





Cluster Development The How



1. Introducing a process for **starting** a clustering initiative, or
2. For **renewal, revitalisation** of a current clustering initiative



Cluster development

Drawing on both sides of the brain



<p>Logic</p> <p>Details</p> <p>Safe</p>	<p>Feelings</p> <p>Big picture</p> <p>Risk taking</p>
--	--

Cluster development

Capturing minds ...and hearts



Comprehensive analysis
Systems approach
Data-driven



Create fun
Open relationships
Passion, Team spirit


Clustering ...

... is a proactive process



- To accelerate local economic growth
- Usually initiated by a government agency
- A key role: **the Cluster Facilitator**
- Facilitator initiates the process, establishes alignment, builds teamwork ...

A clustering initiative is.....



...an **organised collaboration** with firms, government and academia within a concentrated geographical area

- cooperating** towards common goals,
- establishing close linkages** and working alliances

...to upgrade competitiveness

Now – Where - How



Source: Mindshop



Step 1 Introducing relevance
Mobilising support around cluster development



- Introducing the relevance of **clusters** to potential funders, usually a public agency
- Obtaining the resources to **proactively engage with priority clusters**
- Much more than an analysis exercise

Positioning cluster development
A centre stage strategy, rather than 'another project'



A **comprehensive framework** for a range of economic development agendas, including:

- Skills, training; workforce development
- SME development; New business start-ups
- Investment attraction; skills attraction
- Export development, internationalisation
- R&D, Technology transfer
- Rural, community development
- Incubators; Industry/Technology Parks

On introducing a clustering intervention



1. Cluster development is long term
 - Don't over promise, no quick fix
 - Requires long term funding
2. Position clusters as the 'lens' for understanding the local economy
3. Partner with other public agencies, leverage

Step 1
Introducing relevance

1. **Introducing the relevance of clusters & clustering to potential funders; use appropriate examples**
2. **Mobilising: securing funding & commitment for long term engagement in cluster development**





Step 2 Identifying, prioritising clusters



Segmenting the local economy

- The majority of jobs and businesses in every local economy are the same:
 - Restaurants, retail, health care, house building, vehicle repair...
- In general around 25% differ:
 - **The traded sector**
 - Firms in this sector drive the local economy, pull in the wealth

Composition of US Regional Economies
Source: Based on Prof. Michael E. Porter

	Traded Clusters	Local Industries	Natural Resource-Driven Industries
Share of Employment	32.1%	67.1%	0.8%
Employment Growth, 1993 to 1999	2.5%	2.8%	-0.1%
Average Wage	\$41,678	\$26,049	\$31,264
Relative Wage	134.0	83.8	100.5
Wage Growth	5.0%	3.8%	2.5%
Relative Productivity	144.1	79.3	139.5
Patents per 10,000 Employees	20.48	1.38	6.40
Number of SIC Industries	592	241	46

Focus on the 'export' drivers



Local economy v. 'Export' economy

Local: Most jobs in every region are similar, servicing the local economy ... Health care; Car repair; Retail; Restaurants; Construction ...

'Export': The jobs attracting wealth to a region, centered on the region's specialisations... the clusters

Higher paying jobs
Higher growth businesses

Identifying the traded clusters

The priorities for early attention

Short listed clusters should:

- Draw on the region's strengths, specialisations
- May center on a specialised capability, a cultural strength, a technology platform
- Already attract income to the region
- Already have a range of firms

Focus on **the strong & dynamic clusters**
Not the weak, the ambulance cases

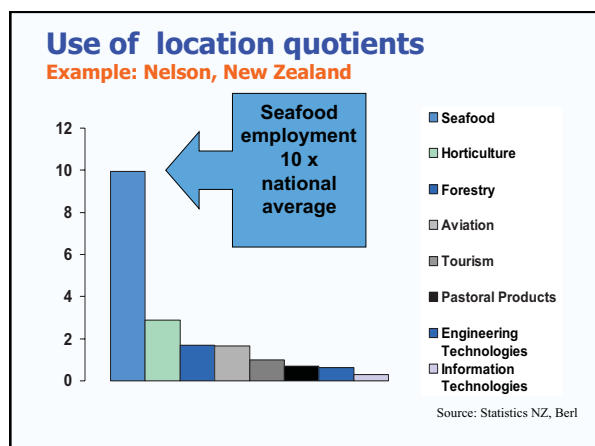
Cluster identification



(1) Top down ... hard data

- Gathering published data
- Ranking most successful firms in region
 - By employees, turnover, exports, ..
- Input-output analysis
- Employment statistics by sector
- Location quotients...

Identifies: **large, mainstream clusters**



Cluster identification

(2) Bottom up ... soft data

Qualitative, 'wise-person' insights, judgements

- Inputs from workshops, discussions, interviews

Identifies:

- Niche, emerging clusters
- And the more specific local specialisation
- 'Chairs', not 'wood processing'
- 'Mobile telecommunications', not 'electronics'
- 'Airline catering', not 'food processing'

Complements top down, data driven identification

Clusters and smart specialisation

Old approach:

- Identifying growth or lead markets (Bio, nano, eco, etc.)
- Concentrating public support/aid on these sectors

High error rate in competitive markets

New approach:

- Identifying existing strengths, incl. cluster positions
- Concentrating public support/aid on higher value added/more innovation within existing clusters and at the interface of related clusters

Better success rate
Development of long-term competitive advantage

Clusters: building on specialisations

New Zealand's Engineering clusters: each differentiated

Waikato Engineering Agricultural technology Power Boats	Taranaki Engineering Oil & Gas Fluid handling	Hutt Valley Engineering Automotive components
Christchurch Engineering Electronic related		Manawatu Engineering Defence related

Cluster identification

What are our smart specialisations?


- Not** dreaming about what we don't have ... and would like to have
- Identifying** activities already attracting wealth to the region
- Not** broad definitions: 'Wood products'
- But a **narrow focus**: 'Wooden furniture'
- With a **narrow geography**

Distinct


OR

Extinct

Quote Courtesy Tom Peters



Step 2
Identifying, prioritising local clusters



- 1. Identify the local clusters**
 - Analyse the local economy
 - Highlight the trading clusters, those pulling in wealth to the community
 - Use hard data, & 'wise person' insights
- 2. Shortlist, rank the priority clusters for immediate development**

Small group discussion

What are some of the region's clusters, the smart specialisations, that you are familiar with?

