

**Well-Being Economic Development Hub and Social Innovation Ecosystems; Required Synergy for Regional Development Achieve in México.**

**Polos de Desarrollo Económico para el Bienestar y Ecosistemas de Innovación Social, sinergia requerida para lograr Desarrollo Regional en México.**

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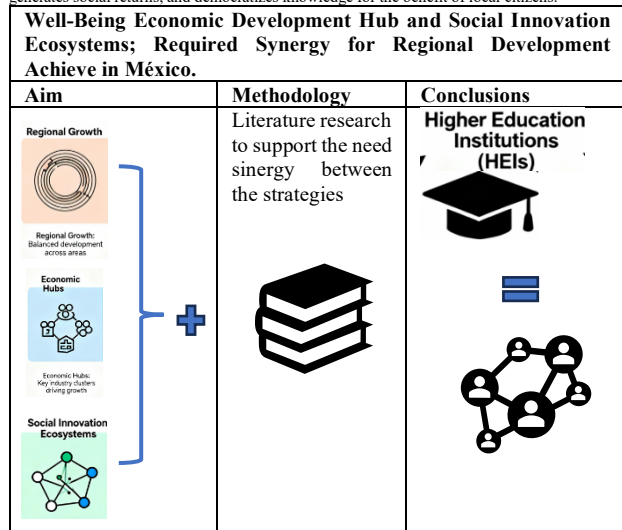
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**Abstract**

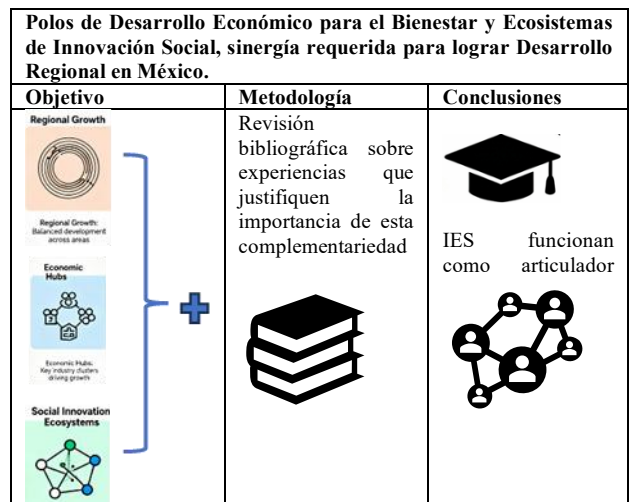
The Economic Development Hubs for Well-being [PODECOBI], announced in the Mexico 2025 Plan, aim to promote regional economic growth by leveraging economic vocations and strategic sectors. However, this does not necessarily guarantee endogenous development or improved well-being within the territories. This article argues that the success of the PODECOBI strategy depends on its complementarity with the creation of Social Innovation Ecosystems, articulated through higher education institutions [HEIs]. The integration of Social Innovation Ecosystems with Economic Development Hubs, positioning HEIs as central actors, offers a framework that ensures territorial ownership and governance, generates social returns, and democratizes knowledge for the benefit of local citizens.



Economic development hubs, social innovation ecosystems, Polos de Desarrollo Económicos del Bienestar, joint mechanism for development, regional development

**Resumen**

Los Polos de Desarrollo Económico para Bienestar [PODECOBI] anunciados en el Plan México en 2025 buscan impulsar el crecimiento económico regional a través de vocaciones económicas y sectores estratégicos, sin embargo, eso no forzosamente implica Desarrollo y bienestar endógeno en los territorios. Este artículo argumenta que el éxito de la estrategia de los PODECOBI depende de una complementariedad con la creación de Ecosistemas de Innovación Social articulados por las Instituciones de educación superior [IES]. Los Ecosistemas de innovación social, más los Polos de Desarrollo Económico, más las IES como nodo es una propuesta que asegura apropiación y gobernanza territorial, retribución social y la democratización del conocimiento en pro de la ciudadanía local.



Ecosistemas de Innovación social, Polos de desarrollo económico para el bienestar, Mecanismos de articulación, desarrollo regional

**Area:** Development of strategic leading -edge technologies and open innovation for social transformation

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## Introduction

In 2025, the ‘Plan Mexico’ initiative was presented as a proposal to boost economic growth in the country. Among its strategies, the idea of Development Poles for Well-being [PODEBIS] launched in the Isthmus of Tehuantepec Corridor [CIIT] was replicated and scaled up. Development Poles will now be installed throughout the national territory.

