

ArcGIS for INSPIRE und die Umsetzung in Wien

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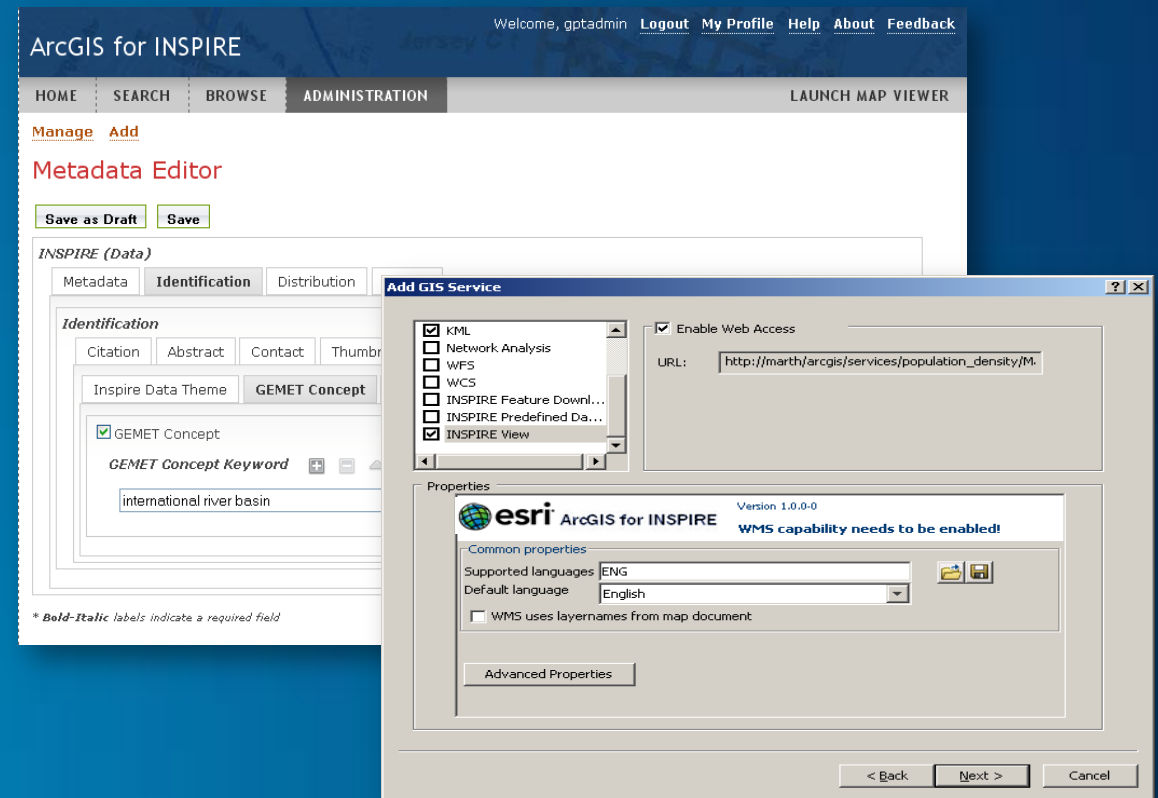
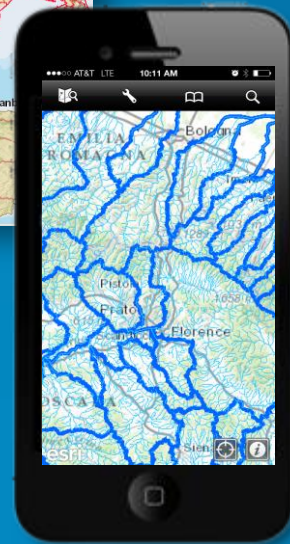
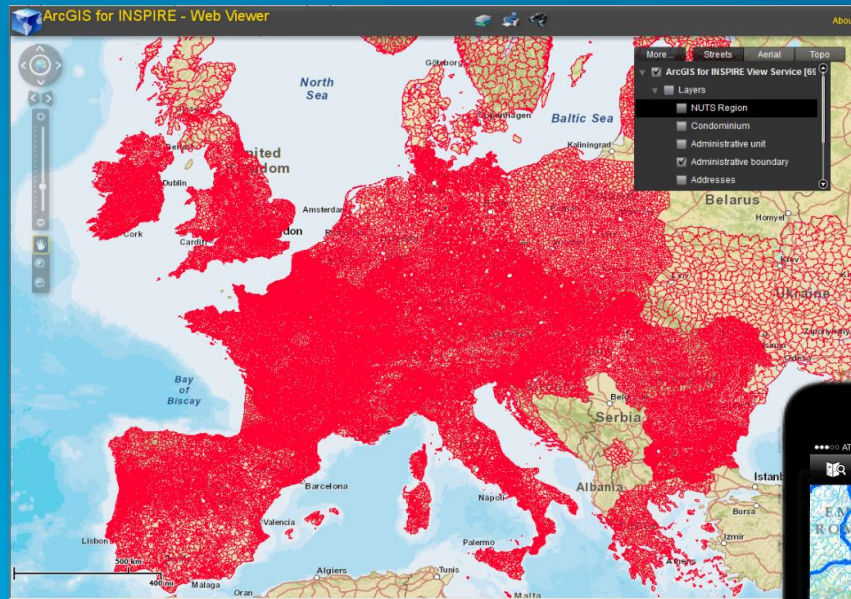
ArcGIS for INSPIRE

