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Abstract: The discussion paper on Mexico provides inputs for a policy discussion on cluster cooperation and policy arrangements on clusters with Mexico. The report contains information on existing EU-Mexico cluster collaboration and good practices, which can be good practice examples for other clusters from Europe in their collaboration approach towards Mexico.

European Commission

Contents

1. Objective of the report

The aim of this discussion paper is to provide an overview on the existing European Union (EU)-Mexico cluster cooperation activities, highlight good practices/success stories and opportunities for future cluster-based exchange, including recommendations for a reinforced EU-Mexico cluster policy dialogue.

This report builds on the analysis and overview provided by the "Mexico Preparatory Briefing". Its content is mainly based on desk research and targeted interviews with relevant local and European contact points.

2. Existing EU-Mexico cluster cooperation

Mexico is an industrialised country with a relatively stable economy, which is to a significant extent dependent on the US's economy, and is therefore strongly impacted by the overall US economic performance, growth rate, currency exchange rates and GDP fluctuations. The current policy and recent changes in the political environment have added uncertainty to the existing dependency factors. However and despite this relative dependence, Mexico is a country with an enormous potential for establishing businesses due to its wide variety of economic sectors, favourable demographics, natural resources, strategic geographical position and high skilled workforce.

Relations between the EU and Mexico have been strengthening since the signing of the Economic Partnership, Political Coordination and Cooperation Agreement, known as the **'Global Agreement' (GA)**[1] in 1997. The 'Global Agreement' is the regulatory basis of the economic and cooperation relations between the EU and Mexico and aims at supporting the development of both regions[2]. It has a strong focus on the promotion of SME competitiveness as well as on the establishment of cluster partnerships.

In May 2016, the EU and Mexico updated this agreement to ensure it is aligned with the current needs of both economies and focuses on supporting and coordinating cooperation between their main economic sectors. In this regard, Mexico is an interesting country for cluster to cluster (C2C) cooperation in the following industries: automotive, aerospace, renewable energy and biotechnology. These industries are described in more detail in the Preparatory Briefing document elaborated in November 2016. The states of Baja California and Nuevo León present the highest potential for cluster cooperation in the sectors previously mentioned.

Mexican clusters have also actively pursued the European Secretariat for Cluster Analysis (ESCA) labels resulting in one Gold labelled cluster, four silver labelled clusters, and up to 26 bronze labelled clusters[3]. The latter includes clusters from the automotive, aerospace and health sector.

[1] http://ec.europa.eu/trade/policy/countries-and-regions/countries/mexico/
[2] www.europarl.europa.eu/RegData/etudes/STUD/2014/534985/EXPO_STU(2014)534985_EN.pdf
[3] http://cluster-analysis.org/benchmarked-clusters/?country=eaab51b460664f70808b21e3180c4a45

2.1. Policy dialogue on cluster cooperation

The Mexican Government developed sectoral policies to foster cluster activity although at this moment, there are no governmental initiatives that support the creation, development and consolidation of Mexican cluster organisations or encourage international cooperation. In spite of this, Mexican clusters often collaborate with each other to enhance their competitiveness in the global scenario and in some cases, they are organised around very strong cluster organisations or business associations. Concerning international cooperation the effort varies considerably across clusters and sectors.

In 2012, **ProMexico** signed a MoU (Memorandum of Understanding) with the European Cluster Collaboration Platform (ECCP) to develop synergies between clusters and SMEs in Europe and Mexico. This is considered to be the first policy initiative to foster the internationalisation of Mexican clusters[4].

2.2. Cluster to cluster cooperation

The EU and Mexico share many strategic sectors such as automotive, aerospace, renewable energies and biotechnology. This has led to a growing cooperation between the regions in order to increase the competitiveness of their SMEs on the global stage[5].

Mexico's strategic location in North America and the implementation of governmental policies that foster the growth of key sectors have generated important C2C cooperation opportunities[6]. As a matter of fact, there are several examples of existing C2C cooperation between the EU and Mexico.

Out of the four sectors of common interest identified, the automotive industry has emerged as the sector with more significant opportunities for EU and Mexican cluster organisations to collaborate. The **Guanajuato Auto Cluster**, for instance, cooperates closely with EU clusters (e.g. Germany, Italy, France, UK, the Netherlands, Switzerland and Sweden) and is home to important EU manufacturers, such as Pirelli[7].

