

Proposal of establishment of the GI profile and its background



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KNSDI Standards Seminar 2

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Outline



⌘ Proposal

⌘ Background

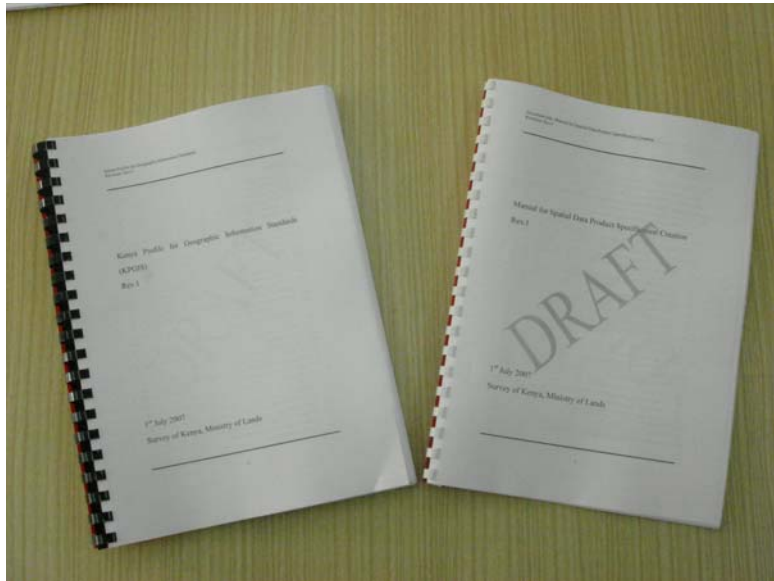
⌘ Expect to experts and all users

⌘ What are “standard”, “profile”, “Product specification”?

⌘ Summary of proposal

⌘ Way forward

Proposal: Draft documents



1. **KPGIS** (Extraction of KSISO19100)
 2. **Metadata profile**
 3. **Manual for preparation of “spatial data product specification”**
 4. **product specification for KNSDI 1:50,000 fundamental dataset**
- ⌘ Provided by CD-ROM

Proposal:

Why these documents?



⌘ Maybe Frustrated

- ☒ Procedure of standardization has started over 5 years ago, and yet no concrete result...
- ☒ => Realize immediate start

⌘ Non-realistic

- ☒ Past discussions were partly not realistic...
- ☒ => Result of think what's possible, what's necessary, now, and here seriously



⌘ Doubt of effectiveness

- ☒ Someone asks "is standardization really benefitable"
- ☒ => Refer successful case in Japan



⌘ Not asked?, not consulted?

- ☒ => Gather comments and suggestions from experts and all users, not one's self convenience
- ☒ => Not "legal standards", but "practical guidelines" with Technical suitability with ISO19100 series

Proposal:

How to use them?



1. Data production

- ☒ Clearly specify data contents, structure, quality required before data production by **product specification**

2. Quality evaluation

- ☒ Objective quality evaluation shall be done after data production by **product specification**

3. Search spatial data on clearinghouse

- ☒ Users can search product on clearinghouse by summary described in **metadata profile**

4. Choose and purchase

- ☒ User can evaluate the products without processing, analyzing the dataset by **product specification**

Proposal:

What can be changed?

⌘ SoK spatial data products (including KNSDI) will be together with metadata and product specification

☑ => Products will be **self-descriptive**

☑ Users will be able to search products on clearinghouse by metadata

☑ Users will be able to evaluate, choose and purchase products by product specification



Background



- ⌘ Nobody doubts necessity of GI standardization
- ⌘ Present state of GI standardization
 - ☒ ISO19100 series: 32 standards published
 - ☒ KSISO19100 series: 13 standards as adoption of ISO
 - ☒ But no progress, no application...
- ⌘ SoK Project based activities supported by JICA
 - ☒ Aim to establish Kenyan GI profile ("profile" will be explained)
 - ☒ Aim to establish KNSDI (Its specification and concrete products)
 - ☒ Aim to build clearinghouse
 - ☒ (Train GIS users)
- ⌘ Experts TC meeting
 - ☒ Draft documents were prepared by SoK project team
 - ☒ Held TC meeting with experts from 5 organizations in 21st June
 - ☒ Draft documents were carefully examined

Expect to experts and all users

⌘ Common consensus

- ☒ To build common consensus of GI standardization among experts and all users in implementation level
- ☒ KSISO19100 series have been published, As a next phase we shall to design realistic GI profile based on KSISO standards

⌘ Discuss proposed GI profile

- ☒ To establish and brush up GI profile based on KSISO19100 series for KNSDI and all other geo-spatial products

