MOC
2002-2022
20 years contributing to the competitiveness of locations
MOC 2002-2022
20 YEARS CONTRIBUTING TO THE COMPETITIVENESS OF LOCATIONS
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The world is characterized by huge differences in economic performance across locations, including those both across and within countries. Over the last 25 years, Professor Michael E. Porter has developed a robust framework for understanding how competitiveness, the ability of firms operating in a specific location to compete successfully in the global economy while supporting high and rising living standards for the location’s citizens, is critical for explaining these differences in economic performance.

Michael Porter is the Bishop William Lawrence University Professor at the Harvard Business School. He is a leading authority on competitive strategy, the competitiveness and economic development of nations, states, and regions, and the application of competitive principles to social problems such as health care, the environment, and corporate responsibility. Dr. Porter is the author of 18 books and over 125 articles and has served as a counselor on a strategy to the governments of many nations, to leading international corporations, and to nonprofit community organizations. He holds a Ph.D. in Business Economics from Harvard University.
Professor Porter’s research has brought to light the critical importance of clusters and the quality of business environments for competitiveness.

The role of broader macroeconomic principles, as well as political, legal, and social factors, has traditionally overshadowed microeconomic foundations and the understanding of their impact on economic development. Porter’s research has also led to a new understanding of the role of the private sector in competitiveness, and the ways in which the private and the public sectors can collaborate to boost productivity.

Over the last several years, Professor Porter and his colleagues have worked with leaders from around the world to translate the conceptual framework into practical efforts that raise competitiveness and, ultimately, citizens’ standard of living. The success of these efforts often depends to a significant degree on the level of local capacity—in particular, on:

- A shared understanding of competitiveness among leaders in business, government, and other parts of society
- A group of individuals that have the skills to effectively diagnose locations and clusters, and can facilitate the development of action plans to upgrade competitiveness
- An institutional structure that can provide reliable analytical support and a neutral platform for collaborative action to upgrade competitiveness

The Microeconomics of Competitiveness (MOC) Affiliate Network was launched in response to these observations. The MOC course provides an integrative framework to understand and analyze the drivers of competitiveness. MOC faculty and their students become local experts in applying these tools in the context of their specific location. Universities and individual research institutes in the MOC Affiliate Network serve as platforms for support in collaborative efforts for competitiveness upgrading.

The vision was there from the start. And it was, unsurprisingly, ambitious: Teaching 100 professors every year, to reach 10,000 students!

In the late 1990s, Professor Michael Porter started to develop the idea of the Microeconomics of Competitiveness (MOC) course and network as a new way to develop and distribute his ideas around economic development and strategies for locations.

It was not just about teaching, the MOC vision was actually to create local capacity to understand and upgrade competitiveness through a highly scalable structure. The Institute for Strategy and Competitiveness (ISC) at Harvard Business School (HBS) developed the curriculum, teaching materials, and a platform for disseminating these materials around the world. The network enables faculty at affiliated universities to teach MOC quickly and without costly course development efforts of their own.
Further leveraging the network structure, faculty collaborate on teaching, developing cases, and researching as ways to expand the body of knowledge and be leaders on competitiveness in their regions.

**Box 2: Microeconomics of Competitiveness**

Microeconomics of Competitiveness: Firms Clusters and Economic Development (MOC) is a university-wide graduate course offered to students from around the Harvard University community, including Harvard Business School and Harvard Kennedy School*. Started in 2002, the course was created by Professor Michael E. Porter and colleagues at the Institute for Strategy and Competitiveness, Harvard Business School, through a multiyear development effort. The course has been designed for students at Harvard as well as a platform for teaching at universities around the world. MOC explores the determinants of competitiveness and successful economic development viewed from a bottom-up, microeconomic perspective.

The Institute for Strategy and Competitiveness studies competition and its implications for company strategy; the competitiveness of nations, regions, and cities; and solutions to societal problems. Based at Harvard Business School, the Institute is dedicated to extending the research pioneered by Professor Michael E. Porter and disseminating it to scholars and practitioners around the world.

For more information about the Microeconomics of Competitiveness Affiliate Network or course, please contact the MOC Program Manager at moc@hbs.edu.

Professor Porter’s new framework idea resulted from good experiences, but also, frustration surrounding existing knowledge on competitiveness. He went to work to establish a robust body of material on the subject. When writing his “Competitive Advantage of Nations,” Porter mobilized an international group of researchers to contribute case studies based on the framework he had developed. In the 1990s, he also had student teams from his elective course at Harvard develop cluster case studies. One of these outputs was the “California Wine” case that was to become a classic in the MOC curriculum.

But MOC was also a reaction to the challenges that Professor Michael Porter had experienced in helping countries and regions to achieve real change. While he could get the in-depth analysis done with the help of consultants and inspire audiences with his lectures, too often these insights led to limited action. What was lacking, were local partners trained in the competitiveness language and thinking that could then drive and sustain change processes.

Professor Michael Porter combined these observations to design MOC as a course with the goal to leverage a network of scholars while creating a network of change leaders — both at a global scale.

What needed to happen then, was to translate this idea into practice. In 1999, he was visiting Stockholm and had dinner with some Swedish business and political leaders at the home of Örjan Sölvell, a Professor at the Stockholm School of Economics. Leaving at the end of the evening, Professor Michael Porter mentioned his idea to Örjan Sölvell, who had already been involved in the Competitive Advantage of Nations (CAON) project, and invited him to join him during an
upcoming sabbatical to develop MOC at HBS. These efforts were becoming a core initiative of the Institute for Strategy and Competitiveness (ISC), which was launched to provide a new institutional platform for Professor Michael Porter’s academic work as he was appointed the Bishop William Lawrence University Professor. Becoming a University Professor is an honor that only 20 professors across all of Harvard University have received.

When Professor Michael Porter launched the work on MOC, he and Örjan Sölvell were joined by Christian Ketels, who had been hired as the Principal Associate of ISC. Other key partners were Hiro Takeuchi, Professor Michael Porter’s close colleague who had moved to Japan to become Dean of Hitotsubashi University, and Niels Ketelhohn, who was finishing his Ph.D. at Harvard Business School before going to teach at INCAE Business School in Costa Rica/Nicaragua.

When the Microeconomics of Competitiveness course was taught at Harvard for the first time in 2002, it was open to students from Harvard Business School and the Harvard Kennedy School of Government; as well as to students from across Harvard and neighboring universities like MIT and Tufts. Among the first auditor students and scholars, was Jorge Ramirez, who would later join the ISC team.

Professor Michael Porter emphasized that this new course was not about company strategy but putting economic development and location competitiveness at its core.

It was going to be a course with a clear “point of view” based on his work on competitiveness, not a traditional overview of many different frameworks. He felt strongly that students needed to become fully embraced in this set of thinking to apply and challenge the ideas effectively.
The course curriculum included a mix of existing cases, California Wine, but also new cases, Volvo Trucks and Costa Rica IT, as well as cases on Finland, the IT/telecom cluster, and Nokia, that connected the course curriculum from the company level up to clusters to national competitiveness. The course included external guests, student team projects with a final report and presentations in class, and elective sessions on European competitiveness and on Institutions for Collaboration. “On Competition,” an overview book that collected some of Professor Michael Porter’s key articles published in 2000, became a key reference for students to study as they took the course.
Progressive at the time, the HBS MOC class was recorded in its first year of being taught. These recordings were made into video links, which the two first MOC Affiliates — INCAE in Central America and SSE Riga in Latvia were given access to. Here lied the opportunity to build and empower a global community of scholars to teach the course at their own university as a local course, not a distant learning offering. The team at ISC started to put a course package together and designed an annual faculty workshop for affiliated professors to learn about the framework and the teaching approach. The first MOC faculty workshop then took place in December 2003, with more than 40 faculty members from 25+ universities.
02. Competitiveness: Local Impact based on a Global Framework

The MOC network was a tool created with a clear purpose: to disseminate the competitiveness framework developed by Professor Michael Porter in the 1980s and empower local leaders to use the framework to achieve an impact on prosperity.

The framework initially laid out in Porter’s “Competitive Advantage of Nations” in 1990, provided a comprehensive perspective to understand the drivers of prosperity differences across locations. It identified productivity as the key economic foundation of sustained prosperity differences. Productivity is driven by many factors, and one of the core contributions of the competitiveness framework was to provide a structure to manage this complexity of factors. It integrated different strands of the existing literature, recognizing that both the quality of factor input factors like access to capital, physical infrastructure, and skills, as well as the context for strategy and rivalry like the openness of markets mattered for productivity. It added aspects that tended to be neglected, in particular, the role of clusters, local concentrations of related and supporting industries that enabled higher productivity, and demand sophistication, often a critical driver of innovation and future productivity.

Porter had come to the analysis of locational competitiveness from his earlier work on company strategy and industry structure. This was a perspective that was largely missing from traditional economic analysis of country-level growth and prosperity. Porter provided a way to integrate these views to get a much more granular understanding of how changes in macroeconomic and business environment conditions translate into changes at the firm level. Given that it is at the firm level where value and prosperity are ultimately generated, this added a critical new aspect to the analysis.
Figure 1. The Diamond Framework
Getting to these insights required connecting the global framework with local data. The MOC course aimed to enable affiliates to acquire and teach the necessary skills to undertake this analysis. Getting to these insights required connecting the global framework with local data. The MOC course aimed to enable affiliates to acquire and teach the necessary skills to undertake this analysis.

The competitiveness framework then also aimed to inform actions through which locations could enhance their competitiveness. Again, the ways to do so were highly context-specific, since every location had its own starting position, with its own key challenges and opportunities for upgrading. MOC provided no generic solutions. It provided the tools and inspirations for locations to develop those actions that were most appropriate given a location’s specific circumstances. The MOC course aimed to provide examples of how other locations had gone through this process of policy design and implementation and enable affiliates and their students to take similar steps for their home locations.

