



# UDK and ISO 19115









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and

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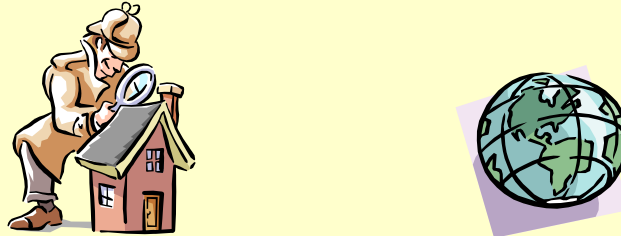
- German Environmental Data Catalogue UDK
  - Content
  - Context
- ISO 19115 (Geographic Information Metadata)
  - Content
  - Context
- ~~The UDK and the ISO 19115~~  
Adaptation of UDK to ISO 19115
  - Content
  - Context

## **Who holds *what* kind of data *where* in *which* format?**

- Addresses
- Objects and their classes:
  -  dataset / database (14.7% of the data)
  -  document / report / literature (10.9%)
  -  organizational unit / task (36.0%)
  -  service / application / information system (4.7%)
  -  project / program (6.1%)
  -  geographical information / map (27.5%, 63% fields)

- **Austria**
  - Data-Objects : ca.12.000
  - Addresses : ca. 3.000
- **Germany**
  - Data-Objects: ca.25.000
  - Addresses: ca. 5.000
  - + UOK-Objects:ca.45.000

Intranet  
HTML-/Win-UDK



Internet  
HTML-UDK

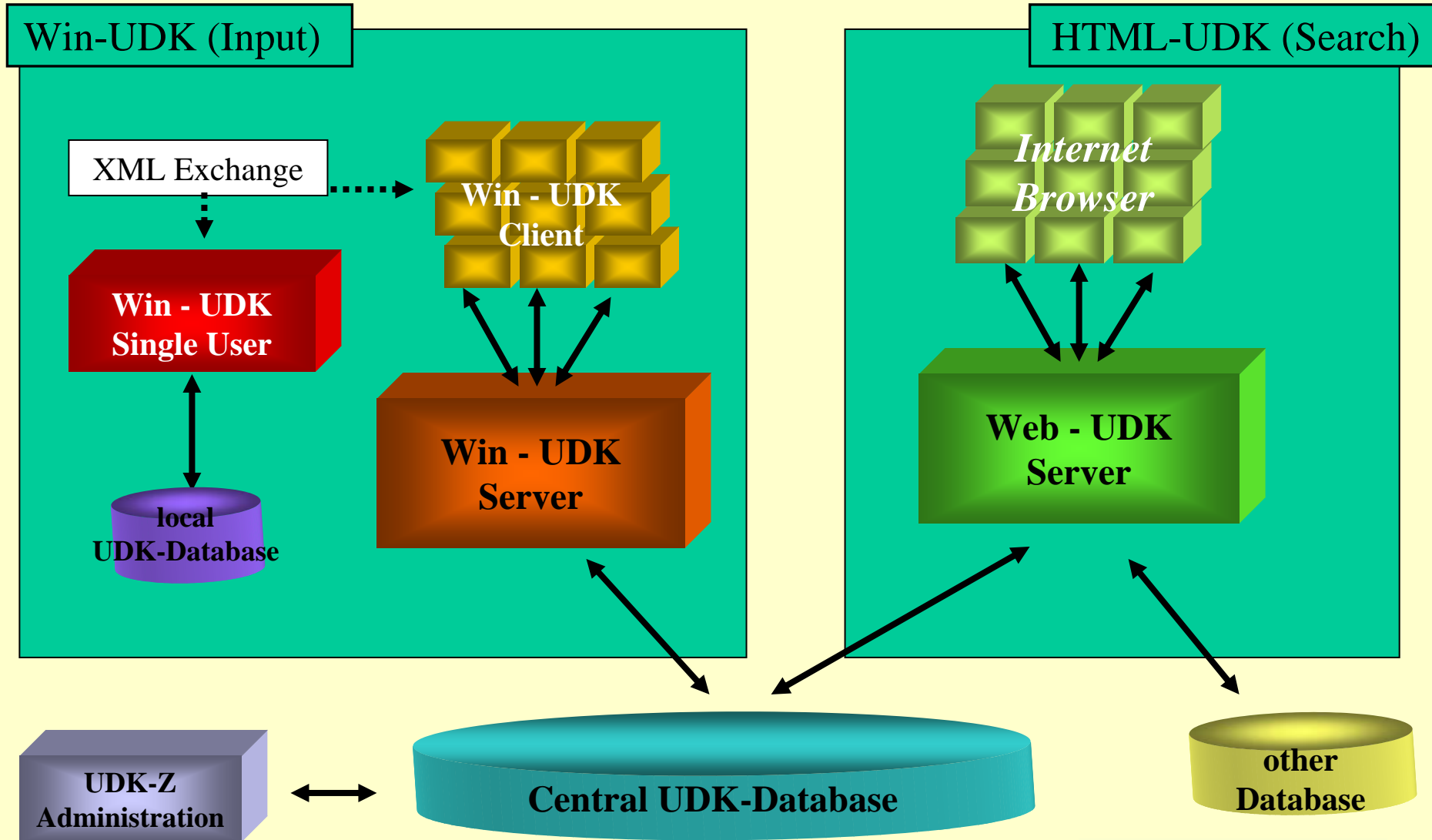
Data Retrieval (public)



