

Integrating different data sources at sub national level to show what matters!

PARIS21 CROSS REGIONAL FORUM

3-4 December, 2018

OECD Conference Centre Room CC15



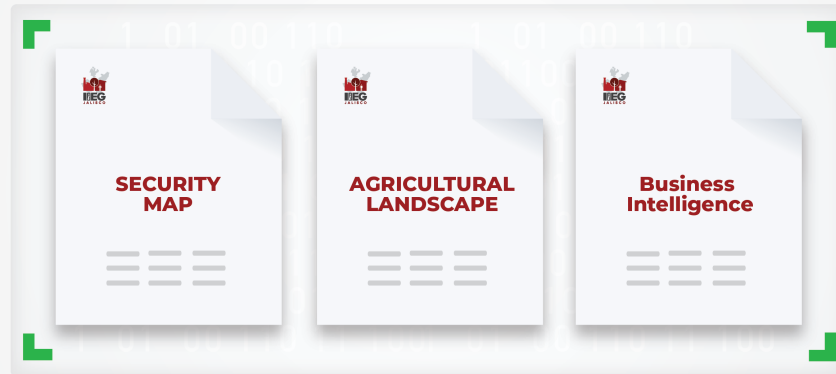
INSTITUTO DE
INFORMACIÓN
ESTADÍSTICA Y
GEOGRÁFICA



GEOSPATIAL
WORLD
AWARDS

PREMIO MUNDIAL
GEOESPACIAL
A LA EXCELENCIA 2018

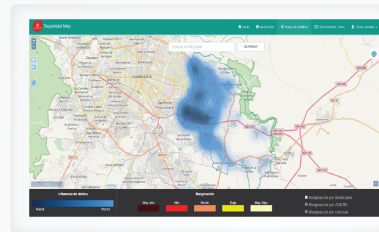
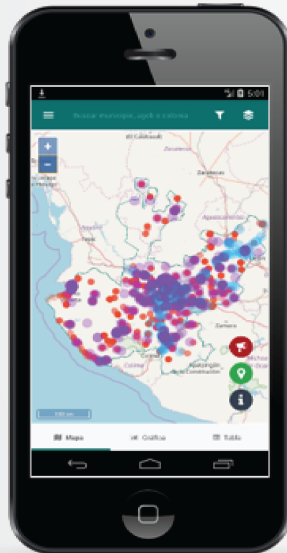
We will take a look at **three examples** in this sub national ecosystem displaying how statistical information is filtered and applied to **particular problem at the local level**.



These are just an example of **hundreds of cases** developed by us at the IIEG, so just imagine if we could account for all the initiatives of this sort throughout Mexico.

The first case refers to a Security Map

composed by two products:



Heat map

A heat map where crime frequency can be readily visualized and statistically filtered.

Tipo de Delito - Fecha - Municipio - Día de la semana - Hora							
Cantidad de delitos como valores		2013	2014	2015	2016	2017	2018
ABUSO SEXUAL INFANTIL		753	963	1,226	1,843	1,828	1,310
ASISTENCIADO		15	22	55	39	21	19
HEPOTITIS B VIRUS		755	874	788	933	1,245	1,303
LESIONES A DOLIDAS		5,137	4,793	6,946	7,886	9,349	6,361
ROBO A BARTOL		139	50	54	75	22	24
ROBO A CARGA ESCADA		392	282	394	383	738	514
ROBO A CUBIERTAS/BAJEREN		287	228	482	448	570	622
ROBO A DIF. DE VEHICULOS		2,147	2,080	787	2,080	1,550	1,415
ROBO A NEGOCIO		5,487	3,655	2,527	2,514	5,363	4,865
ROBO A PERSONA		6,518	2,186	2,060	2,060	4,610	2,722
ROBO A VEHICULO PARTICULARES		6,518	6,399	6,490	5,975	10,051	6,210
ROBO CASA HABITACION		5,449	4,930	4,082	3,858	4,686	3,480
ROBO DE ACCESORIOS		433	227	247	226	512	407
ROBO DE MOTOCICLETA		1,135	1,079	1,500	1,599	2,419	2,394
VIOLACION		295	281	299	239	231	211
VIOLACION INTRAFAMILIAR		5,146	3,477	2,775	6,026	3,833	4,490
Tipo de Delito		38,555	29,724	36,018	38,157	53,878	41,249

Information cubes

As well as “information cubes” allowing for data crosstabs or looking at disaggregated domains.

This sort of information is particularly useful when making life changing decisions, such as choosing the right place for your business or your very own home, namely because this sort of data allows for close and accurate crime follow up, sorted by felony, date and place where it occurred, pin pointing neighborhoods affected.

This achievement was reached by leveraging the use of already available **administrative records**



With previous assistance
from the World Bank



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Such records formed the basis for the data used in a **Business Intelligence** platform, allowing for multidimensional analysis.

This tool allows law abiding citizens from **our community** to become aware of over **17 different high impact crimes**, by showing them mapped occurrences of such crimes.



High impact crimes



This resources also allows for accountability of **police officers** assigned to various precincts.



This project has been **nationally acknowledged** in Mexico as a remarkable **innovation example** shedding light on crime and redirecting policies aimed to reinforce positive behavior.

2

The following case impacts the work of civil society organizations interested in the environment; a truly essential issue, not only by the awareness raised by the international community but by the worrisome weather trends witnessed by all.

I want to share with you today how statistical work at the IIEG has provided information to civil society interested in preserving the environment.



It refers to the
agricultural landscape of Jalisco,
a renown avocado exporter.



Not such a sweet circumstance as
avocado´s flavor, as we will readily see.

