

The role of cluster policies in economic growth and competitiveness

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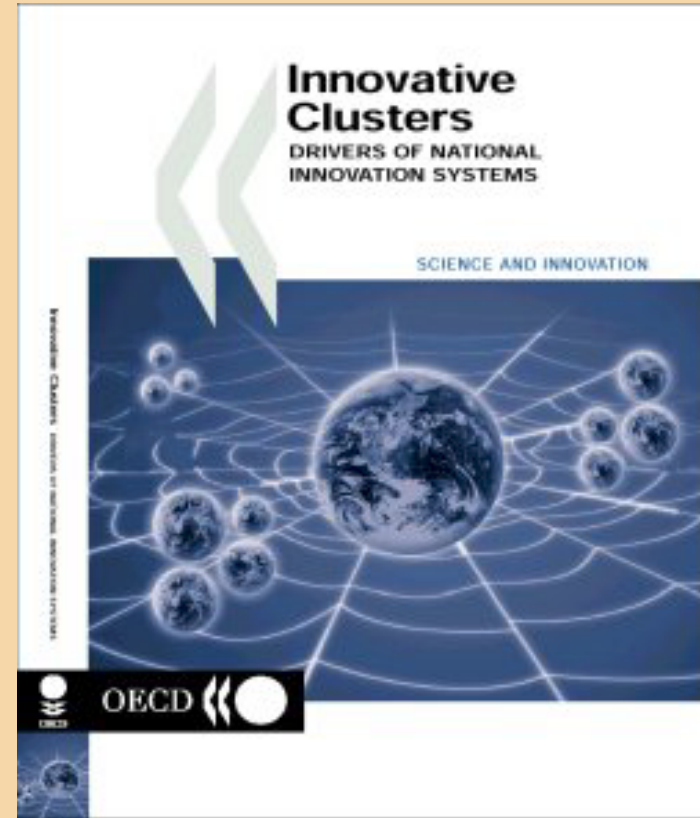
Outline

- I. Defining clusters
- II. Analytical lessons
- III. Policy lessons
- IV. Implications for policy-makers
- V. Example: Dutch Horticultural Cluster
- VI. Concluding remarks
- VII. Points for discussion

Empirical base



Phase 1: 1997-1999
(13 countries)



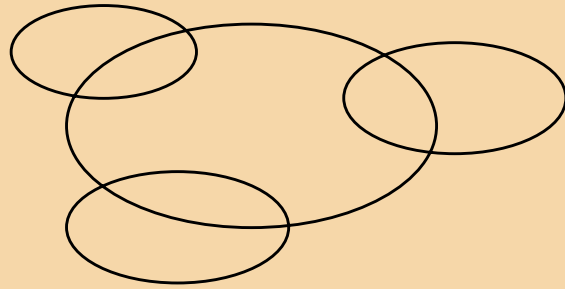
Phase 2: 1999-2001
(11 countries)

I. Defining Clusters (1)

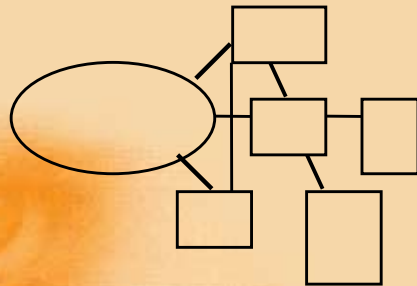
“Networks of production of strongly interdependent firms (including specialist suppliers) linked to each other in a value adding production chain. In some cases, clusters also encompass strategic alliances with universities, research institutes, knowledge-intensive business services, bridging institutions (brokers, consultants) and customers”
(Roelandt & den Hertog, 1999)

“A group of business enterprises and non-business organisations for whom membership within the group is an important element of each member firm’s individual competitiveness. Binding the cluster together are buyer-supplier relationships, or common technologies, common buyers or distribution channels of common labour pools”
(Bergman and Feser, 1999)

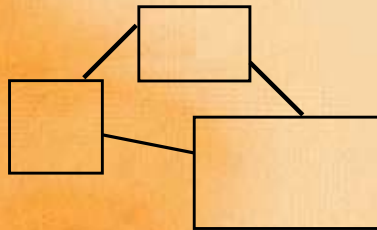
I. Defining Clusters (2)