Data Input  
Data Administration  
(experts)

Windows-UDK





- 1991 - 1995 research and development project
- Since 1993 cooperation Austria - Germany
- 1996 - 2002 Administration Agreement UDK  
(Bund and Bundesländer)  
& coordination centre UDK in Hannover
- Since 01/2003 Administration Agreement UDK/GEIN  
(Bund and Bundesländer)  
& coordination centre UDK/GEIN in Hannover

# World of the UDK *today*



Quasi standard in  
Germany and Austria

Directive of the Eur. Parl. & the  
Council on public Access to EI

Development &  
experience since 1991

Growing needs on in-  
formation systems

Used in (nearly) all  
Bundesländer & Bund



Continuously gro-  
wing amount  
of relevant data

XML, SOAP adapter in use

Need of commu-  
nication with other  
information systems

Envigorated by Adminis-  
tration Agreement UDK/GEIN

„UDK is the  
metadata-component of gein<sup>®</sup>“

Need of standar-  
dized data exchange

# The Solar System of the UDK *tomorrow*



THE German portal for  
Environmental Issues  
(Direct. on publ. Acc.)

XML

SOAP/XML

Universal Semantic  
Im-/Export

SOAP/XML

ISO 19115  
Compatibles:  
GeoMIS.Bund  
ArcGis  
etc.

UOK (Bavarian Environmental  
Object Catalogue)

... standardizes description of *geographic* information.

