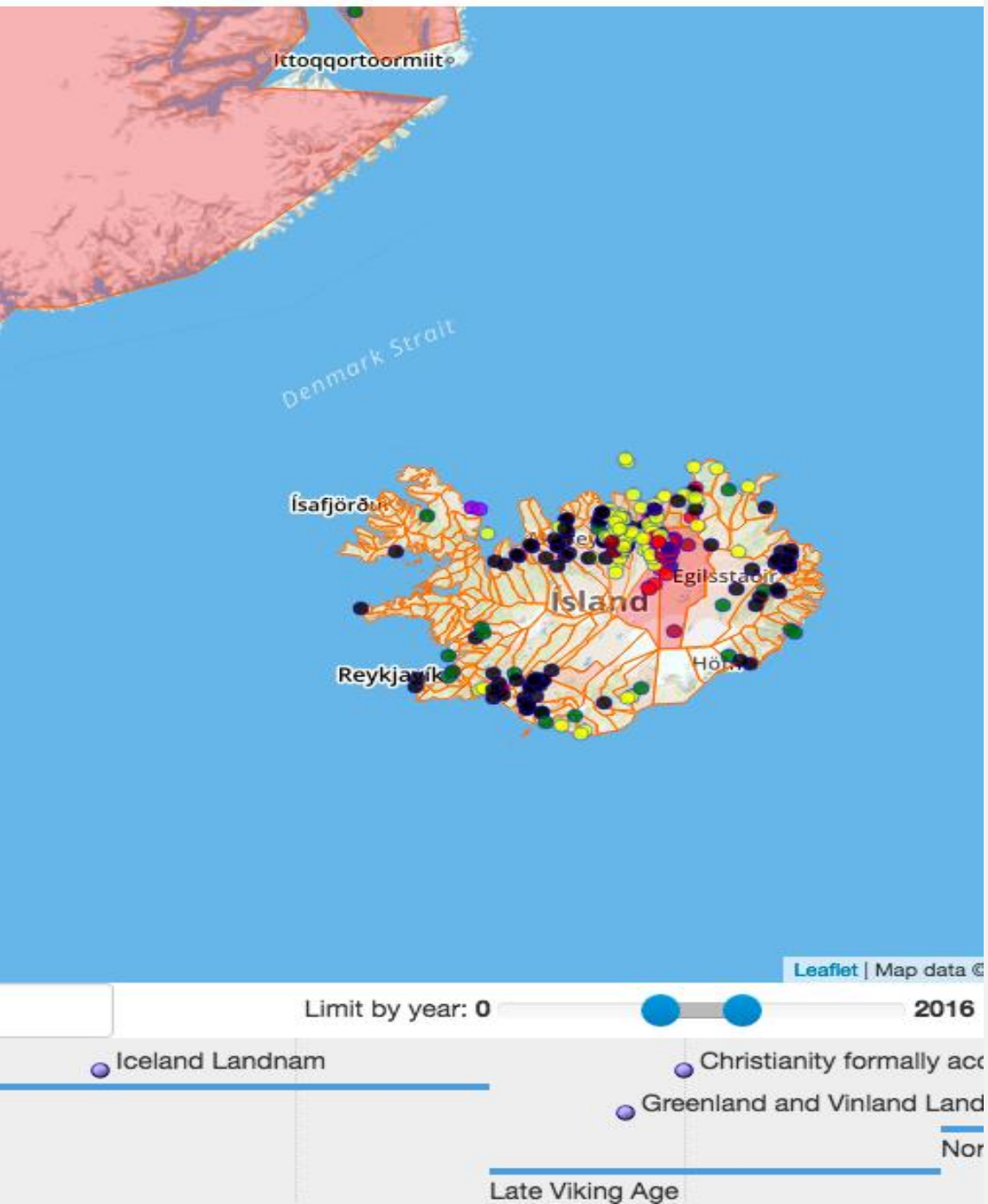Implementation Phase

Colleen Strawhacker, Adam Brin, Rachel Opitz, Emily Lethbridge, Phil Buckland, Peter Pulsifer, Thomas McGovern, Tom Dawson, Ingrid Mainland, Gisli Palsson, Anthony Newton, Richard Streeter, Tom Ryan

National Snow and Ice Data Center, University of Colorado

@archaeohacker

OVERALL GOAL

Building cyberinfrastructure to enable interdisciplinary synthesis research across islands in the North Atlantic

- Data discovery and visualization tools

- Access to interdisciplinary datasets that can be easily understood by non-specialists

History, Agency, and Conjuncture in the High Middle Ages

Sagas ?

Samalas 1257
BOOM !

Peak Norw.
Atlantic Realm?

