

PROJECT: PLANNING & MANAGEMENT – City is the Soil -

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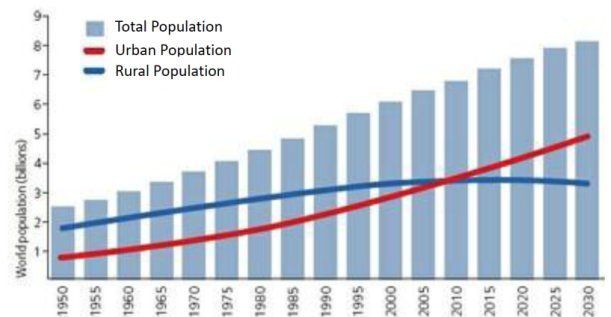
Internet of Things, Smartphones, Machine 2 Machine connections, SocialMedia and CloudComputing are pointless if their information raindrops can't find fertile soil where to germinate the seeds of efficiency, participation, transparency...

The city is the soil.

Governments and planners are the farmers.

Context:

According to the UN report – as shown in the graphic - by 2030 70% of the world population will live in cities, that means that in less than 20 years the World must develop new urban lodging, cultural and social facilities and green spaces for about 1,4 billion people.



Introduction:

Ghettos and subhuman condition settlements arise around cities all over the World. Growing population force cities to face big challenges related to space, energy, resources, facilities, transportation, etc...

Nowadays production, distribution and use processes in both Cadastral and Mapping fields are fully operational information systems. On the other hand, urban planning processes have not yet managed to perform a mature and functional system.

There are still big areas of interest within the management of Public Administration files. Governments expect new tools to reach the maturity and functionality that, specially local and regional Administration need to offer an enhanced service to its citizens.

Objectives:

The target of this project is to provide planning agents a set of tools that allow planning instruments to be processed quicker, more rigorously, efficiently, transparently and with more and better channels of participation.

Description of the project:

This project aim is to develop a digital system that enables planning files to be processed digitally, using existing elements such as SIG, DDBB, e-governance tools, cloud computing, IoT, etc.

The proposed application is a "file processing platform" that will generate from the original project a "route" of steps to complete its processing, assigning a resource for each of these steps. This application provides information to the various agents involved in the file processing (including different administrations and agents, public or not, but relevant to urban development), updating constantly the database after each one of the steps performed in the file processing.

