



low impact urban design
and development

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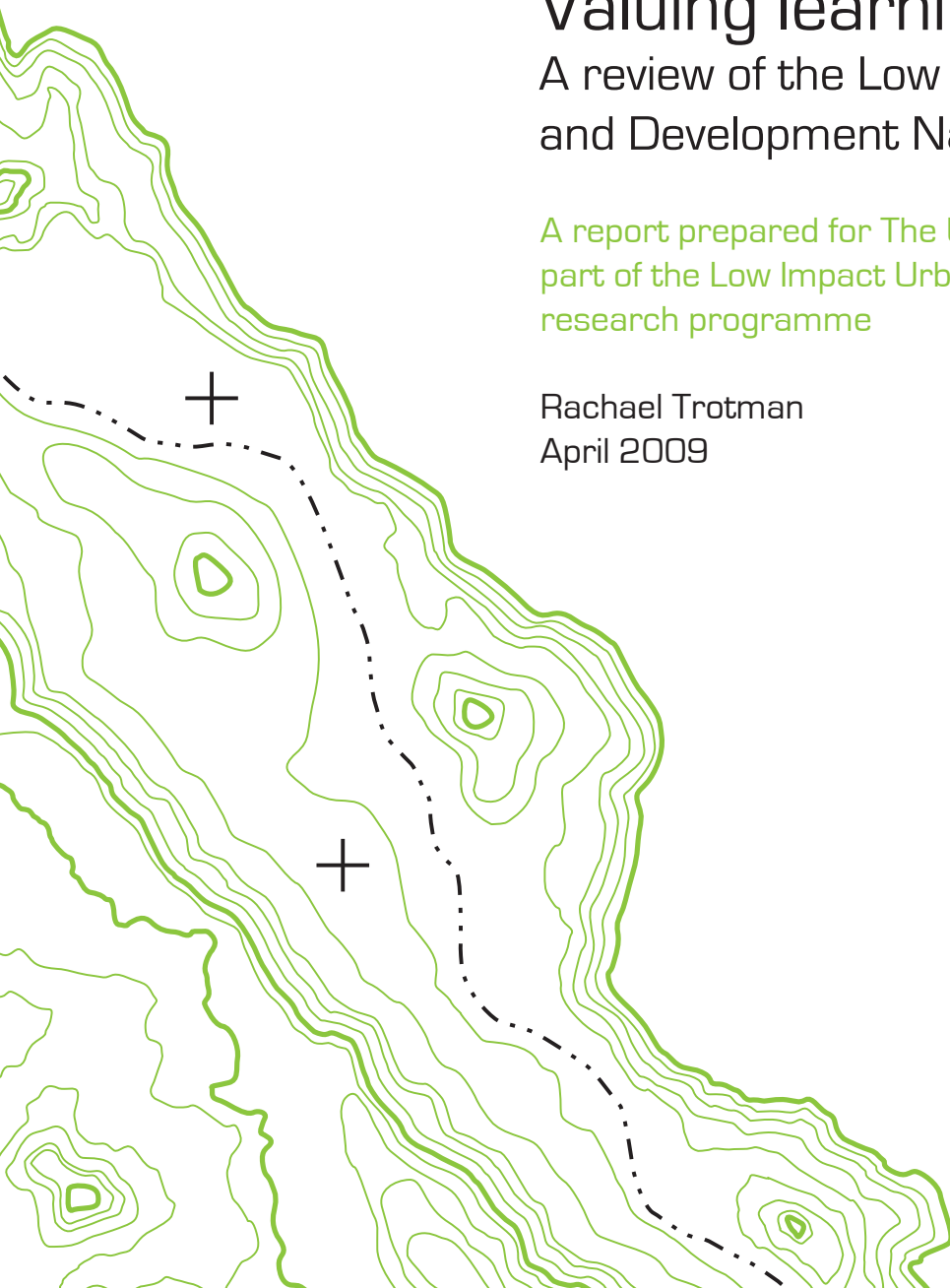
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Valuing learning networks:
A review of the Low Impact Urban Design
and Development National Task Force

A report prepared for The University of Auckland as
part of the Low Impact Urban Design and Development
research programme

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Executive summary

This report presents the findings of a review of the National Task Force (NTF) established as part of the FRST¹ funded Low Impact Urban Design and Development (LIUDD) research programme. This six year programme from 2003 to September 2009 aims to support the implementation of low impact urban design approaches. The NTF originated as a means of engaging key stakeholders nationally in mainstreaming LIUDD and linking research with practice. NTF participants perceived it to operate as a peer learning network.

Purpose of the review

The aim of the review is to situate with NTF within relevant theory and describe its model and operations, strengths, challenges and lessons.

LIUDD research programme

The purpose of the programme has been to facilitate the uptake and implementation of low impact design policies and practices. It recognised that transformation of urban development practices requires an integrated and holistic approach and to this end adopted a multi-institutional and multi-disciplinary approach encompassing research expertise in hydrology, environmental engineering, aquatic ecology, soil sciences, economics, planning, geography and social anthropology.

Method

This is a qualitative review based mainly on participant perceptions of the NTF. Methods involved a review of relevant documentation and feedback from participants and stakeholders via an NTF workshop and survey, individual face to face and phone interviews, email feedback and a session with the NTF project group.

Theoretical context

Networking occurs when actors join together around a common concern, often to catalyse innovation and practical change. Networking is characterised by four key activities: information exchange, learning, advocacy and network management.

Network research involves many disciplines, from physics to philosophy. It ranges from quantitative attempts to map, describe and predict network components, to focusing on their functions, processes and participant experiences. A wide range of types and functions of networks exist.

A learning network is designed to bring people with a common interest together in order to learn, share, modify existing practices and policies and create new ones. It involves collaborative learning, can result in a “community of practice”, and learning networks tend to have open membership and fluid borders. Interest in learning networks has increased in recent years as global exchange becomes easier, the complexity and urgency of worldwide problems increase and frustration exists regarding the failures of traditional approaches.

Key issues for learning networks are how inclusive and diverse they should be, how membership will be managed and how the learning process will happen. Characteristics of successful networking for learning are maintaining relevance, having a clear focus, trust and openness, ensuring members have the skills and resources to participate, commitment motivated by self interest, having a shared problem or goal, choosing the right network organiser and inputting alternative views and information.

1. Foundation for Research, Science and Technology, see <http://www.frst.govt.nz>.

Risks for networks include strong individuals or organisations dominating, managing vested interests, a research environment that can be unsupportive of collaboration, difficulty in gathering and analysing network data and lack of guidance on how to create and read network maps.

International good practice in evaluating learning networks involves valuing relationships and processes, involving all network members, including qualitative and quantitative methods and indicators, being based on clear objectives, embedding and resourcing monitoring and evaluation processes from the start and addressing impact, relevance, effectiveness, efficiency and sustainability.

Key findings – National Task Force Review

The first NTF meeting was held in late 2004. Participants in the NTF perceived it to operate as a peer learning network for those involved in LIUDD; a forum where those involved could exchange ideas, information and experiences, network and build relationships, learn about LIUDD research and practice, be inspired to try and make a difference and increase buy-in to LIUDD.

The NTF funded a paid Coordinator and covered transport costs of some attendees outside of Auckland where meetings were held, plus catering and administration costs. The costs of the NTF were estimated at \$18,000 per year.

Approximately 35 participants from 15 organisations were involved in the NTF over its life span. The range of professions involved is diverse, and it began with high powered strategic leaders in the LIUDD field and moved more to a practitioner focus over time. While a core group attended, membership was open and fluid and involved organic recruiting, mainly through the Coordinator and as people heard about the network.

The NTF met six monthly, with ten meetings held to March 2009 and one related “safari”, involving a field trip to view LIUDD best practice at Christchurch City Council. On average meeting attendance was 15-20 people, with smaller meetings in the first year. One further meeting of the NTF is planned before September 2009, partly to consider options for continuing the NTF in some form. There was unanimous support for continuing the NTF, and agreement that this would require dedicated coordination, resourcing and a clear focus.

