

GIS-based regionalization

& implementation in new data formats

Christopher Mutel, ETH Zürich

GIS fundamentals

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- Geographic Information Systems

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- Lots of software, including open source

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- Two versus three dimensional

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- Geographic Information Systems
- Lots of software, including open source
- Two versus three dimensional
- Raster versus vector

Vector Primitives

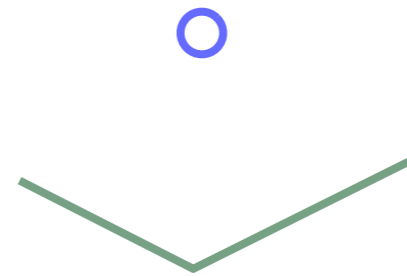
Vector Primitives

- Point



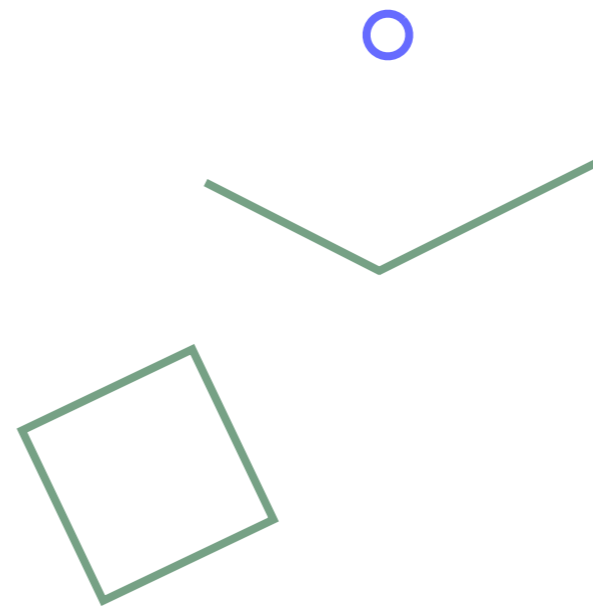
Vector Primitives

- Point
- LineString



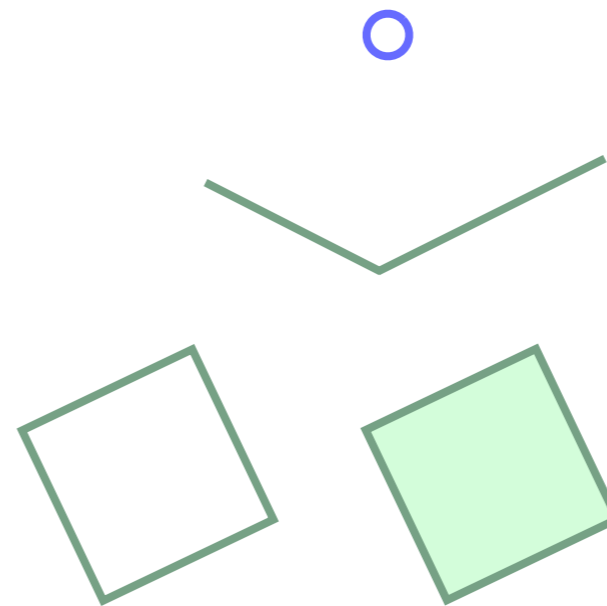
Vector Primitives

- Point
- LineString
- LinearRing



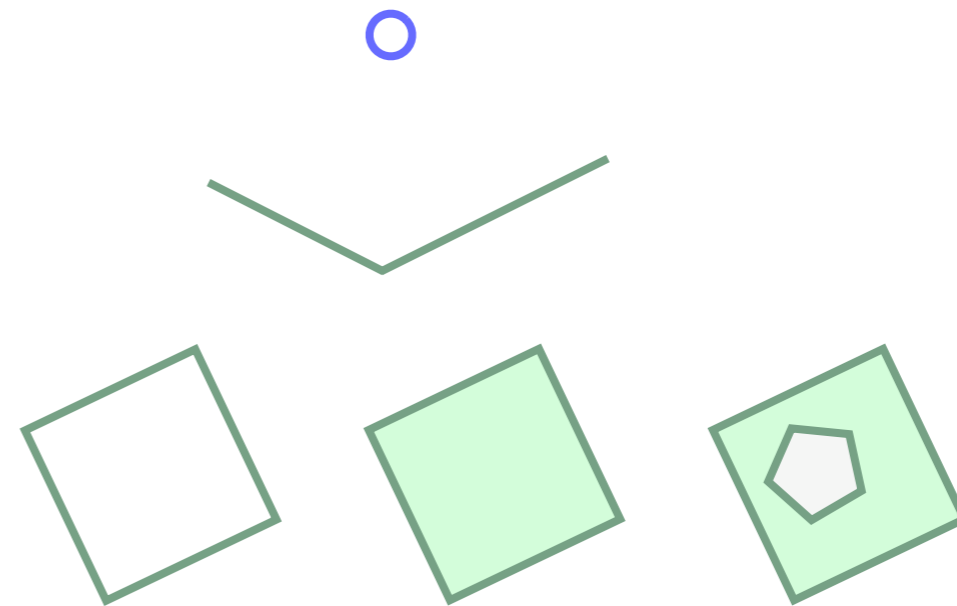
Vector Primitives

- Point
- LineString
- LinearRing

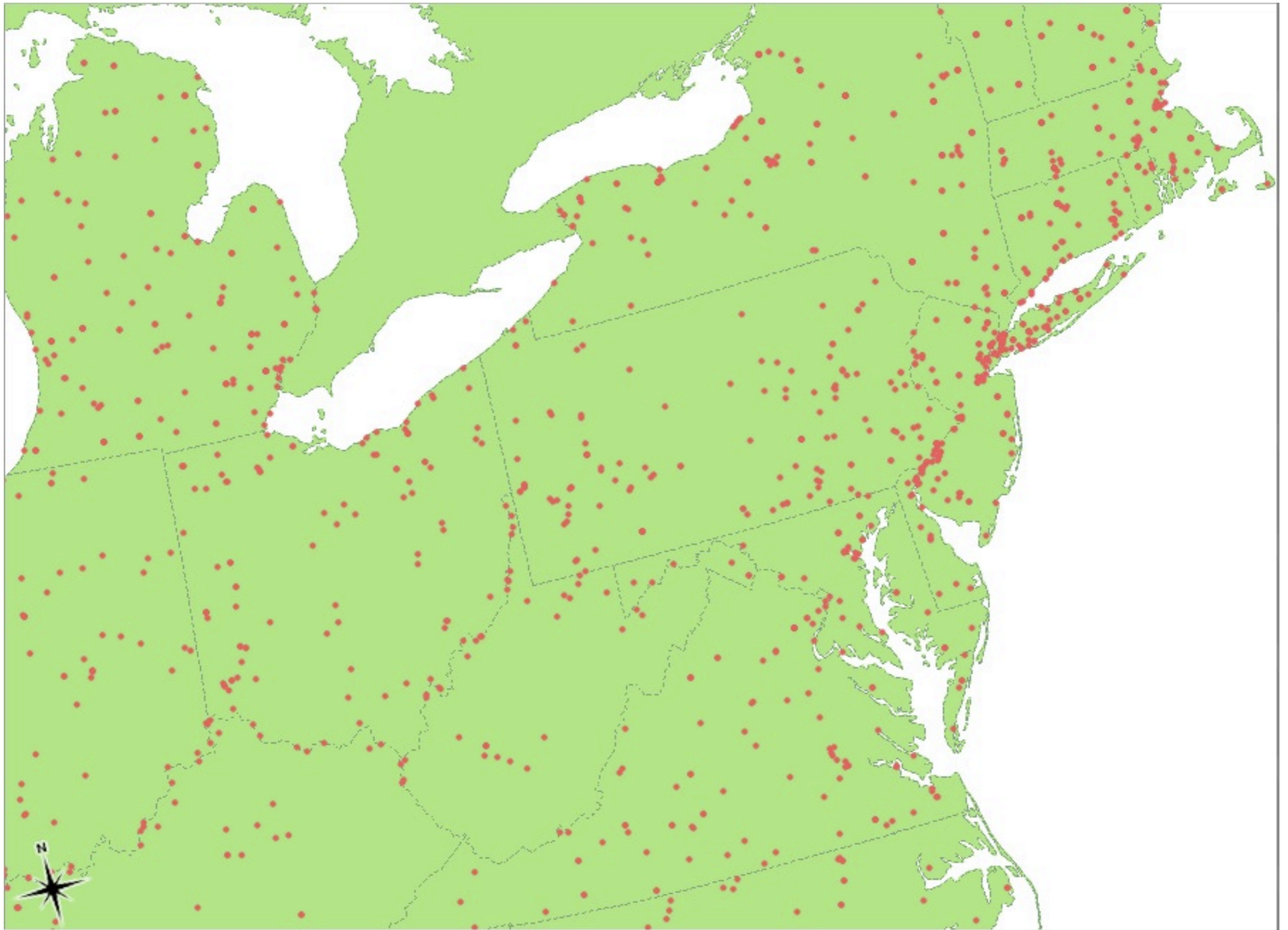


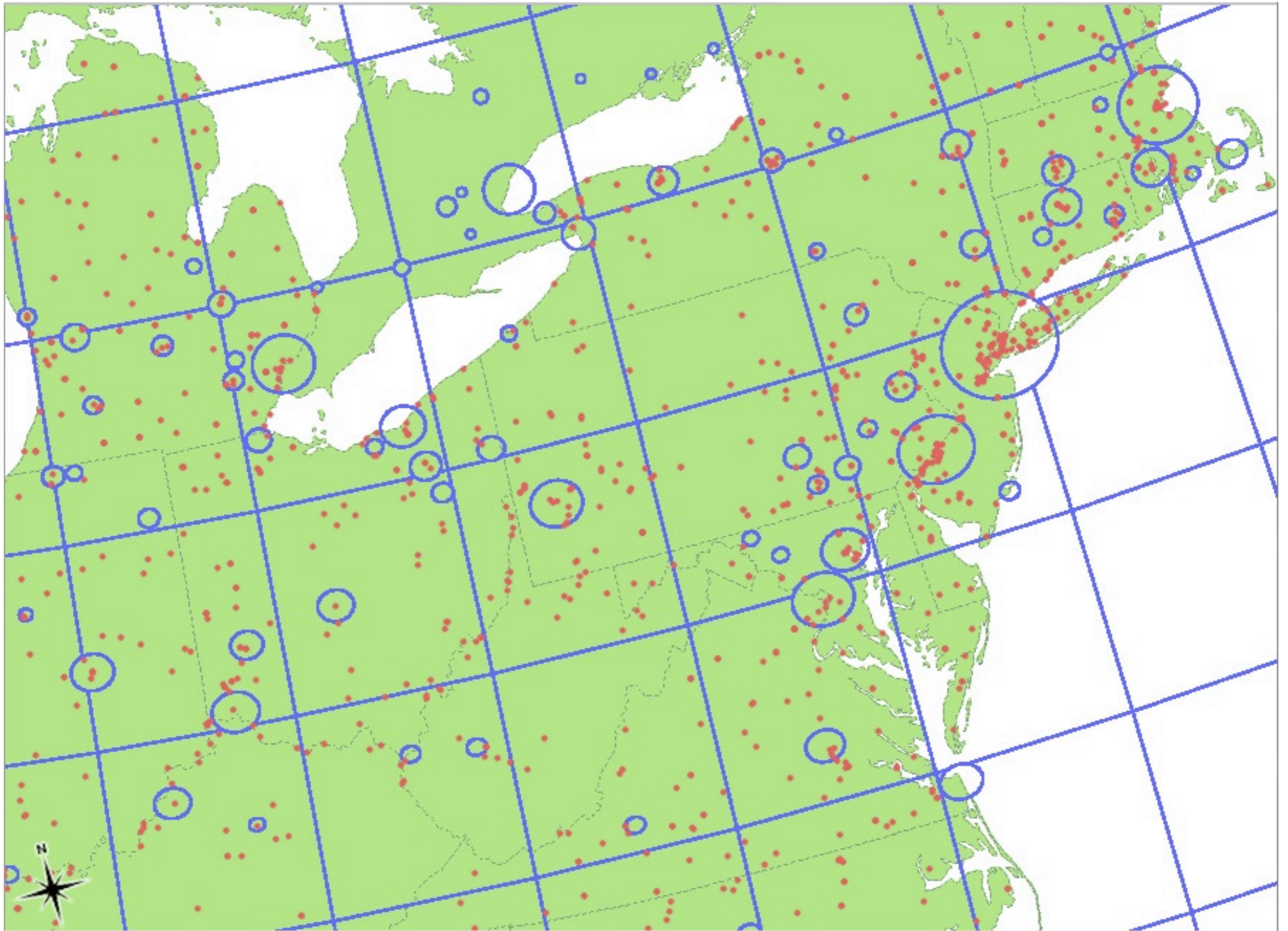
Vector Primitives

- Point
- LineString
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GIS

GIS

- Matching

GIS

- Matching
- Allocation

GIS

- Matching
- Allocation