Be specific on the competency & the geography

Small group discussion

Not all of the identified clusters will merit immediate development attention

What **criteria** should be used to prioritise these clusters for public sector support?

CLUSTER DEVELOPMENT

FIVE PHASES, THIRTEEN STEPS



1. PROCESS DISCOVERY
1.1. Introduction, relevance

2. IDENTIFYING AND PRIORITISING CLUSTERS

3. INITIAL ANALYSIS
3.1. Initial analysis


4. BUILDING THE CASE

5. PUBLIC MEETING

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The Cluster Muster

High profile, kick-off open public meeting



Objectives:

- To publicly announce the initiative
 - Explain the reasons for selecting this sector
- To share international cluster examples
- To introduce the facilitator(s)
- To request the cluster's stakeholders to be available for an early 1-on-1 meeting
- To announce the date for a first workshop
 - Presenting feedback on the interviews and *initial* analysis

The Cluster Muster

Rounding up ...



... the Usual Suspects



.... and the Unusual Strangers

Step 3 Initial cluster analysis

Building the base



Two thrusts:

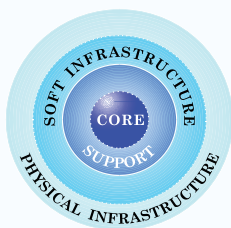
- Initial **competitiveness diagnosis**, fact based, understanding cluster's current situation: structure, scale, opportunities, constraints, culture ...
- 1. Establishing **platform for action**, Introducing the process; motivating key stakeholders to participate; identifying potential leaders ...

Cluster analysis

Developing a shared understanding across the cluster on competitiveness



Key Elements: Innovative Clusters



Nelson's seafood cluster Largest fishing cluster in Australasia



Nelson: 1. Cluster core

Home for NZ's largest fishing companies

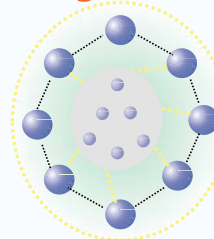


Innovative Clusters: Key elements

2: Supporting firms

Input suppliers

- Packaging materials
- Marine engineers
- Electronics Providers
- Cold storage



Service providers

- Banks, VC
- Accountants, Lawyers
- Business Angels
- Freight forwarders
- Recruitment agencies

Close links with core firms
Important role in circulating tacit information

Cluster Development Deck 2

RPR, Ogre The How?

Nelson support firms

Specialist firms: Engineering

Southco ENGINEERING
Marine Fittings - Stainless & Alloy
General Engineering
Ph. 025 453 248

NALDER & BIDDLE
MARINE AND
INDUSTRIAL COATINGS
LIMITED

KERNOHAN ENGINEERING LTD
SHIP REPAIRS

Challenge MARINE LTD
GENERAL & MARINE ENGINEERING
PHONE 546 7800 FAX 546 8886

Nelson, New Zealand

Other specialist support firms

COLD STORAGE NELSON
CAUTION
NO PUBLIC ACCESS
NO UNAUTHORISED VEHICLES
HAZARDOUS CHEMICALS
ELECTRICAL HAZARD
SLIPPERY WHEN WET

Hall's
Refrigerated Transport

M.S. Sullivan & Associates
OCEAN & COASTAL MARINE LAWYERS

Seabed Mapping
CLEMINT

Innovative Clusters: Key elements

3. Soft infrastructure

1. Includes infrastructure with a knowledge transfer focus
2. Specialised, industry specific
3. Fosters trust, interaction, rapid information transfer
4. Public & private partnerships
5. Tight linkages through common vision

Nelson: Soft infrastructure

Government funded R&D, Polytechnic

CROP FOOD Seafood Research Unit
RESEARCH
Mana Kai Rangitapu

NIWA
Tāhoro Nukurangi
National Institute of Water and Atmospheric Research Ltd
Nelson Regional Office

Cawthron
Nelson's Science Centre

4. Hard Infrastructure

Innovative Clusters: Key elements

1. Includes real estate focussed developments
2. Specialised facilities, integrated
3. Public & private alignment
4. Gaps identified, bridged

Nelson: Hard infrastructure

Largest slipway in New Zealand

CALWELL SLIPWAY
NELSON LIMITED

Step 3 Initial analysis essentials

Inward looking emphasis



- Identifying the cluster's lead firms
 - The innovators...and their success factors
- Identifying other stakeholders... support firms, soft infrastructure
 - Need to diligently identify;
 - Detective work needed
 - Much more than a 'Yellow Pages' or industry association list
 - Securing their involvement



Step 3 Initial analysis essentials

Inward looking emphasis

- Highlighting infrastructure gaps
 - Key roadblocks, capacity bottle-necks
- Understanding the cluster's dynamics, culture
- Understanding the customers, the markets
 - Growth segments ... and the competitors
- Developing an initial understanding of
 - The cluster's competitiveness; Productivity constraints

Small group discussion

**Familiarisation with the clusters selected for the simulation exercise:
Identify the cluster's key stakeholders**



History matters!

Understand the cluster's foundations



- How did the cluster start? Why?
- How did it grow? What changes?
 - Evolution of the local specialisation?
 - What challenges along the way? What public support?
- Development of links, trust within the cluster?
 - Level of social proximity? Subcontracting? Interdependencies? Joint actions? University activity?
- Development of global links
 - Exports? Overseas investment? Internationalisation?

Initial analysis process

(1) Desk research



- Reviewing media coverage, published reports, statistics, annual reports
- Identifying the activities of local organisations
- Quantifying the local (and national) significance of the cluster
- Internet searches on trends:
 - Customers; markets; competitors; technologies...



Gathering cluster statistics

Caution!



- Clusters are broader than an 'industry'; may be a technology
- Cluster boundaries ≠ regional boundaries
 - May cover part of a region, eg multimedia
 - Can traverse regional & international boundaries
- Establish the cluster's **functional boundary**
- Importance of **surveys**, rather than an over-analysis of published data

Initial cluster analysis

Review existing reports



Gathering reports prepared for different purposes:

- Export opportunities?
- Training needs?
- Regulatory issues?
- Technology platforms?
- SME reviews?
- ?