The pioneering and most advanced PODEBIS in their implementation determined vocations according to the region to be established; consideration was also given to the need to accompany the initiative with social innovation to ensure that the community, local people and the region were part of the development.

This document aims to strengthen this argument based on a review of academic journals and indices that support the importance of articulating both policies. It draws on the experience developed for the Interoceanic Corridor of the Isthmus of Tehuantepec and revisits the articulation mechanism to transfer it to the new initiative, particularly to the Capital Region of the State of Veracruz. Similarly, the proposal set out in this document can be replicated and scaled up for the 41 Development Poles to be implemented.

The first section of the article develops the theoretical arguments on Development Poles and Social Innovation Ecosystems and outlines the main argument of the article: Development Poles and ecosystems are complementary strategies that, when working in synergy, enhance the success of true regional development.

The methodological section explains the process and scientific rigour behind the work and the proposal. Finally, the results show the importance of comprehensive regional development, highlighting the opportunity or benefits of intervention by higher education institutions as a coordinating node that facilitates the contexts and environments for collaboration between the two strategies: Development Poles and Social Innovation Ecosystems, enabling them to find opportunities for synergy.

The conclusion highlights some basic elements that should be considered and proposes the creation of a coordination mechanism that

emulates and scales up the efforts made at the CIIT. Finally, although the capital region of the state of Xalapa does not have a development hub, it is close to the hubs of Tlaxcala, Puebla, Coatzacoalcos and Poza Rica. It is proposed that the University of Veracruz and the Higher Technological Institute of Perote adapt and implement a coordination mechanism that will eventually involve more participation from higher education institutions in the region and promote productive vocations that can generate, on the one hand, a Social Innovation Ecosystem and, on the other, connect with the development hubs close to the region.

## Economic Development Hubs for Well-being Initiative [PODECObI]

In 2025, the Plan Mexico presented a project to create, promote and strengthen the ‘Economic Development Hubs for Well-being [PODECObI]’, strategic regions that were initially planned and designated to be the backbone of the Tehuantepec Isthmus Development Project and the Interoceanic Corridor. Now, with the new federal administration headed by Dr Claudia Sheinbaum, the PODECObI project has been extended to other regions of the country.

The Economic Development Poles for Well-being [PODECObI] are defined as ‘territorially delimited polygons, equipped with specific infrastructure, targeted tax benefits and administrative facilities that seek to promote economic activity’ [Ministry of Economy [SE], 2025, p.2] with the aim of promoting:

- Balanced territorial development,
- Leveraging productive vocations
- Social inclusion
- Job creation and well-being
- Tax incentives
- Production chains
- Development of strategic sectors
- Sustainability

The 2024-2030 federal government considered the Development Poles for Well-being established in the Interoceanic Corridor of the Isthmus of Tehuantepec as the basis and guide for the project. However, it will add 31 additional poles, which will be implemented in stages [see Figure 1].

## Box 1

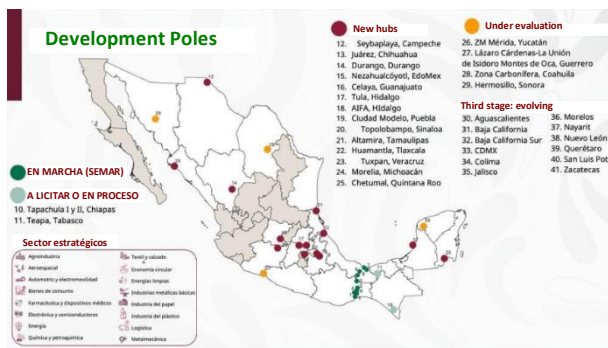


Figure 1

Poles of Economic Development for Wellbeing [PODECOBIS]  
[SE, 2025, p.3](#)

For these PODECOBIS, the following strategic sectors are recognised: agribusiness, aerospace, automotive and electromobility, consumer goods, pharmaceuticals and medical devices, electronics and semiconductors, energy, chemicals and petrochemicals, textiles and footwear, circular economy, clean energy, basic metal industries, paper industry, basic metal industries, plastics industries, logistics, and metal mechanics.

