicates that Mayors' ego networks have a significant degree of overlap with the CEOs'. One exception to this is Netherton, where the CEO's and Mayor's networks are the same size, and the Mayor adds five new actors. A second exception is Oberon, where the two networks are totally distinct, and although the Mayor's network is smaller than the CEO's, the Mayor adds six new actors. Another feature of these ego networks is the CEOs' tendency to reach outside the government to gain advice in some cases (Kilbourne, Lassiter, Melville, Millside, Parkside), while in others (Bilstown, Netherton and Wallerstrum) the Mayor plays this role. In Oberon, both the CEO and the Mayor reach outside the government, while in Yarwood, neither does.

This description points to the important network position held by CEOs, and the relatively weaker position (in network terms) of Mayors. In addition, the overall pattern in these governments is for Mayors to go to CEOs for advice, while this advice seeking is not reciprocated from CEOs to Mayors. Only in one case (Wallerstrum) the CEO goes to the Mayor for advice. In two of the 11 governments (Kilbourne and Oberon) there is no direct tie in either direction between the CEO and the Mayor.

Since there are many network maps we could include – 22 in all for 11 governments and two types of ties – we have included here just two that highlight the key differences across governments<sup>10</sup>. The two maps presented in Figures 4.5 and 4.6 illustrate the type of advice networks

Table 4.8 Advice ego networks of CEOs and Mayors

	CEO's network	Mayor's network	Value added by Mayor	CEO–Mayor tie direction
Bankview*	8 actors 2 politicians 6 bureaucrats			
Bilstown	14 actors 3 politicians 11 bureaucrats	5 actors 2 externals 1 politician 2 bureaucrats	Mayor adds 4 new actors, 2 externals, 1 director, 1 politician	Mayor > CEO
Kilbourne	14 actors 4 externals 3 politicians 7 bureaucrats	4 actors 3 politicians 1 bureaucrat	No direct tie between Mayor and CEO, 1 step between them Mayor adds only 1 new actor (politician)	No tie
Lassiter	16 actors 4 externals 5 politicians 7 bureaucrats	7 actors 2 politicians 5 bureaucrats	Mayor adds 3 new actors, all bureaucrats	Mayor > CEO
Melville	15 actors 4 externals 6 politicians 5 bureaucrats	4 actors 3 bureaucrats 1 politician	Mayor adds only 1 new actor (bureaucrat)	Mayor > CEO
Millside	16 actors 4 externals 12 bureaucrats	5 actors 4 bureaucrats 1 politician	Mayor adds 2 new actors (1 external, 1 politician)	Mayor > CEO

Table 4.8 (Continued)

	<b>CEO's network</b>	<b>Mayor's network</b>	<b>Value added by Mayor</b>	<b>CEO-Mayor tie direction</b>
Netherton	6 actors 2 politicians 4 bureaucrats	6 actors 4 externals 1 politician 1 bureaucrat	Mayor adds 5 new actors (4 external)	Mayor > CEO
Oberon	10 actors 3 externals 1 politician 6 bureaucrats	6 actors 4 externals 1 politician 1 bureaucrat	No direct tie between Mayor and CEO, 2 steps between them Mayor adds 6 new actors (4 external)	No tie
Parkside	20 actors 3 externals 4 politicians 13 bureaucrats	8 actors 6 politicians 1 external 1 bureaucrat	Mayor adds 3 new actors, all politicians	Mayor > CEO
Wallerstrum	10 actors 2 politicians 8 bureaucrats	3 actors 2 externals 1 bureaucrat	Mayor adds 2 new actors, both external	CEO > Mayor
Yarwood	13 actors 5 politicians 8 bureaucrats	5 actors 3 politicians 2 bureaucrats	Mayor adds only 1 new actor (politician)	Mayor > CEO

\* The Mayor of Bankview did not participate in the survey.

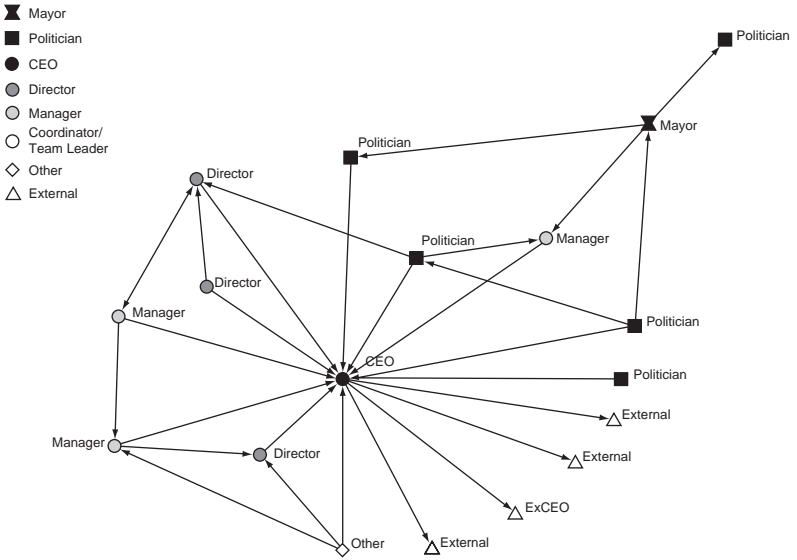


Figure 4.5 Kilbourne advice network around the CEO and Mayor

to be found around the CEO and the Mayor for these governments and highlights their very different configurations.

In Kilbourne we see the separation between the CEO and the Mayor (Figure 4.5), with one step between them. The CEO has 14 ties – three to people outside the government, three to politicians, and the remainder to bureaucrats. The Mayor’s network contains only four actors, three politicians and one bureaucrat. The network map shows that the Mayor’s network adds very little to the CEO’s in this government. Of our 11 governments, this one along with Melville and Wallerstrum are the three cases where the Mayor’s ego network adds the least to the CEO’s.

At the other end of the scale, Parkside has the largest ego network structures (Figure 4.6) and the biggest Mayor’s network of all of the municipalities. The advice network around the CEO contains 20 people – four out of the possible seven politicians, four of the six directors, six managers, three coordinators, and three people from outside the government. The CEO and Mayor have a direct tie in relation to advice, with the Mayor seeking advice from the CEO but not the other way around. The ego network map for the Parkside Mayor is larger and more elaborate than all of the other governments. It contains all six of



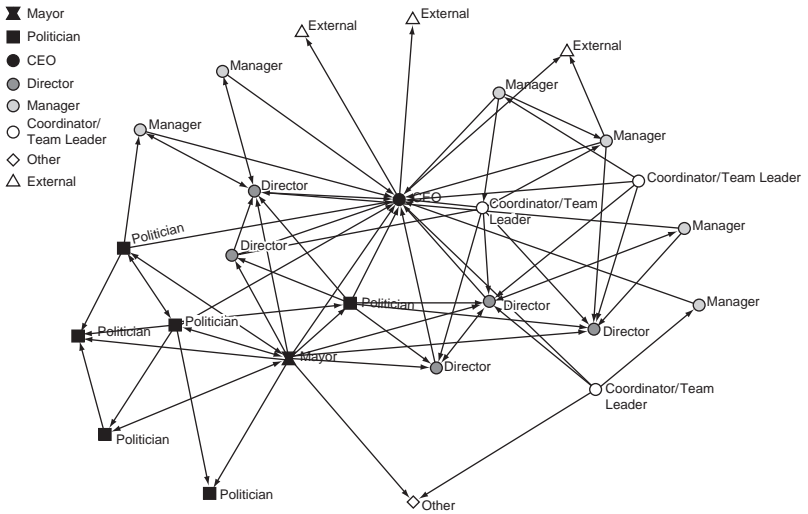


Figure 4.6 Parkside advice network around the CEO and Mayor

the other politicians, and an additional director to four in the CEO’s network. The area of overlap between their two networks is a sub-group of four politicians and four directors. The CEO is linked to managers and other officials, while the Mayor is more linked to the other politicians.

Parkside has strong integration between the political and the bureaucratic sides, providing an indication of a tight coupling between the elected representatives and the senior bureaucrats. This is in contrast to a number of the other governments, but particularly Netherton and Oberon, where the two networks are distinct.

Table 4.9 summarizes the strategic information ego networks for the CEOs and Mayors of each of the 11 municipalities. In these networks, people could only nominate others inside their government, hence there are no external actors in these networks. Partly as a consequence of this (as people are nominating from a limited pool, which has the effect of ties becoming more concentrated), these networks are almost universally more extensive than the advice networks in Table 4.8. The only exception to this is the Mayor’s strategic information ego network at Oberon which has one less actor than the comparable advice network. On average, Mayor’s advice ego networks contain 5.3 actors compared to eight for strategic information, while for CEO’s the picture is similar with an average ego network size of 13 for advice and 18.8 for strategic information.

Table 4.9 Strategic information ego networks of CEOs and Mayors

	CEO's network	Mayor's network	Value added by Mayor	CEO-Mayor tie direction
Bankview*	14 actors 2 politicians 12 bureaucrats			
Bilstown	18 actors 3 politicians 15 bureaucrats	7 actors 0 politicians 7 bureaucrats	Mayor adds 1 new actor, an 'Other'. No tie between Mayor and other politicians	Mayor > CEO
Kilbourne	19 actors 9 politicians 10 bureaucrats	6 actors 1 politician 5 bureaucrats	Mayor adds 1 new actor, a Coordinator/Team Leader	CEO > Mayor
Lassiter	19 actors 4 politicians 15 bureaucrats	9 actors 2 politicians 7 bureaucrats	Mayor adds 2 new actors, a politician and an 'Other'	Reciprocal
Melville	17 actors 6 politicians 11 bureaucrats	5 actors 2 politicians 3 bureaucrats	Mayor adds 2 new actors, a politician and a Coordinator/Team Leader	Mayor > CEO
Millside	16 actors 2 politicians 14 bureaucrats	8 actors 1 politician 7 bureaucrats	Mayor adds 2 new actors, a politician and a Manager	Mayor > CEO

Table 4.9 (Continued)

	<b>CEO's network</b>	<b>Mayor's network</b>	<b>Value added by Mayor</b>	<b>CEO-Mayor tie direction</b>
Netherton	13 actors 4 politicians 9 bureaucrats	10 actors 4 politicians 6 bureaucrats	Mayor adds 3 new actors, 2 politicians and a Coordinator/Team Leader	Reciprocal
Oberon	17 actors 3 politicians 14 bureaucrats	5 actors 0 politicians 5 bureaucrats	Mayor adds 3 new actors (all Managers)	Mayor > CEO
Parkside	27 actors 4 politicians 23 bureaucrats	15 actors 2 politicians 13 bureaucrats	Mayor adds 4 actors, 1 politician and 3 Coordinator/Team Leaders	Reciprocal
Wallerstrum	12 actors 2 politicians 10 bureaucrats	8 actors 4 politicians 4 bureaucrats	Mayor adds 3 actors, all politicians	Mayor > CEO
Yarwood	16 actors 5 politicians 11 bureaucrats	7 actors 0 politicians 7 bureaucrats	Mayor adds 2 actors, both 'Others'.	Mayor > CEO

\* The Mayor of Bankview did not participate in the survey.

Again, we find that the CEOs tend to hold stronger network positions. As was the case with the advice ego networks, the CEO strategic information ego networks are markedly larger than those of the Mayors at every government – usually 2–3 times larger. The Mayors’ strategic information networks add few new actors to the CEOs’, as was the case for advice networks. Mayors seek strategic information from CEOs at six governments, while at three – Lassiter, Netherton and Parkside – we find reciprocal relationships between them. Kilbourne is the only place where the flow of strategic information between the CEO and Mayor is reversed, with the CEO seeking information from the Mayor.

The combined CEO and Mayor ego network at Parkside (Figure 4.7) is again the most elaborate of our 11 governments. Indeed, the Parkside CEO and Mayor each individually have the largest ego networks of all their bureaucratic and political colleagues respectively. In total, there are 27 actors in the CEO’s network including the Mayor and three other politicians, four of the five directors, eight managers, eight coordinators/team leaders and three others. The Mayor’s network is smaller with 15 actors – this includes the CEO and all five directors, two other politicians, a manager, five coordinators/team leaders and one other.

Unlike the advice network for Parkside, for strategic information there is a reciprocal tie linking the Mayor and CEO, as well as a large number

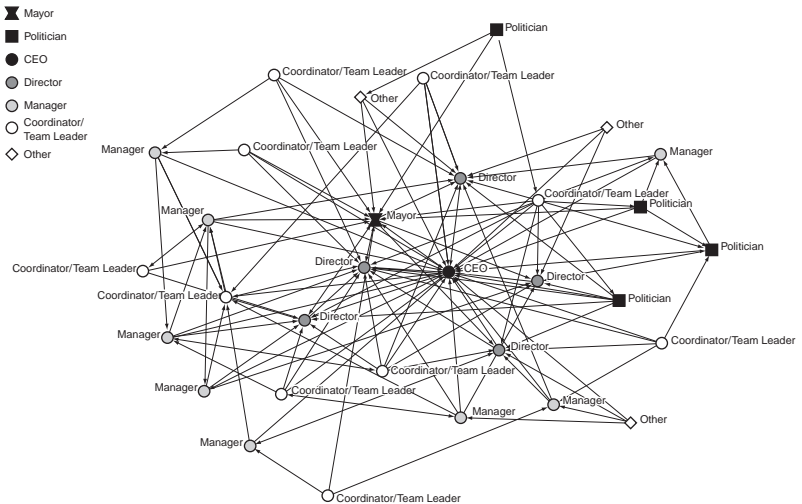


Figure 4.7 Parkside strategic information network around the CEO and Mayor

of ties linking the senior members of the bureaucracy to the elected members. Overall there are 17 ties linking the politicians and senior bureaucrats (CEO and Directors), with the majority of these (14) being politicians seeking strategic information from bureaucrats. In terms of overlap between the two configurations, one politician, four directors, a manager, two coordinators and one other actor appear in both the CEOs' and Mayors' ego networks. This again suggests quite a closely integrated relationship between the political and the bureaucratic branches of government at Parkside.

In contrast, Figure 4.8 shows the smallest combined CEO and Mayor strategic information ego network we found, this being Wallerstrum, with 16 actors. Here, the CEO's network contains just 12 actors including the Mayor, one other politician, six directors, two managers and two coordinators/team leaders. The Mayor's network contains eight actors – the CEO, three Directors and all four of the other politicians. There is a small degree of overlap between the two networks, with one politician and three directors appearing in both. Interestingly, and in marked contrast to Parkside, there are no mid-level bureaucrats in the

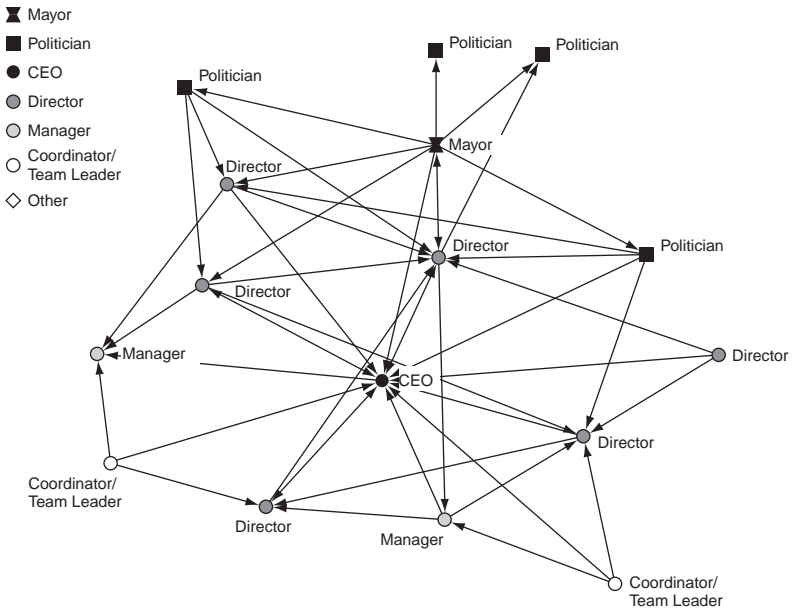


Figure 4.8 Wallerstrum strategic information network around the CEO and Mayor

Mayor's ego network at Wallerstrum, and just four in the CEO's network, a configuration which suggests that the strategic information network is heavily influenced by hierarchy in this government. It is also much easier to see a clear distinction between the political and the bureaucratic sides of government at Wallerstrum, with the politicians concentrated around the Mayor at the top of Figure 4.8.

In this chapter we have explored some of the structural characteristics of two different kinds of social networks – advice and strategic information networks – across our 11 municipalities. In doing so, we have used a range of network measures, both for the total network and around individuals, to examine the degree of external–internal focus, the extent of hierarchy apparent in network ties, the overall patterning of ties as well as local configurations around CEOs and Mayors, and how the popularity, reach and potential strategic power of different categories of actors varies within governments, and across municipalities.

A number of patterns stand out. First, it is clear that the degree of external or internal connections varies across our governments, suggesting different cultures in different locations as was also suggested in Chapter 3. Secondly, this culture extends to observable differences in how hierarchical network ties are, and how 'silo-bound' actors are in different governments. Thirdly, network structure and the network positions inhabited by different types of actors vary markedly from municipality to municipality. It is also clear that the network structures for advice and strategic information vary considerably, in terms of where different groups of actors are located within them. In some governments, the politicians are relatively more central in the advice networks than at other places and more integrated or immersed within the advice networks of middle- and senior-level bureaucrats. In other governments, politicians appear to be much more on the margins.

Fourthly, we can see that at all municipalities and on almost all measures, senior executives tend to dominate both advice and strategic information networks. In terms of their position in the global networks, they are universally more central than politicians and middle-managers. They are also more likely to play a direct linking role between other actors in the network and to be directly connected to the key movers and shakers. Finally, CEOs have more elaborate networks than Mayors, and the degree of connection between the political and the bureaucratic sides through these two key actors differs across government. We shall return to these issues in the following chapters, as we explore the impact of these different network structures on innovation, and where the innovators sit in these networks in different municipalities.

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## **Part II**

# **Innovation inside Government**



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# 5

## Introduction to Innovation Cases

The first part of our study has thrown light on the normative aspects of innovation inside government and has laid the groundwork for a better understanding of the role of procedures such as elections and statutory meetings in helping and hindering innovation. We have shown that different governments are more introverted or extroverted in their connections. We have also been able to describe some of the more informal architecture of networks built around information and advice seeking between actors within governments. Moving towards a more finely grained understanding of how innovation is framed and takes place in local government, an understanding that allows the contribution of individual actors and network structures to be examined, requires building greater depth in a smaller number of cases. Part II of this book is directed towards developing this depth.

Where in Part I we focused upon 11 governments spread primarily around metropolitan Melbourne, and its rural fringes, in Part II, in order to enable a more detailed comparison, we narrow our attention down to four local governments – the Cities of Kilbourne, Melville, Millside and Parkside. In choosing these four governments a number of considerations were taken into account. The overriding priority was to ensure that there was substantial variation between them across a range of factors. We were keen, for example, to have some governments that were located in the inner city, and some further out, and to have governments that varied in terms of their socioeconomic profile. We also wanted to choose cities with varying political orientations, with different cultures in terms of innovation norms and governance processes, and with different external interaction patterns and network characteristics. This diversity will enable us to explore not only how different municipalities approach innovation, but also to gain some sort of understanding

about how external factors, such as the local political and socioeconomic climate influence innovation. The profiles of each municipality will be discussed in detail in Chapters 6–9, but we summarize them here for introductory purposes and to provide a ready reference. The key characteristics of each are listed in Table 5.1.

As the table shows two of our governments are located in the inner city area (Millside and Parkside), with Melville stretching from Melbourne's middle suburban ring to the outer urban fringe and Kilbourne on the outer urban fringe itself. In terms of old-fashioned notions of 'class', we would characterize Kilbourne as lower-middle/middle class with small pockets of old working-class areas in its more established suburbs. Melville is more consistently middle and upper-middle class, with Millside more old working class with pockets undergoing gentrification. Parkside, on the other hand, already heavily gentrified with a large population of young upwardly mobile professionals, is incredibly diverse with extremes of wealth and poverty.

Each municipality's politics and access to resources largely reflects these attributes. As Table 5.1 suggests the more comfortable Melville and Parkside are relatively well-resourced; Kilbourne with a rapidly expanding population, somewhat less resourced; and Millside with a significantly smaller rates base, much less so. Political affiliations are equally diverse. While Melville has traditionally been a conservative enclave, Kilbourne is relatively evenly divided between community-based Independents, Labor members and Liberal affiliated politicians. Millside we can categorize as staunchly 'Old Labor' although Green groups and Independents have made significant inroads in recent years. Parkside, which is much further down the path of gentrification, remains dominated by what we can characterize as 'New Labor' politicians and progressive Independents. While Melville and Parkside have been politically stable since the local government reforms of the mid-1990s, Kilbourne has been much less settled with less than a quarter of politicians elected over the last decade completing more than a single term. Millside sits somewhere between these polar opposites.

We can see echoes of these more general attributes in the relative positions of each of the governments on the norms and procedures measures examined in Chapter 2. As the table shows, Kilbourne was the least likely of the four governments to view innovation as being about institutional factors. It had the most confidence in the contribution made towards innovation by its internal managerial procedures and was the most cynical in terms of the impact of electoral procedures. Given the municipality's recent political history, the latter finding is

Table 5.1 Key characteristics of our four governments

		Kilbourne	Melville	Millside	Parkside
Geography	Location	Fringe metro	Middle metro/fringe metro	Inner metro (industrial)	Inner metro (bayside)
Socio-economics	'Class'	Lower middle/middle	Middle/upper middle	Old working class/gentrifying	Gentrified with pockets of disadvantage
Politics	Access to resources	Middle	High	Low	High
	Party orientation Stability	Divided Unstable	Conservative Very Stable	Old Labor Traditionally stable but shifting	New Labor Very stable
Innovation Norms (placement)	Institutional	Lowest	Highest	Middle	Middle
	Structural	Middle	Lowest	Middle	Highest
	Sceptical	Middle	Middle	Lowest	Highest
	Incremental	Middle	Lowest	Middle	Highest
Innovation Procedures (placement)	Adaptive	Middle	Lowest	Highest	Middle
	Political	Middle	Highest	Lowest	Middle
	Managerial	Highest	Middle	Middle	Lowest
Freeman Network Centralization (In-degree)	Electoral	Lowest	Middle	Middle	Highest
	Advice network (internal and external)	15.7	23.9	18.0	16.1
	Strategic information network (internal only)	23.6	36.9	47.5	28.2

not surprising. Well-resourced and politically stable Melville, on the other hand, was the most likely to see innovation as being about institutional factors and also had the most confidence in the contribution made by political procedures, such as the budget, committee meetings and municipal meetings. Millside was the least sceptical about the role of government and the most supportive of incremental approaches to innovation. This makes intuitive sense given the municipality's limited access to resources and its relatively high needs population. It was also the least convinced of the value of political procedures such as the budget and municipal meetings. Parkside was the most eclectic of our four governments scoring relatively highly on all five innovation norms, particularly the structural norm which saw innovation as being about radical, externally driven activity and conflict. It had the most confidence in the impact of electoral procedures on innovation and the least confidence in the role of managerial factors.

Finally, and as we touched on in Chapter 4, significant differences in network structure across the four governments are also quite evident. Table 5.1 provides the Freeman's network centralization (in-degree) statistic for advice and strategic information networks for each of the four governments. This measure provides an indication of the extent to which ties are dispersed or centralized across actors in the two types of networks. A higher percentage indicates a greater level of centralization (fewer people in the network have more ties directed to them), and a lower percentage means that the ties are more dispersed across a larger number of people. As the table shows, Melville has the most concentrated ties for advice, and the second most concentrated ties for strategic information. Millside has the highest level of concentration for strategic information, and the second highest for advice, while Parkside and Kilbourne have more dispersed ties across both networks. We will return to examine these characteristics in more detail throughout Chapters 6–9.

## **Interviews with local government politicians and bureaucrats**

Throughout Part II of this book the survey of politicians and bureaucrats which was central to Part I is supplemented by data drawn from two series of qualitative interviews conducted at each of the four case study governments. The first series was conducted throughout 2003 and involved semi-structured interviews with a cross-section of politicians

and staff at each municipality. In total, 104 politicians and bureaucrats were interviewed across the four municipalities with 26 interviews held in Kilbourne, 27 in Melville, 26 in Millside and 25 at Parkside. Forty-one per cent of interview respondents were Managers, 26 per cent Politicians, 19 per cent CEO/Directors and 14 per cent Coordinators/Team Leaders or other ranks.

The main purpose of this first series of interviews was to identify recent cases of innovation at each municipality and to collect background information on who was involved in each of these cases. Respondents were first asked to nominate what they regarded as the 'key innovations' in their municipality over the past 12 months. They were then asked to nominate the five most important examples of innovation from an expanded list including their own original choices, and the five most commonly nominated cases identified for their government through the earlier survey process. Detailed information regarding who was involved in each innovation case and what roles key individuals played was then collected, with this material ultimately used to help choose suitable case studies for closer examination and to identify those key informants suitable for a follow-up round of interviews. Respondents were also asked to identify who were the key innovators in their municipality and who were the key community leaders, and finally, to provide brief comment on the positive and negative characteristics of innovation at their government. A summary of the numbers of key innovators and community leaders nominated as well as the total number of actual nominations for each government is provided in Table 5.2.

*Table 5.2* Nominations for 'key innovators' and 'community leaders' in four governments

	Kilbourne	Melville	Millside	Parkside
Interviews conducted	26	27	26	25
People nominated as 'key innovators'	27	27	22	38
Total 'key innovator' nominations	107	97	97	162
People nominated as 'community leaders'	53	51	56	63
Total 'community leader' nominations	108	107	94	110

## Interviews with local community leaders

Following on from this initial round of interviews with politicians and bureaucrats, a second series of interviews, this time with the individuals identified as 'community leaders', was also held in each of the four municipalities. In total, 91 interviews were conducted across the four municipalities – 24 at Kilbourne; 26 at Melville; 20 at Millside and 21 at Parkside. Those chosen for interviews were selected as a representative sample drawn from a list developed through three separate methodologies. As already noted, in the first round of interviews, politicians and bureaucrats were asked to nominate who they felt were the key community leaders in their municipalities. This list was then supplemented by the addition of individuals from community groups listed in each municipality's online community directory. In addition, individuals were identified through a review of local newspapers over the 12 months preceding the interviews.