Strengths and achievements

Key strengths of the NTF were enthusiastic, high quality, consistent coordination and facilitation, good agendas, speakers and presentations, the range of people and disciplines involved, its promotion of integrated approaches, linking of research and practice, its resourcing, the relationships it catalysed, regular meetings, learning shared, case studies and supporting people to promote and help mainstream LIUDD (i.e. its advocacy function).

Challenges and what could have been improved

Areas for improvement included a need for clearer focus and positioning, more spread of representation on the NTF, stronger connections to the researchers and with the wider LIUDD research programme objectives, research more linked to practice and in less “academic” format, greater profiling of the research emerging, and more debate on key topics and participant activities and approaches.

Research and practice linkages

The NTF did link research and practice effectively, especially for practitioners. The NTF catalysed significant new research and informed the direction of research within objective five in particular, but had little perceived influence on the broader LIUDD research programme.

Research outputs in the programme were quite tightly contracted and research and practice interests sometimes differed, but over time practice needs and issues shaped the NTF agenda more. Practitioners valued linking with research, which supported their professional development, informed their thinking and influenced their work.

How the NTF compared with international research on networks

As a learning network, the NTF involved collaborative learning and created a national “community of practice” around LIUDD. The NTF exemplifies the value of a learning network when the issues involved are complex, innovation and collaboration are needed across disciplines, and there is a sense of urgency to catalyse change and frustration with conventional approaches.

As with most learning networks the NTF had an open and fluid structure and tried to involve a wide range of representatives from government to private sector practitioners. In relation to international success factors for networks the NTF rates strongly against them all, and especially in enthusiastic and competent network management, having a clear focus, bringing in alternative views and meeting member needs.

Lessons for other learning networks

A learning network is an option to consider when there is a diverse range of disciplines involved, limited options and forums for bringing people together, an impetus exists for bringing people together, new territory is being charted, innovation is needed and/or there is a desire to connect research and practice more consciously.

A critical operational aspect of a successful network is enthusiastic and high quality coordination and network management. The NTF was based on genuine, committed, funded input, yet requires a leap of faith as managers need to be able to live with some uncertainty as to the outcomes of a network.

Striking the right balance between organic evolution and fixed objectives and structure is one of the challenges for a learning network. Finding a balance between the appropriate size and shape of the network is also a challenge, requiring a decision to be made on aiming for a larger scale versus intimacy, or breadth versus depth of networking and interaction. Identifying how membership will work and retaining a core ongoing membership is also important, while allowing for people to come and go. It can also be a challenge getting a good mix of participation in a network and maintaining this mix.

Other factors that are likely to attract and retain members are allowing for plenty of networking time, including informal eating and talking, showcasing good practice, using case studies and undertaking field trips.

The NTF and international experience supports utilising learning networks within research programmes, but as one part of a broader strategy around stakeholder engagement and research and practice integration. Time and effort is needed for researchers and practitioners to understand each other’s interests, needs and agendas, and how to align for mutual benefit. If there is no scope to influence the research agenda then developing a learning network to inform research is inappropriate.

The NTF experience indicates that learning networks have the potential to be very effective in linking research and practice, provided they are well resourced, supported by management and well integrated into the research programme.

Based as it is on people, processes and relationships, the difficulty of quantifying the impact and success of a learning network was widely acknowledged by participants. The impacts of learning networks are often indirect and subtle; cause and effect can be hard to attribute and it takes time to gauge the impact of networking.

In terms of the international guidance on monitoring and evaluating networks, the NTF experience validates the desirability of developing an evaluation plan from the start and building monitoring and reflection processes into the learning process. It also affirms the need for clear goals and objectives against which to evaluate, utilising qualitative and quantitative methods and indicators, and validating the experience of network participants and the relationships developed.

Mapping the NTF visually at a basic level, especially at the beginning and towards the end of its current life, is likely to have been a useful exercise for participants. However it is questionable as to whether this was a priority given the time this takes and the need to focus on LIUDD related learning and uptake.

Conclusion

Overall, the NTF was highly valued by participants and considered effective in connecting people in the LIUDD field, with some influence on research and practice and in mainstreaming LIUDD. The NTF experience aligns positively with international research on what supports a successful learning network. It supports the use of learning networks as part of research programmes, provided that attention is paid to the core elements of effective networking and genuine commitment exists from programme managers.

Building in clear aims and robust evaluation for future learning networks should help to increase understanding of their value in linking research and practice in New Zealand and making a difference on the ground.

1.0 Introduction

This report presents the findings of a review of the National Task Force (NTF) set up as part of the Low Impact Urban Design and Development (LIUDD) research programme. This six-year programme is funded from 2003 to September 2009 by the New Zealand Foundation for Research, Science and Technology (FRST). Landcare Research Ltd, a Crown Research Institute, is the lead provider, with the University of Auckland and private consultants involved as subcontractors.

The purpose of the LIUDD research programme is to facilitate the uptake and implementation of low impact urban design policies and practices. A key element of the programme has been the development and facilitation of a NTF, comprising leading practitioners who meet six-monthly and play a role in supporting the uptake of LIUDD and of the research programme findings.

2.0 Purpose and format of this review

The purpose of this review is to describe the NTF model and operations, its strengths, challenges and how it can inform other learning networks. Specific objectives are to:

- Contextualise the NTF within relevant theory and research.
- Describe the model and operation of the NTF.
- Capture participant views on its perceived strengths, areas for improvement, impacts and lessons.
- Identify how and to what extent the NTF linked research and practice.
- Identify lessons from the NTF for other learning networks.

For the purposes of this review the NTF is treated as a learning network. Not only was this a finding from this report, but an early report from the research programme (Landcare Research, 2004) placed it in that area of enquiry.

The report begins with a brief background to the LIUDD research programme and how the NTF fits within this programme. It then presents the methods used in this review, the theoretical context underpinning the NTF, followed by the key findings of the review.

This report is intended for a wide audience and is focused on capturing the value of the NTF and what can be learnt from it moving forward.

3.0 The LIUDD research programme

The LIUDD research programme is a nationwide six-year (2003 – 2009) research and implementation programme in New Zealand. It is led by Landcare Research, a crown research institute, and involves other institutions, such as The University of Auckland. The purpose of the programme has been to facilitate the uptake and implementation of low impact design policies and practices. It recognised that transformation of urban development practices requires an integrated and holistic approach and to this end adopted a multi-institutional and multi-disciplinary approach encompassing research expertise in hydrology, environmental engineering, aquatic ecology, soil sciences, economics, planning, geography and social anthropology.

The programme has four themes organised as five objectives (Table One). The themes address the human and social dimensions of “buy-in”, the application of innovative science and design, development of new economic tools and the implementation of LIUDD through changing policies and practices. The programme has been strongly oriented towards improving practice through the establishment and monitoring of case studies, often partnered with councils and other stakeholders.

Table One: LIUDD Programme Objectives

Objective number	Description
1. Buy-in	Getting buy-in to LIUDD, finding ways to overcome barriers to LIUDD and developing and monitoring a collaborative learning strategy to this end.
2. Technologies and ecosystems	Demonstrating to practitioners the value of specific technologies and engineered urban ecosystems that support LIUDD, and producing guidelines and codes of practice to improve urban amenity and reduce harmful impacts of urban development.
3. Performance	Assessing the performance of LIUDD compared with conventional building development, using New Zealand and overseas case studies.
4. Economic value	Determining costs and benefits of LIUDD and developing economic tools to value its benefits.
5. Changing plans and practices	Mainstreaming LIUDD, for example by improving processes for council plans and codes and identifying incentives for implementation.

The NTF was proposed as part of the original research bid submitted to FRST and sits within objective five above. It was viewed as a means of engaging key stakeholders nationally in mainstreaming LIUDD and linking research with practice.

4.0 Review method

A review of the NTF was not incorporated as part of its original proposal in the research bid, and no agreed project goals, measures of success or evaluation plan were developed for it. Instead it was decided by programme leaders to undertake this review towards the end of the formal life of the NTF.

The methods utilised in this review are set out in Table Two below. Approval to seek input from NTF participants to this review was given by the University of Auckland Human Participants Ethics Committee in December 2008. The actions below took place between December 2008 and March 2009.