Stefan Jaquemar

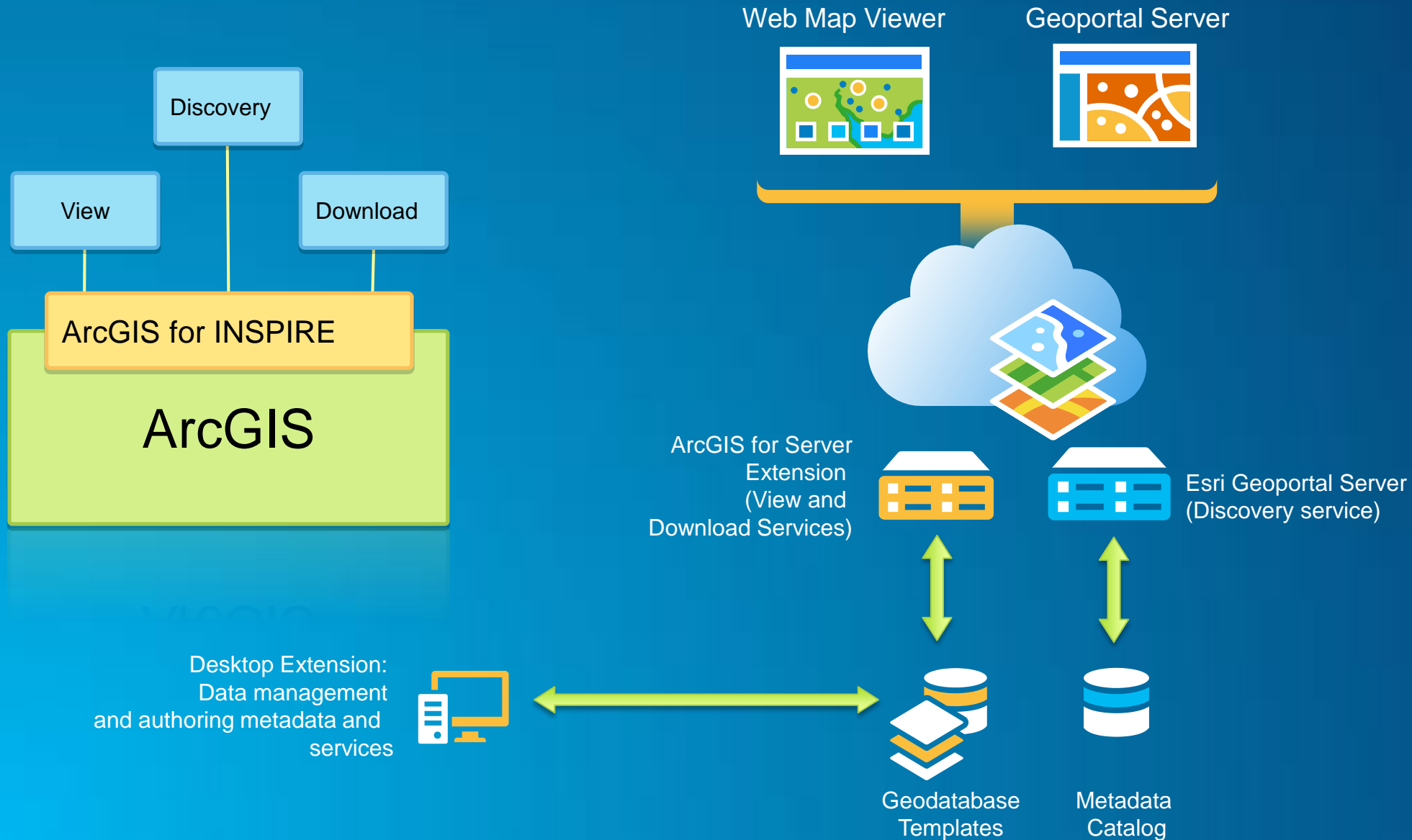
Gerhard Trichtl

ArcGIS for INSPIRE

Enabling users to implement INSPIRE

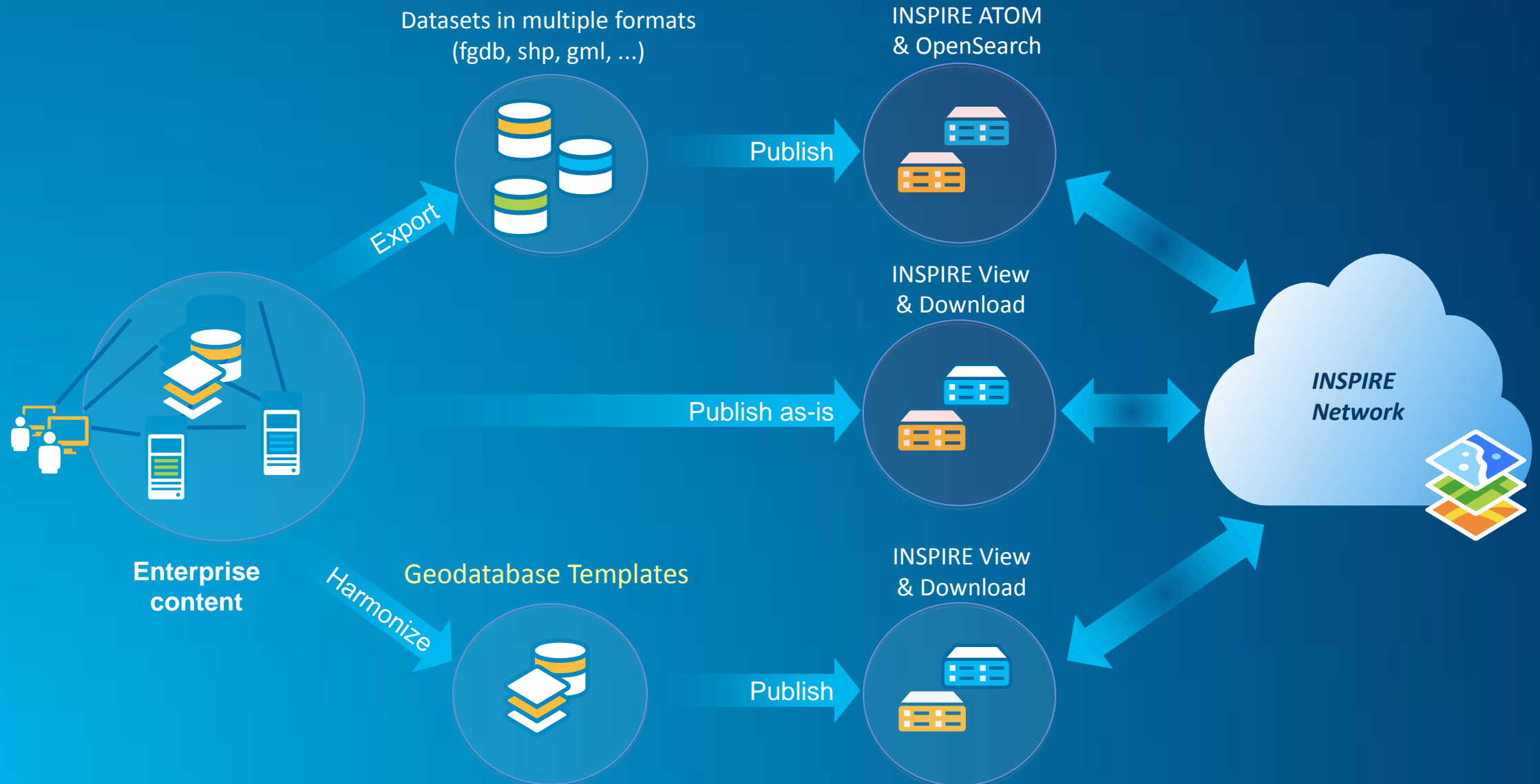


ArcGIS for INSPIRE



ArcGIS for INSPIRE Implementation Patterns

From basic to full implementation



ArcGIS for INSPIRE - Implementation Options

- **INSPIRE Metadata and Discovery Service**
- **INSPIRE View Service based on**
 - **OGC WMS**
 - **OGC WMTS**
- **INSPIRE Download Service (HTTP streaming) based on**
 - **OGC WFS 2.0**
 - **ATOM (predefined dataset download)**
- **... with or without harmonized data**

| Annex I | Annex II | Annex III |
|--|---|--|
| <p>Coordinate Reference System</p> <p>Geographical Grid System</p> <p>Geographical Names</p> <p>Administrative Units</p> <p>Addresses</p> <p>Cadastral Parcels</p> <p>Transport Networks</p> <p>Hydrography</p> <p>Protected Sites</p> | <p><u>Land Cover</u></p> <p><u>Geology</u></p> <p>Elevation</p> <p>Orthoimagery</p> | <p>Statistical Units</p> <p>Land Use</p> <p>Mineral Resources</p> <p>Buildings</p> <p>Soil</p> <p>Human Health and Safety</p> <p>Utility and Governmental Services</p> <p>Environmental Monitoring Facilities</p> <p>Production and Industrial Facilities</p> <p>Agricultural and Aquacultural Facilities</p> <p>Population Distribution - Demography</p> <p>Area Managements/Restriction/Regulation Zones and Reporting Units</p> <p>Natural Risk Zones</p> <p>Atmospheric Conditions, Meteorological Geographical Features</p> <p>Oceanographic Geographical Features</p> <p>Sea Regions</p> <p>Bio-geographical Regions</p> <p>Habitats and Biotopes</p> <p>Species Distribution</p> <p>Energy Resources</p> |

INSPIRE scope |

Geodatabase templates

- **Started with INSPIRE UML, not GML Schema**
 - **Work from conceptual schema**
 - **Model reflects IR specs - not affected by downstream detail changes**
