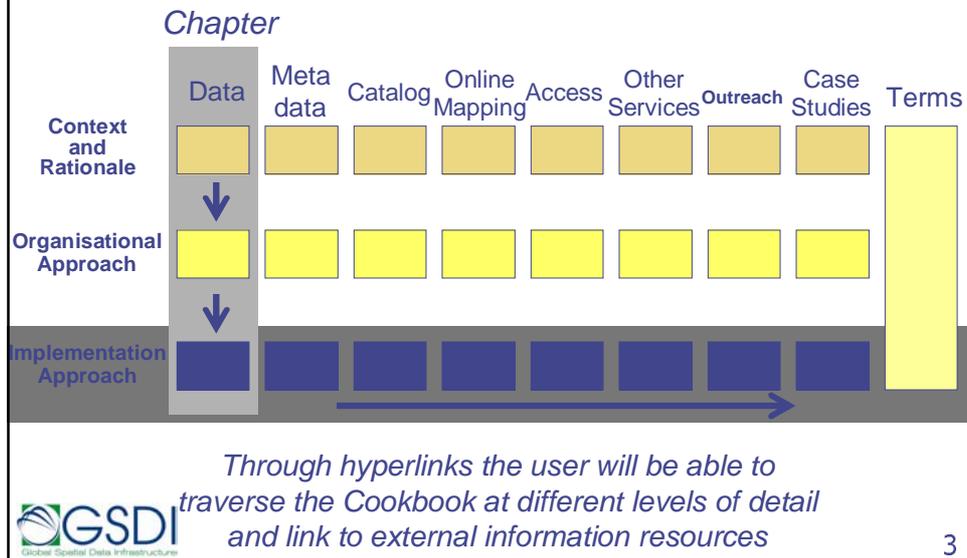# SDI Cookbook

Guidelines for the creation of Spatial Data Infrastructures

Douglas Nebert

GSDI Permanent Secretariat,
FGDC Secretariat

Cookbook Objectives

- Define a reference environment for building compatible spatial data infrastructures for use by all communities
- Promote best practices, technologies, and guidance for their implementation in a changing Internet environment with low-cost reference implementations, wherever possible
- Create an online resource and information web for dissemination

Cookbook Design Concept

Chapter

	Data	Meta data	Catalog	Online Mapping	Access	Other Services	Outreach	Case Studies	Terms
Context and Rationale									
Organisational Approach									
Implementation Approach									

Through hyperlinks the user will be able to traverse the Cookbook at different levels of detail and link to external information resources

GSDI
Global Spatial Data Infrastructure

3

Chapter Review

- ◆ Each chapter has a lead individual to build content with others
- ◆ Where possible have progression of context, through abstract model, to implementation
- ◆ Conclude with Recommendations
- ◆ Include hyperlinks and external references
- ◆ *Have published hypertext and PDF form of Version 1 (now 1.1)*

GSDI
Global Spatial Data Infrastructure

4

Chapter One: Introduction

◆ Cookbook design

◆ Concepts of SDI with GSDI

◆ Introduction to all chapters

◆ Contributions from chapter leads

GSDI

5

Chapter Two: Data

◆ Recommendations on building common-use data layers

◆ Description of GlobalMap approach

◆ Description of national Framework approaches

◆ *Leads: Claude Luzet, Hiroshi Murakami*

GSDI

6

Chapter Three: Metadata

◆ Metadata Principles

◆ Levels of Metadata

◆ Standards: Move towards ISO 19115

◆ Implementation considerations

◆ *Lead: Mark Taylor, NGDF, UK*

GSDI
Global Spatial Data Infrastructure

7

Chapter Four: Catalogue

◆ Catalogue Concepts

◆ Actors in collection and publishing

◆ Distributed service designs

◆ Standards: OGC, ISO 23950, and XML

◆ Reference Implementations

◆ *Lead: Doug Nebert, FGDC*

GSDI
Global Spatial Data Infrastructure

8

Chapter Five: Online Mapping

◆ Web Mapping Discussion

◆ Mapping Scenarios

◆ Standards: OpenGIS WMS 1.0

◆ *Leads: Frank Lochter, GFZ Potsdam, Steve Blake, Australia*

GSDI

9

Chapter Six: Data Access and Delivery

◆ Organisational issues of data sharing

◆ Architectures

◆ Standards: OpenGIS SFA, WFS, WCS

◆ GeoGratis overview

◆ *Lead: Brian McLeod, Canada*

GSDI

10

Chapter Seven: Other Services

◆ Additional related services are to be described here, e.g. coordinate transform

◆ Standards: OpenGIS Services (WFS, CTS, WCS, SLD, Context)

◆ *Lead: Nadine Alameh, GST*

GSDI
Global Spatial Data Infrastructure

Chapter Eight: Outreach and Capacity Building

◆ Building SDIs

◆ Obstacles to effective SDI development

◆ Examples of collaboration

◆ Share best practices, funding ideas

◆ *Lead: Uta When de Montalvo, UK*

GSDI
Global Spatial Data Infrastructure

Chapter Nine: Case Studies

- Local: Baltimore, USA
- National: Colombia
- Regional: Southern African development Community (SADC)
- Global: Digital Earth
- *Contributors: Mark Reichardt FGDC, Santiago Borrero, SADC Team, DE Project*

GSDI

Chapter Ten: Terminology

- Approach to standardizing terminology within an SDI is presented.
- Section on terminology, acronyms, and definitions from all chapters
- Coordinated with ISO TC 211 terms
- *Lead: Andrew Jones, South Australia*

GSDI

We need your help!

◆ Subscribing to global approaches permits savings over developing and maintaining local ones

◆ Construction of the Cookbook has been slow but steady – led by a small number of volunteer individuals

◆ Continuation of TWG efforts will rely on donations of your time and thought

GSDI
Global Spatial Data Infrastructure

15

GSDI
Global Spatial Data Infrastructure

Douglas Nebert

GSDI Technical Working Group

http://www.gsdi.org/twg/index.html

U.S. Federal Geographic Data Committee

http://www.fgdc.gov