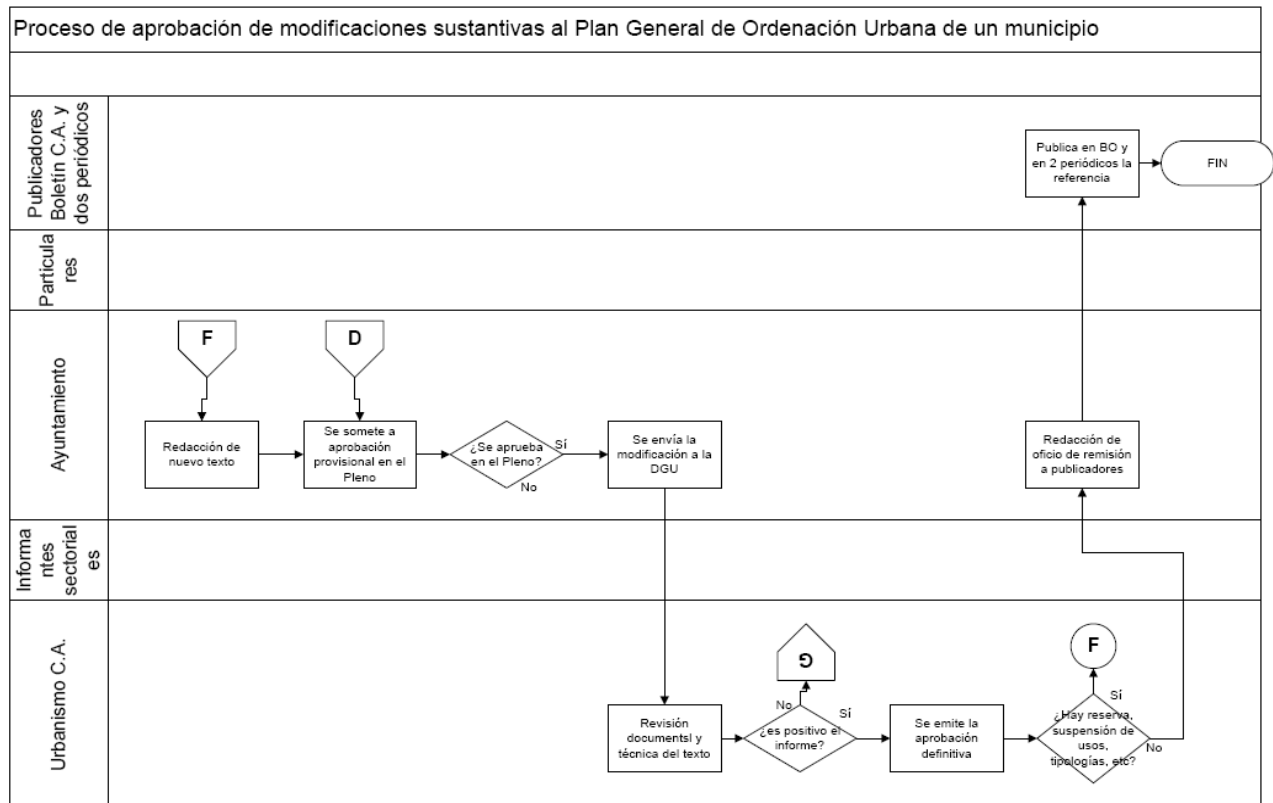
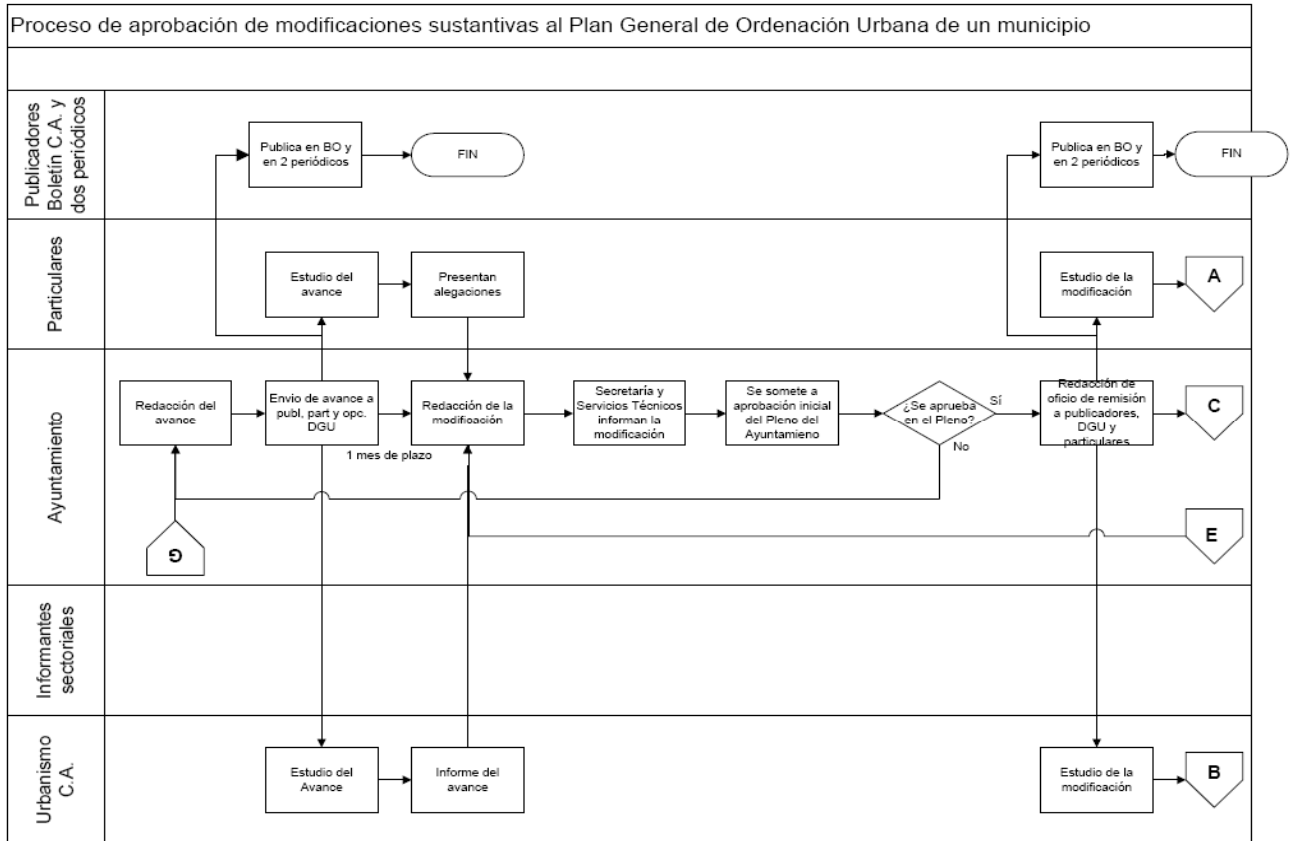
The proposed app establishes beyond a simple exchange of information between different agents, involving them in the development of the files, so that each of them generates new information to complete each record and keep the database constantly updated. During the document exchange between these agents addition or modification of data to the files could take place according to their competence, making communication between them binding, since the findings of each report may affect the future development of record.

