

Regional Industry Cluster Analysis

Using Spatial Concepts

I. The cluster idea

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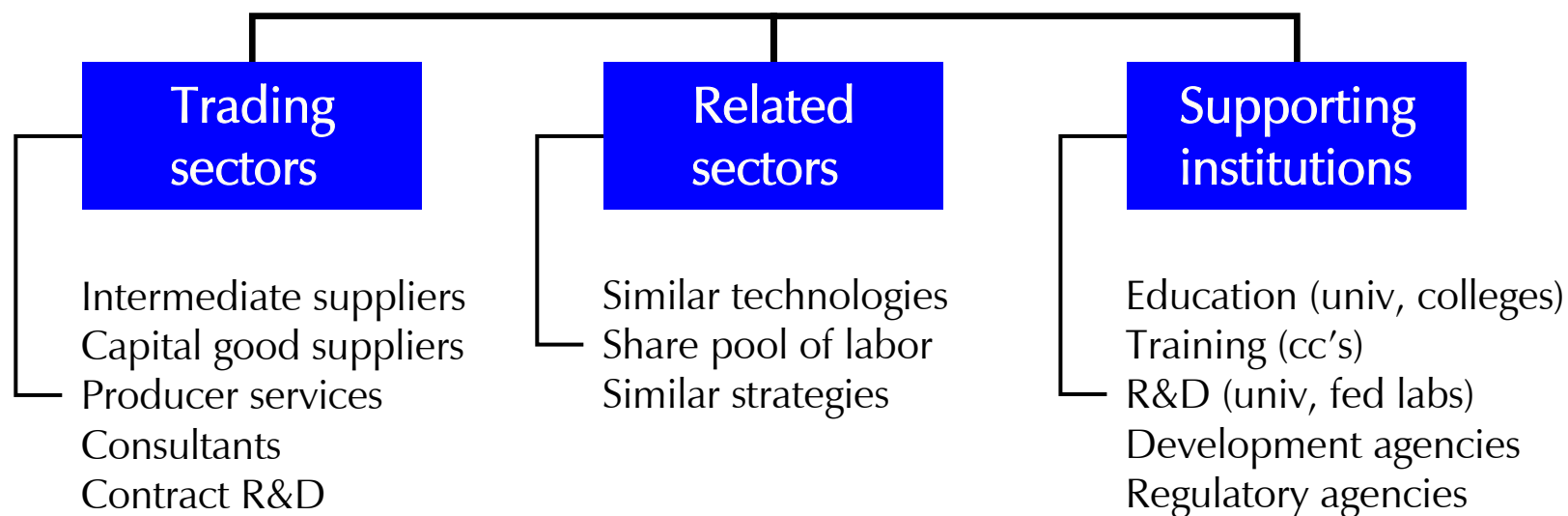
Pre-Conference Training