The strategy of developing Development Hubs is based on international best practices and the theory developed by Francois Perroux, who proposed that development ‘must be global, endogenous, and integrated,’ taking into account the territory and the environment [[in Guillén Romo, 2008, p.18](#)], he highlighted the essential role of the State as an articulator and connector between different economic elements to trigger growth and face competition; this is because economic development in a developing country is not uniform, but asymmetrical, so agglomerations or poles with the potential to lead growth must be identified.

Boudeville contributed to the theory through ‘economic spaces,’ which recognise the territorial influence generated by the industrialisation of an area. This concentration of efforts results in accelerated growth and economic development. Beyond economic sustenance, international experiences have shown that every hub must identify its location and territory and build useful instruments and mechanisms capable of developing and implementing policies that counteract the imbalances that occur between regions [[Hermansen, T, 1974](#)].

The implementation of Development Hubs around the world are good practices and successful cases that demonstrate the capacity to develop productive, interconnected, and coordinated areas that also generate development and well-being. According to the World Bank [2011], there are success stories in China, Korea, India, and Brazil that have promoted areas of industrial and manufacturing development.

### Social Innovation Ecosystems

Social innovation is understood as a transformative agent in the community, and in the last twenty years, it has been the focus of study as a strategy to promote regional and local development. Social innovation is capable of building territorial capital [[Domanski, et al., 2020](#)] and is an engine of change that democratizes opportunities to overcome obstacles and achieve true development among societies [[Pel, et al., 2020](#)].

Social innovation is the transition to a new paradigm that understands that innovation goes beyond technological development, is open to society, and is oriented towards combating social challenges:

We describe social innovation as a new combination and/or new configuration of social practices in certain areas of action or social contexts prompted by certain actors or constellations of actors in an intentional targeted manner with the goal of better satisfying or answering needs and problems than is possible on the basis of established practices [[Domanski, et al., 2020, p. 459](#)].

Social innovation is approached from a perspective that transcends economic value and emphasises the generation of social value; it is created and implemented among different actors and in different contexts, incorporating knowledge and technology transfer to increase the productivity and well-being of the community, organisation and company.

Table 1 presents some definitions of social innovation, as well as the evolution of the concept.

## Box 2

Table 1

Definitions of Social Innovation	
Author	Definition
F. Moulert [2020] Catholic University of Leuven Heverlee, Belgium	Social innovation is made up of two pillars: one stems from the institutional and includes innovations in social relations, empowerment of people and governance; the other pillar relates to the social economy, and the quest to meet the needs of local communities.
A. Hubert [2011] Bureau of European Policy Advisers [BEPA]	Social innovations must be social both in their purpose and in the means employed. They are new ideas [products, services and models] that simultaneously meet the needs of the community and create new relationships or partnerships. These practices are good for society and contribute to the improvement of its capacity for action [p. 7].
G. Mulgan [en Vega Jurado, 2017]	Social innovation comprises innovative activities and services that arise with the aim of meeting some social need and that are predominantly developed and disseminated by organisations whose primary purpose is social [p. 15].
CEPAL [en Vega Jurado, 2017]	New ways of doing tasks, new tasks, new forms of management or administration, with a better cost-efficiency ratio than traditional models, which have the potential to be replicated, both in the country where they originate and in others in the region that have proven to be economically and politically sustainable, that can be converted into public policy, that have an impact on the determinants of poverty, that have the potential to reduce discrimination and exclusion, and, very importantly for ECLAC, that promote and strengthen community participation as a contribution to citizenship and, therefore, to the strengthening of democracy [p. 15].

*Elaborated with information from different authors cited in the table.*

The processes of interconnection, collaboration, and participation generated by social innovation can become mechanisms that lead to ecosystems from the complex paradigm.

For Pel, et al. [2020], social innovation ecosystems are a mode of governance through which the challenges of communities can be addressed. It can even reach a level of meta-governance through strategic and collaborative efforts between governments and benefactors [non-governmental organisations, private initiative, higher education institutions, among others].

The conceptualisation of social innovation ecosystems is still in the construction stage, but it is nevertheless an observable phenomenon that demonstrates its virtues and qualities for enhancing regional well-being and development. The idea of social innovation ecosystems goes beyond the individualistic vision of entrepreneurship and focuses on the environment, its dimensions, actors, and drivers [government, private initiative, industry, academia, environment].