**Figure 2. What determines competitiveness?**

### Microeconomic Competitiveness

- Quality of the business Environment
- Economic Composition and the State of cluster Development
- Sophistication of company and strategy

### Macroeconomic Competitiveness

- Sound Monetary and Fiscal Policies
- Effective Public Institutions
- Human and Social Development

**Endowments**
From the start, Porter had a strong conviction for the MOC course to achieve these goals. It needed to be a course with a “clear point of view.” The aim was to provide teachers and students with a coherent approach to apply, not an overview of many alternative approaches. To be able to develop or challenge the MOC principles, Porter argued, one had to first understand and apply them. This was what the MOC course set out to do. The MOC framework was never static. The MOC network created an opportunity to add many new applications and examples from a large group of heterogeneous places and circumstances. Each one of these applications was a chance to develop and deepen the framework further.

The MOC curriculum offered a pedagogical structure to teach the MOC content. It was organized into four content modules, with one additional module dedicated to a team project, with presentations conducted by students.

The MOC course starts with a module on the key principles of firms, industries, and global competition. It then introduces the analytical tools of diamond and cluster analysis to diagnose locational competitiveness. The third set of classes discusses the potential to enhance competitiveness through government policy at different levels of geography and at different stages of development. A final segment turns to process and looks at ways to create an institutional structure for pursuing competitiveness efforts. After Professor Michael Porter introduced the Shared Value approach, Shared Value Cases have also been developed since 2012 and can also be integrated into the MOC course or offered in a stand-alone course. All materials are provided to affiliates on a Glasscubes platform created by the Institute for Strategy and Competitiveness for sharing and collaboration in the network. This provides an excellent resource pool to offer the course.

The course is taught using the case method, complemented by readings, lectures, and case protagonist presentations. In addition to case studies, the MOC course includes a team project involving the competitive assessment of a particular country and cluster. MOC faculty is given detailed project guidelines and is trained in how to manage the student project process.
03. The Emergence of the MOC network

The MOC Affiliate Network was established to create local capacity to understand, teach, and upgrade competitiveness. A network provided a highly scalable structure to achieve global impact. The Institute for Strategy and Competitiveness at Harvard Business School became the hub of this structure; with the framework developed by Professor Porter as the foundation. It generated teaching materials and a platform for disseminating these materials, organized an annual workshop to “teach the teachers,” and encouraged collaboration among the network members. MOC affiliates can draw on the course curriculum, a broad range of teaching materials, including teaching cases, teaching notes, concept lectures, and taped lectures by the government and private sector leaders from countries and regions covered in the cases.
Growth of the network

The network started with two partners in the first year, SSE Riga and INCAE in Nicaragua. But it quickly grew in numbers, covering an increasingly far-reaching and heterogenous set of countries. Interested universities were provided with a prospectus, laying out the profile of the course and the criteria for membership. All MOC faculty members must have a doctoral degree in economics, management, or a related field, and have a full, appointed position at the university (i.e., Professor, Dean, Chair, Adjunct Professor). Membership applications were reviewed based on the ability and willingness of new affiliates to have an impact and be valuable members of the growing MOC community. Given the broad scope of competitiveness, the network included a wide range of different competencies and backgrounds.

The network grew quickly in numbers. After reaching 100 affiliates around 2007, growth stabilized at a rate of around 10 new affiliates annually. With some universities dropping out, net growth was at about 5 universities per year between 2010 and 2022.

Figure 3: Countries represented by the MOC network

- Current representation
- Inactive representation
The network especially grew between 2002 and 2008 (see Figure 4).

**Figure 4. Moc affiliate network growth**

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**The Role of Individual Leadership**

The MOC network is formally a group of universities, but at its core it is a network of individuals. And as the network developed, it became increasingly clear how critical the contribution of individual leaders was to the effectiveness of the group.

Starting in 2010, Professor Michael Porter launched the Hall of Fame of the MOC Network. Induction into the Hall of Fame recognizes an affiliate’s achievements, impact in his/her own country, and contributions to the Network over time. Many of the inductees of the Hall of Fame have played important roles in the governance of the network, including serving as Co-Chair of any of the MOC Councils or participation in regional Chapters, as well as participating in key competitiveness initiatives in their own regions.

Hall of Fame members have also been instrumental in applying the MOC Framework in analyzing and developing recommendations to increase the prosperity of countries and regions. In addition, other inductees have generated knowledge at their own institutes to respond to practical challenges at the country and sub-national levels.
MOC Hall of Fame Recipients

Yoko Ishikura
JAPAN, 2010
Hitotsubashi University

Zhigniew Bochniarz
USA, 2010
University of Washington

Jorge Forteza
ARGENTINA, 2010
Universidad de San Andrés

Philippe Gugler
SWITZERLAND, 2010
Universite de Fribourg

Eleanor Doyle
IRELAND, 2011
University College Cork

Torger Reve
NORWAY, 2011
BI Norwegian Business School

Jon Azua
SPAIN, 2012
Orkestra-Basque Institute of Competitiveness

Amit Kapoor
INDIA, 2012
Institute for Competitiveness, India

Fred van Eenennaam
NETHERLANDS, 2012
Erasmus University

Peter Abplanalp
SWITZERLAND, 2013
University of Applied Sciences Northwestern Switzerland

Burke Murphy
USA, 2013
University of Minnesota

Lee Munnich
USA, 2014
University of Minnesota

Pablo Collazzo
AUSTRIA, 2015
WU Vienna University of Economics

Mari Jose Aranguren
SPAIN, 2016
Orkestra-Basque Institute of Competitiveness

Marzenna Weresa
POLAND, 2017
SGH Warsaw School of Economics

José Pablo Nuño de la Parra
MEXICO, 2018
UPAEP

Fernando G. Alberti
ITALY, 2019
LIUC - Carlo Cattaneo University
As the network grew in numbers, a new structure was created to better engage the members in the further development of the network. This structure became a key step in moving from a hub-and-spoke model centered around the Institute for Strategy and Competitiveness (ISC) towards a more distributed network structure with many members contributing and collaboration strengthening among affiliates with as well as without involvement by ISC.

5 Councils were created on Membership, Curriculum, Impact, Institutes, and Knowledge, to focus on key activities for the development of the network.
<table>
<thead>
<tr>
<th>Council role and leadership evolution</th>
<th>Membership</th>
<th>Curriculum</th>
<th>Knowledge</th>
<th>Institute</th>
<th>Global Impact</th>
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<td></td>
<td>Zbigniew Bochniarz</td>
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<td>Luiz Carlos Di Serio</td>
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<td>Global Impact</td>
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Membership Council

The Membership Council developed a recruitment and growth strategy for the MOC Affiliate Network. It identified potential new partners and helped the ISC team in assessing applications to join the network.

Curriculum Council

The Curriculum council supports course content development and teaching the MOC curriculum. It encourages the sharing of affiliates’ teaching experiences and methods, makes different course syllabi available to MOC affiliates, encourages the sharing of teaching materials, and supports the integration of the MOC curriculum into official university course platforms.

In the annual network meetings, the Curriculum Council organizes workshops so that members can share their experiences about the course. The topics range from questions about the structure of the MOC curriculum or case-specific content to didactic methods and forms of hybrid course teaching. It is very encouraging that this exchange is not limited to the annual network meeting, but that cross-border chapters have been formed in which the exchange of experiences continues throughout the year. There have also been many individual collaborations between affiliates and colleagues are invited to give guest lectures.

The Curriculum Council has developed case guidelines based on a discussion with the Institute for Strategy and Competitiveness and MOC affiliates to provide guidance for this new path (see Figure 5).
These Guidelines: A Three-Phase Approach to develop and write a MOC Teaching Case

We have drawn from existing material and literature available on case study writing, and we set out the process for approving your ideas and plan for case studies, to submission, review and approval of your completed work as a MOC Affiliate Case Studies. Our intention is to provide support and guidance whilst ensuring that case studies are appropriate to the MOC course, and maintaining the quality and consistency of case studies included in the MOC curriculum. Case studies are used to teach and illustrate the MOC concepts, challenge students to analyse the issue involved in competitiveness, and provide real-life knowledge of concepts, themes and businesses situations involved in competitiveness. These guidelines are set out in the following three sections.

01 Prepare the case study Plan (Teaching Note)
Authors are required to submit a 2 to 3 page Case Study Plan (Teaching Note) to all affiliates. The Teaching Note should include the case study topic, its relevance to MOC and teaching objectives, and identify the authors and their relationship to the case study. It should highlight the features of the case study that will make it interesting to include in the MOC Curriculum. It is important to include the assignment questions and how the case study will be presented. The Teaching Note provides a plan and timeframe to ensure that the case study can be completed to the standard required.

The result of Phase 1 is the approval of the authors and the teaching note.

02 Write the Teaching Case
Once the case study plan (teaching note) is approved, the case study itself can be compiled. A good case study should have an introduction, setting the context and the decision focus, a strong purpose, context, background, and identify the decisions to be made. All content should be written objectively, with no analysis or authors interpretation, just facts, no conclusions, because students should draw their own conclusions. The guidelines set out here show how you can achieve this.

The result of Phase 2 is the completed case study which can be submitted for review.

03 The Teaching Case Review Process
This will be managed by the curriculum council co-chairs, Ken Chairman and Manfred Kirchgeorg. We will liaise with ISC and a team of reviewers to provide feedback and approval of phase 1 and phase 2 in accordance with the rubric set out below. If case study passes this initial review, it will be passed to reviewers for a detailed review and then for peer review. The final say on the phase 1 teaching note and the phase 2 case study will be with the ISC team. We are also available for informal comments and feedback at any time. We want everyone to start writing case studies, so we are also available for informal comments and feedback at anytime. We want everyone to start writing case studies, so we are committed to providing as much help and assistance, as we can, to ensure that a new generation of MOC case studies can be generated from affiliate members.

