

# **Institute of Statistical and Geographical Information of Jalisco State**

**Geospatial Technologies, platforms and services  
at a subnational level**

México, November 2017



INSTITUTO DE  
INFORMACIÓN  
ESTADÍSTICA Y  
GEOGRÁFICA

# Unique organization in its type



**SDG 17.18:** *By 2020, enhance capacity-building support to developing countries, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts*



## 2014. Merging of specialized organizations

- Demography (Jalisco's State Population Council).
- Economy and Finance (Jalisco's State Information System).
- Geography and Environment (Jalisco's Institute of Territorial Information).

### Some functions:

- Generate, collect, analyze and manage useful information for planning.
- Manage the strategic information system.
- Rule, advise, qualify and and disclose.
- Assistance in territorial delimitation.



## 2015. INEGI endorsement (National Institute of Statistics and Geography)

Statistical and Geographical Information Center of Jalisco State.

# Coordination with National Information System

## In México (at a subnational level):

- Predominant state councils of population, planning institutes and cadastral organisms.
- Other agencies (state and municipal) do not link these types or topics of information.

### National Statistical and Geographical Information System



Coordinated by:



#### Information Subsystems

- Demography and social
- Economy
- Geography and Environment
- Government, Public Security and Impartition of Justice

### Statistical and Geographical Information State Committee



Coordinated by:



The Statistical and Geographical Information State Committee (CEIEG) is aligned with the National Statistical and Geographical Information System (SNIEG), integrated by four subsystems.

# Complementary work INEGI - IIEG

Jalisco –through IIEG– maintains a very close collaboration with INEGI, being the only state that has developed eight “Information Use Projects” at a subnational level.



## INEGI Projects

1. Statistical and Geographical Information Center
2. Query system for Jalisco State
3. Jalisco's General Map (600 layers)
4. Information Use Projects
5. Investment Promotion Information Center
6. Strategic Sectors Information System
7. State Indicators
8. Technical Cooperation World Bank



## CEIEG's Statistical and Geographical Information Subcommittee

- Demography and social
- Economy
- Geography and Environment
- Government, Security and Justice

## Exploitation of microdata from INEGI projects

- Survey
- Census
- Administrative Records

## Geodesic Station IIEG-Jalisco

Feeds the National Active Geodetic Network

# Information availability

Statistic and geographic information from Jalisco State is available on line through technological platforms, web services and open data.

## Open Data

<https://datos.jalisco.gob.mx>

- **257 data sets** released at the state portal.
- **217 data sets** released by IIEG.
- We are the institution with more data sets released

<http://datos.gob.mx>

- **220 data sets** from Jalisco State.
- We are the State with more data sets released.

## Evaluation of data for its opening tool (HEDA, 2017)

- Developed by World Bank at the request of IIEG
- Evaluates the quality, utility and relevance of data.

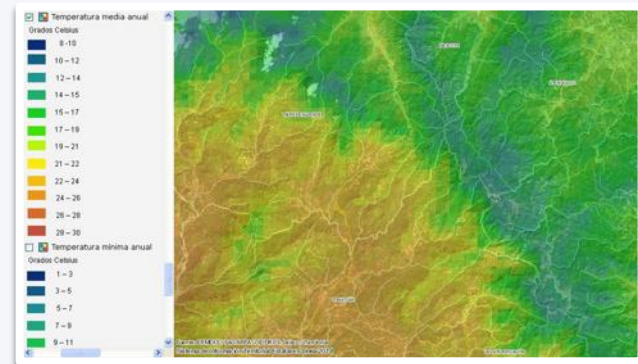


## On line State Territorial Information System

<http://sitel.jalisco.gob.mx>

Provides Web Services as a protocol between client applications and our server

- 94 WMS (Web Map Service)
- 69 WFS (Web Feature Service)
- 19 WCS (Web Coverage Service)



# State information using a national platform

**Scope:** Municipality / Metropolitan Area / Intermunicipality / State.

**Subsystems:** Socio-demography / Economy and Finance / Geography and Environment / Government, Security and Justice.



## Jalisco's General Map

[www.mapajalisco.gob.mx](http://www.mapajalisco.gob.mx)

Free and on line visualization service, query and analysis of Jalisco's geospatial information; it uses an INEGI platform called Georeferenced Information Service.