Black Death in
NW Europe

144   Acta Ar.

1100
1112/13 Bishop Eirik's journey
Bishop Eirik of Greenland set out
in search of Vinland
?? 1121/23 Eirik elected first bishop of Greenland
Arnald elected bishop
1126/23/24 Arnald in Iceland
1150 ? 1150 Jón Knútr elected bishop
1152 Arnald elected bishop of Hamar
1186 Jón Knútr in Iceland
1187/88 Jón Knútr died
? 1188 Jón elected bishop
1189/88 Jón in Iceland
1194 Jón in Iceland
1200 1202/00 Jón for the second time in Iceland
1203 Jón in Iceland
1209 Jón died
1212/10 Bishop Helge came to Greenland
1230 Helge died
1234 Bishop Nikolás came to Greenland
1242/40 Nikolás died
1246 Olaf elected bishop of Greenland
1250 1247 Olaf went to Greenland
1262/61 Olaf in Iceland
1263 Olaf in Iceland
1264 Olaf left Iceland
1267 Olaf in Nidaros
1271 Olaf went to Greenland for the
second time
1280/81 Olaf died
1288 Thord elected bishop
1289 Thord went to Greenland
1300 1309 Thord left Greenland
1310 Thord in Norway
1311 Thord in Bergen
1313 Arne elected bishop
1314 Thord died
1315 Arne came to Greenland
1343/42 Jón Eriksson Skalli elected bishop
1348 Arne died
1350 1357/56 Jón Eriksson Skalli elected bishop
of Holar
1365 Alf elected bishop
1368 Alf came to Greenland
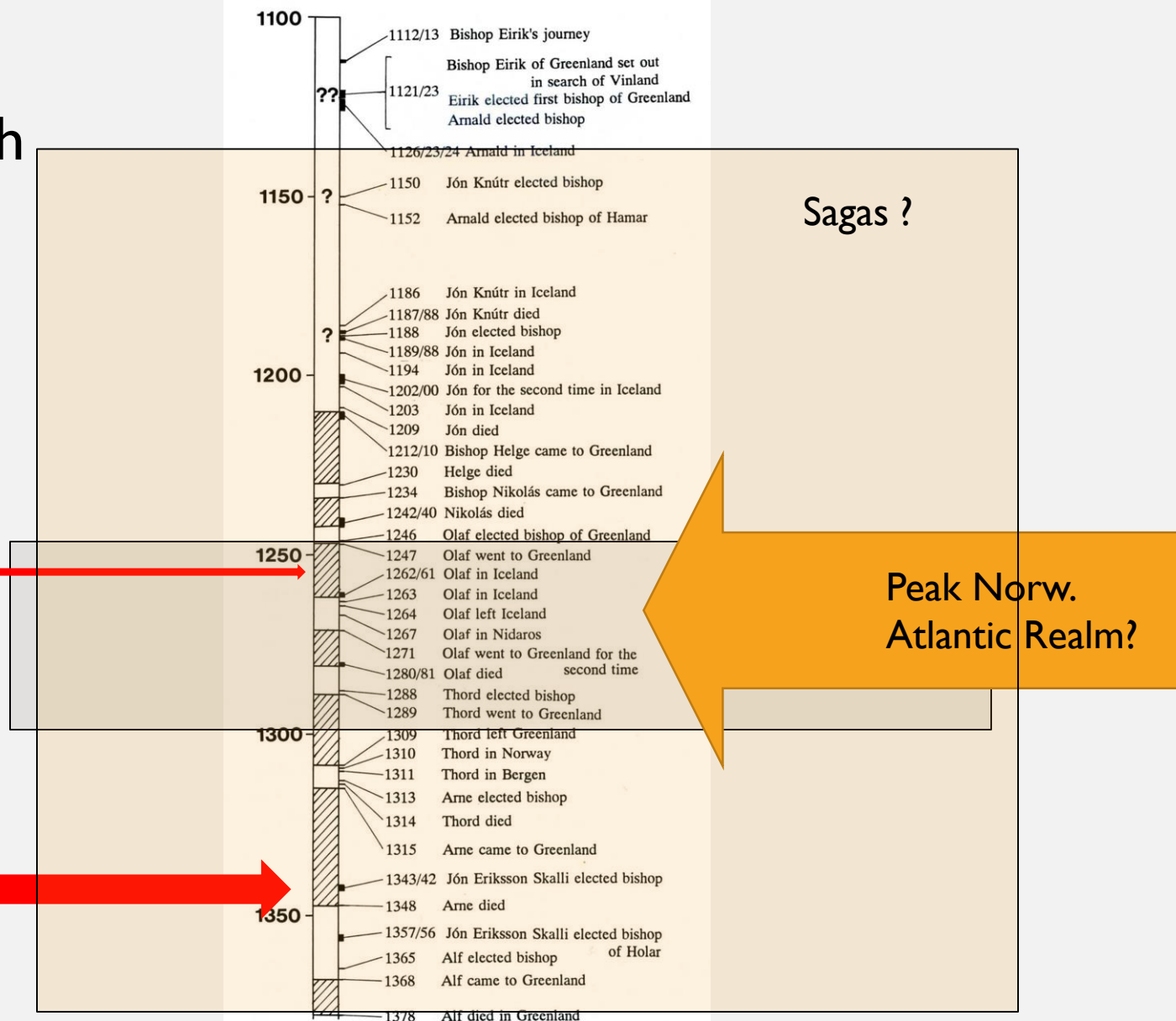1378 Alf died in Greenland

Fig. 2. List of bishops having resided in Greenland according to
the Icelandic Annals (GHM III. 6-32). Note: the markings in
the column do not indicate how many years the bishops stayed
in Greenland.