Initial analysis process

(2) Face-to-face interviewing



- Interviewing often merits **80%** of the analysis effort; Getting behind the written word
- Introducing the cluster concept to sceptics
 - But don't wait for everyone, go with the willing
- Building allies for subsequent meetings
 - Initial assessment of leaders
- An overt agenda, and a covert one
 - Interviewing preferably undertaken by two interviewers

A foresight interview format



1. What are the few key events - the big events - which have got your business to where it is today? And where is it today?
2. What needs to change, within and beyond your business, structurally, culturally, whatever, to achieve a best scenario?

A foresight interview format



3. The optimistic picture for your business- what should start to happen right now to begin to achieve this?
4. The catch all - the BLUE SKY question - pretend you can take away all the constraints - what might you achieve?

A foresight interview format



5. If you were to invite a few of the clusters 'shakers & movers' to your home tonight, whom would you invite?


Cluster environment questions

- How available are local research centers to small firms?
- Do educational institutions supply sufficient number of qualified technicians?
- Is competition intense or mild?
- Do firms share knowledge?
- Do firms already engage in cluster-wide initiatives?

Source: Michael E Porter

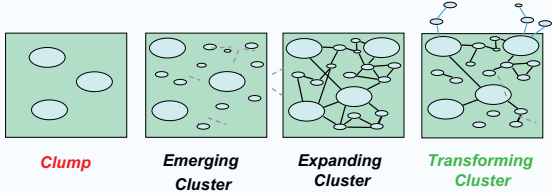
Large Clusters

Caution!



- Danger of 'lowest common denominator' strategies
- **Subdivide**, establish more focused sub-groups
- Target the higher growth, more dynamic segments within the cluster, the cluster's **hot spots**

Identify the cluster's life cycle stage



Clump **Emerging Cluster** **Expanding Cluster** **Transforming Cluster**

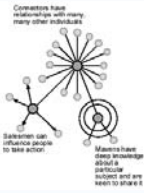
Identifying your cluster's key resource: the talent

Three key types of people

Connectors
Know lots of people; curious, sociable
Many 'weak ties'

Mavens
Knowledge accumulators
Generous in passing on knowledge

Salespeople
High energy persuaders
Motivators



Facilitators needs to identify & reach these few special people within the cluster who hold the social power...
And can **tip** the cluster forward

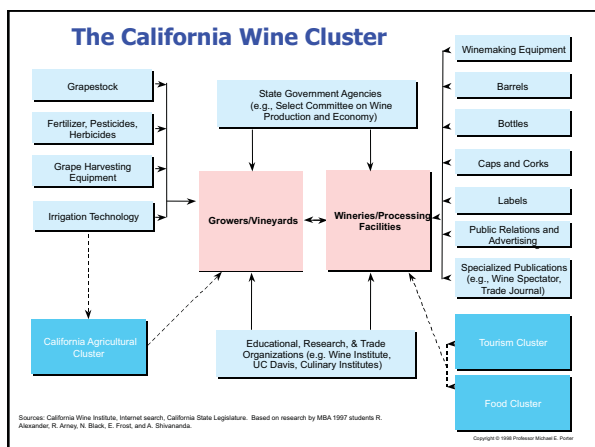
Source: The Tipping Point, Malcolm Gladwell

Initial cluster analysis:

Write up


Two deliverables:

1. Short, executive-style, **report**...8-10 pages
 - Be brief, not a definitive piece of research
 - Need sufficient data to establish common understanding, to remove any major misconceptions
 - Prepare cluster map
2. **PowerPoint** presentation for first workshop with the cluster



Establish the Baseline Data

What will be on the cluster's dashboard to measure progress?




Establishing the performance indicators (1)

- Number of firms? Employees?
- Number of new firms to the region?
- Total sales?
 - % local, % national, % international?
- Number of students in local training directed at the cluster's needs?
- % workforce with higher education?

Based on Oxford Research, Norway

Establish the Baseline Data
What will be on the cluster's dashboard to measure progress?



Establishing the performance indicators (2)

- Number of firms with innovation links with other firms, institutions?
- Number of local spin-offs?
- Assessment of trust level?
- Increased competitiveness?
 - Measured by market share? Productivity?
- Number of firms with international investments?

Based on Oxford Research, Norway

Step 3
Initial cluster analysis



- 1. Competitiveness diagnosis, establishing the current situation**
 - **Published data, plus interviews**
 - **Understanding cluster culture**
 - **Cluster map, identifying linkages**
 - **Gather Baseline Data**
- 2. Gaining broad agreement on the diagnostics**
- 3. Starting to identify the cluster's talent, the potential leaders**

Small group discussions
Cluster analysis



Face-to-face interview checklist.
What questions would you ask a CEO/
Head of Department:


1. From the private sector?
2. From a government agency?
3. From academia?
4. What Baseline data should be gathered for your cluster?

CLUSTER DEVELOPMENT
FIVE PHASES, TWELVE STEPS




1. Introducing relevance
2. Identifying, prioritising clusters
3. Initial analysis
4. Cluster Governance

Step 4 Forming the Cluster's Board




Active clustering needs:

1. A coalition of preferred leaders who understand and care about the big picture
2. A Group with a balance of skills, able to aggressively work as a team



Facilitator has a key role in establishing Group

The Cluster's Board
The cluster's movers & shakers



1. 8-9 people, drawn from private & public sectors
 - Triple Helix: business + government + academia
 - Not dominated by government, association officials
 - Private sector culture
2. Initially senior stakeholders
 - Publicly committed leaders who see the need for change
 - Able to infect others with their enthusiasm
 - Willing to 'walk the talk'
3. Cluster facilitator invites participation
 - Usually is a long-term member
 - The full Group does not need to be in place straight away...and members may not be easy to recruit!