### Data:

**600** Layers in total

**378** Query layers

**194** Thematic maps

**3** Databases

### Data origin:

- 57% CEIEG and its Work Groups.
- 28% Data bank and IIEG projects.
- 15% Open Data.

\* November 10th, 2017.

# Multipurpose information

**Scope:** AGEB / Neighborhood / Municipality / Metropolitan Area / Intermunicipality / State.

**Subsystems:** Socio-demography / Economy and Finance / Geography and Environment / Government, Security and Justice.



## Security Map App

<https://seguridadmap.app.jalisco.gob.mx>

Developed in open source, allows to visualize crime risk area using heat maps, as well as, relate and contrast demographics.

Joint work with State Attorney General and Planning, Administration and Finance Secretary (SEPAF).

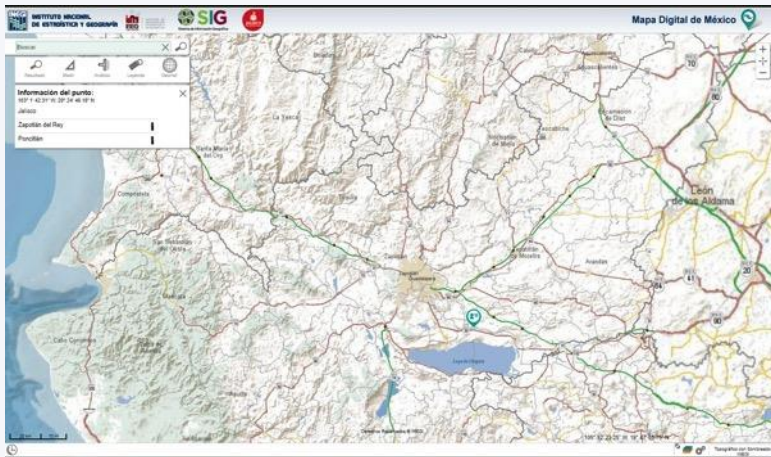
## Marginalization by neighborhood

- Standardized layer in Jalisco's General Map.
- A more detailed approach from the basic geoestatistical area (AGEB) that is calculated by National Population Council.
- 10 Variables from INEGI's Territorial Integration (ITER 2010) at a block scale.
- Main variables: Housing and population

# Geographic Information Systems (State)

**Scope:** Municipality / Metropolitan Area / Intermunicipality / State / State with municipal detail.

**Subsystems:** Socio-demography / Economy and Finance / Geography and Environment / Government, Security and Justice.



## SIG WEB Jalisco

<http://sig.jalisco.gob.mx>

Web platform that provides information about public and private investments, with 90 layers of geospatial information, facilitating decision making and contributes to government transparency.

Generates reports by municipality or region, integrating socio-demography, economy, environmental and administrative variables.

Joint work with Planning and Evaluation  
Subsecretary of Jalisco State

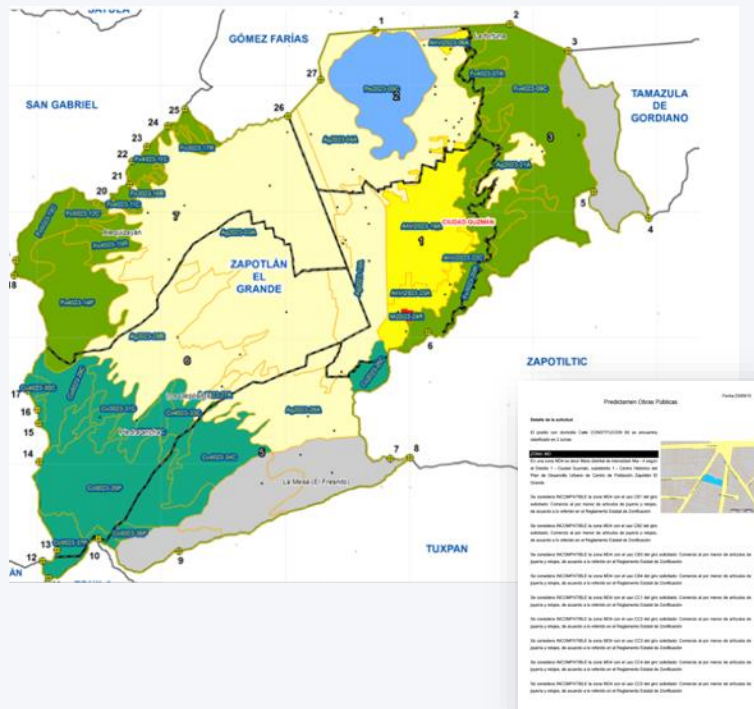
**Area:** Public investment planning and transparency.