Mega-level clusters



Meso- level clusters



Micro-level networks

I. Defining clusters (3)

- Industrial clusters may transcend various geographical levels
- Emerging, technology-based clusters are more likely to be part of wider international clusters
- More mature clusters typically function at a national or regional scale

II. Some analytical lessons (1)

1. Every country/region has a unique “cluster blend”
2. Clusters are variation and selection environments that are inherently different
3. The idea of “idealtype” innovation clusters is a fallacy:
 - history & country specificities
 - type of knowledge
 - stage of cluster development
 - networking practices

II. Some analytical lessons (2)

4. Innovation in “low-tech” clusters is more advanced and complex than often depicted
5. This does require an open mind as to the role of non-technological knowledge in innovation

III. Some Cluster Policy Lessons (1)

1. Cluster studies as working tools to:
 - opening up a dialogue on innovation
 - learn where policy can contribute
 - tool for proactively creating platforms & programmes
2. Innovative clusters can be facilitated by varying customised mixes of innovation and non-innovation policies

III. Some Cluster Policy Lessons (2)

3. Clusters are useful frameworks to co-ordinate policies and reduce complexity
4. Cluster policies are dependent on the stage in the cluster life cycle and should balance creating and sustaining innovative clusters

III. Some Cluster Policy Lessons (3)

5. A 1st risk for further development of the cluster approach is “high-tech myopia”
6. A 2nd risk is adopting (counterproductive) standard policy models and standard tools

IV. Implications for policy-makers (1)

- # Change in day-to-day policy-practices
- # Experimentation and policy learning
- # Switching between analysis & pragmatic action
- # Co-ordination of various political jurisdictions
- # Increased need for accountability
- # Codifying good practices

IV. Implications for policy-makers (2)

Coordinating in a cluster framework the complex set of policies that affect innovation in a cluster is a multidimensional balancing act between:

analysis vs. highly practical policy actions

bottom-up initiatives - top-down steering

established mature - newly emerging clusters

various geographical levels

various policy roles or capacities

customisation and accountability

V. Horticultural Cluster (1): outline

- Aim
- Approach used
- Cluster picture
- Cluster dynamics
- “Half full”: cluster performance
- “Half empty”: cluster barriers
- Options for improvement