Providing information about

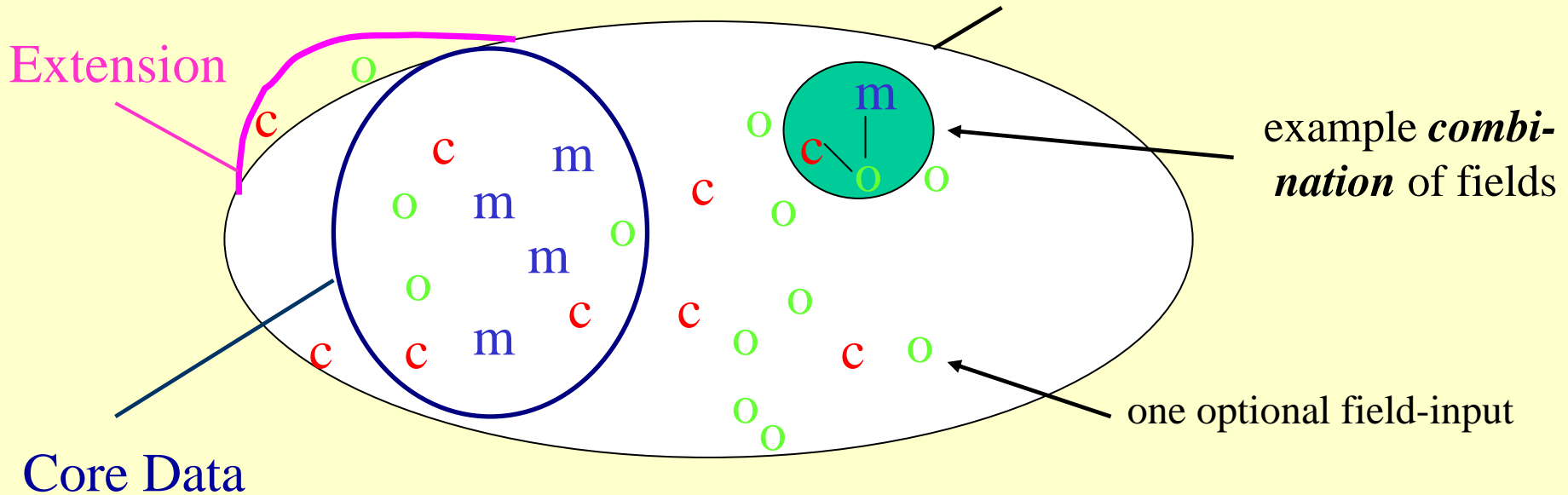
- identification
- extent
- quality
- spatial & temporal scheme
- spatial reference
- distribution

of digital *geographic* data

... the interconnection and weights of the field-**input**

„mandatory“, „conditional“ & „optional“

Qualitative set-theory:



... for geographical datasets, 22 fields:

Dataset title (M)	Spatial representation type (O)
Dataset reference date (M)	Reference system (O)
Dataset responsible party (O)	Lineage statement (O)
Geographic location of the dataset (C)	On-line resource (O)
Dataset language (M)	Metadata file identifier (O)
Dataset character set (C)	Metadata standard name (O)
Metadata standard version (O)	Dataset topic category (M)
Abstract describing the dataset (M)	Spatial resolution of the dataset (O)
Additional extent information for the dataset (O)	Metadata language (M)
Metadata date stamp (M)	Metadata character set (C)
Metadata point of contact (M)	Dataset format (name and version)(O)

## Aims:

- UDK data-model agrees at least ISO 19115 core-data
- adapt UDK data-model of not core-data accor. to ISO
- expansion of UDK data-model (user requirements) accor. to ISO

