

Thematic group 2

Guidelines & Lessons Learned

Wiki Task Force
Meeting in Porto
Sept 3-4, 2012

Overview of Tasks

Objective: Provide useful lessons learned, guidelines for potential users

1. **Lessons-learned use cases**
2. **Structure of lessons-guidelines relationship**
3. Prepare the lessons-learned wiki template (LLT)
4. Link the LLT to the DSS, Case Studies and Country Report templates
5. Fill the LLT with the results in the empirical guidelines article
6. Lessons-learned “maintenance” processes

Lessons-learned Use Cases

- Who will use it?
- How will the LL database be used?
- How will want to navigate / search / browse?
- Do they want to search across resources?
 - DSS descriptions, cases, country studies
- Who will input the lessons?
 - How can we facilitate inputs?

Lessons-learned Use Cases

Use cases

- Policymaker (e.g. research administrator) / Customer
 - New European habitat legislation requirement
 - Evaluation of DSS proposals: bring up list of guidelines, use as checklist to see if proposal addresses
- Developer
 - Identify partners
 - What platforms should be used for different problems/situations?
 - How do I design a tool that will meet users' needs?
- Analyst
- Researcher
- Decision maker
- Teacher – Student
 - Prepare courses, provide material to students

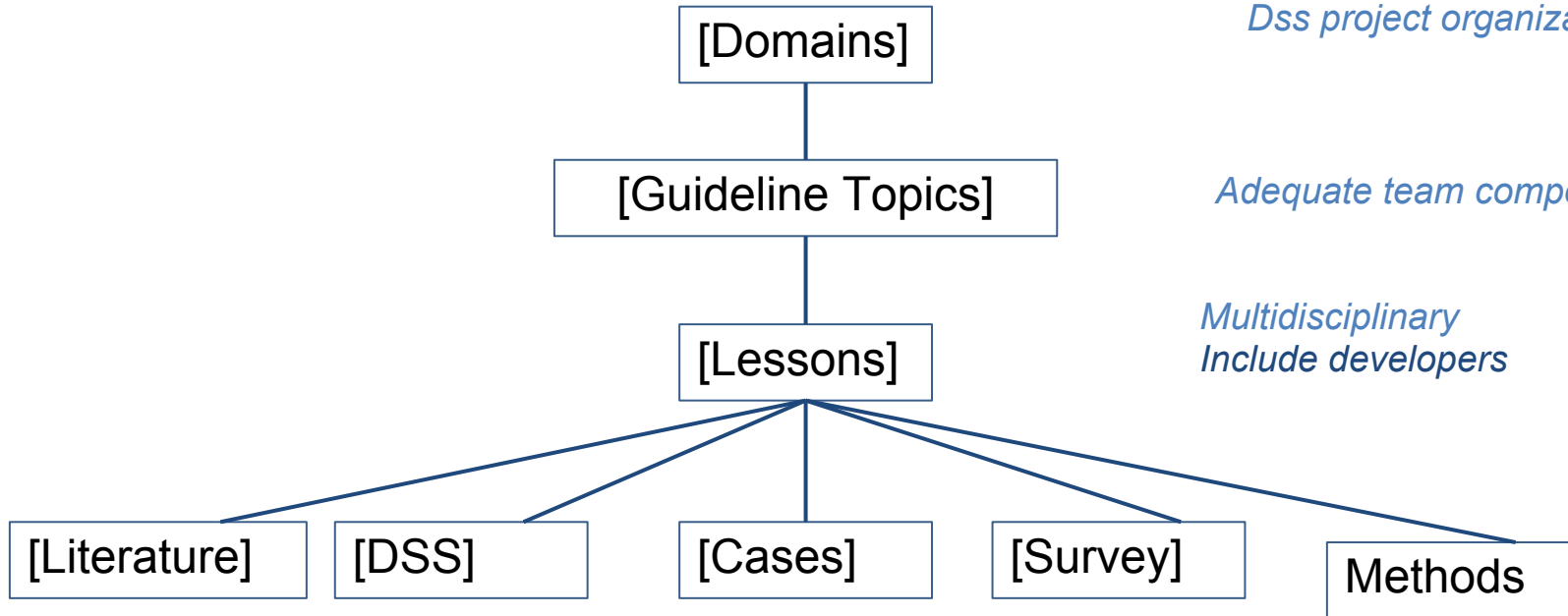
Structure of lessons-guidelines relationship

Example (from survey)

Dss project organization

Adequate team composition, size

*Multidisciplinary
Include developers*



Structure of lessons-guidelines relationship

- Guidelines are now more general categories of lessons
 - Expert survey
- Should lessons be unique or shared between resources (e.g. individual cases)
- Lessons shared/common (users pick from list of existing lessons)
 - Pros: Would allow commenting / refining of lessons; easier for users to review lessons
 - Cons: Harder to input
 - Needs: method for browsing lessons
- Lessons unique to each resource (case, dss, etc)
 - Pros: Easy for people inputting lessons, cases
 - Cons: Problem of infinite build-up of lessons, too many
 - Needs:
 - Questions:
- Either way lessons will be matched to broader guideline topics

Lessons-learned template

[Lesson]

What*:

What is the lesson; what should you do / not do?

