

Elements of GIS planning

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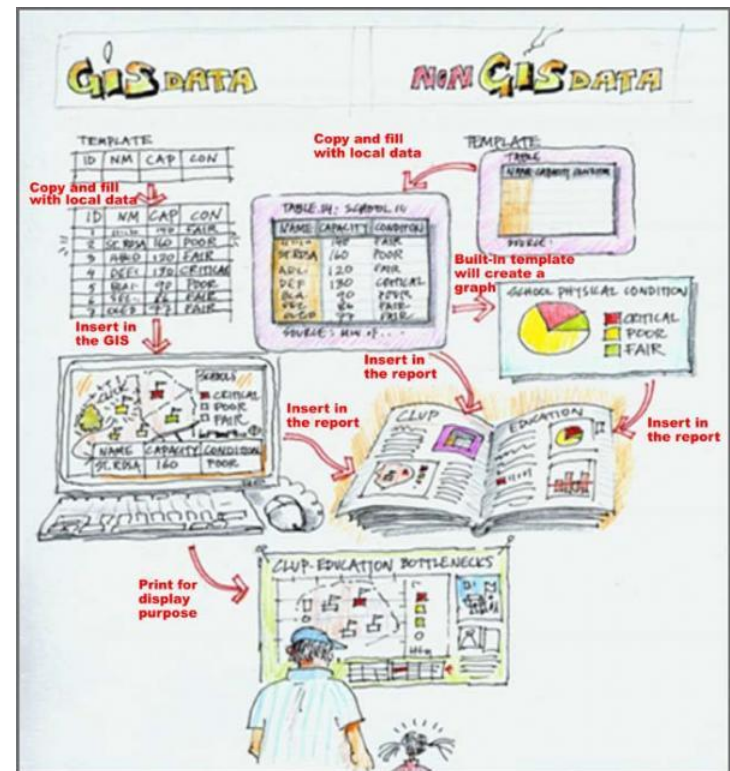
OIE Headquarters



Why plan?

..whether you are working with an existing system or creating a GIS from scratch, you must integrate sufficient planning into the development of your GIS. If you don't, chances are you'll end up with a system that doesn't meet your expectation. [Roger Tomlinson]

The key undertaking of planners is to understand their business and identify the GIS information products that would benefit their business. This understanding leads to identification of the data needed and the issues of tolerances and concepts of databases



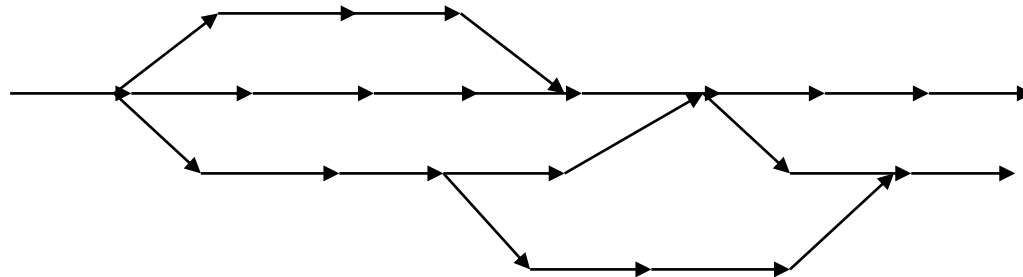
Why plan?

..because a typical GIS project flow..

..is not
this..