## ... and boundary conditions:

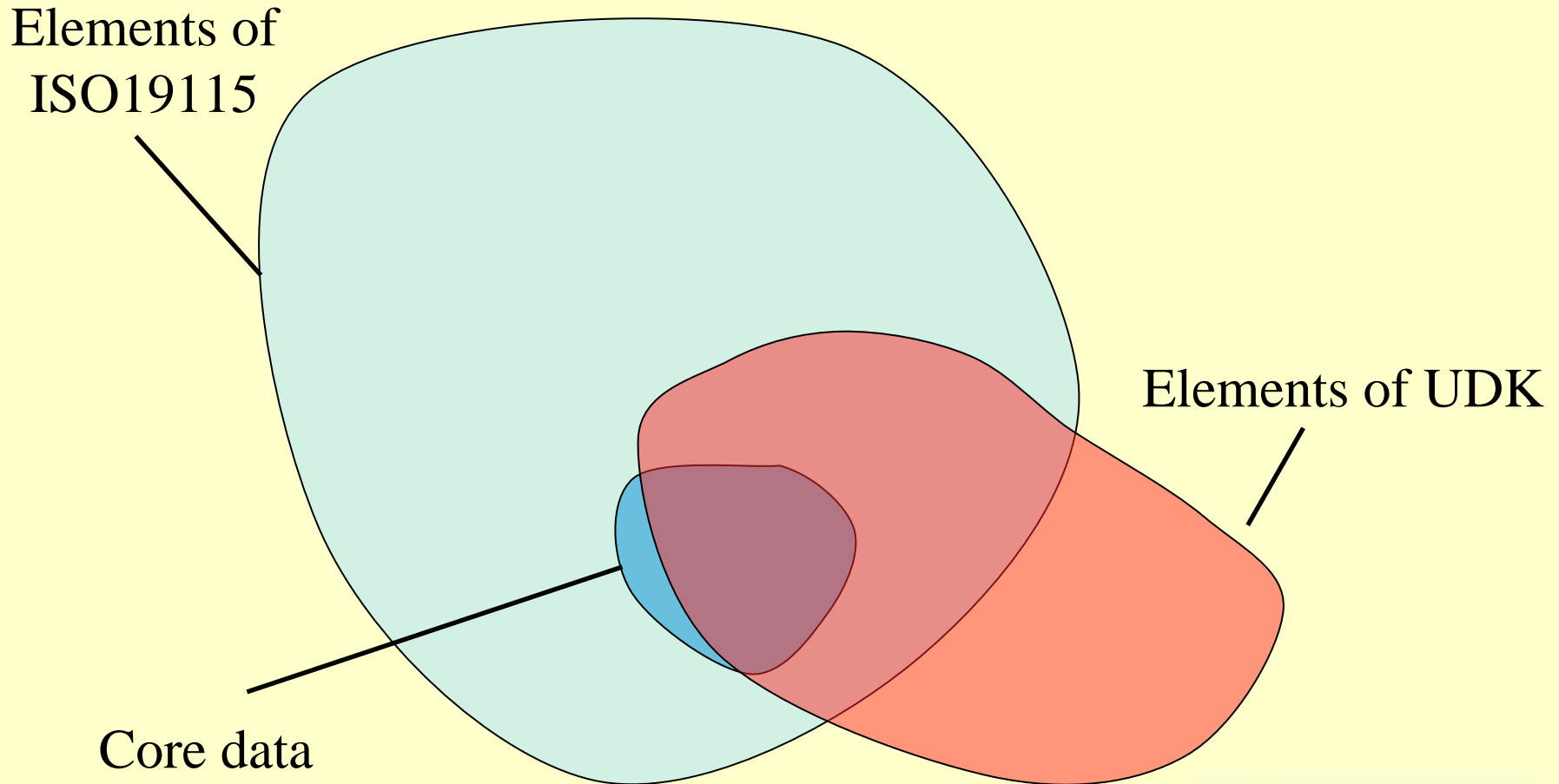
- „look and feel“ unchanged
- convert present UDK data easily & automatically
- preserve enhanced & substancial address administration
- preserve object hierarchy
- preserve all other classes & functionality
- preserve the adapters in use if not replaced

Let's go ...