Furthermore, there are several European partnerships that provide great opportunities for EU and Mexican cluster organisations to cooperate. For instance the scope of Natureef[8], a European Strategic Cluster Partnership (ESCP) funded by the EU programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises - COSME[9], implemented a joint strategy promoting cross-sectoral cooperation and facilitating the internationalisation of SMEs considering a new natural efficient resource concept.

[4] https://ec.europa.eu/research/iscp/pdf/policy/roadmaps_mex-2016.pdf
[5] www.virtuelle-cluster-initiative.de/world-expo/mexico/
[6] www.promexico.gob.mx/en/mx/inversion
[7] www.promexico.mx/documentos/biblioteca/the-mexican-automotive-industry.pdf
[8] www.natureef.eu/description/
[9] https://ec.europa.eu/growth/smes/cosme_es

In fact, the organisation of matchmaking events is also one of the main strategies to stimulate C2C cooperation between European and Mexican clusters. The **EU-Mexico Cluster & Business Cooperation Seminar and Matchmaking Event** (Mexico City, October 2016), co-organised by ECCP, the Low Carbon Business Action Mexico (LCBA) and ProMexico, is an example of an event designed to encourage cluster collaboration in the field of renewable energies and biotechnology[10]. The **Multisector Mission to Mexico** focused on the ICT sector, also offered several EU cluster organisations and logistic companies the possibility to identify cooperation opportunities with important Mexican clusters[11].

3. Good practices and success stories related to EU-Mexico RDI and industrial cooperation

Mexico is a large, diversified and fast growing economy when compared to other Latin American countries. Mexico is also building a strong position in the global economy, which encourages industrial, research, development, innovation and C2C cooperation opportunities with the EU.

To provide further information on the level and effectiveness of cooperation that can be expected with Mexican entities, three success stories of international cooperation established between Mexican institutions (cluster RDI members and clusters themselves) and similar EU organisations are highlighted. The success stories include details on the sector and stakeholders concerned, the process that has led to the cooperation, policy support, common activities, and the outcome of the cooperation.

[10] www.clustercollaboration.eu/news/eu-mexico-cluster-business-cooperation-seminar-and-matchmaking-event-0

[11] www.clusterforlogistics.lu/cluster/mexico-and-colombia-visit

3.1. UNAM, Pirbright Institute and ISCIII: training and research development cooperation

Cooperation between UNAM, Pirbright Institute and ISCIII[12]	
Partners: • Universidad Nacional Autónoma de México (UNAM, Mexico)[13] • Institute for Animal Health, the Pirbright Institute (United Kingdom)[14] • Institute for Health Carlos III (ISCIII, Spain)[15]	
Sectors and subsectors concerned: • Biotechnology sector ○ Animal health sub-sector	
Context: • UNAM is a Mexican University with approximately 176,000 fellows and 4,316 academics. Almost one third of the Mexican publications are from UNAM researchers. • Pirbright Institute has a huge impact both nationally and internationally in the prevention of virus diseases of livestock and virus transmission from animals to humans. This is achieved with a unique combination of fundamental research and applied science in diagnostics and control. • Institute for Health Carlos III is the main public research entity funding, managing and carrying out biomedical research in Spain.	
Type of cooperation: Training and Research and Development (R&D) • The development of the diagnostic tests and vaccines has been the result of the cooperation between the three partners. The tests and vaccines were developed by the British researchers which have then been cloned and expressed by the Spanish researchers to be subsequently tested in Mexico by the UNAM researchers. • Mexican researchers have been trained in the use of newly developed diagnostic procedures by the British researchers.	

[12] http://cordis.europa.eu/project/rcn/26893_en.html
[13] www.unam.mx
[14] www.pirbright.ac.uk
[15] www.eng.isciii.es

Objective:

- The main goal of this cooperation is to improve the diagnosis of human and porcine cysticercosis, to conduct epidemiological surveys as a prelude to selecting appropriate study areas for assessing control via drug treatment and to develop a recombinant vaccine.