The more infrastructure, scaffolding and articulation mechanisms are promoted among the actors in a region, the better the conditions for empowering an ecosystem and the greater the degree of consolidation and strengthening of the ecosystem [Pel, et.al., 2020].

Following this theoretical review of Economic Development Hubs and Social Innovation Ecosystems, this article considers that both strategies complement each other and ensure that the territory and its inhabitants enjoy well-being and economic development; it also considers that the community embraces the projects and takes ownership of them in order to self-manage them in the most efficient and useful way for the community itself. Thus, Development Poles that promote economic growth through investment and the establishment of businesses become part of an ecosystem that integrates and includes territories, the environment, and people.

## Methodology

The methodology of this work is qualitative and consisted of searching for literature no more than fifteen years old that deals with the subject. The information collected will be analysed and categorised according to the type of product and publication in order to highlight the most important findings using an information matrix.

The search, categorisation and bibliographic review made it possible to identify the challenges and opportunities that HEIs face in fulfilling their role as coordinating nodes and in seeking the development and consolidation of innovation ecosystems. In addition, opportunities for building an innovation ecosystem in the Veracruz capital region were reviewed through collaboration between different HEIs, initially with UV-TEC in Perote through its quality postgraduate education programmes registered with SECIHTI.

## Results

In the previous sections, hubs and ecosystems were developed conceptually, whose theoretical interpretations agree that each region has different initiatives, strategic actors, and different driving forces; that is, they are different journeys shaped by experience and a differentiated constellation of networks that make each ecosystem different.

However, they all require certain criteria and elements to trigger: empowerment, the capacity for self-management, the construction of tools that lead to good governance, and the building of systemic capacities.

This also implies understanding social innovation as a cross-cutting element that must prioritise the community and its connection with the territory, nature, needs and reality, as well as recognising the value of collaboration and dynamism open to receiving contributions from other actors [Gatica, et al., 2015].

## Synergy between Development Hubs and Innovation Ecosystems

The development of megaprojects generates both positive and negative impacts. Castillo, et.al. [2025] mention that in many cases, the negative impacts are mainly felt by local communities and ecosystems, which sometimes leads to widespread resistance and rejection of infrastructure development. Bettina Cruz, founder of the Assembly of Indigenous Peoples of the Isthmus of Tehuantepec, stated that ‘the benefits of the megaproject seem to be oriented more toward the outside world than toward the comprehensive development of local communities’ [in Castillo, et al., 2025, p.155].

The above shows the importance of incorporating comprehensive strategies into megaprojects such as PODECOBIS that consider and address the needs of the local population, as well as mechanisms for participation, collaboration and integration. Development hubs are a reductionist vision that generates inequality between regions; therefore, only if they are designed with a complex, local and community-based vision can they incorporate actions that ensure the promotion of true well-being in the region where they are established.

This is where Social Innovation Ecosystems find the opportunity to articulate this comprehensive intervention involving the community, the environment and society, ensuring at all times the reduction of gaps and possible inequalities.

According to Domanski, et.al. [2020], there is a growing consensus among academics, government officials and public policy specialists that technological innovation is not enough to solve the challenges facing the economic and social development of communities.

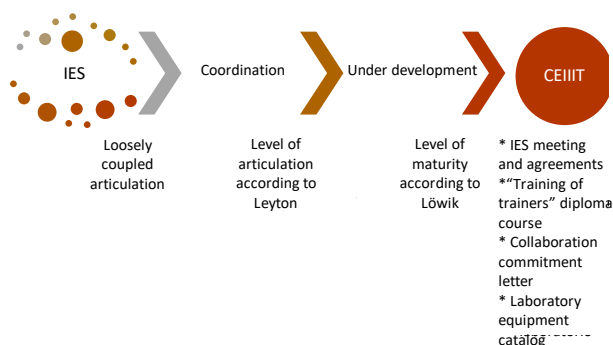
It is important to clarify that in order to achieve true local development, community residents must be considered active and participatory agents, not passive beneficiaries [Castillo, et al., 2025]. In other words, the design and implementation of these policy interventions must be determined by the community, for the community, in order to achieve participatory governance.

To achieve this combination and complementarity between projects, one of the fundamental mechanisms for building the foundations of effective and efficient communication is to establish a coordination mechanism.

In this regard, the documented experience of the work carried out in the Isthmus of Tehuantepec shows that it is possible to establish a critical path and develop the stages of the process that facilitate coordination.