Table Two: National Task Force Review Methods

Method	Description
Project documentation review	Review of NTF meeting minutes, background papers and other relevant documentation.
NTF Workshop 8 December 2008	A review session was held with NTF participants on how the NTF has operated, including its strengths, achievements and challenges. Whiteboard feedback from the group was recorded, plus individual survey responses were received from 13 individuals present.
Individual interviews with NTF participants	Three face-to-face interviews with key NTF participants and stakeholders were held, and phone interviews with another six NTF participants.
Email feedback	Three further NTF participants chose to respond by email to review questions.
Project group session	A two-hour session was held in March 2009 with the project group for this review on the draft findings and to probe and clarify areas of interest.
Theoretical context	A small-scale literature review was undertaken on learning networks, to provide some context for this review.

Thus the review relies heavily on the views of participants and is generally qualitative in nature.

5.0 Theoretical context

This section presents key concepts and research underpinning networking and learning networks, derived from a small-scale literature review. It begins by describing networking as a field, types of networks and some key concepts, before focusing on learning networks, characteristics of successful networks, some risks associated with networks, and monitoring and evaluation of networks.

5.1 Networking and network research

Networking occurs when individuals, institutions and/or organisations join together around a common concern (Creech and Willard 2001:19). It involves building relationships in order to learn, and to share knowledge, goods and experiences (Padron 1991, Plucknett 1990, Engel 1993, Keijzel 2006). Networking involves a “diffuse social process which [often] leads to new or modified problem definitions and practical solutions” (Cummings and van Zee 2005:14).

According to Keijzel (2006:3), almost all networking is characterised by four types of activities: information exchange, learning, advocacy and network management. In the international development field, a comprehensive comparative study of 28 Latin American networks identified their greatest value as being a means to learn together and to support advocacy (Pinzas and Ranaboldo, 2003).

Research on networks is taking place across many disciplines, from physics to philosophy (Bender-deMoll 2008:6). More quantitative approaches to understanding networks involve attempts to map, describe and predict their components, operations, tendencies and

patterns. Other approaches to researching networks focus on their functions (Mendizabal 2006), processes and the qualitative experiences of networks (Bender-deMoll 2008, Keijzel 2006, Engel and van Zee 2004, Pinzas and Ranaboldo 2003, Engel 1993).

An indicative overview of existing subfields of network research is provided by Bender-deMoll and adapted below in Table Three (ibid:7). Note that in the literature individuals are often described as “nodes”, and the relationships among them as “ties”.

Table Three: Subfields of Network Research

Network Subfield	Description
Graph Theory	A very formal and mathematical field of networks, similar to the “geometry” of networks, which involves mapping a network’s points and nodes.
Social Network Analysis ¹	Social Network Analysis grew out of anthropological and sociological attempts to represent human social structure. It makes quantitative investigations into human social relations and is more interested in patterns and ties than individual attributes.
Organisational Network	Relationships between individuals inside or between organisations (especially businesses), which can reportedly be helpful for organisations facing integration or collaboration challenges.
Network Viz	Network mapping and visualization – showing networks visually, for example via a “sociogram” that shows ties between individuals and groups before and after an intervention. The information on which the visual map is based must be transparent and robust.
Dynamic Network Analysis and Visualization ²	For networks in which the membership or relationships change over time – visualization of this can occur through animated movies or diagrams showing how the structure and relationships change over time.
Link Analysis	Military term for networks and also used to describe the internet hyperlinks between web pages.
Knowledge Management	Networks of who knows what, where information resides and who seeks out information from whom.
Agent-Based Modelling ³	Techniques for producing models or simulations to aid in understanding processes or make predictions about behaviour and relationship structures.
Actor-Network Theory	A descriptive sociology of society whereby people, things and concepts are “actors” coming together in ways that produce varying results. For example it can provide a framework for describing how a particular view becomes the norm, or why one system works where another fails.
Social Capital ⁴	In terms of networking this is described by Bender-deMoll as a form of power analysis, which focuses on the kind of power people have by virtue of their position in networks.
Power Mapping or Power Analysis ⁵	A technique for creating shared representations of and mapping power relationships among individuals and groups.
Issue Networks ⁶	A type of analytical framework for policy analysis, which identifies groups interested in a policy and studies their cohesion and positioning

Thus the field of network research blends attempts to empirically represent and describe the relational ties and patterns within networks, with conceptual frameworks around how people relate, including concepts of power, behavioural patterns and cultural and social structures.

5.2 Types of networks

As relational structures which involve links among people, there are many types of networks. Bender-deMoll describes a few broad categories as follows (2008:2).

Network category	Description
Transmission networks	Something “flows” along the network which is generally measurable, and can be tangible (such as water or electricity) or abstract (money or news). Examples include barter systems, email or phone communication trees or pyramid selling.
Interaction networks	These involve patterns of contact among people, usually linked to an event/s, which is nameable and has time parameters. Often in these networks something is passed between people or nodes during contact, such as information, resources or materials. The LIUDD National Task Force is an example of an interaction network according to these categories.
Attributional networks	These involve an expression or statement of a relationship, with ties an acknowledgement of social connection or influence. Examples include trust and power between organisations or author citations in a report.
Affiliation networks	These are “belonging to” relationships, such as an interest, category or group. Examples include religious groups, and people linked by geographical area, hobby or ethnic group.

Bender-deMoll acknowledges the looseness and interconnected nature of the categories above, but considers that they are useful when trying to describe and measure a network.

5.3 Functions of networks

Mendizabal considers that establishing a network should start by defining the functions it needs to play and then choosing its structure accordingly (Mendizabal 2006:1). The research and advisory team at the Overseas Development Institute has identified six overlapping functions of networks. These are described in brief below and are derived from Ramalingam et al 2008.

1. See for example Cross et al 2002, Making invisible work visible: Using social network analysis to support strategic collaboration.
2. See for example Bender-deMoll and McFarland, 2006, The art and science of dynamic network visualization.
3. See for example Axelrod 1997, The Complexity of Cooperation: Agent-Based Models of Competition and Collaboration.
4. See for example Cummings, S., R. Heeks and M. Huysman, 2003, Knowledge and learning in online communities in development: a social capital perspective.
5. See for example Schiffer 2007, The Power Mapping Tool: A method for the empirical research of power relations.
6. See for example Brandes et al 1999, Explorations into the visualization of policy networks.

Table Four: Six Functions of Networks

Function	Description
Community building	Promotes and sustains the values and standards of a group, often with similar members, which leads to strong bonds within the network but only a few weak links beyond it. Functions involve peer review, trust building, stronger cross-organisational relationships, exchange of ideas and experiences, supporting innovation.
Filtering	Using information in an organised and productive manner, for example by synthesizing and analysing information from diverse sources, especially to support decision makers or to inform a wider membership. Functions include regular communications and updates to members, and developing good practice guides and papers in response to member needs.
Amplifying	Amplifying means taking a complex message and simplifying it for the public or various audiences. Examples include advocacy networks or news networks that collate and simplify information from diverse sources.
Learning and facilitating	Learning and facilitating networks help members to undertake their work more effectively and efficiently, for example by acquiring new knowledge or practical abilities. Functions include strengthening member learning capacities by sharing case studies, methodologies, new ideas, experiences and research.
Investing and providing	Investing and providing networks focus on giving members the resources they need to undertake their activities, by connecting funding sources, experts and trainers/mentors to members. Functions include information campaigns and fund raising and developing professionalism, capacity building and accountability.
Convening	Convening networks bring people together from diverse places, fields and organisations, allowing the development of more systematic, sustainable linkages among them. This function can bring together formerly disconnected stakeholders around common concerns, build relationships and share ideas and issues.

These six functions form the basis of the Network Functions Approach (NFA). This approach can be used to (Ramalingam et al 2008:4):

- Support groups to identify what kind of network they have or would like to develop.
- Help monitor and assess a network.
- Help to set strategic priorities or review existing strategic priorities for a network.
- Compare one network with others.

