

# The Major Milestones to Constitute SINTONÍA, an Institute for Collaboration (IFC)

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## **ABSTRACT**

In recent years, the importance of the microeconomic environment for business competitiveness and economic and social development has been increasingly recognized. This includes a wide range of factors, organizations, strategies, policies and norms that directly affect productivity. The entities that influence competitiveness at the micro level are business and related industries, government and regulatory agencies, universities and institutions for collaboration to promote collaboration and coordination. The interactions among them have a direct impact for the competitiveness of any region. Hence, it is crucial to have an Institute for Collaboration as the leading coordinating effort to foster development and economic competitiveness in Puebla, México and the region. The Institutions for Collaboration, IFC's, (Porter, 2003) influence the productivity and competitiveness to play a variety of roles in three types of markets: local, regional and international. The objective of this paper is to present a model of collaboration, innovation and shared value through the figure of an Institute for Collaboration, SINTONIA, created at UPAEP University in Puebla.

### **Key words**

Competitiveness, Collaboration, Institutions for Collaboration, Economic Development, Cluster, Shared Value

## **1. INTRODUCTION**

A new competitiveness agenda with appropriate policies are crucial for México to achieve macroeconomic stability, to enhance business productivity and establish long term economic growth. The National Development Plan established a 3.5% growth per year, which is a 2.4% growth in GDP per capita. To achieve this, the plan proposes to work on competitiveness, macroeconomic stability, foreign investment, employment generation and growth. The state of Puebla has fallen behind in all development indicators. With 217 municipalities, Puebla

contributes 3.6% of the Mexican GDP and represents 5.1% of the population in México (31 states and the capital). Among ten national performance indices, Puebla scores below the national average on all, with the general index for state competitiveness placing Puebla 24th among states. Compensating for fifteen years of a non-competitive agenda, the new state government is working hard towards increased transparency and commitment to building capacity across sectors.

As a consequence of Puebla's lack of competitiveness agenda and to leverage the relationship between UPAEP University and the Institute for Strategy and Competitiveness (ISC) at Harvard Business School (HBS), a competitiveness initiative called SINTONIA was launched in January 2012. Since 2005, UPAEP has accomplished foundational research and analysis to identify key sectors and clusters, positioning us to fulfill our objectives. Engagement of key stakeholders and leadership is on their way, with the commitment of all sectors of government, private industry and universities. UPAEP's investment thus far has created momentum and trust through SINTONIA, supported by an applied research and interdisciplinary team. As a core element of SINTONIA's strategy, Dr. Michael Porter is a member of the executive board. Participating intensively in this endeavor, his presence ensures industry participation as well.

This article presents the major milestones to constitute SINTONIA, an Institute for Collaboration (IFC) based on the model of the Institute for Strategy and Competitiveness (ISC) at Harvard Business School. The ISC university network is formed by more than eighty universities around the world teaching the Microeconomics of Competitiveness (MOC) graduate course directed by Dr. Michael Porter. UPAEP University is part of this network and has been teaching the course for over five years. One of the main objectives of this network is to have a profound impact in the development of the

region by having Institutes for Competitiveness supporting the development of the city, the region and even the nation. SINTONIA is in the case of Puebla, the IFC initiated by UPAEP University, as a collaborative entity capable of foster productivity, innovativeness and shared value for the state in order to increase competitiveness, the sustainable social and economic development of Puebla, the region and Mexico, through a harmonized tetra helix model: companies, government, universities and society.

Sintonia is providing the infrastructure and support for this regional competitiveness initiative. It is a forum for analysis, debate and specific actions related to the State of Puebla's competitiveness and the region. It is also using the created platform to improve the business environment in Puebla, without any linkage to any particular political party or administration. One of the main goals of SINTONIA is to support the development and implementation of unique cluster value proposition strategies with a particular interest in promoting shared value projects in organizations (Porter, 2011).