Why*:

What are the consequences?

How:

More information on how the lesson can be accomplished

[Categorization / Classification]

Perspective(s): Researcher, Developer, Analyst, Stakeholder...

Whom it concerns?

Development stage: Architecture; coding; dissemination; adoption...

What is its utilization scope?

Topic list / WG Themes / Problem definitions

Other possible categories

[Sources of evidence]

Type of evidence

- DSS description
- Case
- Country Report
- Expert survey
- Reference
- Website

Link to specific resource

What are the sources of evidence related with this lesson?

Source of evidence #2

Link to specific resource 2

[repeating field...]

Example Lesson

- Case study lesson:
 - The analysis team used internal prototyping, which helped train the staff and identify possible problems with the model
- Statement: use internal prototyping
- Implication: helped train the staff
- Implication: identify possible problems with the model
- Comments: [describe “use internal prototyping”?]
- Perspective: Analyst
- Development stage: development
- Evidence:
 - Case study: USA NWFP Watershed Assessment

Discussion: Lessons

- What: Statement is rather generic – is there a better term?
 - Action, Lesson, etc
 - HV: but lesson may be what not to do, so action not appropriate
- Why: Implications term?
 - Results, Consequences?
- How: formerly Recommendation
- The statement and implications should remain separate?
- Can we have more than one consequence associated with one statement?
- General comment field useful / feasible?
- Any other information missing about the Lesson?

Discussion: Other Categorization

Do we develop a new general topics list (starting with expert survey categories) or use existing properties?

| (New) Topic | Existing Properties |
|--|---|
| Project management | Perspective (add “Project manager” value) or Development stage (add “Project organisation”) |
| Architecture and specification | Development stage (add “Architecture and specification”) |
| Coding and testing | Development stage (add “Coding and testing”) |
| Maintenance and user support | Development stage (add “Maintenance and user support”) |
| Dissemination and commercialization | Development stage (add “Dissemination and commercialization”) |
| User and stakeholder involvement in development | Development stage (development) + Working group theme (Participation) |
| User and stakeholder involvement in utilization | Development stage (utilization) + Working group theme (Participation) |
| Models and methods | Working group theme (Models and methods) |

Discussion: Categories

- Perspective
 - Description: Who the lesson concerns
 - Values: Researcher, Developer, Facilitator, Modeler / decision analyst, User, Decision maker, Stakeholder
- Development stage
 - Description: At what stage(s) of development is the lesson useful
 - Values: development; adoption; use; adaptation
- Problem definition properties?
 - Temporal scale Spatial context Spatial scale Objectives dimension Goods and services dimension Decision making dimension)
 - [hv] I think that the lessons learned are mostly independent (or should be independent) from the the problem definition properties, so I would not add them
- Decision stage

Domains

WG

Name, responsible organisation and contact person

Scope of the tool (functional description)

Concrete application (education, research project, real-life applications)

Installation and support (accessibility, IT requirement, demo, price if commercial product, ...)

WG1

Data, data model and data management

WG1

Models and methods, MBMS, decision support techniques

WG2

Support of knowledge management process

WG3

Support of social participation

WG4

User interface and outputs

WG1

System design and development

WG1

Technological architecture, integration with other systems

WG1

Ongoing development

Documentation: main references, internet, ...

Discussion: Sources of Evidence

- Is this the best way to display the Sources of Evidence?
- What types of linkages to other templates are feasible?
 - Can it be a repeating field?
- Is there any reason we should try to standardize References?
 - Use one citation database or just free-form text?
 - Citeulike / mendeley / wiki page

Example Lessons

- The analysis team used internal prototyping, which helped train the staff and identify possible problems with the model
- Spatial variation between regions led to the development of different regional models, which led to a slower and more costly DSS development but with the key advantage of having the support of local technicians and managers
- Model building was rapid, it was assembling the data that took by far the most time
- The software did not provide much support for formatting of the outputs in a format that could be easily shared with others, so this process required considerably more time and effort than anticipated.
- An iterative process of presenting results to subject matter experts enabled them to better understand, refine and validate the models
- A complex concept was successfully addressed by a relatively simple model
- Use of the DSS has been considered successful by the participating organizations, even though it has not affected decision making in any obvious way.