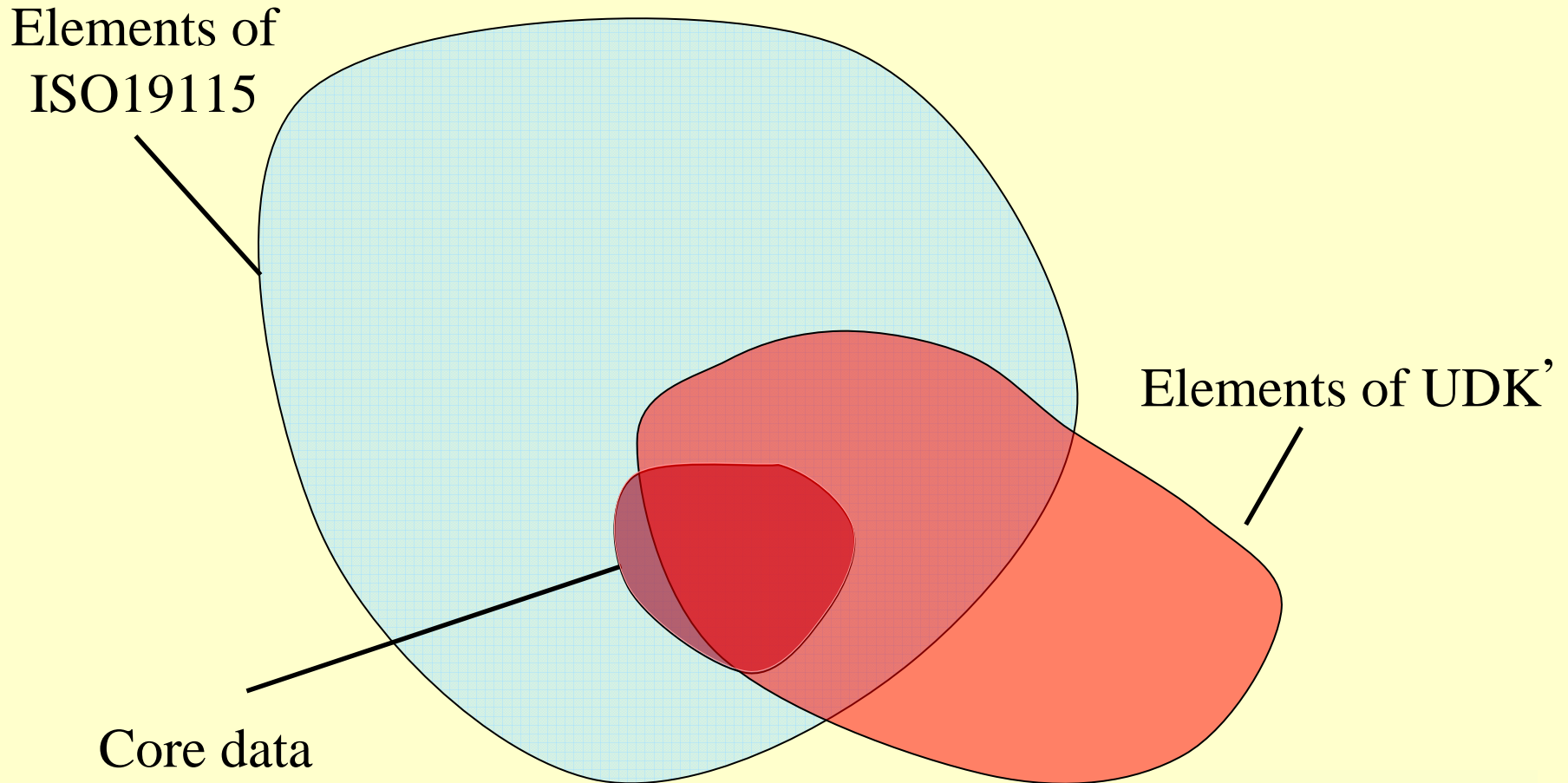
## The Schedule:

1. Comparison of **UDK *geogr. inf./map*** ↔ **ISO 19115**
2. Expansion of **UDK data-model** (**core-data**)
3. Expansion of **UDK data-model** beyond **core-data**  
Adaption of **UDK data-model** (not **core-data**)
4. Adaption of **conditions**
5. Expansion of **ISO-model** (no need)

