Challenges and Strategic Services
Constitutional reform approved December 2013:

- Resources underground, state property. No concessions allowed

- Private companies may participate in the whole hydrocarbon value chain
  
  - In E & P activities through contracts or licenses, by public biddings managed by NHC (CNH)
  
  - In Mid & downstream activities through permits. From the Energy Department and ERC (CRE)

Secondary laws already being analyzed in Congress,

Vote estimated end of June
In addition, there are other places with hydrocarbons potential that have not been explored so far: Baja California, Mar de Cortés, Chihuahua, Sierra Madre Oriental, Sierra de Chiapas y Progreso.
The challenges

Conditions that explain success in EFS, not yet present in Mexico

• Regulatory framework, in process, not mature
  – Land Rights
    • More than 50% social property (Ejido)
    • Rest private, not yet much market experience
  – Human resources, in process of building up
  – Infrastructure, not enough

Great risks if not solved adequately:

  – Disorderly growth of cities:
  – Insufficient housing, public services, roads, airports and rail
  – Pressure in education and health services,
  – Insufficient supply of trained workforce and professionals
Coahuila Organization

• A Cluster as a NGO (Civil Partnership)
• An alliance of
  – State & Local governments
  – Universities and research centers
  – Companies and business organizations
• More than 75 members
  – 47 companies
  – 8 universities and 3 research centers
  – Coahuila State Government & 17 municipalities
Government Authorities

Gobierno de Coahuila

[Image of various coat of arms representing different municipalities in Coahuila]
Higher education institutions and research centers
Companies and Organizations

CANACINTRA
PIEDRAS NEGRAS

FAMECSA

AMS

GRUPO STEEL

CAMISA
CENTRO DE ASISTENCIA MÉDICA INDUSTRIAL S.A. DE C.V.
SERVICIOS Y RENTA DE EQUIPO

GRUPO INDUSTRIAL SALITLLO

CONSTRUCTORA WILLARZ

MONTAJES FRONTERA

COIMSA

PEÑOLES

CONSTRUCCIONES

F.A.M.I.S.A.

Envision Success in Mexico
Real Estate / Construction

TREBBOTTI
CIA. CONSTRUCTORA
DESDE 1980

Binational Center Library/Texas A&M
International University
6 working committees:

- Human Resources
- Infrastructure
- Supply Chain
- Environment
- Land Rights Negotiation
- Technology and Innovation
Currently, the Cluster focus its work on four strategic services:

- Estimation of social & economic infrastructure based on Population growth model
- Land Negotiation model
- Suppliers development model and regulatory governance
- Technology and innovation model

Some strategic services, in development:
Necessary to foresee negative effects of an accelerated economic and demographic growth, as was the case of the maquiladora industry in border cities.

**Average Annual Population growth rate**

<table>
<thead>
<tr>
<th>City</th>
<th>1990-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cd. Acuña, Coah</td>
<td>7.0</td>
</tr>
<tr>
<td>Cd. Juárez, Chih.</td>
<td>4.3</td>
</tr>
<tr>
<td>Nuevo Laredo, Tamps.</td>
<td>3.5</td>
</tr>
<tr>
<td>Reynosa, Tamps.</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Population growth estimates will be made from scenarios of employment needs; from such model, public services and social & economic infrastructure will be estimated.

<table>
<thead>
<tr>
<th>Texas / Eagle Ford Shale</th>
<th>2008</th>
<th>2013</th>
<th>Growth rate 2008-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Texas</td>
<td>24 304 290</td>
<td>26 448 193</td>
<td>1.76</td>
</tr>
<tr>
<td>Eagle Ford Shale (20 counties)</td>
<td>2 678 344</td>
<td>2 955 239</td>
<td>2.07</td>
</tr>
<tr>
<td>With active drilling (14)</td>
<td></td>
<td></td>
<td>1.82</td>
</tr>
<tr>
<td>With Related Economic Development (6)</td>
<td>2 164 309</td>
<td>2 394 488</td>
<td>2.13</td>
</tr>
</tbody>
</table>


