Cluster Building:

A Toolkit

A Manual for starting and developing local clusters in New Zealand

Prepared by Cluster Navigators Ltd

Introduction

This manual has been prepared for Economic Development Agencies and others who are considering starting up a cluster. Private sector leaders will also find it useful, in particular Cluster Chairpersons.

In recent decades, New Zealand has been under-performing relative to other OECD countries. Our firms frequently lack critical mass, with an absence of trust and linkages at the all-important local level. We have 'clumps' of co-located firms, rather than interactive, densely networked clusters as can be seen in such vibrant economies as Silicon Valley and northern Italy. Collaboration does not come easily to many of our firms and support organisations. But building early successes in non-threatening arenas provides the foundation for later, bigger collaboration. That's one of the useful tips this toolkit offers.

The relevance of clusters in taking our economy to the next stage was highlighted at the recent Knowledge Wave conference. The new economy is all about speed, quality, flexibility, innovation, networks and building critical mass. This new style of doing business demands a team approach at a local level…a clustering approach. Clusters are particularly important to young industries.

Cluster building is, in many OECD countries, already an accepted tool in economic development. As Professor Michael Porter has emphasised, 'Clusters are the building blocks of a productive, innovative economy'. While many of the forty existing initiatives that have provided the foundations for this manual have been given a high profile, this profile is not always in keeping with reality: Many of them are tentative and vulnerable.

For some areas of this country, cluster development has become the cornerstone of their economic development strategies. For other communities clustering is an initiative alongside others. Whichever level you are at, New Zealand Trade and Enterprise encourages you in your endeavours. If you would like further information on the relevance of clustering, and how New Zealand Trade and Enterprise can support you, please make early contact with

- Alan Koziarski 04 910 4364 (Alan.Koziarski@nzte.govt.nz)

New Zealand Trade and Enterprise encourages all communities to adopt a cluster-based approach to their economic development and will continue to provide professional guidance and financial support for cluster facilitation.

1. Cluster Builders – What they say

Three economic developers' perspectives

"It is just ten short years since Michael Porter's first visit to New Zealand and his introduction of the concept of industry clusters as a powerful economic development phenomenon.

Even back in 1991, clusters in one form or another had been around a long time. Our understanding of the ways in which clusters function and interact is still evolving, particularly in the increasingly dynamic environment that is the knowledge economy.

Now, a decade on from Porter's initial visit, there are few economic development professionals in New Zealand who are not actively using cluster based initiatives to accelerate the rate of economic growth in their regions.

It is timely that New Zealand Trade and Enterprise has chosen to publish this Cluster Manual which will become an important best practice reference for members of the Economic Development Association of New Zealand (EDANZ) as they go about their business of facilitating the growth of their regional economies."

Chris Pickerill, Chair, Economic Development Association of New Zealand

"Venture Taranaki has been actively involved in clusters since the Trust's establishment three years ago – and anticipates they will grow in importance.

- "Engineering Taranaki" – the original cluster initiative – brought together the region's major engineering firms, initially to reverse a massive downturn, but now working together to maximise gains from the upturn in the region's oil & gas industry.

- The IT cluster, "iTaranaki" is recently formed, comprising organisations and individuals from the region's IT industry, e-commerce and associated infrastructure.

- Education Taranaki – including secondary schools and the local Polytechnic – have forged a consortium to attract international students.

- Further cluster initiatives in sport and horticulture are currently under discussion.

Clusters are a smart strategy for regional development agencies to include in their portfolio. Clusters provide a forum for industry wide involvement; they can be "seen and heard". In our role, usually as coordinator, we offer a neutral meeting ground. We become involved in a delicate process which peels back the layers, unveiling the key issues and opportunities on the mind of the participants.

Through the clustering process, the resulting group activities have energy, industry-wide relevance and a sense of presence in the market place. **We all benefit** – industry, its supply chain, the regional development agency and local stakeholders."

Anne Probert, Economic Development Manager, Venture Taranaki
Anne@venture.org.nz

"Clustering has proven to be a very significant economic development tool for Wellington. The investment made by the City Council and companies in this process is returning dividends to the city. This is evidenced by the high participation rate in our clusters, which are now supporting several hundred Wellington companies.

The cluster process will continue to be **the cornerstone of the Wellington region's economic strategy.** "

Claire Nolan, Wellington Regional Economic Operations Manager

Clare.Nolan@wcc.govt.nz

"**Clusters are the driving forces of international trade.** International experience shows that while the phenomenon occurs world-wide, each cluster follows a unique development path. The application of the concept here requires it to be infused with our own distinct regional flavour.

Because clusters are organic entities, there must be an acceptance that positive results take time. We have been involved in cluster-based economic development programmes since 1996; the benefits of this have not been immediate but they have been real.

Firms that did not know each other before are **now working together**, co-operating on projects or sub-contracting work to each other. Cluster groups have provided a ready forum for the discussion and resolution of industry issues such as skills training, infrastructure and procurement. New industrial initiatives and the resurrection of several old ones have been achieved through the cluster network.

Clusters will continue to form the core of Dunedin's economic development activity because **the cluster focus has delivered measurable results** to our city."

Peter Brown, General Manager - City Marketing & Development, Dunedin City Council   pbrown@dcc.govt.nz

Two firms' perspectives

"When I first encountered the idea of clustering, I was sceptical to say the least, how could a bunch of competitors work to develop opportunities together? It seemed to run counter to how business was meant to work. But now I'm a believer! Clustering allows us to achieve a number of really useful things, we can project an impression of globally competitive critical mass from behind a single strong brand (without sacrificing our

individual identities!).

We can also collectively fund off-shore market research and development programs that we probably couldn't afford on our own and most importantly it has created a really strong dynamic network amongst the clusters members that is helping all of us lift our sights well beyond the domestic market.

I'm sure clustering will transform our business and our industry and all it requires is communication, commitment and above all involvement."

Chris O'Connell, Chairman, The Bridge Limited

Co chair, Creative Capital Cluster, Wellington

"Fitzroy Engineering has been a member of the Engineering Taranaki cluster group since its inception over two years ago. Membership of the group has considerably increased the working relationship we have with local fabrication companies, and has enabled the group to work together on bidding for several large projects for the Australian mining industry. Group membership has allowed the Consortium with its collective disciplines to target and pursue 'turn key' projects from design through to fabrication and construction.

Recently we participated in a Engineering Taranaki delegation to Australia at the invitation of the Northern Territory Government to explore the opportunity of forming alliances with local Australian companies. The benefit as seen by the NT government was to enable their local industry to tap into the knowledge, expertise and international credibility that the group could bring for the up and coming oil and gas projects in the region."

Peter White-Robinson, CEO Fitzroy Engineering Group Ltd, New Plymouth and

Chairman, Engineering Taranaki

2. What are clusters?

Clustering could be called coopetiton – cooperating in order to be more competitive and successful.

We are familiar with such clusters as Silicon Valley, a region similar in size to greater Wellington, just south of San Francisco, that has become home to over 7,000 high tech companies. We all know Hollywood, the corner of Los Angles that is the world's entertainment capital. These clusters provide an environment that enables specialised local firms to develop the competitiveness to service large, often global markets, and extends globally to many industries.

In New Zealand we have difficulty in adding value to our wool, which is still largely exported as scoured product in bales. Three locations around the world illustrate the reasons for this difficulty. All three are customers for New Zealand wool. The three localities demonstrate what small communities can do with clusters:

- Biella, Italy (population 48,000) is the world's leading luxury textile center. Half of all the firms in this city, which is not much larger than Ashburton, are in activities that relate to wool processing. Biella is home to some 1,300 textile manufacturers and 200 machinery manufacturers. It is also where Merino New Zealand have established their European HQ.

- Castel Goffredo, Italy (population 7,000), a community not much larger than Wainuiomata, is home to 200 hosiery related firms, who together produce over half of Europe's socks.

- Dalton, Georgia, USA (population 25,000), similar in size to Whakatane, is home for 174 carpet mills, accounting for 85% of US carpet output, and almost half of the world's carpet output.

In many other industries, similar local specialisations can be seen:

- Wichita, Kansas (population 300,000) is the world's small aircraft manufacturing center, with half of the world's aircraft fleet taking off for the first time from this city the size of Christchurch.

- Montebelluna, Italy (population 25,000) produces 75% of the world's ski boots along with other specialist footwear, and describes itself as 'The sports footwear capital of the world'.

- Renfrew, Ontario, Canada (Population 10,000) has a mini cluster in wood home construction, with a number of wood building products firms collaborating to service Pacific Rim countries.

Clusters have been well described by Professor Michael Porter, the OECD, and many others (see Appendix E for further reading). Due to globalisation we are seeing a number of localities around the world, often small, develop a particularly innovative environment in a specialised area, and establish a global reach. As a direct result, these communities generate wealth well beyond many other localities in their country.

In is increasingly clear from OECD and other research that the process of creativity is the result of people talking, and communicating face to face in teams. Place is even

more important, especially for knowledge-intensive activities. New economy business practices are collaborative; built on trust, dialogue and alignment.

