GIS Desgin

The GIS Institutional Design is the process of implementing strategies to introduce the benefits of GIS in organizations whether public or private. This concept helps organizations to optimize financial and human resources, to increase productivity, to simplify production processes, to reduce costs of operation, to have better strategic planning, to increase, and more.

GIS Institutional Design is a complex and demanding process that requires the participation of key people within the organization. The idea has to be purchased by the relevant people (stakeholders) within the organization as well as each of the departments in the company. Stakeholders are required to collaborate on the requirements of their departments, previous failures, and what they expect of a GIS. At the same time, the designer can identify opportunities where GIS can improve processes. For example, waste collection routes can be shortened and as a result, the trucks use less fuel and less time.

The design process includes an assessment of elements that the institution can have or not; software, including, for example, GIS software, operating systems, database manager. The hardware with the software will be handled. For example computers, plotters, scanners, GPS, servers, printers. Human resources trained to perform specific GIS processes. The database, its structure, and the different formats that can be presented, for example, pictures, tables, rasters, tables, spreadsheets. Finally, the methods that give you the how to process data into information.

It is important to emphasize that a GIS processes data for certain spatial information can be interpreted and used to make decisions that benefit the organization. The data obtained are directly related to the measured values from normal processes of the company such as cost, time, sales, distance, the age of employees, used gasoline, the location of customers, addresses, part inventories. Information is the significance when we find a relationship between them and can be used as a support for making decisions.

In conclusion, the GIS Institutional Design is a model that allows us to introduce or improve the GIS within the organization. Thus, GIS Institutional Design contributes to finding opportunities where GIS helps improve production processes, reduce costs, plan better, and increase profits.

A GIS Project means new strategies to find gaps in the organizational processes and improve their performance. For example the establishment of a new franchise store in a suburb, the GIS tool can diagnose whether the inhabitants of the area are easily accessible on foot or by automobile or if the purchasing power and population density are suitable for users. Another example is the case of flooding the establishment of evacuation routes, shelters, the location of hospitals, supply routes, damage assessment and recovery planning. These actions can reduce costs, optimize resources, and where appropriate, to increase profits.

Descriptions of W’s

Who?

- Who refers to who will take the GIS Design? We do because we know the organization.
- We are the correct person to design because we know the people that work in the organization, their roles, functions, and the processes that the organization has to accomplish the mission, the goals.
- We know the institutional memories, the successes, failures, its experience in GIS, where the company wants to go.
- Who means the people that will collaborate with us? The manager, administrator, or CEO (stakeholders) that buy our concept, they will be our allies in spreading the idea that the other important elements in the organization adopt the concept.
- We cannot do everything alone; stakeholders will be part of the solutions.

What?

- What refers to what to plan? Plan how to get the desired outputs.
- The five components of GIS are part of how to get what, and they are closely related:
    - Software
    - Data
    - Methods
    - People
    - Hardware

When?

- We cannot say yesterday. When to design? Now!
- We need to plan NOW from the start and never stops because, as the life, the organization is always changing.
- Adapting to the future is now.

Where?

- All the planning cannot be established in another place than in the organization
- In every place where is an important process
- Stakeholders office

Why?

- GIS is important in a company because they can
    - optimize financial and human resources
    - Increase productivity
    - simplifies production processes
    - reduce production costs or operation
    - help to have better strategic planning

Consultants are important in GIS design process to start diagnosing the requirements. Consultants are specialists in certain areas of the project development, and they do not exist within the company. It is important to specify that they are required to start the project, but not in the entire development.

I agree with you. A map is worth a thousand words. The big challenge is to convince key people to process data to obtain relevant information in making decisions takes time and money. It is important to find a visionary person (sponsor) who understands that the investment will be reflected in benefits in the medium and long term. The interesting thing is to make something useful a necessity.