Example: Board of Directors

Steel & Engineering Cluster
Värmland, Sweden



- Gert Nilson Uddeholm Tooling *Chairman*
- Ulf Eliasson *Rolls-Royce*
- Lars Blomgren *Permec Group*
- Kjell Edholm *PartnerTech*
- Anders Gustafsson *CTF/Karlstads universitet*
- Kjell-Åke Lindqvist *Metso Paper*
- Bengt Lundström *Volvo Construction Equipment*
- Per Eiritz *"Metso Paper"*
- Ingemar Olson *CCI Valve Technology*
- Leif Rosén *Outokumpu Stainless Steel*
- Monica Schagerholm *Karlstads universitet*

Chairperson

Preferably private sector

Crucial element:

- Chairs Board meetings
- Publicly represents the Cluster
- Is inclusive, a motivator
- Draws in additional support, resources
- Unblocks constraints



Establishing the Cluster's Board

**Takes time to get the
right people on the bus...and in the
right seats
the wrong people off the bus**



Step 4 Building the cluster's Board



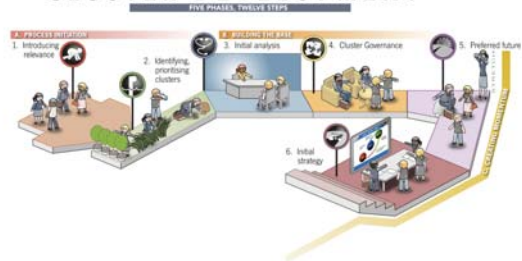
1. Key role for Facilitator
2. Initially an informal leadership group
3. Take your time!
 - Can be hard to find
 - Exits are not easy

Small group discussion

**Whom might you consider for
the Board of your cluster?
Is there a preferred chairperson?**

- Include senior stakeholders from across the Triple Helix
 - Business, government & academia
- Private sector dominated
- Balance of skills; Able to work as a team


CLUSTER DEVELOPMENT



Step 5 Developing the preferred future
Creating Momentum... the cluster's vision


- A preferred scenario ... the cluster at it's future best
- A common reason for the **failure** of clustering initiatives is lack of agreement on the **direction**

The Preferred Future
The vision





The preferred future
The Vision

Building on the cluster's current competitive position ... with a challenge, a **stretch** factor




Preferred future example
Ocean engineering cluster
Newfoundland, Canada


We will make St. John's, Newfoundland an international destination of choice in ocean technology

Preferred future example
Film cluster Auckland, New Zealand



A vibrant, growing screen production industry in the Auckland region.

Activity doubling over the coming 5 years.



Preferred future example
Waikato aviation cluster, New Zealand



To be the Australasian centre of light aircraft manufacturing

Preferred futures...evolve over time
Hervey Bay, Australia, Access tourism cluster

1st: To become the number one service provider to disabled tourists in Queensland

2nd: To be Australia's most accessible holiday destination

3rd: Through teamwork, to provide Australia's most accessible holiday experiences







Have a Vision for Change
Where are we heading?



- Setting a bold direction...a preferred future
- Developing a shared sense of purpose
- Be passionate; inspire others
 - Spend time illustrating the vision
 - Talk it up; motivate & engage others


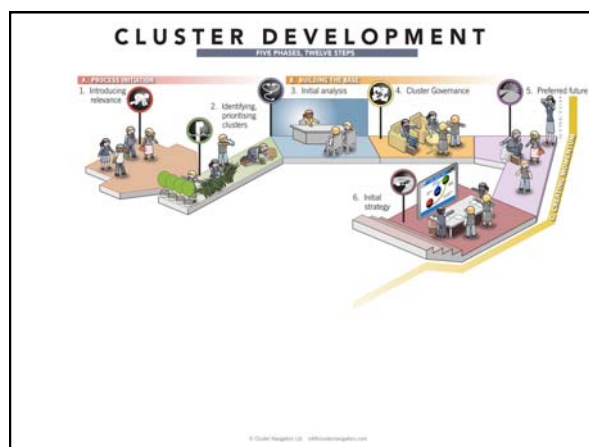
Step 5 Preferred future


1. Gaining broad agreement on a preferred destination
2. As the cluster grows, keep *stretching* the preferred future

Small group discussion

What might be a 'Preferred Future' that you could propose at a workshop with your cluster?





Step 6 Identify stepping stones
How was the preferred future realised



With the Preferred Future shaped, we now identify what steps were taken to make it happen.

- Linked to achieving the vision
- Key steps: seeking broad agreement on priorities
- Identifying the forward path



E4

Standing in the future
Identifying the stepping stones




- Looking back from the future:
Back casting
- **Not** a continuation of the present ...
Forecasting




Example: Key stepping stones to achieving the vision
Newfoundland Ocean Engineering 

1. Leadership, cluster culture, teamwork
2. Skills upgrading, aligning university with industry needs
3. Branding the cluster, market development
4. R & D, technology transfer
5. Finance, venture capital



Auckland, NZ Film Cluster
Vision: Vibrant growing industry doubling activity in 5 years 

Key steps	Voting
Culture	28
Skills, training	25
Hard infrastructure	19
New investment	18
International marketing	18
I P & R & D	14

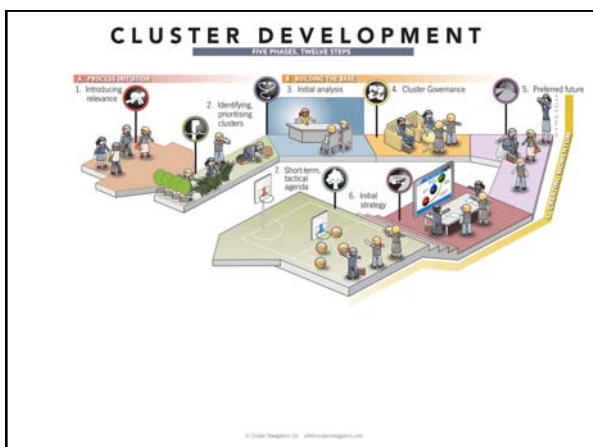
Step 6 Stepping stones  

1. Identify in a workshop setting, gaining broad agreement.
2. Imagine that the Preferred Future has been achieved, and backcast.

Small group discussion 

Imagine your cluster has succeeded, the Preferred Future has been reached.
Congratulations!

Looking back, what were the key steps that were put in place to achieve this?