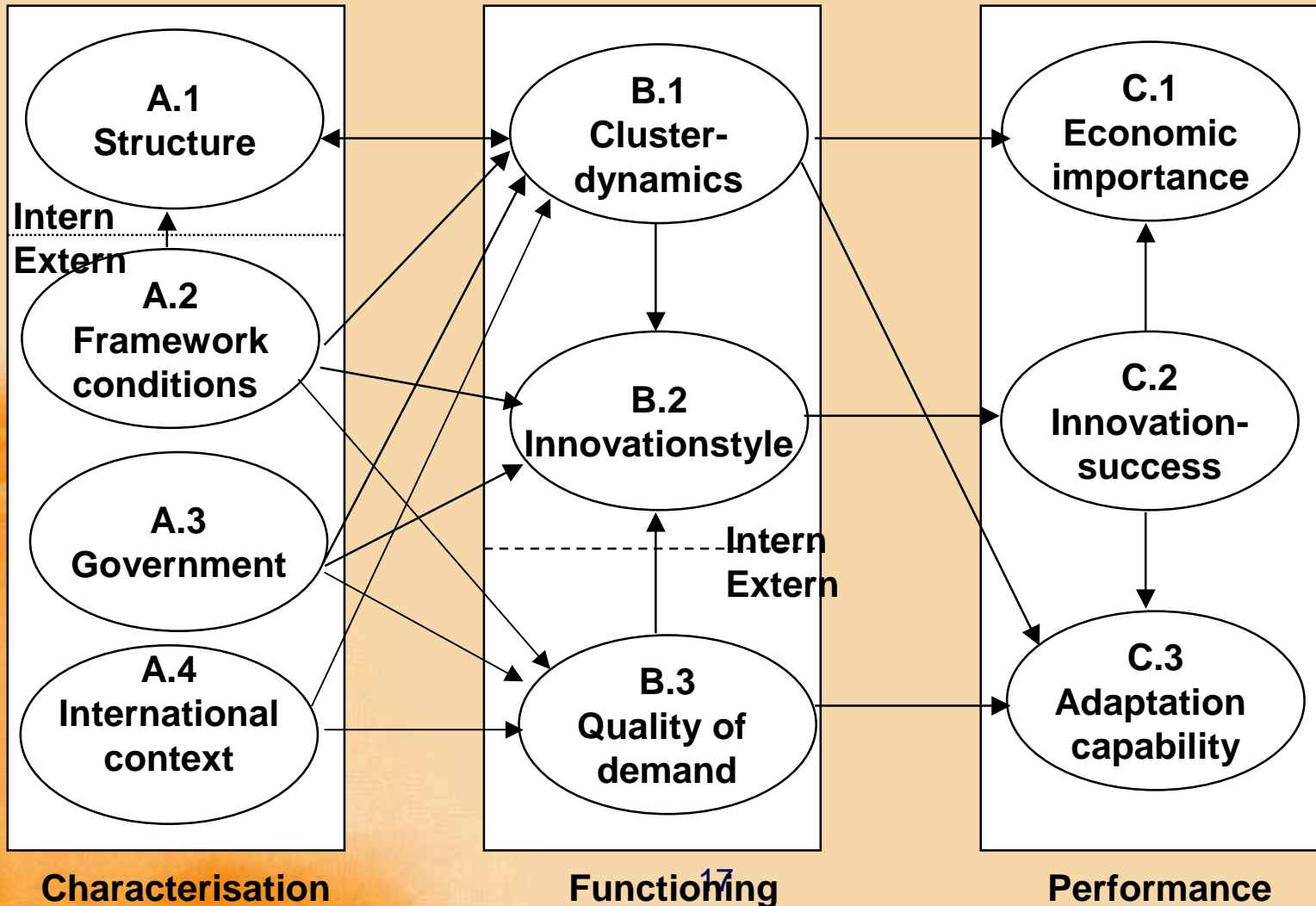
V. Horticultural cluster (2): aim

- Dynamics, innovativeness and adaptation capability of the horticultural cluster
- Identify barriers and options for improvement
- Agendasetting (also politically)

V. Horticultural cluster (3): approach

- Qualitative approach (interviews)
- Quantitative approach (production and innovation statistics)
- Common clustermonitor framework