## 2. THE JOURNEY OF FORMING SINTONIA

SINTONIA's team designed a methodology to cope with such a challenge by implementing an intensive action plan to promote the dialogue between all the stakeholders of the tetra helix system. The plan included a series of events shown in Figure 1 and 2, involving several conferences by well-known international specialists in issues of economic development and clusterization. The kickoff session was critical for the success of this initiative and was brilliantly conducted by Jon Azua, former vice-president of the Basque Country, sharing his vast experience in the development of the country. It also included Burke Murphy, former executive of Economic Development of the state of Minnesota, sharing her knowledge and leadership in the implementation of the state plans.



Figure 1. Journey of forming SINTONIA

It was decided that a vital element for the success of SINTONIA was to have a common understanding and methodologies for clustering economic development. A brief executive version of the MOC course was designed for SINTONIA, consisting of practical lectures on basic concepts developed by Porter such as:

- Strategy and the Five Forces that Shape industry
- Value Chain

- The National Competitiveness Diamond Model
- Cluster Mapping
- Shared Value

The brief MOC course also included the discussion of three cases, Costa Rica (America), The Basque Country (Europe) and Singapore (Asia), as well as several mini case studies (Ceramic tile in Italy, California Wine Cluster, Puebla's Automotive Cluster, and Mexican Government Policies affecting Competitiveness) to show examples of the methodologies, tools and techniques covered at each session. In parallel to the events shown in Figure 1, there were two fundamental activities taken place (Figure 2) that contributed and accelerated the development of SINTONIA. First, The Mexico and Puebla Cluster Mapping Project that generated the basic input to establish priorities of the clusters to focus on at first in Puebla and the region. And second, the regular Graduate MOC course with 46 students that decided to join the clusters to study in the SINTONIA initiative. Most of our graduate students are working professionals that joined the clusters where they had more experience. Every cluster was then formed by business people or students working in that cluster, government officials, professors and people from nonprofit organizations.

The MOC graduate course explores the determinants of national and regional competitiveness building from the perspective of firms, clusters, subnational units, nations, and groups of neighboring countries. It focuses on the sources of national or regional productivity, which are rooted in the strategies and operating practices of locally based firms, the vitality of clusters, and the quality of the business environment in which competition takes place.

This course examines both advanced and developing economies discussed over 19 cases and addresses competitiveness at multiple levels – nations, subnational units such as states or provinces, particular clusters, and neighboring countries. The course is concerned not only with government policy but also with the roles that firms, industry associations, universities, and other institutions play in competitiveness. In modern competition, each of these institutions has an important and evolving role in economic development.

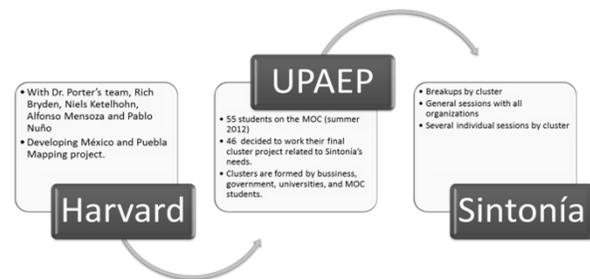


Figure 2. Journey of forming SINTONIA (in parallel)

### 3. CLUSTER MAPPING PROJECT

A key input for SINTONIA has been the development of the cluster map for Puebla and the region. This was accomplished by a team formed by Michael E. Porter, Richard Bryden, and Niels Ketelhohn, from ISC, Alfonso Mendoza, and Pablo Nuño from UPAEP University (Figure 3). The selection of the main clusters was a result of the data analysis provided by the Cluster Mapping Project, using the methodology developed by ISC at Harvard, which uses the information of the North American Industry Classification System (NAICS), the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the business economy in Canada, USA and México.