The output of Phase 3 is the completed case study for inclusion in the MOC Curriculum.

To Read and Understand these Guidelines Quickly just Refer to title and Subtitles

Figure 5. Development of a MOC teaching case library 2021
Part 1

**Firms, Industries, and Cross-Border Competition**

*Competitiveness: Overall Framework*
Building a Cluster: Electronics and Information Technology in Costa Rica

Part 2

**Locations and Clusters**

**Clusters and Cluster Development**
The California Wine Cluster
The Australian Wine Cluster (Supplementary Information)

**Cluster Internationalization**
The Dutch Flower Cluster

**Role of Institutions for Collaboration**
Asociación Colombiana de Plásticos (Acoplásticos)
Centre Suisse d’Electronique et de Microtechnique (CSEM)
Institutions for Collaboration: Overview

Part 3

**Strategy for Nations and Regions**

**Economic Strategy: Advanced Economies**
Remaking Singapore

**Economic Strategy: Developing Economies**
Vietnam: Sustaining the Growth of an Asian Tiger

**Economic Strategy: Early Stage Developing Economies**
Rwanda: National Economic Transformation

**Economic Strategy: Cross-National Regions**
Central America: Strategy for Economic Integration

**Economic Strategy: Europe**
European Integration: Meeting the Competitiveness Challenge
Economic Strategy: Middle Income Economies
Latvia: Economic Strategy After EU Accession

Economic Strategy: States and Sub-National Regions
The Basque Country: Strategy for Economic Development

Economic Strategy: Cities
New York City: Bloomberg’s Strategy for Economic Development

Part 4

The Process of Economic Development

Competitiveness Initiatives
New Carolina Initiative

Organizing for Competitiveness
Colombia: Organizing for Competitiveness

Creating Shared Value and Competitiveness
Yara International: Africa Strategy

Cluster Initiatives
Cluster Mobilization in Mitteldeutschland

Part 5

Project Presentations

Team Project Presentations Part 1
Team Project Presentations Part 2
The Knowledge Generation Council

The Knowledge Generation council was created to respond to a growing interest in the network to move beyond teaching and conduct research on competitiveness issues. Since 2013, the council has organized a research event before the start of the December workshop. It started as a half-day of research sharing and dissemination. Ten years on, approximately six papers produced by affiliates, their colleagues and students, are selected for presentation each year. Presentations are assessed and selected focusing on their academic orientation with additional attention towards providing balance across topics addressed, geographies of focus, and levels or stages of development examined. Discussants from across the MOC network provide feedback to the speakers. Invited external speakers over the years included William Kerr (HBS), Mercedes Delgado (MIT, CBS), and Jose-Luis Hervas-Oliver.

The main themes addressed across the research presentations over ten years are:

- **Clusters**: organization, performance, impact, value creation
- **Knowledge exchanges**
- **Competitiveness and human development**
- **Regional resilience**
- **Drives of regional competitiveness**
- **Institutions and competitiveness**
- **Creating Shared Value (CSV) initiatives**
- **Innovation networks**
- **Competitiveness and labor**
- **Sustainable competitiveness**
- **Smart specialization**
Attendees vote for their preferred presentation — and the winners receive a certificate at the Workshop Awards ceremony.

**Table 3. Best paper awards year by year**

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Sustainable Competitiveness: A Spatial Econometric Analysis for European Regions</td>
<td>Wilhelm Althammer</td>
</tr>
<tr>
<td>2019</td>
<td>Do clusters create shared value? A social network analysis of the motor valley case</td>
<td>Fernando Alberti</td>
</tr>
<tr>
<td>2020</td>
<td>Identifying Resilient Industries in Mexico’s Automotive Cluster: Policy Strategies to Surmount the Crisis caused by Covid-19</td>
<td>Alfonso Mendoza</td>
</tr>
<tr>
<td>2021</td>
<td>Regional resilience and cluster strength: The case of the U.S. in the Great Recession</td>
<td>Viviana Elizabeth Zárate</td>
</tr>
<tr>
<td>2021</td>
<td>Turning green. Mapping the green transition in Italian clusters</td>
<td>Federica Belfanti</td>
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</table>
The Competitiveness Review becomes a key platform to publish MOC related papers, including the best papers from the Research Day.

Philippe Gugler and Christian Ketels became Editors-in-Chief of the Competitiveness Review (CR) in 2013'. The journal’s stated editorial scope aligns with the mission of the MOC and it sets out its goal in the following terms:

“Competitiveness Review (CR) aims to be the leading platform for academic research and conceptual dialogue on the competitiveness of locations, the interplay between locational competitiveness and firm performance, and policies to upgrade locations’ competitiveness.”

MOC affiliates have been active as Members of the Editorial Board, Guest editors of Special Issues, Book review editors, Authors and Co-Authors of papers published in the Journal, in addition to being a significant source of Reviewers. Since 2014, the CR has published approximately forty papers written, or co-written, by MOC affiliates. In 2021 Christian Ketels and Michael Porter published a paper on “Rethinking the role of the EU in enhancing European Competitiveness.”

MOC affiliates have been guest editors of two Special Issues among the sixteen published so far. In 2015 an important special issue, with MOC affiliates as guest editors, appeared marking twenty-five years post the publication of Michael Porter’s Competitive Advantage of Nations. This special issue has been followed by a further fifteen up to the end of 2022. These focused on a range of perspectives such as green Supply Chain Management for Sustainable Competitiveness, the Competitiveness of Locations, or Creating Shared Value.

The team at the University of Fribourg provides a monthly list of articles published in the field of clusters and competitiveness for the MOC affiliates. This list is also shared through a monthly newsletter of the TCI network, a global professional network of organizations and practitioners in cluster-based economic development.
Since 2016 an International Competitiveness track has been included in each of the annual EURAM conferences within its international management strategic interest grouping (SIG). A number of MOC affiliates successfully advocated for the introduction and development and maintenance of the track and have both directly contributed papers, reviewed papers, encouraged submissions, and organized sessions at conferences in Paris, Lisbon, Glasgow, Reykjavik, Montreal (online) Dublin (online) and Winterthur.

Successful submissions to the track have included both empirical and conceptual papers investigating competitiveness in an international context. Gaps at the intersection of management and economics literature on competitiveness lend themselves to conceptual and empirical studies, with high practical interest and impact. Examinations are welcome that consider the determinants of competitiveness from bottom-up (micro or firm-level and mezzo or cluster-level) and top-down (mezzo or regional level and macro or national/international level) perspectives. Topics within both developing and developed nations are of interest, addressing the challenges of corporate strategy, firm growth and performance, sustainability, economic development, and policy-making, as business and society navigate the tensions of globalization and de-globalization.

Over the years many discussions of networking at the doctoral level were held and in 2020 the KG-council shared its goal to organize a doctoral tutorial. The objective was to encourage the early-career generation who have embarked on doctoral theses on important issues of competitiveness (such as clusters, entrepreneurship, and sustainable development or the effect of environmental enforcement of industry on environmental outcomes) and also to create a dynamic network to offer support to these young researchers — as well as also creating links across more senior affiliates. The inaugural tutorial took place online in October 2021.

Janet Tan has since the pandemic organized a monthly online research webinar on the “3rd Friday of the Month” as a new platform to share research across the MOC network.
The Institutes council represented another stage in the evolution of the MOC community. Affiliates became interested in creating such institutions to gain a more robust platform for their competitiveness-related teaching and research activities. And they view institutes as a key platform to engage in impact projects with local partners in government and business.

The Institutes Council is responsible for the coordination of the network of Competitiveness Institutes that have been created in the various affiliated schools. It also provides support to affiliates that would like to create institutes/centers for competitiveness in their own schools and countries. A guide was developed based on the experiences of various affiliates to provide support in launching and running such institutes. Little was known about how to launch and run an Institute on competitiveness, and specifically, there was little information in terms of governance, business model, organization, management, and their products and services “portfolios.” The Guide on Competitiveness Institutes explored the landscape of Competitiveness Institutes and identified “best practices” to provide support to all Affiliates seeking to launch or upgrade an institute in their own universities and countries.

Institutes can perform important roles in supporting a region or a nation’s efforts to upgrade competitiveness. They act as knowledge creators and disseminators by enlarging and meaningfully sharing the body of research and knowledge on Microeconomics of Competitiveness. This includes outreach, training, and dissemination activities through providing input to the public and private debate on competitiveness, employing multidisciplinary competences and different tools for in-depth analysis and exploring the contribution of the most significant drivers for competitiveness and growth in the local context and neighbors. Institutes act as institutional platforms of different actors — i.e. business and related industries, government and regulatory agencies, universities and research centers, and

MOC Affiliates had created 137 Competitiveness Institutes, often with a distinct geographic or content focus.

They are spread across

- Europe
- North America
- Asia
- Latin America

Orkestra-Basque Institute of Competitiveness in the Basque Country (Spain) and Sintonía-Institute for collaboration and Competitiveness in Puebla (México) are two examples of MOC-related Institutes.
civil society — by providing insights, solutions, and a platform for engaging forward-looking dialogue and cooperation on a range of issues related to strategy, competitiveness, prosperity, and innovative capacity.

Institutes are engaged in the analysis of the global context and the local ecosystem in which it is embedded. They can offer support to a variety of business actors in their strategic and competitive decision-making processes. Whether a firm or a cluster recognizes the urgency to be guided in the exploration of context changes and evolutions with reference to their business and future strategic plans, the Institute can work with them thanks to its in-depth understanding of market needs, emerging trend, and public programs and directions. The Institutes’ research and projects are conducted with firms and other private actors to analyze the challenges they face in the market and improve the ways they are addressed.