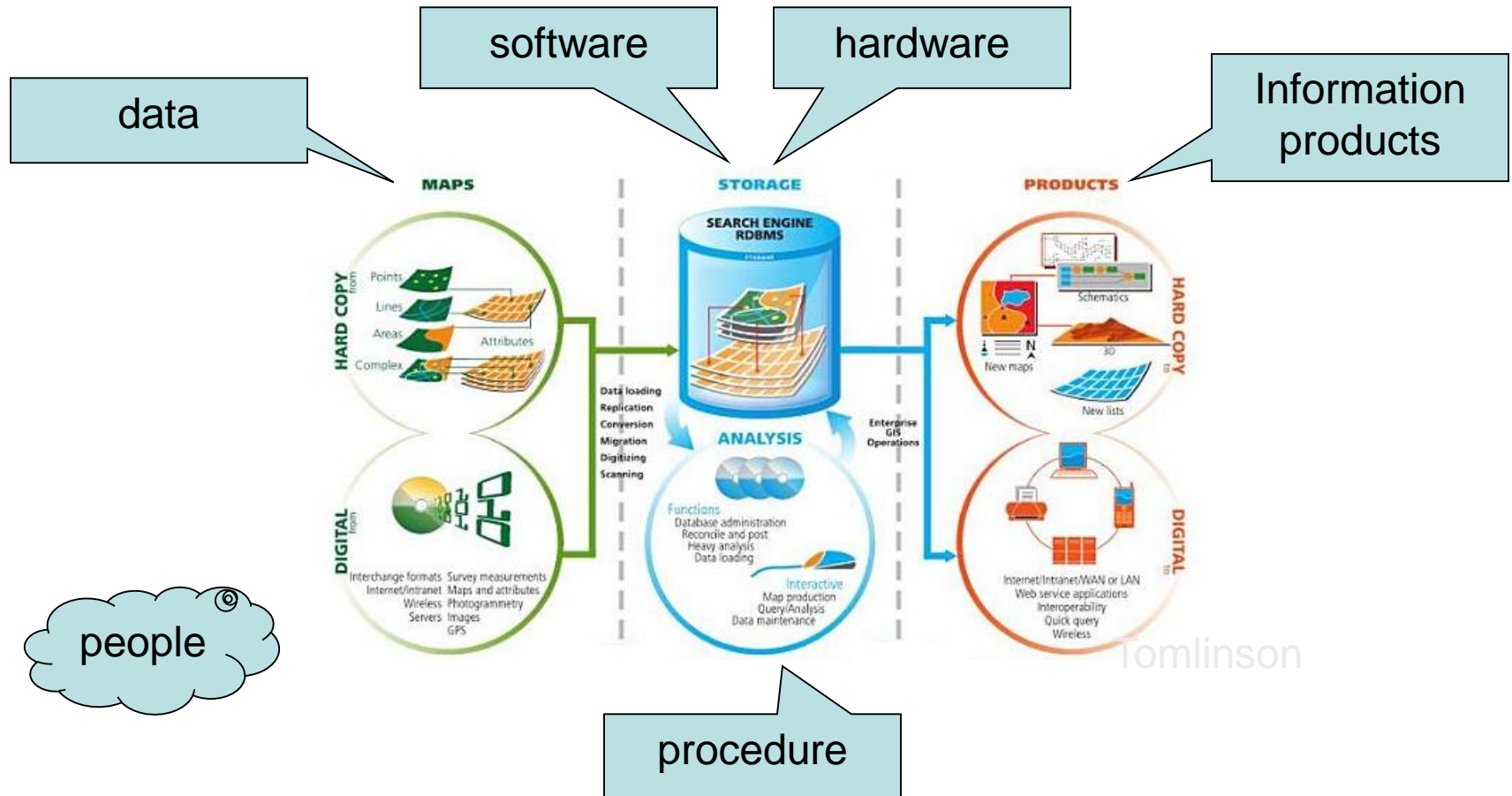


..but
probably
this!



Why plan?

GIS is a complex system of interconnected parts based on 6 major components:



Why plan?

no recipe for the GIS implementation
no cookie-cutter formula..

..but

there are general procedures and processes
which can help..

..and

do not forget the **KISS** principle

Why plan?

Questions:

- Will it be a **one-time** project or an **ongoing** program?
- Will it be used for **all** the office's spatial data handling or for only a specific **subset** of task, such as for a given specie, disease, etc.?
- Will **most people** in the organization use it or will users be **limited** in number or job function?

Why plan?

Questions (continue) :

- Will this GIS activity be part of a **larger** GIS effort such as data collection, webGIS, etc.?
- Will spatial data and technology be **integrated** with the organization's other data and systems?
- Will GIS change the way the organization does business or will its **impacts** be limited?

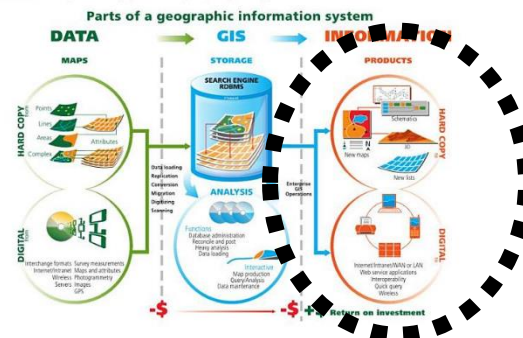
Information products

The **Information Products** are the desired output from the GIS

Requirements analysis: the process of determining user expectations for a new or modified product

Output may take the form of:

- 1) maps,
- 2) reports,
- 3) graphs
- 4) list



Information products

To describe the **information products**:

- 1) title
- 2) easy to understand synopsis of the IP needed and its purpose
- 3) map requirements (hand-drawn sketch)
- 4) tabular data required (attribute)
- 5) text document / image requirements

an information product is **not** always a map it could also include a list of figure, table or a graph report

Information products

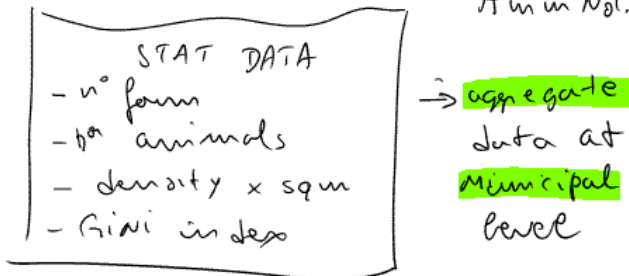
Broiler farm distribution

- map of the geo-distribution of the broiler farm
- ESDA → DPPA $\left\{ \begin{array}{l} \text{Digital (PDF)} \\ \text{Hand copy (A3)} \end{array} \right.$