And as good as avocados are,
avocado farms lead to massive deforestation



Replacing pine trees in order to
allow for **more avocado trees**



Besides, avocado trees require as
many as 17 times the amount of water
as local pine trees.



We were statistically aware of our growing production and exports of avocado;
nonetheless, we were not so much of its intrinsic,
steep cost impacting the environment.



However, through satellite imagery we now we know

Satellite imaging allowed us to realize the extent of the impact and identify the location of former pine forests, where now ever thirsty avocado trees grow those delicious avocados.



This is a case of how to use statistics through advocacy at the local level.
Through careful media targeting, this particular project has made headlines of relevant news outlets, and also provided civil society with priceless tools to fight deforestation.
At the IIEG we are transparent in the use of data and assist every user of our datasets aiming for the improvement of Jalisco.

3

Finally, as the last case of the day, let me tell you about how we were able, from the subnational level, to address the needs of the business community through a **Commercial Intelligence Platform**, for one of the most reputed national business association of Mexico, called Index.



65%

Manufactured goods account for 65% of Mexico's exports



Index groups Mexican industrial output by type and manufacturer. **Some of the manufacturers are global players of their own account.**

[illegible]

The Business Intelligence Platform was developed following the multidimensional logic of our products, allowing to subject data to multiple layers of complexity and analysis.



This platform registers **inbound and outbound** manufactured goods, by customs, ports, airports, country of origin and destination, buyer, seller, year and month.



The platform records the most basic level of detail (**product or specific component**)...



...and shows **the municipality of origin and destination.**

In this case such records were generated from a federal revenue agency, our IRS.

Understanding the user; the decisions of the business leader provided the impulse for developing the multidimensional analysis and exploit as much information as possible from these **administrative records**.

The system makes data come alive for the business man:
the private sector.

Those that invest in Jalisco and contribute to the engine of growth.

As the old saying goes: **think global but act local.**



It is our badge of pride that this valuable resource was developed entirely by us at the IIEG. It was not developed by the national office of statistics, neither the revenue service nor the economics ministry, it was developed by our own initiative, our staff, our budget, and our understanding of the needs of businesses wanting to invest.



This commercial intelligence platform **encouraged larger investments in the transport industry**, namely the growth of spare parts and transport materials, a formerly outpaced business sector in Jalisco.

But the data made investors aware of the opportunity to refocus on this important industry and **brought needed jobs to Jalisco.**

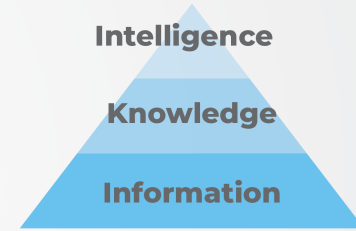
None of these three cases are measured by the **National Bureau of Statistic**



all of them were created with the purpose of tending to a specific demand, derived from a particular problem.



An intrinsic advantage of the subnational systems lies in their increased agility in comparison to the national bureau of statistics.



They work on specific problems, they generate both information and knowledge, developing intelligence from a local perspective.

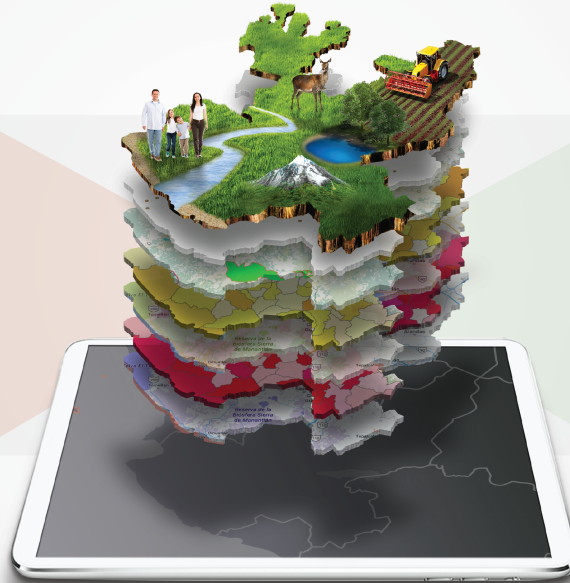
**They know how to filter data available at the national level
and merge it with layers of local data.**

Two of the prior examples
merge geospatial and statistical data.

STATISTICAL DATA



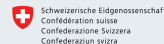
GEOSPATIAL





Innovation through this dual approach, earned us the **Geospatial World Award**, presented to us in Hyderabad, India.

An award previously bestowed on NASA, FAO, INEGI, Leica...



The merge of geospatial and statistical data is but one of our guidelines. We are also committed to assist in the work of the National Bureau of Statistics.

Thorough a collaborative approach, we aim to foster complementarity, not rivalry.



But the elements are all there.

We provide users data and analytics for local impact.

We are able to direct the data where it needs to go, thanks to the collaboration of scholars and the University system; through civil society organizations; through law enforcement offices; through government agencies at the state and local level, and of course with the commitment of the governor
to make information readily available to its legitimate user and owner: the citizen.

As **closure** let me state that these three cases are but a sample of over a **100 developed** from the subnational level of Jalisco in barely **4 years** (2014-2018).

I want to take an opportunity to thank PARIS21 for the guidelines set forth for the development of sub-national systems. Through the guidance and assistance of the World Bank, the IIEG developed its own sub national strategy for the craft of local statistics. Much of our approach integrated the vibrant ideas and perspectives provided by PARIS21.



In May of 2016 we attended the
Cross Regional Forum
on Statistical Systems...



...where PARIS21 acknowledged the
Case of Jalisco as a good practice
example.



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