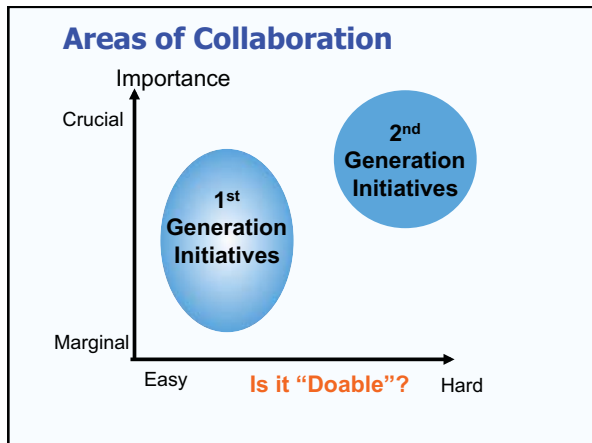
Step 7 Short term, tactical agenda 

Establishing immediate projects that demonstrate the value of collaboration

For each of the **Priority Steps**

- Pick the 'low hanging fruit'
- Not wish lists for others
- Prepare project outlines: identify resources, timeline, responsibilities

Just do it! 



Example

Early Action Agendas

Newfoundland Ocean Engineering



Stepping Stone:

- Branding the cluster, market development

Early Action Agenda


- Cluster web site, portal
- Inward /outward missions
- Proactive media coverage
- Airport signage



Initial team: Dave Rideout, Terry Courish, Brian Wade, Mike Rose

Project implementation

Moving quickly into action



- Build teams around the priority action projects
 - **CATs...Cluster Action Teams**
- Teams work best if members select themselves
 - And **self-destruct** on task completion
- Facilitator may need to encourage champions to step forward
 - If no project leader, place at the bottom of pile
- Ideally, the facilitator does not become the Project Manager. **Why?**

Extending the Leadership Group

Broadening the number of participants

- Extend Leadership Group through temporary teams with issue/project focuses
 - Self-destruct task forces, **not** committees
- Broaden participation, spread work load,
 - Minimise danger of "volunteer burn-out"
- Task forces bring competitors together in non-threatening areas
 - And provide an opportunity to identify tomorrow's leaders



Step 7

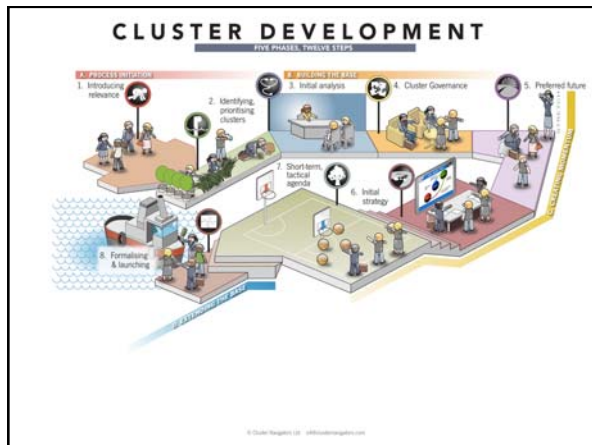
Short term, tactical agenda



1. Identify low hanging fruit
2. Need **portfolio** of immediate initiatives, with identified champions
3. Prioritise by passion
4. Establish self-destruct task forces, **the CATs**
5. Facilitator ideally is:
 - **not** the lead person for each project
 - **not** the person with all the 'to do' lists

Small group discussion

1. **Identify one early, low risk initiatives** for each cluster, the 'low hanging fruit'
2. **Develop for the initiative an Action Plan outline**
 - What needs to be done...project objective
 - Why...the rationale
 - Potential obstacles
 - How resourced
 - When...timeline
 - Who...leadership
 - Outcome...expected results



Step 8 Formalising the Cluster

Establishing a long term base



- Moving beyond a traditional industry association
- Associations **may** become cluster organisations
 - **If** they broaden membership to include producers, suppliers & soft infrastructure
 - **And** successfully move beyond lobbying to self-help
- Facilitator needs to handle carefully
 - May take 1-2 years to establish
 - May be a clutter of existing organisations
- Leadership Group now elected
- Annual membership fees introduced

Caution!

Take time in formalising the cluster's structure



- Firms want early benefits
 - Not delays through discussions on structure
 - Avoid early stakeholder fatigue
- Can take time for:
 - The cluster's boundaries to emerge
 - The cluster's Leadership Group to be identified and solidify as a team

Industry association

- Private sector \$
- Narrow group of firms
 - 'Core firms' only?
- Broad geography
 - Province wide?
- Lobby focus
 - Maintaining status quo; Tactical
- Rotating chairs
 - Strong power within the executive

Cluster 'association'

- Public & Private \$
- Broad, open constituency
 - Core & support firms & soft infrastructure
- Narrow geography
 - Functional region
- Self-help group
 - Upgrading competitiveness; Strategic
- Longer term leadership
 - Facilitator as a servant leader

Step 8 Launching the cluster

Extending participation



Launching the cluster

- A 'Town Hall' public event
- 3-6 months after final workshop
- Highlight initial successes
- And the forward agenda
- Ensure media coverage!




Cluster launch

Promotional objectives



- Generating public involvement & enthusiasm
- Extending the reach of the cluster
 - Gaining further support from the media, politicians, public sector, banks, schools, ...
 - Drawing in additional firms, the fence sitters
- Leadership Group announcing what they will deliver...demonstrating their commitment
 - Facilitator playing a minor role




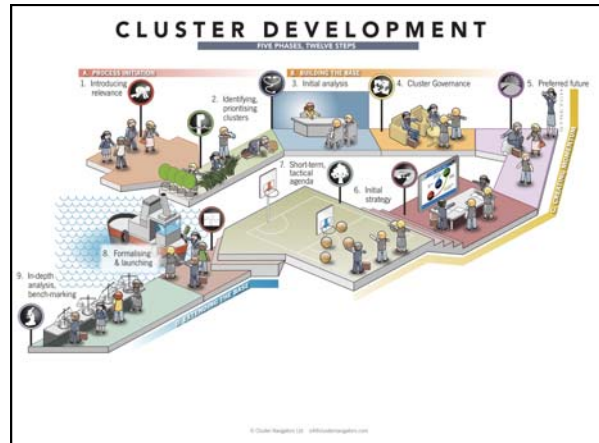
Step 8 Formalising, launching the cluster

Formalising:

- Take your time!
- Go carefully with industry associations
- Introduce membership fees ... financial commitment from cluster's stakeholders

Launching:


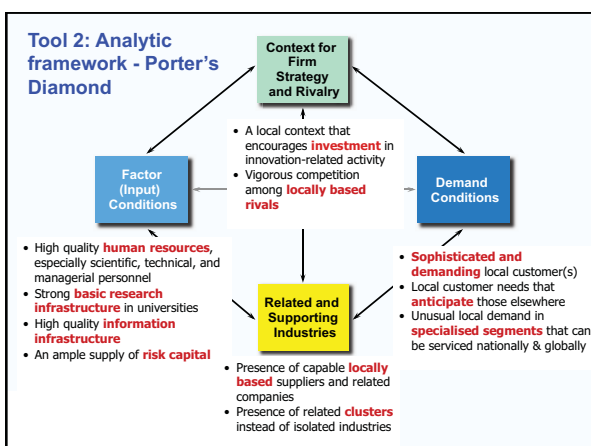
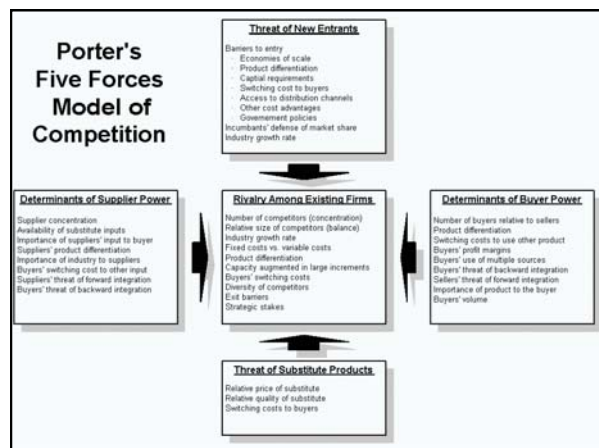
- Celebration of success
- Identifying forward path
- Facilitator taking a back seat
- Broadening engagement in the clustering initiative

Step 9 In-depth analysis, benchmarking

Fact based, outward focussed analysis

- Fundamentally understanding the cluster's competitive position, the local specialisation
- Revisit frameworks introduced in Step 3
- Benchmarking v. reference clusters

Benchmarking visits

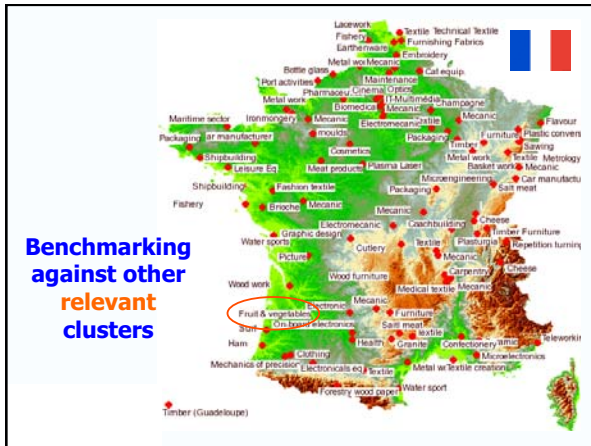
Example: Norway's Mountain Tourism cluster visit to Banff, Canada




- Identify an appropriate (model) reference cluster
- Benchmarking visits provide a collaborative learning opportunity
 - Business + public agencies + academics sharing their learning
- Builds connections, trust, social capital amongst the travellers
- B2B links often develop during a visit
- Visits can provide motivating **data shocks**

Cluster Development Deck 2

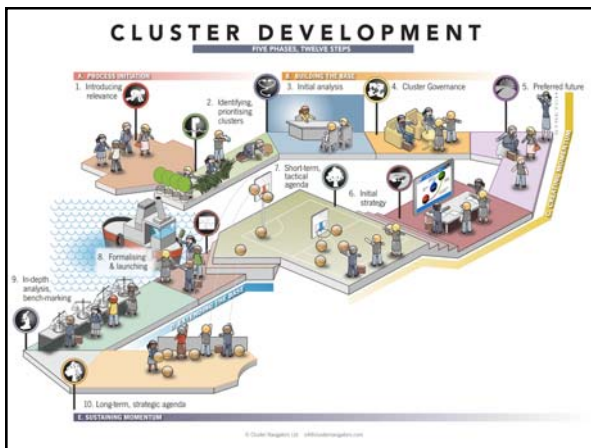
RPR, Ogre The How?



Step 9
In-depth analysis, benchmarking

Comprehensive analysis

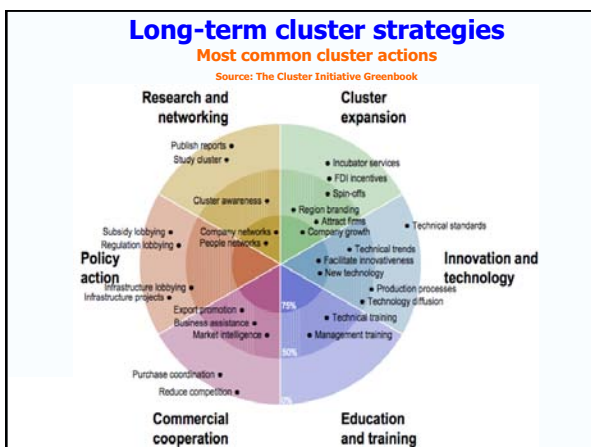
- Cluster benchmarking
- Identifying best practices internationally
- Understanding the unique strengths
- The cluster's competitiveness fundamentals
- Is the cluster's strategic competence clear relative to competitors?



Step 10
Long-term, strategic agenda
More substantive, more strategic initiatives

Moving beyond the initial activity...the 'low hanging fruit' e.g.

- Technology & SME related
 - R&D centers; Centers of Excellence; Incubation facility
 - Technology Park; One-stop-service centre
 - University links; Technology mapping
- Internationalisation
 - Cluster branding; Export strategy development
 - Cluster-to-cluster links; Investment attraction
- Skills development
 - Workforce training; Learning circles
 - Tertiary course development; Partnership with local schools
- Finance
 - Equity and debt funding, venture capital, angels, seed funding



Long-term agenda
IT Incubator Cape Town
Home for 50 + start-ups

Cluster Development Deck 2

RPR, Ogre The How?