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Module I organization

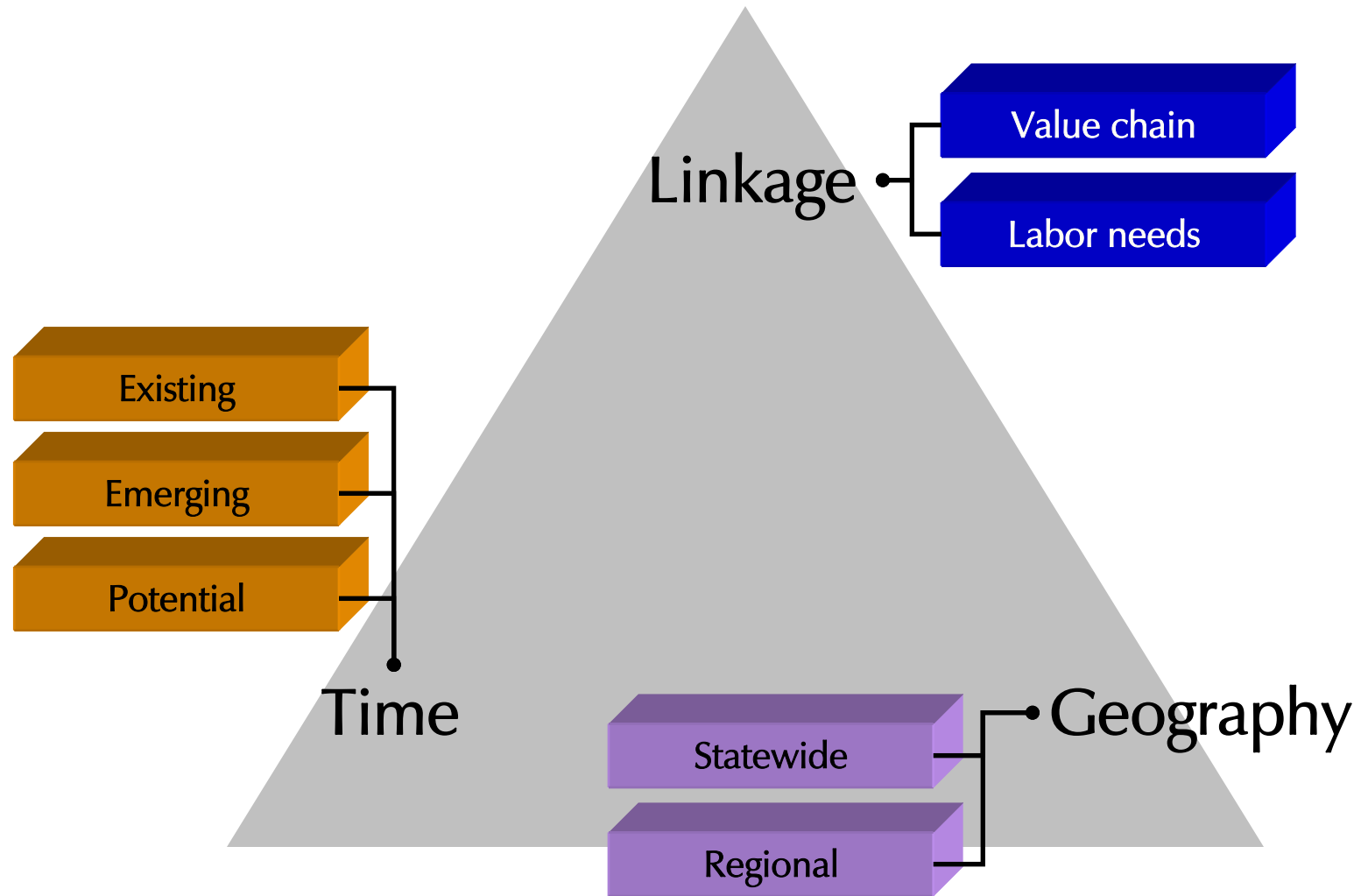
- A working definition of clusters
- Prof. Michael Porter's model
- A brief discussion of policy
- Framing industry cluster analysis
- A working definition of cluster analysis as ESEBA

Clusters are...