⌘ Revision of proposed GI profile

- ☒ To receive comments and suggestions from experts and all users
- ☒ Revise the draft documents

What are “standard”, “profile”, “Product specification”? (1)

⌘ “Standards”

- ☒ ISO, KSISO. Regulations provide frameworks for all purposes
- ☒ Mostly extremely abstract

⌘ “Profile”

- ☒ Rules for realistic purposes extracted from standards
- ☒ Extract rules and gather them into one document as minimum rule book
- ☒ Technical availability is mandatory

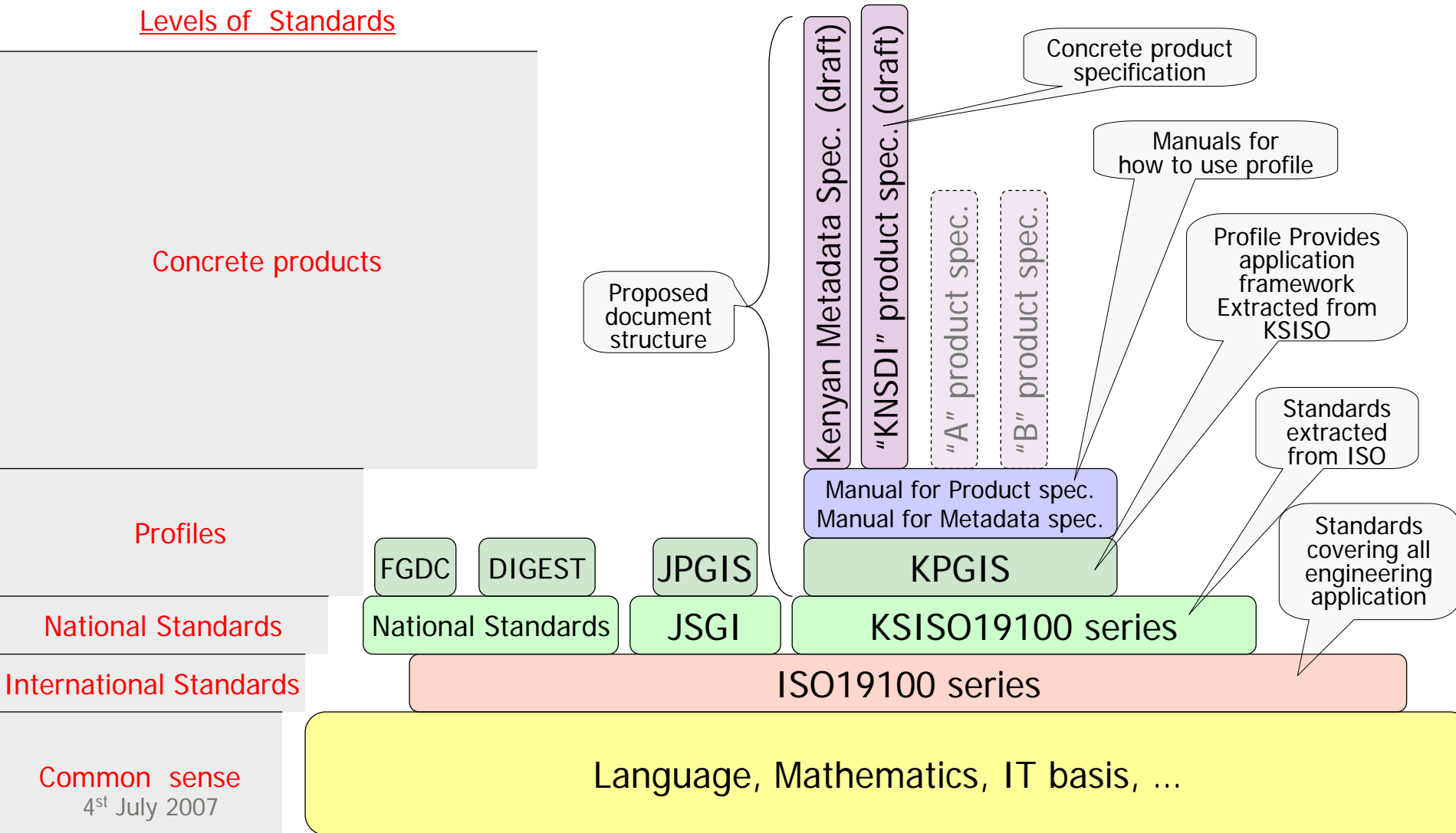
⌘ “Product Specification”

- ☒ A document defines concrete product
- ☒ Contents are really draft, and came from 3rd KNSDI workshop resolution

⌘ Structure of standards / Profiles / Product specifications is follows;

What are "standard", "profile", "Product specification"? (2)

Levels of Standards



What are “standard”, “profile”, “Product specification”? (3)

⌘ Why “Product specification”?