## Geographic Information Systems (Municipalities)

**Scope:** Municipality

**Subsistemas:** Economy and Finance / Geography and Environment



## SIG Zapotlán / Tecolotlán

Geographic Information Systems (GIS) that focuses on regulatory improvement, integrating information about natural risks, urban planning, cadastre and ecological land management. Its main goal is expedite municipal procedures.

**Data included:** Administrative records, risk inventory and assesment from natural and chemical hazards, land management plans, municipal urban planning, urban and rural cadastre.

**Area:** Municipal regulatory improvement

# Challenge: evolve from statistics to geostatistics

**Scope:** Municipality / State / Regional / National.

**Subsystem:** Economy and Finance.

Dólares como valores		2013	2014	Fecha
Automotriz	AGUASCALIENTES	\$278,385,871.75	\$202,212,637.98	\$480,598,509.73
	BAJA CALIFORNIA	\$430,860,029.98	\$278,383,486.58	\$709,243,516.56
	CHIHUAHUA	\$293,339,339.69	\$178,954,592.62	\$472,293,932.31
	COAHUILA	\$655,593,501.48	\$411,727,033.84	\$1,067,320,535.32
	GUANAJUATO	\$354,437,751.29	\$205,536,239.62	\$559,973,990.91
	NUEVO LEÓN	\$456,694,175.09	\$323,823,053.36	\$780,517,228.45
	PUEBLA	\$243,280,856.99	\$205,043,973.60	\$448,324,830.59
	QUERETARO	\$270,603,088.33	\$153,990,003.01	\$424,593,091.34
	SONORA	\$246,333,673.13	\$144,478,600.92	\$390,812,274.05
	TAMAULIPAS	\$575,310,990.03	\$308,468,408.41	\$883,779,398.44
	Otros	\$369,762,319.11	\$209,448,338.49	\$579,210,657.60
	Entidades	\$4,174,601,596.87	\$2,622,066,368.43	\$6,796,667,965.30
Automotriz		\$4,174,601,596.87	\$2,622,066,368.43	\$6,796,667,965.30

## Manufacturing, maquila and export service industry (IMMEX)

Multidimensional statistic analysis

<http://sin.jalisco.gob.mx>

Business intelligence tool that allows to analyze and query huge data amounts by categories.

Contains information at different scales: municipal, state and national, in total or by sectors.

The platform allows to query by date, sector, transport, custom, buyer or seller country, among others.



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WWW.IIEG.GOB.MX

# Elements for a successful subnational statistic system



- ✓ **Independent subnational organization**  
Statistics and geospatial information on line, through technological platforms, web services and open data.
- ✓ **Coordination with National Information System**
- ✓ **Human resources**  
Permanence and talent training.
- ✓ **Geoestadistical approach**  
Georeferenced data to link socioeconomical, environmental and policy dynamics to the territory.
- ✓ **Co-desing and co-creation of public policy**  
Development of projects with federal, state, municipal, academic, business and social participation.



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Calzada de los Pirules No. 71  
Col. Ciudad Granja C.P.45010  
Zapopan, Jalisco, México  
Phone +52 1 (33) 3777-1770  
[contacto.iieg@jalisco.gob.mx](mailto:contacto.iieg@jalisco.gob.mx)



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