Science, technology and innovation for development

2018

The United States-Mexico Foundation for Science
FUMEC’s leading advocate was congressman George E. Brown Jr., for whom science was always the major driver towards prosperity and harmony in society and between nations. For 30 years he was one of the most prominent figures in scientific, technological and educational development in the United States, as Chairman and Ranking Member of the Science and Technology Committee for the United States House of Representatives.

George E. Brown Jr.: Congressman and major FUMEC promoter

FUMEC’s Board of Governors comprises 14 distinguished figures from both countries. The current Chairman is Dr. William C. Harris and Vice Chairwoman, Silvia Hernández.

Board of Governors

Members of the FUMEC Board of Governors, 2018. William C. Harris, Silvia Hernández, Juan López de Silanes, Néstor Montoya, Francisco Barnés, Pedro Romero, Leopoldo Rodríguez, Lars Christianson, Mary Walshok, Susan Hackwood, Cristina Loyo, Keith Patridge, Cipriano Santos, Guillermo Fernández de la Garza (Secretary).


- Guillermo Soberón
- Ernest Eliel
- Mauricio Fortes
- Susan Scrimshaw
- Pablo Rudomín
- Jaime Oaxaca
- Leopoldo Rodríguez
- Michael T. Clegg
- Francisco Barnés
- Warren J. Baker
- Juan Silanes
- William C. Harris
**FUMEC** is celebrating 25 years during which it has succeeded in opening new spaces for binational collaboration in **science, technology and innovation** that benefit Mexico’s **social and economic development**, in priority areas for both countries.

The next 25 years will be more challenging, with the rapid advance of science and technology, more intense and complex integration processes between the United States and Mexico, and the enormous challenges facing the two countries in the global context.

The Foundation is renowned as an organization that anticipates **technological trends**, and which has acted to build binational synergies, thereby helping to create spaces to further:

- Research
- University-business liaison
- **Education** focused on **inquiry-based, hands-on** learning
- **Interaction of SMEs and entrepreneurs** with the technological-business ecosystems which FUMEC also supports and energizes.

**FUMEC:**

- Identifies challenges, trends, opportunities, actors and champions; and
- Works to integrate programs that foster the generation of development impacts with Science, Technology, Education and Innovation.

Throughout its 25 years, FUMEC has served a total of:

- 4,365 **businesses**
- 767 **entrepreneurs**

And collaborated with more than:

- 175 **universities, institutions and bodies which drive the economic development of the two countries.**

**FUMEC** has a team of **57 professionals**, working in **6 programmatic areas.**

**FUMEC** has an endowment fund of **22 million dollars**, made up of equal contributions from each of the two governments.

It has channeled more than **1,996 million pesos** into its programs.
We have helped more than **1,275 small producers**, many of them women, with food safety techniques and best practices in production and marketing, increasing their income and expanding their opportunities.

We incubate **more than 170 businesses** run by low-income women, supporting programs to promote their growth.

We support **regional development programs** focused on exportation, which open spaces for the development of low-income communities with, for example, mango, avocado, chili peppers and other produce.

Under the premise that education is the basis for their development, we **help to train citizens** giving them critical thinking skills, confidence in their ability to learn and with the attitudinal and conceptual bases for individual development and social responsibility.

Some **3,800 student entrepreneurs** have been trained in poverty afflicted regions.

FUMEC sees science, technology, education and innovation as drivers of development in the most vulnerable areas, where it operates with the support of the binational collaboration.
FUMEC supports the creation and development of Micro-SMEs:

- By facilitating the creation of businesses derived from research groups.
- Supporting the use of effective methodologies in incubation systems.
- With technological-entrepreneurial extensionism services in Chiapas, Guerrero, Michoacán, Sinaloa, Estado de México and other states, as well as micro and small businesses in other sectors.
- By providing business acceleration services both in the national and international market to generate better jobs and open new opportunities in Mexico.

FUMEC, pioneer in the integration of new innovation support mechanisms
Supports the organization of integrated education, science, technology and innovation ecosystems with the creation of:

- **State and Regional Innovation Agendas**, leveraging experiences of the United States and the European Union, enabling the identification of 500 strategic projects throughout the Mexican Republic.

- **Extensionism Systems** in 15 states which have served businesses from the Agricultural, Metal-Mechanics, Plastics, Aerospace, Energy and ICT industries.

- **Integrated Systems** to facilitate the incorporation of advances for Industry 4.0 (Querétaro, Tamaulipas, Sonora).

- FUMEC is a pioneer of **Industry 4.0 development programs** in Mexico and is responsible for establishing and initiating operations at the Productivity and Innovation Center for Industry 4.0 (CEPRODI 4.0) in Querétaro.

Through:

- **The identification of opportunities**, such as, collaboration with Women’s Business Centers in programs to boost technological entrepreneurship in Mexican women.

- **The integration and support of programs** with goals of mutual interest, such as those run with the United States Department of Health and Human Services (DHHS) and Centers for Disease Control and Prevention (CDC) with the Mexican Department of Health.

- **The search for innovative results**, such as the new Industry 4.0 programs for SMEs with support from the United States National Institutes for Manufacturing Innovation.

**The Foundation has been a key player in the organization and installation of binational programs, including:**

- **NOBI**, Binational Innovation Nodes (**CONACYT** with the NSF);

- **COBI**, Binational Innovation Consortia (**CONACYT** with the NSF);

- **MUSEIC** (Mexico-United States Entrepreneurship and Innovation Council);

- **FOBESII** (Binational Forum for Higher Education, Research and Innovation).
FUMEC facilitates improvements to the education system (primary, middle and higher):

- Creating and supporting INNOVEC (Innovación en la Enseñanza de la Ciencia A.C.) for the development and application of Hands-On and Inquiry-Based Teaching Systems (SEVIC, in Spanish), which are used by more than 400,000 children every year, many of them in special education, remote high schools and low-resource areas. No less than 70,000 teachers have been trained to work with these systems, including those in teacher training colleges.

- Facilitating the application of the Engineering Basics program in high school education, which is run in Querétaro, Yucatán and Estado de México, showing that young people from low-income families develop self-confidence, are thoroughly trained and go on to achieve great success in graduate and post-graduate programs.

- Supporting the update of study programs and development of new, high-impact advanced technology programs for companies, such as those related to Industry 4.0 in the Polytechnic and Technological University system.

FUMEC channels economic and technical resources from the United States into health programs in Mexico:

- Epidemiological Surveillance
- Public Health Emergency Management
“FUMEC has achieved 25 years of facing challenges and leveraging development opportunities through science, technology, innovation and education with the support of alliances between Mexico and the United States”