- ☒ Currently ISO publishes it as DIS, however it can be key of successful standardization. So we'll try adopt it in advance

⌘ Is metadata not enough?

- ☒ Metadata purpose mainly searching at clearinghouse, but not sufficient describing products in detail especially not enough for data production

⌘ Purpose of “product specification”

- ☒ Data production
- ☒ Quality evaluation (by Data producer or a third party)
- ☒ User to know contents in detail

Summary of proposal

- ⌘ Catch up what GSI (Japan) has been established in GI standardization
- ⌘ Design “GI profile” based on KSISO19100 series
 - ☒ Possible standards – 5 standards (will be explained on next session)
 - ☒ Establish profile as a minimum standards subset from KSISO19100series
- ⌘ Design “product specification” and its preparation manual
 - ☒ Purpose for helping data producers and data users to use profile
- ⌘ Design “metadata specification” and its preparation manual
 - ☒ KSISO19115 core metadata elements as minimum profile
- ⌘ Design KNSDI product specification (draft)
 - ☒ KNSDI product specification based on resolution of 3rd KNSDI workshop

Way forward



- ⌘ Seminar2 (Today)
 - ☒ Disclosure of the resolution and comments of this TC meeting
- ⌘ Document accessibility
 - ☒ Documents will be posted and access free on KNSDI web site
- ⌘ Revision
 - ☒ Based on gathered comments from TC and seminar2
- ⌘ Experimental project
 - ☒ Try out produces on small dataset fully based on KPGIS to verify technical availability of dataset, product specification, metadata, and quality evaluation
- ⌘ Seminar3 (January 2008)
 - ☒ Disclosure of result of experimental project
- ⌘ Revision
 - ☒ Based on comments gathered from seminar3 and information from experimental project
- ⌘ Dissemination
 - ☒ widely ask to data producers and users

Appendix: ISO & KSISO 19100 series

☞	KS ISO 6709:1983	Standard representation of latitude, longitude and altitude for geographic point locations
☞	KS ISO 19101:2002	Geographic information -- Reference model
☞	ISO/TS 19103:2005	Geographic information -- Conceptual schema language
☞	KS ISO 19105:2000	Geographic information -- Conformance and testing
☞	KS ISO 19106:2004	Geographic information -- Profiles
☞	KS ISO 19107:2003	Geographic information -- Spatial schema
☞	KS ISO 19108:2002	Geographic information -- Temporal schema
☞	ISO 19108:2002/Cor 1:2006	
☞	KS ISO 19109:2005	Geographic information -- Rules for application schema
☞	KS ISO 19110:2005	Geographic information -- Methodology for feature cataloguing
☞	KS ISO 19111:2003	Geographic information -- Spatial referencing by coordinates
☞	KS ISO 19112:2003	Geographic information -- Spatial referencing by geographic identifiers
☞	KS ISO 19113:2002	Geographic information -- Quality principles
☞	KS ISO 19114:2003	Geographic information -- Quality evaluation procedures
☞	ISO 19114:2003/Cor 1:2005	
☞	KS ISO 19115:2003	Geographic information -- Metadata
☞	ISO 19115:2003/Cor 1:2006	
☞	KS ISO 19116:2004	Geographic information -- Positioning services
☞	ISO 19117:2005	Geographic information -- Portrayal
☞	ISO 19118:2005	Geographic information -- Encoding
☞	ISO 19119:2005	Geographic information -- Services
☞	ISO/TR 19120:2001	Geographic information -- Functional standards
☞	ISO/TR 19121:2000	Geographic information -- Imagery and gridded data
☞	ISO/TR 19122:2004	Geographic information / Geomatics -- Qualification and certification of personnel
☞	ISO 19123:2005	Geographic information -- Schema for coverage geometry and functions
☞	ISO 19125-1:2004	Geographic information -- Simple feature access -- Part 1: Common architecture
☞	ISO 19125-2:2004	Geographic information -- Simple feature access -- Part 2: SQL option
☞	ISO/TS 19127:2005	Geographic information -- Geodetic codes and parameters
☞	ISO 19128:2005	Geographic information -- Web map server interface
☞	ISO 19133:2005	Geographic information -- Location-based services -- Tracking and navigation
☞	ISO 19135:2005	Geographic information -- Procedures for item registration
☞	ISO/TS 19138:2006	Geographic information -- Data quality measures

*Excluding CD, DIS, FDIS

*KSISO6709 is base of other standards

Thank you.