Policy support:

- This project has been funded by the Specific research and technological development programme (EEC) in the field of life sciences and technologies for developing countries (the amount of the funding is not available)

Results/outcomes:

- Development of sensitive and specific blood diagnostic test for antibodies to the metacestode based on the identification and molecular cloning of already defined secreted metacestode antigens stimulating appropriate levels of parasite-specific antibodies.
- Development of a vaccine based on an already identified protective oncospheres component

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3.2. Mexican and European consortiums in the energy sector: GeMEX project

Cooperation between Mexican and European consortiums in the energy sector[16]	
Partners: • A Mexican consortium led by the Michoacán University of San Nicolas de Hidalgo (UMSNH, Mexico)[17] • A European consortium led by the GFZ German Research Centre for Geosciences[18] (Germany, EU)	
Sectors and subsectors concerned: • Renewable energy sector ○ Geothermal energy sub-sector	
Context: • UMSNH is a public university in Mexico and the oldest institution of higher education in the Americas. The Mexican consortium is also composed of the CeMIE-Geo (the Mexican Center for Innovation in Geothermal Energy) which is an academia-industry alliance supported by the Mexican Secretary of Energy (SENER) and the National Science and Technology Council (CONACYT) aiming to promote and accelerate the use and development of geothermal energy in Mexico[19]. • GFZ is the German national research centre for Earth sciences, focusing on the geosphere within the highly complex Earth System and its further subsystems, its interacting subcycles, and its wide network of cause-and-effect chains. The other 26 partners of the European consortium are spread over nine European countries besides Germany, namely: Belgium, France, Greece, Iceland, Italy, Netherlands, Norway, Poland and United Kingdom. [20]	

[16] http://cordis.europa.eu/project/rcn/205825_en.html
[17] www.umich.mx
[18] www.gfz-potsdam.de/en/home/
[19] http://cemiegeo.org/
[20] http://cordis.europa.eu/project/rcn/205825_en.html

Type of cooperation: Technology sharing

- The cooperation on geothermal energy between the EU and Mexico represents a joint effort to advance and apply technological developments in geothermal technologies.
- Mexico is one of the leading countries on geothermal generation. The collaboration with European counterparts will spur further technological development and marks the first step on renewable energy technology cooperation between the EU and Mexico.

Objective:

- The ultimate goal of the GEMex project is to cooperate on geothermal energy research to make this renewable energy source cost-effective and affordable both for electricity and heat production.

Policy support:

- The EU and Mexico contribute equally to the €20 million project. The EU's share comes from Horizon 2020 and the other from Mexico's Fondo de Sustenibilidad Energética (SENER) - Consejo Nacional de Ciencia y Tecnología (CONACYT).

Results/outcomes:

- Development of enhanced geothermal systems (EGS) in two unconventional geothermal sites in Mexico.

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3.3. UNAQ, CONALEP, Safran and Airbus Helicopters: training and resource sharing

Cooperation between UNAQ, CONALEP, Safran and Airbus Helicopters [21]	
Partners: • Querétaro Aeronautics University (UNAQ, Mexico)[22] • Querétaro state technical and vocational college (CONALEP, Mexico)[23] • Safran (France, EU)[24] • Airbus Helicopters (France, EU)[25]	
Sectors and subsectors concerned: • Aeronautics sector ○ Aviation sub-sector	
Context: • UNAQ is a Mexican public higher education institution specialised in aeronautics. • CONALEP is a leading institution in training professionals as well students in aeronautics. • Safran is an international high-technology group and tier-1 supplier of systems and equipment in its core markets: aerospace, defence and security. It has over 70,000 employees and logged sales of €17.4 billion in 2015. **Member of Aerospace Valley Pole de Compétitivité France.** • Airbus Helicopters is a division of the Airbus Group, a global leader in aeronautics, space and related services. It provides civil and military helicopter solutions to its customers. **Member of Pole Safe Pole de Compétitivité Cluster France**	
Type of cooperation: Training and resources sharing • The French industrial partners SAFRAN and Airbus Helicopters provided training equipment, including an aeroplane engine and a helicopter, to the French-Mexican campus, as well as teachers specialised in avionics, maintenance and manufacture, to attend training courses certified by the European Aviation Safety Agency.	

[21] www.diplomatie.gouv.fr/en/the-ministry-of-foreign-affairs/the-cooperation-and-cultural-action-network/our-innovative-network-projects-around-the-world/article/mexico-training-aviation-professionals-up-to-international-skill-levels-01-07
[22] www.unaq.edu.mx
[23] www.gob.mx/conalep
[24] www.safran-group.com/
[25] www.airbushelicopters.com/website/en/ref/home.html

Objective:

- The ultimate aim of this cooperation was to establish a French-Mexican campus for aeronautics maintenance trades where vocational baccalaureate students (Profesional Técnico Bachiller) and high-level university technicians (Técnico Superior Universitario) can receive training in aviation with a comparable level of competence to that set by the International Civil Aviation Organization.