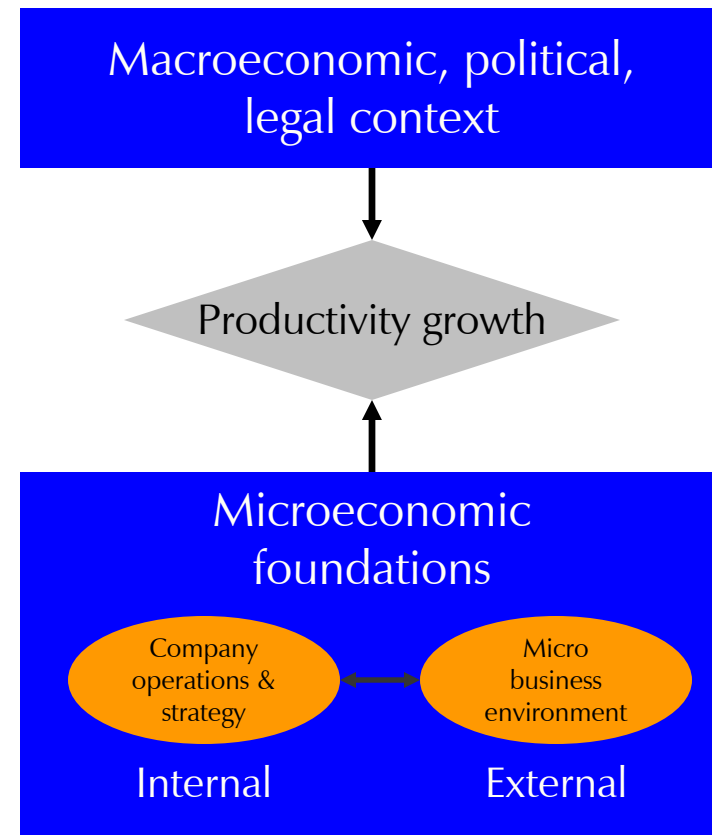
- **Interdependence:** Each member firm's competitive position depends on one, some, or all other members of the group. Business is the core.

...with three dimensions



Basics

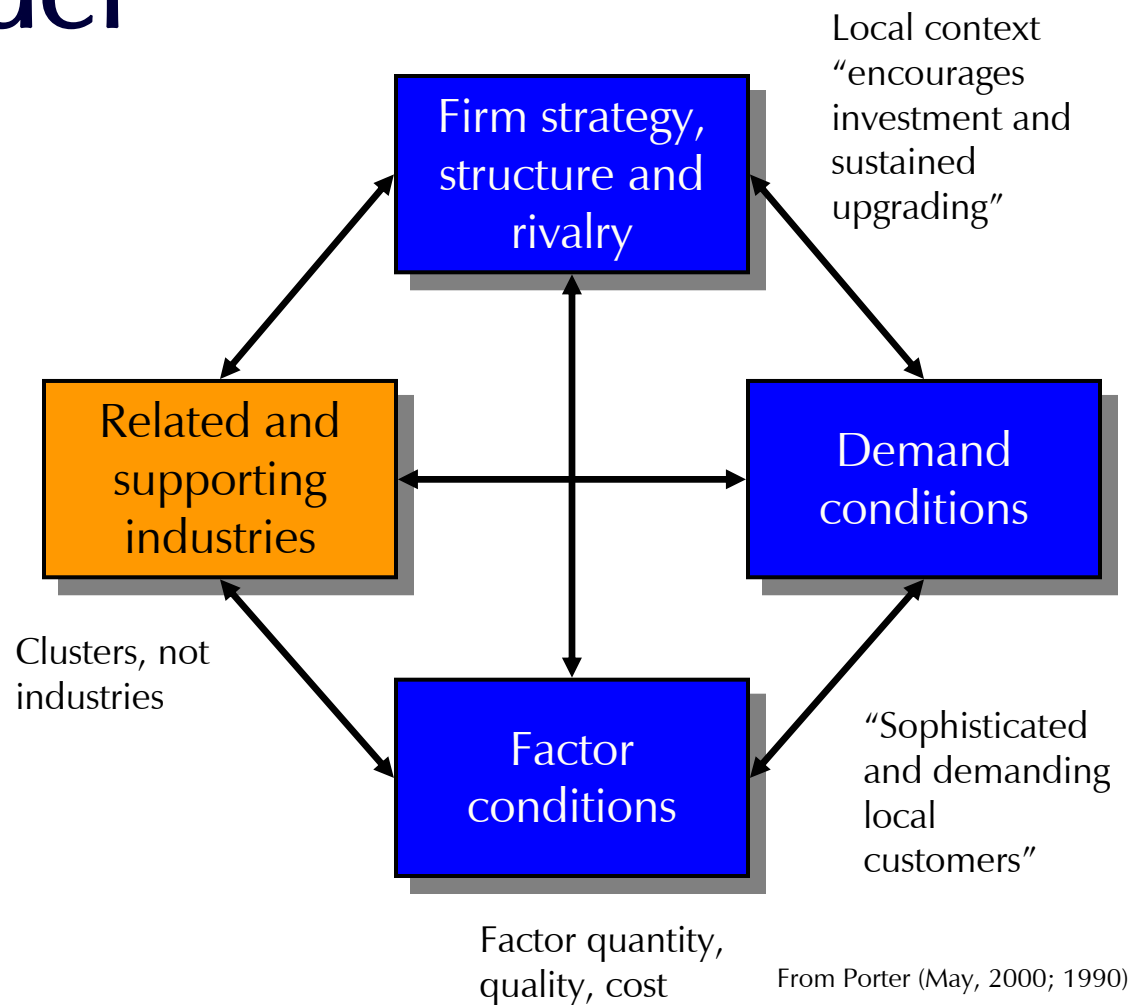
- Interest in clusters coincides with focus on competitiveness
- Erosion of traditional sources of comparative advantage
- Innovation as growth engine
- Michael Porter's framework