E-commmerce increasingly underpins cluster activities, but it is no substitute for face-to-face communications. While some codified information is sent by email, higher value tacit information is dependant on **trust.**
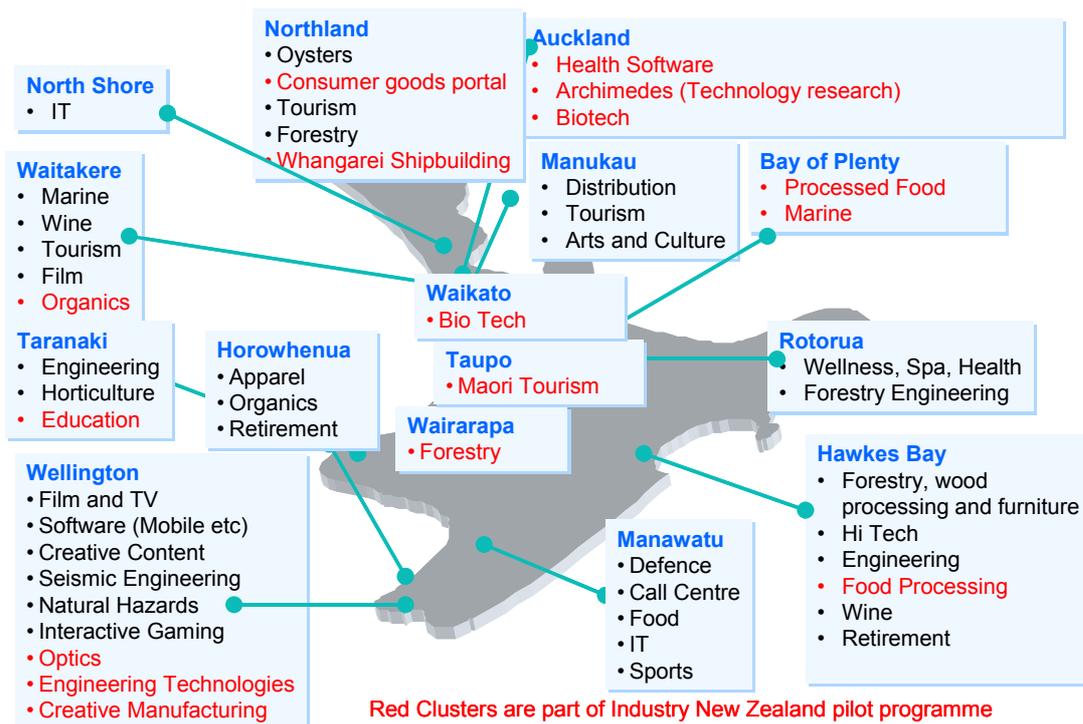

Clusters…alive and well in NZ

Here in New Zealand we have a large number of clusters already, some embryonic and others that have already succeeded in establishing an international reach:

- Christchurch electronics, home base for half of New Zealand's electronic engineers;

- Hawke's Bay and Martinborough…two leading wine tourism clusters;

- Auckland, the City of Sails, home to the America's Cup, and a leading marine center;

- Ashburton, the center for half of New Zealand's arable activity;

- Hamilton, home to Mystery Creek and New Zealand's agri-tech industry; and

- Wellington, where the seismic engineers are together shaking the world.

In a number of these places initiatives are underway to stimulate the existing clusters, through targeted cluster development programmes. The clustering process is very much alive and well, with over 40 cluster development initiatives currently in progress. These initiatives vary in the intensity of collaboration, their international focus and the level of funding. Not all are fully performing.
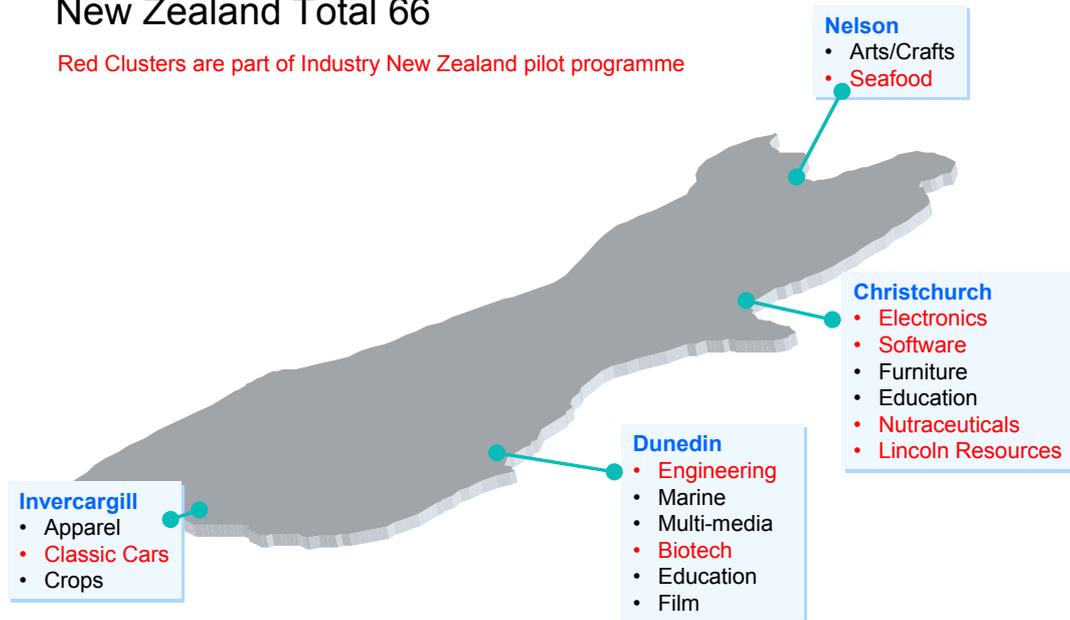
The maps below summarises many of the clustering initiatives in New Zealand. It will be updated as other initiatives are started.

Northland
- Oysters
- Consumer goods portal
- Tourism
- Forestry
- Whangarei Shipbuilding

North Shore
- IT

Waitakere
- Marine
- Wine
- Tourism
- Film
- Organics

Auckland
- Health Software
- Archimedes (Technology research)
- Biotech

Manukau
- Distribution
- Tourism
- Arts and Culture

Bay of Plenty
- Processed Food
- Marine

Waikato
- Bio Tech

Taranaki
- Engineering
- Horticulture
- Education

Horowhenua
- Apparel
- Organics
- Retirement

Taupo
- Maori Tourism

Rotorua
- Wellness, Spa, Health
- Forestry Engineering

Wairarapa
- Forestry

Wellington
- Film and TV
- Software (Mobile etc)
- Creative Content
- Seismic Engineering
- Natural Hazards
- Interactive Gaming
- Optics
- Engineering Technologies
- Creative Manufacturing

Manawatu
- Defence
- Call Centre
- Food
- IT
- Sports

Hawkes Bay
- Forestry, wood processing and furniture
- Hi Tech
- Engineering
- Food Processing
- Wine
- Retirement

Red Clusters are part of Industry New Zealand pilot programme

As at May 2002, Source: Cluster Navigators Ltd for Industry New Zealand

New Zealand Total 66

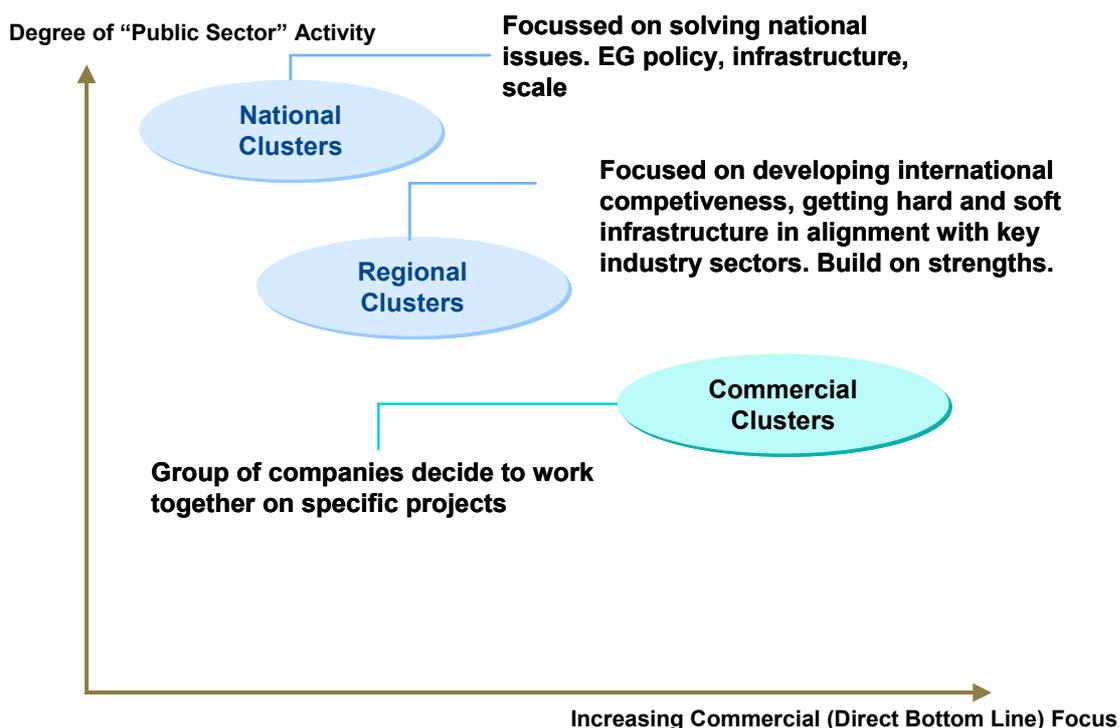Red Clusters are part of Industry New Zealand pilot programme

Nelson
- Arts/Crafts
- Seafood

Christchurch
- Electronics
- Software
- Furniture
- Education
- Nutraceuticals
- Lincoln Resources

Dunedin
- Engineering
- Marine
- Multi-media
- Biotech
- Education
- Film

Invercargill
- Apparel
- Classic Cars
- Crops

As at May 2002, Source: Cluster Navigators Ltd for Industry New Zealand

Other forms of collaboration

A number of other collaborative initiatives are underway around the country to stimulate competitiveness and to enable businesses to develop critical mass. Clustering, the focus of this manual, is one particular form of collaboration. It creates an environment that enables other types of collaboration, in particular networking between firms and the development of supply chains, to flourish.

These different types of collaborative engagement are a continuum , with different levels of public activity and of commercial focus: See Figure 1:-

Degree of "Public Sector" Activity

National Clusters — Focussed on solving national issues. EG policy, infrastructure, scale

Regional Clusters — Focused on developing international competiveness, getting hard and soft infrastructure in alignment with key industry sectors. Build on strengths.

Commercial Clusters

Group of companies decide to work together on specific projects

Increasing Commercial (Direct Bottom Line) Focus

In New Zealand three different clustering approaches have emerged over recent years. Both are usually initiated and driven by Economic Development Agencies (EDAs):

1. **National Clusters** are groups of companies and organisations who collaboratively addressing development issues for the cluster. Typically they address policy, infrastructure and scale related issues.