- Visualization

Data formats: ILCD

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Process dataset

- location code
- latitude&longitude
- restrictions
- comment

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Process dataset

- location code
- latitude&longitude
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Geographies Dataset

- location code
- location full name

Data formats: Ecospold2

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Process dataset

- unique ID
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Process dataset

- unique ID
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Geographies Dataset

- unique ID
- location code
- location full name
- latitude&longitude
- ISO 2-letter code
- ISO 3-letter code
- UN region & subregion
- KML shape

Ecospold2 Geographies.xml

Ecospold2 Geographies.xml

- All countries

Ecospold2 Geographies.xml

- All countries
- UN regions and sub-regions

Ecospold2 Geographies.xml

- All countries
- UN regions and sub-regions
- Electricity grids

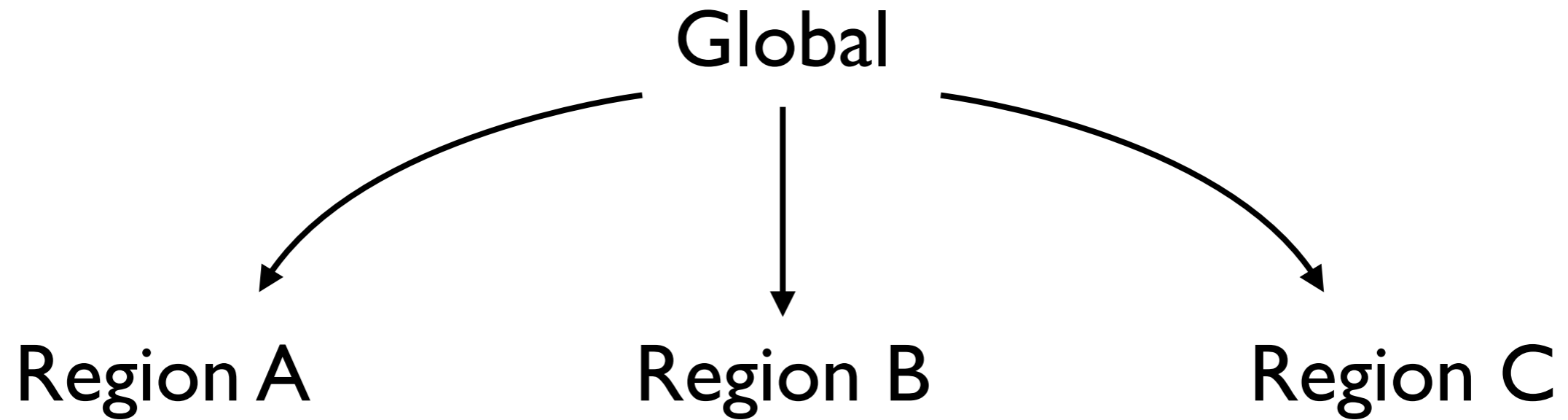
Ecospold2 Geographies.xml

- All countries
- UN regions and sub-regions
- Electricity grids
- Others?