1. Consolidate the lessons-learned template (LLT)

- The initial list of properties for the LLT is available in Google Docs (Google Docs/WG1/WIKI Content\forsys_lessonslearned_properties)
- This leads to the definition of a template

The screenshot shows a Google Docs spreadsheet with the following data:

| Criteria | Property | Type | Value | Metadata |
|----------|--|--------|---|---|
| 102 | Statement | String | | Findings |
| 107 | Explanation | String | | What does that mean? |
| 103 | Implications | String | | Consequences |
| 104 | Recommendations | String | | |
| 105 | Perspective | String | Researcher, User, Developer, Faciliator | Who is concerned? => Researcher: decision |
| 108 | Justification | String | Case Studies, Articles | Source of evidences? |
| 114 | - Linkage to DSS | | Acronym DSS (WIKI semantic form) | |
| 115 | - Linkage to Case Studies | | Acronym Case Study (WIKI semantic form) | |
| 116 | - Linkage to Country Reports | | Acronym Coutry Report (WIKI semantic form) | |
| 117 | References | | | |
| 110 | Development or application | String | Development of the tool, Use of the tool (application) | |
| 109 | Topic | String | Project management, Architecture and specification, Coding and testin | |
| 111 | - User and stakeholder engagement in the development process | String | User and stakeholder identification, User and stakeholder expectation, | |
| 112 | - Stakeholder participation | String | Opportunity to influence outcome, Quality and selection of information, | |
| 113 | - Knowledge management | String | Identification, Creation, Processing, Transfer, Storage | |

2. Fill the LLT with the results in the empirical guidelines article

- The initial list of lessons-learned is also available

WikiLessonsLearned ☆

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| | A | B | C | D | E | F |
|----|---------------------------|-----|---|--------|--|-------|
| 1 | | Id. | Guideline | ID | Lessons-learned | Votes |
| 2 | DSS project organisation: | G01 | Adequate team composition, size, motivation | G01.1. | Multidisciplinary development team with: a) Adequate size (more than 2) b) Composed by experienced and motivated members with forestry and IT skills c) Include researchers, but not only PHD students d) Include professional IT developers | 19 |
| 3 | DSS project organisation: | G01 | Adequate team composition, size, motivation | G01.2. | Stable team without rotation across the DSS development | 1 |
| 4 | DSS project organisation: | G01 | Adequate team composition, size, motivation | G01.3. | Project manager with adequate skills and experience, involved in few projects | 3 |
| 5 | DSS project organisation: | G01 | Adequate team composition, size, motivation | G01.4. | Board members with appropriate business skills | 1 |
| 6 | DSS project organisation: | G02 | Efficient communication and coordination among the team members | G02.1. | Appropriate communication mechanisms between the team members | 5 |
| 7 | DSS project organisation: | G02 | Efficient communication and coordination among the team members | G02.2. | Foster activities that may increase cooperation among the team members | 3 |
| 8 | DSS project organisation: | G02 | Efficient communication and coordination among the team members | G02.3. | Initial training on the DSS development methodology | 1 |
| 9 | DSS project organisation: | G03 | Clear definition of the responsibilities and ownership of the DSS | G03.1. | Clear definition of ownership of the DSS | 1 |
| 10 | DSS project organisation: | G03 | Clear definition of the responsibilities and ownership of the DSS | G03.2. | Clear definition of the responsibilities: a) Among the team b) Among the parties involved on DSS delivery, implementation and promotion | 4 |
| 11 | DSS project organisation: | G03 | Clear definition of the responsibilities and ownership of the DSS | G03.3. | Establish previous agreement on DSS usage and commercialization | 1 |
| 12 | DSS project organisation: | G04 | Adequate project planning budgeting, foresees continuity after research | G04.1. | Overall plan for the entire DSS development: a) accounting for testing, documentation, | 5 |

1. Statement:

In principle, column “E” should be used for mapping but there is the need for **guidelines for guideline definition**, in respect to:

- Level of detail (when to group and when to split into separate lessons-learned)
- Format of the statement
- ...

2. How to fill up the remaining properties in the LLT?

3. Link the LLT to the DSS, Case Studies and Country Report templates

- What is the process of linking?
- Which comes first, the lesson or the source of evidence?
- Is it common to all templates?

4. Lessons-learned maintenance processes

- What is the process of updating lessons-learned in the wiki?
- Should there be an evaluation process? (see Zvolen presentation about this subject)
 - # of sources of evidence (or votes for survey lessons)