Those chosen for interviews included representatives of local service groups, community groups, churches, business associations, residents associations, political parties, local media and prominent residents. The largest sub-group – representatives from local Service and Community groups (e.g., Rotary, Lions Clubs, welfare agencies, churches, historical societies, environmental groups and 'friends' groups) – accounts for 33 per cent of the sample. Residents/ratepayers groups (22 per cent) and Business groups (16 per cent) were also strongly represented in the interview sample, with state and federal politicians whose constituency covered that local government area (12 per cent) and local media (9 per cent) also included. The final 8 per cent of the sample we labelled 'Others'. This group includes a number of active and prominent citizens nominated by politicians and bureaucrats who have no group affiliations, as well as a small number of ex-local government politicians who have maintained an active interest in local affairs.

These interviews were used to collect data on how community members conceptualized innovation, how they perceived government's role in the innovation process and how they viewed their own municipality's approach to innovation. The questions asked mirrored those asked of the politicians and bureaucrats in the initial survey of 11 governments. We were also interested in how community leaders rated the actual innovation cases identified through the earlier interviews, and what innovations they, as opposed to politicians and bureaucrats, regarded as important.

## Structure of Part II

The remainder of Part II of this book is structured so that each of the four municipalities involved in this more detailed part of the study has its own chapter, with the format in each identical for comparative purposes. We expect that local culture, demographic patterns, the local economy, history and the vagaries of local politics will heavily influence the shape, nature and outcomes of innovation within the public sector, and colour the perceptions and attitudes towards innovation held by politicians, bureaucrats and community leaders at each of our local governments.

Following an overview of the social, economic and political environment in each municipality, each chapter focuses on three primary areas. First, we unpack the ‘norms and procedures’ material collected from politicians, bureaucrats and community leaders, and examine how innovation – both as a concept and as a practice – is perceived by different actors in each of our four municipalities. As noted at the outset of this book, before we can adequately explain the impact of relationships and structures on innovation, we first need to understand how actors frame innovation as an issue or concept, how they create expectations about what it might deliver, and how they evaluate or rate their role in achieving innovations. In short, we first need to comprehend how our actors perceive and understand innovation itself.

With this in mind, we asked politicians and bureaucrats in the initial survey, and community leaders in the interviews that followed the survey, to respond to a series of statements concerning the nature of innovation; the role of different stakeholders, processes and procedures in the innovation process; and about each individual government’s approach to innovation. In Chapter 2 we used factor analysis to condense the survey data into broad innovation norms and processes and then examined these factors for differences and similarities across our 11 governments, across organizational hierarchies, and across the politician/bureaucrat divide. In the four following chapters, we unpack these factors and examine the individual items themselves, to enable a more detailed examination of how politicians and bureaucrats at different municipalities frame the innovation puzzle, but more importantly, to enable us to explore how these views differ from the views of community leaders.

Secondly, we examine and compare the kinds of innovation cases identified as important by politicians, bureaucrats and community leaders in each municipality. To enable this comparison, individual



innovation cases nominated by each set of actors are grouped into the following categories:

- Corporate Governance, Organizational Change and Development (includes, for example, innovations based around corporate planning, performance frameworks, organizational culture, asset management, human resources, administration)
- Urban Design, Planning and Infrastructure (includes, for example, innovations in environmental planning, transport strategy, infrastructure development)
- Community Services, Advocacy and Consultation (includes innovations in areas such as the provision of youth services, health services, community capacity building, community forums)
- IT and Technology (includes innovations in IT systems, GIS/GPS, website development)
- Arts and Culture (includes, for example, innovation in areas such as local arts, neighbourhood character studies, protection of local cultural landmarks)
- Miscellaneous

Nomination frequencies are then compared both across actor types and across government boundaries to explore similarities and differences in the types of innovations identified. What we find here are that nomination patterns vary significantly from municipality to municipality in terms of the types of innovations identified as important, as well as across the different groups of actors. Interestingly, politicians appear to fall in between bureaucrats and community leaders in terms of their nominations, although their nomination patterns more closely reflect the former.

Finally, each chapter examines who the key innovators are at each municipality. In our interviews with politicians and bureaucrats at the four municipalities we asked respondents to list those people they regarded as the 'key innovators'. An open approach to the notion of who is an innovator was taken. Nominations could include politicians, bureaucrats, and members of the community, and there were no limitations placed on the number or the location of people listed.<sup>11</sup> The assumption here is that innovation is a visible property to proximate actors in a governmental system, even when it involves confidential processes. That is, it is possible for people to recognize the innovators in their cities, even when the full details of the innovations these people have introduced might not be known to them. We then examine how

they are placed within the global advice and strategic information networks, paying particular attention to how the manner in which they are positioned differs from their colleagues. The picture that emerges from these analyses suggests that 'innovator status' is generally related to network position, particularly within the strategic information network, as well as being related to position in the organizational hierarchy. Following on from these four chapters, we draw this examination of innovator status together with an analysis of innovation norms and procedures, interactions of different kinds, and the effect of roles, positions and networks, in Chapter 10. This final chapter brings together all the threads of our story of innovation inside government, and explores the relative importance of all the various strands we have unpicked throughout the book. We end by making claims about innovation in terms of who does it and what their stand out characteristics are.

# 6

## City of Parkside – Big Bang meets Executive Coordination

The City of Parkside is located on the shore of the bay that sits immediately south of Melbourne's CBD in Victoria and is home to over 80,000 residents. It is one of the oldest areas of European settlement in the state having been first settled in 1855, although the existing city government was only formed in 1994 following the forced and unpopular amalgamation of three existing municipalities by the conservative state government.

The area has a long and colourful history – at different times serving as a playground for the rich and famous; as a safe-haven for US troops on leave from the Pacific Theatre in the Second World War; as a hotbed of organized crime, drugs and prostitution; as a centre for artisans, intellectuals and alternative culture in the 1960s and 1970s; and more recently, as the location of choice for Melbourne's young inner-city professionals.

Elements of this almost schizophrenic history remain reflected in the face of the city today, most notably in the extremes of wealth and poverty, and in the area's cultural diversity. In one suburb, society matrons, grungy artisans and musicians, Hasidic Rabbis, Armani-suited businessmen, young families, elderly migrants, bleached disco-queens and beach princesses, the homeless and the destitute all blend into an amalgam of colour and noise, each seemingly oblivious to the other as they go about their daily business. Other suburbs within the municipality present a more moderate, respectable, and affluent middle-class face. Pockets of 'old money' compete for space with young upwardly mobile professionals, young middle-class families and small businessmen and businesswomen. The socioeconomic landscape is much more homogenous here. An old working-class suburb sits somewhere between these two poles, incorporating Melbourne's key port facility. It borders

the city's western industrial hub, and retains elements of its blue-collar origins in its workers cottages; in its factory and warehouse district; and in its politics – parochial and fiercely supportive of Labor. Nevertheless like the rest of Parkside, even here, the human face of the suburb is changing as a result of gentrification.

## **The citizens of Parkside**

On most aggregate statistical measures, Parkside displays a relatively affluent socioeconomic profile. Unemployment is relatively low across the municipality, while income levels are quite high. Despite this affluence, there are nevertheless pockets of significant disadvantage and social marginalization, particularly around the public housing estates in some of its suburbs. Gentrification is a major issue in the area, with rising property values and housing costs effectively forcing many low-income residents out of the municipality. This is reflected in the increasing numbers of young, white-collar professionals now living in Parkside, and in the educational profile of the local population. According to census data, 30 per cent of the local workforce was employed as professionals, 20 per cent as clerical or administrative workers, and 18 per cent as managers. In terms of education, 53 per cent hold some form of post-school educational qualification – significantly above the Melbourne metropolitan average of 41 per cent (Australian Bureau of Statistics, 2006).

The household-type profile of Parkside is atypical of metropolitan Melbourne with lone-person households and childless couples heavily over-represented.<sup>12</sup> This profile is largely the result of the mix of housing stock in Parkside and the young age profile of the population. More than half of all dwellings in the city are flats, units or apartments – a legacy of the area's inner city location and patterns of urban development dating back to the late 1800s. This mix of stock, much of which is rental accommodation, along with the area's reputation as a hangout for young inner-urban types, attracts high numbers of students and young professionals. While 39 per cent of Parkside residents are aged between 18 and 30 years, this is just 25 per cent for Melbourne. This population tends to be highly transient, with just over a third of residents in the area at the last National Census having lived in the municipality for 5 years or more, compared to 57 per cent across Greater Melbourne (Australian Bureau of Statistics, 2006). Home ownership rates also suggest that for many, Parkside is only a temporary place of residence during young adulthood, before they shift to the outer suburbs to raise their families.<sup>13</sup>

As with most inner-city suburbs in Melbourne, Parkside's population is also characterized by its high level of ethnic and cultural diversity. Only 59 per cent of Parkside's population was born in Australia, compared to 64 per cent across metropolitan Melbourne. The rich cultural influences of migration are clearly evident within the municipality, with its constituent suburbs home to well-established Russian, Polish, Ukrainian and Greek communities and thus heavily permeated with a European influence. The face of multicultural Parkside is, however, beginning to change. Many European-born residents, having migrated to Australia in the late 1940s, 1950s and 1960s, are now reaching their latter years, with younger migrant communities from China, Indonesia and Malaysia beginning to impact the area's traditional European cultural flavour.

### **Business, industry and the local economy in Parkside**

Parkside has an estimated 8500 established businesses, many of them small-to-medium-sized firms. Tourism is an important economic mainstay of the local economy with the area renowned for its cosmopolitan restaurants, bars, cafes and coffee houses. Given its position bordering the Melbourne CBD, the city also serves as an important hub for commerce and knowledge-based industries.

Unemployment and labour market growth statistics provide a useful indicator of the area's economic health. The unemployment rate for Parkside is just 4.0 per cent, well below the Melbourne-wide rate of 5.4 per cent (Australian Bureau of Statistics, 2006). The average labour market growth rate of 2.83 per cent in Parkside also compares favourably with other areas, well above the average for other inner city municipalities.

### **Local politics in Parkside**

For city elections Parkside is divided into seven wards each represented by a single politician. Elections are held every 3 years using a preferential voting system, with the Mayor then elected for a 12-month term by a vote of his/her fellow politicians. The tenor and tone of politics in the municipality is difficult to simplify as it varies significantly from suburb to suburb, and has changed considerably over time in line with changes in the composition and socioeconomic profile of the resident population. State and national election results provide some sort of guide in this respect, at least in terms of partisan politics in the municipality. At both levels the Australian Labor Party tends to dominate,

particularly in the old port-side working-class suburbs in the north-west of the municipality and in the central and central western suburbs, where the party typically records between 55 and 70 per cent of the primary vote. Indeed Labor has controlled the state and national seats covering the majority of the municipality since 1950 and 1906 respectively. More recently, the Greens have made significant political inroads, particularly across the central suburbs in the municipality where the population of young well-educated artisans and professionals tends to be heavily concentrated.

In terms of party support, municipal politics have tended to mirror these patterns evident at the state and national levels, with ALP politicians in coalition with a number of centre-left independents controlling the municipal agenda. This also reflects the traditional pre-amalgamation political dynamics of Parkside's constituent city governments. Post amalgamation local government politics has been dominated by a left-wing alliance, which incorporates the ALP and left-leaning community activists and residents committed to promoting progressive social, economic and environmental reform. The network, with an estimated 300 members, provides financial and campaign assistance to endorsed candidates during local elections and has excellent links into the state government. The alliance endorsed five candidates in the 2004 local elections, all of which were elected to the seven-person elected council.

The strength and influence of the alliance is indicative of a broader grassroots activist culture in Parkside. An extensive range of community organizations including residents and traders associations, friends groups, historical societies, service groups, arts and cultural organizations, and special interest groups play an active role in local political, cultural and public-policy debates. Urban planning, heritage and environmental advocates, and the local public housing lobby are particularly influential in shaping the municipality's programme. Reflecting this activism, Parkside itself has been at the forefront of many of the key social policy and planning debates in Victoria over the last two decades – most notably in recent times, playing a central role in debates over the introduction of safe injecting rooms for intravenous drug users and the introduction of tolerance zones for street sex workers.

### **Innovation norms and procedures at Parkside**

Tables 6.1–6.4 provide the mean scores for innovation norms and procedures at Parkside for each of the 29 individual items tested, and for comparative purposes, the lowest and highest scores recorded and the

mean score across all 11 governments. For Tables 6.1–6.3, possible scores range from 1 signifying ‘Strongly Disagree’ to 5 signifying ‘Strongly Agree’. For Table 6.4 ‘Helps and Hinders’, the scale runs from 1 = ‘mostly hinders’; 2 = ‘hinders more than helps’; 3 = ‘has no effect’; 4 = ‘helps more than hinders’; to 5 = ‘mostly helps’.<sup>14</sup>

Of the four governments involved in the second part of the study, Parkside is probably the most difficult to pigeon-hole in terms of how it, as an organization, comprehends innovation, what innovation entails, the roles of different institutionalized structures, processes and actors in the process and what helps and hinders the latter. Table 6.1 shows the results for the ‘Defining Innovation’ items. As the table suggests, no single conception of innovation really dominates at Parkside. But there is one standout characteristic. Parksiders were the most likely of all governments to agree that innovation meant making major changes (item 3). At the same time though, they were also one of the most likely to agree that innovation meant making small continuous improvements, that it was about developing or adapting new technology; and that it was about making a planned effort to improve a process, service or programme – hardly what you would consider ‘making major changes’. This perhaps suggests a broadminded and generally open understanding of what innovation involves or entails. It also suggests an optimistic view of innovation and the role of government.

As the next battery of questions dealing with innovation and government indicates, Parksiders were the most likely out of all of our municipalities to strongly agree that innovation necessitates working closely with the community. They were also the most likely to agree that innovation was not something that governments do, and amongst the most likely to agree that innovation in local government was about

*Table 6.1* Defining innovation: Parkside politicians and bureaucrats

	Parkside	11 Governments		
	Mean	Low score	High score	Mean
1. Small continuous improvements	3.60	3.25	3.72	3.46
2. Develop or adapt new technology	4.10	3.82	4.12	4.02
3. Making major changes	3.31	2.81	3.31	3.04
4. Planned effort to improve process, service, programme	3.94	3.68	4.08	3.87

Table 6.2 Innovation and government: Parkside politicians and bureaucrats

	Parkside	11 Governments		
	Mean	Low score	High score	Mean
5. Work closely with community	3.66	2.91	3.66	3.38
6. Not something governments do	1.80	1.39	1.80	1.66
7. Resolving conflicting priorities	2.82	2.37	2.86	2.66
8. Accountability requirements limit innovation	2.34	1.93	2.38	2.27

resolving conflicting priorities. Their optimistic outlook was also seen as being relatively unconstrained by accountability requirements (see Table 6.2).

On the 'structures and people' measures, Parkside tended to be placed mid-range amongst our 11 governments. While respondents described themselves as 'innovators' more frequently than at other municipalities, they tended to express only an average level of faith in the capacity of their organizational structures to foster innovation (item 11 in Table 6.3), and expressed only moderate agreement that their

Table 6.3 Innovation structures and people: Parkside politicians and bureaucrats

	Parkside	11 Governments		
	Mean	Low score	High score	Mean
9. Need to move outside regular channels	3.55	3.39	3.72	3.52
10. No difference between roles of experts, politicians, managers	2.76	2.65	3.07	2.83
11. See myself as an innovator	3.94	3.75	4.04	3.92
12. Structures encourage innovation	3.42	2.97	3.76	3.34
13. Politicians identify needs, officials create innovations	3.38	2.73	3.38	3.07
14. Organization values innovative individuals	3.62	3.16	4.03	3.46
15. My strength is adapting innovations to my situation	3.70	3.66	3.98	3.79
16. Difficult to be innovative in our organization	2.46	2.00	2.73	2.49



organization valued individuals who strive to be innovators. They were also slightly more likely than average to agree with the proposition that it was difficult to be innovative in their organization. Interestingly, they also tended to more clearly differentiate between the roles of different actors in the innovation process than in other municipalities. They were less likely to agree that there was little difference in the roles of experts, politicians and managers, and more likely to agree that it is the role of bureaucrats to develop innovations to meet needs identified by politicians. This is interesting primarily because of Parkside's historical reputation as a government where local politicians tend to actively micro-manage policy issues and programmes, and work around traditional distinctions between the roles of politicians and bureaucrats.<sup>15</sup>

Responses to the questions about what helps and hinders innovation at Parkside tended to be far more unambiguously positive. By comparing the Parkside mean scores with the highest score across all our governments, we can see in Table 6.4 that respondents at

*Table 6.4* Helps and hinders: Parkside politicians and bureaucrats

	Parkside	11 Governments		
	Mean	Low score	High score	Mean
17. Annual budget process	3.02	2.39	3.47	2.94
18. Municipal corporate plan	4.33	3.82	4.33	4.03
19. Municipal statutory committee meetings	3.57	3.09	3.57	3.37
20. Municipal advisory committee meetings	3.88	3.47	4.12	3.76
21. Municipal meetings	3.72	3.04	3.72	3.39
22. Pay and promotion system	3.08	3.08	3.48	3.20
23. Values and culture of executive	3.93	3.33	4.41	3.80
24. Divisional structure of municipality	3.33	2.77	3.39	3.07
25. Quality of proposals from officers	4.31	4.16	4.71	4.33
26. Municipal election campaigns	2.87	2.27	2.87	2.67
27. State govt. regulation of local govt.	2.90	2.23	2.90	2.56
28. Values and culture of politicians	4.07	2.45	4.07	3.38
29. Quality of proposals from politicians	3.99	2.51	3.99	3.31

Parkside were the most likely to agree that the corporate plan, statutory committee meetings, municipal meetings, local government elections, state government regulation, and the values, culture and quality of proposals coming from politicians were helpful in terms of innovation. They also tended to view the impact of advisory committee meetings, the organization's divisional structure and the quality of proposals from officers as more helpful than respondents at most other local governments. But they were more circumspect than average in terms of the impact of the budget and about the impact of the organization's internal pay and promotion system on innovation.

### The community view of innovation at Parkside

Having described Parkside's 'internal' conception of innovation, we can now move on and see how this compares to the views of its community leaders. These community leaders at Parkside were 21 individuals including eight from residents and community groups, six from service groups, three from traders and business groups, two state politicians and two members of the local media. As noted in Chapter 5, community leaders in Parkside, and our other three governments involved in the second phase of this research, were asked to respond to the same battery of questions based around the concept and practice of innovation.<sup>16</sup> Overall, as the results in Tables 6.5, 6.6 and 6.7 indicate, there is a high level of symmetry between the views of internal actors – politicians and bureaucrats – and the views expressed by the community leaders at Parkside. Indeed, out of the 16 items tested, there are only two where more than 0.5 separated the responses of politicians/bureaucrats from the community leaders. Community leaders were much more likely to agree that innovation requires working closely with the community and were also more likely to agree that innovation means moving outside of regular channels.

Table 6.5 Defining innovation: Parkside community leaders (mean)

	Parkside	Four governments
1. Small continuous improvements	3.48	3.48
2. Develop or adapt new technology	3.81	4.07
3. Making major changes	3.71	3.38
4. Planned effort to improve process, service, programme	3.76	3.95

*Table 6.6* Innovation and government: Parkside community leaders (mean)

	Parkside	Four governments
5. Work closely with community	4.19	4.25
6. Not something governments do	1.90	1.97
7. Resolving conflicting priorities	2.95	3.10
8. Accountability requirements limit innovation	2.62	2.68

If we look at Tables 6.5, 6.6 and 6.7 we can also see how Parkside's community leaders' scores on each of the items compare to the mean figure returned across the four municipalities involved in stage two of the study. Table 6.5 shows that at Parkside, respondents were less likely than the average to see innovation as involving adaptation, and more likely to agree that it involves making major changes. Table 6.6 indicates that there was no major divergence on the 'Innovation and Government' measures.

In terms of the 'Structures and People' measures, as Table 6.7 shows, community leaders at Parkside appeared more positive than average in their perceptions. They were less likely to agree that it was difficult to be innovative in their dealings with the municipality, more likely to agree that their municipality valued innovative individuals, and slightly more likely to agree that their government's structures encourage innovation. The picture emerging from the items dealing with the roles of various actors in the innovation process is more complex. On the one

*Table 6.7* Innovation structures and people: Parkside community leaders (mean)

	Parkside	Four governments
9. Need to move outside regular channels	4.05	3.88
10. No difference between roles of experts, politicians, managers	2.52	2.82
11. See myself as an innovator	3.76	3.89
12. Our local government structures encourage innovation	3.57	3.46
13. Politicians identify needs, officials create innovations	2.95	3.38
14. My municipality values innovative individuals	3.71	3.42
15. My strength is adapting innovations to my situation	3.76	3.75
16. Difficult to be innovative in our municipality	2.71	2.92

hand, they were more likely to draw a distinction between the roles of experts, politicians and managers. On the other hand, Parkside's community leaders were much less likely than average to agree with the proposition that politicians are elected to identify needs, with the role of officers being to create innovations to meet these needs. So this distinction in roles was obviously not what the community leaders had in mind when responding to the previous item.

Overall, we can summarize the community leader's views on innovation as being quite close to those of the politicians and bureaucrats at Parkside. They tend to be relatively open in terms of what they perceive innovation to be, though more likely to subscribe to 'big bang' theories than their colleagues in other municipalities. They are generally more positive about the role of government in the innovation process, and also tend to be significantly more positive than community leaders elsewhere about how innovation and innovators are encouraged and valued in their own municipality.

## **Innovation cases at Parkside**

As well as capturing information on how politicians, bureaucrats and community leaders perceive innovation, we were also interested in the types of innovations developed in each municipality and how these were valued by the different groups of actors. We began by interviewing a cross-section of municipal staff and politicians at Parkside to identify, amongst other things, what innovations had been developed over the preceding 12 months. The 25 people interviewed, including the Mayor, six politicians, the CEO, four Directors, ten Managers and three Coordinators/Team Leaders made a total of 98 nominations, identifying 38 separate innovations. Of these 38, the 13 receiving multiple nominations are listed in Table 6.8.

As the table illustrates, the range of innovations identified is quite diverse and includes internal process innovations, innovative developments in the use of technology, environmental innovations, and new ways of dealing with complex social problems confronting the municipality. The two most commonly cited innovations – the 'Cultural Vitality Corporate Planning Guidelines' with 19 nominations and the 'Service Culture Program', with 14 nominations, have very wide recognition within the organization. The first involves the practical integration and recognition of the value of cultural diversity within the more traditional triple-bottom-line corporate reporting and planning framework, while the second involves a raft of training measures and cultural changes

*Table 6.8* Innovations at Parkside receiving multiple nominations from politicians and bureaucrats

<b>Innovation</b>	<b>Nominations</b>
Cultural Vitality Corporate Planning Guidelines	19
Service Culture Program	14
Neighbourhood Forums	8
City of Parkside website	7
Street Sex Worker Safety Zone	7
Environmentally Sustainable Home Living Project	3
Introduction of Politician Liaison Officer	2
'Design Ins'/Planning for Contested Spaces	2
Financial/Performance Reporting Reviews	2
Governance Review	2
Management Cultural Change (web-based)	2
Memorandum of Understanding (between Politicians and GMT)	2
Water Management Strategy	2

aimed at improving Parkside's approach to service delivery. The municipality's 'Neighbourhood forums', which provide residents with an opportunity to raise important issues with politicians and government officers in a relatively informal setting were also heavily nominated, as was the redevelopment of Parkside's website, and its controversial advocacy for the introduction of a safety zone for street sex workers.

Figure 6.1 provides a breakdown of the innovation cases by type, with individual innovations categorized as belonging to one of the six potential types outlined in Chapter 5: Governance, Organizational Change and Development; Urban Design, Planning and Infrastructure; Community Service, Advocacy and Consultation; IT and Technology; Art and Culture; or Miscellaneous. As the results indicate, both at Parkside and overall, the largest category of cases were those in the area of Governance, Organizational Change and Development. At Parkside, these constituted a full 50 per cent of all innovations – significantly above the 37 per cent figure overall. The high number of innovations in this category most likely reflects the significant organizational changes adopted at Parkside following the appointment of a new CEO in early 2001. Somewhat surprisingly given the salience of urban design and planning issues within the inner suburbs, particularly around the foreshore and port areas in the municipality, the percentage of innovations in the Urban Design, Planning and Infrastructure category was well below the average – 18 per cent at Parkside compared to an

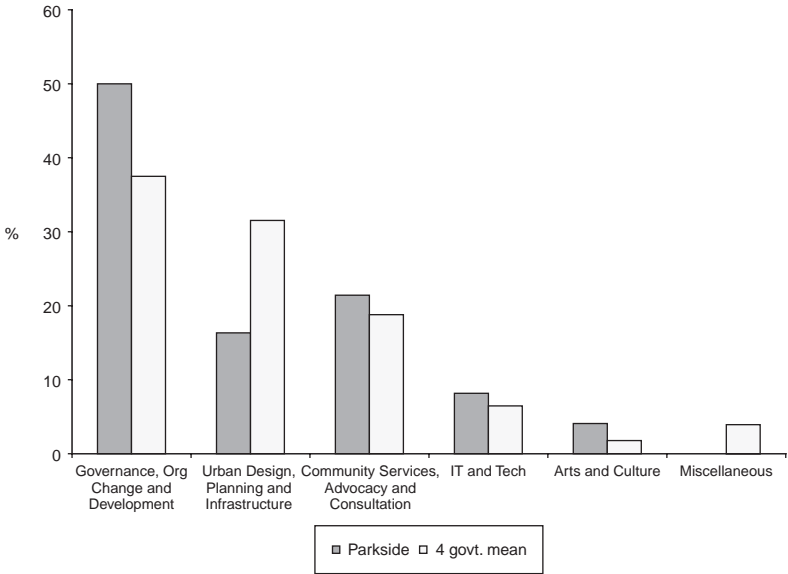


Figure 6.1 Innovations by category: Parkside politicians and bureaucrats

average of 31 per cent. In contrast, the percentage of innovations nominated in the Community Services, Advocacy and Consultation area was slightly above the average, as were the figures for IT and Technology nominations and innovations in the field of Arts and Culture.