   ❑ *For example, the Health IT cluster is addressing standards, market development and other national issues.*

2. **Regional Clusters** are the classic Michael Porter-type clusters, based on the premise that an industry will increasingly prosper in a specialised, networked environment. The focus is on building a supportive environment for the cluster participants, and extending the linkages between participating firms, their suppliers and related and supporting organisations. These regional clusters do not have a membership basis, with stakeholders including firms, educational organisations and CRIs, for example:

   ❑ *Waitakere Marine cluster, with stakeholders including yacht builders, component manufacturers, equipment importers, UNITEC, and the Waitakere EDA.*

3. **Commercial Clusters** are consortiums of companies who have chosen to collaborate in a number of areas. They are membership based, with the fee structure often supporting a dedicated support person, for example:

   ❑ *Marine group in Dunedin – 8 companies jointly tendering for the construction of tugs for Wellington and Otago Harbours boards;*

   ❑ *Engineering group in Taranaki, a consortium of 10 local engineering firms, jointly seeking international business*

Collaborative initiatives

The different forms of collaboration are summarised in the table below. Firms can be involved in different forms of collaboration at the same time It is not necessary for a firm to take just one from this smorgasbord of options.

Item	Comment	Proponent sponsors	Benefits	Examples
Regional Clusters	This is term and concept introduced by Professor Michael Porter. They have a strong element of **aligning** soft and hard **infrastructure within a region**, and creating the right micro environment for growth.	Usually a territorial authority, such as an EDA (The geographic boundary of each cluster is unique, and may well spill over into neighbouring territories)	Applied to key drivers, the core wealth creators in the locality, the TLA seeks to embed that cluster in the region. Ensures that all infrastructure and institutions are well aligned. A high performance micro environment can attract FDI when alignment is tight.	Film Wellington Nelson Seafood Defence, Palmerston North Engineering, Taranaki

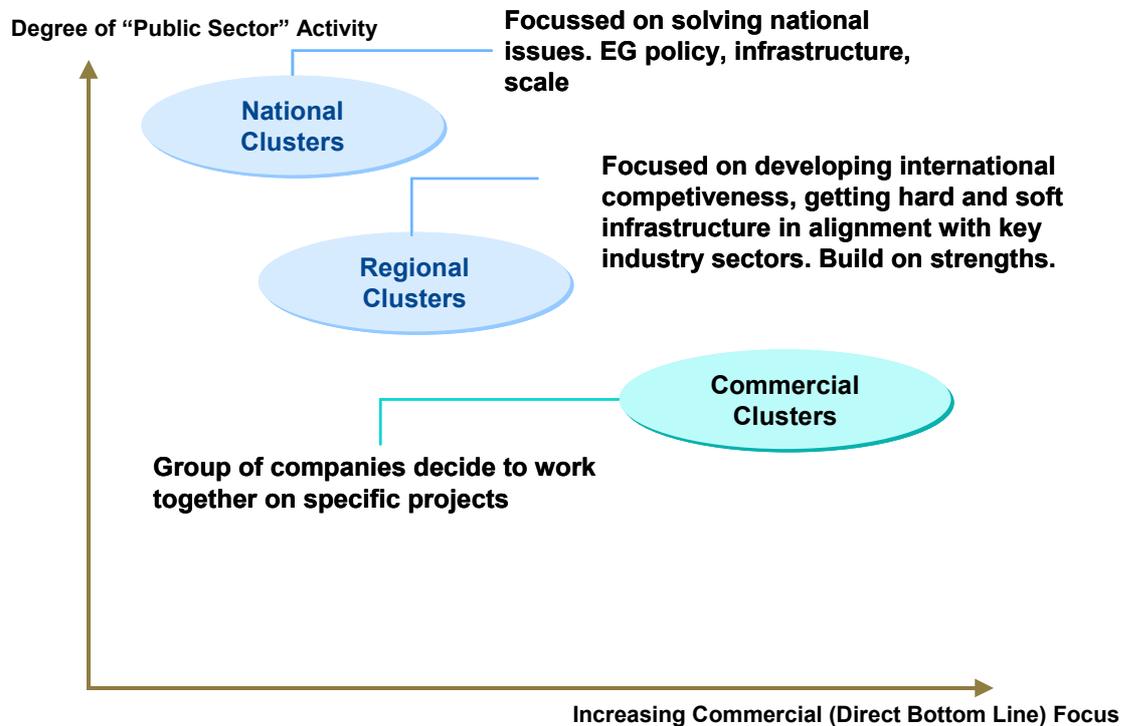|			
Soft networks, National associations	Started with Trade NZ Joint Action Groups in the early 90's with a **national** focus. Based around a leadership group appointed by TradeNZ and action initiatives initiated and directed by the leadership group (though implemented largely by Trade NZ staff) Open membership, often from a single industry. Low risk, limited trust involved…and limited pay-offs. Can provide an initial step to building harder linkages between small groups of members	Industry Associations Chambers of Commerce Business Councils	Provides a forum for the larger exporters. Enables a number of regional clusters to address national issues eg export development, trade access, training standards. Valuable where no one region has a critical mass. Provide a clearing house to establish and address common agendas. The neutral corner often brings competing businesses together, enabling them to develop 'harder' linkages.	Forest Industry Council Seafood Industry Council Food & Beverages Exporters Council Wine Institute Tanners Association Wellington Chamber of Commerce Taiwan/NZ Chamber of Commerce Japan Business Council
Commercial clusters, Hard Business Networks, Strategic alliances	Alliances between small groups of companies, networking to achieve aims they cannot realise alone. Strong commercial focus. Many Hard Business Networks have a flexible structure which evolves as the level of cooperation increases	Individual companies SME Assistance Programmes Technology NZ TradeNZ	Enabling SMEs and larger firms to develop the critical mass to compete more effectively.	Natural Hazards. Five boutique Canterbury wineries cooperating for export development
Supply Chain Initiatives	Often driven by a large company seeking to focus on its core competencies, and facilitating / encouraging SME suppliers, such as assisting with ISO. May be supported by e-procurement.	Large firms SME development agency	Enables SMEs to develop competencies in supplying a lead NZ firm, and often to compete in e-commerce and e-procurement environment	

3. How clusters work

The origins of clusters differ. The initial stimulus may have been

- availability of a raw material
- soil / climate conditions
- proximity to a nearby market.
- a chance event, such as the return to a location of an entrepreneur with specific skills and ambitions (e.g. Angus Tait's return to Christchurch as a radar technician)
- the establishment locally of a government funded R & D facility. There are common elements to all high performing clusters. Their participants can be divided into four broad categories:

  1. **Core Businesses:** The businesses that are the lead participants in the cluster, often earning most of their income from customers who are beyond the cluster's boundary.

  2. **Support Businesses:** The businesses that are directly and indirectly supporting the businesses at the core of the cluster. These may include suppliers of specialised machinery, components, raw materials; and service firms including finance/venture capital, lawyers, design, marketing and PR. Often these firms are highly specialised, and are physically located close to the core businesses.

  3. **Soft Support Infrastructure:** In a high performance cluster, the businesses at the core and the support business do not work in isolation. Successful clusters have community wide involvement. Local schools, universities, polytechnics, local trade and professional associations, economic development agencies and others support their activities and are key ingredients in a high performance cluster. The quality of this soft infrastructure, and the extent of teamwork within it, are very important keys to the development of any cluster.

  4. **Hard Support Infrastructure:** This is the supporting physical infrastructure: roads, ports, waste treatment, communication links, etc. The quality of this infrastructure needs to at least match competitive destinations, be they local or further afield.

These four separate elements in a cluster can be portrayed as circles, built around the core.

Figure 2 © Cluster Navigators Ltd, 2001

Degree of "Public Sector" Activity

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Regional Clusters — **Focused on developing international competiveness, getting hard and soft infrastructure in alignment with key industry sectors. Build on strengths.**

Commercial Clusters

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Increasing Commercial (Direct Bottom Line) Focus

The People Dimension

The success of a high performance cluster is in a large part due to people forming quality relationships and networking to achieve results. These linkages are informal, and are supported by more formal organisations/institutions. They work best at a community level where participants in the local industry already have formed a wide variety of relationships, and there is already some degree of dialogue and trust. Clustering builds on the teamwork that is already in place.

The clustering process requires

- people-to-people contact

- consensus on key issues

- collaboration at multiple levels

- community wide involvement in the process of building new linkages between communities, businesses and government.

- Clustering is Firms and others within a concentrated geographical area **co-operate towards common goals**, and establish close linkages and working alliances to improve their collective competitiveness [1]. Clusters help a clump of co-located firms and organisations turn into a high performance system. This works at a system, rather than individual organisation, level. An active local cluster includes firms and support organisations working together to achieve results that would not be

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[1] This definition is based on 'Clusters as a Vehicle for Small Medium Enterprise Development: an alternative perspective'   Small Business Project, Johannesberg,1999

possible individually. **Business networking**. A key component of any high performance cluster is extensive informal and formal networking between firms - even competitors - right across the cluster, and between firms and their supporting infrastructure. Soft networks (such as local professional and trade associations) and hard networks (strategic alliances between firms) are both important. The development of such networks is supported by a local culture that enables both competition and cooperation to thrive. **Strategic plans and yet more meetings**. But, more importantly, clusters provide a means of quickly identifying a route forward for the cluster, and then moving forward. Clustering is not a few deciding for many; it is an inclusive, collaborative process. Clustering benefits from a community wide momentum.

- **More than lobbying** government under a new name. A clustering approach certainly does provide an effective means of gaining access to government agencies and making local priorities clear. But the creation of a mechanism for a wide improvements in areas of common concern is more important.

- **About teamwork.** This is a key component of a local innovation system; It is much more than solo players working away in isolation. Innovation increasingly relies on close interaction between the science base and the business sector, with the most effective communication of tacit information happening when the separate components of the cluster are near to each other. New products increasingly use different technologies, and technologies are increasingly based on different scientific disciplines.

The degree of connectivity amongst knowledge agents, and between them and firms, is a key aspect of a high performance innovation system. Companies, in particular specialised SMEs, rarely have the resources to innovate alone. However, unless an effective incentive system is in place to encourage linkages, firms are likely to remain isolated from knowledge agents.