- **What goals? Designed to maximize the use of the data beyond just view:**
 - **Compliance tests**
 - **Quality Assurance**
 - **Cartography**
 - **Time-aware layers**
 - **REST services**
 - **Analysis**
 - **Extensible**

ArcGIS for INSPIRE helps you in implementing schema updates

- Implement changes at the content level
- ArcGIS for INSPIRE implements for you
 - Style (SLDs)
 - New GML encoding
 - Layer name and feature type naming rules

| Theme | FeatureType | GDB template | added | deleted |
|-------|----------------------------|--------------|-------|---------|
| AU | au:AdministrativeUnit | | | |
| | au:Condominium | | | |
| | stat:NUTSRegion | | | x |
| | mu:Baseline | x | x | |
| | mu:MaritimeBoundary | x | x | |
| | mu:MaritimeZone | x | x | |
| | | | | |
| | bgr:Bio-GeographicalRegion | | | x |
| | | | | |
| | bui:Building | | | x |
| | bui:ControlTower | | | x |

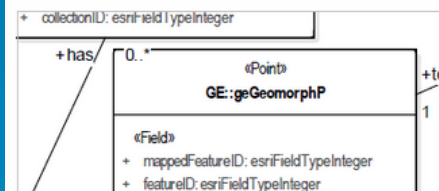
An update of 10.3.1 will include a new Annex I geodatabase template and the respective updates at INSPIRE services

ArcGIS for INSPIRE online documentation

ArcGIS for INSPIRE

Current Version: 10.3 **Released:** December 2014

ArcGIS for INSPIRE is the solution for preparation of harmonized spatial data via standardized services pursuant to the guidelines of the INSPIRE specification. It provides mechanisms to efficiently store transformed data and distribute service-based data via the INSPIRE View and Download services.



Implement INSPIRE Data Models

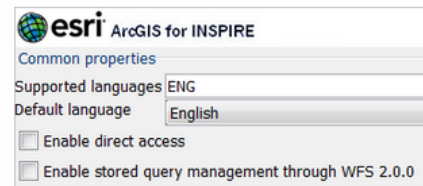
Geodatabase templates, which implement the INSPIRE data specifications, are provided as part of the solution. An essential element of INSPIRE is the data model specification that provides a uniform way to view and download geographic datasets shared in the INSPIRE network by European Member States.