It can also be used to identify what functions are in operation for a network and whether there needs to be a single function that efforts are built around, or whether the network wishes to undertake a range of functions (ibid).

5.4 Learning networks

Knowledge and evidence need to be contextualised, enriched, interpreted, debated and disputed – “set free”, if you like – in order for learning to occur among a multitude of stakeholders with divergent interests and world views. One way of doing this is by networking. (Keijzer et al 2006:1).

A learning network is designed to bring people who are working in a field together so that they can share their experiences and knowledge to learn about what works, doesn't work, or can be modified and supported (Landcare et al 2004:12).

A learning network involves collaborative learning, or the capacity of a group to assess its efforts, rethink how it operates and use new ideas to create change (Allen and Kilvington, 2005). It may also involve or result in a “community of practice”: “...groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly” (Wenger 2005).⁷

Interest in learning networks has grown rapidly over recent years, which Creech and Willard (2001) put down to three factors: 1) increasing ease of global information and exchange via the world wide web; 2) a growing sense of urgency as the complexity and scale of worldwide problems grows, increasing the need for widespread learning and multistakeholder approaches; and 3) frustration among public and academic actors that their research is failing to have an impact. For Ramalingam et al: “...the bigger and harder the challenge that is faced, the more important it becomes to work together to address it” (2008:8).

According to Keijzel et al (2006:3), most learning-oriented and issue-driven networks have fluid borders; membership is open in that the network is easy to join and leave, and issues and members can overlap with other networks. Some claim that it is this inter-linking that really fosters the cross-fertilisation of ideas and sector-wide learning (ibid). In terms of learning network structure, for Mendizabal (2006:3), based on the study of network functions, there is probably no optimal structure for networks.

A key issue to consider is how inclusive and diverse a learning network should be (ibid: 4). For broad and complex issues a wide range of interests from government to grass roots is likely to be beneficial, which also requires validating a diverse range of views and experiences (ibid). How the learning process will happen, including how knowledge, information and experience will be shared is also a key consideration for learning networks.

For Ramalingam et al 2008, analyses of networks suggest that they are usefully seen from a lifecycle perspective. Networks often emerge organically and cannot always be forced into existence. After the initial excitement when a network first develops, maintaining interest and commitment can be facilitated through face-to-face meetings, introducing new and challenging perspectives and building wider support and relevance (ibid). Networks can end if members attain their original objective, or when there is a natural fragmentation of a network into multiple smaller networks with more defined purposes.

5.5 Characteristics of successful networking

Networking is two percent technology and 98% management of relationships.
(Creech and Willard 2001 cited by ICCO 2004:8).

Cummings and van Zee (2005:16) cite Wielinga (2001) in naming the essence of successful networking as being maintaining vitality, enthusiasm and flexibility, rather than rigid procedures and controls.

7. See Cummings and van Zee (2005) for a discussion of the similarities and differences between learning networks and communities of practice.

developing a single shared purpose for a network is not the aim. Instead, a lively debate on what is relevant for the network to focus on is important. They consider that the more networks understand and develop themselves as spaces for innovation, experimentation and learning, and show their ability to influence and advocate, the more successful they are in revitalising themselves within an ever changing context (ibid).

Engel and van Zee (2004) and Keijzer et al 2006 cite the following elements as key to supporting successful networking for learning.

Table Five: Successful Networking for Learning

Element of successful networking for learning	Description
Maintaining pertinence	This refers to the relevance and adequacy of what the network does within its particular sociopolitical context.
A clear focus	Pinzas and Ranaboldo’s research (2003) indicates that networks that have a limited number of well specified themes or spheres of focus, have generally achieved more visible results and gained a higher degree of commitment from their membership. According to Keijzel et al (2006:3-4), while networks need to be open to a diversity of views and ideas among their members, they also need to stay focused on their defined field of interaction.
Trust and openness	This is referred to as “daring to share”, in practice meaning that participants have confidence in their work, share openly with others, and are able to admit mistakes and learn from them.
Skills, access and time/ money	Networking presupposes that participants have the capacity to contribute in terms of skills, access, time and money/resources.
Commitment motivated by self-interest	Participants must consider the network priorities to align with their own and be motivated by self-interest to take part, with the network adding value to their daily work.
A shared problem or goal	To generate useful interaction, especially in a network involving diverse groups and interests, issue/s of common interest need to be identified.
Choosing the right network organiser and flexible management	A network needs an organiser rather than a director; a person or body with the power to convene and stimulate. More than anything else, the success of a network is said to depend on this network “animator”, whose role is to a) manage the flow of information across the network; (b) keep participants engaged; (c) balance consultation with members with pushing forward the delivery on network plans; and (d) monitor the financial health of the network (Creech and Willard 2001). Also key are participation in decision-making and a non-directive management style, given that participants work within a network rather than for it.
Input of alternative views and information	A healthy network ensures ongoing input of outside and alternative perspectives, and information designed to provide alternative views and options (Engel 2002).

For Keijzel et al (2006:7), members of successful networks appear to share three characteristics: common attitudes and dispositions; an ability to contribute skills, access, time or money; and a commitment to networking.

5.6 Risks associated with networks

...emerging networks are usually dynamic and unpredictable. (Ramalingam et al 2008:5).

One identified risk for networks is the potential for a few strong organisations or individuals to dominate, thereby “ring-fencing” the agenda (Keijzel et al:3). In a research context, Dixon and Sharp outline some reasons why linking research and practice and engaging wider stakeholders in research can involve risks (2007), and these can also apply to learning networks.

5.6.1 Vested interests

There is no “neutral ground” from which interdisciplinary collaborations can be discussed, as each party involved will have their own agenda. Given the vested interests involved, there is no-one who can make an “objective” evaluation of the processes of interdisciplinary collaboration⁸. Also, not everyone is “attuned” to working with others and those experienced in collaboration need to mentor less experienced colleagues.

5.6.2 A research environment that may not be conducive to collaboration

Research cultures are inherently biased to single disciplinary outputs and interdisciplinary work can be difficult to fit into these categories, and thus tends to be undervalued. Also, in the drive to meet contracted research outputs and develop the next funding bids, research communities can overlook interdisciplinary engagement and the value of involving research users, which also takes considerable time and energy.

Achieving interdisciplinarity may require funders (and research/programme leaders) to expect less control over programme outputs, and involving others in research in a genuine fashion means being open and willing to change the research agenda. Related to this, the space for negotiation over contracted research outputs may be limited, allowing little scope for a learning network to influence research.

Bender-deMoll identifies the following key risks and issues associated with mapping and analysing networks (2008:35-37). Network data such as who is involved, what kind of ties they have and the impact of these connections can be challenging to gather and analyse. Risks include oversimplification and misreading, making evaluations from incomplete data and lack of anonymity. Gathering relationship data can raise complex ethical issues⁹, especially where connections may be sensitive and not all people have consented to being identified within or in relation to a network.

Network maps are also sensitive to misreported or missing information, where a single link change can reconfigure a network. Boundaries of a network can also be very difficult to identify and network data can quickly go out of date or be constantly changing. In this sense a “before and after” visual network map can be useful, to show changes brought about through a network.

There is a lack of clear guidance on how to create and read network maps (reportedly reflecting a lack of consensus in the visualisation research community), and some people are overly enthusiastic of them while others are dismissive. Also, the visual quality of maps produced can be low, especially for dense networks. Tightly focused relationship questions and clearly defined types of ties should assist legibility when mapping networks.

8. This is where the role of independent external evaluation can be valuable, to provide an independent view.

9. See for example Borgatti and Molina 2005: Toward ethical guidelines for network research in organizations.

5.7 Monitoring and evaluating networks

...almost all researchers (Creech & Willard (2001), Ashman (2003), LEISA (1992), Guijt et al. (2003), Engel (1993)) on networking agree that traditional approaches to monitoring and evaluation are not appropriate. (ICCO 2004:13).

Developing a monitoring and evaluation framework that takes the specific characteristics of networking into account is widely acknowledged to be a challenge, and a work in progress (ICCO 2004:13). The table below compares traditional monitoring and evaluation approaches with learning oriented approaches that are considered more appropriate for evaluating learning networks. This is summarised from Keijzel et al 2006:10.