Pg 1



Pg 2



Other requirements:

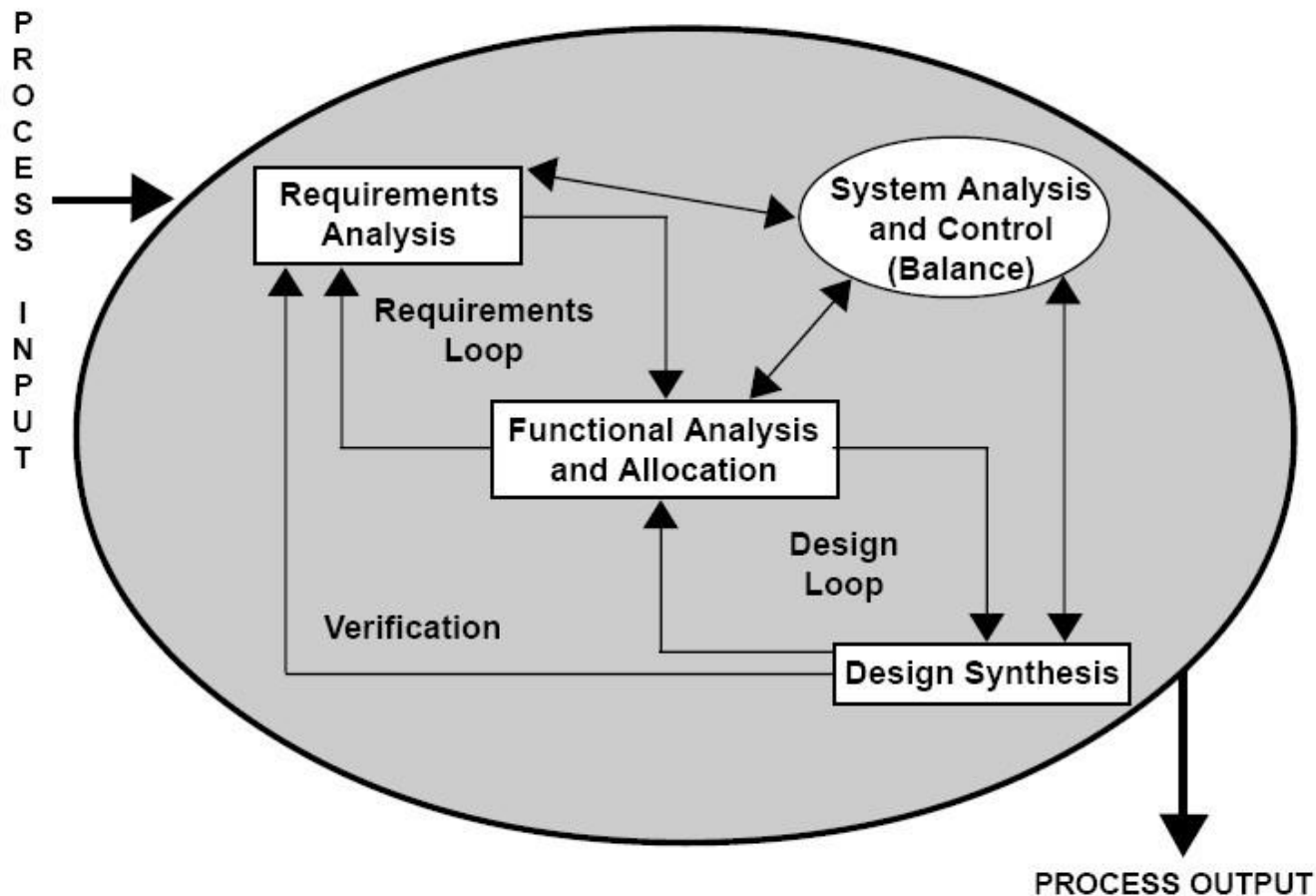
- 1) Describe the GIS function you need and the sequence of the process
- 2) The frequency of use
- 3) Data quality both for attribute and geographical data:
 - completeness
 - missing values
 - temporal accuracy
 - positional accuracy (scale)
- 4) Type of GIS

Information products

- **GIS for presentation** The maps should be easy to read and interpret in order to encourage an open exchange of information, and dialogue among stakeholders
- **GIS for decision makers** The maps, tables and diagrams, are the result of a set of process and analysis in order to support the decision making process
- **GIS for coordination** A GIS system that allows mutual access to and interaction among public and private sectors.
Benefits:
 - Savings from elimination of redundancy;
 - More resources available;
 - Ease of access which encourages more, and possibly new, uses;
 - etc.

Take home message # 1

Requirements analysis determines the needs or conditions to meet for a new or modified product.



Feature with geometry – Shape file

Questions?