Figure 8. The guide on competitiveness institutes issued in 2019
Orkestra—Basque Institute of Competitiveness was created in 2006 within Deusto University, a private Jesuit university founded in 1886 in the Basque Country.

One of Spain’s oldest industrial regions. It was born three years after Deusto University’s School of Business Administration had started offering the MOC course, which became Orkestra’s main training activity upon its creation. It has been depicted as a case of institutional entrepreneurship where public and private actors collaborated to equip the Basque Country with a platform that would engage in research and policy advice in all things related to competitiveness. The specific goals set out in its mission are: (i) to contribute to improve Basque Country competitiveness for wellbeing, and (ii) to learn from and contribute to the international academic discussion on regional competitiveness. Its funding model is a mix of direct funding from a set of regional stakeholders (government institutions, firms, university) and the pursuit of competitive research funding (regional, national, EU, and international funding calls).

Over a 16-year span it has evolved from a research institute strongly focused on cluster and
cluster policy producing diagnoses on different dimensions of competitiveness, into a research institute that co-generates knowledge working closely with a wide array of actors and with a growing capacity to influence decision making on the factors affecting competitiveness for wellbeing in the Basque Country in the medium and long terms. Mirroring this evolution, its structure has also changed from that of siloed research departments, to an open and flexible organization around research-projects.

The Institute’s approach to research through interaction with other territorial agents was captured in the term “transformative research” early on, by the researcher heading the former research Department on Clusters, Regional Development and Innovation and who heads the Institute since 2013. Considering its methodological implications, the process of building a shared meaning of what the Institute would understand by transformative research was not free from tensions. There was a division between those who believed that action research’s participatory approach could help to achieve the Institute’s mission and others who worried that traditional quantitative research would be displaced by less rigorous qualitative research.

Eventually, action research settled along with other methodologies under the transformative research umbrella gradually developing its own distinct approach in the field of action research. This approach stands behind Orkestra’s different long-standing projects such as Etorkizuna Eraikiz with public stakeholders in the province of Gipuzkoa and Bilbao Next Lab in Bilbao. From 2010 onwards the Institute widened its human resource recruitment strategy to include researchers with facilitation capabilities who could focus on the research process, thereby complementing researchers with a disciplinary expertise. From 2013 onwards it is difficult to identify projects in which Orkestra was not collaborating with other actors, especially public bodies, and this orientation towards interaction led some traditional academics to leave Orkestra and return to the university.

The backbone of Orkestra’s evolution is a strategy for building new capabilities among both, territorial actors and among its researchers.

For territorial actors, mainly public administrations, the aim was to help them engage in collaborative bottom-up processes aimed at addressing the region’s competitiveness challenges. For researchers it meant learning how to address conflict, power relations, dialogue, communication and language in order to build trust and social capital with territorial actors. The seeds of this strategy were planted early on, through an action research project where a team of researchers worked with technicians from local development agencies in a project to help them identify emerging local clusters. The results of the project were presented to the Basque Government and a new cluster association was created.
Researchers working in Orkestra are expected to be at the frontiers of international academic knowledge in their areas of expertise and to leverage that knowledge to respond to challenges in the Basque Country’s socioeconomic development. Translated into principles, this means:

1. Commitment to change, which is reflected in Orkestra’s combination of technical knowledge on competitiveness-related topics (“what”) with knowledge on facilitating change processes (“how”);

2. A global vision, anticipation and an international projection;

3. Collaboration, openness and flexibility, reflected in the Institute’s open organisation capable of adapting to different challenges and forming the most appropriate teams to respond to each challenge;

4. Systemic vision about the different factors that can have an impact on Basque Country competitiveness; and

5. Independence and constructive critical vision.

In an experimental framework that tries to capture the extent to which Orkestra is indeed achieving its mission of doing transformative research (see figure below about research with a mission to be transformative), a very straightforward connection between its academic outputs and the socioeconomic challenges of the Basque Country is found. Research outputs that evidence change as a result of the research process, as a share of total academic outputs applied to the region or to the regions’ stakeholders increased from 16% to 55% during the period 2016-2019. Orkestra’s framework has inspired other universities to reflect on what it means to be a transformative research institution in their own context.

**Research with a mission to be transformative**

Faced with the need for more resources due to a sharp increase in the number of projects, a new group made of around 8 young researchers has joined the Institute over the past 2 years. All of them are doing their PhD in the context of a project with stakeholders. Irrespective of the decision that they eventually make on the methodological approach that they will adopt in their dissertation; they are all undergoing a specific training to develop capabilities for working in research processes with territorial stakeholders. Although the first group of researchers to reach retirement will still be around for another 10 to 15 years, the training process of these young researchers has come to be known as “preparing the next generation” and works towards Orkestra’s future sustainability.

**Orkestra has worked for over 16 years to improve Basque Country competitiveness contributing the following:**

1. A common language on competitiveness and a shared vision on the challenges of competitiveness in the territory through its Competitiveness Report and other documents like the Competitiveness Manifesto;

2. Academic analyses of the competitive position of the Basque Country and its future challenges;

3. Support to territorial actors in addressing their own challenges: regional and provincial governments, cluster associations, development agencies and some firms. In recent years its influence on other actors has increased (European Commission, technology centres...);

4. Development and evaluation of cluster policy and other Basque government policies, becoming a key advisory agent without losing independence as a research centre;

5. Research of increasing quality and international relevance that disseminates knowledge about the Basque economy at a global level.
In order to coordinate efforts to foster development and economic competitiveness and social progress in Puebla, UPAEP University in Puebla, México created an Institute for Collaboration and Competitiveness called Sintonía in 2012.

The kick-off session was critical for the success of this initiative; it was conducted by Jon Azua, former vice-president of the Basque Country, who shared his vast experience in the development of this autonomous community in northern Spain. The official launching of Sintonía took place in an extraordinary conference event preceded by Professor Michael Porter attended by more than 2500 people. A 16-year span it has evolved from a research institute strongly focused on cluster and cluster policy producing diagnoses on different dimensions of competitiveness, into a research...
As a collaborative institutional approach to driving and upgrading productivity and innovation in the clusters of Puebla and the region, Sintonía is striving to excel in shared value initiatives that will enhance community well-being, innovativeness, and competitiveness worldwide. By using the action research methodology and applying innovative methods, direct feedback is gained to formulate more effective policies and practices.

**Sintonía has the following objectives:**

- To have an updated Cluster Mapping Platform for México and productive value chains of Puebla and the region.
- To be part of some cluster boards.
- To advise cluster organizations in developing a unique value propositions.
- To identify entrepreneurial opportunities for new business growth.
- To have an updated Social Progress Index platform for México to advise on public policy.
- To promote shared value projects across and within clusters.
- To recommend a targeted foreign direct investment portfolio for the region.
- Preferably to provide coaching in the official formation of clusters to promote agile economic and community development, productivity growth and new business development.
Sintonía is becoming a forum for analysis, debate, and specific actions for the competitiveness of the state of Puebla, the region and other states in México. As an IFC, Sintonía’s actions are supported by research, specialized programs from different enterprises, private and public institutions, government entities, with a permanent interaction. Sintonía is a self-sustained organization.

Sintonía aims to advice on public policy development, relevant actor agendas, and cluster dynamics. It also seeks to aid in the search of unique value proposition strategies. Through collaboration, exploration of supply chain productivity and local procurement, Sintonía is investigating firms and cluster shared-value opportunities to improve productivity and the quality of life of communities and the most vulnerable members of society. Sintonía relies on the participation of cluster groups to apply the research, diagnosis and analysis produced to increase regional competitiveness and social progress in México and other countries as well.

Sintonía’s team designed a methodology to cope with the challenges in the state of Puebla and México by implementing an action plan to promote dialogue between all the stakeholders every time a new initiative is launched.

The plan regularly includes a series of events including conferences by well-known international specialists focusing on issues of economic development, clustering, and social progress.

It was decided that a vital element for the success of Sintonía was to have a common understanding and methodologies for clustering economic development and social progress. Therefore, the educational component was added to Sintonía’s activity plan and a brief executive version of the course on Microeconomic of Competitiveness (MOC) takes place each time a new cluster initiative is underway followed by a workshop to support their strategic agenda.

A key input for Sintonía was the development of the Mexican Cluster Mapping and Social Progress Index platform (upaep.mx/sintonia) using the methodology developed by ISC at Harvard and based on data from the North American Industry Classification System (NAICS), the standard used by federal statistical agencies in classifying business establishments for the purpose of collecting, analysing, and publishing statistical data related to the business economy in Canada, the United States, and Mexico.

Sintonía’s influence went further since regional collaborating is not enough as a success factor. Growing networks beyond Sintonía through international relations generated knowledge of best practices, international training and international advice.
Since its creation, Sintonía relied on international support through the relationship between UPAEP, the MOC network of the Institute for Strategy and Competitiveness (ISC), and other organizations like TCI, a global network working in clusters and innovation ecosystems around the world.

Sintonía is now going global collaborating sharing and receiving experiences and is helping to form similar initiatives in other states and countries.

The action research methodology put in place has proven to be very effective for the economic development and social progress of different regions in Mexico. Sintonía and UPAEP University have been unconditional supporters of this endeavor.
The Global Impact Council

The Global Impact Council is responsible for facilitating the achievement of local, regional, national, and global impact of MOC, supporting affiliates in the development and use of Cluster Mapping, Social Progress Index, and other methodologies. It also promotes the institutional development of the network, and relations with other networks and agencies, in order to expand the visibility of the MOC network.

Affiliates from many countries have developed multiple initiatives throughout the last 20 years. The cumulative cluster initiatives of the network can be appreciated in Figure 9, surpassing 790 cluster projects.