Table Six: Traditional Versus Learning Oriented Monitoring and Evaluation

Traditional monitoring and evaluation	Learning oriented monitoring and evaluation for networks
<p>Focuses on predetermined outputs, outcomes and deliverables rather than relationships and processes.</p> <p>Rarely involves participatory approaches to discussing network achievements.</p> <p>Focuses on performance rather than experience, thus presenting a potentially biased and limited set of indicators and assumptions.</p>	<p>Takes into account the value of new relationships.</p> <p>Includes process outcomes that emerge through networking.</p> <p>Involves network members in discussions of outcomes and achievements.</p> <p>Assumes that networks are fluid and their trajectories outputs and outcomes are not easily predictable.</p> <p>Captures unforeseen achievements and spin-off actions by adopting a systems approach .</p>

The ICCO report (2004) provides an overview of approaches to monitoring and evaluating networks, which are summarised as follows. Nunez & Wilson (2003) point to the need to take into account internal achievements of a network (such as the number of relationships it creates). Creech & Willard (2001) combine project planning and evaluation approaches including SWOT analysis, results-based management, logical framework approaches, outcome mapping and appreciative inquiry. They create three frameworks: 1) for planning networks; 2) for monitoring networks (used quarterly, to track activities in so-called progress journals); and 3) for evaluating networks (both annually and at the end of the project). Some principles of these frameworks are as follows.

- They include qualitative and quantitative indicators of success.
- An emphasis is placed on including stories recorded systematically over time in monitoring and evaluation activities.
- They are participatory, involving all network members.
- Evaluation components, including monitoring, are embedded in a planning framework from the start, with time and resources allocated for this.

Guijt et al. (2003:22) suggest a similar list of good standard monitoring and evaluation practices for learning networks, especially focusing on learning impacts:

- Establish clear (learning) goals and objectives against which to monitor and evaluate.
- Check that proposed activities will lead to objectives being achieved.

- Establish performance questions and indicators for each objective.
- Address the five key evaluation questions of impact, relevance, effectiveness, efficiency and sustainability.
- Link monitoring and evaluation into management practices and ensure it provides the necessary information to support management.
- Ensure sufficient time and resources for monitoring and evaluation in the design of the network.
- Make appropriate use of qualitative and quantitative methods.
- Engage key actors in processes of critical reflection about the initiative.
- Invest in the necessary conditions and capacities for monitoring and evaluation to be implemented effectively.

Bender-deMoll proposes the following evaluation criteria to help decide whether to assess a network (albeit in a human rights context) (2008:40): duration of the network; use of the evaluation (eg for planning, communication, education etc); research and development needed to assess the network; who will be served by the assessment; the development cost and use cost; maintenance costs and risks to participants.

One option is to map the network visually, using tools such as “Netmap”. This is described as an interview-based mapping tool that helps people understand who is involved in a given network, how they are linked, how influential they are, and what their goals are.¹⁰

Data sources in relation to networks include emails (to track communication), surveying people on their links and ties (either the whole group or several clusters’), participant observation by a network member or external expert opinion (Bender-deMoll 2008:13-14). Data can be collected in whatever form is most convenient and then translated into a computer programme (ibid:14). Care should be taken to standardise the information collected, so that like can be compared with like, using a well defined set of terms and categories (ibid:15).

An impediment however to the use of network mapping techniques is the amount of time researchers and participants must invest to get good quality data. The cost of software tools can also be a barrier. To mitigate this, the data collection process can be built into network discussion and planning in ways that have direct value for participants.

Bender-deMoll suggests the following steps when attempting to assess a network using a mapping approach (2008:4).

1. Identify its communities based on the connections among the people involved. The aim is to identify clusters of groups or communities within a network and describe them – who is involved and what is their background?
2. Locate important nodes or ties, ie those with more “important” or powerful positions. These important nodes may be defined as being central to the network, or playing bridging or gatekeeping roles, but they involve roles that if not there may break, fracture or otherwise weaken the network.
3. Discover roles and positions within the network, including similar patterns of connections, highly or weakly represented groups and so on.
4. Uncover hidden connections, which may emerge when a lot of information is gained about individual connections, and indirect paths or connections are revealed, which those involved may not even be aware of.

10. See <http://netmap.wordpress.com/about/>, or for the Netmap toolbox see http://netmap.files.wordpress.com/2008/04/netmap_manual.pdf.

5. Map the network visually, using a computer programme if necessary, so that participants can orient themselves and bring their knowledge to bear when interpreting the network map. The descriptors used will be critical, for example people may identify their involvement in terms of their position, interest, influence or knowledge. Colours and shapes can be used to indicate attributes of the nodes and edges of the network.
6. Facilitate discussion by participants in the network of the shape and form of the network, a process which may be more valuable than the resulting data. Participants can put their relationships into shared language in order to discuss them and what they want from the network.

Having briefly surveyed the field of network research, the next section presents a review of the LIUDD National Task Force, including its lessons for other networks.

6.0 Key findings – National Task Force Review

6.1 The National Task Force Model

6.1.1 Role and function

The role and function of the NTF were not prescribed in any detail in the original research bid. A Terms of Reference for the NTF developed in October 2004 set out the role as follows.

“The role of the national task force will be largely self-determined and supported by the research team to achieve the following programme outcomes:

- Developing, testing and implementing guidelines for LIUDD to support regional and territorial council policy, plans and practices (including infrastructure management, engineering codes and governance) that relate to urban design and development
- Identifying incentives to help developers and consumers/householders to implement LIUDD, such as rating mechanisms and concessions for developers
- Other matters relating to increasing the uptake of LIUDD that the task force may identify in the course of its work”.

This approach of setting broad parameters for the NTF while allowing it to evolve organically aligns with the research on networks, which emphasises their dynamic nature and the difficulty of predetermining their trajectory and outcomes.

A presentation at the second NTF meeting in April 2005 notes the role of the NTF as being to bring influencers and implementers in LIUDD together, to help develop LIUDD tools and promote them.¹¹

The preparatory paper for the June 2006 NTF meeting notes that two and a half years into the research programme the role of the NTF was considered by researchers to be “to help us [research programme leaders] identify opportunities for connecting our research with practice” (2006:2).

Based on participant feedback it is clear that the NTF was perceived by participants to operate as a peer learning network; a forum where individuals and organisations involved in LIUDD could come together to share ideas and experiences: “It’s a network for LIUDD enthusiasts; a sounding board for views; a place for case studies”.

11. Heslop, Viv, 2005, *Low impact urban design and development: getting it into the mainstream*, a report for the national task force based on the 21 April 2005 meeting.

Key perceived roles of the NTF were that it provided a forum for the following.

Exchange and learning

The NTF was considered a vehicle for exchanging ideas, information and experience. Feedback was sought from network participants as to what guidance would assist them in relation to LIUDD. This resulted in a range of tangible guidance developed via the research programme including a report on policy mechanisms that could influence the uptake of LIUDD, guidance on operation and maintenance of LIUDD devices and an LIUDD good practice case study portal on the research programme website.

Networking and building relationships

A core function of the NTF was considered to be supporting networking and building collegiality. The NTF linked researchers and practitioners, local authorities with consultants and so on: "The NTF became a community of practice in its own right...".

Increasing awareness and buy-in to LIUDD

The NTF was also perceived to play a role in inspiring its members to try and make a difference in terms of LIUDD and to increase buy-in to LIUDD.

6.1.2 Funding and resourcing

The NTF was a resourced network that funded a researcher within the programme to undertake network management and coordination, transport costs (i.e. flights) for some participants to attend the Auckland based NTF meetings and catering and administrative costs.

It is estimated that the NTF was funded annually at approximately \$10,000 for coordination and management, \$5000 for airfares and \$3000 for catering and other costs (overall around \$18,000 per annum).

In-kind support and resourcing was also provided by participants and their relevant organisations in terms of their time and costs to attend.

6.1.3 Membership of the NTF

Over its life the NTF involved approximately 35 participants from 15 organisations, including central government, local government, private consultancies, land development professions and academia. The range of disciplines included landscape architects, policy planners, consent planners, engineers, scientists, surveyors, developers and academics from planning, social sciences, property and engineering.