### Innovation cases: The community view at Parkside

Community leaders were also asked to identify innovation cases within their municipality, with the 21 community leaders interviewed at Parkside making 55 nominations spread across 40 separate innovations. Eight cases received multiple nominations, with each of these listed in Table 6.9. The Southern Suburbs Strategic Plan received the most nominations (4) from community leaders, despite being nominated by only one person in the politician and bureaucrat interviews. Three of the other highly nominated cases – the Neighbourhood Forums, website, and Street Sex Worker Safety Zones – also figured prominently in politician and bureaucrat interviews, while the others either were not mentioned or were mentioned only once by Parkside’s politicians and bureaucrats.

*Table 6.9* Innovations at Parkside receiving multiple nominations from community leaders

<b>Innovation</b>	<b>Nominations</b>
Southern Suburbs Strategic plan	4
Neighbourhood Forums	3
City of Parkside Website	3
Street Sex Worker Safety Zone	3
East Parkside Public Housing Development	3
Promotion of Local Public Schools	3
Parkside Eco-centre	2
Parkside Foreshore Redevelopment	2

To explore how the types of cases identified as innovative differed across our three groups of actors – politicians, bureaucrats and community leaders – we calculated the percentage of total nominations directed by each group towards the six different categories of innovation.<sup>17</sup> An average figure calculated across the four governments has also been included to enable a comparative analysis of how nomination patterns vary from place to place. A number of patterns are evident in the results provided in Figure 6.2. First, we can see clearly that politicians and bureaucrats at Parkside nominated ‘Governance, Organizational Change and Development’ cases much more frequently than their colleagues in other municipalities. Just over 40 per cent of all politicians nominations were in this category – compared to a mean of 25 per cent across all municipalities. For bureaucrats, the figure was 53 per cent compared to an overall mean of 41 per cent. In contrast, ‘Governance’ innovations made up just 3 per cent of nominations from community leaders at Parkside. Secondly, we can see that ‘Urban Design, Planning and Infrastructure’ innovations, relatively speaking, were not heavily nominated at Parkside. All three categories of actors were well under the four government mean. Politicians, at 18 per cent, were at less than half the latter, with the 17 per cent figure for bureaucrats’ nominations just over half of the overall mean of 30 per cent. Interestingly, the percentage of community leaders’ nominations in this category at Parkside, though still slightly low in comparative terms, was markedly different from that of the politicians and bureaucrats, the latter two being almost identical. This is in contrast to the pattern of innovation nominations in the ‘Community Services, Advocacy and Consultation’ category, where the cases identified by politicians and community leaders were much more closely aligned, and the bureaucrats were more out of step.

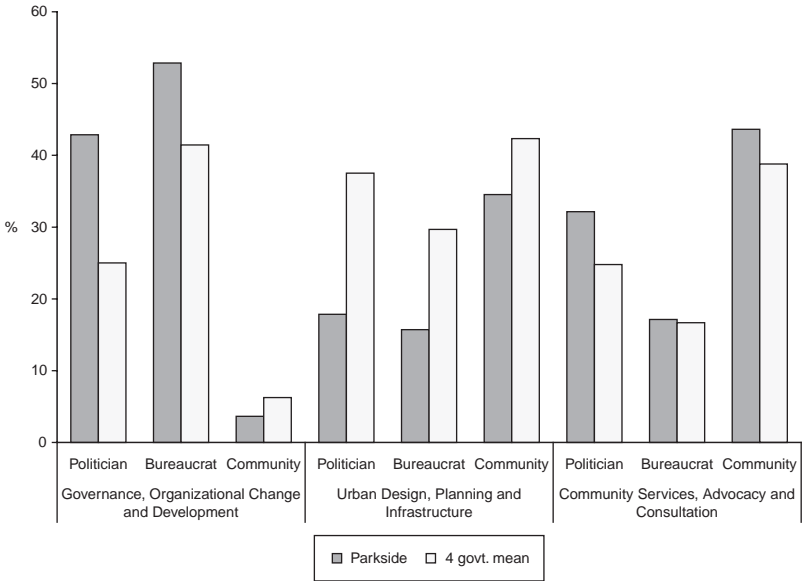


Figure 6.2 Innovations by category: Parkside politicians, bureaucrats and community leaders

To further explore how understandings or perceptions of local innovations differed across different groups of actors, we also asked the community leaders interviewed whether they thought the cases identified as ‘key innovations’ by politicians and bureaucrats were in fact innovative at all. As the results provided in Table 6.10 suggest, community leader’s views tended to be quite polarized. Only two cases – the Neighbourhood Forums and the municipality’s new website – were viewed as innovative by a majority of the community leaders interviewed. Interestingly, and reflecting the controversy surrounding the issue, the municipality’s strong but ultimately unsuccessful advocacy in favour of the establishment of a safety zone for street sex workers was regarded as innovative by 48 per cent of respondents, but as not innovative by a relatively high 38 per cent, with a further 14 per cent undecided. Not surprisingly, internal innovations such as the Service Culture Program, and the Cultural Vitality Corporate Planning Guidelines tended to have low profiles, with the majority of community leaders either never having heard of them or not knowing enough about them to make a judgement. At Parkside, and as we shall see for the



*Table 6.10* Key innovations: Parkside community leader assessments

<b>Innovation</b>	<b>Innovative (%)</b>	<b>Not Innovative (%)</b>	<b>Never Heard (%)</b>	<b>Don't Know (%)</b>
Cultural vitality guidelines	23.81	23.81	33.33	19.05
Service Culture Program	9.52	14.29	57.14	19.05
Neighbourhood forums	57.14	38.10	0.00	4.76
City of Parkside website	57.14	28.57	0.00	14.29
Street sex tolerance zones	47.62	38.10	0.00	14.29
Environmentally sustainable home living project	38.10	9.52	14.29	38.10

other municipalities, the types of innovations nominated by politicians, bureaucrats and community leaders, and their respective views of which are key innovations, are quite different.

### **Key innovators at Parkside**

As reported in Chapter 5, we asked politicians and bureaucrats to list those individuals they regarded as key innovators. In order to provide a standardized measure to compare the pattern of nominations across the four governments, the raw nominations were converted into individual percentage scores based on the percentage of total nominations per government received by each individual. Those receiving no nominations were allocated a score of zero. Overall, 52 individuals received nominations at Parkside, with 32 people receiving multiple nominations. Table 6.11 lists the ten most frequently nominated 'key innovators' at Parkside according to the 25 politicians and bureaucrats interviewed. As can be seen from the table, there is a relatively even spread in terms of the positions held by the 'key innovators' at Parkside. The CEO was most frequently recognized as a key innovator, holding top position with almost 10 per cent of all nominations, followed by one of the politicians with just under 7 per cent. The list also includes another politician – the Mayor, two members of the Senior Executive,

Table 6.11 Key Innovators at Parkside

Position	Frequency	Percentage of total 'key innovator' nominations per government (%)
CEO	20	9.76
Politician	14	6.83
Director	11	5.37
Manager	9	4.39
Mayor	9	4.39
Director	9	4.39
Manager	9	4.39
Coordinator	8	3.90
Director	7	3.41
Politician	6	2.93

and two mid-level Managers. Interestingly, all the politicians received multiple nominations as 'key innovators' at Parkside – the only municipality where this occurred. We will explore what sets these innovators apart from their colleagues in more detail in Chapter 10.

## Innovators and networks at Parkside

To conclude this chapter we briefly return to the role of networks as a key part of the innovation puzzle. As we noted in Chapter 4, 'advice' can be thought of as an embedded resource, which earlier studies on innovation have noted is central to the innovation dissemination process (Coleman, Katz and Menzel, 1966; Rogers and Kincaid, 1981). Strategic information – knowing what direction the organization is headed in, or knowing how to successfully steer new projects, programmes and policies through the institutional and political labyrinth – can be characterized as a crucial resource for any budding governmental innovator. With this in mind, we hypothesize that our key innovators would generally be well-placed strategically within these two types of social networks, able to easily link in with crucial actors if not necessarily occupying central or key strategic positions themselves.

Figures 6.3 and 6.4 show where our 'key innovators' are placed within the 'Advice' and 'Strategic Information' networks at Parkside. Actors in the networks have been divided into three groups – politicians (black squares); senior executives (CEO and directors-grey circles);

and middle-managers (managers, coordinators, team leaders and others—white diamonds). The node size indicates an actor's reputation as an innovator, with size increasing in line with the number of nominations by others.<sup>18</sup>

Both figures provide solid support for our basic premise. Looking first at Figure 6.3, we can see quite clearly that the key innovators tend to be grouped together in the centre of the advice network at Parkside, particularly those senior executives and politicians rated highly as innovators. It is also worth noting how tightly integrated these two groups seem to be, with lots of ties connecting them. While the innovative middle-managers are also quite central, we can see that they tend to reside within a second outer ring surrounding this core of senior bureaucrats and politicians. This suggests a quite traditional hierarchical pattern within the advice network structure.

In Figure 6.4 we can see that the key innovators again tend to be tightly grouped within the centre of the strategic information network. They are also arranged so that the politicians and senior executives are in the core, with most of the innovative middle-managers located on the edge of this core. As we shall see, this structure is broadly consistent with

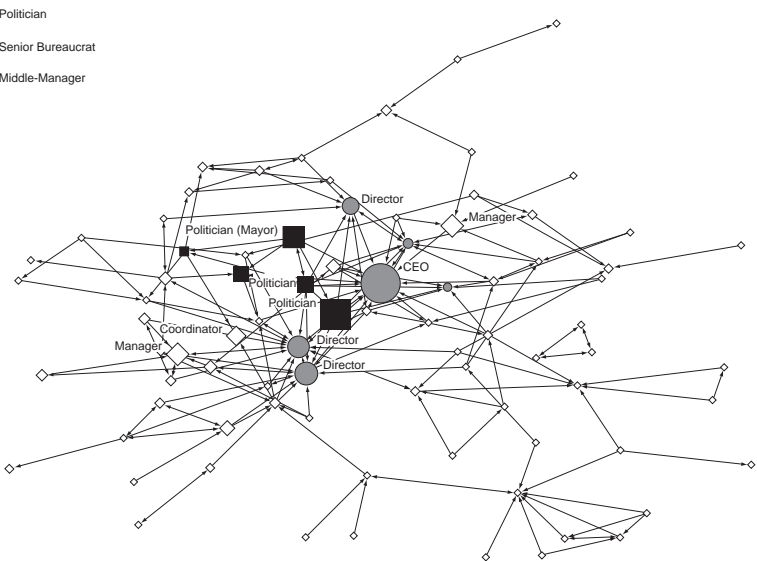


Figure 6.3 Parkside: Key innovator placement within advice network

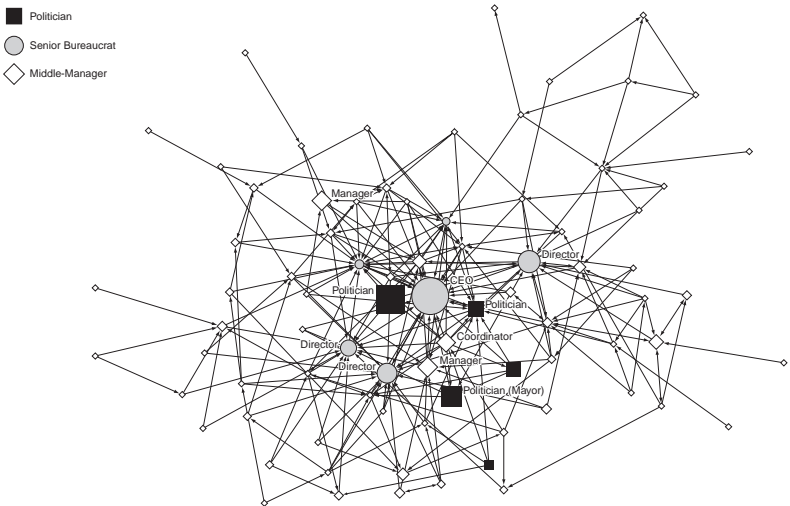


Figure 6.4 Parkside: Key innovator placement within strategic information network

that found at the other municipalities, with the degree of centralization perhaps slightly stronger, and the hierarchical arrangement also slightly more evident at Parkside.

To briefly recap our story at Parkside, in many respects, as we noted, the municipality is probably the most difficult to characterize in terms of how it comprehends innovation and in how it assesses the contribution of different institutionalized structures and procedures. No single conception of innovation stood out, but what did set Parkside apart was the belief that innovation meant making major changes. Parksiders also tended to be confident in their own capacity to innovate, and generally up-beat about the contribution made by organizational procedures such as statutory and municipal meetings, the corporate plan and the values, culture and input coming from both politicians and the senior executive. Interestingly, there was a high degree of symmetry between the views of internal actors – politicians and bureaucrats, and the views expressed by the community leaders in most of the areas examined – the exception being in terms of the types of nominations identified as important. There appeared to be a more even spread of middle-managers, senior executives and politicians among the ‘key innovators’, with politicians particularly well-regarded in comparison to

other municipalities. Key innovators, particularly politicians and senior executives with reputations as innovators, tended to be more central in the advice and strategic information networks, with the same two groups of actors also more tightly connected with each other than at other places. We will return to a more detailed examination of some of these issues, particularly the links between innovator status and network position, in Chapter 10.

# 7

## City of Kilbourne – Innovation from the Middle, Out

The City of Kilbourne sits at the foothills of the Dandenong Mountains, 20 kilometres southeast of Melbourne, and is home to over 140,000 residents. First settled in the 1830s as a cattle-run, Kilbourne is now one of the largest and most rapidly growing urban centres in Victoria. The municipality sprawls across 114 square kilometres and is characterized by a diverse social and geographic topography. The North is traditionally working class, and is a mixture of residential and commercial development with a significant light industrial sector. To the east lie the greener suburbs, with the picturesque backdrop of the Dandenong Ranges. Further west sit the more affluent residential suburbs, where elegant double-storey homes, pools and BMWs abound. In the south, a heavily subdivided and rapidly expanding dormitory suburb shares a boundary with another that is more sparsely populated, with large allotments, open fields and dense bushland standing defiantly against development pressures.

The visual marker for the area is the detached brick-and-tile family bungalow set neatly on a quarter-acre block – a testament to the great Australian dream of suburban home ownership. Neatly arrayed in courts and avenues, these iconic dwellings are the staple of the many private housing estates fanning out from the numerous major transit roads that carry traffic through the city to the east and back towards the centre of Melbourne.

Unlike the other three cities studied in depth in this book, Kilbourne escaped the early 1990s reform of local government boundaries relatively unscathed – the addition of one neighbouring suburb, and parts of another being the only changes. While this relatively small expansion in area has allowed for continuity in local governance within the municipality, the downside has been added financial constraints with

Kilbourne forced to comply with legislative requirements for rate reductions of 20 per cent coupled with rate capping without the benefits of significantly increased economies of scale. These reforms were initiated by the Kennett Liberal Government and have been widely described as among the most assertive attempts at structural reform on local government in the past 100 years.

## **The citizens of Kilbourne**

One of the strongest features of the city is its traditional attraction for young families lacking the resources to buy in more expensive areas closer to the city. As urban development spread out towards the foothills in the 1970s and 1980s, the lure of cheaper land and a growing labour market in the light-industrial zones of Kilbourne brought couples with small children out from the city suburbs in search of the Australian dream – a three-bedroom home on a quarter-acre block. While median house prices in the municipality have increased markedly over the last two decades, the same attraction still drives development and population growth in the area today. This is clearly reflected in the age and household profile of the municipality. More than every second household (53 per cent) consists of couples with children, a figure which is above the Melbourne average of 50 per cent. The percentage of the population aged 0–17 years is above the metropolitan government average, as is the 35–49-year-old cohort. Reflecting the influx of young families in the 1970s, Kilbourne also has a significant population of ‘empty-nesters’ with 14 per cent of the population in the 50–59-year-old age group (Australian Bureau of Statistics, 2006).

While home ownership rates at 33 per cent are below the Melbourne metro average, the mortgage belt status of the municipality is confirmed by the high proportion of households in the process of buying their own homes – 46 per cent as opposed to 28 per cent over the metro area. In parts of Kilbourne, such as the more recently developed suburbs, a remarkable 67 per cent of households are in the process of buying their own homes (Australian Bureau of Statistics, 2006).

Income levels across the municipality also largely reflect the lower middle-class status of the area. Kilbourne’s citizens are comfortable, but not wealthy. Education levels are generally slightly below average, and geared more towards vocational rather than formal academic training. Significant disparities in the spatial distribution of income and education are evident, with the southern suburbs significantly better

placed than those in the north of the municipality. Even in these lower income suburbs though, the level of socioeconomic marginalization is relatively low.

In keeping with its outer metropolitan location, Kilbourne is characterized by a relatively low level of ethnic diversity. Seventy-one per cent of the population was born in Australia, which is well above the Melbourne average of 66 per cent (Australian Bureau of Statistics, 2006). However, there are some diverse areas across the municipality which are home to significant Malaysian and Sri Lankan communities, and to relatively large numbers of migrants from Hong Kong, Vietnam and China.

### **Business, industry and the local economy in Kilbourne**

The local economy and industry structure at Kilbourne largely reflects its outer suburban location. Light manufacturing is an economic mainstay of the area employing up to 20 per cent of the labour force in the older working-class suburbs to the municipality's north and south-east. The wholesale and retail sectors are also important contributors to the local economy in Kilbourne employing a quarter of the labour force.

### **Local politics in Kilbourne**

The picture of partisan political allegiances across the municipality that emerges from recent state and federal electoral contests is mixed and confusing. At the federal level, the conservative Liberal Party has comfortably held both seats that cover the municipality since 1990. At the state level the picture is somewhat reversed, with Labor holding three of the four seats covering Kilbourne since 2002. In part this most likely reflects the increasing complexity in party affiliation, with citizens willing to divide their loyalties according to how well the parties perform at local, state and national level. It may also reflect an almost schizophrenic division of local priorities within the Kilbourne electorate, with the mortgage belt favouring the Liberals – with their reputation for conservative economic management at the federal level, while supporting Labor – with its superior reputation for service and infrastructure provision at the state level.

Reflecting this mixed voting pattern, municipal level party politics appears to play a relatively minor role. A number of the elected politicians hold party affiliations; however, no single party group holds a



majority in its own right, and party influence is balanced by the presence of a number of community-based, independent candidates. The complexity of the picture is compounded by an apparent split in conservative ranks at the grass-roots level based around competing allegiances to different camps of state and federal Liberals.

One further point is worth noting. Since the re-introduction of local elections after the Kennett Revolution in 1997, Kilbourne has been characterized by a relatively high turnover in politicians. Each of the 2000, 2003 and 2005 elections has seen a majority of incumbents fail to be returned, with only 7 out of the 25 politicians elected since 1997, completing more than a single term in office. To put this in a broader perspective it is worth noting that over the last two polls – 2003 and 2005 – 56 per cent of politicians at Kilbourne have either retired or been defeated. This compares to just 41 per cent of politicians across 79 Victorian municipal elections held over the same period.

In summary then, Kilbourne is a municipality of the comfortable but not wealthy, comprised of the typical suburban housing that exists in the outer suburban areas of Melbourne. It contains many traditional households, has a high rate of home mortgages, and less ethnic diversity than other suburbs. Wholesale and retail trade, and manufacturing are the main industries, and education levels are slightly below the Melbourne average. Politically, Kilbourne is fairly conservative and political party allegiances are not strong in local politics. Few local politicians have seen out more than a single term over the last decade.

## **Innovation norms and procedures in Kilbourne**

Against this background, we now move on to examine how innovation is understood in conceptual terms at Kilbourne. We can see from the results in Table 7.1 that actors at Kilbourne generally do not favour the 'big bang' view of innovation but are more likely to see it as an incremental, adaptive process. Viewed from this perspective it is possible for many roles to be seen as part of the innovation system, rather than innovation being the preserve of central decision-makers such as politicians or senior bureaucrats, and this is exactly the case for Kilbourne. A higher than average number of actors see themselves as innovators (Table 7.3, item 11), while Kilbourne is also more likely than many other municipalities to see no important difference between the roles played by politicians and officials in the innovation game (Table 7.3, items 10 and 13).

Table 7.1 Defining innovation: Kilbourne politicians and bureaucrats

	Kilbourne	11 Governments		
	Mean	Low	High	Mean
1. Small continuous improvements	3.60	3.25	3.72	3.46
2. Develop or adapt new technology	3.97	3.82	4.12	4.02
3. Making major changes	3.01	2.81	3.31	3.04
4. Planned effort to improve process, service, programme	3.86	3.68	4.08	3.87

Interestingly, a sceptical view of politics and politicians dominates, with Kilbourne rating near the bottom of our group so far as internal estimates of the contribution made by politicians to the innovation process are concerned (Table 7.4, items 12 and 13). Their primary domain, the municipal meeting, is viewed as a weakly positive contributing factor (Table 7.4, item 5), and local elections are viewed as a hindrance (item 10). Indeed, all the items which reflect assessments of the politicians rate at or near the bottom for Kilbourne. It also has by far the least positive view of electoral governance, seeing elections, state government and politicians as hindering rather than helping innovation (see Chapter 2).

Actors at Kilbourne also appear somewhat sceptical about the role local government can play in innovation. They are the most likely of all our governments to say that 'accountability requirements limit innovation' and one of the least likely to see innovation as requiring the resolution of conflicting priorities (Table 7.2). Kilbourne also scored

Table 7.2 Innovation and government: Kilbourne politicians and bureaucrats

	Kilbourne	11 Governments		
	Mean	Low	High	Mean
5. Work closely with community	3.30	2.91	3.66	3.38
6. Not something governments do	1.67	1.39	1.80	1.66
7. Resolving conflicting priorities	2.38	2.37	2.86	2.66
8. Accountability requirements limit innovation	2.38	1.93	2.38	2.27

Table 7.3 Innovation structures and people: Kilbourne politicians and bureaucrats

	Kilbourne	11 Governments		
	Mean	Low	High	Mean
9. Need to move outside regular channels	3.64	3.39	3.72	3.52
10. No difference between roles of experts, politicians, managers	2.99	2.65	3.07	2.83
11. See myself as an innovator	4.03	3.75	4.04	3.92
12. Structures encourage innovation	3.40	2.97	3.76	3.34
13. Politicians identify needs, officials create innovations	2.82	2.73	3.38	3.07
14. Organization values innovative individuals	3.37	3.16	4.03	3.46
15. My strength is adapting innovations to my situation	3.72	3.66	3.98	3.79
16. Difficult to be innovative in our organization	2.55	2.00	2.73	2.49

highly on seeing innovation as ‘not something that governments do’. These patterns suggest a government in which officials see themselves as carrying most of the responsibility for innovation. Actors at Kilbourne are also among the most likely to view their organization as being unsupportive of innovation, scoring highly on the item ‘it is difficult to be innovative in our organization’ (Table 7.3, item 16).

Overall, the predominant view of innovation is one of incremental, adaptive processes. Innovation is not regarded as involving major, structural shifts in the local government context, which is seen as heavily bounded by accountability requirements and fairly unsupportive of efforts to innovate like most governmental domains. In particular, elections and politicians are viewed as hindering rather than helping innovation (Table 7.4).

### The community view of innovation at Kilbourne

As already noted in Chapter 5, in order to gain some sort of understanding of the community’s views on innovation in each municipality, we also conducted interviews with a range of community leaders. At Kilbourne, the interview group of 24 included four people from residents/ratepayers groups, five from service/community groups, four

Table 7.4 Helps and hinders: Kilbourne politicians and bureaucrats

	Kilbourne	11 Governments		
	Mean	Low	High	Mean
1. Annual budget process	2.86	2.39	3.47	2.94
2. Municipal corporate plan	4.09	3.82	4.33	4.03
3. Municipal statutory committee meetings	3.19	3.09	3.57	3.37
4. Municipal advisory committee meetings	3.78	3.47	4.12	3.76
5. Municipal meetings	3.04	3.04	3.72	3.39
6. Pay and promotion system	3.33	3.08	3.48	3.20
7. Values and culture of Executive	3.73	3.33	4.41	3.80
8. Divisional structure of Municipality	2.89	2.77	3.39	3.07
9. Quality of proposals from officers	4.35	4.16	4.71	4.33
10. Municipal election campaigns	2.27	2.27	2.87	2.67
11. State govt. regulation of local govt.	2.36	2.23	2.90	2.56
12. Values and culture of Politicians	2.45	2.45	4.07	3.38
13. Quality of proposals from Politicians	2.51	2.51	3.99	3.31

from local business groups, four representatives from the local media, four local politicians/party representatives and three prominent citizens. Again, these people were chosen on the basis of nominations from the politicians and bureaucrats previously interviewed, along with a review of the municipal community directory, and a review of local media over the preceding 12 months.

Community leaders were asked to respond to essentially the same series of statements to those put to our politicians and bureaucrats,

Table 7.5 Defining innovation: Kilbourne community leaders (mean)

	Kilbourne	Four Governments
1. Small continuous improvements	3.30	3.48
2. Develop or adapt new technology	4.13	4.07
3. Making major changes	3.26	3.38
4. Planned effort to improve process, service, programme	3.61	3.95

Table 7.6 Innovation and government: Kilbourne community leaders (mean)

	Kilbourne	Four Governments
5. Work closely with community	4.43	4.25
6. Not something governments do	2.13	1.97
7. Resolving conflicting priorities	2.83	3.10
8. Accountability requirements limit innovation	2.52	2.68

focusing on how innovation is defined, how the role of government in the innovation process is perceived, and how they perceived their own and their government's approach to innovation. A summary of responses is provided in Tables 7.5–7.7. As Table 7.5 indicates, community leaders at Kilbourne were most likely to see innovation as being about developing or adapting new technology, and least likely to define innovation as making major changes. In comparison with the mean across the four municipalities, community leaders at Kilbourne were less likely to see innovation as planned efforts than their peers. In this respect, they largely mirrored their municipality's politicians and bureaucrats. They were more likely than community leaders elsewhere to agree that innovation involves working closely with the community, and much more likely to agree with this proposition than politicians and bureaucrats (see Table 7.2).