Long-term agenda
Building one-stop-service centers
E.g. Biella, Italy 

Providing specialised support for 200 textile machinery firms, and 1300 textile firms

1. Training
2. Applied research
3. Know-how transfer
4. Export development



Deepening local competencies 
International Business School, Tuttlingen
Specialised programme ...
MBA Medical Devices & Healthcare Management

Developed in **cooperation** with:

- High profile companies in the medical-technology sector
- Key organisations from the healthcare industry





'Branding' the cluster
Silicon Valley, Hollywood as 'brands'

Developing the cluster's identity

- Through media campaigns, inward visits by trade journalists, trade fairs, web site, brochures, Ministerial visits to target markets...
- Increasing awareness:
 1. **Within the cluster** ... attracting attention from public resources, school leavers, bank managers, spin-offs, start-ups... building social glue
 2. **And beyond** ...internationally ... attracting customers, new investment, skilled migrants....

Long term agenda examples
Market development, Internationalisation

- Developing the cluster identity, the brand: web site; advertising in trade journals arranging inward visits by trade journalists; inward visits from, and outward visits to, related clusters; regular release of media articles
- Identification of priority export markets; export market research
- Integrated market development strategies for priority markets; two-way visits; marketing materials and web sites in appropriate languages; trade fairs; advertising; supplier catalogues; PR; facilitating academic exchanges, school exchanges, visits by local political leaders; sister city relationships...
- Presentations to visiting VIPs and media; itinerary development for key visitors
- Development of export consortia, alliances, networks
- FDI attraction; infilling the cluster's weak points; filling local supply chain gaps
- Skilled migrant attraction; attracting international students
- Cluster-to-cluster links, linking value chains, benchmarking visits
- Hosting international events, symposiums, conferences, congresses
- E-commerce web site

Developing the cluster's Strategic Agenda 

A **Strategic Agenda** is not constrained by the current availability of resources

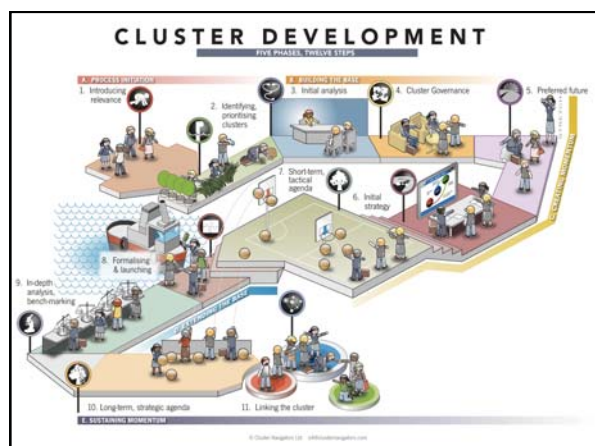
- It highlights the priority activities, and then seeks to find the resources for implementation
- A brief, public document

In contrast, a **Strategic Plan** identifies the priority activities to be undertaken within the resources that are available

Step 10
Long-term, strategic agenda  

Addressing the more complex, long-term issues once some initial successes are in place

- From short-term, tactical projects to long term strategic initiatives
- The strategic agenda should **stretch** available resources
- And deepen further the local specialisation



Step 11 Linking the cluster

Building on a solid understanding of the cluster's strengths



Three levels of leverage:

1. With other regional clusters
 - Linking related clusters, e.g. wine & tourism
 - Developing the **Regional Innovation System**
 - Identifying & addressing cross-cluster, systemic issues within the region
 - Regional identity? Transport? Education?
2. Nationally, with clusters in the same sector
 - Developing national strategies from the bottom-up
3. Internationally, with clusters in the same sector
 - Benchmarking, benchlearning
 - Fostering specialisation between clusters
 - Building B2B links

Linking regional clusters

Umaji village, Japan
Joint promotion of food products & tourism



A portfolio of clustering initiatives

Gävle, Sweden's Cluster suitcase



The Regional
Innovation System

Linking regional clusters

Developing new combinations in
Catalonia, Spain



- A '**Kids Cluster**' drawing together competencies from 3 regional clusters:
 - Children's clothing, children's publications and toys.
- A '**Habitat Cluster**' drawing on 5 clusters:
 - Two regional home furniture clusters, a lighting cluster, a taps/valves cluster and a home textile cluster

Linking regional clusters

Ontario Technology Corridor



Ontario Technology Corridor links

Ontario's top three ICT clusters:

- Greater Toronto Area
- Waterloo Region &
- Ottawa Region



Food Valley Cluster, Netherlands



Food Valley Region

1. Within a 50 km radius: 1,440 food related companies; 20 research institutes; 15,000 scientists
2. Wageningen University: one of top-3 agrifood universities globally

Food Valley cluster Organisation, est. 2004

1. Board: High level triple helix, incl. Uni Chancellor
2. Staff: 10



Linking with other Food Clusters



- Oresund (Denmark/Sweden)
- Flanders (Belgium)
- Rogaland (Norway)
- Wielkopolska (Poland)
- Emilia-Romagna (Italy)
- Castilla y León (Spain)
- North Rhine Westfalia (Germany)
- Rhone Alps (France)



Cluster-to-cluster links

Relocating labour intensive manufacturing



- **Montebelluna** Italy
- Controls 75% world ski boot output
- High value activities remain, including R&D and marketing



- **Timisoara** Romania
- Extensive range of Montebelluna firms
- Now base for E Europe



Step 11 Linking the cluster

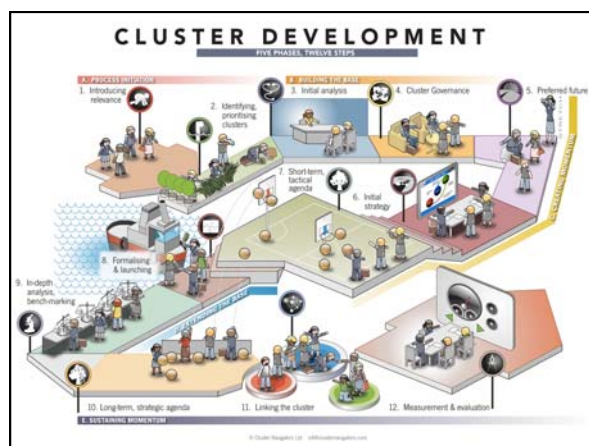


1. Linking clusters, and firms within the clusters
2. Leveraging the cluster, building critical mass to address issues, opportunities
 - Within the region...synergy
 - Within the country
 - Internationally; value chain links

Small Group discussion

**In what ways might your cluster benefit by linking with other clusters?
And which clusters?**

**Within the country?
Further away?**



Step 12 Review, evaluation 24+ months after the launch



Two dimensions:

- The pay-off from the clustering process
- Is the competitiveness of the cluster being upgraded?