[ArcGIS for INSPIRE geodatabase templates >](#)



Share, Discover, and Consume INSPIRE Resources

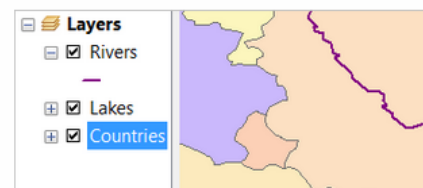
Geoportal allows you to create, manage, and use INSPIRE compliant metadata, expose metadata via INSPIRE Discovery services, and create and customize metadata profiles to meet additional national requirements.



Publish INSPIRE Services

Author maps and publish View and Download services compliant with INSPIRE specifications.

[Create INSPIRE services >](#)



Not Ready for Data Harmonization?

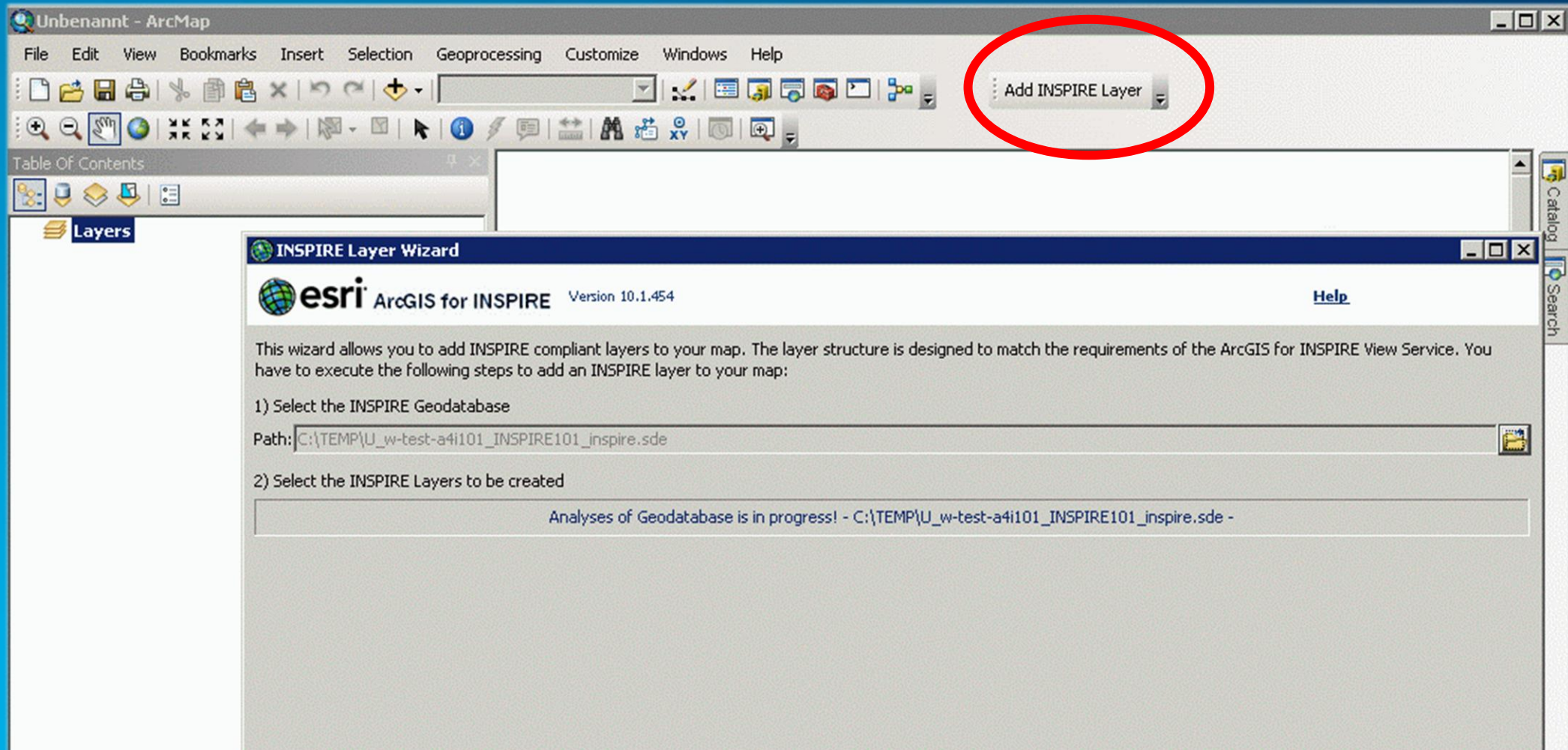
ArcGIS for INSPIRE enables you to deliver INSPIRE View and Download services for non-harmonized data. Discover how you can add non-INSPIRE data to a map, and create feature download services and predefined dataset services with as is data.



