System requirements

System objective

The aim is to monitor the development of the project - integration of primary data - provide an overview of the projects that accompany the TED

Objective of developing consolidated settlements

Build a land management tool to facilitate land management

Requirements

Development using Django - JS - HTML - CSS

Mobile application - with offline use - for users

Requirement for a history of data changes made via the system

Depending on the audience - Desktop or mobile

For the desktop manager

Python - backend

Multi-platform development

Desktop development for users

Web development

Frontend - Flasck

Webgis online system

Django, python, Postgis,geo server

Users

TED Project

Property documentation

Visualiser user

General users

Management bodies - INCRA - Municipalities

Level of data access depending on user access

Academic community

Settlement system users

User Management - Project

Incra

SO Team

User - INCRA

Project management user

Map requirements

Symbology

Modified proportional point symbology

Symbolise batches in green (ready) and red (in progress)

Based on the total number of areas to be regularised and the number of areas already regularised

Reference system

Sirgas 2000

Sirgas 2000

Sirgas 2000 - modified Albers projection for PR

Geographic Database

Database - Postgress - Excel spreadsheets → Field data - jpeg (drone) -raster - orthomosaics - satellite image - Shapefile, PDF

Postgis - AGTIC Structure

Database modelling

Map requirements

Data acquisition

Data production

Dynamic scale level

Scale depends on the analysis

To visualise geodesy team → Boundaries, hydrography, roads, perimeter, milestones, roads data collected

Define projection scale or variable scale

Creating a use case model

Map tools

There is a laboratory standard

Data XML download tool - metadata - NSDI standardsthis is a laboratory standard

Data editing tool

Area measurement

Bookmark tool

Temporary layer visualisation tool

Ruler tool

Geoprocessing tool for buffering, clipping

Zoom

Routes

Data Filter

Drawing tool

Filters (date, number of interventions process)

Zoom

Pan

Filters

Pop-up with tabular data information (graph

Selection

Zoom

Map indicators

PLOT

Plots - productive part

Participation in public policies

Collective areas - Collective facilities (churches, schools, agrovillages, associations)

PDF

Graphics

Settlement

Benefits → Number of beneficiaries — Number of irregular occupants — Plots with unique CAD — Indicators

Information on the teams working in the settlements

Lot information

General informations

Mark

Titled plots

Map of the occupants and beneficiaries of the settlements, by plots

1 batch can have N processes, 1 process has 1 batch, visualise in the system how many processes are linked to that batch

by AP and products deliveredl

Standardisation of data from the various teams

Monitoring processes by batches

Data from excel spreadsheets

Percentage of the progress of the teams' work in general

PA follow-up of the surveys

PAs of the documents attached in SEI

PAs of indexed documents

PAs of digitalizaed documents

PAs ready to be titled or regularised

Spatial visualisation of document scans → Percentage, number of sheets, case number

Settlement

Percentage, number of sheets, case number

Percentage of digitised land regularisation documents - lot by lot

Instalment

Monitoring the percentage of digitised documents per settlement

Areas

Map

Land management/governance

Agrarian Reform

Visualisation of the State of PR — Visualisation of the municipality

Basemaps

Services - data visualisation - ANA, IBGE, DSG Tools, CAR, SIGEF

Services - IAT (forest, UCs, Faxinais, traditional peoples and communities, APP, hydrography)

RPPN area - indigenous area - SPU data - PDF data from master plans

Satellite images, orthomosaics - land use - OSM base - topographic maps

Legal reserve, municipal network, OSM access

Access roads

Hydrography

Land use and cover

OSM basemap, plot layer, division of settlement projects

Integrated applications

knightlab

Maps generated will be linked to Storymap - for access by settlers and the public → Accessible language

Basemap of roads, relief, hydrography, urban areas...

Storymap development - for general public access

Simplified map without sensitive information

Metadata

Data metadata - a way of justifying how the data was made

Map objective

The aim of the map is to show the indicators for each of the teams and their linked targets in order to monitor their development.