**Figure 9. Cumulative Cluster Initiatives**

![Figure 9. Cumulative Cluster Initiatives](image)

The impact of the MOC network has reached an extensive list of regions and countries in the world by developing over 730 regional competitiveness initiatives over the last 20 years. This chart is presented in Figure 10.

**Figure 10. Regional Competitiveness Initiatives**

![Figure 10. Regional Competitiveness Initiatives](image)
Over the last four years, there has been a call for presentations of impact projects and a committee selected the best papers which were presented during the annual workshop. The projects deal with different themes such as competitiveness initiatives at the national, subnational, and cluster levels; Projects to address the COVID pandemic and recovery; Economic and social development policy; Cluster formation, leadership, and policy; Shared value creation; Organizing for Competitiveness; International collaboration; Cluster mapping and Social Progress Index; Collaboration with government or international agencies. Specific examples of projects presented at MOC meetings are presented in Table 4.

Table 4. Cases of impact presented on MOC workshops

2018 **ORKESTRA’S Impact**  
Maria José Aranguren and Edurne Magro, (Basque Country)

2018 **The MOC Framework in a Blended Learning Setting: A Teaching Initiative that Makes Difference**  
Veneta Andonova and Juana García, (Colombia)

2018 **Cluster Mapping website for México**  
Martha Cabanas, Nayeli Villegas, Germán Ponce, Pablo Nuño (México)

2018 **Latin America Business SDGs Initiatives**  
Octavio Ibarra and Carolina Ovalle (Honduras)

2018 **Cluster Mapping Impact Initiative for the Energy Cluster in Trinidad and Tobago**  
Stephanie Lezama, Ron Sookrasm, Richard Ramsawak Trinidad and Tobago)

2018 **Mapping the Tourism Cluster in Northeastern Brazil**  
Milton de Sousa, Afonso Carneiro (Brazil)

2018 **Social Progress Index Development for México**  
Martha Cabanas, Nayeli Villegas, Germán Ponce, Pablo Nuño (México)

2018 **Shared Value Creation at The Sustainable City in Dubai**  
Tim Rogmans and Brendan Galbraith (Dubai)
2019 **Italian Cluster Mapping Project**  
Fernando Alberti and Federica Belfanti (Italy)

2019 **Measuring Shared Value: A Regional Approach with Global Impact**  
Mauricio Umaña, Felipe Pérez, Pablo Nuño, Alfonso Mendoza (LATAM)

2019 **Simulation vs Case method to deliver SPI**  
Octavio Martínez and Jaime García (Costa Rica)

2019 **Monthly indicator of Economic Activity project in regions of Colombia**  
Silvio Borrero, Lya Sierra, Alejandro Pavel (Colombia)

2019 **The Politics Industry in Uruguay**  
Micaela Camacho, Roberto Horta (Uruguay)

2019 **ITC Hotels: Creating Shared Value In Luxury Hospitality**  
Malay Krishna (India)

2019 **Impact of ‘hidden champions**  
Jorge Fernandez, Bart Kamp, Mari Jose Aranguren (Spain)

2020 **Brazil Cluster Mapping**  
Afonso Carneiro Lima, José Milton de Sousa, Francisco Carlos Barbosa (Brazil)

2020 **Facing the Future Forum /EMOC Conference 2020 on Ukraine Impact projects**  
Vyacheslav Pokotylo, (Ukraine)

2020 **The Equation of COVID19: Social Impact in LATAM**  
Mauricio Umaña (El Salvador)

2020 **UCC Institute 2020 Report**  
Leticia Tolosa (Argentina)

2020 **The Italian Surge Index**  
Fernando Alberti and Federica Belfanti (Italy)
<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Authors/Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Research Driven and Evidence-Based Insights to aid Northern Ireland’s Economic Recovery from Covid-19</td>
<td>Miller, Kristel (Ireland)</td>
</tr>
<tr>
<td>2020</td>
<td>Caraga MOC Cluster Economic Development Initiative</td>
<td>Scott Masey, (Philippines)</td>
</tr>
<tr>
<td>2021</td>
<td>Cordoba Cluster Mapping</td>
<td>Gonzalo García, Marcelo Laluf, Leticia Tolosa, Gisela Veritier (Argentina)</td>
</tr>
<tr>
<td>2021</td>
<td>Thailand Digital Payment Cluster</td>
<td>Vijak Sethaput, Jomphong Mongkhonvanit (Thailand)</td>
</tr>
<tr>
<td>2021</td>
<td>Integrated Development Model</td>
<td>Pablo Nuño (México)</td>
</tr>
<tr>
<td>2021</td>
<td>Economic Recovery and Nearshoring in Baja California, Mexico</td>
<td>Francisco Vélez y Alejandrina Barajas (México)</td>
</tr>
</tbody>
</table>
The MOC programme was first taught in the Basque Country by the University of Deusto in 2002 and was integrated into the work of Orkestra (Basque Institute of Competitiveness) when it was established by the University in 2006.

Orkestra has an explicit mission to conduct research that supports regional and local stakeholders to strengthen the competitiveness of the Basque Country. It addresses practical competitiveness challenges by developing research projects with different levels of engagement with stakeholders, and by producing regular outputs such as reports that identify, analyse, and propose solutions to key regional challenges.

Orkestra has played an active role in the MOC network since its inception and counts on Professor Michael Porter as Honorary President and Christian Ketels as President of its Advisory Board. The MOC framework has provided important conceptual foundations for Orkestra’s work in the Basque Country and more widely in Europe, where Orkestra has leveraged the MOC framework in the development of two key research lines: cluster mapping and regional competitiveness benchmarking.
Analysis of clusters, cluster management organisations and cluster policies in the Basque Country has consistently been a core research line for Orkestra. The first Basque Country Competitiveness Report in 2008 used conversion tables from the Institute of Strategy and Competitiveness (ISC) to map Basque Country exports according to standard cluster categories, providing an analysis of the relative importance and dynamism of clusters in the Basque Country. This analysis has been periodically repeated, and alongside data and analysis of Basque cluster management organisations, has been regularly used to inform policy discussions with the Basque Government and Basque Business Development Agency (SPRI).

Moreover, the impacts have extended well beyond the Basque Country by using cluster mapping data and techniques in a range of European projects over the last decade, including the European Cluster Observatory, the European Cluster Collaboration Platform, and INTEREG and ESPON projects. These European projects have also opened the way to granular data collection on a European scale and facilitated experimentation around the boundaries of cluster categories. For example, an ongoing project with SPRI seeks to incorporate elements of complexity analysis (applied to employment and trade data) to explore the evolution of relatedness between different activities within and beyond the existing configuration of Basque cluster management organizations.
The influence of the MOC network can also be seen strongly in Orkestra’s work on regional competitiveness analysis and benchmarking. Initial editions of the Basque Country Competitiveness Report employed the diamond framework, stages of competitiveness analysis and other Porterian concepts to explore different dimensions of Basque Country competitiveness. For example, the 2008 report was framed in terms of searching for a unique value proposition for the territory, while the 2009 report analysed the transition towards the innovation stage of competitiveness.

In 2010 Orkestra joined an international consortium led by the Stockholm School of Economics to develop the next phase of the European Cluster Observatory as part of the European Commission’s Europe Innova programme. This provided an opportunity for building a new framework for benchmarking the competitiveness of European regions, which combined ideas and influence from the MOC network with a range of other conceptual and empirical inputs. The resulting framework has had a widespread impact, both in Europe through its positioning as part of the European Cluster Observatory platform, and in the Basque Country.
through the central role that it has played in structuring analysis of Basque competitiveness over the last decade.

From 2011 until 2020 this framework has formed the centrepiece of Orkestra’s annual Basque Country Competitiveness Report, alongside which it has been employed to guide analysis in a wide range of projects with different stakeholders within the Basque Country. It has also provided a foundation for collaborative work with the European Commission’s Joint Research Centre to develop novel methodologies for identifying structurally similar regions for the purposes of benchmarking, and it has fuelled the development of Orkestra’s Regional Competitiveness Observatory that facilitates the benchmarking of over 200 European regions in over 30 competitiveness indicators (https://www.orkestra.deusto.es/competitiveness-observatory/en). Most recently, for the 2021 Basque Country Competitiveness Report, the framework has evolved to integrate the concept of ‘competitiveness for wellbeing’.

From the perspective of institutions having an impact on competitiveness through research, Financial Times journalist Martin Wolf cites Orkestra’s analysis in his article on the successful revitalization of the Basque Country, which includes the transformation of Bilbao from being a dirty industrial city to becoming a modern architectural and cultural capital (“Lessons in ‘levelling up’ from the Basque Country,” November 30, 2021). Public-private cooperation among multiple stakeholders has been the underlying factor behind this success, and Orkestra has been an active stakeholder, not only in developing the region’s competitiveness strategies, but also in driving development projects with action research and educating regional stakeholders with the concepts and frameworks of competitiveness using the MOC course.
The Italian Cluster Mapping has been carried out every year since 2019 by the Institute for Entrepreneurship and Competitiveness (LIUC University), following the US Cluster Mapping Methodology developed by Professor Michael Porter, Mercedes Delgado and Scott Stern, with the support of Richard Bryden who has been instrumental in the development of this project.
It is the first cluster mapping project to be developed at both regional and province level in Italy, and it is aimed at offering firms, policy makers and academics a dynamic, cluster-based diagnostic tool to monitor and analyze industrial specializations. The main project’s goal is to provide a general perspective on the sectoral and geographic profile and evolution of the Italian economy, analyzing the competitive position of our traditional specializations while identifying areas of dynamism. Mapping the evolution of clusters over decades makes it possible to monitor the state of Italian industrial specializations, understanding why some territories are more competitive than others, which economic activities are concentrated in some locations and how relations change among them and, finally, understanding how production activities have changed over time. The Cluster Mapping project is part of a bigger umbrella project called ITALIA COMPETE (www.italiacompete.it) aimed at offering a new perspective on the Italian competitiveness of locations (regions and provinces), clusters and companies, building on Michael E. Porter’s theory, framework and principles.