The initial proposal in the research funding bid was that the taskforce would consist of senior people involved in relevant policy-making and strategic consultancy within and outside of government to guide the research programme, with high level status to support the programme. After the initial meetings some of these people were replaced by others in their agency where appropriate, and the group became more dominated by practitioners who were interested in LIUDD policy and practices.

While a core group attended, others came and went and the geographical spread of attendees also increased over time. The approach to membership involved organic recruiting, arising out of contacts and networks of the Coordinator and people approaching the Coordinator as word spread about the network. There were no criteria for attendance or membership.

6.1.4 Coordination of the NTF

After the first two NTF meetings a consultant researcher within the programme was contracted to coordinate NTF meetings, assisted over the first year by another programme researcher. The coordination role involved organising meetings, general coordination and communications. The NTF Coordinator is energetic, enthusiastic, well networked and was also undertaking a doctorate related to institutional change and working as a consultant in the field.

The Coordinator considered the skills required to coordinate this network to include good connections, networks and knowledge of the field, tenacity, persuasion, energy, ability to see opportunities and make connections, and some familiarity and interest in the subject area. This role was considered to be hard work and at times exhausting. However the personal gain for the Coordinator was significant, in terms of learning, understanding change management and increasing her own networks. One professional disadvantage however was potentially being pigeon holed as a consultant in the field of LIUDD alone.

6.1.5 Operation of the NTF

The NTF met six monthly, with 10 NTF meetings held overall and one related “safari”, involving a field trip to view good LIUDD practice at Christchurch City Council. The safari came about through the NTF Coordinator going on a field visit to Christchurch City Council and finding that they were “miles ahead” in terms of LIUDD practice. From there a one day “safari” in Christchurch occurred to show people this good practice, and the safari was loosely linked to the NTF (ie NTF participants were invited).

On average NTF meeting attendance was estimated by the Coordinator to be 15–20 people, with fewer people at the early meetings. After initially focusing on establishing the purpose of the NTF, meetings evolved into providing updates on activities of participants, on the LIUDD research programme, identifying case studies and sharing practice: “It became less academic and more applied”.

While the research focus of the NTF reportedly moved more to practice, the balance was perceived to be fluid depending on what people wanted to focus on. Over time key areas of focus included how to overcome barriers to introducing LIUDD, what supports change and transition to LIUDD approaches, and showcasing good practice and case studies.

In terms of how NTF meetings were set up, the network coordinator worked with the research co-leaders to identify new research opportunities and planned research that needed practitioner input. The facilitator then emailed all NTF members to ask for ideas for the agenda (though rarely receiving input on this from members). In addition to this the coordinator used her networks to identify work that may be of interest to other practitioners – the aim was to have at least one practitioner presentation at each NTF meeting.

The agenda was circulated prior to the meeting, with members asked to be prepared to contribute to a round robin on their activities and issues. A typical agenda for a meeting would be:

1. Update on the research programme – what had been happening in all five objectives.
2. A round robin where NTF members could talk about what they had been doing. This reportedly became a very important part of the meetings, with a lot of exchange of information and ideas.
3. Presentations from researchers on key projects.
4. Working sessions with researchers seeking input into research occurring or planned.

Sometimes participants were asked what could occur at future practitioner focused NTF meetings.

According to the Coordinator, around half way through the NTF process practice needs and issues began to shape the NTF agenda, which was seen as a positive occurrence. Also, a discernible shift was considered to occur during the NTF process from making the case for LIUDD to how to make it happen. This makes sense as NTF participants were generally “early adopters” and proponents of LIUDD and needed little convincing of its merits.

An early aim was to facilitate exchange between the NTF with overseas initiatives. Some activity occurred here, with an Australian practitioner brought over for one NTF meeting and the NTF Coordinator presenting on the NTF at several overseas forums.

Basic milestones of the NTF are presented below.

- NTF part of FRST application 2003
- LIUDD Research Programme begins October 2003
- First NTF meeting December 2004
- NTF Coordinator appointed in 2005
- Six monthly NTF meetings
- Safari in Christchurch June 2008 (NTF participants invited to attend)

One further NTF meeting is planned before the end of the programme, scheduled for September 2009, partly to look at options for continuing the NTF in some form (see also section 6.5 on “Where to from here?”).

6.2 Strengths

The perceived strengths of the NTF were as follows.

6.2.1 Strong network management and coordination

The energy, enthusiasm, consistency and high quality of the coordination of the NTF were considered to be its strongest feature. This included good communication around meetings and activities, good organisation, clear agendas and minutes and prompt follow up from meetings. Having regular meetings was also a strong point.

The fact that the NTF as a network was resourced in terms of paid coordination, subsidy of transport costs and catering was also considered a major strength: “It would have been hard to justify our involvement if we had to pay the full costs of being involved”.

6.2.2 The people, relationships developed and range of disciplines involved

The enthusiasm of NTF participants in general was noted as a strength, as well as the range of people, professions, expertise and disciplines attending. A key benefit for participants was the development of ongoing relationships that will have lasting value, for example between some Councils, Universities and Crown Research Institutes.

One area that was seen as both a strength and a weakness was fluid membership: “The value changed when different people came in and out — it was good to have new people, good to have fluid membership but the trade-off is the ability to build on earlier discussions”.

6.2.3 Relevance and learning shared

I have found it very useful in terms of being almost a one stop shop on the latest thinking/ research in terms of LIUDD...I think part of the value has been in the practicality of the work, not too much theoretical and lots of useful stuff for our day to day business.

In general respondents were clear that the purpose of the NTF was to learn about and support the uptake of LIUDD: “Having a clear purpose was really important – I could see why I was there and contributing”.

The information shared and discussion at NTF meetings was considered to be high quality, relevant and useful, with good agendas, speakers and presentations. Sharing of good practice was also highly valued, via the meetings themselves and the case study website. The Christchurch safari resulted in the Christchurch LIUDD experience being widely promoted.

6.2.4 Promotion of integrated approaches and linking research and practice

The NTF was perceived to promote integrated ways of working that got people out of silo thinking, broke down barriers, highlighted connections among issues and how one project can achieve multiple outcomes.

The NTF reportedly informed the research direction and raised awareness about LIUDD and the LIUDD research programme, including issues and solutions. The research team also increased their contacts and networks, gained in knowledge and generated new research projects. The NTF reportedly acted as a means for linking research and practice and raised the profile of the overall research programme.

6.2.5 Provided peer support and supported advocacy

The greatest value of the NTF is regular meetings allowing you to step away from the grind of daily work and reflect on how you can make a difference and be energised to try and make a difference.

A number of people commented that they found the meetings to be inspiring, which acted to build their own enthusiasm to make a difference. The NTF also supported people who may feel isolated in their organisation: “[Participants] were often change agents working alone; they connected with like people to support and vent”.

The LIUDD played a valuable role in affirming participants’ commitment to LIUDD and supporting them to promote LIUDD in their own organisations and beyond; it created or reinforced “champions” for LIUDD and helped to mainstream LIUDD in that sense. The NTF and LIUDD Programme reportedly gave legitimacy to NTF members’ work in local authorities and other participant organisations.

6.2.6 Helped to mainstream LIUDD

The NTF provided a national means of information dissemination around LIUDD. As well as elevating LIUDD locally, regionally and nationally through participants and their spheres of influence, it also supported the mainstreaming of LIUDD by reportedly having a significant impact on the thinking and practice of some local authorities, through influencing their policy, District Plan reviews and codes of practice.

6.3 Challenges and what could have been improved

Challenges or areas for improvement were identified as follows.

6.3.1 Clearer focus and positioning

Some fuzziness was perceived around the role, purpose and function of the NTF: “I feel that the NTF just evolved and wondered if it could have had a more structured focus, linking back to the original brief”.

Some people were unclear how the NTF linked to the research programme and the status of the NTF with regard to the overall programme. Similarly, it was considered important by one respondent to clarify the role of the NTF in relation to other initiatives in the field – to communicate what it is and how it fits with other things going on. Periodic reflection on NTF focus and progress would also have enhanced clarity of purpose and supported ongoing improvements.