Community leaders at Kilbourne also appear slightly more sceptical and less understanding of the barriers facing local government actors than their counterparts in other governments, being more willing to dismiss government's role in innovation, and less likely to accept that innovation requires governments balancing competing priorities, or recognizing that accountability requirements may limit innovation (see Table 7.6). Community leaders at Kilbourne are also less likely to draw a distinction between the roles of experts, politicians and bureaucrats than their peers, but more likely to see the need to move outside regular channels and to think that being innovative is difficult in this government (Table 7.7). Interestingly, on most of the 'Structures and People' measures, there is little separating the views of Kilbourne's community leader and the municipality's politicians and bureaucrats (see Tables 7.3 and 7.7), perhaps indicating again, the possible presence of a distinct local culture of innovation.

Table 7.7 Innovation structures and people: Kilbourne community leaders (mean)

	Kilbourne	Four Governments
9. Need to move outside regular channels	4.09	3.88
10. No difference between roles of experts, politicians, managers	3.00	2.82
11. See myself as an innovator	3.95	3.89
12. Our local government structures encourage innovation	3.52	3.46
13. Politicians identify needs, officials create innovations	2.95	3.38
14. My municipality values innovative individuals	3.43	3.42
15. My strength is adapting innovations to my situation	3.68	3.75
16. Difficult to be innovative in our municipality	2.70	2.92

### Innovation cases at Kilbourne

As with the previous chapter, in this section we move from looking at how actors at Kilbourne conceptualize innovation and how they perceive the impact of institutional structures, processes and cultures to actual cases of innovation. We are particularly interested here in what kinds of things our governmental actors – both politicians and bureaucrats – identify as innovations, and how this fits with the views of community leaders. To begin with, we asked a cross-section of politicians and staff at Kilbourne, including the Mayor, the CEO, five Politicians, four Directors, nine Managers, and six others further down the hierarchy, to identify the key innovations which had occurred over the preceding 12 months in their municipality.<sup>19</sup> Overall, 90 nominations were received with 36 ‘innovations’ identified. These ranged from minor process and organizational reforms to major infrastructure projects.

Table 7.8 shows those cases that received multiple nominations. As the table shows, the most frequently nominated innovations at Kilbourne were the Graffiti and Vandalism Management Plan, which included a range of new measures aimed at dealing with these problems, and the Water Sensitive Urban Design project, which introduced a voluntary set of guidelines to encourage developers to protect natural water systems from potential damage caused by urban development. Between

Table 7.8 Innovations at Kilbourne receiving multiple nominations from politicians and bureaucrats

Innovation	Nominations
Graffiti and Vandalism Management Plan	12
Water Saving Urban Design Project	12
Best Value	6
Community Hub Project	5
Customer Service Integration	5
Development of Internet/Intranet	4
Performance Development Review Process	4
Public Transport Strategy	4
'Community Safety' Cross Organizational Team	3
Integrated Risk Management	3
Triple Bottom Line Taskforce	3
Access for all Playground	2
Asset Management Plan	2
Community Capacity Building Team	2
Capital Improved Value (CIV) Rating System	2

them, these two cases received 24 nominations – 27 per cent of the total. Other innovations that received multiple nominations included Best Value, a state government imposed accountability framework, and the Community Hub revitalization project, a project aimed at regenerating a socially and economically marginalized urban centre through a place management approach.

The percentage of nominations in each of the six innovation categories at Kilbourne, along with a mean figure per category calculated across the four governments, is provided in Figure 7.1.<sup>20</sup> As the figure indicates, 40 per cent of all 'innovation' nominations at Kilbourne were in the field of 'Governance, Organizational Development and Change', a figure slightly higher than the four governments mean of 37 per cent. 'Urban Design, Planning and Infrastructure' innovations are significantly over-represented compared to the spread across all four governments, with the figure at Kilbourne almost 10 per cent above the average. In contrast, 'Community Services, Advocacy and Consultation' innovations are grossly under-represented in comparative terms, with only 7 per cent of innovations nominated falling in this area, as opposed to almost 20 per cent overall. The other three categories are quite close to the mean.

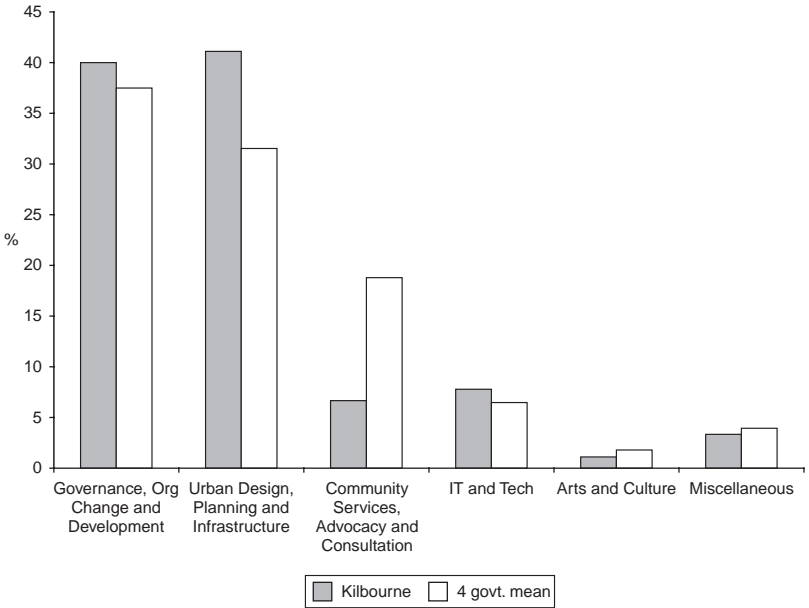


Figure 7.1 Innovations by category: Kilbourne politicians and bureaucrats

## Innovation cases: The community view at Kilbourne

As with the interviews with politicians and bureaucrats we asked community leaders to identify what they regarded as significant innovations made in their municipality over the previous 18 months. At Kilbourne, the 24 community leaders interviewed made 62 nominations, with 42 separate innovations identified. Of these 42, only eight received multiple nominations. These eight are listed in Table 7.9. As the table shows, three of the innovations widely nominated by politicians and bureaucrats (see Table 7.8) were also widely recognized as innovations by the community leaders. These were the Community Hub project, the Public Transport Strategy and the Water Saving Urban Design framework. Kilbourne's advocacy (through an active publicity campaign) against the imposition of tolls on a new 'Freeway' that connects the municipality to the Melbourne central business district was also widely recognized as being innovative, as was its efforts to improve communication with the local community. Interestingly, the Graffiti and Vandalism Management Plan, which rated number one with politicians and bureaucrats (and



*Table 7.9* Innovations at Kilbourne receiving multiple nominations from community leaders

<b>Innovation</b>	<b>Nominations</b>
Community Hub	7
Public Transport Strategy	4
Improved communication with community	4
Advocacy on tollways	3
Water Saving Urban Design project	2
One stop shop for family services/childcare	2
Kilbourne Party Safe	2
Youth Link-Ropes Diversion Program	2

which many community leaders subsequently rated as ‘innovative’, see Table 7.10), did not feature in this unprompted part of the interviews.

In order to see if the types of innovations nominated differed significantly depending on whether the nominator was a politician, bureaucrat or community leader, we used the six different categories outlined earlier. Figure 7.2 displays the results of this grouping for Kilbourne, with the percentage of nominations made by politicians, bureaucrats and community leaders falling into each of three of these categories compared against the mean figure across the four municipalities.<sup>21</sup> Two things stand out clearly from the results. First, there is a considerable difference between the types of innovations nominated by bureaucrats, and particularly by politicians at Kilbourne, compared to those nominated by the actors in other municipalities. Politicians at Kilbourne were far more likely to nominate innovations in ‘Urban Design, Planning and Infrastructure’, but far less likely to nominate innovations in ‘Governance’ or in ‘Community Services’, than their counterparts. Bureaucrats at Kilbourne were more likely to nominate ‘Governance’ innovations or innovations in ‘Urban Design’, yet far less likely than average to list innovations in ‘Community Services’ (4 per cent compared with 17 per cent). Interestingly, nomination patterns for community leaders at Kilbourne tended to reflect the mean across all three categories.

The second thing that stands out is the considerable difference in the kinds of innovations nominated by the different groups of actors at Kilbourne. For example, as Figure 7.2 illustrates, around 13 per cent of innovations nominated by politicians at Kilbourne were in the ‘Governance, Organizational Change and Development’ category.

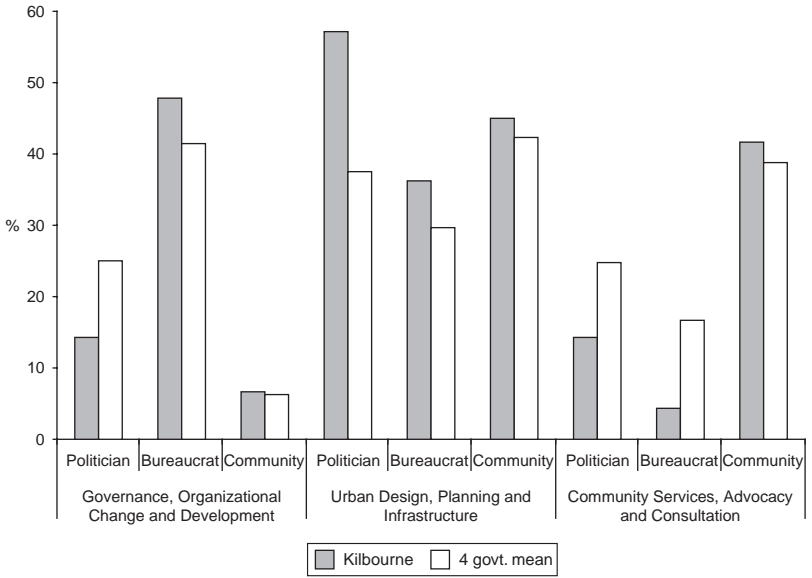


Figure 7.2 Innovations by category: Kilbourne politicians, bureaucrats and community leaders

This compares to just 7 per cent for community leaders and a massive 49 per cent of nominations from bureaucrats. Politicians (58 per cent) were also more likely than bureaucrats (35 per cent), and community leaders (44 per cent) to nominate innovations in ‘Urban Design Planning and Infrastructure’. Perhaps the most interesting result though relates to the ‘Community Services’ category. Here we see a major difference between community leaders on the one hand, and both bureaucrats and politicians on the other, in terms of how frequently innovations in this category were nominated. Just over 40 per cent of all nominations from community leaders were for innovations in this category, compared to 14 per cent for politicians, and just 4 per cent for bureaucrats. While this pattern was replicated at all four governments, the magnitude of the disparity in this category was by far the greatest at Kilbourne.

Finally, we asked community leaders to rate the innovations most frequently nominated by politicians and government officers, asking them whether or not each case was innovative, with alternative responses ‘I’ve never heard of the innovation’ or ‘I do not know enough about the case to make a judgement’ also provided. Results are provided below

Table 7.10 Key Innovations: Kilbourne community leader assessments

Innovation	Innovative (%)	Not innovative (%)	Never heard of it (%)	Don't know (%)
Graffiti and Vandalism Management Plan	61.9	23.8	4.8	9.5
Water Saving Urban Design project	28.6	19.1	9.5	42.9
Best Value	9.5	38.0	4.9	47.6
Community Hub	57.1	28.6	0.0	14.3
Customer Service Integration	23.8	38.0	4.8	33.3
Internet/Intranet	47.6	23.8	0.0	28.6

in Table 7.10. At Kilbourne, more than half of the community leaders assessed two of the six cases as innovative – the Graffiti and Vandalism Management Plan (62 per cent) and the Community Hub (57 per cent) both being particularly well regarded.

The cases most frequently regarded as ‘not innovative’ by community leaders were Best Value (38 per cent) and the Customer Service Integration project (38 per cent). For both of these cases there were also relatively large numbers of community leaders who were unable to say whether they were innovative or not – 48 per cent for Best Value, and 33 per cent for the Customer Service Integration project – perhaps reflecting the largely intra-organizational nature of both innovations. This figure was also particularly high for Water Saving Urban Design (43 per cent). A relatively small percentage of respondents had never heard of each of the innovations. While this might relate to the higher than normal percentage of people answering ‘don’t know’ at Kilbourne, it is possible that this is due to an effective communication strategy whereby the government has managed to keep local citizens well informed about what is occurring; that the community leaders concerned watch what is happening very closely; or that some combination of the two is in play.

To summarize the story at Kilbourne so far then, we found that politicians, bureaucrats and community leaders tended to converge in terms of how they understood innovation. This suggests a strong ‘local culture’ effect which crosses roles and positions. In terms of the frequency

of different types of initiatives nominated as innovations though, we found marked differences between Kilbourne and other municipalities, as well as between politicians, bureaucrats and community leaders at Kilbourne. As might have been expected, bureaucrats were generally on their own in nominating innovations in governance or organizational changes. Politicians were more likely than the other two groups to nominate innovations in urban design and planning, although the differences between the three groups in this category were smaller. Perhaps most surprising was the disjuncture between community leaders and the other two sets of actors on innovations in community services. Community leaders were a remarkable nine times as likely to nominate innovations in this area as bureaucrats. Though politicians were somewhat closer to the community leader position, they were still well behind – 14 per cent as opposed to 42 per cent. We can only speculate about whether or not these results represent different and perhaps competing priorities on behalf of the three sets of actors involved, or whether we are simply talking about naturally occurring variations flowing from the different vantage points occupied by each group. We would not expect many of the community leaders to be fully aware of internal organizational innovations, for example. Nevertheless, the differences in terms of the types of things nominated, and in terms of perceptions of ‘innovativeness’, appear substantial.

### **Key innovators at Kilbourne**

In the next section we again shift focus from innovations to the innovators. Here, we are interested in exactly who is generating the innovative ideas at Kilbourne and how this differs to the other municipalities in our study. At Kilbourne, a total of 156 nominations were received, with 49 individuals identified as ‘key innovators’. This list included six politicians, the CEO, six Directors, ten Managers and 26 other members of staff.<sup>22</sup> Of the 49 identified, 27 received multiple nominations, with ten being nominated by five or more respondents, and just three by more than ten respondents.

Table 7.11 provides a breakdown of the top ten ‘key innovators’ at Kilbourne based on the percentage of nominations received. As the table shows, the top-placed ‘key innovator’ at Kilbourne was a Manager, with this person receiving a total of 18 nominations – a figure which equates to almost 12 per cent of all nominations made. Two other Managers also received a high number of nominations. Indeed, the mid-level managers dominate the list, filling out the top four positions, and five spots in the

*Table 7.11* Key innovators at Kilbourne

Position level	Frequency	Total 'key innovator' nominations per government (%)
Manager	18	11.5
Manager	13	8.3
Manager	11	7.1
Manager	7	4.5
Director	7	4.5
Director	6	3.9
Coordinator	5	3.2
CEO	4	2.6
Coordinator	4	2.6
Director	4	2.6
Manager	4	2.6

top-ten list. As we will see, in this respect, Kilbourne is quite different to the other municipalities where innovators at the middle-management level are significantly less prominent. The absence of politicians from the list is another factor setting Kilbourne apart. Not one of the original 11 politicians appears amongst the top ten innovators, and none of them received more than a single nomination from the 26 respondents interviewed.<sup>23</sup>

### **Innovators and networks at Kilbourne**

As with the previous chapter, to conclude our story of innovation at Kilbourne we return to the concept of networks, and our basic hypothesis that 'key innovators' will generally be well-placed within our two types of social network – 'Advice' and 'Strategic Information'. Figures 7.3 and 7.4 indicate where our key innovators sit within the advice and strategic information networks at Kilbourne. In Figure 7.3 we can see that the Senior Executive team at Kilbourne, along with two politicians and a number of middle-managers are grouped towards the middle of the network, signifying their central place in the network structure, at least according to the number of advice ties they send and receive. Most of the politicians are relatively peripheral, and two of the nine are not part of the network at all. A number of the key innovators are relatively prominent in the network, with four of the centrally placed Senior Executives enjoying moderate reputations as key innovators. But the three

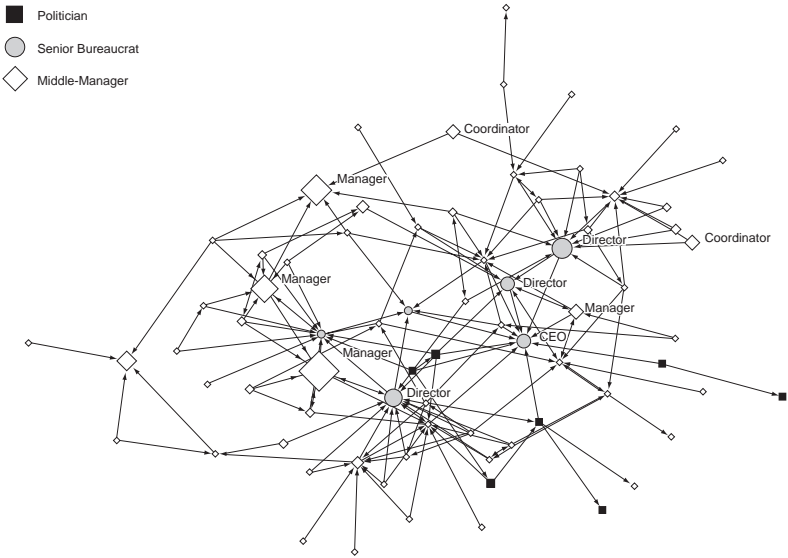


Figure 7.3 Kilbourne: Key innovator placement within advice network

most prominent innovators – each one a Middle Manager – are located to one side of the core grouping of actors in this network. In this case, hierarchy seems to trump innovator status as a determinant of position in the global advice network, although the innovators are far from peripheral.

The strategic information network, as shown in Figure 7.4, has a different structure with the key innovators far more centrally placed. This might signify their recognition as the ‘go to’ people for this more specific strategic resource as opposed to the more fluid ‘advice’. As one might expect, the Senior Executives – including the four within moderate recognition as innovators – also remain centrally placed with this second network, though once again, the politicians remain surprisingly peripheral. Both graphs, but particularly the second depicting the strategic information network, sit comfortably with our hypothesis that innovators occupy strategic positions, but not necessarily central ones, and are closely connected to those who do.

A number of factors then seem to set Kilbourne apart from the other municipalities we examined. When we drilled down into the normative bedrock to ask how innovation is understood and how is it framed, we

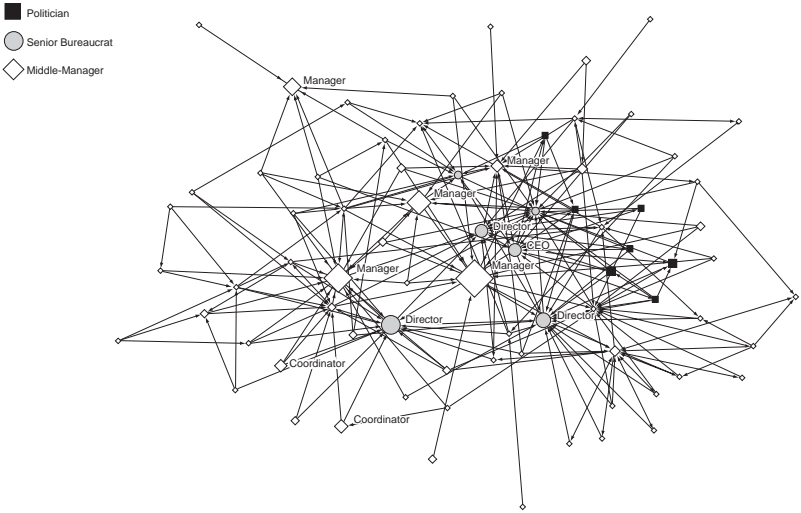


Figure 7.4 Kilbourne: Key innovator placement within strategic information network

found that actors at Kilbourne generally did not favour the ‘big bang’ view of innovation but were more likely to see it as an incremental, adaptive process. A higher than average number of actors saw themselves as innovators, but most striking was the generally sceptical view of politics and politicians that tended to dominate across the municipality. As noted earlier in the discussion, on all the items which reflected assessments of politicians and their place in the innovation puzzle, Kilbourne rated at or near the bottom. Politicians and bureaucrats at Kilbourne were also the most likely to point to the barriers to innovation posed by accountability requirements, and among the most likely to view their organization as being unsupportive of innovation.

Community leaders tended to mirror this scepticism and the responses of Kilbourne’s politicians and bureaucrats more generally – a result, we again note, that sits comfortably with the notion of distinct localized cultures of innovation. Despite this convergence on normative approaches, views across the three sets of actors as to what constituted important actual cases of innovation differed markedly – more so than at other municipalities.

Finally, it is worth reiterating that Kilbourne turned out to be quite distinctive when it came to identifying the ‘key innovators’. Here,

the politicians were completely absent, and the middle-managers (two steps down from the CEO) were prominent, hence the chapter title – ‘Innovation from the Middle, Out’. The middle-managers were also more central in the advice and strategic information networks – a finding we believe is no accident, and a finding we explore further in Chapter 10.



# 8

## City of Melville – Incrementalists Rule

The City of Melville, home to 107,000 residents, is located north east of Melbourne and covers just over 110 square kilometres. It is marked by a diverse topography ranging from tightly clustered dormitory suburbs in the west to picturesque rural centres in the east. The city as it currently stands was created in 1994 following local government amalgamations. European settlement in the area though dates back to the early 1850s with the establishment of a number of small hamlets following the discovery of gold. For the next century the region remained predominantly rural in character, with fruit orchards and dairy farming dominating the landscape. The end of the Second World War though saw major residential development in the area with an influx of young families and migrants attracted by the large allotments and relatively cheap real estate prices on offer – a process that continued throughout the 1960s and 1970s to the present. Today, the physical area covered by the city remains an interesting mix of medium density brick suburbia and rustic and peaceful rural hamlets – a mix heavily promoted by the municipality.

### **The citizens of Melville**

Melville can be characterized as a bastion of comfortable Melbourne middle-class suburbia. Family households account for 80 per cent of all household types in the municipality, with the traditional two-parent and children unit accounting for just over half of all households at 53 per cent. This compares with figures of 69 per cent and 48 per cent for metropolitan Melbourne respectively. Home ownership rates across the municipality are high, with 48 per cent of residents owning their

own homes, compared to 33 per cent across the broader Melbourne statistical division (Australian Bureau of Statistics, 2006). In income terms, the municipality is relatively well off. This affluence is spread relatively evenly in geographic terms, but is particularly evident in the outlying rural suburbs. Income levels in the more densely populated suburbs in the west of the municipality are significantly lower, but remain above the Melbourne metropolitan average.

Not surprisingly, given this profile, Melville's population is comparatively well educated. According to the national census, 46 per cent of the population hold some sort of post-school educational qualifications with almost a quarter holding a bachelor or postgraduate degree. This compares with figures of 41 per cent and 20 per cent for metropolitan Melbourne respectively (Australian Bureau of Statistics, 2006). This high level of education is reflected in the largely white-collar occupational profile of Melville's labour force, with just under half of the latter employed as managers and administrators, professionals or paraprofessionals, and a third employed as clerical, sales and service workers.

Melville is also characterized by a relatively high level of ethnic diversity. Just over a third of residents were born overseas, most from a non-English speaking background (Australian Bureau of Statistics, 2006). Most of these migrants arrived in Australia before 1991, which has meant that the municipality has not experienced the same resource costs associated with providing services to socioeconomically marginalized and high-need migrant communities, as other ethnically diverse municipalities with a higher concentration of recently arrived migrants. In the immediate post-war period, most migrants arriving in the municipality were drawn from Europe, with large numbers of Italian and Greek migrants in particular, choosing to settle in Melville's north-western suburbs. More recently, Asia has supplanted Europe as the main source of migrants to the area, with new arrivals from China, Malaysia and Hong Kong settling in the area's south-western suburbs. In marked contrast, the more outlying rural suburbs remain almost untouched by recent immigration trends.

The age structure of Melville's community plays an important role in shaping public policy and political debates in the municipality, with the provision of aged care services and facilities and suitable housing options receiving increasing attention in recent times. The municipality's median age of 41 years is higher than the Melbourne median of 36 and is indicative of an ageing population. Across the municipality, according to the 2006 census, well over one-third of the population was

aged over 50 years, with the percentage even higher in the city's west (Australian Bureau of Statistics, 2006). This age structure largely reflects the settlement patterns of the 1950s and 1960s, with baby-boomers and post-war migrants who settled in the area now reaching their 50s and 60s.

### **Business, industry and the local economy in Melville**

Melville's local economy is strong, with more than 12,600 businesses spread across the municipality, the vast majority being small businesses. A massive shopping mall in the city's west serves as the area's primary retail and commercial hub, with a smaller mall, nine neighbourhood 'Activity Centres' and 30 separate strip shopping centres, also servicing the local community. Property and business services and the retail trade dominate the local economy, with a strong building and construction industry and personal services sector also contributing significantly to local economic activity and employment. Unemployment, at just over 4 per cent, remains well below the state figure of 5.2 per cent. This strong local economy is mirrored by the secure financial position of the municipality, with Melville being debt-free and well resourced with over \$850 million in assets.

### **Local politics in Melville**

The essentially middle-class socioeconomic status of Melville is reflected in the politics of the area. While there are pockets of Labor support in the western reaches of the city, the Liberal Party has tended to dominate politics across the municipality. Recent electoral experience demonstrates this dominance. At the federal level, the lower house seat which covers the municipality is rated safe Liberal, and has been held comfortably by the party since its inception more than two decades ago. The picture at the state level is similar. Liberals currently hold each of the three Victorian House of Assembly seats covering the municipality – two of these have remained staunchly Liberal since their formation, with the third held briefly by Labor in the mid-1980s.

The influence of party politics is less overt at the local level, with politicians at Melville shying away from advertising their party affiliations, as is the practice in most Victorian municipalities. A minority of elected members are reportedly closely aligned with Liberal Party factions based around the area's state and federal parliamentarians. However, party politics appears to exert little direct influence over

municipal affairs, with most politicians more accurately characterized as community-based independents rather than party representatives.