### Methodology

Italy is the eighth largest economy in the world by nominal GDP, and it has a very different economic composition and performance across its regions, with the highest GDP in purchasing power standards per capita of 42,900€ in Bolzano and, among the lowest, 18,500€ in Campania and 17,700€ in Calabria. These differences make the Italian context particularly suited for the emergence of distinct specialization patterns and valuable insights comparing locations at local level.

For the cluster mapping project, we adopted the “Benchmark Cluster Definition (BCD)” by Mercedes Delgado, Michael E. Porter, and Scott Stern (2016) which allows for the systematic generation and comparison of clusters worldwide, and we could rely on the key methodological support of Sintonia’s team led by Pablo Nuño (UPAEP, Mexico).

The BCD’s algorithm generates group of closely related industries by using cluster analysis, incorporating measures of inter-industry linkages based on co-location patterns, input—output links, and similarities in labor occupations. It is designed to define mutually exclusive clusters, where each industry is uniquely assigned to
Cluster sections

A “cluster webpage” has been created for each of the 51 traded clusters. They offer an overview and description of the activities included in the cluster, some critical metrics and their change over the last three years (such as the national number of employees, companies, and revenues), a short explanatory text about the cluster presence in the most specialized Italian provinces, and two data tables with the top 10 provinces by employment and by specialization (LQ index). The section also includes two other metrics: the “relevance” of the cluster, measured as the total number of its employees out of the total national number of employees; and the “concentration,” i.e. the incidence of employees’ number in the three most specialized Italian provinces. With this information, we would like to provide an insight into the importance of that cluster in locations with high specializations.

Location sections

A location section has been created for each of the 107 Italian provinces and 20 Italian regions. First, they offer an overview of the territory, including a few critical metrics, such as the GDP per capita and the incidence of traded clusters’ employment vs local clusters; then, the webpage shows the list of the most specialized clusters in that location (top three) and a short qualitative description highlighting the most prominent companies within each cluster; and finally, a dynamic view of the three top/bottom clusters by the growth of employment and detailed data tables are provided (top 10 clusters by employment and specialization).

In addition, the Italia Compete website offers the opportunity to navigate through the entire cluster mapping database thanks to a dynamic and updated Tableau dashboard (see figure). In addition, the Italia Compete website offers the opportunity to navigate through the entire cluster mapping database thanks to a dynamic and updated Tableau dashboard which allows researchers — or anyone interested - to also create their customized clusters (i.e. a customized combination of NACE codes) according to the analysis needs. It is also possible to download the entire dataset for free.
Economic development:
To become the “cluster topic reference” in Italy and support policy makers at national and regional levels take informed decisions about efforts to accelerate structural change building on our main strengths. We are now involved in several strategic planning projects in Italian regions and provinces to advise policy makers and Institutions for Collaborations (i.e. Entrepreneurial associations) on how to accelerate and improve their location’s competitiveness.

Research:
To develop research projects and reports to assist businesses, clusters and locations with their growth and competitiveness by leveraging on the data collected. To date, we have published one eBook “Compete” and several scientific papers building on cluster mapping results.

Companies:
To support companies and cluster organizations take an informed decision about their strategic directions by identifying areas of strengths and critical mass, making comparisons at national and international levels, and identifying relevant partners.
Initiating economic development in undeveloped regions rich in natural assets but lacking investment and prior business operations has historically been an occasion for exploitation and development failure. External investments and the introduction of advanced business interests in such regions historically have not improved the economic and social conditions of the local population or preserved environmental quality and long-term sustainability of natural assets.

Microeconomics of Competitiveness (MOC) and shared value frameworks can be implemented in these settings to provide a new model of development that benefits the people, preserves the environment, and creates new globally competitive clusters in these regions. Whereas cluster and shared value formation have typically been applied in advanced economic and business cluster settings, the ideas and models can be used in the launch and creation of new regional cluster economies, where none have existed previously. The extension of MOC principles for cluster and shared value formation in greenfield settings both expands the value of MOC applications and.

Box. 08

Shared Value in Caraga, PHILIPPINES DEVELOPED by Global Action Platform

The formation of the timber cluster for the indigenous areas of Caraga is guided by shared value strategies and principles as a core part of the founding business strategy.
contributes toward the creation of a new model of inclusive, sustainable economic development in undeveloped regions around the world.

**MOC Affiliate Role and Functions**

Global Action Platform, an MOC affiliate, is facilitating deployment of MOC principles to create a new regional economy for the Indigenous People in the Philippines, using shared value, cluster development, and international collaboration as starting point tools and framework for the development.

**The initiative is designed to launch sustainable agri-business clusters in creating a series of economic clusters to develop $1T of natural assets on 10M acres of ancestral lands owned and governed by the indigenous people of the Philippines.**

The initiative is also developing strategies for avoided deforestation, reforestation, and the creation of a major new source of carbon credits. The carbon project will preserve forests and habitats and generate development funds to launch cluster businesses benefitting the Indigenous People.

**General Objectives**

- To create a new comprehensive model for the development of asset-rich undeveloped regions that integrates cluster development, shared value, and international collaboration;
- To create intergovernmental collaboration to support the economic development of the region;
- To create an investment instrument to reduce risk, protect indigenous ownership and benefit, and attract international investment and partnerships to launch businesses;
- To launch agri-business clusters in two CADTs (tribal areas) that generate sustainable business operations and revenues;
- To finance additional cluster development from profits and additional international investments/partnerships.

**Shared Value Assessment**

The application of shared value to the formation of a new cluster in an undeveloped market is illustrated below, using the standard planning and assessment framework of shared value. For simplicity, one sustainable agri-business cluster has been selected for presentation here, namely, the timber and forestry cluster.

The formation of the timber cluster for the indigenous areas of Caraga is guided by shared value strategies and principles as a core part of the founding business strategy. Undeveloped markets offer an especially interesting demonstration of the power and an importance of shared value as a strategy. In these settings, shared value can be integrated in business operations from the start as a core strategy, whereas in established, mature markets shared value is often introduced as a mitigating remediation for existing operations and management policies.

The following chart provides an overview analysis of the shared value strategy for the Caraga indigenous timber cluster formation.
Social Investments

As part of its shared value strategy, Global Action Platform is making significant social investments, in addition to the separate business investments. In fact, key social investments are being made before business investment to create capacity for good governance and workforce. After launch, the design goal is to thread together social and business investments in a dynamic process to sustain a balance in the social and economic conditions of the indigenous societies.

<table>
<thead>
<tr>
<th>Levels of Shared Value</th>
<th>Business Results</th>
<th>Social Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reconceiving products and markets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Indigi Strategy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transform illegal logging into fair-market timber operations coupled with reforestation and protection of primal forests through sustainable timber plantations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Significant revenue growth from intermittent illegal logging sales to fair market timber operations, generating over $100M by Y5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Significant growth in market share, market access, and profitability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Created sustainable incomes for previously unemployed indigenous people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Reduced deforestation and restoration of microclimate and primary forest coverage</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Improved education and training through partnerships with Rotary, Philippine universities, and government agencies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Redefining productivity in the value chain** |
| **Indigi Strategy** |
| 1. Introduce fair market pricing for indigenous suppliers |
| 2. Teach sustainable timber management |
| 3. Invest in sustainable timber plantation and rotation system |
| 4. Replant 6x trees harvested |
| 5. Restore microclimate through reforestation |
| 6. Promote gender equality in operations |
| 7. Deploy blockchain smart contracts and ledgers to assure traceability of supply and transparent financial payments |
| 1. Vastly improved productivity |
| 2. Reduced logistical and operating costs through centralized receiving/shipment center |
| 3. Geotagged 15M cu m of harvestable timber previously not inventoried or prepared for harvest |
| 4. Established stumpage size for purchase |
| 5. Profit projected to Increase over 400% over Initial 5-year period |
| 1. Eliminated illegal logging, business deception, and unfair pricing |
| 2. Reduced flooding and erosion caused by deforestation |
| 3. Reduced loss of wildlife where forest habitat destruction threatened increased food insecurity |
| 4. Improved job skills and employee incomes |
| 5. Introduced family farming supplies and instruction to improve local farming and nutrition |

| **Enabling local cluster development** |
| **Indigi Strategy** |
| 1. Business model focuses on local suppliers and downscales financial reach global markets |
| 2. Extensive/accessible skill training for suppliers/subcontractors, and IPs |
| 3. Certification for fair trade pricing and blockchain ledger registry |
| 1. Secured local supply through new 8-cycle timber plantations |
| 2. Improved distribution infrastructure and market reach |
| 3. Increased local employed workforce |
| 4. Profitability projected to Increase over 400% In YS |
| 1. Introduced culturally based K-12 curriculum and trained teachers |
| 2. Job creation improved annually |
| 3. Revenue sharing model to benefit indigenous tribes |
| 4. Sustainable wages and incomes created through operations |
| 5. Registered employees and local people for first-ever access to healthcare and government benefits |
Past development experience shows that financial investments and economic growth can disrupt and damage communities, as well as enrich them. In order for the investment of financial capital to be constructive, the people need preparation to manage and oversee the impacts of economic development.

In partnership with Rotary International, and a $300K grant from their Foundation, GAP has created four workforce and educational programs to help build the social capital of the Indigenous People in Caraga.

The four areas identified for capacity-building are 1) workforce training, 2) Land Utilization Planning (LUP), 3) K-12 education, and 4) Community Leadership for the tribal elders.