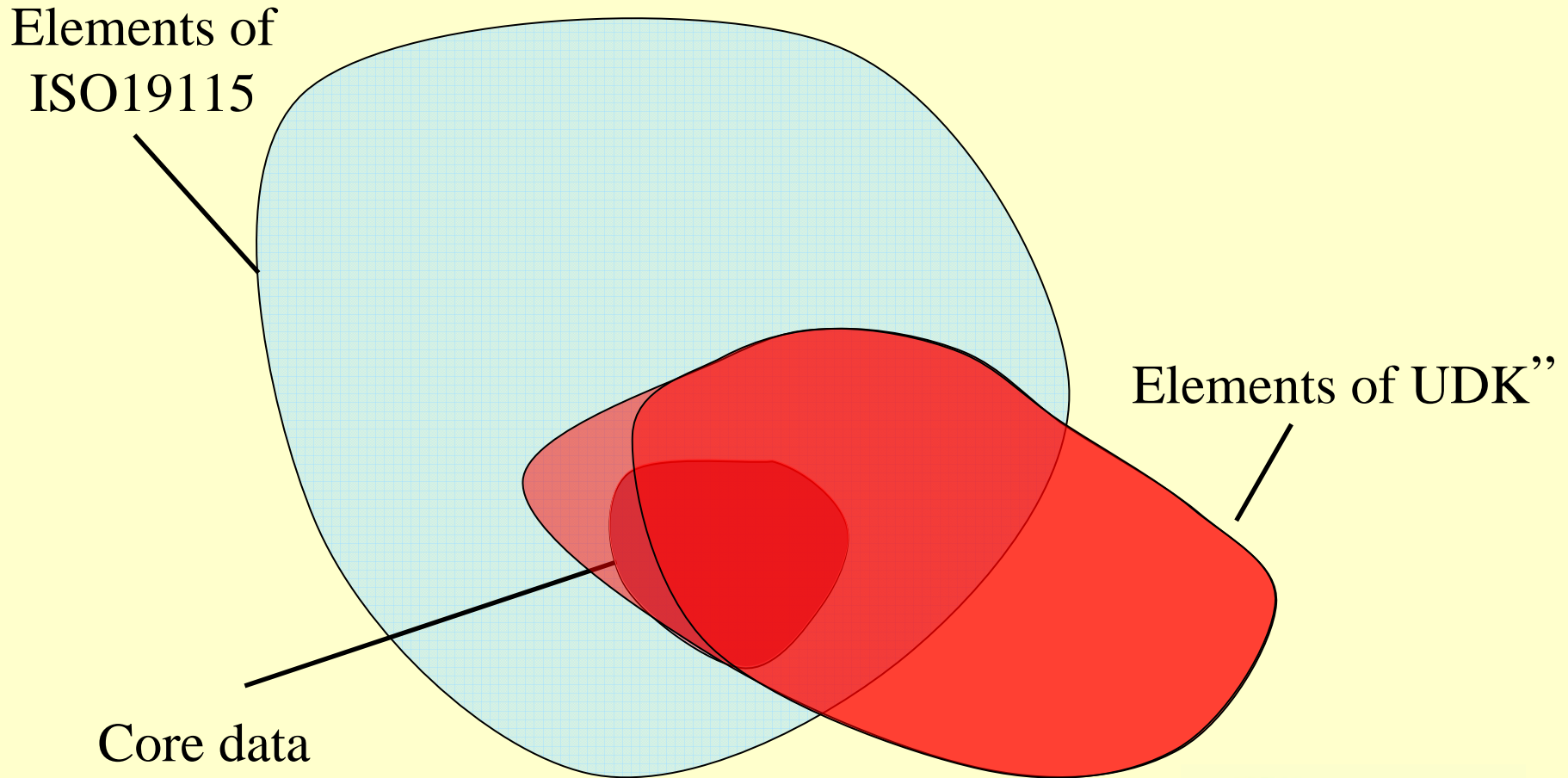
Step 1: Comparing **UDK *geogr. inf./map*** ↔ **ISO 19115**



Step 2: Expansion of **UDK data-model** (core-data)



