

**BPR PROJECT - IDB**

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**The Population Register and Real State Register  
Based on the Use of Official Administrative Records**

Bogotá, Colombia

November 2017

[www.dane.gov.co](http://www.dane.gov.co)





## Objective and scope of the BPR project

Current stage



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**Strengthen the capacity of the countries of the Andean Community to produce statistical information on population and real estate based on data from administrative records**



## Current stage

Pilot test of an integrated system of population and real estate by country - Supported in the conceptual framework defined by the four (4) countries.

### Municipality of Jamundí

Department of  
Valle del Cauca

### GALÁPAGOS

Province located 972 km off  
the coast of continental  
Ecuador



### DISTRICT OF HUASAHUASI

Department of Junín  
Province of Tarma

### 9 Capital Cities

Sucre, La Paz, Cochabamba, Oruro,  
Potosí, Tarija, Santa Cruz de la  
Sierra, Trinidad y Cobija



# Integrated System of Population and properties Statistics

## Conceptual Framework and Design



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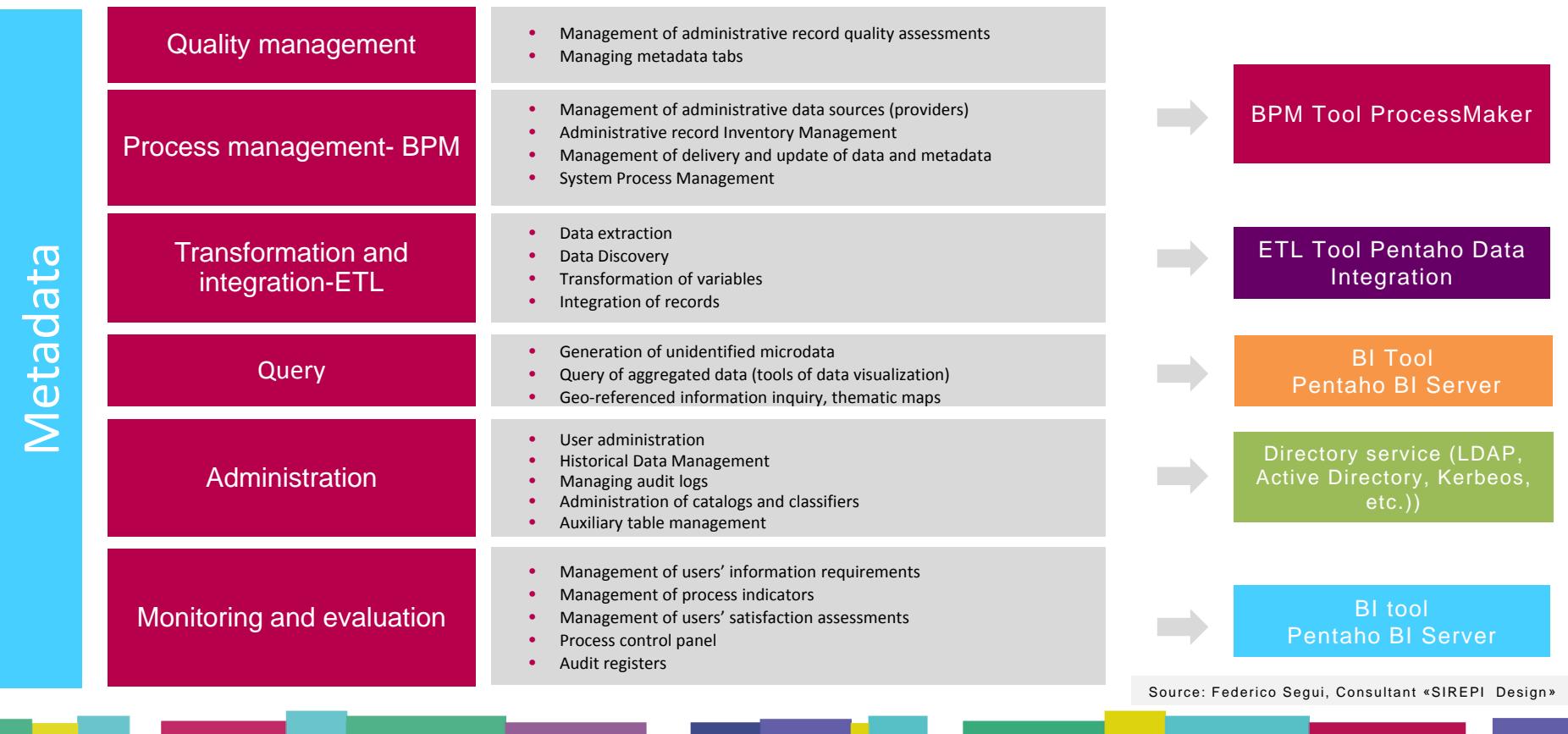
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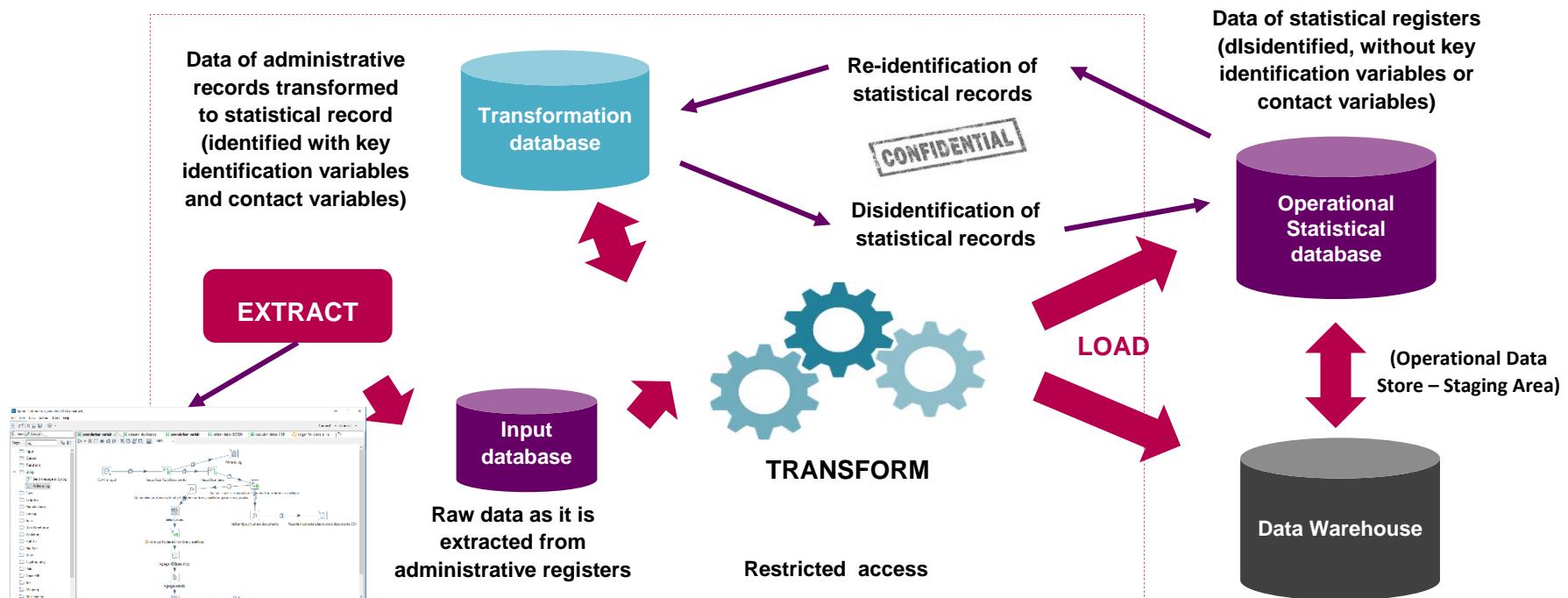
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## SIREPI design proposes six (6) modules that are supported in the metadata of the information contained in the registers