Available in
multiple languages

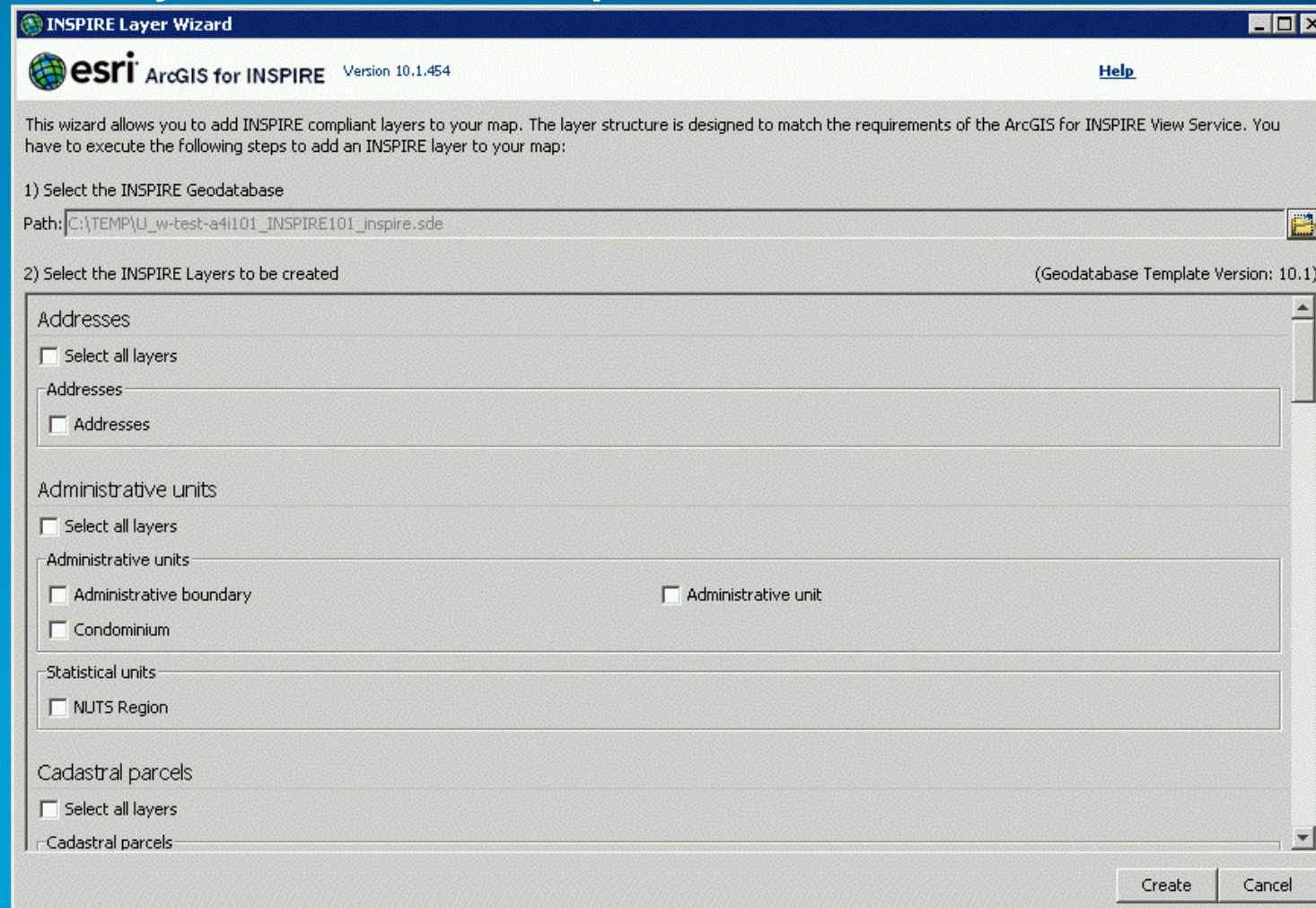
INSPIRE View- or Downloadservice

- Add INSPIRE Layer – Tool in ArcMap



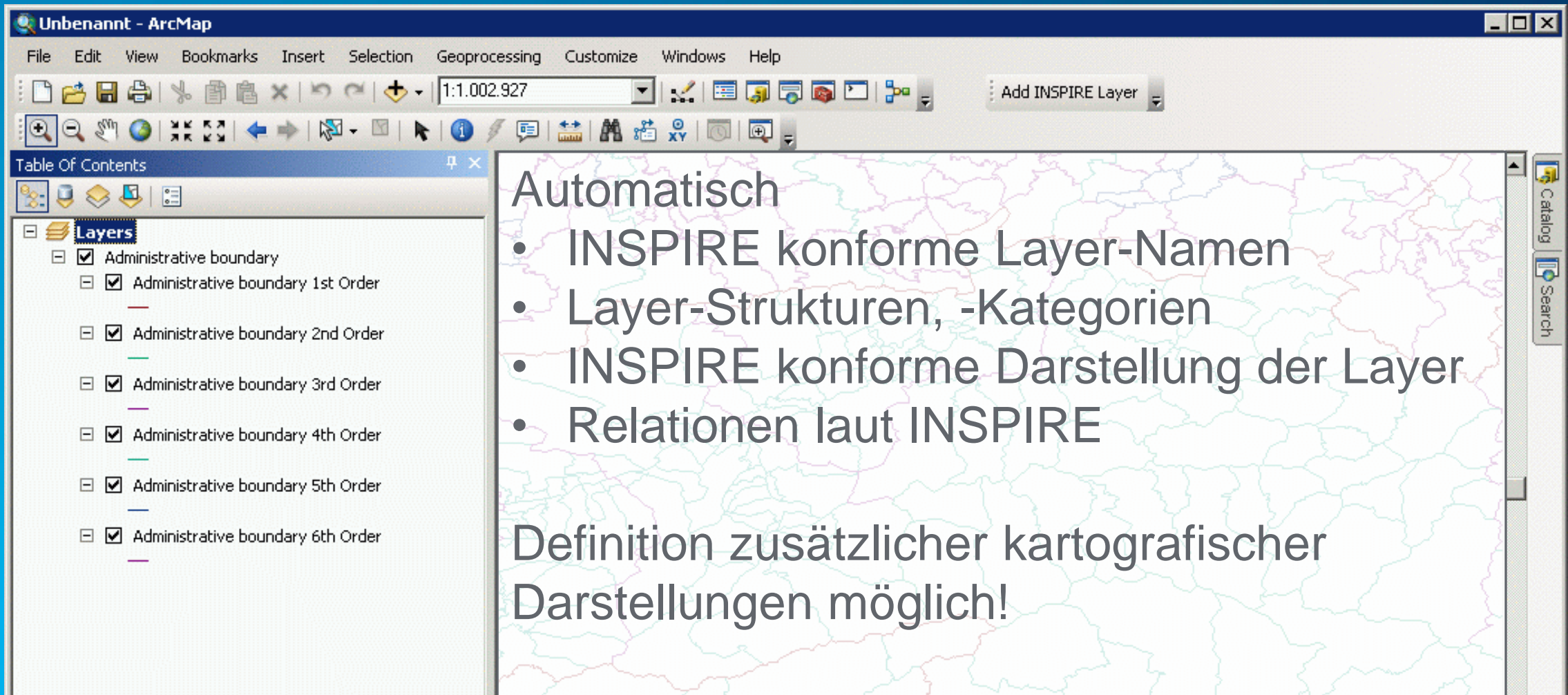
INSPIRE View- or Downloadservice

- Add INSPIRE Layer – Tool in ArcMap



INSPIRE View- or Downloadservice

- Define Symbology



The screenshot shows the ArcMap interface with a map of administrative boundaries. The Table of Contents panel on the left lists several layers under the 'Layers' group:

- Administrative boundary
- Administrative boundary 1st Order
- Administrative boundary 2nd Order
- Administrative boundary 3rd Order