- **About linking all the elements**. An effective clsuering approach inks the separate elements of an innovation system, aligns the private and public sectors, and facilitates a whole-of-government approach at a local level in support of local clusters.

Developing a Cluster

The origins of each cluster differ, and each will take its own path, but there are a number of common elements in their development. It is these common elements that we refer to in this manual. **Clusters start naturally, but the development of clusters does not need to be left to chance.**

The process outlined here identifies the constraints and opportunities that would benefit from being addressed collaboratively, and how to then get the cluster into *action*.

The aim is not to produce a strategic plan prepared by outside consultants with little ownership by the cluster stakeholders. The clustering process is organic, and driven from within. It doesn't follow the normal pattern of analysis $\rightarrow$ strategy $\rightarrow$ and recommendations. It is much more dynamic.

Initial analysis is necessary, but only to guide action. Well-informed cluster stakeholders have sufficient knowledge to select the initial issues. They live and breathe the industry. Over time, the issues evolve to reflect changing circumstances. At a later stage there is value in undertaking a more diligent strategic review.

The cluster development process needs to be fine-tuned for each cluster. The history of collaboration in that region, how different the products or services are, and the structure of the cluster will all influence the development path. What works for one cluster may be inappropriate for another: each cluster will have its own opportunities, roadblocks, traditions and culture. Some clusters can quickly move into substantive development initiatives, others take time to develop the necessary trust.

The following **eight stage process** for local clusters building is based on Cluster Navigators' experiences in New Zealand and internationally, and best practices from around the world.

Core Companies

Support Businesses

Soft Infrastructure

Hard Infrastructure
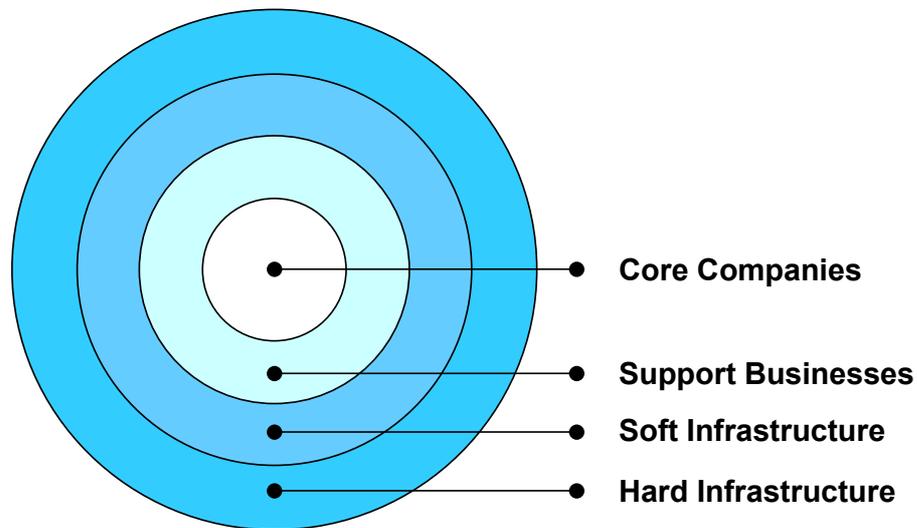
Step 1.   Analyse Local Economy

Identify the embryonic and the more developed local clusters and prioritise which ones to initially concentrate on.

Step 2.   Initial Cluster Stocktake

Gather information about the cluster in the local economy.

Step 3.   Establish the Leadership Team

Carefully choose the appropriate people to participate in the leadership group

Step 4.   **Develop Cluster Vision**

Establish the preferred future for the cluster.

Step 5.   Identify Stepping Stones

Identify the key steps to the preferred future.

Step 6.   Immediate Action Agenda

Highlight the short-term projects.

Step 7.   Institutionalise the Cluster

Set up an institution/organisation which will sustain the clustering process into the future.

Step 8.   Upgrading the Strategic Agenda

Move to longer-term, more substantive projects.

Each of these stages is outlined in the section that follows, with particular emphasis on the role of the cluster facilitator, who is usually employed by the local EDA.

A number of the clustering initiatives underway in New Zealand have followed this or a similar process. Others will benefit from using it. We emphasise, however, that a clustering process can only build on what is happening naturally within a locality. This process cannot kick-start a cluster.

Step 1 : Analyse the local economy

The objective of this initial analysis is to firstly identify the clusters that are drawing wealth into the local economy, and secondly, to prioritise these for attention. The clusters may be embryonic, at an early stage of development, or more mature and substantive within the locality. The focus needs to be on the driver clusters within the community that are already serving 'export' customers, be they tourists from a neighbouring community or overseas customers [2].

It is usually not difficult to identify the clusters within a locality, using one of two approaches, or preferably a combination of each.

A **top-down approach** based on available statistics is used in many countries. Location quotients will identify local concentrations of economic activity, relative to other New Zealand localities. These could indicate, for example, that while 10 % of all firms (or a category of skills) are located in a region, 50% of firms in the electronics sector are located in the region, giving a very strong location quotient of 5, ie five times the expected average.

A **bottom-up approach**, through individual and group discussions, will uncover other clusters, and help in understanding the core competencies of a cluster that is identified through the top-down approach. 'Cluster Musters', initial cluster workshops pulling together more than 100 people from across the community, have been successfully used to identify local clusters. A discussion around an Economic Development Agency's board table, with local bank managers, journalists, freight companies and others would also highlight local concentrations of activity.

- This bottom-up approach is particularly useful in highlighting niche clusters that would not be picked up by any published statistics, such as organic foods, and service clusters such as retirement or seismic engineering.

The bottom-up approach also serves to more clearly define the activity within the cluster. Tight definitions are much more valuable than broad classifications, such as highlighting 'furniture' rather than the broader 'timber processing'; 'outdoor apparel' rather than 'light manufacturing'; 'daffodil bulbs' rather than 'horticulture'; 'rural telephony equipment' rather than 'electronics'; 'adventure tourism' rather than 'tourism'; 'oil and gas engineering' rather than 'heavy engineering'. The short listed clusters that emerge from the top-down and the bottom-up review should:

- Already be generating 'export' income for your locality

- Already have a range of firms with some linkages between them. (A large branch plant or a meat works does not constitute a cluster)

- Already be a major contributor to the local economy, or have a clear opportunity to make a substantial impact

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[2] In any community a number of clusters –in such areas as retail, vehicle servicing and construction – will predominantly be serving local customers and will grow largely as a result of the driver clusters.

- Have appeal for the initial funders.

The clusters that emerge from this process will not be equal in importance. A selection process may be needed to **shortlist those for immediate action**.

Criteria for prioritising clusters:

- should relate to the size of the opportunity (current exports, and possible growth; current and potential employment; number of firms

- the infrastructure currently in place (specialised education / training facilities, a neighbouring CRI, specialised physical infrastructure)

- the current culture of the cluster (degree of interaction / networking between firms; the motivation cluster stakeholders have to move forward; the availability of potential private sector leaders; the current existence of effective associations).

To be most effective, the cluster process should work on a **portfolio of clustering initiatives. This will** encourage positive competition between cluster groups, and provide the opportunity to pick up on and address cross-cluster issues.

Deciding on Boundaries

Clusters may cover only a part of a local government region, or traverse two or more regions. The **cluster boundaries** need to be carefully considered, with each cluster having a unique 'catchment area'. Some clusters will have a broad coverage; others will have a very local focus. Primary-based clusters and tourism clusters will tend to have wider boundaries than manufacturing or other service-based clusters.

Local council boundaries are irrelevant when establishing the commercial boundaries of a cluster. Cluster boundaries are driven by today's commercial factors, not yesterday's political decisions. The cluster region needs to be small enough to feel like a community, yet large enough to have enough critical mass to address key issues. Factors to consider, and they may be in conflict with each other, are:

- How do customers view the region?

- What is the physical distance between the participants in the cluster? A drive of an hour, possibly less, may set the boundary. This can be the limit for frequent face-to-face communications; further than this and participants could have difficulty meeting formally, or informally, on a regular basis.

- No 'one-size' will fit all local clusters; a multimedia cluster will have a much more compact arena than an extensive forestry cluster.

- Establish the necessary critical mass to enable the key issues to be adequately addressed: eg for a tourism cluster, having an adequate promotion budget.

- Boundaries are flexible – as clusters evolve, boundaries will also evolve. The boundaries will also evolve as the focus of the clustering initiative tightens, for example from 'horticulture' to 'organics'.

- Some initiatives may benefit from linkages with neighbouring clusters; others are likely to be in competition. As with firms, clusters benefit from both cooperation and competition.
  - *The South Auckland processed food cluster is centred on Manukau City, but extends to neighbouring council areas*
  - *Wellington clustering initiatives offer benefits to the five council areas*
  - *The Southland regional forestry cluster involves Dunedin, Balclutha and Southland.*

The strategic planning component of New Zealand Trade and Enterprise's Regional partnership programme can cover this aspect on a regional basis. Contact New Zealand Trade and Enterprise for more information on this.

Step 2 : Initial cluster stocktake

With the possibilities for a pro-active clustering approach identified and shortlisted, the next step is to undertake an initial review of the priority clusters. The purpose of this stocktake is twofold:

❑ to identify the dimensions and nature of the local cluster and its place in the local economy

❑ to introduce the clustering process to the key stakeholders, securing their ongoing involvement in the process.

There is no substitute for an Economic Development Agency rolling up its sleeves and personally engaging with the cluster participants, forming the beginning of a long-term relationship. This key step in the cluster development process should not be delegated or contracted out. The knowledge and contacts gained during this review process are central to the role of an effective development agency.

Where possible, build on existing associations and teamwork that is already in place. Effective clustering is an inclusive process, and existing associations and their officials may well feel threatened by interest and activity in what they may perceive as 'their turf'.

In addition to reviewing the published information, get more detailed and recent information from the senior stakeholders within the local cluster. The focus of these interviews should be on identifying common roadblocks and opportunities. For reasons of confidentiality these will not always surface in a workshop setting.