Policy support:

- The Agreement setting out the terms of the partnership was signed by the Mexican Secretariat of Public Education, the French Ministry of National Education, the Mexican Ministry of Communications and Transport, the CONALEP Directorate-General, and representatives of the SAFRAN and Airbus Helicopters companies.

Results/outcomes:

- Establishment of a French-Mexican campus to provide Mexican students with teaching focused on skills identified with partner companies, helping them break into the world of work and the productive sector successfully.
- The construction of the campus began in December2012. The first stage involved the main building, containing ten laboratories, eight workshops, two shops, a documentation centre and an area dedicated to practical work. The building's total floor surface area is 4600 m². The main building was delivered in late 2013, with 50% of its equipment having been acquired.
- In 2014, the installation of the various laboratories and workshops was completed, as was the construction of a hangar of 5000 m² to house four aircraft used for practical maintenance exercises.
- Since the construction of the campus, dozens of teachers per year receive training in the modules that will allow them to receive an EASA certification, delivered by the expert from the French Ministry of National Education and colleagues from UNAQ who have already received training.

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4. Opportunities/potential for further EU-Mexico cluster cooperation: thematic focus

Mexico has great potential for foreign investors due to its wide variety of economic sectors, natural resources, and favourable geographical position. The Mexican government has also been very supportive of businesses through the attribution of governmental grants and the establishment of trade agreements concerning several sectors. The following section provides insight into opportunities and potential for cooperation related to four sectors as identified by the preparatory briefing developed by the ECCP (November 2016).

4.1. Automotive sector

Mexico has a leading position in the automotive industry with several important clusters in this sector[26] [27]. The importance of Mexico in the automotive global chain offers several C2C cooperation opportunities between the country and the EU. Since the automotive industry in Europe is going through a period of change due to the increasing global competition, C2C cooperation between European and Mexican automotive clusters is essential to establish strategic partnerships that enhance the global competitiveness of the two regions. Mexico has one cluster from the transport and mobility sector that has obtained an ESCA Gold Label Automotive (Cluster of Nuevo León[28]) There are also many transport and mobility related clusters such as Automotive Cluster of Queretaro, A.C that have secured the Bronze label.

Currently, there are several examples of EU clusters in the automotive sector that chose Mexico as one of the target countries of their internationalisation strategy[29]. The **Galician Automotive Cluster Foundation** (CEAGA) is a perfect example as it aims to position the Galician automotive sector as a global leader in terms of competitiveness and sustainability by bringing together organisations from France, Germany, Hungary, Portugal, and the Russian Federation with organisations from Mexico, Morocco, Japan and China.

The **National Auto Parts Industry Association** (INA) reported that Mexico ranks 5th worldwide for auto part production, with a local annual production of over $85 billion (€79B euros[30]). The main destination is the US, accounting for 90% of the exported auto parts produced in Mexico. As a result, Mexico's

[26] www.mexicotradeandinvestment.com/pdf/pdf_almacen/presen_ind_auto.pdf
[27] www.promexico.mx/documentos/biblioteca/the-mexican-automotive-industry.pdf
[28] www.claut.com.mx
[29] www.clustercollaboration.eu/cluster-organisations/galician-automotive-cluster-foundation-ceaga
[30] Exchange rate considered: February 2017.

auto parts industry is closely tied to the US[31] and will need to adjust to the current political context regarding joint investment projects with US companies.

4.2. Aerospace sector

The Mexican aerospace sector has been growing considerably as a result of the actions coordinated by industry leaders[32]. The growth of the sector led to the creation of **ProAéreo**, which is the Mexican aerospace national strategy to boost the sector. Currently, aerospace is one of the most important industries in Mexico, which could create several opportunities for C2C cooperation[33]. The ESCA Bronze labelled Aerospace Alliance of Baja California is a good example of a dynamic cluster opened to international collaboration opportunities.