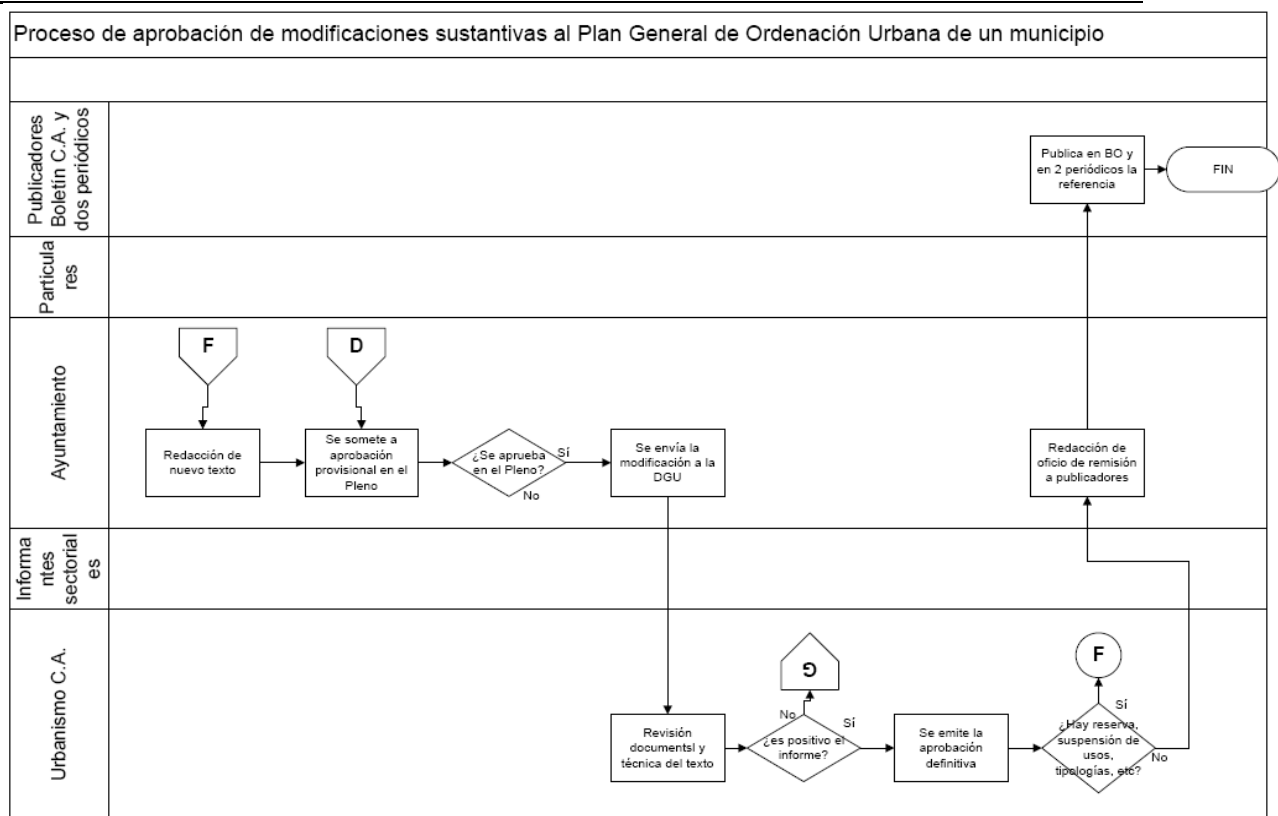
The proposed app will ensure legal certainty of publications and reports, following legally established deadlines of public exposure, and approvals, employing a watermark based technology. A digital watermark is a unique piece of information that is directly inserted into PDF files, thus allowing full traceability of the same throughout its process.

Results:

Having analyzed the present process of urbanistic files in Spain, a workflow has been designed to digitally process urbanism files. This proposal has been approved by SATEC, SA, a Spanish multinational firm that has included this procedure in a GIS implementation project in Luanda, Angola.

The workflow can be resumed in the following graphics:





Workflow procedure:

- A: New public exposure after substantial modifications.
- B: Process continuation.
- C: Process continuation.
- D: Provisional approval by municipal government.
- E: Data modification.
- F: Data modification.
- G: Documentation back to the beginning.

The PLANAGEMENT app is a tool developed for the FARMERS (Governments and Planners) so that they can design, with all the necessary information feedback, the planning for cultivating, growing, plowing... the fertile SOIL the city has to become.