Undertaking a series of **interviews with key stakeholders** in the local cluster will enable the EDA to:

• understand the cluster's opportunities and constraints;

• assess the quality of linkages across the cluster and the extent to which the local players are working as a team

• make an assessment of possible leaders

• introduce the cluster concept to sceptics.

Based on the initial research and interviews, the facilitator needs to prepare a **brief discussion paper** on the key features of the cluster and the likely issues that will arise. This is a public document, and should be made available to everyone with an interest in the cluster.

The process outlined here may suggest that this second stage in the cluster development process is distinct from the next stage: the establishment of the Leadership Group. In practice, this is often not the case. Where leaders can be clearly identified, get their involvement and support from the very start of this process. In no way should the clustering process suggest that their authority is being undermined. The development of the Leadership Group is an ongoing process, and can usefully start while undertaking the initial cluster stocktake.

Step 3 : Establish the Leadership Group

A key step in the establishment of all clustering initiatives is the early formation of a Leadership Group that is specific to the cluster. The facilitator plays a leading role in establishing this Group. It may initially be very informal, but over time will evolve and formalise. The facilitator needs to identify a group of senior stakeholders who collectively cover the broader dimensions of the cluster, and convince them of the merits of participating in the cluster. It is not always easy to get the key movers and shakers involved during the early stages. They may well be sitting on the fence watching sceptically to see if this particular initiative will take off or flounder. Senior

people need to feel that there will be a pay-off for their time and involvement. Maintaining this attention is often dependent on generating early benefits for the stakeholders. An early, and simple, measure of the success of a clustering initiative is the willingness of senior participants to front up to the next meeting; an early warning sign is if they delegate, or are 'no-shows'.

The Leadership Group, usually some 6-8 people who are comfortable working together, should be predominantly from firms in the cluster core. The group should not be dominated by government representatives or association officials. It does not need to be in place straight away. The facilitator will usually be responsible for forming the initial Leadership Group and 'anointing' the Chairperson. A mechanism for electing the Group may be developed later.

Occasionally this Leadership Group may relate closely to an existing association, but more often a new group is required.

Temporary teams with an issue focus will be developed under this Group. These teams benefit from tight integration with the Leadership Group through a Group member being part of each team.

The selection of the Chairperson from amongst the Leadership Group is a crucial aspect of cluster development. The facilitator needs to quietly establish whom the lead candidate for this position is, and make the initial approach. Occasionally, when it is not clear who the initial Chair should be, the facilitator will need to step in and provide this leadership. A useful approach for many clusters is to have Co-Chairs; possible one from a firm at the core, and one from the supporting soft infrastructure.

The facilitator is usually a long-term member of this Group, in part to represent the broader interests of the community, and in part to ensure that the development agenda for the cluster continues to move forward.

Step 4 : Developing the cluster's vision

The initial stocktake will have established the current position of the cluster. Building on this is the establishment of a vision, a preferred future, for the cluster. If there is not agreement on the broad shape of this preferred future from across the cluster, then it will be even more difficult to subsequently gain agreement on the early action agenda to start moving the cluster towards this preferred future.

The facilitator needs to balance the need for a vision against the possible reluctance to create one. This is one of the most difficult aspects of the process, and it is not unusual to find only limited enthusiasm to participate in this discussion. Broad, high-level agreement is sought, not a detailed picture of the future.

A 'starter' vision for a cluster could be "*To double the cluster's scale of activity within five years*". Appropriate measures of activity for a cluster could be exports, employment, number of core firms, or the number of visitors.

It is likely over time that the vision will become more focussed and more specific as the nature of the cluster's competitive arena and the opportunities available to cluster members are better understood.

❑ *Horowhenua Organic Cluster vision: 'In five years time Horowhenua will have a sustainable and profitable organic industry, producing branded organic products and promoting the district co-operatively as an Organic Center of Excellence'.*

Step 5 : Identify stepping stones

After the "preferred future" or vision has been established the cluster stakeholders need to identify what broad steps are necessary to make it happen to deliver on the vision.

It is critically important to achieve a common understanding across the cluster on the key issues that need to be addressed. Identifying these issues through a workshop process is more powerful than having an 'independent review', and creates an environment that encourages those with passion for an issue to step forward in the next stage. The prioritisation of these stepping stones should be by passion, rather than strategic impact: if no one within the cluster has the passion to address an issue or opportunity, then it simply remains on a 'to-do' list owned by no one.

Once the Leadership Group is firmly in place, it will be valuable to review more diligently the initial strategic agenda that develops through the workshop process.

Step 6: Immediate action agenda

With the key stepping stones now identified, there is the need to move on from the broader, long-term agenda to identifying the short term actions that will start moving the cluster towards the preferred future.

The objective of this step is to start developing an action agenda for each of the short listed issues. This involves

- ❑ outlining the activity
- ❑ defining the expected results
- ❑ identifying the resources that are needed
- ❑ identifying who from within the cluster has the specialised skills/contacts/knowledge needed and could be encouraged to participate in driving particular projects.

This action agenda is not producing a 'wish list', in the hope that others will move on the priority activities.

Task forces work best if they select themselves. Occasionally the facilitator will need to be proactive in encouraging people to step forward. Each task force should have a leader and other supporting members, and if possible include a member of the Leadership Group. The term 'task force' is preferred over 'committees'; the task forces should be viewed as self-destruct teams that are dismantled as soon as objectives are realised.

Step 7 : Institutionalisation

Many cluster initiatives are initiated by EDAs, but over time move to a different home. To be effective in the long term, the cluster process needs a permanent organisation before the initial enthusiasm fades away. Often, a new organisation is created and formalised. The process can take 12- 24 months, but occasionally this occurs much more quickly over a few months. The ideal end point is a self-funding organisation with the Facilitator continuing as an active member of the Leadership Group.

This new 'meso' organisation will likely serve a smaller geographic area than existing professional/trade organisations, and cover a broader range of organisations within that locality, reflecting the wide range of participants from across the cluster.

Step 8 : Upgrading the strategic agenda

Once a Leadership Team is firmly in place, momentum has been established and some early benefits generated for the cluster participants, there is a base in place for upgrading the strategic agenda. Longer term / higher risk activities can now be undertaken without threatening the clustering initiative.

These could include:

- benchmarking the cluster against Australian and international clusters

- identifying capability gaps

- developing a collaborative action agenda to address these

- increasing awareness amongst schools of the career options within the cluster and developing school-business linkages

- developing the cluster's identity, the brand, which may well support a number of clusters

- joint initiatives with neighbouring and related clusters.

Take the opportunity, too, to extend the number of people directly involved in cluster initiatives. With larger organisations, the time may be right to build on the CEO's involvement in the first year and include second level managers - tomorrow's leaders – as the drivers of specific cluster programmes.

When there are a number of clusters under development, each with a portfolio of initiatives, it is time to establish a mechanism to address the cross-cluster issues and opportunities that should by this stage have surfaced. Some of these aspects may be at the convergence of two or three of the clusters; others may well be more systemic and overarching within the community. They may, for example, relate to the level of services offered at the local airport, to the upgrading of secondary and tertiary education facilities, or the development of a regional branding programme.

Establishing an Economic Development Forum, drawing together the Chairs of each of the cluster Leadership Groups, can provide a useful vehicle for addressing these broader issues. Such a Forum could over time evolve into being the Board of the local Economic Development Agency.

An annual 'town hall' public meeting is useful in publicly highlighting the cluster programme, and renewing the enthusiasm and commitment of the Leadership Groups. Such meetings should feature the business leaders from within the cluster, not the cluster facilitator or local politicians.

> ❑ *The 'Love Marlborough' brand supports tourism, wine, seafood and other food products*

5. Best practices

- **Draw in the Movers and Shakers early on**

Clustering is a team activity, not a solo effort. It is vulnerable if dominated by an elite few. A clustering process is not a closed shop - attracting new people into the process is important in developing a collaborative approach. It can also deepen the pool from which new leaders, with energy, vision, local contacts, and the ability to pull in additional resources, can emerge.

- **Share the workload**

There is a danger of a cluster simply repackaging the tried and tested approaches, and being driven by the same tight group of 'silvers'. **Share the workload**

A clustering initiative is a collaborative, team-driven strategy. If the key initiatives are developed and agreed to by the Leadership Group, it is much easier to obtain their energy and enthusiasm in driving those initiatives forward.

With many New Zealand initiatives, the workload is still being largely carried by the EDA, sometimes with the active involvement of the Chairperson. With this comes the danger not only of volunteer burnout, but also of a limited number of initiatives being addressed rather than a broad portfolio., That loses the opportunity of having different participants from across the cluster work collaboratively (often for the first time) on the development of specific initiatives.

- **Local structures for local clusters**

Clusters are predominantly a local activity, and for development initiatives to be sustainable they should be driven by local organisations. Business buy-in to the local structure is essential. Two types of structures have evolved in New Zealand to accommodate local economic development:

- An EDA that is one step removed from local councils, funded beyond 12 months, with a private sector culture, and a Board dominated by the private sector but also having local political representation. This Board can be well positioned to provide the coordinating role of an Economic Development Forum, bringing together the Chairs of the local cluster groups. An EDA type structure can where necessary cross over local political boundaries, and give flexibility for salary structures.

- A TLA-managed initiative. This can provide security of council funding, staffing stability, enable a whole of council approach and provide prestige in Asian markets.

With either structure, the availability of small scale kick-start project funding, with low administrative hurdles, will speed up new and existing clustering initiatives.

- ❏ P*ort of Napier and PanPac Forest Products jointly fund a one-day-a week secretariat for Hawke's Bays Forestry, Timber Processing and Furniture Manufacturing Cluster. The cluster programme is driven by Vision 2020, a joint venture EDA between the Hastings and Napier Councils.*

- ❏ *Manukau City Council have a system of external private sector committees to guide their economic development activities.*

- **Early political support helps**

Participation by the EDA Chair and the mayor can assist the early stages of a clustering initiative, in demonstrating support and convincing cluster stakeholders to emerge.