Step 3: Expansion/Adaption of **UDK data-model** beyond **core-data**

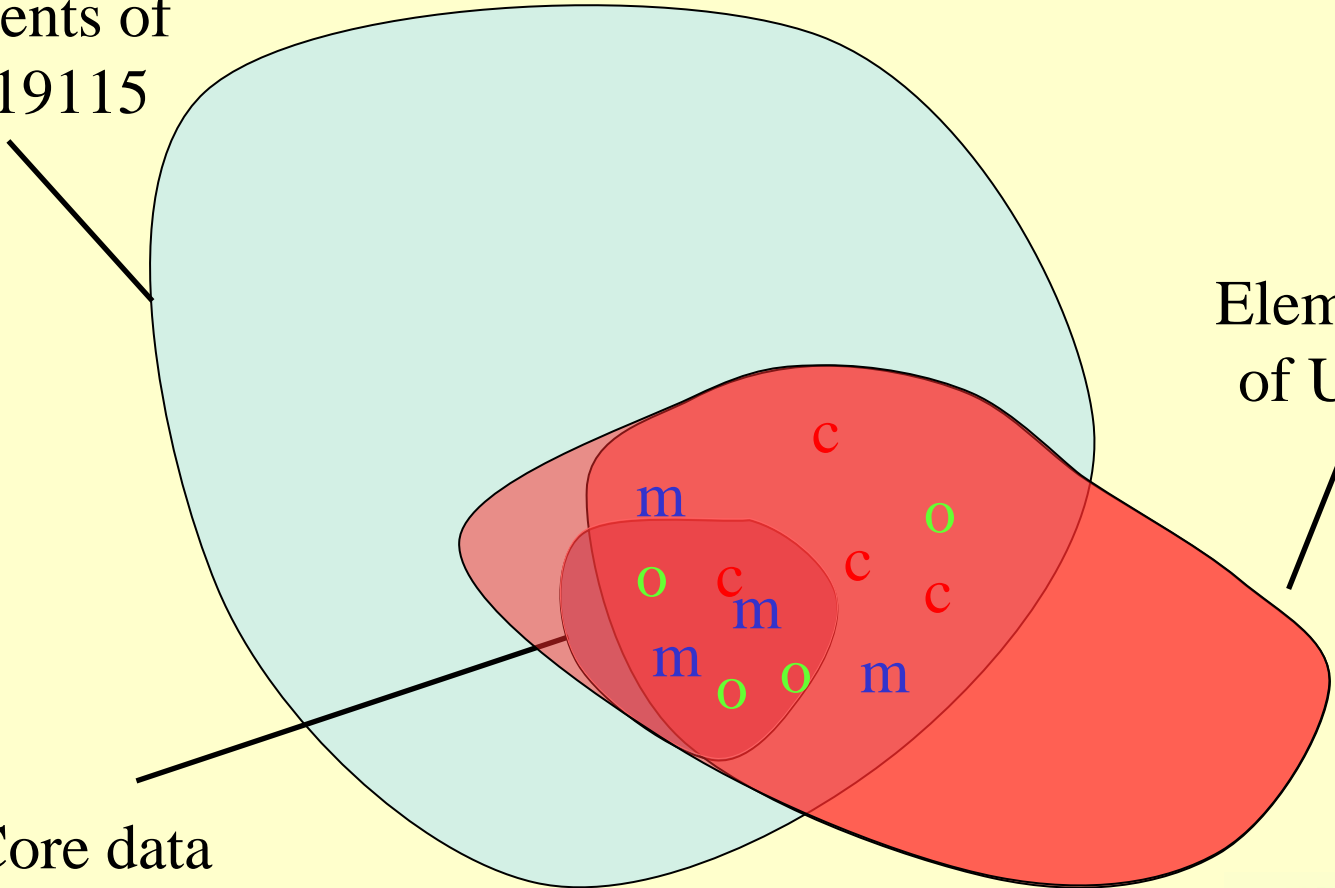


## Step 4: Adaption of the **conditions**

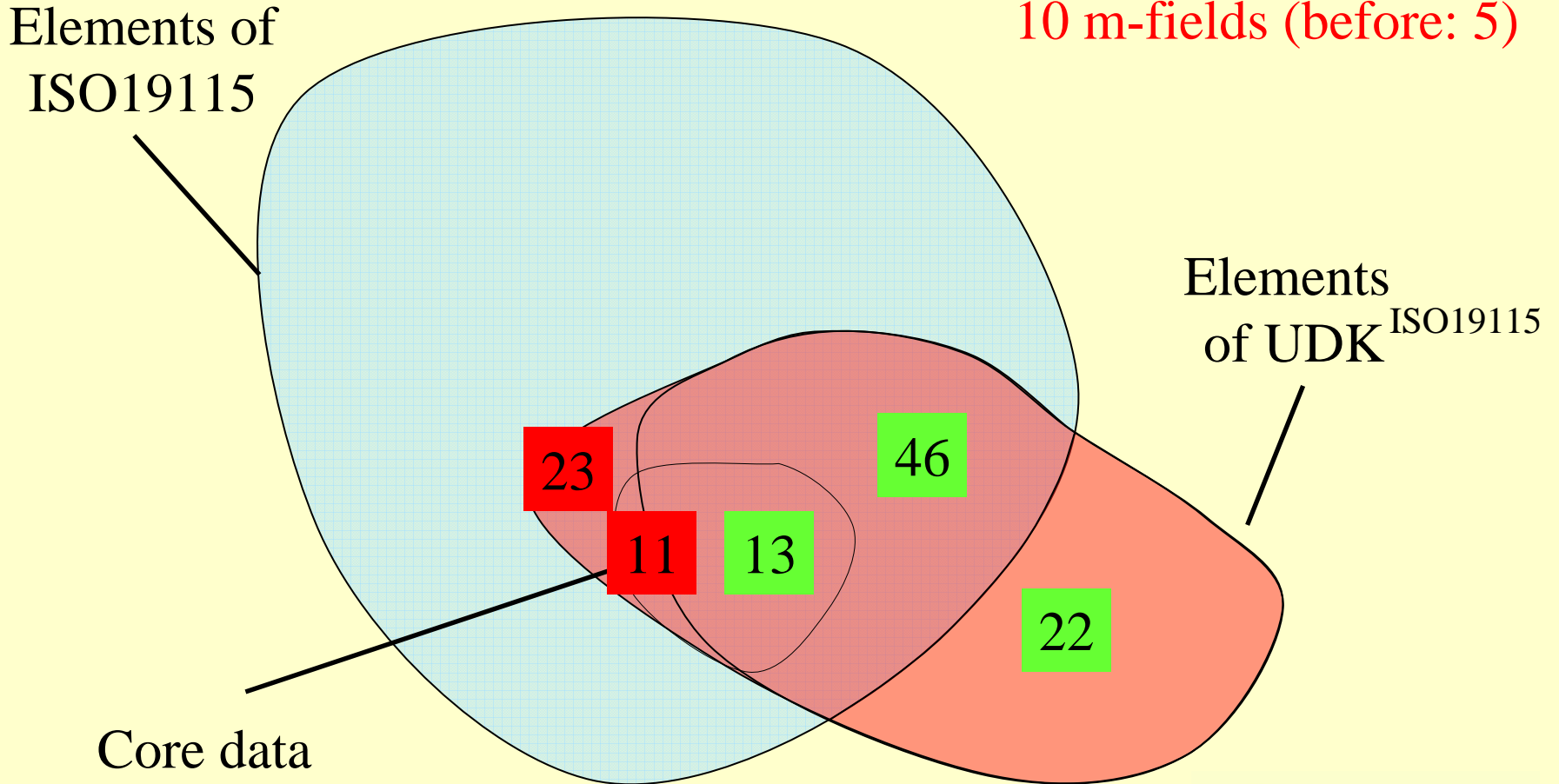
Elements of  
ISO19115

Elements  
of UDK<sup>ISO19115</sup>

Core data



... finally: Counting the old & new fields: 81 untouched/updated,  
 34 added,  
 10 m-fields (before: 5)



- Adaption to ISO 19139 (Scheme for ISO →XML)
- Adaption to ISO 19119 ( Services )
- Implementation in the next generation of gein®
- Web-tool for data-input & -administration

- The necessity of preparation of EI through the WWW is growing rapidly
- The UDK is the quasi-standard for environmental metadata in Germany & Austria
- The UDK will be THE metadata component in gein®
- The UDK is being prepared to play an important role in a globalized environmental information network
  - ISO 19115
  - ISO 19119
  - Adapters

... there is more to come:

A concept of the the new *gein*® is in preparation!

***Invitation to a talk by Mr. Kruse (KUG):***

*„gein® – planning the next generation“ (14:00h)*