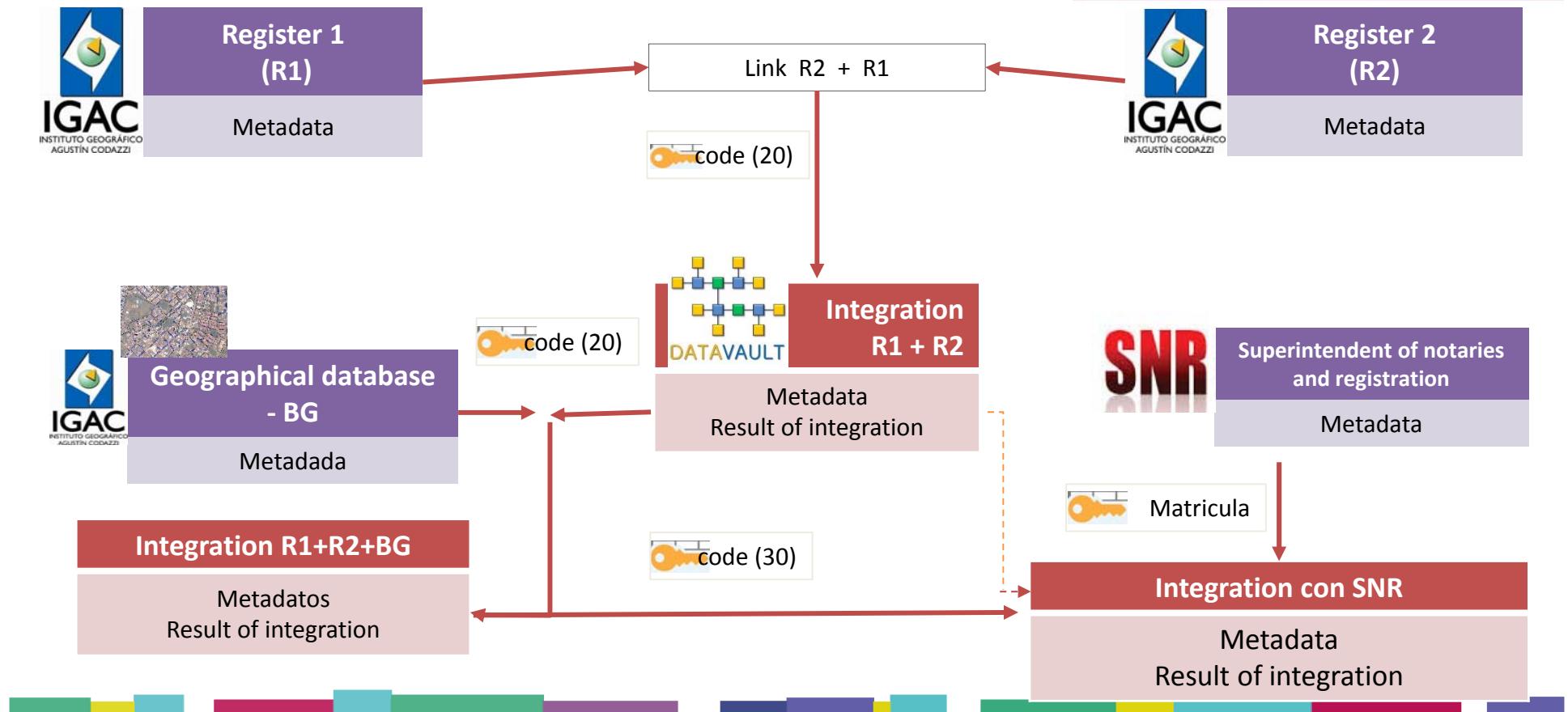
# The proposed databases for the SIREPI coordinate the production databases and pose a database in DATAMART for a projection of DataWarehouse



The processes of extraction, transformation and loading, with PENTaho tools

Source: Federico Segui, Consultant «SIREPI Design»

## Conceptualization: Standard Model Hybrid and Dimensional Model



## The monitoring and control processes to generate alerts are posed with process managers



The profiling of data that allows analysis by variables and duplicates, using free BIG DATA tools.

