

# <u>Term</u> Economic Cluster

### Definition

An economic cluster is a dense network of companies and institutions in a certain geographic sphere. The cluster is composed of production companies, raw materials suppliers, services providers, companies in related fields, and public institutions (such as research, training and standardization institutions).<sup>1</sup> The cluster contains three types of connections: (1)Vertical – a connection between provider and manufacturer along the production line; (2) Horizontal – a connection between manufacturers of complementary products;<sup>2</sup> (3) Institutional connection – a connection between companies and public institutions.<sup>3</sup>

#### Context

Socioeconomic leapfrogging<sup>4</sup> in Israeli residents' quality of life requires a leapfrogging of the country's regions.<sup>5</sup> In order to advance quality of life within a region, it must develop abilities to compete in the global sphere. Doing so necessitates establishing an association of several organizations – such as local municipalities, private sector, and civil society organizations – within a specific region. This association requires basic national inputs, such as investment in infrastructure; but also depends on identifying the region's unique assets and mobilizing of economic activity around them.<sup>6</sup> An economic cluster that is based on the region's unique assets is an appropriate structure through which to promote regional leapfrogging.

- <sup>1</sup> Porter M. E., "Clusters and Competition: New Agendas for Companies, Governments, and Institutions", **On Competition** (Harvard Business School Press: 1979). (From now on: Clusters and Competition).
- <sup>2</sup> Complement products are products in which the demand for one depends to a certain extent on that for the other. In many cases they create a whole entirety, for example: coffee and sugar, shower stalls and sinks or flower bouquets and greeting cards.
- <sup>3</sup> Public institutions provide services such as regulation, information, vocational organization, research and training shared by the cluster's members. For example, the companies in Massachusetts' economic cluster in the U.S. purchase medical insurance services from the same provider. (Clusters and Competition, p.204).
- <sup>4</sup> For further details see Reut's document <u>Principles and Guidelines for Achieving a Socioeconomic</u> <u>Leapfrog - Version B</u>.
- <sup>5</sup> This tendency corresponds to many studies that point to the growing importance of regional economies as an engine driving national economies. Ben-Elia N., "<u>The Missing Link: Regional Governance in Israel</u>", Floersheimer Institute for Policy Studies, (Jerusalem: 2006) p. 10. And also: Porter M. E., "The Competitive Advantage of Nations", On Competition (Harvard Business School Press: 1979) p.155. (From now on: The Competitive Advantage of Nations).
- <sup>6</sup> OECD research indicates that fast growth depends on national investment in infrastructures, but it simultaneously requires economic development based on the unique characteristics and abilities of a given region. "How Regions Grow Trends and Analysis", **OECD**, 2009, p. 18.



## Economic cluster's life cycle

- Identification of regional assets Economic clusters are created on the basis of the unique assets in a certain geographic region. These assets can include: technical expertise, local knowledge, historical heritage, landscape and natural assets, social capital, values,<sup>7</sup> and location.
- Advancing a process of positive feedback Economic clusters sprout in a specific place as a result of the local expertise and in light of local demand. The cluster's specialization attracts similar companies to the area. These enhance the competitiveness and improve the products manufactured and services administered in the cluster. As a result, the cluster's reputation improves, the demand for its products grows, and other companies seek to move their activity to the area.
- Breaking into the global market Preserving long-term competitive advantage relies on adopting a global strategy. This is because being globally competitive requires the cluster's members to aspire towards the cutting edge of their field in sophistication and quality, and also because the global market represents greater growth potential.
- Degeneration and ebbing Clusters can preserve their competitive advantage for decades and centuries, but they can also atrophy. Sometimes degeneration is caused by internal factors, such as developing 'group think',<sup>8</sup> creating cartels, and reducing competitiveness. In other cases, degeneration is caused by external factors such as a technological innovation that degrades the cluster's unique advantages.<sup>9</sup>

#### **Characteristics**

- Reducing business transaction costs An economic cluster is based on companies from different fields sharing a reciprocal propensity, which consume similar raw materials, services, social capital, and knowledge. Corresponding to the demand, suppliers, institutions, and infrastructure found in the cluster will serve the whole cluster's members. High accessibility to those inputs reduces the business transaction costs of existing companies and makes their activity more efficient.<sup>10</sup>Furthermore, the relative low costs of business transactions reduce entrance barriers and encourage similar companies to grow in the same cluster.<sup>11</sup>
- Creating social capital Social capital<sup>12</sup> is a product of relationships, informal connections, and repeated meetings between cluster's members. Social capital provides
- <sup>7</sup> For example, Porter mentions that the Germans' strict management methods and labor values that focus on precise production, prolonged development and client service, are well-suited to the fields Germany excels in: optics, chemistry and complex mechanic equipment. (The Competitive Advantage of Nations, p. 178).
- <sup>8</sup> Groupthink is a mentality that develops among a group's members who tend towards consensus and conformism. The group's dynamic oppresses rational analysis, examination of alternatives, and expression of hesitations or criticism. Janis Irving L., "Groupthink", Psychology Today Magazine, (1971).
- <sup>9</sup> Clusters and Competition, pp. 243-5.
- <sup>10</sup> Clusters and Competition, p. 214.
- <sup>11</sup> Clusters and Competition, p. 224.
- <sup>12</sup> Social capital according to 'The Saguaro Seminar' a joint initiative of Professor Robert D. Putnam and the John F. Kennedy School of Government at Harvard University – is the collective value of



information flow; enables identification of long-term partners, which renders efforts to repeatedly seek new partners unnecessary; and produces a level of trust necessary to pursue joint interests and foster a willingness to act in cooperation. Social capital 'greases' the cluster's wheels, and enables the implementation of its potential in evolving from a mere concentration of businesses to an emergent whole entity that is greater than the sum of its parts.<sup>13</sup>