The level of political activism and community engagement appears to vary significantly across the municipality. The rural suburbs are particularly well served by active resident, community and service groups, with a number of representatives engaged in local municipal consultative and oversight committees. Local neighbourhood associations in these outlying areas serve as strong and vocal advocates for the interests of local residents and hold regular meetings with politicians and municipal officers.

Two primary catalysts for the high level of local activism and engagement in these outlying suburbs were raised during interviews with community leaders at Melville. A number of respondents suggested that isolation from other parts of the municipality played an important role in fostering a shared sense of community identity and pride in these areas. The history of constant political struggle to protect the rural amenity of the outlying areas from subdivision and further development was also raised as an important influence in this respect, with a culture of activism ingrained within the local community. There is little evidence of the same level of organized community-based activism in the more urbanized suburbs, with a number of community leaders from these areas lamenting the difficulty of attracting new members to service groups and community organizations.

As a final point in this area, it is also worth noting that in the period leading up to and including our fieldwork, local politics at Melville remained remarkably stable. All eight politicians sitting when the initial surveys were conducted in late 2002 were already into their second term of office – having been elected at the first poll held (1997) following amalgamation, and returned in 2000. Six of the eight were subsequently returned to office at the 2003 local elections, with one not standing and the other defeated. The interviews suggested that this political stability translated into a relatively high level of trust between politicians, and between politicians and staff, and the development of effective and stable working relationships.<sup>24</sup>

## **Innovation norms and procedures at Melville**

The picture of innovation that emerges from Melville reflects these local surroundings and culture of the municipality. Above all else, it is a picture of ordered planning and quiet confidence in the organization's

*Table 8.1* Defining innovation: Melville politicians and bureaucrats

	Melville	11 Governments		
	Mean	Low	High	Mean
1. Small continuous improvements	3.38	3.25	3.72	3.46
2. Develop or adapt new technology	3.82	3.82	4.12	4.02
3. Making major changes	2.89	2.81	3.31	3.04
4. Planned effort to improve process, service, programme	4.02	3.68	4.08	3.87

structures, processes and operation. We can see, for example, that politicians and staff at Melville were among the least likely to see innovation as involving major changes, and more likely than most to see innovation as any planned effort to improve a process, service or programme (Table 8.1, item 4). They were generally mid-placed on the 'Innovation and Government' measures (see Table 8.2). They also saw less need than others to move outside of their regular channels (Table 8.3 item 9), and were amongst the most confident that their structures encourage innovation (Table 8.3 item 12).

Perhaps not surprisingly, this confidence was matched by a generally more favourable view of the impact of municipality's corporate planning regime, statutory committee, advisory committee and municipality meeting cycle and budget process on innovation (see Table 8.4). A more positive perception of the impact of the role played by elections and the quality of proposals put forward by politicians is also evident, while the values and culture of both politicians and the municipality's executive are also viewed as more helpful than at most other governments.

*Table 8.2* Innovation and government: Melville politicians and bureaucrats

	Melville	11 Governments		
	Mean	Low	High	Mean
5. Work closely with community	3.16	2.91	3.66	3.38
6. Not something governments do	1.64	1.39	1.80	1.66
7. Resolving conflicting priorities	2.52	2.37	2.86	2.66
8. Accountability requirements limit innovation	2.22	1.93	2.38	2.27

Table 8.3 Innovation structures and people: Melville politicians and bureaucrats

	Melville	11 Governments		
	Mean	Low	High	Mean
9. Need to move outside regular channels	3.43	3.39	3.72	3.52
10. No difference between roles of experts, politicians, managers	3.07	2.65	3.07	2.83
11. See myself as an innovator	3.75	3.75	4.04	3.92
12. Structures encourage innovation	3.65	2.97	3.76	3.34
13. Politicians identify needs, officials create innovations	3.31	2.73	3.38	3.07
14. Organization values innovative individuals	3.68	3.16	4.03	3.46
15. My strength is adapting innovations to my situation	3.84	3.66	3.98	3.79
16. Difficult to be innovative in our organization	2.30	2.00	2.73	2.49

There does, however, seem to be some confusion regarding the differentiation of roles between politicians and bureaucrats – item 10 in Table 8.3 suggests much less differentiation than at other municipalities, while item 13 indicates a clearer than average demarcation of roles.

Table 8.4 Helps and hinders: Melville politicians and bureaucrats

	Melville	11 Governments		
	Mean	Low	High	Mean
17. Annual budget process	3.35	2.39	3.47	2.94
18. Municipal corporate plan	4.29	3.82	4.33	4.03
19. Municipal statutory committee meetings	3.40	3.09	3.57	3.37
20. Municipal advisory committee meetings	3.74	3.47	4.12	3.76
21. Municipal meetings	3.49	3.04	3.72	3.39
22. Pay and promotion system	3.20	3.08	3.48	3.20
23. Values and culture of executive	3.98	3.33	4.41	3.80
24. Divisional structure of municipality	3.02	2.77	3.39	3.07
25. Quality of proposals from officers	4.22	4.16	4.71	4.33
26. Municipal election campaigns	2.67	2.27	2.87	2.67
27. State govt. regulation of local govt.	2.34	2.23	2.90	2.56
28. Values and culture of politicians	3.84	2.45	4.07	3.38
29. Quality of proposals from politicians	3.70	2.51	3.99	3.31

*Table 8.5* Defining innovation: Melville community leaders (mean)

	Melville	Four governments
1. Small continuous improvements	3.30	3.48
2. Develop or adapt new technology	4.00	4.07
3. Making major changes	3.43	3.38
4. Planned effort to improve process, service, programme	4.22	3.95

### The community view of innovation at Melville

To gauge the 'community view' of innovation at Melville interviews were conducted with a cross-section of prominent members of the local community. At Melville this group of 26 included seven people representing service groups, seven from residents/community groups, four from local business/traders associations, three local politicians, two members of the local media, and three other prominent citizens. Following the same process as that used for all four municipalities, we began by asking the community leaders to respond to a series of statements relating to how innovation is defined, how the role of government in the innovation process is perceived and how respondents perceived their own and their municipality's approach to innovation. Results along with mean scores across the four municipalities are provided in Tables 8.5–8.7. Overall, as was the case at Parkside and Kilbourne, there was not a great deal separating the responses of the community leaders from those of the politicians and bureaucrats. Community leaders more strongly agreed that innovation was about any planned effort to improve a process, service or programme, were more likely to agree that innovation involved adapting ideas and were less likely to agree that innovation was about making small continuous improvements. Not surprisingly, the community leaders were more likely than politicians and officers to agree that innovation means working closely with

*Table 8.6* Innovation and government: Melville community leaders (mean)

	Melville	Four governments
5. Work closely with community	4.04	4.25
6. Not something governments do	1.91	1.97
7. Resolving conflicting priorities	3.30	3.10
8. Accountability requirements limit innovation	2.78	2.68

Table 8.7 Innovation structures and people: Melville community leaders (mean)

	Melville	Four governments
9. Need to move outside regular channels	3.83	3.88
10. No difference between roles of experts, politicians, managers	3.30	2.82
11. See myself as an innovator	3.74	3.89
12. Our local government structures encourage innovation	3.65	3.46
13. Politicians identify needs, officials create innovations	3.78	3.38
14. My municipality values innovative individuals	3.48	3.42
15. My strength is adapting innovations to my situation	3.74	3.75
16. Difficult to be innovative in our municipality	2.70	2.92

the community. They were also significantly more likely to agree that it involved sorting out conflicting priorities, and more likely to perceive government regulation as being problematic.

On the 'structures and people' measures (see Tables 8.3 and 8.7) the results across the different actors were again quite similar, the major exceptions being that community leaders were more likely to see the need to move outside regular channels, to make a distinction between the roles of politicians and officials, and to see innovation as difficult.

In terms of where Melville's community leaders sit in comparison to those at other municipalities, we can see that by and large, Melville tends to follow the average on most items. The major exceptions were that community leaders at Melville were more likely than average to agree that innovation was any planned effort to improve a process, programme or service; that there was not much difference in the roles of experts, politicians and managers; and paradoxically, that politicians are there to identify needs whereas municipal officers are there to create the innovations to meet these needs.

### Innovation cases at Melville

In this section we shift focus from innovation norms and procedures, to actual cases of innovation. As was the case at the other governments, we asked a cross-section of politicians and municipal staff to nominate up to five innovations that had occurred in their municipality over the past 12 months. Table 8.8 contains information on which innovations were most highly nominated at Melville by politicians



*Table 8.8* Innovations at Melville receiving multiple nominations from politicians and bureaucrats

<b>Innovation</b>	<b>Nominations</b>
Sustainable Urban Village Strategy	22
New Corporate Plan	14
Integration of Management System	13
New Budget and Financial Management Computing System	7
Asset Management Strategy	4
Rural Zone Planning and Management Strategy	3
Lightweight Paving System	3
Melville Aged Care Centre Refurbishment	2
GIS Mapping Overlay	2
Restructuring of Planning Department	2
Staff Induction Manual-Aged and Disability Services	2

and bureaucrats. Overall 93 nominations were received with 31 separate innovations identified. Of these 31, only 11 received multiple nominations, with only seven receiving three or more. As the table indicates, Sustainable Urban Village Strategy, a long term integrated planning and development strategy aimed at creating a sustainable urban village in the centre of Melville, was by far the most prominent innovation identified, with 22 nominations overall. Melville's new corporate plan and the adoption of a new integrated management system also received relatively high numbers of nominations, 14 and 13 respectively, with the introduction of a new budgeting and financial management computing system named by seven respondents.

Once again, the innovations were grouped according to type to enable a cross-comparison of the kinds of innovations nominated by different actors and different governments. The results of this grouping are provided in Figure 8.1. As the figure shows, just over 45 per cent of all nominations at Melville were for innovations relating to Governance, Organizational Change and Development. This figure is well above the 37 per cent average across all four governments. The percentage of innovation nominations in the Urban Design, Planning and Infrastructure category was also relatively high, reflecting the high profile of innovation cases such as Sustainable Urban Village Strategy, and the Rural Zone Planning and Management Strategy. Interestingly, the percentage of nominations in the Community Services, Advocacy and Consultation group was well down on the average figure – 5 per cent as opposed to 19 per cent, a figure that perhaps reflects Melville's relatively affluent and self-sufficient community.

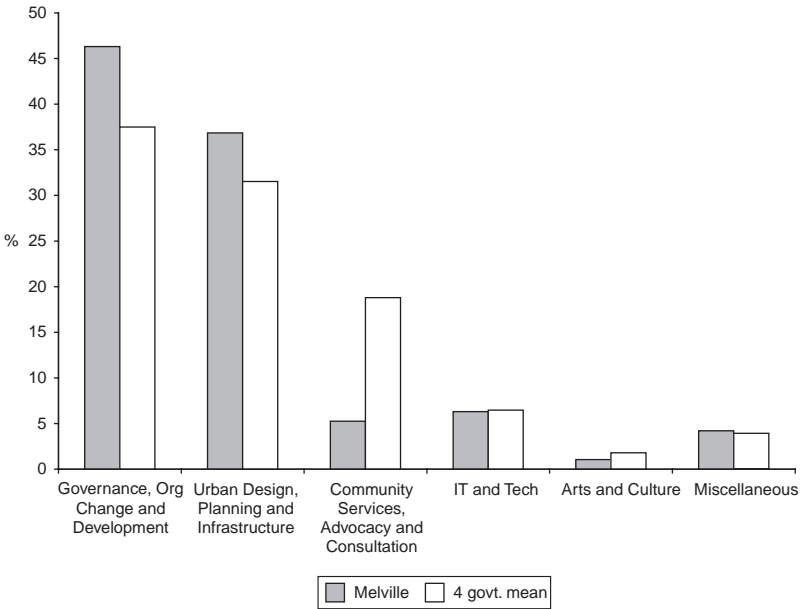


Figure 8.1 Innovations by category: Melville politicians and bureaucrats

## Innovation cases: The community view at Melville

Overall, community leaders at Melville made 52 nominations with 32 separate innovations identified. Only five cases received multiple nominations. These five and the number of nominations they received are listed in Table 8.9. Interestingly, three of these five cases identified by community leaders also received multiple nominations from politicians and officers at Melville – the relatively high-profile Sustainable Urban Village Strategy, the Rural Zone Planning and Management Strategy and the refurbishment of the Melville Aged Care Centre – a retirement facility. As Table 8.9 indicates, the other two cases with multiple nominations were the Burkesville Road Streetscape Development – an urban design project aimed at beautifying the surrounds of one of Melville’s main arterial roads; and the Park and Ride initiative – aimed at increasing commuter usage of public transport into central Melbourne along the Eastern freeway through the provision of secure parking at a central transport hub.

Grouping the innovation cases into our six categories again reveals a number of interesting patterns in terms of the different kinds of

Table 8.9 Innovations at Melville receiving multiple nominations from community leaders

Innovation	Nominations
Green Wedge Strategy	10
Sustainable Urban Village Strategy	9
Burkesville Road Streetscape development	3
Melville Aged Care Centre refurbishment	2
Park and Ride project	2

innovations nominated by politicians, bureaucrats and community leaders. The results of this grouping process for the three most significant categories of innovation – Governance, Organizational Change and Development; Urban Design, Planning and Infrastructure; and Community Services, Advocacy and Consultation – are provided in Figure 8.2.

If we look first at the Governance category, we can see that 32 per cent of all innovation nominations coming from politicians at Melville were for innovations in this area. The comparable figure for bureaucrats

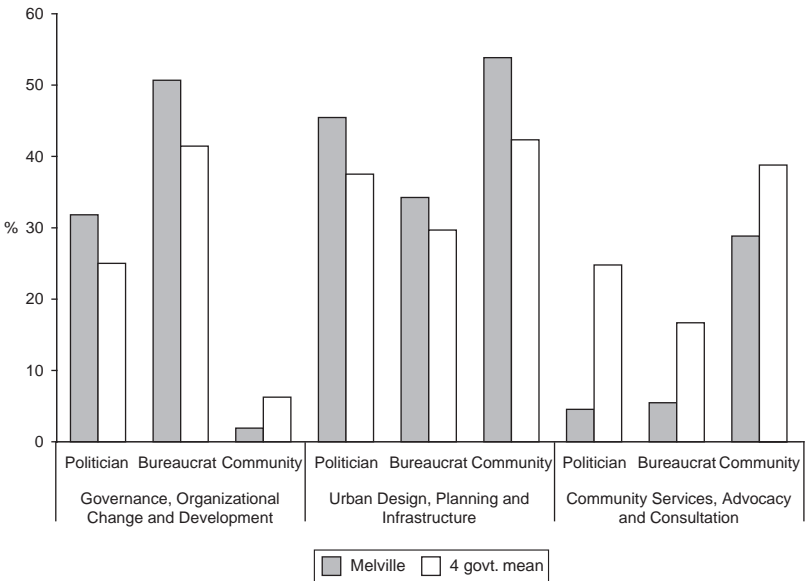


Figure 8.2 Innovations by category: Melville politicians, bureaucrats and community leaders

was much higher, at 50 per cent, while for community leaders, innovations in this area barely rated a mention. Comparing these results to the four municipality mean, we can see that politicians and bureaucrats at Melville were more likely than average to nominate innovations in this Governance category than their colleagues in other municipalities, while community leaders at Melville were less than half as likely as their contemporaries to do the same.

If we look at the results for the Urban Design, Planning and Infrastructure category, we can see that this time all three groups of actors are somewhat closer in terms of their nominations. Forty-five per cent of politician's nominations were directed towards this category of innovations, compared to 34 per cent for bureaucrats and 54 per cent for community leaders. Again, comparing these results against the four municipality mean, we can see how significant planning and urban design issues are at Melville with the figure for each group of actors well above the average. Given the rural/urban nature of the municipality, the salience of the sub-division issue on 'the rural fringe and development pressures in the higher density dormitory suburbs to the west, this focus is hardly surprising.

Finally, and similar to the situation at Kilbourne, Figure 8.2 shows a large discrepancy in the rate at which politicians, bureaucrats and community leaders nominate innovations in the Community Services, Advocacy and Consultation category. The interesting thing here is how close the results are for politicians and bureaucrats –4 and 5 per cent respectively, compared to 29 per cent for community leaders. Even this figure for community leaders is low compared to the mean, which as noted previously, most likely reflects Melville's affluence and relative lack of major socioeconomic problems. The other interesting thing is the general tendency, again similar to Kilbourne, for the politicians to hold the middle ground between bureaucrats and community leaders in terms of the frequency of nominating innovations in each category. This perhaps reflects a role in brokering compromises between the policy demands of constituents and the constraints imposed by resource limitations and administrative realities.

Looking finally, at how community leaders at Melville rate the innovations most frequently nominated by politicians and bureaucrats, we can again see a significant but not unexpected gap between the perceptions of internal and external actors. As evidenced by the relatively low level of 'not innovative' responses, this appears to be more the result of community leaders' lack of exposure to or knowledge of internal innovations rather than any sense of disagreement between actors over the value or otherwise of the innovations themselves. Nevertheless, as with the

*Table 8.10* Key innovations: Melville community leader assessments

<b>Innovation</b>	<b>Innovative (%)</b>	<b>Not innovative (%)</b>	<b>Never heard of it (%)</b>	<b>Don't know (%)</b>
Sustainable Urban Village Strategy	76.92	11.54	0.00	11.54
New corporate planning process	15.38	23.08	38.46	23.08
Integration of management system	15.38	7.69	57.70	19.23
New budget and financial management computing system	0.00	3.85	73.08	23.08
Rural Zone Planning and Management Strategy	50.00	23.08	7.69	19.23
Melville Aged Care Centre refurbishment	46.15	11.54	15.38	26.92

results shown in Figure 8.2, the difference in foci between groups is quite interesting in itself. In general, the community leaders were positive in terms of their appraisals of innovations which impact directly on their local community, particularly those with a high profile. As Table 8.10 shows, over three quarters interviewed rated Sustainable Urban Village Strategy as innovative, compared to just 11.54 per cent not innovative. The Rural Zone Planning and Management Strategy and refurbishment of the Melville Aged Care Centre were also rated as innovative by the vast majority of respondents who were familiar with them. Not surprisingly, the community leaders were either unaware or largely ambivalent about the innovativeness or otherwise of the three innovations which were internally focussed. This was particularly the case for the integration of the management system, of which nearly 60 per cent of respondents had never heard of, and the new budget and financial management computing system, which while no doubt important to many of those within the organization, was a complete mystery to nearly three out of four community leaders.

### **Key innovators at Melville**

As was the case at each government we visited, we asked a cross-section of staff and politicians at Melville who they considered to be the

Table 8.11 Key innovators at Melville

Position level	Frequency	Percentage of total 'key innovator' nominations per municipality (%)
Manager	10	8.06
Politician	10	8.06
Director	9	7.26
Politician	8	6.45
CEO	7	5.65
Director	6	4.84
Director	6	4.84
Director	5	4.03
Manager	5	4.03
Manager	4	3.23

key innovators within the municipality with the number of responses unrestricted and open to politicians, bureaucrats or members of the community. The top ten 'Key Innovators' according to these responses are listed in Table 8.11. Unlike Kilbourne, where managers dominated with six of the top ten positions, including four of the top five, at Melville, nominations were a mixture of senior and middle-managers, with two of the eight politicians also scoring highly. Interestingly, all five members of the Executive Management Team (EMT), including the CEO, were heavily nominated, with one director particularly prominent. This prominence, the tendency to view innovation as being about smaller-scale planned efforts, the relative reluctance to move outside of regular channels and the widespread confidence in internal structures and procedures at Melville are all suggestive of a very orderly, measured, and systematic approach to innovation.

### Innovators and networks at Melville

Though the mix of key innovators at Kilbourne and Melville may be different in terms of positions held, they still share similarly central positions in both the advice and strategic information networks. Figures 8.3 and 8.4 plot the location of the 'innovators' in both networks at Melville, with node size, as usual, increasing according to the number of 'key innovator' nominations received from those we interviewed. As Figure 8.3 indicates, the manager topping the 'key innovator' list along with all five members of the EMT who were also recognized as 'key innovators' hold prominent positions in the advice network. The

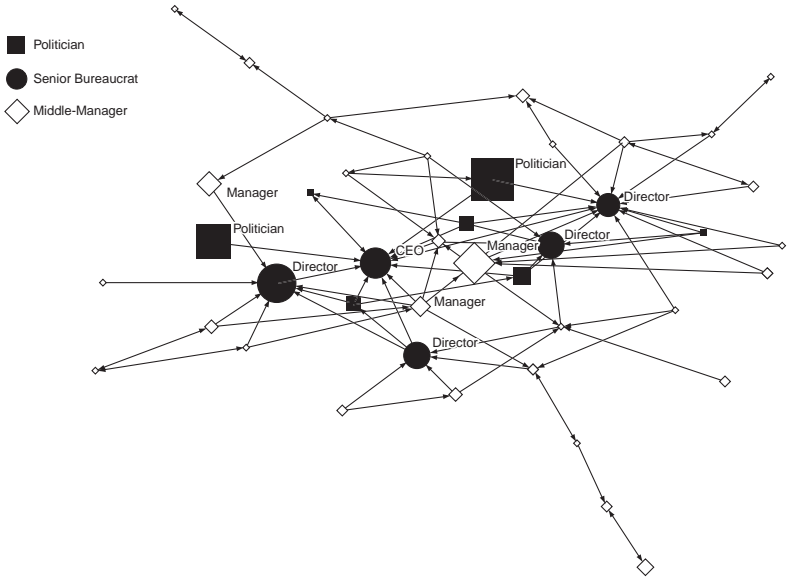


Figure 8.3 Melville: Key innovator placement within advice network

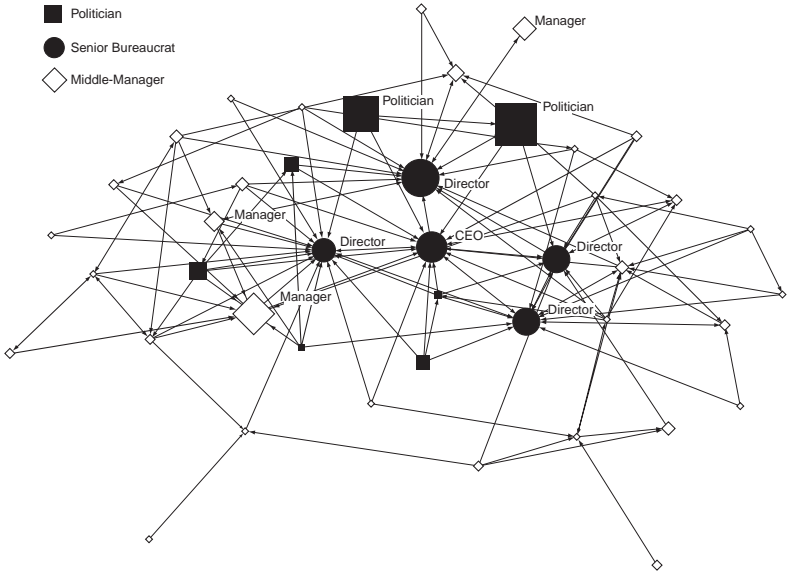


Figure 8.4 Melville: Key innovator placement within strategic information network

two 'innovative' politicians are slightly more to the periphery though still quite central.

The pattern is more pronounced in Figure 8.4 with the larger nodes again forming a core within the centre of the strategic information network, surrounded by a periphery of actors with a lower degree of recognition for innovation. Again, this sits well with our premise that innovators tend to occupy strategic positions within network structures.

To briefly recap the innovation story at Melville, we found a generally positive outlook amongst politicians and municipal officers regarding the impact of factors such as internal structures and planning processes upon innovation in the municipality, and a confidence in the values, culture and skills of politicians and staff. Overall, this positive outlook tended to be shared by the majority of community leaders surveyed, who were more likely than average to view Melville's structures as encouraging innovation, and more likely to feel that their municipality values innovative individuals. As was the case at Kilbourne and Parkside, the views of politicians, bureaucrats and community leaders, in regards to the innovation norms and procedures examined tended to converge, if not perfectly, then at least quite neatly. The same cannot be said for the kinds of cases nominated as innovative by our three groups of actors at Melville. Once again, as was the case at Kilbourne in particular, there were significant differences in the nomination patterns, the most glaring difference being the comparative lack of emphasis given to Community Services innovations by politicians and bureaucrats, and obversely the complete but unsurprising lack of awareness and/or ambivalence community leaders showed towards internally focussed innovations.

Unlike Kilbourne, where middle-managers tended to be most highly recognized as the key innovators, at Melville, innovator status tended to be more evenly spread across politicians and senior and middle-management, with senior managers in particular, more prominent as a group than at other governments. The innovators were again centrally placed in both advice and strategic information networks, although whether this reflects their seniority within the organizational hierarchy or, as we suspect, is somehow linked to their innovative status, remains unclear.



# 9

## City of Millside – Small World meets Political Affiliation

The City of Millside, formed in 1994, covers just 32 square kilometres west of Melbourne's CBD and is home to 60,000 residents. Historically the Millside area has served as one of Melbourne's key industrial centres, with a strong focus on manufacturing, chemical production, textiles, food processing and defence industries. In the late 1930s, following a steady recovery from the Great Depression, the city's expanding industrial base led to predictions that the area would soon become the 'Birmingham of Australia'. Throughout this period, local government in the area actively encouraged industrial expansion by opening up new land for development and by providing new roads and infrastructure. The onset of the Second World War accelerated this development dramatically with the area becoming an important centre for munitions production. Throughout the 1950s and 1960s, industrial-driven prosperity continued on the back of the post-war boom and a rapidly expanding Australian population, providing a stable and prosperous economic base for the municipality.

More recently, the prolonged post-1970s decline in Australian manufacturing has seriously undermined Millside's industrial base, with high levels of unemployment significantly impacting upon the local economy. In the two decades since 1984 unemployment in the municipality has averaged almost double the Australian figure. At present the local economy still relies heavily upon manufacturing, which employs almost a fifth of the local labour force, although economic diversification is gradually altering the industry mix of the local economy with increasing numbers of workers employed in retail, accommodation, cafes and restaurants, and in property and business service. The growing influx of young professionals attracted by Millside's relatively affordable housing and close proximity to Melbourne's CBD is also gradually transforming the area's socioeconomic profile.