From Porter (May, 2000)

Porter's model

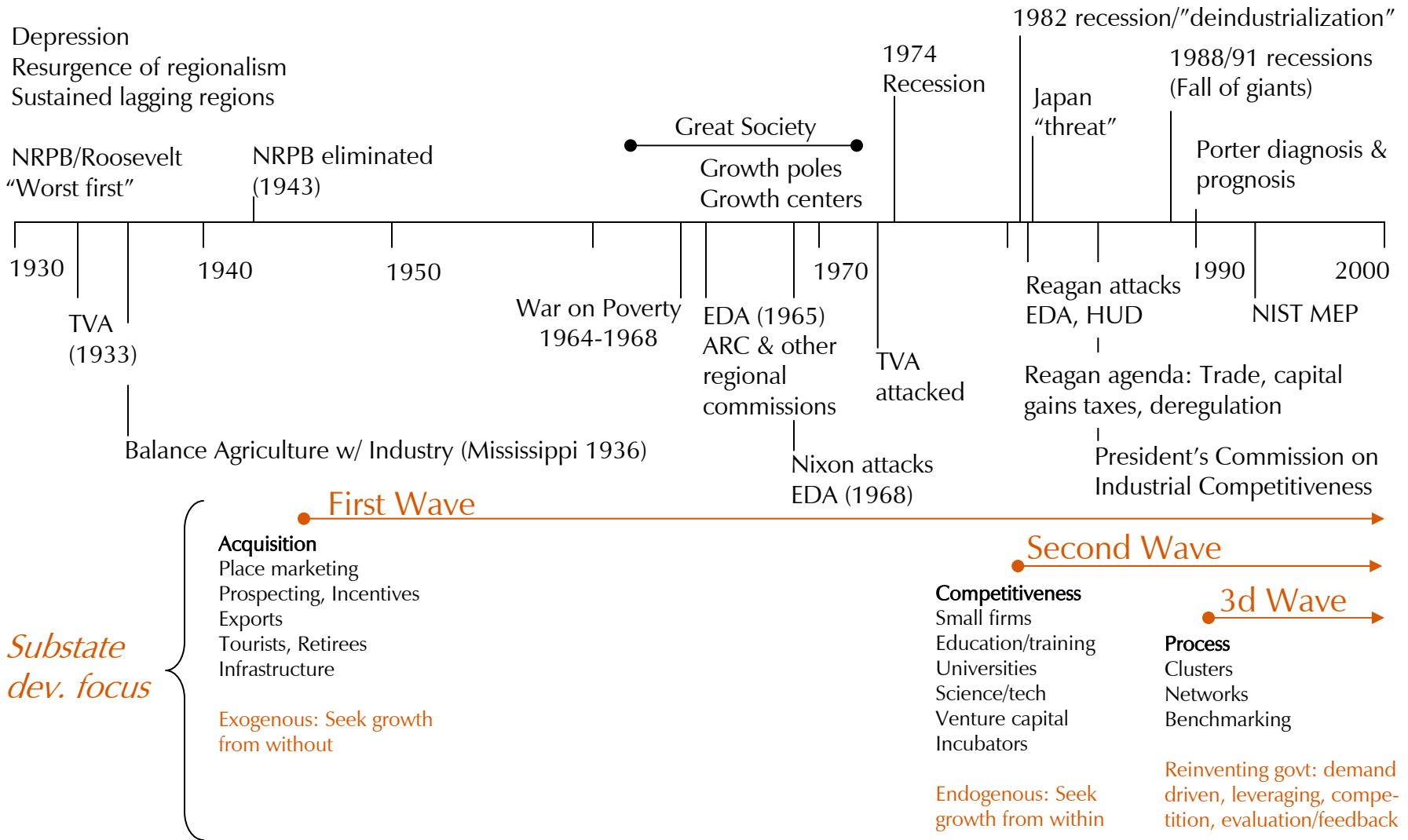
- Four major determinants of competitive advantage
- Clusters as one element
- Clusters are not necessarily regional in scope