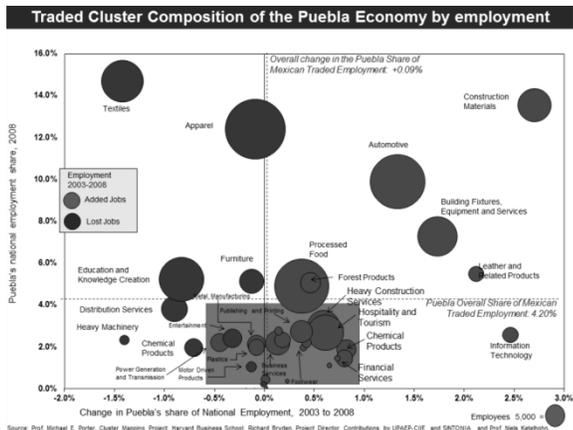


Figure 3. Cluster Map of the Puebla Economy by employment

SINTONIA has analyzed twelve clusters based on the cluster mapping project that represent a high concentration of employment and potential value added in the state. The idea was to have the necessary background to develop a Competitiveness Report and specific strategies for clusters. The plan included a formal presentation of the progress report to Dr. Porter in April 2012. The cluster group's motivation was kept high with such high goals in mind. During the biweekly sessions, there were representatives of different universities, companies, industries, government and society. Cluster workshops were also organized for the participants to put in practice what they have learned in previous sessions.

### 4. CLUSTER PRIORITIES

Based on the data analysis provided by the Cluster Mapping Project and through the dialogue with cluster members in the working sessions, initial clusters were selected to begin working with. The clusters considered to be more relevant for the state according to the employment and value added are described in Table 1]. The results of the cluster analysis were

indeed presented to Dr. Porter who gave us very constructive and valuable feedback. The Competitiveness reports for each cluster are available at <http://sintonia.mx/>

SINTONIA has taken off with Dr. Porter's visit and feedback, with cluster specific biweekly meetings and monthly plenary sessions. We are relying on the participation of the cluster groups to apply the research, diagnosis and analysis produced by Sintonia and the MOC teams into project detonators that will increase our regional competitiveness and prosperity. The Information and Communications Technology Cluster cuts across all other clusters, since they have changed the basic way to do business everywhere. It has been instrumental in the development of detonator projects for different industries.

Table 1: Clusters selected by SINTONIA

No.	Cluster
1	Information and communication technology
2	Textile and Apparel
3	Automotive and Plastics
4	Food Processing and Beverages
5	Education and Knowledge Creation
6	Building Fixtures
7	Construction
8	Tourism
9	Agribusiness
10	Energy
11	Health
12	Financial Services

### 5. STRUCTURE

SINTONIA's management body is integrated by representatives of the main clusters in the state and the region, as well as by government representatives, societal organizations leaders and universities directors and researchers. It is coordinated by an interdisciplinary group of practical academics and researchers with expertise on innovation and competitiveness projects, motivated by having a real impact in the development of the region and not only by isolated research goals. The key elements of the lean organization are shown in Figure 4, which considers an executive committee, a council members nominated by each cluster to represent their interest in board meetings, cluster coordinators and task forces, an international advisory council and honorary members.



Figure 4: SINTONIA's Organizational Structure

## 6. SINTONIA'S METHODOLOGY

As we know clusters have different stages of development it is necessary to consolidate linkages and take them to the creation of formal agreements and informal cooperation between different actors located both backward and forward of the value chain.

The steps identified as part of the training of the clusters are:

1<sup>st</sup> stage: Agglomeration - In this stage companies are geographically conglomerated with some additional services to the cluster.

2<sup>nd</sup> stage: Emerging Cluster - Agglomeration actors cooperate around a specific business area. The linking driver is the growth of the cluster.

3<sup>rd</sup> stage: Cluster in Development - Integrating new players in the sector is dynamic; the cluster acquires its own image.

4<sup>th</sup> stage: Cluster Maturity. Several players of the same industry. They have established relationships within and outside the geographical and the sector they belong. It generates new businesses and associations.

5<sup>th</sup> stage: Cluster Transformation - As time and technology markets changes, this affects the cluster and hence its operation. At this stage it other related clusters can be developed.

During the first years, we have participants from government and associations joining SINTONIA. However the early cluster meetings faced a challenge due to this ebb and flow of participation, to create a common language and to visualize a common objective.

Based on the twelve most important industries, the cluster meetings based reinforce the need for a transformation away from doing business as usual. SINTONIA's team realized that convening cluster participants entailed more than exchanging knowledge, it was imperative to create a new culture of collaboration. Stakeholders were surprised and uncomfortable

when they were encouraged to collaborate with their competition.