➢ Before 2008, Eagle Ford’s counties grew at a rate of 1.58%

<table>
<thead>
<tr>
<th>Texas / Eagle Ford Shale</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
</tr>
<tr>
<td><strong>Eagle Ford Shale (20 counties)</strong></td>
<td>46 289</td>
</tr>
<tr>
<td>With active drilling (14)</td>
<td>42 263</td>
</tr>
<tr>
<td>With related economic development (6)</td>
<td>4 026</td>
</tr>
</tbody>
</table>

Predict small growth for the region

"Official” Population projections 2014 - 2020

<table>
<thead>
<tr>
<th>Total and by region</th>
<th>2014</th>
<th>2020</th>
<th>Net Increase</th>
<th>Annual Growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total regions</td>
<td>892 300</td>
<td>950 709</td>
<td>58 409</td>
<td>1.02</td>
</tr>
<tr>
<td>North Region</td>
<td>400 539</td>
<td>428 647</td>
<td>28 108</td>
<td>1.09</td>
</tr>
<tr>
<td>Carboniferous Region</td>
<td>184 168</td>
<td>195 195</td>
<td>11 027</td>
<td>0.94</td>
</tr>
<tr>
<td>Center Region</td>
<td>307 593</td>
<td>326 867</td>
<td>19 273</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Source: CONAPO. Proyecciones de la Población de los Municipios de México 2010 – 2030.

With the current trend, 9,700 per year.
New estimates needed

• However, such projections do not consider the impact of the exploitation of shale gas and oil.

• To account for such impact, a new estimate is being constructed, using:
  • number of wells to be operated annually in Coahuila, (federal government sources will be used)
  • Employment estimates (based on Texas experience)
Estimation will be based on:

• A diagnosis of current coverage on services of drinking water, drainage, electric energy, education and health.

• New estimates of increases of population,

• Desired coverage indexes (international agencies standard) for
  ➢ Number of houses
  ➢ Drinking water, drainage and electricity needs
  ➢ Educational spaces and teaching personnel
  ➢ Hospitals and equipment. Medical personnel.
Diagnosis: An evaluation of present situation in topics as:
- Roads and highways
- Rural roads
- Airports
- Railways
- Pipelines

Projections: From diagnosis, projects of required infrastructure will be identified
• General objective: facilitate investment projects to be developed in harmony with the communities.

• Specific objective: Develop a negotiation process model and pertinent contracts, that grant legal and social certainty to companies, and a fair treatment to land owners, according to law provisions.
Proposed negotiation process

**Contractors.** Send their written purchase proposal to buy land and the description of the Project and land use

**Land owners.** Analyze the proposal. They can receive advisory

**Negotiation**

- **Agree**
  - **Non Agree**
    - **Cluster assessment. Agreement Model**
    - **Judge. Easement**
    - **Mediation. Experts. Commercial appraisal**
    - **Expropriation**

Binational Center Library/ Texas A&M International University
Goal: Promote national content

Lines of work:

- Analyze the value chain of the shale gas exploitation.
- Identify opportunities for Mexican companies to provide goods, services and employment & links with financing sources.
- Promote joint ventures of Mexican and foreign companies.
- Establish a certification program in Corporate Social Responsibility.
- Organize an Expo of Companies and Suppliers.
- Start up a Regulatory Governance Program to ease the companies’ opening and operation red tape processes.
Goal

To implement policies that encourage technology innovation activities in the companies linked to the energy industry, for increase the competitiveness of the State

Lines of Work
Currently we are working on:

- A directory of experts and researchers specialized on the mining and oil sector.
- Inclusion, of the Cluster, in the State Agenda for Innovation.
- Mining-Oil Information Portfolio.
Lines of Work

Currently, we are working on:

- Mining-Oil Sector studies, that strengthen the technology capabilities of companies or local and national agencies.

- A Program of certification for human capital, specialized on energy and security areas.

- Identification of projects of research, tech development and innovation (R+D+I).
Mexican Energy Reform has opened a big New Market.

Great investment opportunities

Small and Medium companies will be privileged.

But also challenges are presented. The Cluster Minero – Petrolero de Coahuila provides a secure way to cope them.