On the EU side, the European Aerospace Cluster Partnership (EACP) and the ESCP-4i EACP Activities and Businesses from Real Opportunities for Aerospace Developments (ABROAD) are good examples of initiatives that prioritise Mexico in their internationalisation strategies[34].The EACP is a network of European aerospace clusters that supports the implementation of concrete projects regarding cluster innovation and development policies. It aims at initiating an active exchange of information and knowledge between all partners and at developing and realizing concrete steps for long-term trans-national cooperation between clusters and companies for a stronger and more competitive Europe in the world aerospace market[35]. The ABROAD project aims at supporting the first implementation, testing and further development of the EACP joint internationalisation strategy. For that purpose, it proposes a programme that will deepen existing links between EACP and foreign regions with the determination of inserting European SMEs in international value chains by supporting the fostering of new international businesses or the emergence of international R&T cooperation[36].

Mexico has a great potential for aerospace international businesses primarily because the country provides a vast and competitive labour force, a growing number of university-educated engineers, free trade agreements with 45 countries and a geographic proximity to more established aerospace markets such as the US, Canadian and Brazilian markets[37,38,39]. The US accounts for the largest FDI in the Mexican aerospace industry, since it has invested $817 million (€662 million[40]) between 1999 and

[31] www.export.gov/article?id=Mexico-Automotive-Parts-and-Supplies
[32] www.clustercollaboration.eu/sites/default/files/international_cooperation/road-map-aerospace-2013.pdf
[33] www.pwc.com/mx/es/knowledge-center/archivo/20150604-gx-publication-aerospace-industry.pdf
[34] www.clustercollaboration.eu/cluster-organisations/galician-automotive-cluster-foundation-ceaga
[35] www.eacp-aero.eu/about-us.html
[36] www.clustercollaboration.eu/escp-profiles/abroad
[37] www.americasquarterly.org/content/aerospace-emerging-mexican-industry
[38] www.usitc.gov/publications/332/coffin_mexico_aerospace4-25.pdf
[39] www.ey.com/Publication/vwLUAssets/Megatrends_shaping_the_Mexican_aerospace_and_defense_sector/$FILE/EY-megatrends-shaping-the-mexican-aerospace-and-defense-sector.pdf
[40] Considering the exchange rate in December 2014

2014 through the establishment of manufacturing facilities in Mexico by 52 US companies, including Boeing[41][42].

Within the aerospace industry, there are already many EU and Mexican companies cooperating. Some examples are Airbus and Safran Group from France and Aernnova from Spain. These companies have established production facilities in Mexico to support manufacturing plants in the US as the country offers relatively low production costs and high skilled labour[43,44]. Mexican clusters and specifically aerospace companies have proved their ability and interest to collaborate internationally; while the EU cluster community has demonstrated a strong interest in the Mexican aerospace industry, calling for further initiatives that facilitate EU - Mexico cluster cooperation in the aerospace sector.

4.3. Renewable energy sector

The EU and Mexico have been cooperating on R&D for many years. In 1997 the two regions signed a partnership treaty for R&D in energy, which entered in force in 2000. In addition, the transatlantic efforts are also being coupled with multilateral endeavours that constitute participation in the EU framework programmes, currently Horizon 2020.

Mexico is well positioned to take advantage of its natural resources and environment's potential for developing its renewable energy sector. Currently, Mexico has a leading position in wind and solar energy making it an important player on the global stage for renewable energy production. Consequently, the country is considered to be an important strategic partner for EU clusters in the field of renewable energy since both regions have common interests in the sector[45].

The fact that the renewable energy sector is grounded in innovation and knowledge transfer enhances the importance and potential of C2C collaboration between Mexican and European clusters. In this context, the Mexican government has created several policies to stimulate the competitiveness of the sector and foster international cluster collaboration with strategic regions, such as the EU[46].

There are several EU cluster organisations in the renewable energy sector that have an internationalisation strategy towards Mexico. The **Basque Energy Cluster**, which looks forward to improving the global competitiveness of the Basque energy sector companies through the creation of strategic partnerships, illustrates the cooperation possibilities between Mexico and the EU. This cluster is highly focused on trans-national cooperation, and brings together EU member states (Austria,

[41] www.pwc.com/mx/es/knowledge-center/archivo/20150604-gx-publication-aerospace-industry.pdf
[42] www.americasquarterly.org/content/aerospace-emerging-mexican-industry
[43] www.24-7pressrelease.com/press-release/mexican-aerospace-industry-is-viewed-from-a-european-perspective-in-offshore-group-podcast-309639.php
[44] www.ey.com/Publication/vwLUAssets/Megatrends_shaping_the_Mexican_aerospace_and_defense_sector/$FILE/EY-megatrends-shaping-the-mexican-aerospace-and-defense-sector.pdf
[45] http://negocios.promexico.gob.mx/english/10-2013/art01.html
[46] https://ec.europa.eu/research/iscp/pdf/policy/roadmaps_mex-2016.pdf

Denmark, Finland, France and United Kingdom) along with important clusters from strategic countries such as Mexico and Brazil[47].