6.3.2 Representation and reach

Several participants would have liked wider representation on the NTF, particularly from the private sector (for example developers), technical researchers and central government. Central government representation was considered strong at the beginning but to have weakened over time: “The national strategic focus changed to a local practitioner focus – it would have been good to keep the balance”.

More field trips showcasing good practice and a wider range of locations for NTF meetings were also suggested by several participants. One person commented that the Christchurch safari had better reach than the NTF meetings for a broader range of people. More regular information updates were sought by some (eg three monthly communications to NTF participants).

6.3.3 Stronger connection with research and researchers

Some comments were made regarding the research focus of the programme, including a wish for research more directly relevant to practitioners, and more time allocated to the social and human dimensions of LIUDD: “Researchers were measuring pH but not talking to developers”. Several participants felt that some of the research was too technical and/or academic to be of appeal to practitioners such as those working in local authorities.

This reflects a desire for greater mutual understanding between researchers and practitioners, for example: “Researchers need to know the barriers are human not technical; some education for researchers on social science is needed”. Several people noted that researchers are not always the best people to communicate and disseminate research findings, and that better profiling of the research emerging from the programme overall was needed.

6.3.4 More interactive sessions and shared leadership of the NTF

Several participants commented that they would have liked to have seen more debate on actual work programmes and what people were doing, rather than just reporting what they were doing. Several people would also like to have seen the leadership of the NTF diversified and shared, and more involvement in this from the research strand in particular.

6.4 Research and practice linkages

There were a mix of views in terms of how the NTF linked with the LIUDD research programme; some people felt that the NTF directly influenced research while others that it did not, or only in a limited sense. The range of views is influenced by the length of time respondents had been involved and their role in NTF – not all members were aware of the links to the research programme.

There was some feeling early on that the practitioners were the recipients of the research rather than actively engaged in research development: “Initially it seemed like we [LIUDD practitioners] were more of an ‘audience’ and ‘potential user’ rather than a direct participant in the research process”. Over time however more balance was perceived to have been struck here, with practice needs and issues resulting in some new research undertaken and influencing the existing programme, especially within objective five.

6.4.1 Research and practice agendas can differ

There is a wide range of different agendas in operation in relation to the NTF and LIUDD – that of the funder/FRST and those of practitioners and researchers. Thus the contracted outputs of the research programme may not always have meshed with the interests of NTF participants.

6.4.2 Ability for the NTF to influence the research limited but did occur

The ability of NTF participants to influence the research programme was unclear and was perceived by several respondents to be limited, as the research programme was quite tightly contracted: “Generally, our role [NTF participants] seemed to be to provide comment at the end of a research project rather than inputting at the start”.

However, while the FRST research outputs were fixed there was some scope to go beyond the brief and this did occur via the NTF. Examples include this review and several specific pieces of research commissioned as a result of the NTF, such as a case study portal on the LIUDD website, and some work on the LIUDD related policy mechanisms used overseas: “Some ideas from the NTF flowed into the rest of the programme”.

6.4.3 The NTF and practice influenced objective five in particular

The NTF sat under objective five of the research programme and the researchers linked with this objective were involved with the NTF. An overview of the research to date at each NTF meeting provided an opportunity for participants to feed back to research. Researchers working under other LIUDD objectives however were less involved and for several respondents could have connected with the NTF more.

Respondents generally felt that the NTF had little influence on the LIUDD research objectives other than objective five. In terms of objective five, several respondents commented that some research projects in this objective were influenced by the NTF, and that the NTF enabled direct links between practitioners and researchers. The LIUDD research programme also tested ideas for future projects via the NTF and took direction from the taskforce.

There was also perceived to be a benefit to research through having a link to commercial applications via the private sector representation on the NTF (for example consultancies). In some cases, for example the LIUDD work by Christchurch City Council, practice was considered to be ahead of the research.

6.4.4 The NTF allowed practitioners to “plug in” to research and latest thinking

The NTF was a simple way without huge time commitment to share our experiences and plug into the research findings.

The NTF supported the professional development of participants and educated practitioners on the value of research, and for some their valuing of research increased. Understanding was also reportedly increased of what it takes to achieve change, and the information, knowledge and contacts made via the NTF supported professional development. The NTF was also considered to have added value to the work of some consultants and what they could deliver to clients.

The NTF was perceived to have played a valuable role in supporting people to champion new ideas in their workplace and given/ validity to individual efforts in organisations.

6.5 Where to from here for the National Task Force?

While there are lots of “pockets” [of people] meeting, we need a macro level forum, we have got awareness and respect for this NTF.

There was support amongst those interviewed for continuing the NTF. This could involve identifying an organisation that could pick up its coordination, with potentially shared resourcing from a range of groups involved. Another option identified is to merge the NTF with an existing forum or network. It was agreed that continuing the NTF would require ongoing coordination via a dedicated paid role, and a clear agreed focus.

As noted a further NTF meeting is planned before the end of September 2009, partly to consider the options for continuing the NTF in some form. Respondents interviewed expressed a desire to build on the investment already made via the NTF to mainstream and develop LIUDD in New Zealand.

7.0 Lessons from the National Task Force

This section compares the NTF experience with international research on networks, and draws out the implications for establishing, operating and evaluating learning networks. It begins by contrasting the NTF experience with key findings from the international literature, before presenting the implications for other learning networks.

7.1 How the NTF compares with international research findings

7.1.1 Role, form and functions of the NTF

The NTF reflected all four types of activities that characterise networking according to Keijzel (2006): information exchange; learning; advocacy and network management. In terms of Bender-deMoll's network categories, the NTF is an example of an "Interaction Network", involving regular contact among people via the six monthly NTF meetings, with the main currency of the network being information passed between participants.

In terms of Mendizabal's six functions of networks (see Table Four), the NTF undertook all except the "investing and providing" function. In terms of the other five functions, the NTF supported "community building" by building strong bonds within the network; and "filtering" by synthesising and presenting information from diverse sources and developing good practice guides in response to member needs.

It demonstrated "amplifying" through its advocacy roles and bringing together of complex information, "learning and facilitating" by supporting information and knowledge exchange, and "convening" by bringing people together from diverse sources around the common concern of LIUDD. Overall the key functions of the NTF within this schema were to support "learning" about LIUDD and "facilitating" its uptake in a range of contexts.

As a learning network, the NTF involved collaborative learning and created a national "community of practice" around LIUDD. The NTF exemplifies the value of a learning network when the issues involved are complex, innovation and collaboration are needed across disciplines, and there is a sense of urgency to catalyse change and frustration with traditional approaches.

7.1.2 Operation of the NTF

As with most learning networks internationally the NTF had an open and fluid membership structure. It also attempted to involve a wide range of representatives from government to the grass roots, which is considered good practice when the issues involved are broad and complex. Interest in the NTF was maintained effectively through regular face to face meetings, ongoing communication, introducing new and challenging perspectives and showcasing good practice, for example through the website and the "safari" to Christchurch.

7.1.3 Success factors

Compared with international research on success factors for learning networks, the NTF rates against all of those identified. Most significantly, the NTF had enthusiastic and competent coordination and network management, which was responsive to member needs and interests.

The NTF had the clear focus of supporting learning about and uptake of LIUDD, and maintained its relevance over time for participants. An atmosphere of trust, goodwill and openness also appears to have been created through the NTF.

The input of alternative views and information was a hallmark of the NTF, which is viewed internationally as a sign of a healthy network. Participant commitment was also supported through meeting member needs for networking, professional development, learning and information exchange. The NTF also generated commercial opportunities for some participants.

NTF participants had the three characteristics deemed important for successful networks: the time, skills and resources to take part (assisted by NTF resourcing); common attitudes and dispositions and a commitment to networking.

7.1.4 Issues and risks for the NTF

The NTF did not appear to be dominated by any one field or set of interests.

7.1.5 Linking research and practice

While the ability of the NTF to radically influence the research programme was limited, it did result in new research undertaken and influenced the research direction of the programme, especially in relation to objective five.