In this regard, Landa-Torres [2024] presented a proposal for a coordination mechanism in which higher education institutions served as coordinating nodes in a model of loosely coupled organisations, ‘understanding coordination as the synergy that results from the joint action of two or more actors, and whose value exceeds their simple sum’ [Leyton in Landa-Torres, 2024, p.4] [See Figure 2].

### Box 3



**Figure 2**

Proposed articulation mechanism  
Landa-Torres [2024, p.7]

### HEIs as an articulation node

Achieving participatory governance and self-management for local development, among other key elements required by social innovation ecosystems and PODECOBIS, involves the intervention of different actors in a pentahélice process that promotes the exchange of knowledge, methodologies, and actions to advance development and well-being objectives.

This is where higher education institutions [HEIs] come in as a coordinating agent, facilitating the implementation of a coordination mechanism, as the virtues and qualities of HEIs allow for the necessary loose and flexible coupling between the community, government, private initiative, nature and any other local actor. HEIs can therefore act as a synaptic agent [translator, articulator, facilitator, incubator] that fosters the environments, tools and knowledge necessary to generate connections between actors, creating unique spaces, territories where the economy [development hubs], the community and the environment coexist in a holistic and comprehensive manner for the sake of local development and well-being.

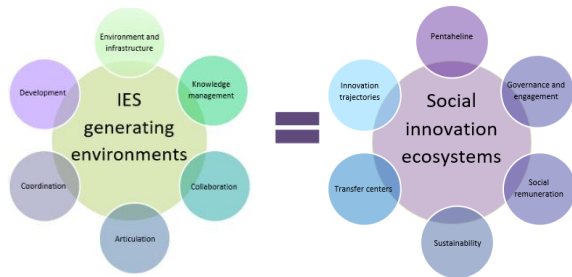
In a way, the first Development Hubs implemented in the Interoceanic Corridor of the Isthmus of Tehuantepec promoted the participation of Higher Education Institutions through the Inter-institutional Groups for the Strengthening of Human Capital in the Isthmus of Tehuantepec, with the aim of meeting the needs of industries in relation to the workforce. Now, the PODECOBIS seem set to replicate this collaboration, as the first hub announced to be set up in Tlaxcala will be surrounded by several HEIs [Mexico Business News, 2025]. Following the same argument as that promoted in the Isthmus of Tehuantepec:

With centres such as the Technological University of Tlaxcala [UTT] and the Autonomous University of Tlaxcala [UATx], together with CBTIS, CBTA and six CECYTE campuses, a robust educational ecosystem is being created that can be directly aligned with the productive vocations of the hub... This proximity will allow young people from Tlaxcala to access technical and professional training linked to emerging industries, facilitating their entry into the labour market and strengthening the social fabric of the region... retaining local talent, reducing migration and creating new life prospects for future generations [Avendaño, 2025, p.1].

HEIs have shown that they have functioned as articulating nodes for the training and strengthening of human capital, coordinating agents of change and promoting the formation, consolidation and strengthening of social innovation ecosystems. Furthermore, in a globalised world based on a knowledge management economy, the role of HEIs goes further and becomes a hub for socialisation, knowledge transfer [Yuzhuo, C. Jinyuan, M. & Qiongqiong, 2020] and knowledge recovery.

To achieve the design, planning and execution of this grand strategy, HEIs are central actors that function as anchors and hubs, changing their role from knowledge generators to transmitters and disseminators of knowledge, but also creating spaces for co-creation where information and knowledge are transformed and communicated in a bidirectional manner. On the other hand, the literature agrees that HEIs also acquire a leadership role that allows them to guide spaces of trust and security for the construction of their own ecosystems [Yuzhuo, Jinyuan & Qiongqiong, 2020] [See Figure 3].

ox 4

**Figure 3**

Impact of HEIs as a hub for coordination

*Own elaboration*

## Conclusions

This discussion becomes a proposal for academia and researchers to move from theoretical research to the territorialisation of strategies and to develop the instruments and tools to identify the vocations, actors, elements and territorial conditions that facilitate the consolidation of social innovation ecosystems in any region of the country as part of a development-oriented need.

In this way, Innovation Ecosystems become a valuable heuristic/empirical model that generates unique and distinctive opportunities according to the territory, the actors and their dynamics, providing an opportunity to shape characteristics appropriate to each region and maximise opportunities for growth and impact.