> ❑ *The Wellington cluster programme started with the Mayor's participation, with four other Wellington mayors, at a breakfast briefing with an international clustering expert, Prof Mike Enright, organised by TradeNZ.*

- **Private sector leadership must follow**

Leadership needs to move as soon as possible from the initial politicians, through the Cluster Facilitator, to the private sector. Clustering should not be positioned as a 'government initiative'. Well-respected business leaders need to visibly take charge as soon as possible.

A number of New Zealand clustering programmes are driven by EDA professionals, with limited input or participation by the private sector, and no empowerment by the neutral EDA to enable senior private sector leaders to take responsibility for specific initiatives. As a result, engagement within the cluster is on few fronts: the EDA simply does not have the resources to simultaneously undertake a broad portfolio of initiatives. Further, the EDA is not using its neutral corner to bring cluster stakeholders together, and is not providing forums that facilitate the establishment of formal and informal networks amongst cluster stakeholders.

- **Cluster facilitation…not analysis**

A key role in stimulating the development of clusters is the availability of a neutral cluster facilitator. As the eight stage process identified, what is needed is a relationship builder within a community, not a researcher / analyst.

Yet a number of the 'Cluster Managers' currently on the staff of EDAs are not comfortable in taking on this high-level facilitation / relationship building role. They are more secure in a traditional back-room analyst / meeting organiser role sending out mail questionnaires, minute taking, and responding to the information needs of potential investors.

A temporary, but unsatisfactory, option for EDA managers who lack confidence in undertaking this facilitation role is to contract out in full the initiation of clusters to consultants. While the use of experienced cluster facilitators can accelerate the start up process, a downside to this is that the EDA can miss out on the opportunity of getting to know the key cluster stakeholders. Consultants should be used as coaches, and facilitators in early workshops, rather than prime drivers of clustering programmes.

An important pay-off from the EDA having in-depth knowledge of local firms is being able to link firms with common agendas such as an interest in exporting to Japan, developing a new form of packaging, or needing particular skills or equipment that could be available within the cluster.

Clustering and networking are currently hot topics within academia, and there is considerable interest internationally in this new form of economic development. While it may be useful for a short-staffed EDA to make use of 'free' consultancy-type services offered by academics, this needs to be balanced with the early need by a cluster group to engage in action. It is also important to ensure that cluster workshops do not have an over representation of academics coming to study rather than contribute.

- **Find the low hanging fruit**

It is not difficult, using a workshop process, to get early agreement on priorities for action. Some New Zealand initiatives are vulnerable, as months into the 'clustering programme' all that has been achieved is research, analysis, meetings, yet more

meetings, and reports. Private sector participants, especially SMEs, are likely to drift away from such programmes.

Early initiatives are needed, that generate early results. These need not be substantive initiatives-these can develop as trust and engagement build.

- **Move early into action**

A clustering initiative needs to be action orientated, holding the commitment of stakeholders through generating early benefits. Aim initially for small modest benefits, (the low hanging fruit) focussing on aspects that offer early, low-risk results, without substantial effort. For example, developing a web site with interactive links to local firms is a lower risk strategy than developing a cluster branding programme underpinned by a quality accreditation process.

It is not always easy to maintain momentum with initiatives. As well as breaking the task down to bite-sized pieces, the EDA will need to use its neutral corner to empower and motivate participants to take responsibility.

The key stakeholders in a cluster are the firms at its core. A cluster programme needs to win their support early on. Some existing cluster programmes are in danger of being driven more by short term political agendas, with a media/election focus, rather than the perspective of participating firms. This is particularly so where the cluster facilitator is a council employee.

- **Build for the long term**

Most clustering initiatives are presently funded by Economic Development Agencies and Territorial Local Authority processes, some of which are not conducive to the need for a sustainable effort.

Building the trust required for effective collaboration takes time. Benefits only tend to come 6-24 months into the process. Yet many sponsors of local clustering initiatives want short term, immediate pay-offs.

- New political leadership may force the introduction of new economic development initiatives before clustering benefits emerge

- Central government agencies may introduce new, well-funded initiatives that divert EDA attention from more fundamental but longer term activities.

Focussing on meeting the needs of the firms at the core of the cluster should be the priority.

- **Build a cluster portfolio**

No local economy in New Zealand is completely dependent on just one or two clusters for growth and job creation.

Develop a portfolio of clusters at the same time. Resource limitations may limit this, identify priorities.

Competition and rivalry between Leadership Groups are positive, as long as they don't become destructive. Working simultaneously on multiple fronts enables cross-cluster issues to be addressed. A senior Economic Development Forum can provide the vehicle for this.

Within each cluster, there needs to be a portfolio of initiatives underway early, generating benefits for a large number of cluster stakeholders, and ensuring that not all eggs are held in one basket. Not all initiatives will bear fruit; the initial focus needs to be on low risk/early return initiatives. Larger, longer-term projects are better introduced after the cluster group has achieved some positive results.

❑ *The seafood cluster is one of Nelson's economic drivers, accounting for 25% of local employment. A Seafood Cluster Group was established with Trade NZ's encouragement in the early 90ss. The sole initiative of the cluster group was to move the Greta Point Wellington CRI facilities across to Nelson. When this hit insurmountable obstacles, the clustering initiative waned.*

Both High-tech and Low-tech

A knowledge-driven economy is not restricted to a few glamorous clusters, but a basket of them, with varying degrees of technology intensity. Innovation needs to be fostered across the whole technology spectrum; the focus should not be restricted to a few hi-tech firms in emerging clusters. High performance apparel, furniture, or processed foods clusters are as much hi-tech as IT or electronics.

Politicians may see clustering initiatives as only being applicable to high-tech activities. If no high-tech clusters exist within a community, political leaders may even command that they be created. Such wishful thinking drains EDA energy away from the life blood of the community: the developed and the embryonic clusters that are already present.

- **Cluster boundaries**

  1. **Market focus**

If the cluster boundary is taken too broadly, as 'light manufacturing' rather than 'processed foods', for example, then the initiatives that emerge are likely to be too generic to have much impact. There will be only limited commonality, and the lowest common denominators will make little impact on bottom lines.

It is important to focus on what has meaning for the cluster stakeholders. This will probably evolve over time, *Horowhenua's early proposal to work with the large and diverse local horticultural industry failed to find adequate common ground. A more specific initiative in post harvest handling had only a handful of participants. More recently an Organics Cluster Group has emerged, with 15-20 growers, with a strong interest in joint marketing.*

❑ *In Southland the "Crops of Southland" initiative has evolved into a peony group, a bulbs group etc.*

❑ *In Wellington the initial IT clustering initiative has evolved into an e-business cluster and a creative content cluster.*

  2. **Geographic focus**

The geographic boundaries of a cluster do not often coincide with political boundaries. Many clusters extend over local government boundaries, others cover only a corner of a TLA. These different boundaries are of no interest to participating businesses, or international customers. The different boundaries only matter when the cluster requires significant involvement from two or more local governments. In a number of New Zealand regions, the economic development professionals see value with cross-border cooperation, but their political masters less so.

❑ *The activity within Wellington's film cluster covers at least five local government regions, demanding a regional response.*

- **Use a neutral corner**

1. To remove grid lock

There is often grudging reference within a locality to the number of plans that were developed with little action, and wish lists left sitting on the table. The deadlock can be

broken under the auspices of a clustering initiative, with neutral facilitators who are able to provide a forum for open dialogue and action. Using facilitators from beyond your community may be of value, particularly in the early stages. However, this is not a substitute for the EDA doing the groundwork within their community, and knowing well the key cluster stakeholders.

2. To move tacit information

Tacit knowledge, unlike codified knowledge, cannot be easily transferred because it is not explicit. When knowledge is changing rapidly, as in new and emerging industries, interaction is vital. Frequent and repeated contact is best.

Easy switching between jobs, both amongst firms and between firms and technology providers, helps tacit knowledge to be passed on. So do cluster breakfast meetings, training courses that are cluster specific, site visits, and joint participation in missions / trade fairs.

- **Develop Trust**

Social networks both formal and informal, are vital for high performing clusters **to work**. From these linkages trust and dialogue develop.

Many New Zealand clusters have too few linkages. Proactive clustering helps build the interactions necessary for a high performing cluster, moving the cluster on from being a 'clump' of firms which happen to be geographically close to a densely networked system.

Arrange site visits for cluster stakeholders to build trust. All too often the premises of other companies are seen as being 'out-of-bounds'.

  o *Dunedin biotech cluster: Regular opportunities for soft networking are meeting the current needs of the cluster participants. There is scope for further development when the cluster stakeholders are ready*

  o *Manukau distribution cluster: Collaboration was kick-started by the council offering a specialised briefing to local firms on future transport infrastructure developments. This provided the initial catalyst for the group, which has since moved on to having a part time facilitator.*

- **Bring additional resources to the table**

In the early stages additional recources are important to gaining private sector attention This could include funding from government agencies, public utilities, funding/allocation of resources from private sector organisations, or the early development of training programmes by the local polytechnic to support the cluster.

A successful clustering process enables groups of businesses, such as small businesses, artist and craftspeople, to build the necessary critical mass to jointly access resources. The cluster facilitator needs to be aware of the external resources (eg from New Zealand Trade and Enterprise, Tech NZ, Creative NZ, CEG, private foundations) that can help move forward the local agenda.

- **Broaden the cluster's $ base**

A number of EDAs partly fund their clustering initiatives through an annual 'membership' fee, often around $150 pa, at times scaled up or down according to company size, is typical. Such a fee structure is particularly common amongst the more commercial clusters or cluster consortiums.

A number of councils have equity investments in port companies, and have encouraged them to support the local EDA. Telcos, power utilities and large corporates

within the community are also valuable financial contributors to EDA cluster programmes.

A word of caution: a clustering programme can lose momentum if support firms, such as local printers and real estate agents come to dominate cluster meetings, even though they bring financial support.

- **Universities and Polytechnics: key local players**

Tertiary institutions internationally are emerging from a narrow role as learning institutions, to a broader role serving as technology generators, and generators of new companies. In the US it is often community colleges – the equivalent of polytechnics – that are filling local vacuums by providing the training and social hubs of local cluster. They are offering specialised training for SMEs, building alumni networks, providing technology transfer, and also acting as the neutral catalyst in bringing the diverse stakeholders in a local cluster together to establish areas of collaborative engagement. Germany's Fachschule provide a similar role. We have yet to see a similar pro-active role develop widely in New Zealand.

