

GES 678: Week 2

Technology Seminars and Information Gathering

2025-10-01

Table of contents

Lecture	2
Seminar Purpose	2
Workflows	2
Overview	3
Seminar Attendance	3
Location	3
Set the stage	4
Plan the program	4
Information Gathering	4
What to avoid	5
What do do	5
Sample products	5
Post Seminar: Rank benefits considerations	5
Results	6
Requirements Grouping	6
Traceability Matrix	6
Requirements Prioritization	7
Information Product Descriptions	7
Title:	7
Name:	7
Outputs	7
Inputs	8
Frequency of Use	8
Error tolerance	8
Benefits	9
Approval process	9

Lecture

Seminar Purpose

- Present planning team
 - May not be technical staff, but many of them should stick around through the entire process
- Introduction to GIS
 - Why is GIS important (to you and others)?
- Planning Process
- Goals
- Explain participant roles
 - Explain to other leadership what they are going to do in the process (and what you will do in the process)
- Cover terminology/methodologies
 - Define acronyms and terms, whether organizational or GIS-specific
- Allow participants to evaluate work needs and identify improvements/potentials/bottlenecks
 - Investigate business processes, think about how GIS can slot in
- Compile initial product list
 - “What are we going to build for folks”

Workflows

- Model of business processes (Visio, Lucid, etc.)
- Connection of functions and information products
- Chance to visualize processes
- Identify opportunities to streamline
 - Inefficiencies
 - Bottlenecks
 - Improve throughput
- Establish initial requirements for software products

Overview

- Show off team
 - Skills
 - Knowledge
 - Background
- Introduce case studies
- Get comments and ideas without imposing your own
- Provide direction to the organization to help define their requirements

Seminar Attendance

- Prepare and send read-ahead material
- Post agenda in advance, including timings
- Invite list:
 - Department head
 - Chiefs
 - Senior Manager
 - Senior staff
- Manageable, but sizable attendance is good

Location

- Large/comfortable room
- Possible breakout rooms
- Away from your office
- Supplies
 - Smartboard
 - Flipcharts
 - Paper and pen
 - Reference material
 - Refreshments

If remote:

- Common platform (Webex, Teams, Zoom, Google Meet)
- Pre-test
 - Number of participants
 - Tested by participants

- Be able to manage mics and video
- Allow for breakout rooms
- Manage and monitor chat
- Smart boarding
- Links to reference materials

Set the stage

- Introducing change
 - You will be introducing change; business processes will not be the same
- Building Trust
- Gaining Understanding

Plan the program

- Welcome/Commitment from Leadership/Vision
- Current status of GIS in the organization
- GIS presentation/potential/use in other organizations
- Needs assesment process
- Potential and sample products
- Break into work groups

Information Gathering

- Brainstorming with structure
- Departmental purpose
- Identification of products
 - Name
 - Description
 - Scope: who uses it, how often, who else might be interested
- Identify functions
 - How it will be used, need, frequency

What to avoid

- Discussing pros and cons in details
- Diving into design and build topics
- Debating ideas
- Soapbox speeches
- Historic complaints
- Personal or opinion monopoly
- “The way we used to do it...”
- Applying limits or restrictions without stifling ideas

What do do

- Note taker to record everything
- Help frame comments
- Give everyone a chance to speak
- Hold to session timetables
- Group items where appropriate
- Manage groups
 - Move among groups
 - Carry ideas from group to group
- Provide wrap-up and next step expectations

Sample products

- Have samples from other organizations
- Prototype from own organization
- Case studies

Post Seminar: Rank benefits considerations

- Correlation to strategic plan
- Alignment with organization’s mission
 - Mission critical
- Number of clients for a product
- Which business process it supports
- Funding/staffing/other resources available to support
- Achievable
 - Technically and organizationally

Results

- Foundation for requirements
- Communication: lay out groundwork for discussions
- Risks: identify initial obstacles and problems
- Opens field to larger group than included in original planning process
- Sets stage for design and implementation
- “Buy-in” for road ahead
- Initial training and orientation for GIS champions
- Initial information products and workflows
- Initial scoping of software applications

Requirements Grouping

- Business
 - Higher level; why doing project
- Stakeholder
- Solution
 - Functional/non-functional
- Transitional
 - Interim items needed *during project*
- Project
 - Tasks done for support of project
- Quality and success measures

Traceability Matrix

- Cross-reference requirements
 - Mission
 - Goals
 - Outcomes
 - Design
 - Development
 - Testing

Requirements Prioritization

- Unanimity: 100%
- Majority: >50%
- Plurality: Largest block
- Top Down: Decided by one

Information Product Descriptions

Title:

- Short
- To the point
- Little to no jargon
- Functional
- Assign a unique number

Name:

- Requester
- Client
- Name and Department

Outputs

- Maps
 - Essential map elements
 - Specific requirements
- Data
 - Format
 - Content
- Reports/Analytics
 - Tables, charts, figures, diagrams
- Services

Inputs

- Source maps
- Scanned documents
- Images
- Tables/reports
- Sensors
- Services

Note sources from other organizations/entities

Frequency of Use

- Number of products
- Production Schedule
 - Daily, weekly, monthly
- Special events
 - Annual report, budget, seasonal event
- Driving factors
- Consumption by other products

Error tolerance

- Acceptable error
 - Always some level of error
 - * Referential/tabular
 - * Topological
 - * Relative
 - * Absolute
 - Timeliness
 - QC constraints
 - * Resources
 - * Validation of source material
 - * Data conflicts

Benefits

- Financial savings
- Direct benefits to organization
- Indirect benefits to organization
- External benefits to organization
- Saved time and resources

Approval process

- Signatures of authorities
- Review process
- External and internal support