Porter model & concepts

Federal "development" focus:

National planning -----> Welfare state -----> Restore competitiveness



How used in policy?

Approach	Explanation
Clusters as allocation strategy	Focus development attention and resources on identified competitive clusters in a limited number of select regions and industries.
Clusters as unique development strategy	<i>Networking</i> Promote networking among clustered firms in a given region.
	<i>Portfolio of strategies</i> Coordinate a set of strategies to boost competitiveness of regional industry clusters of particular type and vintage, as identified via applied cluster analysis.
Clusters as organizing device	Use of cluster concepts to facilitate and motivate strategic economic development planning efforts, especially with respect to inclusion of private sector leadership.
Clusters as means of implementation	Redesign and deliver development initiatives, using knowledge of business interdependencies and clustering dynamics as revealed in applied cluster analysis, as a guide.

What is industry cluster analysis?

- *A precise method of detecting future regional growth engines?*
 - Development goals implicit
 - Heavy application of quantitative methods
 - Supplementation with qualitative methods
 - Use of single “best” definitions and rigid indicator thresholds
 - Use of “best” measures, approaches
- *A flexible mode of inquiry: of “intelligence interactive” strategic planning?*
 - Development goals explicit
 - Balanced application of quantitative and qualitative methods
 - Engagement of public and private sectors, and citizens in interpreting results
 - Use of multiple approaches, methods, measures:
Triangulation

Two general types

■ General cluster analysis

- Assessment of linkages and relationships across all regional industries
- Comprehensive and detailed
- Application of generalized cluster definition or use of multiple definitions

■ Focused cluster analysis

- Investigation of one dimension of cluster concept - and/or-
- Investigation of one or a few key industry segments

Framing determines selection

Identify and frame the policy problem first, i.e., KNOW WHAT YOU WANT

Policy problem:
What will you use the study for?

Determines:

Cluster definition

Existing?
Potential or emerging?
Spatial or non-spatial?
Type of linkage?

Methodology

Comprehensive?
Generalizable?
Qualitative?
Quantitative?

Implementation

Industry buy-in?
Analysis only?
Marketing only?

Definition of industry cluster analysis

- A type of analysis that views firms, and therefore industries, as interdependent, not isolated
- Interdependence has two dimensions:
 - Functional
 - Spatial/geographic
- Therefore: *Industry cluster analysis can be described as an exploratory spatial economic base analysis (ESEBA) technique, with wide range of possible approaches depending on the policy or planning needs at hand.*

Module I review

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