7.1.6 Monitoring and evaluation

This review of the NTF mirrored the participatory approach recommended for evaluating learning networks. In particular key stakeholders were engaged in critical reflection about the NTF. However a monitoring and evaluation plan was not developed for the NTF, and quantitative measurement of the network, including mapping of the network, did not take place. See below for more on the lessons from the NTF on how to monitor and evaluate networks.

7.2 Lessons for other learning networks

This section summarises key lessons for the development of learning networks, based on the experience of the NTF, combined with international experiences.

7.2.1 Establishing a learning network

Opportunities for people within a specialised field to come together for networking and exchange are generally rare and this was very highly valued by NTF participants. In a relatively new field such as LIUDD, and especially one that involves developing and promoting unconventional or new ideas and practices, there are also needs for sharing ideas, peer support and building collegiality and contacts that a learning network can respond to.

A learning network is an option to consider when:

- There is a diverse range of disciplines and professions involved.
- There are limited options or forums for connecting people working in a field.
- There is an impetus for bringing people together (such as a research programme, or a new piece of legislation or mandate).
- A new way of operating is needed, or is being identified and promoted.
- There are needs to be addressed that are not being met by conventional ways of working (or that are caused or exacerbated by conventional ways of working).
- There is a desire to connect research with practice more consciously.

7.2.2 Network operation

This is a good model that works best with a good facilitator – someone who can bring it all together and “rise above” any differences in approach, style or priorities for the different agencies involved. Our independent facilitator added coherence and vitality to what could have otherwise seemed a bit dry and academic, and institution bound.

The NTF was based on genuine, committed, funded input, with the programme managers and coordinator committed to its purpose and operation. As such the support of programme leaders is important for a network to get off the ground and most networks are likely to struggle without appropriate resourcing. At the same time the organisers need to be able to live with uncertainty as to the outcome of a network.

From the experience of the NTF and international literature, further elements most likely to support a successful learning network include a clear focus and mandate to draw people together around, paid coordination and strong and enthusiastic coordination and organisation.

As Dixon and Sharp note, if greater interdisciplinary or user involvement is required then resources must be allocated to facilitate this interaction (2007 p230). Removing costs for people to attend (other than their own time), for example by meeting transport costs, will encourage participation.

Ongoing commitment will be more likely with relevant, high quality, professional content of meetings and communications, including presenters. It can also be enhanced by identifying member needs and meeting them as far as possible.

Striking the right balance between organic evolution and fixed objectives and structure is one of the challenges for a learning network. Finding a balance between the appropriate size and shape of the network is also a challenge, requiring a decision to be made on aiming for a larger scale versus intimacy, or breadth versus depth of networking and interaction. Identifying how membership will work and retaining a core ongoing membership is also important, while allowing for people to come and go.

It can also be a challenge getting a good mix of participation in a network and maintaining this mix, for example attracting different sectors and achieving government participation from central to local.

You need to think carefully about membership – selecting who to have is critical to success and pulling those people in.

Other factors that will attract and retain members are allowing for plenty of networking time, including informal eating and talking, showcasing good practice, using case studies and undertaking field trips: “Seeing is believing and field trips are a good model to follow to balance the talking and theory/research”.

In the case of this learning network a balance also needed to be found between research and practice, in terms of the needs and interests of NTF members and those of the research programme of which the NTF is part.

7.2.3 Ability of learning networks to link research and practice

The NTF was good for communications and networking but not sufficient to bridge research and practice.

The NTF experience supports utilising learning networks within research programmes, but as one part of a broader strategy around how to integrate stakeholder engagement, research and practice.

If a learning network is set up as one part of a larger research programme, the programme managers need to consider how to connect it with this broader programme if appropriate, and how to support meaningful interaction between researchers and practitioners.

A key issue when linking practitioners with research is to ensure the relationship is two way and mutually beneficial, with both parties valued equally in the process. Time and effort is needed for researchers and practitioners in a learning network to share and understand each others agendas, needs, issues and interests, in order to identify areas of congruence and how efforts can best be aligned for mutual benefit.

Researchers also need to be clear on how they plan to engage with learning network members, including managing expectations and clarifying the ability of a learning network to influence research. If there is no scope or openness on the part of researchers to altering the research agenda then developing a learning network to inform research is likely to be inappropriate.

The experience of the NTF indicates that learning networks have the potential to be very successful in linking research and practice, provided they are well resourced and well-integrated into the research programme. Adequate time needs to be budgeted into research funding proposals for end-user engagement and adequate budget is needed to ensure participants can attend well-organised meetings.

7.2.4 Monitoring and evaluating learning networks

Based as it is on people, processes and relationships, the difficulty of quantifying the impact and success of a learning network was widely acknowledged by participants. The impacts of learning networks are often indirect and subtle; cause and effect can be hard to attribute and it takes time to gauge the impact of networking.

The funding environment within which the NTF operated was also output driven rather than emphasising processes and outcomes, indicating that even though funders encourage end user engagement, in practical terms they sometimes appear to place less value on the value of networking and relationships compared with, for example, peer-reviewed journal papers. This tallies with comments from several respondents that the value of networks is generally underplayed.

One view was that trying to put quantitative frameworks around networks is of limited use. This respondent was more interested in the “messiness” of these processes, and felt that it should be asked instead “What is performed through collaborative work, what emerges and who benefits?”

In terms of the international guidance on monitoring and evaluating networks in section 5.0, the NTF experience validates the desirability of developing an evaluation plan from the start and building monitoring and reflection processes into the learning process. It also affirms the need for clear goals and objectives against which to evaluate, utilising qualitative and quantitative methods and indicators, and validating the experience of network participants and the relationships developed.

Mapping the NTF visually is likely to have been a useful exercise for participants to review who was involved, who else could be involved, the kinds of ties forming through the NTF and the various impacts of these ties. This is a time consuming exercise however and may have diverted energy and attention away from the core focus on LIUDD related learning and uptake.

Network participants were asked to identify potential measures or indicators for learning networks, and these are presented below. They are split into quantitative (numbers, “facts” and more “objective” measures) and qualitative measures (based on people’s subjective views).

Table Eight: Potential measures for learning networks

Quantitative measures	Qualitative measures
<ul style="list-style-type: none"> • “Outputs” such as attendance, number of people and organisations involved. • X no. of reports produced by/via the network per year. • Reach and communication, eg X no. of presentations at conferences etc per year. • Number of regular communications made, eg newsletters. • Contacts made by participants through the network - mapping contacts and networks made. • People continue to attend. • People requesting research and/or outputs of the network. • Requests for presentations by the facilitator/coordinator. • Network continues after the programme ends (some ongoing life). • The number of projects with an LIUDD perspective implemented as a result of involvement with the NTF. • Number of research partnerships emerging. • New pieces of research occurring via the network. • Level of dropping out/non-attendance . • New people/organisations wanting to take part. 	<ul style="list-style-type: none"> • Participant perception (satisfaction, perceived value, benefits, pros, cons, reasons for participating and perceived value and impact). • Uptake of change and link to the learning network involved (issue of influence and impact). • Quality of research associated with the learning network (based on international standards). • Awareness of LIUDD. • Awareness of the network. • What researchers attribute to the impact of the network. • Type of participation (active, passive etc). • Network feedback that results in improvements to research projects and dissemination. • Impact on non-adopters. • Actual and perceived opportunities arisen (new funding raised, new projects, additional research). • Why people dropped out and what would have kept them there. • Application of ideas to practice. • Interaction with the research programme. • Impact on research produced. • Influence on other networks (eg their development, operation).

8.0 Conclusion

The NTF was highly valued by participants and considered effective in connecting people in the LIUDD field, with some influence on research and practice and in mainstreaming LIUDD.

The NTF experience aligns positively with international research on what supports a successful learning network. It supports the use of learning networks as part of research programmes, provided that attention is paid to the core elements of effective networking and genuine commitment exists from programme managers.

Building in clear aims and robust evaluation for future learning networks should help to increase understanding of their value in linking research and practice in New Zealand and making a difference on the ground.

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