## **The citizens of Millside**

Despite the impact of the beginnings of gentrification, Millside remains one of the most socioeconomically marginalized areas in metropolitan Melbourne. The municipality is ranked in the bottom 10 per cent of Victorian local governments on the Australian Bureau of Statistics Index of Relative Socio-economic Disadvantage, and is one of the five most disadvantaged local government areas in metropolitan Melbourne on the same measure (Australian Bureau of Statistics, 2008). Median weekly individual income is almost 15 per cent below the Melbourne average, with Millside having one of the highest proportions of low-income earners of all Melbourne metropolitan municipalities (Australian Bureau of Statistics, 2006).

Millside is also one of the most ethnically diverse municipalities in Australia. Waves of European migration throughout the 1950s and 1960s transformed the area into a multicultural melting pot, with rapidly expanding Greek, Italian, and Yugoslav communities. The arrival of increasing numbers of Indo-Chinese migrants, particularly from Vietnam from the 1970s onwards, continued this trend of increasing diversity, as has the more recent influx of migrants from Ethiopia, Eritrea and Sudan. Millside now has one of the largest proportions of non-Australian-born residents (43 per cent), and one of the largest proportions of residents from a non-English-speaking background (46 per cent) of all municipalities in Victoria, with the majority drawn from Vietnam (10.7 per cent), China (2.9 per cent) and India (2.8 per cent) (Australian Bureau of Statistics, 2006).

## **Business, industry and the local economy in Millside**

As well as the significant difficulties posed by high levels of ethnic diversity, high unemployment and economic and social disadvantage, Millside faces a number of additional challenges unique amongst our four governments, each of which we would expect to influence both its capacity to innovate and the nature of innovation. For example, the area's history as a major centre for heavy industry along with the city's close proximity to local port and transport and chemical storage facilities creates a number of unique problems. The high volume of heavy-vehicle-through-traffic exerts a heavy toll on local infrastructure such as roads, kerbing and drains, adding to the cost burden borne by the municipality, while its close proximity to large-scale chemical storage facilities has required the development and implementation of

costly local disaster plans and emergency warning systems. High levels of soil contamination from over a century of industrial production have also caused a number of problems, not least of which has been the impact of high clean-up costs associated with reclaiming old industrial sites in deterring private sector investment and development in the area.

These challenges are compounded by the municipality's narrow revenue base. With only half the average number of residents and dwellings as other metropolitan governments, Millside's potential rates base is relatively restricted. Total revenue is around 70 per cent of the metropolitan average, placing it well inside the bottom third of Victoria's 31 metropolitan governments (Victorian Grants Commission, 2005). These financial constraints are compounded by the need to service a large long-term debt inherited by the municipality following the failure of a joint public/private real estate development undertaken in the 1990s prior to amalgamation.

### **Local politics in Millside**

Local politics in Millside has tended to reflect the largely working-class origins of the area, with the Labor Party traditionally dominant at local, state and federal levels. The national electorate covering most of the municipality has been a safe Labor seat since first proclaimed in the early 1900s. At the state level, the two seats covering Millside have been in Labor hands for the same period.

Traditionally, Labor-affiliated politicians have also tended to dominate politics at the municipal level. More recently, this dominance has been challenged by the increasing success of Greens and independent candidates, so much so that at the recent 2005 municipal elections, Labor relinquished outright control of the seven-member elected council for the first time since the new City of Millside was established in 1994. Two new independent candidates were elected, with the sitting independent and one of the two sitting Victorian Greens candidates also returned. In part, this result reflects the personal popularity of two long-serving, and well-recognized local ALP politicians who retired at the poll. Labor's decision to close a prominent, centrally located pool and replace it with a new \$18 million facility in a neighbouring suburb is also likely to have played a crucial role in the outcome with the newly elected independents both being leading critics of the pool plan.

More broadly, the results at the 2005 poll, and at the preceding election where two Greens were elected at the expense of sitting ALP members, reflect broader changes within Australian politics and society. In

Table 9.1 Defining innovation: Millside politicians and bureaucrats

	Millside	11 Governments		
	Mean	Low	High	Mean
1. Small continuous improvements	3.46	3.25	3.72	3.46
2. Develop or adapt new technology	4.09	3.82	4.12	4.02
3. Making major changes	3.07	2.81	3.31	3.04
4. Planned effort to improve process, service, programme	3.91	3.68	4.08	3.87

inner urban areas, gentrification is gradually changing political culture at the local level with old-style working-class Labor supporters slowly being replaced by young, highly educated professionals more attuned to post-materialist politics. This has enabled the Greens to make substantial inroads into Labor's electoral support not only in Millside, but in other inner city governments, as well as at the state and federal level.

### Innovation norms and procedures at Millside

Following the same pattern as our other three cases, politicians and bureaucrats down to team-leader level at Millside were asked to respond to a number of statements concerning the nature of innovation, as well as providing an assessment of the impact of various institutional and organizational arrangements on innovation in their own municipality. We can see from Table 9.1 that respondents at Millside tended to view innovation as being primarily about developing or adapting new technology, and as involving any planned effort to improve existing processes, services or programmes. Respondents were significantly less likely to agree that innovation involved making major changes – the

Table 9.2 Innovation and government: Millside politicians and bureaucrats

	Millside	11 Governments		
	Mean	Low	High	Mean
5. Work closely with community	3.46	2.91	3.66	3.38
6. Not something governments do	1.61	1.39	1.80	1.66
7. Resolving conflicting priorities	2.67	2.37	2.86	2.66
8. Accountability requirements limit innovation	2.19	1.93	2.38	2.27

*Table 9.3* Innovation structures and people: Millside politicians and bureaucrats

	Millside	11 Governments		
	Mean	Low	High	Mean
9. Need to move outside regular channels	3.59	3.39	3.72	3.52
10. No difference between roles of experts, politicians, managers	2.98	2.65	3.07	2.83
11. See myself as an innovator	3.93	3.75	4.04	3.92
12. Structures encourage innovation	3.39	2.97	3.76	3.34
13. Politicians identify needs, officials create innovations	3.11	2.73	3.38	3.07
14. Organization values innovative individuals	3.30	3.16	4.03	3.46
15. My strength is adapting innovations to my situation	3.93	3.66	3.98	3.79
16. Difficult to be innovative in our organization	2.39	2.00	2.73	2.49

'big bang' approach to innovation, and less likely to view innovation as being about small continuous improvement.

On the 'Innovation and Government' measures, Millside as a group was mid-range on all four items. As Table 9.2 shows, respondents tended to agree most strongly that innovation requires working closely with the community and were least likely to agree that innovation was not something that governments do.

On the 'Structures and People' measures (see Table 9.3), respondents at Millside tended to agree more strongly than average that innovation involves moving outside of regular channels. They were also less likely than most to distinguish between the roles played by experts, politicians and managers in the innovation process (see Table 9.3). While they tended to see themselves as innovators, particularly adept at adaptation, they were only marginally confident that their organization's structures encouraged innovation, and were less confident than average that innovative individuals were valued. Respondents were also somewhat ambivalent about whether or not it was difficult to be innovative in their organization – the score was mid-range amongst the 11 municipalities in the survey (item 16).

Table 9.4 shows where respondents were placed on the 'Helps and Hinders' measures, which focus more on the impact of the specific organizational and institutional arrangements on innovation. As

Table 9.4 Helps and hinders: Millside politicians and bureaucrats

	Millside	11 Governments		
	Mean	Low	High	Mean
17. Annual budget process	2.95	2.39	3.47	2.94
18. Municipal corporate plan	4.13	3.82	4.33	4.03
19. Municipal statutory committee meetings	3.46	3.09	3.57	3.37
20. Municipal advisory committee meetings	3.94	3.47	4.12	3.76
21. Municipal meetings	3.58	3.04	3.72	3.39
22. Pay and promotion system	3.18	3.08	3.48	3.20
23. Values and culture of executive	4.00	3.33	4.41	3.80
24. Divisional structure of municipality	3.13	2.77	3.39	3.07
25. Quality of proposals from officers	4.48	4.16	4.71	4.33
26. Municipal election campaigns	2.40	2.27	2.87	2.67
27. State govt. regulation of local govt.	2.84	2.23	2.90	2.56
28. Values and culture of politicians	3.63	2.45	4.07	3.38
29. Quality of proposals from politicians	3.69	2.51	3.99	3.31

a group, Millside recorded a mean score of more than 3.0 on all but three of the 13 items, meaning that ten were regarded as helpful to innovation rather than a hindrance. The main exception was ‘municipal election campaigns’ which recorded a mean of 2.4, well under the mid-point. The item considered most helpful was the ‘quality of proposals coming from officers’ (item 25), with the corporate plan (item 18), and the ‘values and culture of the executive’ (item 23) also positively regarded. On most of these items, respondents at Millside were again very much placed in the mid-range of our 11 municipalities – this includes assessments of the impact of the budget process, the corporate plan, different meetings, the municipality’s divisional structure, the quality of proposals coming from both the executive and politicians, and the values and culture of both groups of actors. The two exceptions were the pay and promotion system and election campaigns – with respondents at Millside amongst the least convinced that either was positive in terms of their impact on innovation.

### The community view of innovation at Millside

To gain some sort of understanding of how the local community viewed innovation at Millside, semi-structured interviews were held with 20 community leaders from across all parts of the municipality. This group

of 20 included nine representatives drawn from resident, ratepayer or community groups, three from business groups or traders associations, three from locally based service groups, one state and one federal politician from the area, one member of the local media, and two non-affiliated individuals prominent in local affairs.

As was the case at other municipalities, these community leaders were asked to respond to the same battery of questions put to the politicians and municipal officers – those questions dealing mainly with how innovation is understood as a concept, how the roles and impact of different actors and structures are perceived and how they view their own role and influence over the innovation process. Mean responses to these items are represented in Tables 9.5–9.7 along with a mean taken across the four governments provided for comparative purposes.

Beginning with the ‘Defining Innovation’ results in Table 9.5 we can see that the community leader’s responses at Millside, again largely mirrored those of the politicians and bureaucrats. The community leaders were most likely to view innovation as being about developing or adapting new technology or a new product, or as involving any planned effort to improve a process, service or programme, and least likely to see innovation as being about making major changes. As with Millside’s politicians and bureaucrats (see Table 9.2), the community leaders at Millside tended to score above average on the first two measures and below average on the latter, again suggesting that innovation cultures tend to vary according to place.

As Table 9.6 suggests, on the ‘Innovation and Government’ measures, community leader responses at Millside tended to mirror the cross-government average – a slight exception being that those interviewed at Millside were more likely to agree that innovation involves ‘resolving conflicting priorities’. In general, response patterns were again quite similar to those returned by politicians and bureaucrats, the

*Table 9.5* Defining innovation: Millside community leaders (mean)

	Millside	Four governments
1. Small continuous improvements	3.83	3.48
2. Develop or adapt new technology	4.33	4.07
3. Making major changes	3.11	3.38
4. Planned effort to improve process, service, programme	4.22	3.95

Table 9.6 Innovation and government: Millside community leaders (mean)

	Millside	Four governments
5. Work closely with community	4.33	4.25
6. Not something governments do	1.94	1.97
7. Resolving conflicting priorities	3.33	3.10
8. Accountability requirements limit innovation	2.78	2.68

major difference being a greater level of agreement in responses from community leaders.

In contrast, responses to the 'Structures and People' measures at Millside were quite different from the cross-government mean. For example, community leaders at Millside were more likely to draw a distinction between the roles of elected members and bureaucrats than their counterparts at other municipalities. As Table 9.7 shows, they were less likely to agree that there is not much difference in the roles played by 'experts, politicians and managers' when it comes to innovation, and more likely to agree that politicians are elected to identify needs while officials are there to create innovations to meet them. Respondents at Millside were also generally more negative than average in how they assessed their own interaction with their municipality, of how the latter values innovators, and in terms of the impact of government structures

Table 9.7 Innovation structures and people: Millside community leaders (mean)

	Millside	Four governments
9. Need to move outside regular channels	3.56	3.88
10. No difference between roles of experts, politicians, managers	2.44	2.82
11. See myself as an innovator	4.11	3.89
12. Our local government structures encourage innovation	3.11	3.46
13. Politicians identify needs, officials create innovations	3.83	3.38
14. My municipality values innovative individuals	3.06	3.42
15. My strength is adapting innovations to my situation	3.83	3.75
16. Difficult to be innovative in our municipality	3.59	2.92



in fostering community-driven innovation. They were significantly less likely than average to agree that municipal structures encouraged community members to bring forward ideas for innovation; less likely to agree that their municipality values individuals who strive to be innovators; and much more likely to agree that they found it difficult to be innovative in their dealings with their government.

### **Innovation cases at Millside**

To help identify specific cases of innovation and to gain a better understanding of how innovation occurs on the ground at Millside, 26 interviews with politicians and bureaucrats were conducted. Those interviewed included the Mayor and five politicians, five members of the senior executive, 13 managers and two coordinators.<sup>25</sup> These 26 were asked to nominate what they regarded as the key innovations that had taken place in the municipality over the prior 12–18-month period. Overall, 108 nominations were received with 33 separate innovations identified. The nine innovations receiving multiple nominations are listed in Table 9.8. As the table shows, by far the most frequently nominated innovation was the ‘Vision for Millside’ project, with 23 nominations. This project, which led to the development of a community-based strategic vision for Millside, involved politicians and staff from across the organization, engaging residents in a variety of different settings to ask them what their long-term vision for the municipality was. The next most high-profile case mentioned, with 14 nominations, was the newly established Social Impact Assessment Guidelines for Developers, which measures the social, as opposed to economic or environmental impact

*Table 9.8* Innovations at Millside receiving multiple nominations from politicians and bureaucrats

<b>Innovation</b>	<b>Nominations</b>
Vision for Millside Project	23
Social Impact Assessment Guidelines for Developers	14
New Aquatic Centre	12
Syringe Collection and Reporting Project	9
Best Value	9
Neighbourhood Renewal Project	7
Chemical Storage Emergency Alerting System	6
New Municipal Meeting Structure	2
Illicit Drug Strategy	2

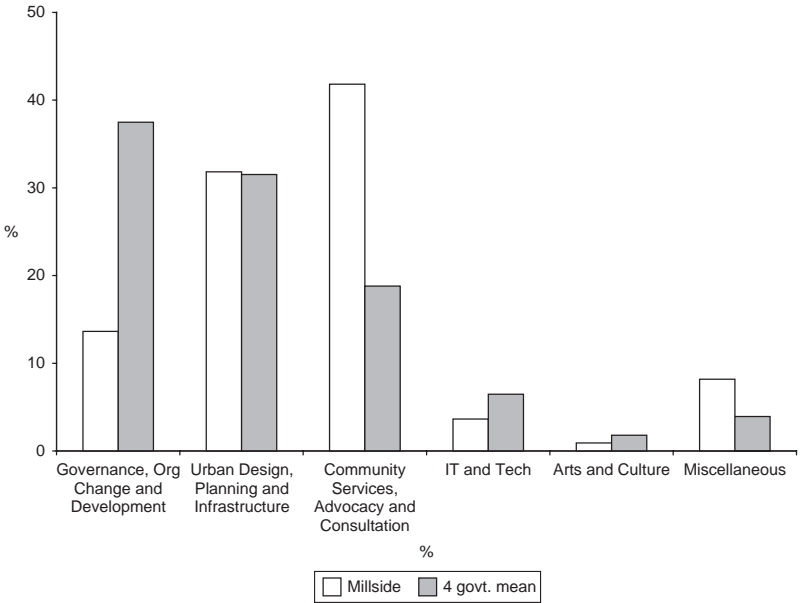


Figure 9.1 Innovations by category: Millside politicians and bureaucrats

of new property developments in the municipality, while the controversial new aquatic centre was also nominated by a large number of respondents.

Figure 9.1 illustrates how Millside is placed in comparison to our other three municipalities in terms of the broad types of cases identified as innovative by the 26 politicians and bureaucrats interviewed. As the figure shows, nomination patterns at Millside were quite different to the other governments, particularly in the areas of Governance, Organizational Change and Development, and in Community Services, Advocacy and Consultation. Only 14 per cent of nominations fell into the governance area at Millside compared to the cross-government average of 38 per cent – a major discrepancy. In contrast, where on average just under 20 per cent of all innovations nominated across the four governments were in the ‘Community services, Advocacy and Consultation’ category, at Millside, this figure was a massive 41 per cent, perhaps indicating the pressing needs of a constituency that is frequently marginalized, economically, culturally and politically.

## Innovation cases: The community view at Millside

Community leaders were also asked to nominate what they considered to be the important innovations in their municipality over the previous 12–18-month period. In response to this question, 39 innovations were nominated with 31 individual innovations identified. Interestingly, only four innovations received multiple nominations (Table 9.9). The somewhat controversial and highly publicized aquatic centre project was nominated by just four respondents, as were elements of a local neighbourhood renewal project in the north-east corner of the municipality. The revamped municipal meeting structure received two nominations, as did the development of a new community education facility based in the centre of Millside. The other 27 innovations identified received just one nomination each.

In comparative terms the number of innovations with multiple nominations from community leaders was quite low at Millside. It is not entirely clear why this was the case. The number of innovations identified by politicians and officers was not low relative to other municipalities, so this suggests that innovation was occurring. According to our experiences at other municipalities, some of these innovations – the ‘Vision for Millside’ campaign, ‘Social Impact Assessment Guidelines’ and the ‘Chemical Storage Emergency Alerting System’ – for example, could be expected to have a relatively high profile amongst the local community. Nevertheless, they did not rate a mention amongst the community leaders interviewed. This may be due to a somewhat disengaged relationship between the local community and the government at Millside, a relationship in part shaped by the challenging socioeconomic profile of Millside’s population. It may also be due to the highly localized nature of innovations at Millside, and the significant differences between local communities. For example locals in the more affluent

*Table 9.9* Innovations at Millside receiving multiple nominations from community leaders

Innovation	Nominations
New Aquatic Centre	4
Neighbourhood Renewal Project	4
New Municipal Meeting Structure	2
Community Hub/Progress Learning Centre	2

south of the municipality are not likely to be interested in or aware of neighbourhood renewal projects in the more marginalized northern areas, while development guidelines may not necessarily top the agenda for the local community in the latter. More simply, it may just reflect a failure on behalf of the municipality to effectively sell its innovation record to the local community.

What makes this disjuncture unusual though is that in terms of the kinds of innovation cases identified by politicians, bureaucrats and community leaders, nomination patterns across the three different groups are actually much more similar at Millside than at any other municipality. Figure 9.2 provides a percentage breakdown by type of the innovation nominations made by politicians, bureaucrats and community leaders at Millside, with a comparable cross-government mean also provided. Looking at the figure we can see that just over 10 per cent of all innovations nominated by politicians at Millside were in the ‘Governance, Organizational Change and Development’ category. This compares to 14 per cent for bureaucrats, and a slightly lower 12 per cent for community leaders. Interestingly, for both politicians

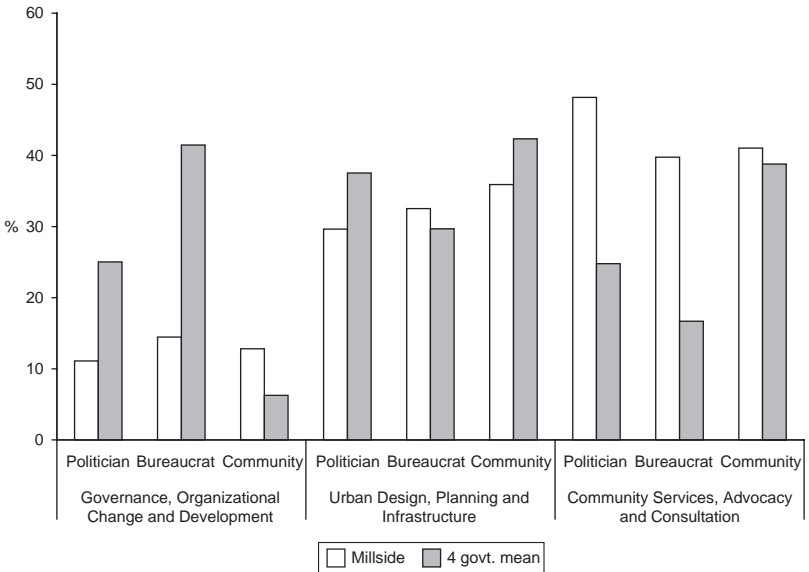


Figure 9.2 Innovations by category: Millside politicians, bureaucrats and community leaders

and bureaucrats, this percentage is well down on the cross-government mean of 25 per cent and 41 per cent respectively. Innovations in the 'Urban Design, Planning and Infrastructure' area were three times as likely to be nominated across all three groups of actors at Millside, ranging from 30 per cent for politicians up to 37 per cent of nominations made by community leaders. These figures sit quite closely around the cross-government mean. Not surprisingly, given the socioeconomic profile of the municipality, innovations in the areas of 'Community Services, Advocacy and Consultation' figure prominently amongst the nominations of all three groups. Almost half of all the innovations nominated by politicians were in this area, compared to just under and just over 40 per cent of nominations from bureaucrats and community leaders respectively. While the community leader figure is quite close to the mean, those for politicians and bureaucrats in this category are notably high – 40 per cent compared to a mean 24 per cent for politicians, and 40 per cent to 18 per cent for bureaucrats.

The final point worth noting about the types of innovations nominated by each set of actors at Millside has already been alluded to – the unusual degree of symmetry between nomination patterns. At other municipalities, the general trend has been for community leader innovation nomination patterns to be quite different from that of politicians and bureaucrats, with the latter two groups typically closer together in terms of the types of innovations nominated. At Millside there is virtually no discernible difference between these actors, the greatest percentage gap being a relatively small 8 per cent between politicians and bureaucrats in the community services area. This is particularly interesting given the generally close correlation between community leaders, politicians and bureaucrats' views on innovation at Millside.

Despite this symmetry, and the similarity in terms of the proportion of innovation cases nominated in each grouping, community leader assessments of the most popular innovation cases nominated by politicians and municipal officers were mixed at best. As the results in Table 9.10 indicate, none of the top five cases listed were highly regarded as innovative by the community leaders, the most positive result being for the Aquatic Centre which was assessed as innovative by 45 per cent of respondents. The Syringe Collection and Reporting Project was the next most highly rated at 40 per cent followed by the Social Impact Assessment Guidelines for Developers at 30 per cent. Overall, in comparison with the assessments made by community leaders elsewhere, respondents at Millside tended to be marginally, though consistently, more critical of internally nominated innovations.

Table 9.10 Key innovations: Millside community leader assessments

Innovation	Innovative (%)	Not innovative (%)	Never heard of it (%)	Don't know (%)
Vision for Millside Project	25	30	15	30
Social Impact Assessment Guidelines for Developers	30	20	40	10
New Aquatic Centre	45	40	0	15
Syringe Collection and Reporting Project	40	20	15	25
Best Value	0	20	55	25

### Key innovators at Millside

In this next section we again move away from solid examples of innovation at Millside to the actual innovators themselves. Thirty-seven individuals were nominated by the politicians and bureaucrats we interviewed as innovators, with 24 of them receiving multiple nominations. Table 9.11 lists the ten most frequently nominated innovators at Millside by their position. As was the case at other municipalities, despite being eligible for nomination, no individuals from the wider community were identified.

As the table shows, the most frequently nominated innovator at Millside was one of the politicians, who received 13 nominations from

Table 9.11 Key innovators at Millside

Position level	Frequency	Percentage of total 'key innovator' nominations per government (%)
Politician	13	7.74
Director	12	7.14
Mayor	12	7.14
Director	11	6.55
CEO	9	5.36
Manager	5	2.98
Manager	5	2.98
Manager	5	2.98
Manager	5	2.98
Environmental Health Officer	3	1.79

the 26 people interviewed. The Mayor received 12 nominations, as did one of the Directors, with another Director and the CEO receiving 11 and 9 nominations respectively. Only one person below the manager-level was nominated in the top ten at Millside – one more than at Melville, but less than at Parkside and Kilbourne. This, along with the broader nomination patterns we speculate, suggests that hierarchy plays an important part in shaping innovation reputations at Millside.

### Innovators and networks at Millside

As we have suggested, and as the evidence at Parkside, Melville and Kilbourne thus far indicates, the most prominent innovators in each municipality tend to be placed towards the centre of the advice and strategic information networks where they can make greatest use of these embedded resources. Figure 9.3 and particularly Figure 9.4, which show where those nominated as innovators sit within the advice and strategic information networks at Millside, again provide evidence of this link between innovativeness and network placement. As Figure 9.3 indicates, hierarchy is again an important determinant of network placement, with all six members of the Executive Management Team

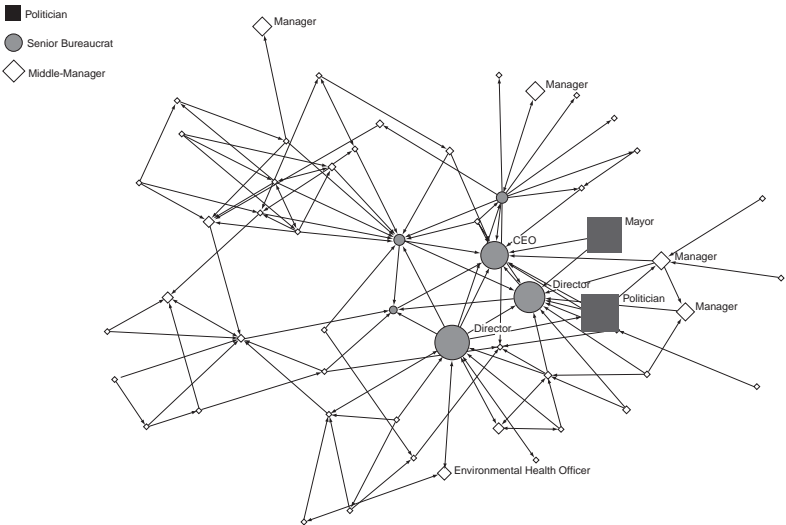


Figure 9.3 Millside: Key innovator placement within advice network

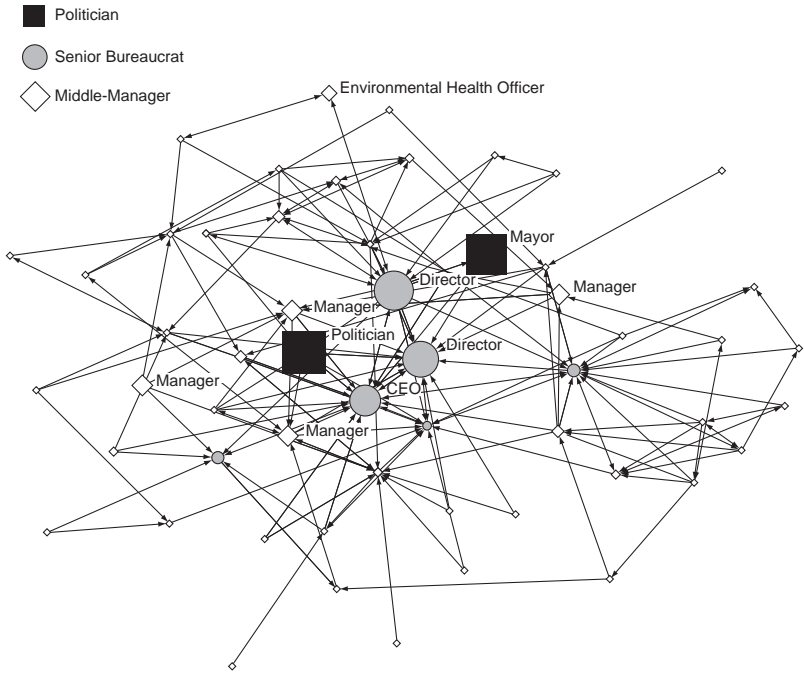


Figure 9.4 Millside: Key innovator placement within strategic information network

centrally placed in the advice network. Three of these were heavily nominated as key innovators, as were the two politicians.<sup>26</sup> Interestingly, while two of the ‘innovative’ middle-managers are clustered quite closely to this group, a number of others are placed very much at the periphery of the advice network.