- Administrative boundary 4th Order
- Administrative boundary 5th Order
- Administrative boundary 6th Order

The map displays these boundaries with different colors and line styles. The interface includes a menu bar (File, Edit, View, Bookmarks, Insert, Selection, Geoprocessing, Customize, Windows, Help), a toolbar, and a status bar. A 'Catalog' and 'Search' panel is visible on the right side.

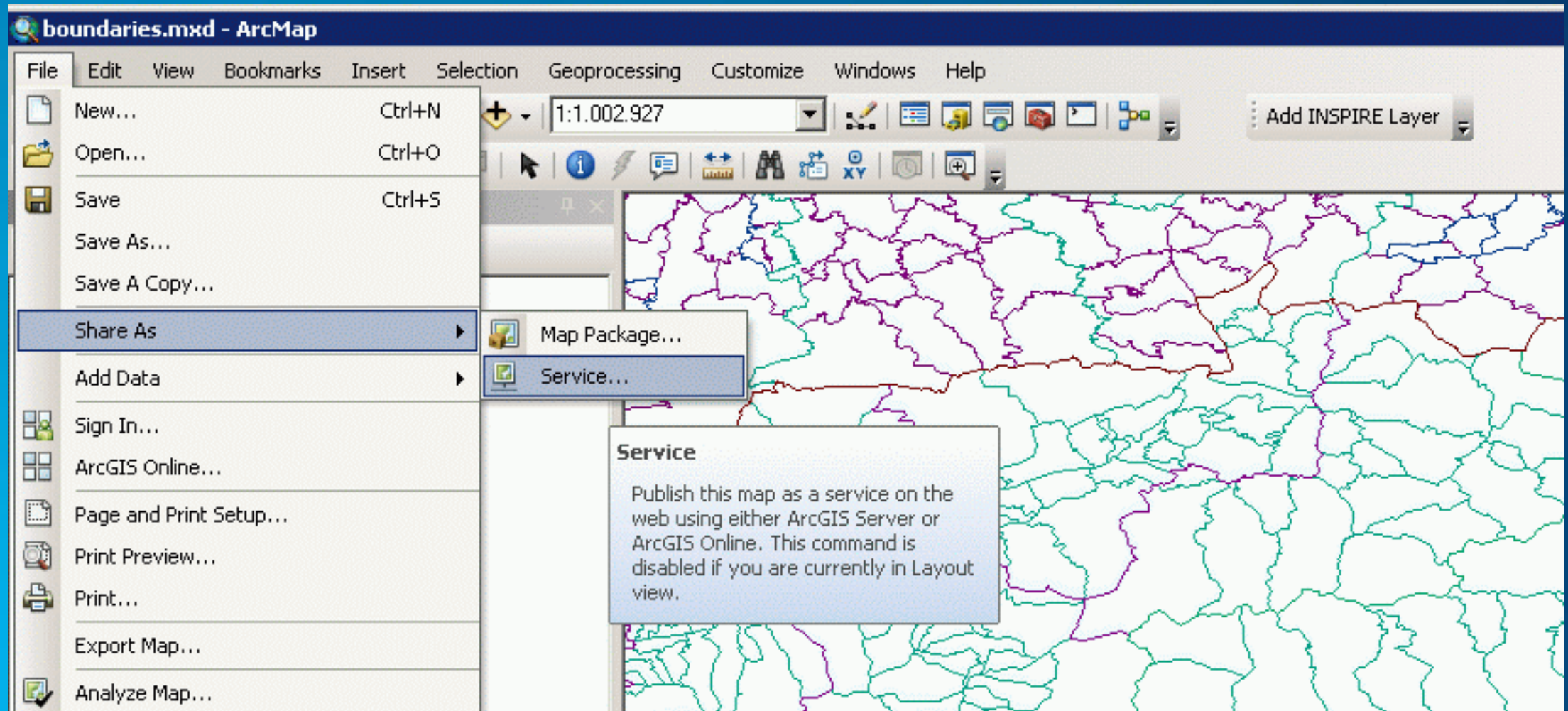
Automatisch

- INSPIRE konforme Layer-Namen
- Layer-Strukturen, -Kategorien
- INSPIRE konforme Darstellung der Layer
- Relationen laut INSPIRE

Definition zusätzlicher kartografischer Darstellungen möglich!