Elements necessary for the creation of ecosystems: 1] a model of governance between different actors, 2] social innovation hubs, laboratories and transfer centres as innovators that trigger and accelerate social innovation, and 3] innovation trajectories [Terstriep, et al., 2020]. You can also consider the existence of translocal networks [funded by international and transnational organisations] for the transfer of knowledge and skills that empower communities [Avelino, et al., 2020].

The importance of creating a social innovation ecosystem lies in its ability to generate strong interconnections that result in new hybrid and flexible organisational models that facilitate communication, work and the achievement of established objectives and goals. Above all, it promotes the incorporation and inclusion of different actors in a community, benefiting everyone equally.

An innovation ecosystem empowered by network constellations can build strong foundations for the appropriation and propulsion of Economic Development Poles for Well-being, facilitating the achievement of the objective of true endogenous development and the improvement of the quality of life of local residents.

In the case of development hubs, they are a well-studied strategy and international best practices are the guiding force for achieving their territorialisation. However, their implementation in isolation disconnects them from the opportunity to generate real change and achieve local and regional development. Furthermore, there is widespread rejection of the imposition of economic activities that are alien to the traditions, customs and practices of the defined regions.

The capital region of the state of Veracruz does not currently have a territorial delimitation that will officially be a PODECOBI, but it does have all the elements to promote ecosystems and local development zones, enhancing vocations, and subsequently establishing mechanisms for coordination with the hubs that surround the area and are located less than two hours away [Puebla and Tlaxcala].

The four authors participating in this article represent a collaborative effort between various faculties, study programmes and human capital training. However, we all share the commitment of the Secretariat of Science, Humanities, Technology and Innovation [SECIHTI] to link the academic sectors with local needs and problems in order to influence their solution and democratise access to science, thus actively contributing to the social welfare and economic development of society.

The aim is therefore to establish the first steps for a coordination mechanism between the three study programmes, drawing on the experience and knowledge generated in the Isthmus of Tehuantepec Interoceanic Programme and Corridor, to identify and map the vocations, projects, products and economic activities that could result in a productive chain and enrich the value chain. In subsequent stages, the aim is to incorporate more HEIs and actors into a constellation of welfare networks.

In conclusion, the challenge for Higher Education Institutions [HEIs] is not only to formalise and professionalise young people in Mexico, but also to be understood as agents of change that contribute to the development of their communities. Through their experience in knowledge generation and management, the implementation of collaboration and cooperation mechanisms, among other tools, HEIs can facilitate environments for the formation and consolidation of Social Innovation Ecosystems.

The creation of these constellations of networks for well-being that articulate the Poles and ecosystems must also be understood as part of our commitment to social retribution, complying with the provisions of the General Law on Humanities, Sciences, Technologies and Innovation [LGHCTI]. Democratizing knowledge to generate benefits in the territory and marginalised and vulnerable communities of the country, breaking the vicious cycles of poverty, marginalisation and precarious employment. Ensuring a better distribution of wealth and the effective management of common goods that protect diversity and the environment.

### Declarations

### Conflict of interest

The authors declare no interest conflict. They have no known competing financial interests or personal relationships that could have appeared to influence the article reported in this article.

### Author contribution

*Landa Torres, Iris Adriana:* Contributed to the project idea, research method and technique, the elaboration and written of the article.

*Vega Zárate, César:* Contribute to the idea, research method and article review.

*Myrna Iselda Maravert Alba:* Contribute to the idea, research method and article review.

*Francisco Hernández Cano:* Contribute to the idea, research method and article review.

### Availability of data and materials

The datasets used or analyzed during the current study are available from the corresponding author upon reasonable request.

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### Abbreviations

CBTA	Centre of Technological and Agricultural High School
CBTIS	Centre for Technological, Industrial and Service High School
CECYTE	Centre for Scientific and Technological Studies
CEPAL	Economic Commission for Latin America and the Caribbean
CIIT	Isthmus of Tehuantepec Interoceanic Corridor
IES	Higher Education Institutions
PODECABI	Economic Development Poles for Well-being
PODEBIS	Development Poles for Well-being
TEC de Perote	Higher Technological Institute of Perote
SE	Ministry of Economy
UATx	Autonomous University of Tlaxcala
UTT	Technological University of Tlaxcala
UV	Veracruz University

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