V. Horticultural cluster (4): approach



V. Horticultural cluster (5): picture 1

MARGINALLY FOCUSSED AT HC-CLUSTER

Processing & packaging industries

Supplying industries

Transport & logistics,

STRONGLY FOCUSSED AT HC-CLUSTER

CLUSTER NODE

Breeding stations

Firms raising plants

Growers

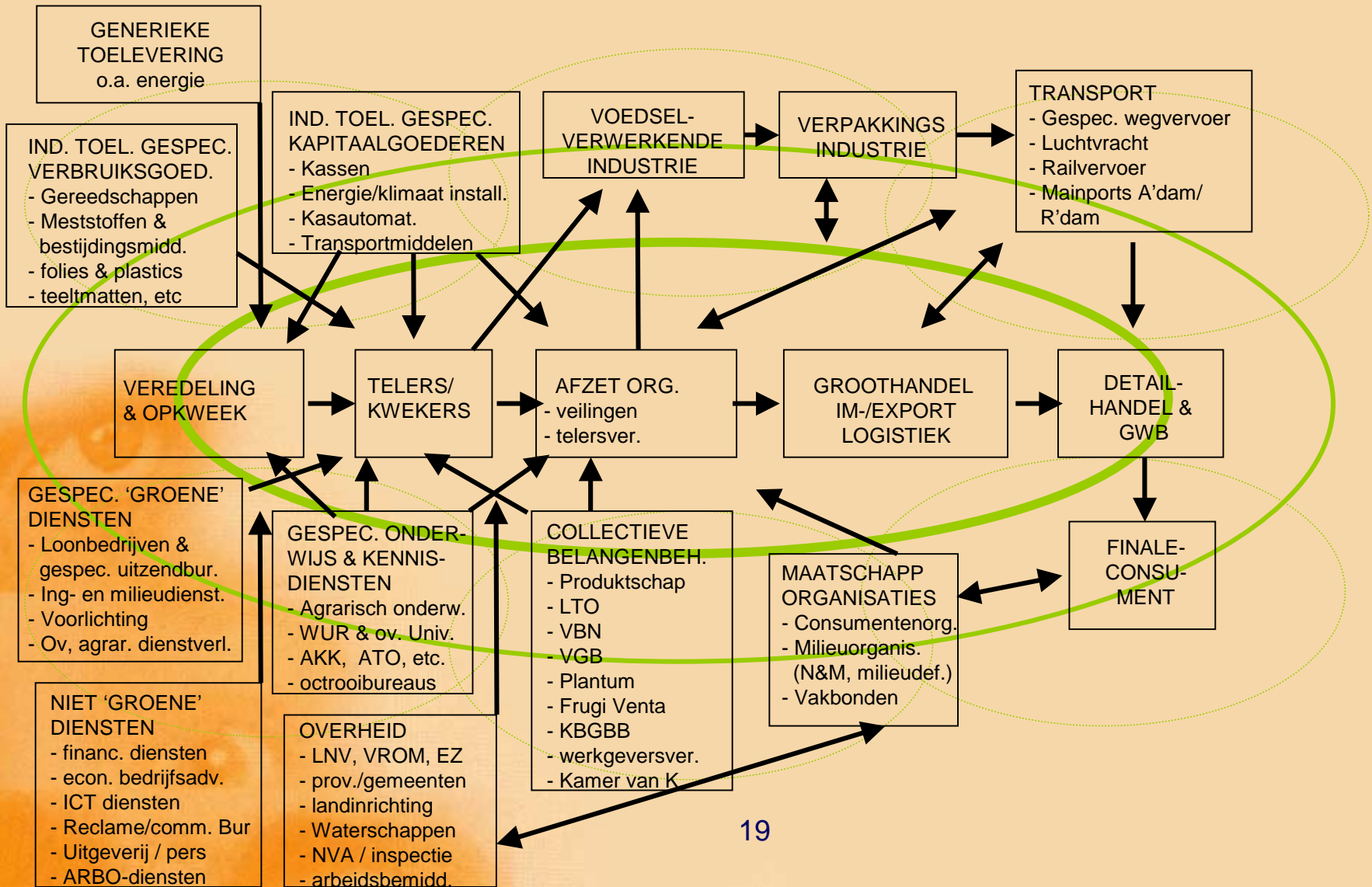
Trade & distribution

Supplying 'green' and 'non-green' profit and non-profit services

Interest and various societal pressure groups

Marketing organisations & consumption

V. Horticultural cluster (6): picture 2



V. Horticultural cluster (7): dynamics

- Supply ==> demand-driven
- Production areas abroad
- Increase of scale, automation, internationalisation
- Pure technological ==> systems innovations
- Entrepreneurial capabilities do matter