The ESCP-4i **REINA PLUS**, coordinated by the Basque Energy Cluster, is an example of a consortium of European clusters that shared common international interests and similar target countries, such as Mexico. REINA PLUS brought together the efforts and interests in internationalisation of SMEs from four European regions with high concentrations of business in different value chains of the energy sector (especially in renewables) and with consolidated cluster management organisations.

The organisation of matchmaking events is a key tool to stimulate cluster cooperation between Mexico and the EU. In this context, there are a few examples of matchmaking events, such as the ones organised by the **Low Carbon Business Action** (LCBA) in Mexico and the **EU-Mexico Cluster & Business Cooperation Seminar and Matchmaking Event**. The LCBA events allow European companies and clusters to meet with Mexican companies in the field of renewable energy[48]. Moreover, the LCBA has extended its efforts to utilise EU clusters to build bridges between European SMEs, the LCBA and its Mexican network of companies.

Similarly, the **EU-Mexico Cluster & Business Cooperation Seminar and Matchmaking Event**, which took place in México City in October 2016, brought together 14 EU cluster organisations, 26 EU SMEs and 56 Mexican cluster organisations, associations, and businesses in the field of waste management and wastewater management[49]. The organisations had the chance to exchange information and explore common interests to establish cooperation in the near future. The outcomes of the meetings were positive.

4.4. Biotechnology sector

The Mexican biotechnology sector has gained importance on the global stage and is still considered a strategic sector for the country. Mexico is second in Latin America in biotechnology innovation according to the number of clinical trials conducted in 2015[50] and is home to several biotechnology clusters, which are crucial to improving the performance and strengthening the competitiveness of Mexico's biotechnology through international C2C cooperation.

Mexico's biotechnology industry has a key position in the Asian, North American and European markets mostly due to its cost-effective manufacturing environment and its favourable geographical location. Several major foreign biotechnology companies operate in the country under a Mexican "shelter" corporation[51], including: Merck and Bayer from Germany; AstraZeneca from Sweden and the

[47] www.clustercollaboration.eu/cluster-organisations/basque-energy-cluster-cluster-de-energ%C3%ADa
[48] www.lowcarbon.mx
[49] www.clustercollaboration.eu/event-calendar/eu-mexico-cluster-business-cooperation-seminar-and-matchmaking
[50] http://mim.promexico.gob.mx/swb/mim/Perfil_del_sector_bio
[51] Mexico allows foreign companies to operate under a Mexican "shelter" corporation. A company operating under "shelter" does not have any legal presence in the country, allowing it to avoid any liability with doing business in Mexico, but still benefiting from government tax and duty abatement programmes.

United Kingdom (UK); GlaxoSmithKline from the UK; Novartis from Switzerland; and Pfizer and Eli Lilly from the US. According to a study produced in 2012, Mexico saved US biotechnology companies almost 20% in production costs since its costs are lower compared to other countries, such as Canada, Brazil and Germany[52].

Biotechnology clusters are also emerging in several Mexican states as major drivers of the country's biotechnology innovation[53]. Guanajuato, Jalisco, Morelos and Nuevo Leon are home to the most highly competitive biotechnology clusters aiming to boost innovation and knowledge transfer through international cooperation with EU clusters.[54] The Biocluster de Nuevo León, for instance aims to support the generation and application of scientific and technological knowledge in biotechnology by establishing C2C cooperation with clusters and businesses from the EU member states[55].

[52] www.jll.com/Research/2014-global-life-sciences-report-JLL.pdf?654be919-aef1-45a0-bef3-ab01d0a4ece6
[53] http://geneva-network.com/article/biopharmaceutical-innovation-mexico-crossroads/
[54] www.madeinmexicoinc.com/biotechnology-industry-is-growing-fast-in-mexico/
[55] http://bioclusternl.org/