1. Pay-off from the clustering process



- 'Return on Investment' review
- Qualitative rather than quantitative
- Review both successes & failures
- Feedback from cluster stakeholders
- Value-added by the clustering initiative
 - Consider using an independent, external reviewer
 - An academic? Market research firm?

Reviewing the Baseline Data Against the agreed performance indicators



What were the key performance indicators for the clustering initiative?

- Growth in employment? Number of Ph.D.?
- Growth in exports?
- Number of firms in the cluster? Start-ups?
- Increased competitiveness?
 - Measured by market share? Productivity?

Performance indicators

Other possible aspects



- Reasons for location choice
- Number of companies feeling they would have done just as well in other places
- Assessment of trust
- Business view on availability of competent workforce & access to R&D resources
- Number of strategically important suppliers/customers/knowledge providers at local, national and international level

Based on Oxford Research, Norway

2. Upgrading competitiveness?
Removing clumps of isolated firms?
Developing a more integrated system?



Closer links amongst the core & support firms?

- Increasing trust, flow of tacit information?
- Evidence of out-sourcing, sub-contracting within the cluster?
- Co-specialisation amongst the cluster's firms?

2. Upgrading competitiveness?
Removing agency clutter?
Developing a more integrated system?



- More focussed public investments, driven by private sector priorities? Closer alignment?
- Priorities of universities, schools, training, technology providers, investment attraction agency, export development agency ... strongly influenced by the cluster's agenda?
- Cluster becoming a demanding customer for R&D centers and universities? Needs-driven R&D?
- **Becoming an incubators without walls?**

Review & Evaluation
End Year 1

1. Comparison with baseline data, e.g. total sales & % export; # employment; # firms; # firms with cooperation with local universities.
2. Review projects against milestones.
3. Satisfaction by the cluster's stakeholders with the cluster organisation's services.

Review & Evaluation
End Year 2

1. Again baseline data comparison, project reviews & cluster stakeholder's satisfaction.
2. Evidence of (i) Change in behaviour amongst the cluster's firms, more open collaboration and trust, (ii) More targeted support by public agencies and academia, (iii) Increased cluster awareness within the region (including politicians, school leavers and bankers) and internationally (attracting customers, new investment and talent).


Review & Evaluation
End Year 3

1. Again baseline data comparison, project reviews & cluster stakeholder's satisfaction
2. A 360° review through an external panel, exploring firm level change; soft infrastructure alignment; public funder benefits & additionality; effectiveness of cluster governance and management. This review could include benchmarking v. similar initiatives.

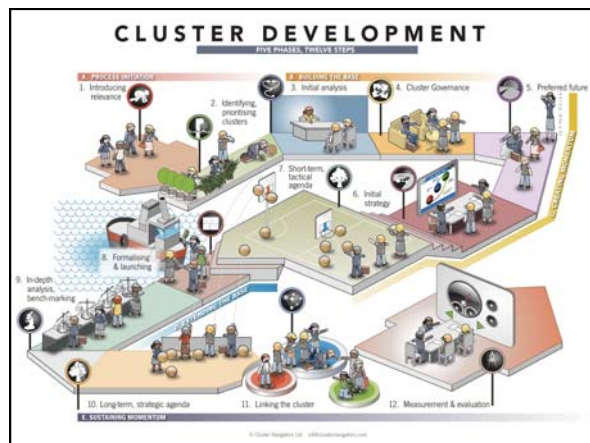
Cluster review: Implementation
From Review to Action

- Following review of project milestones, budgets
 - Close down slower initiatives?
- Current relevance of the Preferred Future?
 - Opportunity to *stretch* further?
- Are the key Stepping Stones still valid?
 - Have circumstances changed?
- Is it time to revisit the Leadership Group's membership?
 - Extend gene pool? Bring in next generation?

Step 12
Measurement & Evaluation



1. Is the competitiveness of the cluster's firms being upgraded?
2. Reviewing the overall contribution of the clustering intervention:
 - Is the clustering initiative adding value?
3. Reviewing progress from a clump with clutter to a more innovative cluster



Cluster development
Indicative timeline

Month 1: Informal meetings with senior stakeholders, by end month a 'Cluster Muster'

Month 2: Individual meetings, covering Triple Helix. By end month, first workshop covering **Step 3 Analysis** And **Step 4 Leadership Group** formation underway

Month 3: Second workshop covering both **Steps 5 & 6 Preferred Future & Stepping Stones**

Month 4: Third workshop on **Step 7 Short term tactical agenda**. Establish initial CATs (Cluster Action Team) task forces, moving on 'low hanging' projects

Month 9?: Cluster launch: **Step 8**. And **Step 9 In-depth analysis** ... benchmarking ... underway

By month 18: **Step 10** underway, long term strategic agenda.

Cluster workshops
Key building block in a mutual learning process





1. Capturing 'the wisdom of crowds'
 1. Consensus building, transparent
 2. Workshops open to all
2. Broad agreement on issues, priorities
 1. **Not** a few deciding for many
 2. Capturing hearts as well as minds
3. Neutral meeting place
 1. Building trust
 2. Opportunities for side conversations

Common difficulties in cluster development
Stepping into the future



- Identifying a cluster
- Cluster analysis process
- Short-listing the development priorities
- Gaining private sector engagement
- Establishing whole-of-government support

Upgrading a cluster's competitiveness
12 Step process design principles

1. Change from the status quo never comes easy
2. Successful transformation needs to be driven by a coalition of volunteers
3. Real transformation takes time
4. Short term wins build the credibility to address bigger problems