V. Horticultural cluster (8):dynamics

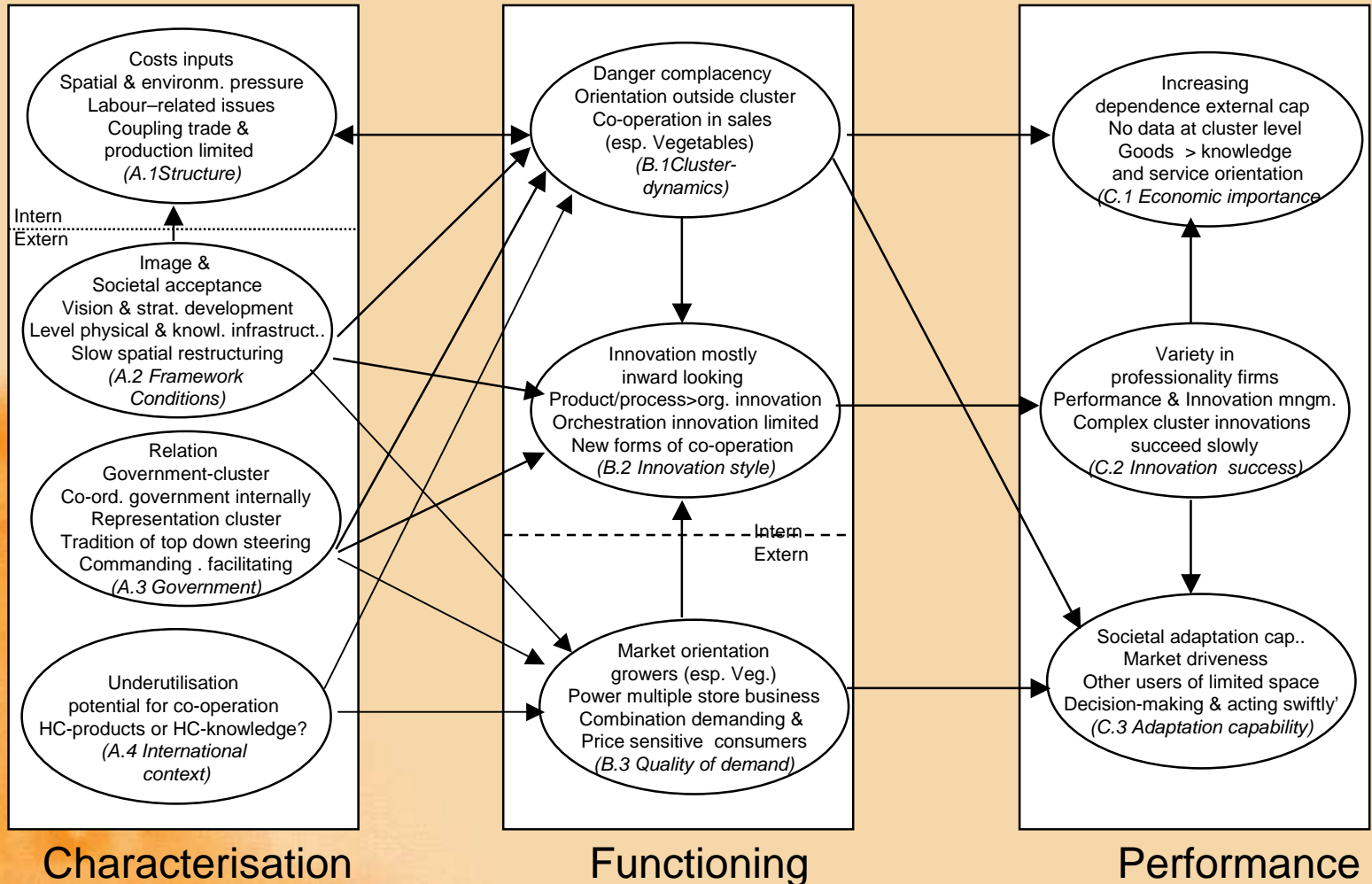
- Open ==> closed 'knowledge system'
- Demanding and well off clients
- Development towards regular economic industry
- Growing societal demands (environmental, labour, spatial)
- Top-down ==> network steering

V. Horticultural cluster (9): accomplishments

1. Full-grown, complete and varied cluster
2. Specialised local production networks servicing international markets
3. Approximately 2% Dutch GDP
4. Extraordinary export performance & international production
5. Well developed innovation culture and economic adaptation capability