- **Cluster Benchmarking – Opening Eyes**

Informal or more formal benchmarking provides a learning opportunity and helps build team spirit.

The benchmark location needs to be carefully chosen. Comparing an embryonic film cluster against Hollywood may offer only limited learning; the Toronto or Vancouver film clusters could offer more relevant experience. A simple form of benchmarking is to invite speakers from a related cluster to address local meetings.

❑ *Venture Taranaki invited a leader from Nelson's Arts Marketing Network to address their embryonic arts & crafts cluster.*

❑ *In South Africa, a useful fact-finding visit was made by senior tourism representatives from their Sunshine Coast to Queensland's more developed Sunshine Coast.*

- **Find new data**

New information and analysis can provide the healthy key to questioning current assumptions, and resetting direction. Sometimes participants in a cluster have myopic views of international trends and emerging competitors. A well researched and presented 'data shock' can galvanise the necessary action.

- **Provide a focus for attracting investment**

Clusters provide an environment that attracts specialised investments, which then further enhance the location. The availability of technical skills, support firms and training organisations nearby, all help to attract new investment. Good availability of people is important for attracting a headquarters or R&D facility as is. The proximity of a research university.

Within New Zealand, most EDAs now concentrate on sustainable SME growth, rather than hoping for a windfall offshore investment. The attraction of investment then

becomes in part an infill strategy; identifying the gaps within the clusters that can be filled through inward investment.

- **Tourism development**

Many regions of New Zealand, tourism development is handled by a stand-alone agency. For many Councils, it is acceptable to fund the local tourism cluster, but supporting other clusters is viewed as 'picking winners'. In one South Island community where tourism accounted for 1.5% of local employment, tourism until recently attracted 70% of the local council's combined economic development and tourism promotion budget.

Tourism development budgets are spent almost entirely promotion, not the development of capability, capacity development, or the development of visitor attractions. Tourism is an integral component of local economic development, and linkages between tourism and related activities, such as wine tourism and cultural tourism, need to be the rule not the exception. An Economic Development Forum needs to include tourism.

- **Build media coverage**

A clustering initiative needs broad community involvement, and the media is a key means of securing this. One person amongst the cluster's Leadership Group should have responsibility for maintaining media contact.

As part of a pro-active media campaign, a newsletter primarily aimed at cluster members can usefully be distributed to both the local and national media.

- **When do I walk away?**

At times a clustering initiative simply fails to fire. Maybe the benefits are too marginal to maintain the interest of the senior stakeholders, or lack of trust is too much to overcome or, priorities need redefining. When movement forward is difficult, it may be better to either exit gracefully, leaving the door open for a future re-start, or to scale-down the level of resources committed to the cluster. A total walk-away can severely damage even the embryonic trust that may have started to develop between cluster participants.

Exiting from a clustering initiative is never easy; but may be the key to reinvigorating the group. Information on successful clustering initiatives elsewhere may be sufficient to pull the group back together later on.

> ❑ *Horowhenua's initiative to support the local engineering cluster died. No early common ground was identified amongst a diverse group of competing businesses, there was little trust between them, and the businesses saw insufficient short term pay-off for their involvement in a cluster.*

6. The pay-offs

Marketing

❑ *The Natural Hazards cluster in Wellington has a number of companies who are not yet export-ready, but through cluster membership they have been able tender as sub contractors for international business, which would have been out of their reach without the support of the cluster.*

❑ *Wellington's creative content cluster has been active in joint promotion internationally, reached the shortlist for the design of the entire visitor experience at Singapore's national Museum and has won an $200,000 project in France;*

❑ *Taranaki Engineering Consortium: is aggressively tendering for offshore work, knowing that cluster participants can collectively guarantee tight delivery. As trust and knowledge of each others skills develop, the cluster participants are starting to use each other's specialised facilities.*

❑ *Wellington's Earthquake Engineering cluster has, over the last three years, brought together skills from research, design, manufacturing, insurance, education and other fields to target offshore work that would not otherwise come New Zealand's way. MFAT have supported a Masters of Earthquake Engineering course to be taught by New Zealanders in the Philippines and design work for a base-isolated hospital in India. The Group has also undertaken reconnaissance visits to Turkey and Taiwan.*

❑ *Nelson Arts Marketing Network produces The Nelson Regional Arts Guidebook, now in its 4th edition. It has become a major marketing tool for visitors, and provides an income to support the cluster's activities.*

❑ *Southland classic cars cluster joined forces with the local EDA to bring a group of journalists to Invercargill. The initial investment was $700 per company but it achieved immediate order bookings for each company. As a side benefit, specialisation is starting to emerge, with some of the companies drawing on the specialised skills of others.*

Purchasing

❑ *Bay of Plenty Food cluster initially focused on cost reduction. An expense reduction consultant was engaged, with half of the initial savings going to the Food Group. Purchasing discounts for items ranging from gum boots to electricity have been negotiated. The group is now largely self-funding; the costs of the one day a week secretariat are covered by membership fees, and the EDA provides office space, meeting rooms and phone. Two years ago there were less than 20 participating firms, today there are 40 firms.*

Training and upskilling

- *Southland Apparel: a group of Southland apparel manufacturers did not have enough trained operators to participate in a large tender. Five companies met under the auspices of the local EDA and developed and funded a course with the Southland Polytechnic designed to retrain people who had left the apparel industry. Now the Polytech has adapted the course and it has a stream of graduates entering the workforce. Each company employing a graduate pays a levy to fund ongoing development.*

- *Whakatane sports fishing cluster used the EDA, who are also the local BIZ provider, to fund a marketing course for the 18 boat owners. Many of the participants did not know each other prior to the EDA's initiative.*

- *Dunedin engineering cluster: overcame competitive suspicions within the cluster when WINZ held a workshop on the shortage of apprentices.*

- *Taranaki Engineering Consortium is working as a team to coordinate a modern engineering apprenticeship scheme*

7. Role of Government

Setting the scene

A recent report for OECD governments on clustering and networking usefully sets the scene. This report highlighted the following: [3]:

1. Facilitate the establishment of **local partnerships** involving private actors, non-government organisations and different levels and sectors of the public administration to arrive at agreements on individual responsibilities (for example in co-locating complementary public investments with related concentrations of private investment);

2. Let the private sector lead in cluster-development initiatives, with **the public sector playing a catalytic role.** Cluster initiatives can serve as a test of the quality of government policies and programmes in serving private sector development.

3. **Match initiatives to the most suitable level of government**. This is ideally one that corresponds to the geographic scope of the relevant cluster. Governments with larger geographic remits often are unable to focus sufficiently on the needs of local clusters. Conversely, jurisdictions that are smaller than the geographic scope of the cluster are unlikely to be able to take the integrated view that cluster development requires. The 'right' level of government should have substantial influence over relevant programmes and expenditures.

4. Some **prioritisation among clusters** is generally necessary due to limited resources. There may also be benefits to working with a portfolio of clusters.

5. Facilitate **networking among firms** and between groups of firms and public authorities, in order to foster mutually beneficial cooperation. National policy should seek to create an institutional setting that favours market-induced network formation.

6. Establish **realistic time frames**: a commitment of 3-4 years is usually required for a significant business development programme.

7. **Some degree of financial support**, in seed finance, feasibility work, start-up activities, and the costs of network brokerage, is to be expected. However, funding should be modest, and should decline as the participants start to engage more formally and obtain benefits.

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[3] OECD, 2000

Best handled at a National Level:

- generic offshore market research

- investment attraction

- access to export markets

- pre-competitive R & D

- establishing national training standards

Best handled at a local level

- allocating resources to support many aspects of local economic development, including education, R & D, and the physical infrastructure.

- development of school – business partnerships

- training programmes with the local polytechnic

- establishing an incubator facility,

- the development of linkages / networks / supply chains between local firms.

Role of local government

- Providing **a neutral corner, a broker, that facilitates the development of clusters**. (See below for detail of this role).

- Developing **local incubation centers**. These incubation centres need to offer more than subsidised real estate for the selected SMEs. A successful incubation centre is able to build the necessary networking, trust and social capital, providing a mix-and-mingle environment for the businesses under its roof. Location on a university campus can work, but still needs government funding to remove isolation.

- Development of the **informal venture capital** market through Business Angel schemes, which place high growth companies in contact with high net worth individuals, particularly from within the local community. **Specialist skills development**, in education, and technology support, with priorities determined in partnership with local clusters.

The role of the cluster facilitator

A key role for government is long-term resourcing of the cluster facilitator. This person is the neutral broker who has responsibility for instigating cluster development programmes, and ensuring that the initiatives continue to be upgraded.

The facilitator needs to have:

- the personal skills to motivate and empower senior cluster stakeholders

- the ability to build long term relationships, and to motivate when the going gets hard

- close working knowledge of the activities represented by senior stakeholders

- knowledge of the clustering process, and of the resources available to support clustering initiatives

- credibility and integrity.

- the flexibility to participate in many meetings that will be beyond normal working hours.

In the following section a formal position objective is given for a cluster facilitator, the key accountabilities defined, and the position requirements and key performance indicators identified.

Position objective: Cluster Facilitator	The role of the Cluster Facilitator will be to enhance local economic growth through bringing together businesses in strategic groupings with a focus on developing collaborative engagement at both network and cluster levels. It is expected that Leadership Groups for … clusters will be established and fully functioning by…, and a number of networks established between smaller groups of firms.
	The Cluster Facilitator will facilitate growth of existing firms and the attraction of new companies. The Facilitator will build closer alignment between local firms and their support infrastructure, including government, educational resources and R & D facilities.
	The focus of the position is on generating action through collaboration and partnerships; it is not on research, analysis and report writing.
Key accountabilities : **Identifying opportunities for collaborative engagement**	o Identify clustering and networking opportunities across the region. o Facilitate broad, inclusive dialogue with stakeholders, community, private enterprise and government.
Key result areas	• Stimulate business expansion, re-location or innovation around the clusters, particularly enhance the capabilities of the clusters to attract wealth to the community. • Establish private sector-led Leadership Groups for each cluster, appoint initial Chairpersons, with pro-active support to these groups and their Task Forces. • Facilitate the development of a portfolio of initiatives for each cluster, with early action. • Link the Cluster Chairpersons though the establishment of an Economic Development Forum, able to address the cross-cluster issues and opportunities facing the community. • Facilitate small group and cluster wide workshops; make presentations utilising multi-media tools. • Liaise with external consultants and manage the service delivery and evaluation of these activities. • Provide assistance in researching databases and collating information. • Provide information to other agencies as required.