The first two—workforce training and land utilization planning—are most closely related to business development. Most indigenous people in the area have no reliable income or employment, so workforce training is designed to prepare an indigenous workforce to be employed in the businesses. Training in land utilization enables the indigenous people to understand and quantify the natural assets in their regions and actively develop plans and timelines for the assets’ commercial development. Creating LUPs for each region gives the indigenous people opportunities to develop skills in strategic planning, management, cost-benefit calculations, and prioritization.

While the current generation of indigenous people is being trained in specific ways for near term development, it is also critical to start preparing the rising generations to have the knowledge and skills they will need to move into the enterprises and organizations that will emerge with development in their communities. GAP is working with the Philippine Department of Education to incorporate indigenous culture and language into the standard curriculum for a new K-12 system to be created in Caraga. Currently, the indigenous children do not have access to K-12 public education, so this curriculum will lay the foundation for such a system of basic education to be implemented in the region. The design also includes parents and grandparents in the program to avoid creating a generation gap between educated and uneducated family members unintentionally.

Economic development and the introduction of money into traditional societies can cause major harmful disruptions, in addition to the benefits they are intended to bring. To mitigate that risk, GAP and the Christensen Center at HBS have codesigned a leadership program for the tribal elders currently in leadership who will oversee the transition of their communities from dependence to independence. This leadership training is designed to examine examples of successful and unsuccessful development, to identify problems other societies have experienced during such transitions, to identify traditional values in their own cultures that can be used to counteract harmful disruptions, and to redefine their roles as leaders of change.

**Conclusion**

As shown, the extension of MOC principles and shared value in greenfield settings like Caraga offers many ways to expand the impact of MOC applications and contributes toward the creation of a new model of inclusive, sustainable economic development for undeveloped regions around the world.
We currently live in a world with a lot of inequality. The differences that exist, both between countries and within a country or the same state and even within municipalities are evident to all. Statistics show that, in more developed populations, people are healthier, live longer, have higher levels of education, have higher safety rates, and have better environmental quality, greater well-being and more opportunities in general.

In this section the Social Progress Index developed for all the municipalities in México is presented as an example. It was developed by Sintonia at UPAEP University with the support of Jaime García at INCAE and Social Progress Imperative.

The inhabitants in certain municipalities in developing countries have a shortage of basic needs, of a dignified and safe level of well-being and this prevents them from not having opportunities to increase their personal and professional development; in addition, their governments lack a priority investment agenda that leads to social and economic development. Therefore, the central objective of this section is to present the Social Index Project in México as an example in order to create more prosperous societies, both economically and socially and
above all to strengthen competitiveness and promote economic development where it is most needed. This result is possible through the adaptation and analysis tools that have been developed made in collaboration with the Institute for Strategy and Competitiveness, chaired by Dr. Michael E. Porter and the Central American Institute of Business Administration (INCAE) and its Latin American Center for Competitiveness and Sustainable Development.

These tools have led to the creation of a cluster mapping, taking as a reference the Mexican Republic and its states; and the calculation of the Social Progress Index (SPI) for each municipality that make up these states. The results are intended to dictate investment priorities in an inclusive framework (upaep.mx/sintonia). We will focus in this section on SPI. This index aims to capture the level of social development within a given society. According to Stern, Wares and Epner (2018), this index is composed of three general dimensions: Basic Human Needs, Foundations of Well-Being, and Opportunity. Each of these dimensions is divided into four underlying components. Taken together, this framework aims to capture an interrelated set of factors that represent the primary elements that combine to produce a certain level of social progress. The SPI methodology allows the measurement of each component and each dimension. At the end an overall score and ranking are obtained by using Principal Components Analysis methodology.

The approach is based on the construction of national indices to measure and evaluate various facets of social performance. However, the SPI incorporates a number of basic methodological options exclusively on social and environmental indicators, a focus on outcome indicators, rather than input measures, a holistic
framework consisting of three general dimensions of social progress, which is the sum of four equally weighted component and calculation of each component as the weighted sum of a series of measures, with the weights determined by using Principal Components Analysis.

For the creation of the SPI that covers all the municipalities of Mexico, it was essential to understand the wide range of interrelated factors that comprise the Mexican territory. The selection was made based on secondary sources collected from INEGI and the National Population Council. This is summarized in the following figure of the SPI Model: Dimensions, components and 41 variables found for Puebla’s 216 municipalities.

Once the dimensions, components and variables of the SPI were created, the SPI was calculated for all the municipalities of the States in Mexico following the methodology created by Porter, Stern and Green (2017). To measure the reliability of the measurement scale, the Cronbach’s Alpha coefficient was used where the values must be greater than or equal to the acceptance reference point with a value of 0.7. Subsequently the Kaiser-Meyer-

**Conclusions and Recommendations**

UPAEP, through its Institute of Collaboration and Competitiveness (SINTONIA) has developed and analyzed the mapping of clusters and the calculation of the SPI for all the municipalities of the Mexican Republic taking as an example the state of Puebla where it is concluded that to strengthen competitiveness and promote economic development requires the elaboration of a priority agenda of strategic investments that involves...
all agents or engines of prosperity including the public, private and educational sectors.

For a society to be more prosperous, basic human needs, foundations of well-being and opportunities requires the creation of inclusive markets where the public sector directs strategic investments such as access to information and communications, in higher education and in the creation of infrastructure (roads or highways) and communication routes between the most prosperous and the most needy.

The engines of prosperity must facilitate the processes and encourage investments to the most representative clusters or with development opportunities and direct their attention to the components, dimensions and variables with the lowest values of social progress. The government at all levels must raise awareness that clusters and collaborative institutes are the engines of development of a region offering the opportunity to improve the quality of life for all.
The Emergence of Regional Chapters

As the network grew in numbers, many affiliates were looking for ways to meet and engage with their MOC colleagues beyond the annual meeting in Boston. Regional chapters emerged as a platform to enable closer collaboration between affiliates geographically closer to each other.

The European Chapter consists of more than 50 universities from 26 European countries (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Finland, France, Georgia, Germany, Hungary, Iceland, Ireland, Italy, Lithuania, Monaco, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Spain, Sweden, Switzerland, Ukraine, and the United Kingdom).

The Chair of the chapter coordinates the activities of the Chapter during the calendar year and organizes the Chapter’s annual meeting, including the arrangement of visits to a selected cluster in the home region, at the home institution. As an example of collaboration among institutions, during the 2021-2022 academic year three universities — SGH Warsaw School of Economics (Poland), University of Warmia and Mazury in Olsztyn (Poland), and Tomas Bata University in Zlín (Czech Republic) — cooperated with two other partners under an international project called “Clusters as platforms for business-research (B2R)/research-business (R2B) relations” co-financed by the International Visegrad Fund. The project focused on cluster organizations and cooperation between business and research within the Central European territorial ecosystems for R&D&I. Collaboration among people has occurred through guest lecturing and research mobility.

The Asian Chapter has built a strong platform of collaboration both with Asian MOC Affiliates and across the MOC Network. The MOC Asian Chapter has active members across the region, including Taiwan, Thailand, Cambodia, Kazakhstan, Uzbekistan, India, Indonesia, and the Philippines.

The Annual MOC Asian Chapter Summer Conference provides a forum for the sharing and teaching of MOC concepts. The first one took place in Taiwan in 2016, and focused on applying the MOC principles of cluster mapping and focused on the dynamic technology clusters in Taiwan; the
The Summer Conferences have resulted in collaboration between the host institutions, Government policy-making institutes, cluster organizations, and initiatives. Since 2017 the Summer Conferences have been run jointly between MOC Asian Chapter and TCI-Network. Over 200 MOC affiliates and TCI professionals have actively liaised, sharing ideas and forming partnerships for future collaboration. This has extended throughout the Asian Chapter affiliates to European and Latin American countries.

The Latin American (LATAM) Chapter was established in 2010 by Jorge Forteza and Luciana Pagani from San Andrés University (Argentina). Jorge’s vision and commitment (see Figure 6) motivated regional universities to engage in activities designed specifically for the region’s needs.

The LATAM chapter built its agenda around three main objectives: raising awareness, sharing the best practices, and collaborating in teaching and research. The LATAM chapter organized mid-term regional reunions: one in Montevideo, Uruguay, in 2016 and one in Cali, Colombia, in 2019, where affiliates from six different countries attended (the Montevideo reunion even included the participation of a representative from the European Chapter). During the LATAM Chapter workshop, each participant University shared its best practices and presented its main research projects with its preliminary results receiving feedback from the other partners. Many conferences, lectures, and media participation were organized. These activities helped knowledge sharing throughout the region and even the world. Research collaboration within the LATAM chapter is promoted in many forms and with different degrees of involvement. The chapter launched a “mentoring” scheme, where more experienced universities help younger research centers to be created and developed.
In 2016 the Chapter inaugurated its WhatsApp group, and it has been growing in members since then. Many courses within the network invited faculty from partner universities to participate as instructors, visiting professors, or guest lecturers. The chapter developed various forms of collaboration among faculty in teaching formats. Learnings are shared with the whole chapter. The “Best LATAM Team Project Award” was the first award in 2018. It aims to promote knowledge exchange, celebrate the best final projects produced during MOC courses, create a platform for the diffusion of applied research, and strengthen contributions to the global MOC project award. A well-deserved recognition must go to UPAEP (Puebla) which earned the award three years in a row!

The US Chapter is the most recent regional council of all, but the seeds of its activities trace back to 2010. In 2010 a few active members received an invitation from Porter to be a regional partner in the development and rollout of a U.S. Cluster Mapping Project. Professor Porter and his team were awarded a 4-year contract to develop and lead a U.S. Cluster Mapping project in partnership with the U.S. Department of Commerce (see Box 1).