As with the other three municipalities, the centring of the innovators within the strategic information network is much more pronounced. As Figure 9.4 shows, most of the actors with high recognition as innovators at Millside are clustered relatively closely together in the middle of the network, with more of the innovative middle-managers this time also drawn towards the centre of the sociogram. We can still see the marked influence of hierarchy, with all members of the senior executive again quite centrally placed, but this appears to be less pronounced than within the advice network, with the less innovative senior executives, though still prominent, placed further from the centre of the network.



To briefly recap the innovation story at Millside, we found dominant normative views amongst politicians and bureaucrats that cast innovation primarily as being about adaptation and planned improvement as opposed to radical structural change. Millside's politicians and bureaucrats saw themselves as innovators, particularly adept at adaptation; were relatively ambivalent about the impact of their organizational structures and procedures on innovation; and less than confident that innovators were highly valued or properly recompensed. Community leader's responses, though marginally more critical and circumspect regarding Millside's approach to innovation, tended to closely mirror these findings, again suggesting that innovation cultures tend to vary according to place. What this points to, we speculate, is the impact of external factors in shaping the normative perceptions of innovation at Millside – most notably, the municipality's budgetary position and challenging socioeconomic environment.

We can see echoes of the latter in the types of innovations nominated as important at Millside, with 'Governance' innovations less frequently nominated and 'Community Service' innovations much more common. What is particularly interesting and unusual though is how symmetrical nomination patterns were across the three groups of actors – politicians, bureaucrats and community leaders, with relatively little separating them in terms of their propensity to nominate innovations in each category. As noted in the text though, despite this symmetry, community leaders remained relatively critical, or at the very least ambivalent, about the value of the innovations proposed as important by politicians and bureaucrats.

Key innovator status at Millside appeared to be more closely related to hierarchy than at Kilbourne and Parkside but perhaps less so than at Melville, with the innovators again noticeably central in the advice and particularly the strategic information networks. We explore why this may be the case in the next chapter.

# 10

## Who are the Innovators Inside Government?

We now come to the point where we draw together all our previous examinations of innovation norms and procedures, our various explorations of networking activities and network structures, to make some coherent claims about innovation inside government. As the last four chapters have demonstrated, the key innovators in our four city governments occupy certain network positions and are located at particular levels in the hierarchy. We have also seen that there are some interesting variations across governments in regard to who the innovators are, what counts as innovation, and the degree of fit between the internal (politicians and bureaucrats) and the external (community leaders) view of what innovations are significant. The remaining question is: Who are the innovators inside government?

Public policy theories and research, and the organizational analysis upon which they are often based, rarely manage to distinguish between the formal and the informal aspects of policy development, except through case-based, qualitative observations with little authority beyond their own borders. This tendency reinforces the sharply distinguished claims about the effects of 'structures' and 'actors' made in the social sciences in general and within policy studies in particular.

While rational choice institutionalism has done much to redress this by way of theoretic-deductive reasoning, empirical work is very underdeveloped. It often seems that too much is still dependent on assumptions about rational-comprehensive competencies by individuals and incentive-based signals by institutions. Recent theories of governance have begun to articulate a new set of propositions about the 'intermediate' role of relationships and connections between actors and structures in the hope that this might crack the age-old social science problem of 'agency versus history'. New governance theories have

quickly moved towards the role of networks to help explain complex policy and organizational predicaments. This is where our study began.

An initial and central proposition of this book, and the large empirical study that forms a crucial element of it, is that real patterns of connectivity inside and around government can explain a lot about how important things get done. And what more important thing to investigate than the way innovation is conceived and executed?

A central task has been to disentangle expectations and claims about the way innovation occurs inside government. In particular we wanted to know more about the entrepreneurs, venture capitalists, investors, first-adopters and diffusion agents in the public sector, if such exist and are recognizable. And rather than simply apply these private sector accounts of innovation to the public realm, we wanted to see how the democratic process and its professional representatives – the politicians – played the innovation game. This final chapter brings together our earlier partial analyses of innovation inside government which focused on different aspects of innovation, and focuses on the contribution of the innovators themselves. Who are they, who are they connected to, and what difference does it make if they happen to be politicians or senior bureaucrats?

We have considered innovation to be a characteristic form of policy development and governance, with three dimensions of the policy and management process, which we have analysed separately up until this point in the book. The first dimension is the normative frame through which the key players in any system define innovation. This frame orients them to a particular approach to their work, providing them with a mental map they can call on to navigate their work. Also part of this map is an inbuilt consideration of how participants understand and evaluate the main governmental institutions they can use to create innovations within their environment. By researching actor perceptions of their experiences with these institutions, a more general account of innovation against specific expectations concerning action channels, veto points and lock-ins can be generated.

The more straightforward dimension of roles and positions is the second dimension. It is plausible to expect that how you think about innovation and work to enact it will be shaped by where you sit in the institutional system. Throughout this book we have assumed that one of the main role distinctions is likely to be that of politicians compared with bureaucrats. We have also assumed that seniority makes a difference. It is especially important to be in a position to assess the extent to which governmental innovation is dominated by particular groups such

as policy bureaucrats and senior managers, and to see what politicians contribute. So while the first dimension focuses attention on normative frames, the second stresses that role and rank also play a part.

The third dimension is the particular patterns of communication or networking among key actors within these governmental systems. We know who sits on committees and shares portfolio responsibilities, but who actually interacts with whom? In the limited research literature on innovation inside government, there are accounts which stress the use of a systems approach and process improvement (Borins, 2001), and system values (Swift, 1993). Innovation is seen to occur when a whole system is tilted in favour of innovative outcomes. Lundvall's (1992) book on national systems of innovation points to such properties and to the very different histories driving them in different national systems. A regional perspective is provided by Hall and Preston (1988), who also give an institutional account of innovation.

However, there are many arguments which appear to deny a structural imperative. First are those who say innovation runs counter to existing structures and claim that frustration with the status quo is a major source of innovation. Second are those who cast innovation as an individual rather than a collective property, or simply observe on the basis of the case study literature that innovative ideas come from many different places (Walters, 2001). Of most relevance to this book are the few attempts to integrate studies of policy diffusion processes with considerations of policy networks. David Knoke and others (Laumann and Knoke, 1987; Knoke, 1990) have led the way on this. More directly relevant is the work of Mintrom and Vergari (1998), who demonstrated the importance of different types of networks for different phases of innovation, with 'entrepreneurs' (akin to our innovators) using external networks for getting new ideas from elsewhere, and internal networks for shaping proposals so that they gain attention and get the required approvals.

A prevalent source of accounts of more systemic forms of innovation is the public management field. Here, innovation is frequently defined as a desirable trait of the modern public manager. As a result, the model of innovation that emerges is often concentrated on leadership. Sanders (1998) make this claim in relation to the US Reinvention agenda, where almost every case of successful organization-level change studied was traced to the actions of entrepreneurial leaders. It is reasonable to assert that leading actors will likely have something to tell us about what happened and why, regardless of whether the term 'leadership' constitutes a model or not. This leads us back to procedures. Many

accounts of innovation focus on and recommend organizational processes for driving innovation and for explaining it when it works. But the role of structures and procedures is controversial, as we have already pointed out. Our research design explicitly took on a form that could track both actors and structures. One of our major aims was to ensure that we defined structures as both formal institutions and informal networks, since both appear important to explaining innovation, so that we could assess their relative importance.

Our approach has been to move beyond the dichotomy of individual and structural accounts. Much can be gained by considering structures as incorporating interpersonal interactions which are not as concrete as institutional roles and positions, but are important nonetheless. If we allow for a model of structures to *include* patterns of relationships or networks, we can examine innovation, and what it means to be an innovator, as combining individual and structural characteristics. Mapping communication to find out where information is obtained and traded, and where advice is sought, provides the possibility of explaining the impact of traditional forms of hierarchical interaction, as well as the more lateral and informal links which seem likely to be just as important to innovation. Freeman (1991) argues that both empirical and theoretical research have convincingly demonstrated the importance of both external and internal networks of information and collaboration for successful innovation in firms. There is no obvious reason why networks are less important inside government, and indeed, our findings bear this out.

We have examined innovation itself in different ways in this book. First, we explored the normative framing of innovation inside government – how people think about innovation and what structures and procedures help and hinder it (Chapter 2). We have also described in some detail a less conceptual and more practical version of innovation by looking at the innovations produced by four governments and how they are evaluated by politicians, bureaucrats and community leaders (in Chapters 6–9). Finally, we have spent considerable effort in generating political and social profiles of innovators in four governments, also in Chapters 6–9.

As we described in Chapter 2, innovation frames are tangible sets of ideas and evaluations about the meaning of innovation. There is a dominant way of framing innovation in each municipal government, and these frames also differ significantly between politicians and bureaucrats and across levels of the hierarchy. Chapter 2 also examined activities and instruments that help and hinder innovation. These also varied

across governments, between politicians and bureaucrats, and between levels of the hierarchy. For some the planning or committee system are helpful, for others these block innovation.

We now turn to a more detailed examination of who the innovators are, and bring together the various factors that are associated with innovation (norms, procedures, external contacts, formal roles, and informal networks) to find out which of these are most important. We want to produce a profile of who the innovators are, and to make claims about what kinds of characteristics they have. We then finish the chapter and the book with some suggestions on how these findings, which relate to local governments in Australia, might be generalizable to other systems.

### **Who are the innovators?**

As we have already outlined in earlier chapters, we asked politicians and bureaucrats in each of the four cities chosen to be in the second part of the study to tell us who they regarded as the key innovators in their government. While nomination-based methods for locating key actors have attracted criticism for being highly subjective, when dealing with small and medium-sized groups who work in close proximity to one another, it is reasonable to expect that they will be well informed about one another's reputation for work-related performance.

We interviewed a total of 104 key participants from these four governments, split fairly evenly across the four. Interviewees were asked to nominate the key innovators in their municipality.<sup>27</sup>

Table 10.1 shows the top ten innovators in each city government, labeled by their position, and the percentage of total nominations that they received from within that government. So, for example, at Kilbourne, the top innovator was one of the managers, and this person received 11.5 per cent of the total nominations for that government, whereas at Millside the top innovator was a politician, with 7.7 per cent of the total nominations.

This table highlights some interesting patterns across the four governments. Kilbourne's list of key innovators is dominated by the managers, with the top four positions taken up by them. But the CEO comes in at number eight, and two people at coordinator/team leader level appear in the top ten. No politicians were amongst the recognized innovators at Kilbourne. Melville's list is also headed up by a manager, but it includes two politicians, both in the top four. The CEO sits at number five in both

Table 10.1 Top ten innovators in the four governments\*

Kilbourne ( <i>n</i> = 26)		Melville ( <i>n</i> = 27)		Millside ( <i>n</i> = 26)		Parkside ( <i>n</i> = 25)	
Position	%	Position	%	Position	%	Position	%
Manager	11.5	Manager	8.1	Politician	7.7	CEO	9.8
Manager	8.3	Politician	8.1	Director	7.1	Politician	6.8
Manager	7.1	Director	7.3	Mayor	7.1	Director	5.4
Manager	4.5	Politician	6.5	Director	6.6	Manager	4.4
Director	4.5	CEO	5.7	CEO	5.4	Politician	4.4
Director	3.9	Director	4.8	Manager	3.0	Director	4.4
Coordinator	3.2	Director	4.8	Manager	3.0	Manager	4.4
CEO	2.6	Director	4.0	Manager	3.0	Coordinator	3.9
Coordinator	2.6	Manager	4.0	Manager	3.0	Director	3.4
Director	2.6	Manager	3.2	Environmental	1.8	Politician	3.0
Manager	2.6			Health Officer			

\*A eleventh person is included for Kilbourne because there are four people with the same percentage of nominations holding the eighth to eleventh positions.

Melville and Millside. Two politicians, one of whom is the Mayor, are rated highly in the innovation stakes at Millside, which appears more hierarchical with politicians, including the Mayor, and the senior executive taking the top five positions. Parkside is the only government with the CEO as the top-ranked innovator. Parkside also has the most politicians in the top ten, with three appearing in total. In most cases the differences in percentage scores are not great, but there is a substantial gap between the first- and second-ranked innovators at Kilbourne, and Parkside.

We will return to these differences later in the chapter. For now we simply observe that a very different innovation structure appears to exist in each of these governments. Innovators are not all concentrated in the most senior positions in all governments, but are spread across the hierarchy. In some cases, politicians are important innovators and in others they are not.

## Different types of networks and innovators

In Chapters 3 and 4, much energy was spent on examining networks of different kinds as multiple engagement processes among these actors inside and outside their governments. One form of network can be found in the external engagements which a given government has with a range of external agencies or institutions known to be likely sources of

innovative ideas – professional bodies, other governments, trade associations and so on. We also examined levels of conference attendance and membership of associations amongst our respondents.

As we saw, this level of external contact varies widely across governments, indicating that some governments have a culture of being more extroverted than others – or, of having different networking cultures in terms of the level of external engagement; the level of interaction with people and organizations, conference attendance and the membership of associations. Networking cultures differ between politicians and bureaucrats too. Politicians engage more with other politicians and local government and community groups, while bureaucrats engage more with other government officials and government organizations. Politicians attend more conferences and belong to more associations than bureaucrats. This level of external contact indicates openness to connections and ideas flowing from outside the organization, and we assume this is likely to be associated with innovation, since it throws a wider net into which new ideas can be gathered.

Examining the social networks of actors provides a far more differentiated and detailed way to understand the interactive structures shaping governmental systems. The communication networks we have mapped and analysed, based on advice and strategic information, show how individuals are connected to others in ways that give them access to crucial political resources. These network structures also show how the system as a whole manages information flows, relationships and resource distributions.

Interpersonal networks for seeking advice and strategic information vary across governments by the amount of homogeneity displayed. Actors in some municipal governments have higher diversity in their ties while actors in other governments are most connected to others like themselves. It is also clear that actors network up and down the hierarchy most, but a substantial amount of networking is done laterally, to others at the same level. When we examined the networks around key actors, we found that CEOs have more elaborate networks than mayors. This holds true across governments as a general rule. In a few cases there is no direct connection between the CEO and the Mayor, but in most cases there is substantial overlap between their individual networks.

## **Where are the innovators in the networks?**

So far we have only considered the organizational profiles of innovators, so now we turn to the key issue of their relationships with one another.



There are many reasons to expect that being an innovator will make it likely that one will have a special place in relation to others. One will need to be well connected to those in power, presumably, or how else will good ideas translate into decisions? One will need to be well connected to others with the advice and information necessary to craft and implement new ideas, or innovations will fail to address agreed problems and priorities. And, we presume, one will also need to be connected to others who are also innovators.

In social network analysis more broadly, the patterns of connections in a group or an organization show who are most dependent on exchanges with others in order to gain information, and those who have the most autonomy and can therefore exercise some form of control as a result of their network position (Burt, 1992). Direct ties between members of a network signal proximity, and this proximity to one's neighbours (or proximate others), provides access to the resources that these others have and are able to share (Lin, 2001). To follow this line of inquiry on proximity, and the importance of resources embedded in these networks, we examined whether the key innovators were directly linked to each other through advice networks or through strategic information networks. Figure 10.1 shows the connections between the top five innovators so far as advice-seeking networks are concerned.<sup>28</sup> In these network maps, disconnections do not mean that there are no pathways between people at all – they simply mean that there is no direct

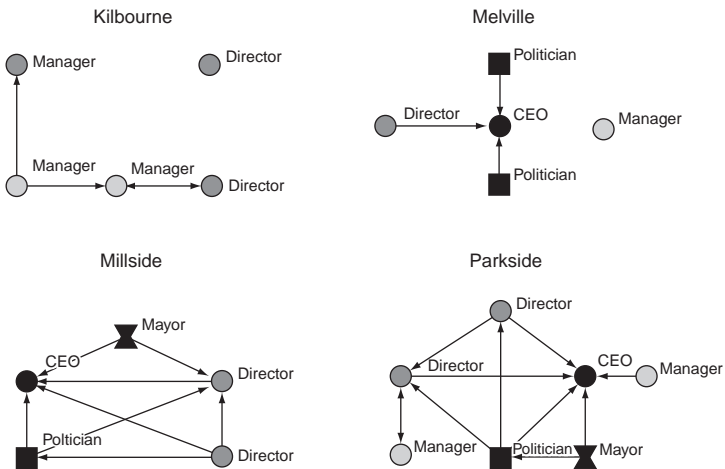


Figure 10.1 Key innovator ties to each other: Advice network

pathway, so at least one other person is between two actors where no tie is shown.

For Kilbourne, four of the five key innovators are linked into a chain with no central actor, and one director who is nominated as an innovator is disconnected from the others, so far as advice is concerned.<sup>29</sup> The CEO is the central point for Melville, with three of the other key innovators linked to him. Again, one key innovator is isolated from the others in the advice network. Millside has no disconnected actors, and there is no central key innovator, with the ties being fairly evenly spread around, but the CEO and one director have the most ties. For Parkside, there is a constellation of ties around the CEO. There are seven actors in this because of the tied ranking of innovators in this government (those ranked 4–7 are all the same). There is a group of two directors and a politician who link to each other and directly to the CEO, and one politician linked just to the CEO and the other politician. There are also two managers with single connections to other key innovators.

These network maps reveal a quite dispersed innovator advice network at Kilbourne, and a more centralized structure for Melville, with the CEO as the focal point. The structures for Millside and Parkside are more tightly coupled and hierarchical, with a clear pattern of connections around the CEO at Parkside, who also happens to be the most highly recognized as an innovator in that government.

A contrasting picture emerges from examining strategic information connections between key innovators (Figure 10.2).<sup>30</sup> At Kilbourne, the connections are no longer a long chain, but are now a daisy chain, with each of the five key innovators connected to two others around the circle. For Melville, the CEO is still central, but one of the politicians is also well connected. The manager who was isolated in the advice network is now linked to the CEO. The network map for the key innovators at Millside has an almost identical configuration for both advice and strategic information. There is just one more connection for strategic information, although some of the directions of the ties have changed. Finally, the star configuration around the CEO at Parkside is even more pronounced for strategic information, with all of the key innovators directly connected to the CEO, and only two ties between pairs of actors that do not include the CEO.

These network maps provide a visualization of social structure that cannot be gained by other means. Social network measures that generate network measures for individual actors are required to be more precise about network effects, and to address the question of whether it is norms and procedures, formal positions and roles, or informal

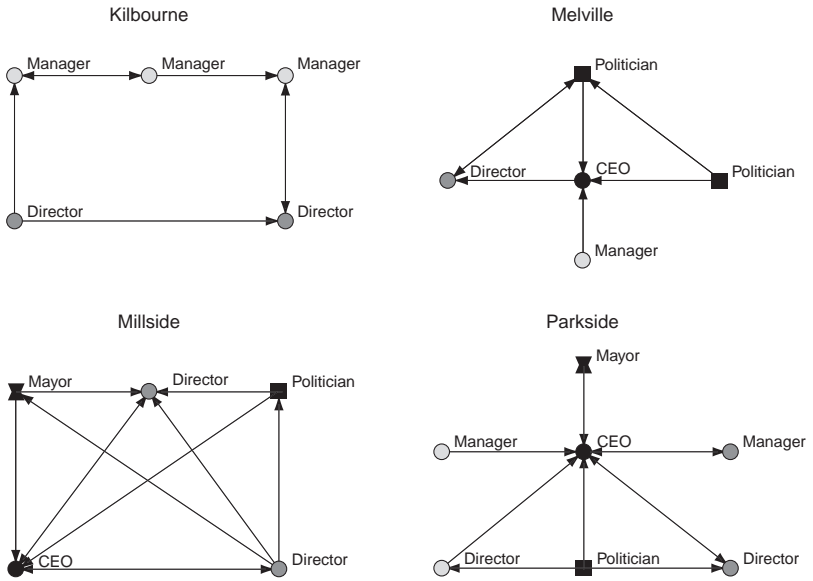


Figure 10.2 Key innovator ties to each other: Strategic information network

networks that have the biggest impact on innovation. We need a multivariate approach to help us analyse the contributions networks make over and above the effects that would have been explained by the formal hierarchy and role position of these actors. We used multiple regressions to discern the effects of networks, once other attributes have been accounted for.

Before taking this multivariate step, we had to generate individual network scores for advice and strategic information. The in-degree centrality of each of the respondents in the four governments was calculated. As we noted earlier in the book, centrality is a measure of the prominence of actors in a social network. The most important or prestigious actors are usually those with large in-degrees (Wasserman and Faust, 1994). In-degree means the extent to which other actors go to a particular person in search of advice or strategic information.

Tables 10.2 and 10.3 show mean in-degree scores for different positions. These scores are normalized (and hence do not refer simply to the number of times an individual was mentioned), because the scores are very dependent on network size. Normalization makes them comparable across networks (governments) of different sizes (Scott, 2000).

Table 10.2 Advice network centrality by position (mean in-degree centrality)

	Mayor	Politician	CEO	Director	Manager	Coordinator/ Team Leader	Other
Kilbourne	1.32	1.10	14.47	12.63	6.17	0.70	1.03
Melville	2.33	1.55	25.58	16.86	4.51	1.40	0.93
Millside	1.82	0.00	21.82	13.45	4.00	2.25	2.31
Parkside	3.49	2.62	18.60	11.63	3.94	1.46	1.42

The results in Table 10.2 show that CEOs are the most central actors for advice, followed by directors and then managers, in all four governments. In other words, hierarchy rules for advice-seeking behaviour, with ties being directed up the ladder.

Politicians are only as central as the coordinators/team leaders, and others. There are some variations across governments in relation to this overall trend, but this pattern holds. Politicians were never more central than bureaucrats, which indicates that advice is sought more often from the bureaucratic than from the political side of these governments.

Centrality scores for strategic information (Table 10.3) indicate that CEOs and directors are the most central once again, although the directors are more central than the CEO at Kilbourne. Managers follow in three of the four governments. But here we see that politicians have a greater role. The mayors at Millside and Parkside are, respectively, very close to the managers, or ahead of them, in terms of centrality. For all four governments, politicians and especially mayors are relatively more central for strategic information than for advice networks. It seems that politicians have a stronger network role to play in being an important source of strategic information, than they do in being a source of advice.

Table 10.3 Strategic information network centrality by position (mean in-degree centrality)

	Mayor	Politician	CEO	Director	Manager	Coordinator/ Team Leader	Other
Kilbourne	5.26	2.41	11.84	20.26	9.95	0.93	0.94
Melville	4.76	2.38	38.10	32.14	6.85	1.43	0.95
Millside	10.91	3.64	58.18	42.91	12.55	2.99	4.96
Parkside	12.79	2.03	31.40	19.53	5.55	1.31	1.03

## Explaining who the innovators are

These descriptions of who the innovators are in terms of formal roles and network positions point to a fundamental tension. On one hand, we see some important differences in the way each city government is structured in network terms, so far as the role and place of the innovator is concerned. On the other hand, it seems that hierarchical position is an important influence on patterns of connectedness – perhaps countering or moderating the effect of less formal networks. It is also clear that who is most crucial varies by network type, and that politicians and bureaucrats have varying importance in the different networks based on advice or information.

In order to untangle these relationships, we now examine the extent to which institutional and network attributes help in identifying innovators. We repeat earlier comments about innovation and innovation cases made in this book to avoid confusion. We allowed respondents to nominate projects, programmes and activities as innovations, we did not insist upon a single definition of what was, or was not, a true example of innovation. A similarly open approach was used to identify innovators. Respondents could nominate whoever they recognized as an innovator in their municipality, and their choices were not proscribed or limited.

Before moving on to make determinations about which of the many factors discussed are the most important to innovation, we needed to reduce our list of variables. In different places throughout this book, we have covered a range of measures that we thought would be helpful in answering our questions about innovation inside government. These include the different kinds of networks alluded to in the previous section. We would expect these different kinds of networking to be correlated, and in fact they are. The significant correlation coefficients are shown in Appendix B. The two network centrality variables were (not surprisingly) highly correlated with each other ( $\rho = 0.67$ ). Some of the external contact variables were also strongly correlated, for example 0.45 for contact with the two different local governance associations. Contact with one of the associations was strongly correlated with both network centrality measures.