The screenshot shows the ProcessMaker interface with a list of BPMN projects on the left and the Talend Open Studio for Data Quality interface on the right. The BPMN projects list includes:

Título del Proceso	Tipo	Categoría	Estado	Usuario Propietario	Fecha de creación	Bandeja de Entrada	Borrado...
0 - GSRBPM (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator admin	2017-08-30 22:24:55	0	0
1 - Especificar Necesidades (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator admin	2017-08-30 22:31:41	1	0
2 - Diseñar (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr	Talend Open Studio for Data Quality (6.3.1.20161216_1026)		
3 - Desarrollar (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			
4 - Recolectar datos (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			
5 - Transformar (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			
6 - Integrar (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			
7 - Comunicar (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			
8 - Evaluar y Mejorar continuamente (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			
Gestionar Inventario de RA (BPMN Project)	bpmn	- Sin Categoría -	Activo	Administrator adr			

The Talend interface shows an analysis titled "Análisis por columna de SISBEN 0.1" with the following details:

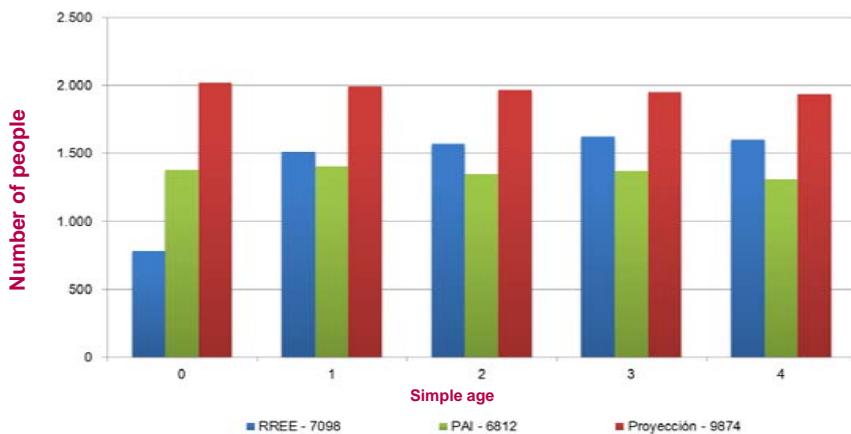
Creation Date	Aug 25, 2017 5:47:03 PM
Execution Date	Aug 25, 2017 5:55:34 PM
Execution Duration	59,523 s
Execution Status	success
Number of Execution	3
Last Successful Execution	3

The analysis results show a pattern frequency for the column "metadata.depto" with the following data:

Value	Count	%
99	77272	99.99%
a99	2	2.588E-3%

A corresponding bar chart visualizes the count for each value.

In the results, different sources of information are compared for population from zero to four years  
- Pilot Jamundí, Colombia



**Methodological note:** For the MYP, an approximation was made for the simple ages of 2, 3 and 4 years, with the assumption of migration and zero mortality.

Simple age	Description	Year of application
Less than one year old	Boys/girls under one year old with 3-close of Pentavalente	2016
One year old	Boys/girls under one year old with 1- close of Triple Viral	
Two years old		2015
Three years old	Boys/girls under one year old, with 1 - close of Triple Viral	2014
Four years old		2013



Link the information from records with a geospatial component  
to optimize the analysis and strengthen the quality analysis of  
Administrative Records - Pilot Jamundí, Colombia



Geospatial visualization  
can be used as an input to  
**complement** missing  
information.





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