**FIGURE 11. LATAM CHAPTER MEETING**
Table 5. Evolution of the Regional Chapter leadership

<table>
<thead>
<tr>
<th>Region</th>
<th>Name</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>Fred van Eenennaam</td>
<td>2010-2011</td>
</tr>
<tr>
<td></td>
<td>Markus Scholtz</td>
<td>2016-2017</td>
</tr>
<tr>
<td></td>
<td>Tina Haisch</td>
<td>2019-2020</td>
</tr>
<tr>
<td></td>
<td>Vyacheslav Pokotylo</td>
<td>2020-2020</td>
</tr>
<tr>
<td></td>
<td>Philippe Gugler</td>
<td>2013-2013</td>
</tr>
<tr>
<td></td>
<td>Fernando G. Alberti</td>
<td>2017-2018</td>
</tr>
<tr>
<td></td>
<td>Matthias Kiese</td>
<td>2021-2022</td>
</tr>
<tr>
<td></td>
<td>Dominika Kuberska</td>
<td>2021-2022</td>
</tr>
<tr>
<td></td>
<td>Christopher Kronenberg</td>
<td>2016-2017</td>
</tr>
<tr>
<td></td>
<td>Marzenna Wesera</td>
<td>2018-2019</td>
</tr>
<tr>
<td></td>
<td>Tina Haisch</td>
<td>2019-2020</td>
</tr>
<tr>
<td></td>
<td>Vyacheslav Pokotylo</td>
<td>2020-2020</td>
</tr>
<tr>
<td></td>
<td>Philippe Gugler</td>
<td>2013-2013</td>
</tr>
<tr>
<td></td>
<td>Fernando G. Alberti</td>
<td>2017-2018</td>
</tr>
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<td></td>
<td>Matthias Kiese</td>
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<td></td>
<td>Dominika Kuberska</td>
<td>2021-2022</td>
</tr>
<tr>
<td></td>
<td>Christopher Kronenberg</td>
<td>2016-2017</td>
</tr>
<tr>
<td></td>
<td>Marzenna Wesera</td>
<td>2018-2019</td>
</tr>
<tr>
<td>Latin America</td>
<td>Jorge Forteza</td>
<td>2012-2016</td>
</tr>
<tr>
<td></td>
<td>Luciana Pagani</td>
<td>2013-2016</td>
</tr>
<tr>
<td></td>
<td>Micaela Camacho</td>
<td>2016- Present</td>
</tr>
<tr>
<td></td>
<td>Roberto Horta</td>
<td>2016- Present</td>
</tr>
<tr>
<td>Asia</td>
<td>Janet Tan</td>
<td>2018-2019</td>
</tr>
<tr>
<td></td>
<td>Alvin Ang</td>
<td>2019-2020</td>
</tr>
<tr>
<td></td>
<td>Tsevelmaa Khyargas</td>
<td>2020-2021</td>
</tr>
<tr>
<td></td>
<td>Kenneth Charman</td>
<td>2021- Present</td>
</tr>
<tr>
<td>US</td>
<td>Burke Murphy</td>
<td>2010- Present</td>
</tr>
</tbody>
</table>

*Note- There may be missing leadership data from earlier years*
Regional Partners were enlisted to assist in piloting the use of a cluster mapping tool with stakeholders in economic development from across the country, specifically from the Northeast, Southeast, Midwest, and Northwest parts of the country.

U.S. Chapter affiliates actively engaged in cluster based economic development strategy were invited to partner on the project. They included the Humphrey School of Public Affairs, University of Minnesota; the Innovation Institute from the Massachusetts Technology Collaborative; the New Carolina Council on Competitiveness, South Carolina; and the Oregon Business Council.

Leaders within several federal agencies were promoting the concept of regional competitiveness and industry clusters.

During the Obama Administration, various actors within the federal government had begun to incorporate cluster criteria as a methodology for determining regional economic competitiveness strategies related to education, workforce, and economic development. Given that there is no official national economic development strategy, each state drives its own approach to economic and workforce development.

The U.S. Cluster Mapping Project was designed to level the playing field for states lacking the analytic infrastructure to compete for federal dollars. A member of MOC Network since 2006, the Humphrey School of Public Affairs engaged in outreach with stakeholders from across the Midwest to roll out the idea and use of the tool. The Massachusetts Technology Collaborative engaged with New England states. South Carolina’s Council on Competitiveness set a strong example on the development of cluster based economic development strategy as did the Oregon Business Council for the Northwest.
The Launch of the US Cluster Mapping Tool was hosted by the Humphrey School of Public Affairs in September of 2014. “Mapping the Midwest’s Future: Regional Innovation Clusters and Competitiveness.” Representatives from twelve states and two Canadian Provinces joined the conference. Clusters related to food, water, and energy, intersecting with technology, transportation and logistics were the focus of the Midwest’s regional competitiveness.

Clusters and the U.S. Economic Development Administration’s Agenda kicked off the conference with academic partners introducing a new tool for economic development and how to use the U.S. Cluster Mapping Tool. Professor Porter challenged the audience to think about the importance of understanding and implementing cluster strategy to drive regional competitiveness. Over the course of two day, forty speakers and panelists from Nebraska to Ohio, from Detroit to Manitoba, illustrated the value of cluster development and strategic investment.

A natural expansion of this investment was to develop a capacity to map North America’s clusters. In 2012, MOC Affiliate member UPAEP University, Puebla, Mexico, stepped up to the task. A team of analysts and researchers from UPAEP met with Rich Bryden, Institute for Strategy & Competitiveness Director of Information Products, to train and develop a Mexican cluster mapping tool based on HBS data analytics. Development of Mexico’s Cluster Mapping Tool was executed by UPAEP to align Mexico’s data with the U.S. data mapping and with the formation of Sintonia, an Institute of Collaboration and Competitiveness, to host the site and support cluster development in Mexico.

MOC member, the University of Redlands, School of Business and Society, offers future opportunities for collaboration and extension of the cluster mapping tool with the use of GIS Spatial Analytics to analyze and visualize industry clusters. An example of this is their collaboration with MOC Affiliate CETYS Universidad (Mexico) to analyze industry clusters and shared value in the “Cali Baja” region. The University of Redland partners with Esri (Environmental Systems Research Institute) to offer Spatial Business Academies, Certificate, Bachelor and Masters Degrees featuring GIS spatial analytics.
What is Ahead for MOC?

The MOC network has developed not only in size but also in structure and scope over these past 20 years. The economic context in which countries, regions, and clusters aim to achieve higher levels of competitiveness has been radically transformed as well. Even the core objectives of economic development have evolved, with environmental sustainability and shared prosperity taking central roles. How should and can the MOC network respond?

During the MOC Faculty Workshop in December 2019 a breakout session “The Trajectory of MOC - The Future of the MOC Network,” moderated by Ken Charman, raised contributions from around 40 MOC affiliates from all over the world. At the MOC Workshop in December 2021 Fernando Alberti and Mari Jose Aranguren led another discussion about “20 years of MOC.” These discussions crystallized key learnings from the experience so far, and set out some principles for the path ahead.

First, and foremost the generation of a common language on competitiveness has been key to contribute to the competitiveness of locations

This common language was shared through MOC teaching in different specific contexts across the world. For the analysis and definition of strategies to strengthen the competitiveness of locations different frameworks and methodologies such as the diamond, cluster mapping, five forces, creating shared value, social progress have been developed by Professor Michael Porter and his team of the ISC at HBS. The knowledge and use of these frameworks and methodologies has been spread on the network through the MOC course. MOC has provided an innovative and engaging pedagogical approach, using case studies discussions, teaching notes and application of the concepts learned to a real clusters and locations.

Nevertheless, on one side we are experiencing important changes, uncertainties, and challenges in the global context, that might rearrange the determinants of competitiveness and even bring into the debate new lenses such as new technologies and smart-connected products, and global discontinuities, such as pandemics, geopolitics, global shortages, and environmental constraints. How to incorporate these new contents into the MOC framework and course? What makes competitiveness future-ready?

On the other side, the opportunities that digitalization opened for online learning, accelerated in its use because of the COVID-19 pandemic generated some open questions about the future of teaching the MOC course. Should the course be developed in an online or hybrid format? How to maintain the case-based approach that HBS introduced and popularized across the world in an online-only setting? Which digital tools, software and platforms do we need to look for?

Second, during these 20 years the relevance of...
competitiveness for social progress was made explicit specially through the development of the Social Progress Index.

Global challenges, such as climate change and the need of energy transition aligned with zero net emissions, and the need to reduce inequalities, through shared value private strategies and different public policies, make these challenges key for the future. Do we need to develop these global challenges inside the MOC network?

Third, another lesson learned refers to the relevance of generating capabilities to engage and collaborate in medium- and long-term processes with different local stakeholders in order to have an impact through research. Competitiveness upgrading is a process of transformation, including behavior, institutions, and in some respects, even cultures.

After some years of MOC course teaching, research activities to generate new knowledge on the competitiveness of locations and to contribute to the competitiveness of locations emerge. When applying the MOC framework in different localities, affiliates fine-tuned some key capabilities to generate a superior impact. One of these is the capability to engage with stakeholders in long term relationships to facilitate change processes. For the future development of the MOC network, which are the main capabilities that should be generated or reinforced among the affiliates in order to have a stronger impact on local and global competitiveness?

Finally, another learning refers to the way of mobilizing the network and the stakeholders in each locality in order to have globally scalable multi-location impacts.

The creation and development of many Competitiveness Institutes in the network have been a key institutional innovation to rely on institutions that could impact through research and teaching different localities. However, there is still a very high heterogeneity across these institutes, different governance models, business models, and activities. We have learned that governance structure in which universities, companies and public institutions collaborate is critical for the success of such institutes. We need to share best practices, and lessons learned. How these experiences could be shared and be useful in the MOC network of the future?

We also need to reflect on the governance structure of the all MOC network - councils and regional chapters - after more than ten years of activity. What is working well and which aspects should be redesigned in the future? How to strengthen the overall leadership of the MOC network?
References

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