A question of central importance to this chapter is whether formal institutional position or informal network position is the most important predictor of being an innovator.<sup>31</sup> Is it the authority that comes from the role of politician or bureaucrat, or the level in the hierarchy, or the connections based on communication and information exchange,

that best explain who is, and who is not, an innovator? And what role do the more discursive aspects of innovation – the innovation norms – play in this? Does this conceptual framing of the innovation issue relate to the way innovators are recognized? And finally, does it matter whether actors rate their procedures as important to innovation, or as a hindrance?

To examine which factors – innovation norms, procedure types, networks and positions – are the most important in determining innovator status, we employed multiple regressions. Since we want to be able to say which factors have the biggest effect on innovator status, this was used as the dependent variable. As already noted, the two network variables were highly correlated. The external engagement variables were also strongly correlated. As they are of less interest than the network variables, they were not included. Since the two network measures were highly correlated, two separate regressions were run, with advice centrality included as an independent variable in one, and strategic information centrality in the other. The five innovation norms and three procedural factors were weakly correlated to innovator status, so they were not included. Networks and positions turned out to be the most crucial predictors of innovator status in this preliminary analysis. The results, showing the regression results using forced entry of the same set of variables into each of the regression equations, are provided in Tables 10.4 and 10.5.

Normalized in-degree centrality for the strategic information network is a significant predictor of recognition as an innovator in two of the four governments, and overall (see Table 10.4). If you are an innovator then you will also be someone who a lot of people come to for strategic information. Being a politician is also a predictor in three of the four governments, as well as overall. Being a CEO was significant in two of the four governments as well as overall. This does not yield a definite answer to the question of whether it is networks or institutional position that counts more, with network the only important factor in predicting who is seen as an innovator in Kilbourne, and position the only important factor in Melville and Millside. Both network and position are significant in Parkside, and in the total sample.

Of the different types of position within city government, it is being a politician that is the strongest predictor of innovator status, although CEOs are also important innovators. Directors were important at Millside. This regression indicates that both formal position and informal network relationships are important, and while there must be some overlap between these, given that it is impossible to separate a person's

Table 10.4 Key innovator status with strategic information networks and position

	Kilbourne	Melville	Millside	Parkside	All
N	88	53	62	93	296
Adjusted R-Squared	0.30	0.39	0.62	0.60	0.39
Strategic information network centrality	0.63			0.41	0.43
Position (ref: Coordinator/Team leader)					
Mayor			0.47		0.12
Politician		0.44	0.56	0.47	0.33
CEO			0.27	0.31	0.14
Director			0.35		
Manager					0.13
Other					

Standardized regression coefficients statistically significant at  $p < 0.05$ .

Dependent variable = percentage of 'Key Innovator' nominations per government.

Regressions conducted using the enter method.

interpersonal connections from their hierarchical position, they are not exactly the same.

If this is true for strategic information networks, what about for advice networks? As we have seen elsewhere in this book, different networks are constructed differently and their impact varies. Institutional position is more important in predicting innovator status than advice network centrality (see Table 10.5). Position is a significant predictor of innovator status in all four governments while advice network centrality was not significant in any of the four, although it was significant in the total sample. Again, being a politician was the strongest predictor of innovator status, with the exception of Kilbourne. Interestingly, in two governments, as well as overall, being a manager was associated with being an innovator.

What we have shown with these analyses is that networks are important, and explain more than can be discovered by a focus upon position alone. But different types of networks are not equally important. Advice networks are weakly related to being an innovator, but strategic information networks appear more crucial. If you are seen as the person to 'go to' for strategic information, you are also very likely to be seen as an innovator. Relating this to Mintrom and Vergari's (1998) research on

Table 10.5 Key innovator status with advice networks and position

	Kilbourne	Melville	Millside	Parkside	All
<i>n</i>	88	53	62	93	296
<i>Adjusted R-Squared</i>	0.16	0.37	0.63	0.59	0.34
Advice network centrality					0.21
Position (ref: Coordinator/Team leader)					
Mayor			0.48		0.16
Politician		0.45	0.57	0.47	0.34
CEO			0.25	0.40	0.22
Director			0.34		0.24
Manager	0.31		0.20		0.21
Other					

Standardized regression coefficients statistically significant at  $p < 0.05$ .

Dependent variable = percentage of 'Key Innovator' nominations per government.

Regressions conducted using the enter method.

the importance of different networks for different phases of innovation, it seems that strategic information centrality is important for innovator recognition because these actors are doing the visible, internal work of getting innovations approved and in place. Scanning for ideas outside the organization through advice networks might well lead to initiation of innovation, but this is more intangible and diffuse.

With strategic information centrality being more important than position in the hierarchy, the position of politician being a significant predictor of innovation status, and this being more important than advice network centrality, it seems that networks are more important than hierarchical position in explaining innovation. However, not all networks matter equally. Strategic information was more important, but the distinction between our two types and the differences discussed by Mintrom and Vergari suggest that there may be other networks worth investigating to further elaborate this approach. The idea that innovative ideas spring up from all over the place (Walters, 2001) turns out to be correct, with those further down the hierarchy being recognized as innovators in some governments – albeit to a lesser extent than those higher up. There are many more people at lower levels of the hierarchy than at the top (Bardach, 1998), so we should not be surprised if some of them turn out to be innovators, given the simple weight of numbers.



In summary, innovators are central in networks, and they also tend to be relatively senior. Despite having fewer ties, politicians prove to be very important as innovators. This means that both network and hierarchy effects can be seen in the shaping of innovation. We interpret this to mean that innovators inhabit a particular space in fulfilling their role, which is defined in part by structural position but more by their place in informal, actor networks. This space they inhabit describes the topography of innovation inside government, with innovators placed in locations that have scope for movement, despite the structural constraints they face. The topography of this space is further examined in the next section.

### **Modelling the network structures around the innovators**

The analysis in this chapter has, up until this point, relied on a combination of standard multivariate statistical approaches to examining innovation, and the use of network measures that could be incorporated into these standard approaches. To finish this analysis, we take a different approach, which uses the network data to estimate the local network characteristics of the innovators. That is, we use models that explore the patterns of network ties, to determine the local structures of the configurations around those actors who are recognized as innovators.

The models used – exponential random graph models – estimate the importance of a set of variables, and, like multivariate analysis, take a number of variables into account at once. Network structures are seen as a combination of one way and reciprocal ties, triangles, paths and stars, and other configurations between small groups of actors (from two to seven).<sup>32</sup> The program searches for these sub-groups and estimates whether they occur significantly more often than would be the case if the network ties occurred randomly. In this case, the focus of the models is on examining the sub-structures around the innovators, in order to determine if there are discernible patterns that can be identified which indicate how their relationships with others in the network are structured.

Since the relationship between innovators and network centrality was stronger for the strategic information than for the advice network, we focused on that network. Two models were used for each government. Both of the models have a basic structure that includes one directional ties and reciprocal ties. The first model provides estimates which examine the effects of hierarchy. The second model includes stars, triangles and paths, providing an analysis of differential popularity over and

above hierarchy. Both models also include an examination of the sub-structures around the key innovators in our four governments,<sup>33</sup> including whether innovators are the receivers or senders of ties, whether they are in the centre of stars, and whether key innovators have ties to other key innovators. In the following discussion, we focus on the sub-structures around key innovators, but the results should be read as an analysis of these, having taken hierarchy and differential popularity across the whole network structure into account.

These two models produced results that fit with the analyses provided earlier in this chapter. For all four governments, innovators have different patterns of network connections to non-innovators. The key innovators tend to be the receivers of many nominations, but they nominate others selectively. Another way to describe this is that innovators sit in the middle of 'hubs' where the nominations of other actors converge. This result hints at innovators having a reduced need for information. Many people seek them out for information, but they themselves do not have to search far – they are parsimonious in seeking information, perhaps because they know exactly where to go.

While this pattern of being on the receiving end of many ties, and selectively sending ties to others, was standard across all four of our governments, some additional characteristics were apparent in two of the municipalities. In Millside, there was also a significant effect for reciprocity between innovators – indicating that innovators there were more likely to have reciprocal ties with other innovators than would occur by chance. So, in this case, innovators are seeking and getting advice from each other, in addition to the fact that they are still in the middle of the hubs. In Parkside, the innovators were less likely than would be expected to send ties (non-reciprocal) to other innovators. Also apparent for Parkside was the tendency for innovators to be selective about passing ties on. That is, where they sit on a pathway between two others, they are less likely than expected to pass a tie on to another actor. Innovators at Parkside appear to be even more selective in seeking out information than their innovator colleagues in general. This was also apparent at Melville.

These models validate the earlier findings on the importance of network centrality to innovator status. They also add to this the important insight that, while many people are seeking the innovators out, the innovators themselves use network ties selectively. This provides a clear picture of what the sub-networks around innovators look like. They are the centre of hubs with more people seeking information from them than they seek themselves from others. In other words, they are the

'go to' people in these governments. And in two of these four governments, there is some evidence to suggest that innovators are acting as network brokers (or occupying structural holes in Burt's terminology), being selective about transmitting information on to others.

## **Innovation inside government**

This book provides the first comprehensive look at innovation inside government. Of equal significance is that we have validated the proposition that networks are crucial to innovation, and more important than other variables that could be expected to impact substantially. There are many things we still do not know about the impact of these networks on innovation. Do innovators 'know' that they are acting parsimoniously, are there internal pay-offs that make this sensible in some governments? Or can we see the networks as being somewhat outside the control of individuals, expressing a mix of positional imperatives and personal style? In other words, can the use of networks be learned and therefore taught?

Our study certainly raises interesting new questions about the link that clearly exists between informal and formal structures. But it does so having settled one or two crucial matters. Networks obviously provide a viable and robust way to describe and understand the links between structural and individual elements in the innovation story. We have captured important characteristics of these governments using methods that are robust and open to comparative study. They show conclusively that, net of all other factors, networks explain more about innovation than everything else. This approach also demonstrates in a compelling way that government itself is a variable. Each of our cities has a set of attributes including normative and institutional characteristics that woven together with network structure explains what in common parlance might be called a local culture of innovation. We now know how such cultures are different, what contributes to their characteristic forms and where to look to get a handle on such differences.

We have also made important progress in understanding the unique role of politicians in the innovation game. No private sector schema focussed upon large corporations can account for the particular authority and veto capacity of politicians. We have shown how different their networks are to those of other senior figures in these systems and how important their ties to CEOs and one another are. The study also reinforces the conclusion that their structural positions are fundamentally different to those of other officials and nowhere is this more evident

than in regard to the normative frames that shape their approach to innovation and guide their evaluations of governmental structures. For example, we have shown that across the various cities the politicians are less at ease with organizational systems for furthering innovation than with the legislative parts of the system – almost the exact opposite of their senior bureaucratic colleagues.

The next stage in research of this kind offers two exciting opportunities. First, the networks approach can profitably be applied to other levels of government now that some key methodological issues have been resolved. Second, we can extend the analysis to a greater range of networks. We now know a lot about advice and strategic information, but what about political support, know-how trading and other forms of networking discussed in the social capital literature? The theoretical gains from this approach are also worth re-emphasizing. We have not solved the problems of ‘agency’ and ‘structure’ discussed in the first chapter, but we have a far better way to study their interaction and impact and surely it is at this mid-zone of theorizing that most progress is always made on the biggest of questions. Whether this means that ‘networks rule’, or that all effective rules now depend upon networks, awaits further work.

# Appendix A: Factor Analysis of Innovation Norms and Procedures

Table A.1 Innovation norms factor loadings

	Institutional	Structural	Skeptical	Incremental	Adaptation
Small continuous improvements				0.73	
Develop or adapt new technology					0.44
Making major changes		0.47			
Planned effort to improve process, service programme				0.71	
Working closely with community		0.60			
Not something governments do			0.69		
Resolving conflicting priorities		0.56			
Accountability requirements limit innovation	-0.40		0.58		
Need to move outside regular channels		0.60			
No difference between roles of experts, politicians, managers		-0.43			0.52
See self as an innovator			-0.41		0.46
Structures encourage innovation	0.82				
Politicians identify needs, officials create innovations			0.54		
Organization values innovative individuals	0.82				
Strength is in adapting innovations to situation					0.56
Difficult to be innovative in our organization	-0.78				

Principle components analysis with varimax (orthogonal) rotation.  
 Only factor loadings with a magnitude of 0.30 and greater are shown in this table.  
 Percentage of variance explained by five factors = 51 per cent.

Table A.2 Procedures factor loadings

	Political governance	Managerial governance	Electoral governance
Annual budget process	0.51	0.38	
Municipal corporate plan	0.35	0.49	
Municipal statutory committee meetings	0.79		
Municipal advisory committee meetings	0.72		
Municipal meetings	0.72		0.39
Pay and promotion system		0.54	
Values and culture of executive management		0.80	
Divisional structure of municipal organization		0.62	
Quality of proposals coming from officers		0.62	
Municipal election campaigns			0.67
State govt. regulation of local govt.			0.55
Values and culture of elected politicians			0.75
Quality of proposals coming from politicians			0.74

Principle components analysis with varimax (orthogonal) rotation.

Only factor loadings with a magnitude of 0.30 and greater are shown in this table.

Percentage of variance explained by three factors = 52 per cent.

Table A.3 Innovation norms: Institutional

	N	Mean (factor score)	Significance of F test/ <i>t</i> -test
Bankview	61	0.61	Overall $p = 0.00$
Bilstown	39	-0.09	
Kilbourne	71	-0.15	
Lassiter	45	0.15	
Melville	42	0.30	
Millside	51	-0.03	
Netherton	152	-0.34	
Oberon	64	-0.20	
Parkside	84	0.17	
Wallerstrum	45	0.34	
Yarwood	55	-0.09	
Politician	48	0.13	$p = 0.38$
Bureaucrat	656	0.00	
Mayor	11	0.28	$p = 0.01$
Politician	40	0.08	
CEO	10	0.64	
Director	47	0.42	
Manager	174	0.03	
Team Leader/Coordinator	286	-0.07	
Other	142	-0.09	

Table A.4 Innovation norms: Structural

	N	Mean (factor score)	Significance of F test/ <i>t</i> -test
Bankview	61	0.20	Overall $p = 0.01$
Bilstown	39	-0.27	
Kilbourne	71	-0.17	
Lassiter	45	-0.10	
Melville	42	-0.25	
Millside	51	0.07	
Netherton	152	-0.03	
Oberon	64	0.02	
Parkside	84	0.26	
Wallerstrum	45	-0.27	
Yarwood	55	0.28	
Politician	48	0.25	$p = 0.08$
Bureaucrat	656	-0.02	
Mayor	11	-0.09	$p = 0.30$
Politician	40	0.36	
CEO	10	0.05	
Director	47	-0.01	
Manager	174	-0.09	
Team Leader/Coordinator	286	0.02	
Other	142	-0.03	



Table A.5 Innovation norms: Sceptical

	N	Mean (factor score)	Significance of F test/t-test
Bankview	61	0.02	Overall $p = 0.07$
Bilstown	39	0.04	
Kilbourne	71	-0.10	
Lassiter	45	-0.03	
Melville	42	0.26	
Millside	51	-0.14	
Netherton	152	-0.08	
Oberon	64	0.03	
Parkside	84	0.31	
Wallerstrum	45	-0.31	
Yarwood	55	0.01	
Politician	48	-0.05	$p = 0.75$
Bureaucrat	656	0.00	
Mayor	11	0.12	$p = 0.01$
Politician	40	-0.17	
CEO	10	-0.99	
Director	47	-0.19	
Manager	174	-0.05	
Team Leader/Coordinator	286	0.04	
Other	142	0.14	

Table A.6 Innovation procedures: Political governance

	N	Mean (factor score)	Significance of F test/ <i>t</i> -test
Bankview	52	-0.01	Overall $p = 0.14$
Bilstown	30	0.22	
Kilbourne	60	0.08	
Lassiter	43	0.26	
Melville	36	0.08	
Millside	45	0.01	
Netherton	136	-0.13	
Oberon	57	0.13	
Parkside	73	0.07	
Wallerstrum	37	-0.10	
Yarwood	47	-0.35	
Politician	44	0.44	$p = 0.00$
Bureaucrat	568	-0.03	
Mayor	9	0.32	$p = 0.05$
Politician	37	0.51	
CEO	9	-0.11	
Director	44	-0.08	
Manager	153	-0.02	
Team Leader/Coordinator	242	-0.07	
Other	121	0.04	

Table A.7 Innovation procedures: Managerial governance

	N	Mean (factor score)	Significance of F test/ <i>t</i> -test
Bankview	52	0.46	Overall <i>p</i> = 0.00
Bilstown	30	-0.18	
Kilbourne	60	0.13	
Lassiter	43	-0.04	
Melville	36	0.07	
Millside	45	0.10	
Netherton	136	-0.27	
Oberon	57	-0.26	
Parkside	73	0.01	
Wallerstrum	37	0.50	
Yarwood	47	0.01	
Politician	44	0.05	<i>p</i> = 0.41
Bureaucrat	568	-0.01	
Mayor	9	0.34	<i>p</i> = 0.00
Politician	37	0.10	
CEO	9	1.04	
Director	44	0.42	
Manager	153	0.14	
Team Leader/Coordinator	242	-0.16	
Other	121	-0.16	

Table A.8 Innovation procedures: Electoral governance

	N	Mean (factor score)	Significance of F test/ <i>t</i> -test
Bankview	52	-0.27	Overall <i>p</i> = 0.00
Bilstown	30	-0.14	
Kilbourne	60	-0.78	
Lassiter	43	-0.05	
Melville	36	0.10	
Millside	45	0.13	
Netherton	136	0.07	
Oberon	57	-0.06	
Parkside	73	0.58	
Wallerstrum	37	0.22	
Yarwood	47	0.00	
Politician	44	0.18	
Bureaucrat	568	-0.01	
Mayor	9	0.50	<i>p</i> = 0.44
Politician	37	0.13	
CEO	9	0.00	
Director	44	0.11	
Manager	153	-0.03	
Team Leader/Coordinator	242	0.03	
Other	121	-0.13	

# Appendix B: Contact Matrix Correlation Coefficients

Table B.1 Contact variables correlation coefficients (Spearman's rho)

	Advice in-degree centrality	Strategic information centrality	Officer in another municipality	Politician from another municipality	Officer from DOI	Officer from other State gov. dept.	Officer from federal gov. dept.	Business association	Medium/large private firm	Resident's group	Trade union	Community sector organization	Non-profit org.	MAV	VLGA
Advice in-degree centrality	1.00	0.67	0.09							0.09				0.25	
Strategic information centrality	0.67	1.00	0.09			0.09				0.09				0.24	
Officer in another municipality	0.09	0.09	1.00			0.24	0.14	0.10		0.13		0.20	0.15	0.17	0.20
Politician from another municipality				1.00		0.23	0.20	0.25	0.20	0.26		0.24	0.28	0.34	0.40
Officer from DOI					1.00	0.29	0.18	0.27	0.32	0.25		0.20	0.17	0.16	
Officer from other State gov. dept.		0.09	0.24	0.23	0.29	1.00	0.36	0.29	0.23	0.26		0.32	0.26	0.19	0.20
Officer from federal gov. dept.			0.14	0.20	0.18	0.36	1.00	0.28	0.14	0.13	0.12	0.23	0.31	0.20	0.28

Table B.1 (Continued)

	Advice in-degree centrality	Strategic information centrality	Officer in another municipality	Politician from another municipality	Officer from DOI	Officer from other State govt. dept.	Officer from federal govt. dept.	Business association	Medium/ large private firm	Resident's group	Trade union	Community sector peak organization	Non- profit org.	MAV	VLGA
Business association			0.10	0.25	0.27	0.29	0.28	1.00	0.53	0.35	0.15	0.30	0.26	0.14	0.18
Medium/ large private firm				0.20	0.32	0.23	0.14	0.53	1.00	0.28		0.23	0.23		
Resident's group	0.09	0.09	0.13	0.26	0.25	0.26	0.13	0.35	0.28	1.00	0.16	0.42	0.34	0.12	0.19
Trade union							0.12	0.15		0.16	1.00	0.13		0.14	0.18
Community sector peak organization			0.20	0.24	0.20	0.32	0.23	0.30	0.23	0.42	0.13	1.00	0.51	0.22	0.24
Non- profit organization			0.15	0.28	0.17	0.26	0.31	0.26	0.23	0.42	0.13	0.51	1.00	0.19	0.29
MAV	0.25	0.24	0.21	0.34	0.16	0.19	0.20	0.14		0.12	0.14	0.22	0.19	1.00	0.45
VLGA			0.14	0.40		0.20	0.28	0.18		0.19	0.18	0.24	0.29	0.45	1.00

# Notes

1. Under the Blair Government's local government reforms, a council-manager model of decision-making was one of the four models able to be adopted by local councils. The only council to adopt this model was the city of Stoke-on-Trent in England's West Midlands region (see Howard and Sweeting, 2007).
2. This is a relatively small number of politicians when compared to similar governmental systems in Finland (13–85), Ireland (12–52), New Zealand (6–30) and England (60), though it compares closely to the US example of between five and nine members (see Howard and Sweeting, 2007:641).
3. The use of pseudonyms is always a second-best alternative in research. In this case the municipalities wished to avoid any negative publicity that might be occasioned if they were perceived as 'less innovative' than their neighbours.
4. In 2001, we carried out a pilot study of a single municipality (not amongst these 11), using in-depth interviews to explore the willingness of politicians and bureaucrats to discuss these issues and to determine whether we could develop workable measures of innovation norms and procedures. The interview material from this study allowed us to construct statements on innovation that could be used in the questionnaire, which was tested on the liaison officers from the 11 governments. Some simplifications were made and the questionnaire was shortened significantly in light of their comments.
5. By statistically significant at  $p < 0.05$  we mean that there is a 95 per cent certainty that the results did not occur by chance.
6. The differences between politicians and bureaucrats in terms of their engagement with external politicians were not significant and were therefore omitted.
7. It can be argued on methodological grounds that these should be standardized against the maximum possible, to indicate a true propensity to form ties internally or externally. But this is cumbersome and places too much constraint on the index through dividing by a large number of possible ties (Krackhardt and Stern, 1988). It also requires some basis for deciding what the number of possible ties actually is in this situation, where actors could only nominate five others.
8. The sociogram in Figure 4.1 contains only the survey respondents, and not every actor who was nominated. This pattern has been followed for all of the global network sociograms. For this and the other figures, Netdraw (the visualization software) automatically places the actors with the most ties in the middle of the sociogram.
9. Though managers at Netherton actually recorded the lowest average mean, this figure was still higher than the average for politicians and senior executives. Thus, despite the low score they were still relatively more prominent in their own network.



10. The network maps depicted here are based on all ties, including to those who were not in the survey themselves, but were nominated by people in the survey.
11. Despite this only politicians and bureaucrats were nominated.
12. According to the Australian Bureau of Statistics (2006), lone person households account for 36 per cent of all households at Parkside compared to just 23 per cent across metropolitan Melbourne, while childless couple families account for 55 per cent compared to 34 per cent. In contrast, couples with children make up only 29 per cent of households – well below the Melbourne average of 50 per cent.
13. The home ownership rate, at just 18 per cent, is well below the Melbourne metropolitan average of 33 per cent, while the 20 per cent ‘purchasing’ is likewise well down on the 35 per cent metropolitan average that are in the process of buying their own homes (Australian Bureau of Statistics, 2006).
14. See the section on innovation norms and procedures in Chapter 2 for a full description of these measures.
15. This validity of this reputation was confirmed by a number of respondents, including politicians, during interviews. The issue was addressed directly by Parkside’s current CEO on his appointment, through the development of a Memorandum of Understanding with the elected body clearly delineating the responsibilities of each branch of government.
16. Community leaders were not asked to respond to the ‘helps and hinders’ items as most were unfamiliar with the details of internal government processes and organizational arrangements. For full details regarding how ‘community leaders’ were selected, see Chapter 5.
17. Given the very small percentages returned for the ‘IT and Technology’; ‘Arts and Culture’; and ‘Miscellaneous’ categories these innovation types have been omitted from the analysis.
18. As previously noted, the Netdraw visualization software option used to draw these networks automatically groups the actors with the greatest number of ties in the middle.
19. For information on this part of the study, see the description in Chapter 5.
20. See Chapter 5 for further information on these innovation categories and what they include.
21. Nomination frequencies for the other three categories were too low to allow for meaningful comparison.
22. This includes three politicians and one Director, each of whom was elected or appointed in 2003, after the initial surveys had been conducted.
23. The list includes 11 ‘key innovators’ as four bureaucrats in equal eighth place had the same percentage of nominations. While none of the 11 original politicians were highly rated as ‘innovators’, it should be noted that two of the three new politicians elected in 2003 would have made the top ten ‘key innovator’ list sharing equal fourth place, based on the number of times they were nominated in interviews. However, because they were not within the original survey cohort, they have been excluded from the analysis.

24. This stability was severely shaken at the most recent municipal poll held in November 2005. Three sitting members did not stand for re-election while two others were defeated.
25. Millside's CEO at the time of the interviews had only been in place for one week. Therefore she was not interviewed.
26. These two were the only politicians who completed the original survey at Millside.
27. Politicians, bureaucrats, or people outside the government could be nominated. A specific number of nominations were not asked for – the interviewer wrote down as many as were nominated. Politicians and bureaucrats who were not nominated were assigned a score of zero. All those who were nominated were given a score based on the number of nominations. A total of 464 nominations were received from the 104 interviewees, so the mean number of nominations per interviewee was approximately four. These nominations were converted into percentages of the total number of nominations for each of the four governments separately.
28. These are ties based on responses to a question about who they went to for advice. See Chapter 3 for detailed information on the survey.
29. One of the managers who completed the survey and was nominated in the top five innovators at Kilbourne has been excluded from this part of the analysis because of failure to complete the advice and strategic information network questions.
30. These are ties based on responses to a question about who they went to for strategic information. See Chapter 3 for detailed information.
31. While there are limitations to using local reputation as the measure for being an innovator, with such a large sample of key actors from across these governments it is unlikely that we would have missed many noteworthy cases.
32. For an explanation of these terms and for further details regarding exponential random graph modeling using PNet, see Robins et al. (2007).
33. The measure of innovator status was the same as for the earlier regressions. That is, innovator status for an individual within a particular government is a continuous variable based on the percentage of total nominations of innovators for that government.

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