	• Monitor the budget and expenditure of the Project.
External & Internal Communication	• Display initiative, strict confidentiality and responsibility in the performance of work. • Contribute to effective communication and liaison across the organisation including reporting to the Council stakeholders. • Use a professional and diplomatic approach to communicating and interacting with external clients, government agencies and business representatives. • Creatively use the local media as a partner.
Selection criteria	• Senior level experience in a relevant field: business, finance, tourism, marketing or communications. • A knowledge of collaborative processes and concepts either gained as specific work experiences or gained within a broader role in economic or community development. • Affinity for, or knowledge of, the local business community • Demonstrated ability to interact with external clients, business groups, entrepreneurs and government agencies. • Ability to interact with the owners of small businesses, and at all levels in a large organisation, including with Councillors, to earn their confidence and to communicate professionally, confidentially and tactfully with colleagues and management. • Highly developed and oral communication skills and a proven record in making public presentations to win support and sell ideas. • Ability to contribute effectively in a team environment, accept responsibility and work autonomously. • Proven ability to work in a pressured environment whilst exercising initiative, judgment and enthusiasm. • Proven capacity to be task focussed and to prioritise work to achieve required outcomes in a performance plan.
Key performance indicators:	• Gaining the trust and confidence of stakeholders across each cluster, including the private sector, support organisations and Council. • Establishing Cluster Leadership Groups, Cluster Task Forces, and the Economic Development Forum; ensuring through the delivery of benefits the continuing participation of senior cluster stakeholders • The scale of resources that are attracted to support clustering initiatives, in cash and kind, from the private sector, local council, New Zealand Trade and Enterprise and other agencies. • Identifying the collaborative partnerships that have been formed as a result of the Cluster Facilitator's activities, and the impact these partnerships are having on the local economy. These would include business networks that have generated new jobs / export earnings; new investments; cluster specific initiatives, and cross-cluster initiatives.

Appendices

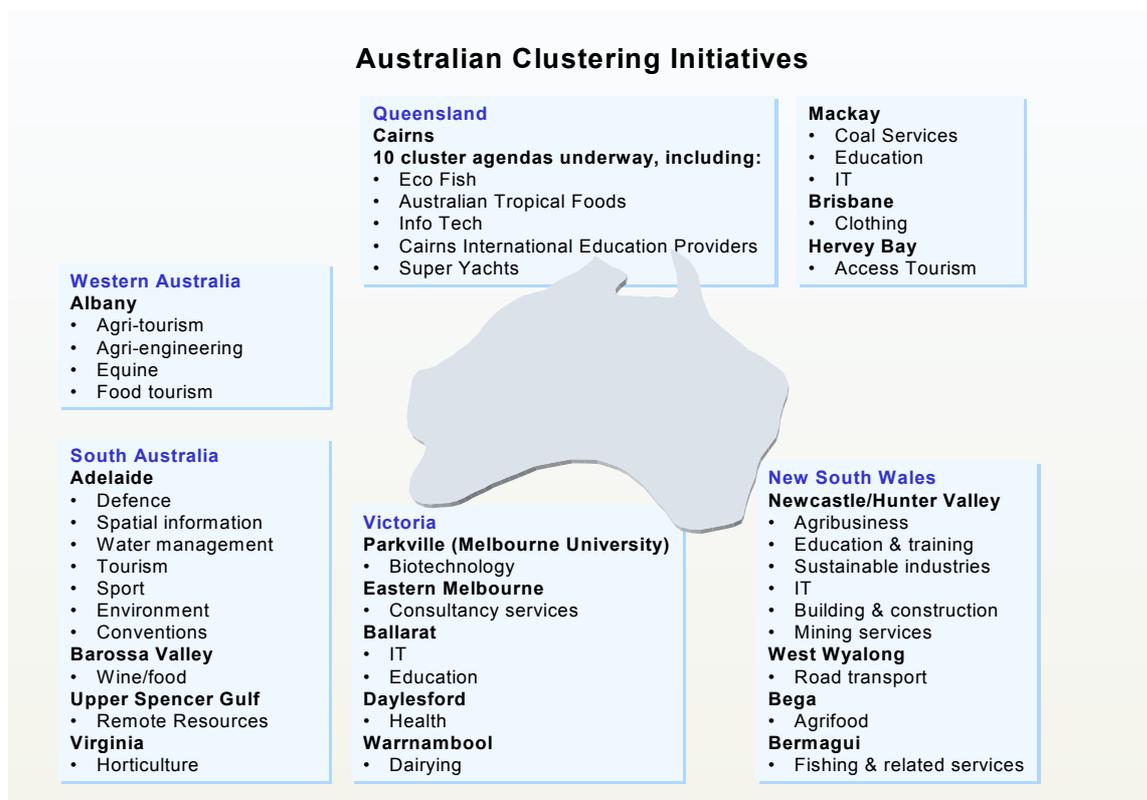## *Appendix A: International clustering initiatives*

Clustering is the **primary driver** for economic development in many locations. OECD estimate 35 countries now have cluster development initiatives underway. These include:

Argentina; Australia (see below); Belgium; Canada; Chile; Columbia; Costa Rica; Denmark; El Salvador; England; France; Finland; Germany; Georgia; Guatemala; India; Ireland; Italy; Jordan; Mexico; Morocco; Mauritius; Netherlands; Nicaragua; Norway; Scotland; Slovenia; Singapore; Spain; Sweden; South Africa; Trinidad; Sri Lanka; Wales; USA

All of these countries, at different levels of government, are using cluster development as a primary economic driver. Other areas have also used cluster development to focus their regional economic development activities.

Clusters in many of these locations are now seeking to establish international linkages, for example, the super yacht clusters on the Gold Coast and in Mackay, Queensland with Auckland's developing super yacht cluster.

Australia's clustering programme

Australian Clustering Initiatives

Queensland
Cairns
10 cluster agendas underway, including:
- Eco Fish
- Australian Tropical Foods
- Info Tech
- Cairns International Education Providers
- Super Yachts

Mackay
- Coal Services
- Education
- IT

Brisbane
- Clothing

Hervey Bay
- Access Tourism

Western Australia
Albany
- Agri-tourism
- Agri-engineering
- Equine
- Food tourism

South Australia
Adelaide
- Defence
- Spatial information
- Water management
- Tourism
- Sport
- Environment
- Conventions

Barossa Valley
- Wine/food

Upper Spencer Gulf
- Remote Resources

Virginia
- Horticulture

Victoria
Parkville (Melbourne University)
- Biotechnology

Eastern Melbourne
- Consultancy services

Ballarat
- IT
- Education

Daylesford
- Health

Warrnambool
- Dairying

New South Wales
Newcastle/Hunter Valley
- Agribusiness
- Education & training
- Sustainable industries
- IT
- Building & construction
- Mining services

West Wyalong
- Road transport

Bega
- Agrifood

Bermagui
- Fishing & related services

Australia has wide variety of cluster initiatives underway, with financial support provided through Federal, State and Local development agencies. Some of the locations where there are active cluster development programmes underway are identified on the map.

Appendix B: International resources

The Competitiveness Institute, Barcelona

- The Competitiveness Institute is a non-profit organisation, created by a group of economic development professionals and cluster practitioners with the principle aim of collecting and exchanging information and best practices on cluster development initiatives worldwide.
- Most of the regions around the world that are using a clustering approach as the main driver of their development are represented from different backgrounds: regional government officials, private entrepreneurs, academics, cluster facilitators and local economic development professionals.
- Membership: some 120 professionals from 20+ countries
- Established 1997 in Chihuahua, Mexico following a conference organised by The World Bank and Scottish Enterprise
- Holds an annual conference. These have been previously held in Barcelona (Spain), Varese (Italy) Glasgow (Scotland) and will be held in October 2001 in Tucson (Arizona) and in 2002 in Cairns (Queensland)
- The Institute's Advisory Board includes Prof Michael Porter, UNIDO, and Catalonia's Minister for Industry. The Institute's Secretariat is in Barcelona, Spain.
- Directors: Emiliano Dutch (President, Barcelona), Frederick Rickard (VP, UNIDO Vienna) Elizabeth Rocha (Treasurer, Brussels) Mike Enright (University of Hong Kong), Bob Breault (Tuscon, Arizona) and Ifor Ffowcs-Williams (Cluster Navigators, NZ)
- Further information: www.competitivness.org

Clusters Asia Pacific, Canberra

- Clusters Asia Pacific, an affiliate of TCI, provides a hub for a network of organisations with a common interest in developing and sharing knowledge about clusters, and in collaborating with like-minded groups in the Asia Pacific region and beyond. Rod Brown is the Executive Director, based in Canberra.
- Established; 2000
- Directors: Rod Brown (Canberra) Tracy Scott-Rimington (Cairns) Professor Julian Lowe (Ballerat University) Rodin Genoff (South Australia.) Paquita Lamacraft (New Orleans, USA) Ifor Ffowcs-Williams (Cluster Navigators, NZ)
- Further information: Rod Brown   apd@orac.net.au

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Appendix D : Acronyms

EDA   Economic Development Agency

EDANZ   Economic Development Association of New Zealand

RMA   Resource Management Act

SME   Small Medium Enterprise

SIP   Strategic Intervention Point

TLA   Territorial Local Authority

Cluster Navigators Ltd, Wellington

Cluster Navigators are acknowledged internationally as lead practitioners in the field of cluster development.

The company has supported international, national and local government agencies in Africa, the Americas, Australasia and Europe through training workshops and kick-starting local cluster initiatives.

We welcome any comments on this manual: *e4@clusternavigators.com*

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