NB: differences between ornamental plant cultivation and food/vegetables

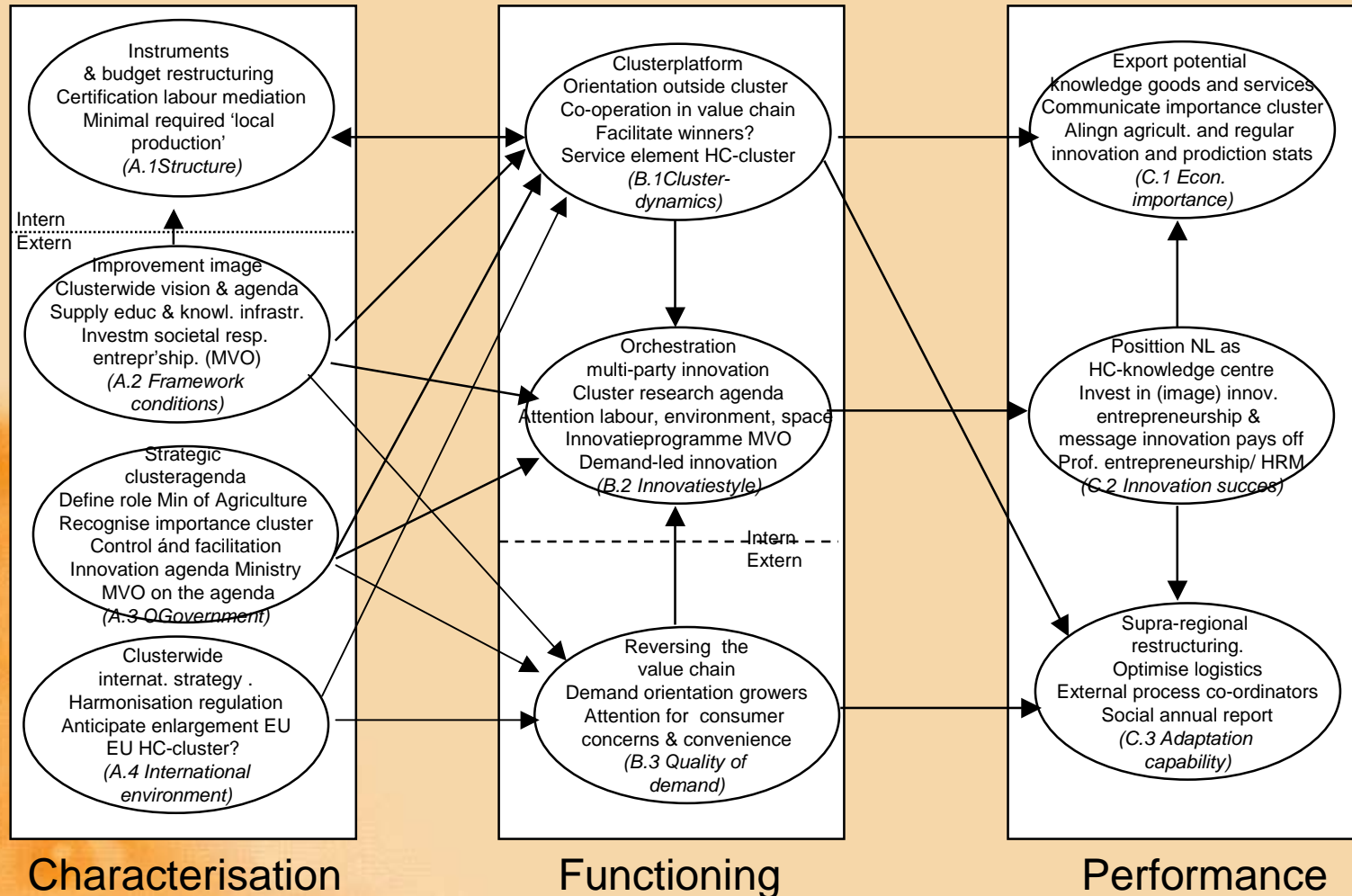
V. Horticultural cluster (10): barriers



V. Horticultural cluster (11): barriers

1. Image and societal acceptance
2. Decision making at the (sub-) cluster level
3. Dealing with complex innovation issues with a systems character
4. Missing strategy for internationalisation

V. Horticultural cluster (12): options for improvement



VI. Concluding remarks (1)

- Cluster policies at various levels of aggregation can contribute to econ. growth and competitiveness.
- ... they start from the idea that each cluster has a specific innovation style ...
- ... and therefore requires a different (customised) policy mix
- ... consisting of both innovation and 'non-innovation policies
- Cluster policies are at the same time 'working tools' to discuss barriers to innovation and options for improvement in both emerging and mature clusters

VI. Concluding remarks (2)

- Cluster policy are demanding for innovation policy-makers as they require an ability to switch between roles
- Example of the HC-cluster showed how a cluster monitor methodology can be used to systematically map the dynamics and adaptation capability of a (seemingly successful) cluster, identify barriers and draw up a common cluster-agenda for growth and competitiveness

VII. Some points for discussion (1)

1. Creating new vs. sustaining established clusters
2. High tech myopia of cluster policies
3. Selectivity of cluster policies
4. Appropriate level of cluster-oriented policies
5. Use of 'other policies' in innovation policies
6. What is needed to put a cluster agenda into practice (who is the problem owner?)