- Ability to react to a changing reality A cluster is an economic structure that supports change, innovation, and continuous striving towards the highest level of sophistication and quality. Therefore, it increases a company's chances of adapting to a changing reality.<sup>14</sup> The relative proximity between providers, manufacturers, and end-users facilitates continuous communication regarding the changes in demands and preferences alongside changes in technology, production systems, marketing, and management. This communication enables the swift adjustment of products and services according to changing market demands.
- Closing 'short circles' accelerates innovation The cluster's structure contributes to acceleration of innovation. For example: Manufacturers can influence providers to develop new products and then serve as an experimental platform before the break-in to the wider market.<sup>15</sup> In this way, risk is reduced while the willing to initiate innovative experiments increases. Moreover, good and available information flows in the cluster and indicates opportunities to develop innovative products and services. In addition, informal relationships between providers, customers, and colleagues encourage trust and a flow of technical and business information within the cluster. Information spillover is a positive external influence that shortens the time and reduces the effort that companies usually invest in studying the market, and in this way it contributes to the efficiency of companies in the cluster.
- The value of the whole entity is greater than the sum of its parts In many cases, the value of products and services produced in the cluster is greater as a whole entity than the value of the sum of its parts. This could be based on a value of a comprehensive product, such as a vacation that includes lodging, meals, landscapes, and experiences concentrated in places nearby; a value of efficiency, since the cluster functions as a kind of one-stop-shop for the costumer; or a value of reputation.<sup>16</sup>
- Creating conditions for competition based on innovation An economic cluster is based on business rivalry between companies operating within the same branch in the cluster. These companies compete in the free market under the same conditions without any favorable government-administered conditions, such as tax benefits or import tax protection. This characteristic obligates the companies to be prominent in the market based on real advantages, such as innovation and high productivity, as opposed to companies whose prominence is based on artificial advantages, such as subsidy or governmental protection.<sup>17</sup>

- <sup>13</sup> Clusters and Competition, pp. 225-227.
- <sup>14</sup> Clusters and Competition, p. 250.
- <sup>15</sup> Clusters and Competition, p. 221; The Competitive Advantage of Nations, p.176.
- <sup>16</sup> Clusters and Competition, p. 217.
- <sup>17</sup> Clusters and Competition, p. 209, 213; The Competitive Advantage of Nations, pp.179-180.

all "social networks" [who people know] and the inclinations that arise from these networks to do things for each other ["norms of reciprocity"]. http://www.hks.harvard.edu/saguaro/primer.htm.



**Foundations for coopetition -** Coopetition<sup>18</sup> is an adjective describing conduct in the cluster composed of cooperation and competition. Companies in the cluster compete against each other in the free market, and at the same time cooperate on issues that concern the cluster's promotion (see further details below). In many cases the government encourages companies and sectors to work as a cluster in identifying common opportunities, developing internal communication capacities, and indicating commonly experienced obstructions. This can be established through a network of informal connections within organizations such as regional professional associations, the commerce department, and institutions promoting academy-industry connections.<sup>19</sup>

# Cluster as a sphere to dialogue between central government and business sector

The governmental policy's main challenge regarding economic development is developing mechanisms to identify missing inputs or main obstacles for the private sector.<sup>20</sup> The purpose of those mechanisms is to reveal information that exists in the private sector and is not available for decisions makers. By means of continuous dialogue, those inputs able to most effectively maximize new activity in the market can best be determined.<sup>21</sup>

Governmental assistance to a single sector is usually directed towards subsidies or protections that create distortions, while national activity is usually directed towards the lowest common denominator of creating a 'friendly environment for business', such as by enacting a tax reduction. On the other hand, governmental assistance to a cluster is more focused on companies' concrete (but not the particular) needs.<sup>22</sup>

The reason is that the companies within the cluster, which belong to different sectors, suffer from the same obstacles, whose removal they can as a group advocate to remove. Since the cluster concentrates several companies dealing with similar obstacles, it creates a critical mass that is needed in order to obtain the government's attention. On the other hand, the government's activity towards a whole cluster will be more effective and therefore a more attractive policy option. For this reason, the economic cluster could be the perfect platform for dialogue between the business sector and the central government.<sup>23</sup>

End.

<sup>&</sup>lt;sup>18</sup> The term Cooperation (Cooperation + Competition) was invented by Ray Norda, the founder of Novell Company. For further details see the internet site <u>co-opetition interactive</u>.

<sup>&</sup>lt;sup>19</sup> Clusters and Competition, pp. 258-259.

<sup>&</sup>lt;sup>20</sup> Since the state has many options for investments in public inputs, the great difficulty is to determine which public inputs will produce the highest socio economic benefit, in light of the chosen global trend. For further details see: Rodrik, D., **One Economics Many Recipes**, (New Jersey: Princeton University, 2007), p.104.

<sup>&</sup>lt;sup>21</sup> For further details see Reut's document: Global and unique development policy.

<sup>&</sup>lt;sup>22</sup> Clusters and Competition, p. 250.

<sup>&</sup>lt;sup>23</sup> Clusters and Competition, p. 199.