Rather than forming the planned structural organization first, the applied work led to different priorities: working on focusing each cluster on industry needs and challenges; creating leadership and retaining the participants of each cluster in SINTONIA, most importantly, leading the membership forward on the road to collaboration took precedence. We created a collaboration index in order to show stakeholders the progress they were making and where it was taking them. They would have to learn to share information, to cooperate, to share work and to achieve agreements in order to collaborate on a project detonator that would improve their industries competitiveness.

SINTONIA's team focused on providing leadership that reinforced purpose and structure for each cluster. Each cluster elected their own Champion and developed a project detonator. SINTONIA's team created a guide that would fit the requirements for each project detonator to be eligible for federal funds.

Each cluster faced similar overarching challenges, while the unique situation within each industry varied with diverse situations. In practice, SINTONIA's team discovered that all members participating in cluster sessions needed to have a deeper knowledge of the microeconomics of competitiveness (such as the MOC provides). Clearly understanding the method and the application of cluster methodology in other parts of the world would shift them from a local to global perspective.

A commitment to ongoing consistent participation has been a great challenge. Engaging and bringing new participants to the clusters was different than maintaining participation. Guiding, coordinating and strengthening relations between members, as well as within SINTONIA's, requires on going attention.

Most cluster participants would agree on the identified problems but finding consensus on how to resolve them is hard. Getting the members to stop admiring the problem was always a challenge. Moving them to actionable solutions requires a lot of leadership on the part of SINTONIA and trust within the cluster network.

Through the project detonators SINTONIA strives to influence public policy and practice. In a recent example within the health cluster, SINTONIA's neutral brokers are partnered with the state government's secretary of health and the Health Cluster to convene the public and private hospitals of Puebla to gain support for their "Zero Tolerancia a la Muerta Materna." Infant and maternal mortality is a key indicator of competitiveness and quality of life in the national competitiveness index. In order to secure the commitment of all hospitals, SINTONIA and the health cluster created a "Competitiveness Agreement" between the Department of Public Health, SINTONIA and 36 out of 70 hospitals emphasizing the importance of the necessity for such

this commitment in order to eliminate Puebla's rate of mortality through *high level participation, cooperation and collaboration*.

## 7. SINTONIA'S CURRENT PROGRAM OBJECTIVES

As a collaborative institutional approach to drive and upgrade productivity and innovation in the clusters of Puebla and the region, SINTONIA is thriving to excel in shared value initiatives that will enhance community and competitiveness worldwide. We have seven main objectives:

- To upgrade the cluster maps and productive value chains of Puebla and the region.
- To develop a unique value proposition of key clusters.
- To convene collaborative stakeholder's of key clusters for the first time in the state.
- To recommend targeted foreign direct investment portfolio for the region.
- To identify entrepreneurial opportunities for new business growth.
- To accelerate economic and community development, job growth and new business development.

Through a harmonized tetra helix model: companies, government, universities and society, SINTONIA is becoming a forum for analysis, debate and specific actions for the competitiveness of the State of Puebla and the region. The IFC's actions are supported by research, specialized programs from different institutions, and the permanent interaction among economic agents mainly with companies. SINTONIA aims to guide public policy development, relevant actors' agendas and cluster dynamics.

## 8. CONCLUSIONS

The intervention cluster focused research methodology begun in January of 2012 is an effective model for organizing the ecosystem of a fragmented economy. By motivating key stakeholders within each competitive industry to focus on increasing competitiveness, and by having an action based research agenda, important relationships within each sector is leading to a greater sense of cohesion, connectivity and willingness to collaborate. SINTONIA and UPAEP University have been willing leaders in this endeavor, working for a number of years on the best approaches to competitiveness in a global economy, based on years of research and analysis led by the MOC faculty and students, foundational knowledge was established about the industries driving our economy, the industries in decline and those that are emerging.

It was determined that it was time to take action and apply this knowledge in the development of an Institute for Competitiveness focused on regional competitiveness initiatives

dedicated to support and improve the economic and social conditions of our region. Many goals converge in this SINTONIA effort to align industry, government, universities and civil society in a manner that will position Puebla in the global economy. The intention of SINTONIA is to be a neutral broker, providing the thought leadership from our MOC experience on clusters and the infrastructure needed to convene all the stakeholders. Our goal is to involve many actors, such as NGO's, chambers, unions, foundations and more.

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