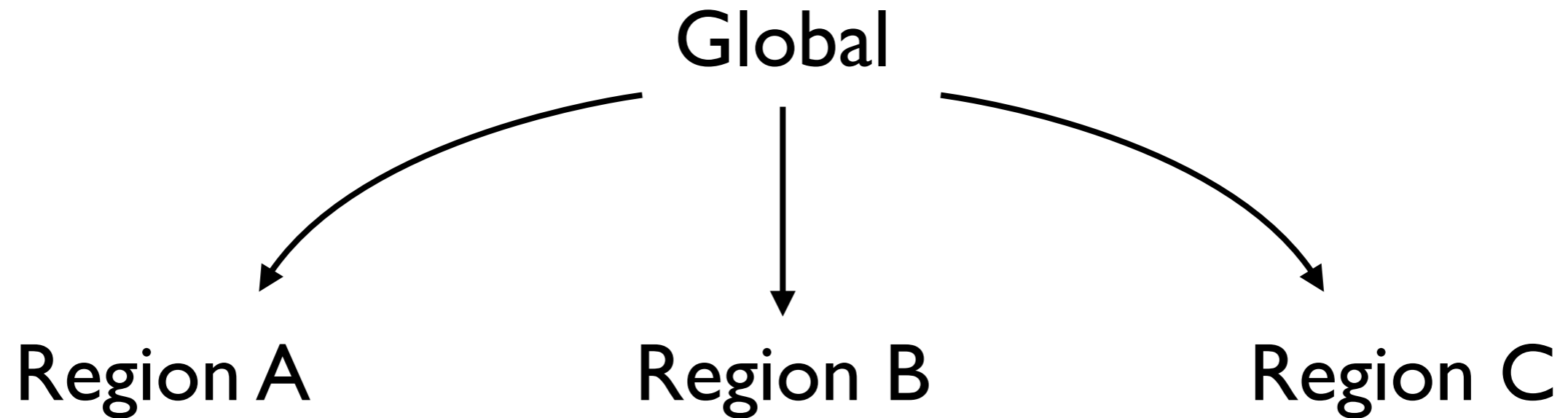
Inheritance Model

Global

Inheritance Model

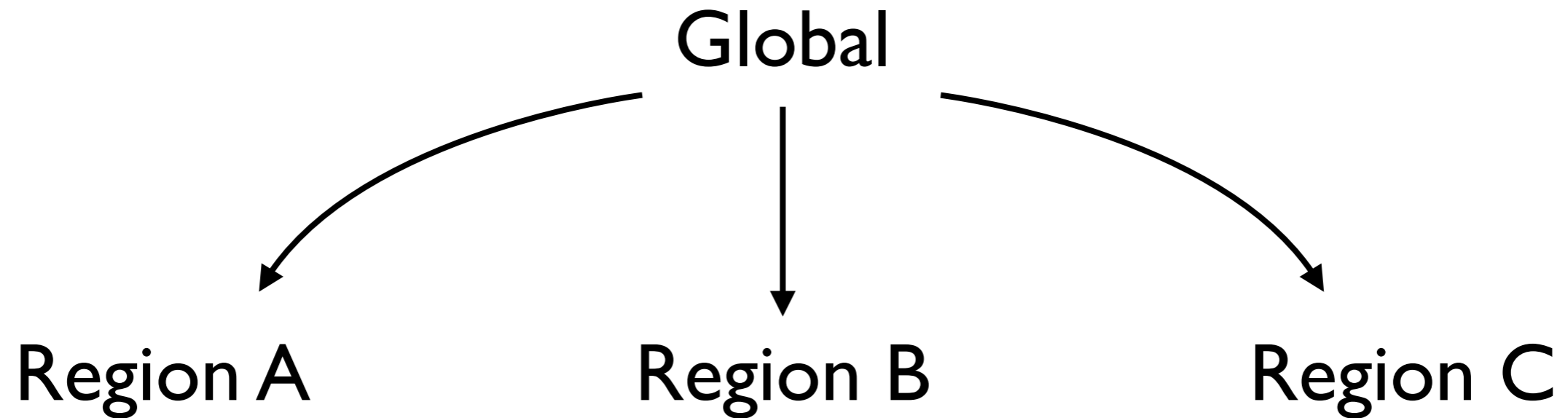


Inheritance Model



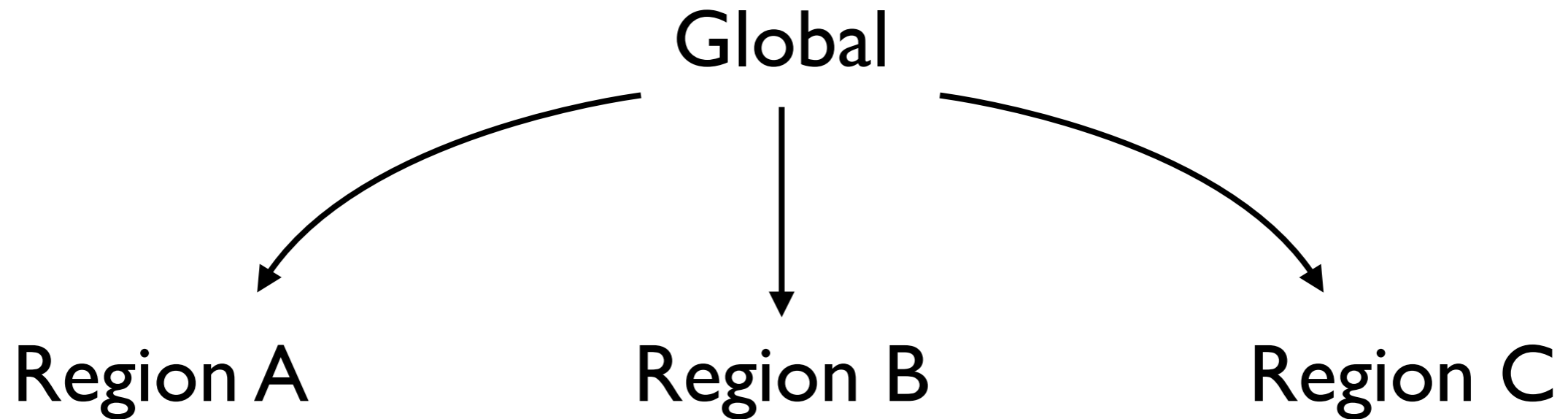
- Automatically link with regional inputs

Inheritance Model



- Automatically link with regional inputs
- Only store changes from parent model

Inheritance Model



- Automatically link with regional inputs
- Only store changes from parent model
- Iterative improvement

ecospold2 geography utilities

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Convert KML or EcoSpold2 XML file

KML or EcoSpold2 XML file: no file selected

Create public records:

Email (optional):

KML uploading has limitations - it can't handle all KML files. Please [read more](#) about what kinds of KML files present problems for the conversion software.

This site is anonymous, and doesn't store information about you. In order to view or work with geographies that you are uploading now, we will give you a secret code that is good from any computer. If you would like be sent this code by email, please enter your email address above. It is not required, but might be more convenient than remembering a random string of letters and numbers.

Enter secret code

Retrieve a previous geography using its secret code

Secret code:

Other actions:

- [Browse public geographies](#)
- [Create composite geography](#)

Conclusions

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- Tool and technologies available for GIS-based regionalization

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- New data formats allow integration of GIS technologies into LCA

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- Tool and technologies available for GIS-based regionalization
- New data formats allow integration of GIS technologies into LCA
- Ease of use remains a problem for advanced regionalization

8700 km²

56000 km²