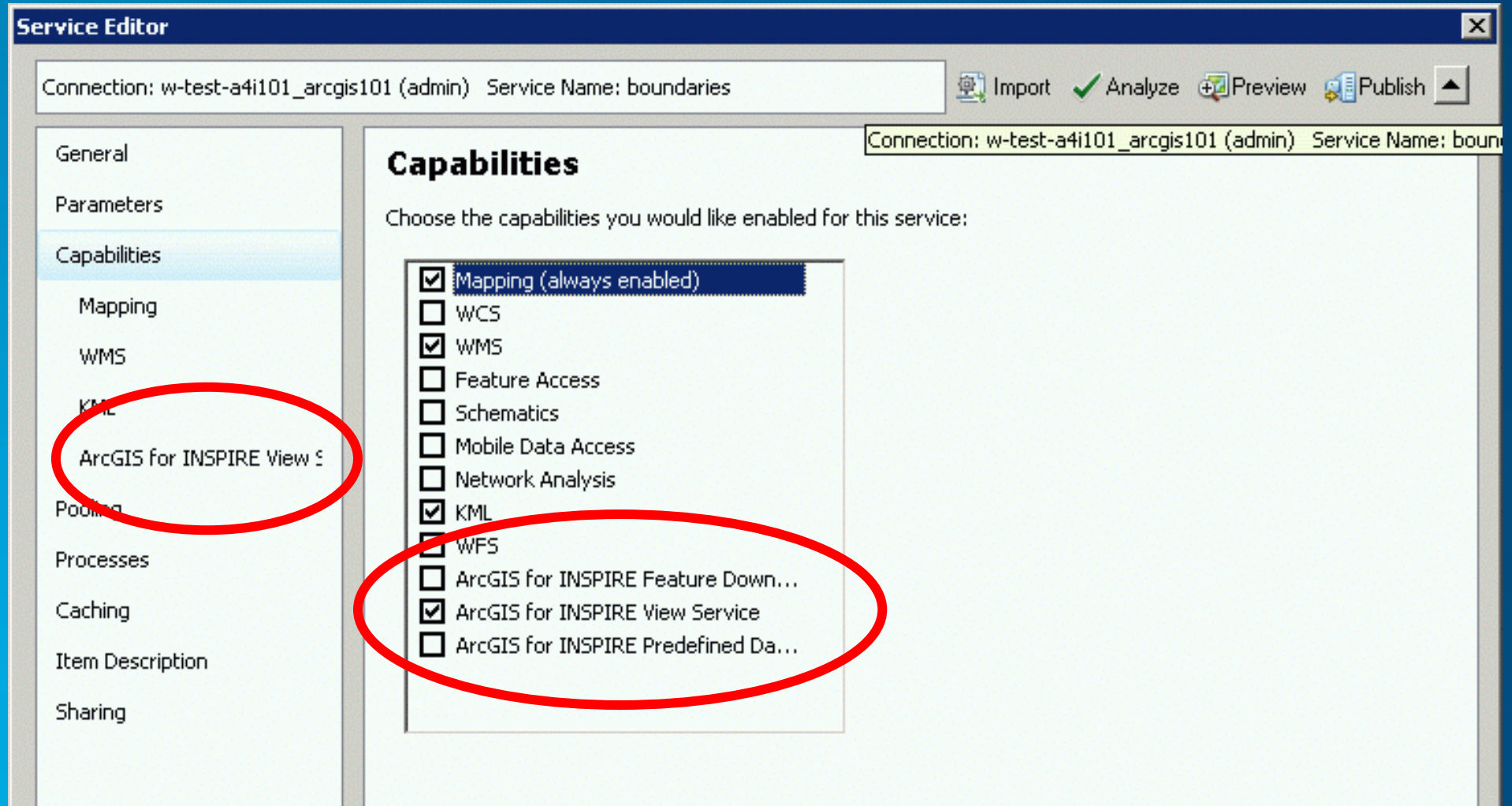
INSPIRE View- or Downloadservice

- Share as Service - ArcGIS for Server Extension



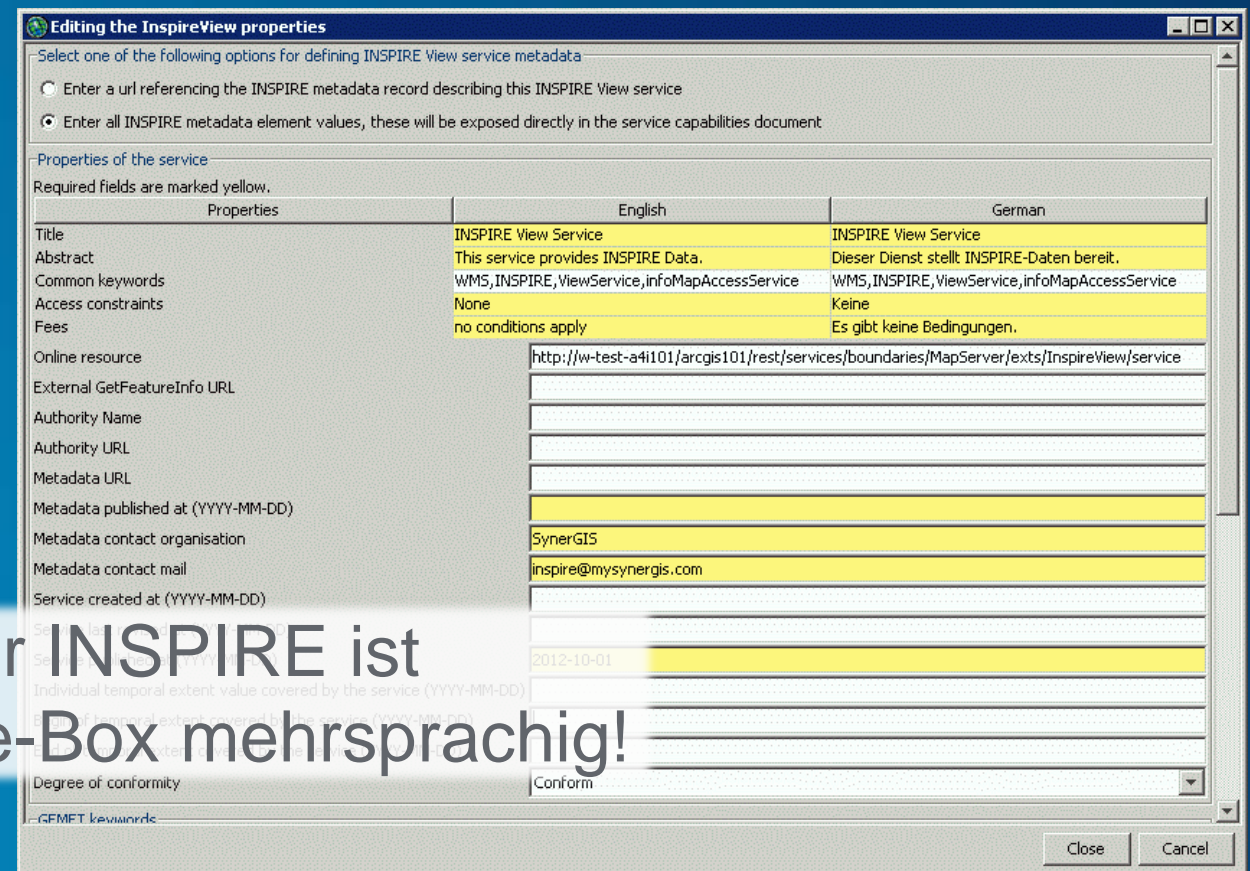
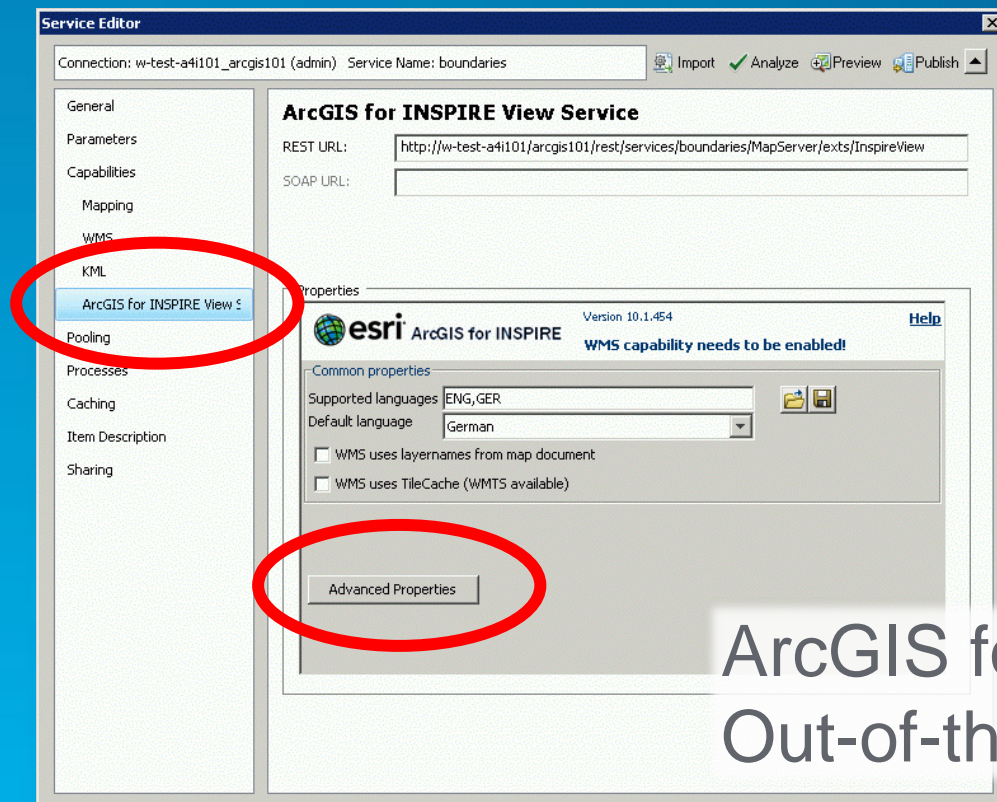
INSPIRE View- or Downloadservice

- Share as Service - ArcGIS for Server Extension



INSPIRE View- or Downloadservice

- Share as Service - ArcGIS for Server Extension



ArcGIS for INSPIRE ist
Out-of-the-Box mehrsprachig!

INSPIRE Metadata and Discoveryservice

- INSPIRE Metadaten mit Geoportal Server erzeugen, verwalten und publizieren.
 - Metadatenerfassung direkt mit dem Geoportal Server Webeditor
 - Metadatenerfassung mit ArcGIS for Desktop und publizieren mit dem Geoportal Server Publishing Tool

The image displays a composite screenshot of the ArcGIS for INSPIRE Metadata Editor interface. On the left, the ArcCatalog window is visible, showing a catalog tree with folders like 'europe' and 'Europe Populat'. The main window is the 'Geoportal Server Publish Client' dialog box, which contains the following information:

- Connection Information:**
 - Server Url:
 - UserName:
 - Metadata Service:
 - Display Execution Summary

Below the dialog box, the 'ArcGIS for INSPIRE' web interface is shown. The top navigation bar includes 'HOME', 'SEARCH', 'BROWSE', 'ADMINISTRATION', and 'LAUNCH MAP VIEWER'. The main content area is titled 'Metadata Editor' and features a 'Save as Draft' and 'Save' button. The 'INSPIRE (Data)' section is active, showing tabs for 'Metadata', 'Identification', 'Distribution', and 'Quality'. The 'Identification' tab is selected, and the 'Keywords' sub-tab is active, displaying a list of keywords including 'GEMET Concept'.

Road ahead

- Continue to expand coverage
 - Natural resources: **mineral resources and land use**
 - National government: **statistical units**
- Priorities on data themes are driven by our users

Use ArcGIS Online to bring INSPIRE to life

- ArcGIS for INSPIRE on premise provides INSPIRE services
- ArcGIS Online provides the single interface for users to create metadata, discover and use INSPIRE services



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