

Pilot Project

- Verify costs & potential benefits
- Sell the technology & spatial approach
- Not all organizations will pilot GIS applications

Pilot Project

- **Demonstration**
 - concept base
 - provide hands-on exposure to key personnel
 - little in form of data conversion or collection
- **Prototype**
 - small scale of larger project
 - includes collection, manipulation, analysis, & output

Pilot

- Objectives
 - Test hardware & software
 - Test conceptual & technical database design
 - Identify appropriate data conversion approach
 - Identify potential alternatives
 - Development management strategy to train and market system to end users

Pilot

- Key Issues
 - Is there a leader within existing mgt. Structure
 - are there adequate funds committed
 - is the pilot spatially relevant
 - ability of organization to take risks

Pilot

- Outcomes
 - Worse Case: Pilot in-effective and mgt. support disappears
 - Basic: experience implementing GIS & mgt. approval to proceed with larger scale project
 - Ideal: improves efficiency of subsequent project through experience gained & reduces potential risks

Costs & Benefits

- If pilot is unsuccessful or unfeasible, C&B analysis may be called for
 - what is the value of GIS products?
 - assessment of costs (initial and recurring)
 - sometimes costs are unrealistic
 - comparison of benefits and costs
 - project should go ahead only if benefits exceed the costs
 - measured in same units, over same period of time

C&B

- C&B can be used to select vendor
- C&B provides quantitative support to gain support
- C&B can be used to audit existing projects & argue for the implementation on future projects

C&B

- **Costs**
 - One-Time v. Recurring
 - In GIS this is unclear
- **Benefits**
 - tangible benefits:
 - cost reductions
 - decreased operating costs
 - labor savings
 - cost avoidance
 - increased revenue
 - intangible benefits:
 - improved decision making
 - decreased risk
 - improved organizational image

Created by JDG 2000

Implementation

- How to introduce technology into an organization

Implementation

- Nolan (1973) model has 4 stages:
 - Stage 1: Computer acquisition
 - limited use in key departments
 - Stage 2: Contagion
 - efforts to increase use of computing
 - desire to use inactive resources
 - fast rise in costs
 - Stage 3: Control
 - Centralized Computing
 - formal systems development policies are introduced
 - cost increase slows
 - Stage 4: Integration
 - computing is seen as an organization-wide resource

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Implementation

- Since GIS is a more advanced computing technology other models may apply

Implementation

- Incremental
 - GIS is an extension of existing activities within core technology user group
 - GIS users are already data & computer savvy
 - understanding of cost structure understood
 - limited to two or three depts.
 - organization wide adoption not an issue

Implementation

- **Radical**
 - GIS implementation occurs outside of existing user base
 - Tends to be desktop in nature
 - Starts from Stage 1 of Nolan
 - Championed by key personnel

Implementation

- Impediments
 - Role of GIS unclear
 - GIS considered resource competitor
 - Leader not well connected
 - Too many risks take by core GIS group leading to failures

Implementation

- Other Problems
 - Over Emphasis on Technology
 - Work Environment too Rigid
 - compensation issues
 - workload issues
 - Defining new organizational relationships
 - Role of GIS within new or existing decision process
 - Are GIS products taken seriously
 - Is existing information shared uniformly

Implementation

- Success Depends On...
 - opportunities for continued training
 - software/hardware upgrades
 - opportunities for career advancement within organization