Courtesy: Tom McGovern

WHAT EXACTLY ARE WE DOING?

Linking data from archaeology, literature and historic documents (e.g., the Sagas), paleoecology, paleoclimate to enable data discovery for interdisciplinary research on long-term human ecodynamics in the North Atlantic

WHO ARE WE?
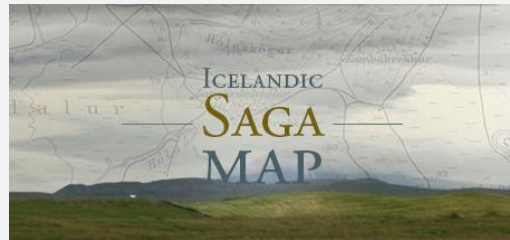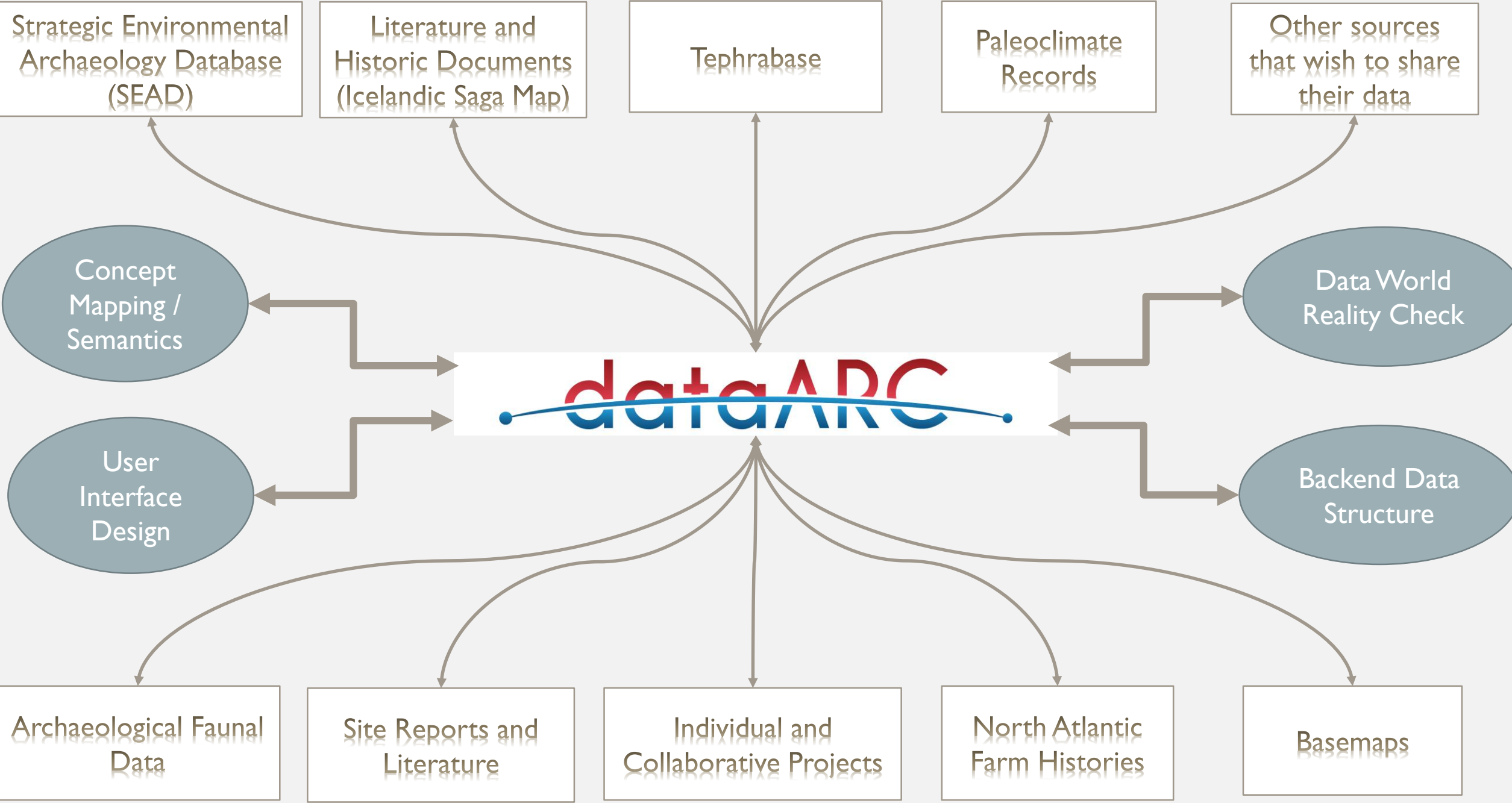
Challenges

- Diversity of data
- Linking data at multiple spatial and temporal scales
- Diversity of research group / potential user base
- Hesitation to share and/or document data
- Concept mapping linkages and nodes
- How processed / aggregated should the data be?

Overall: Most challenges are not technical.

They are social!

TO DO'S

data cleanup and structures

potential user interfaces for a diverse group

spatial and temporal search
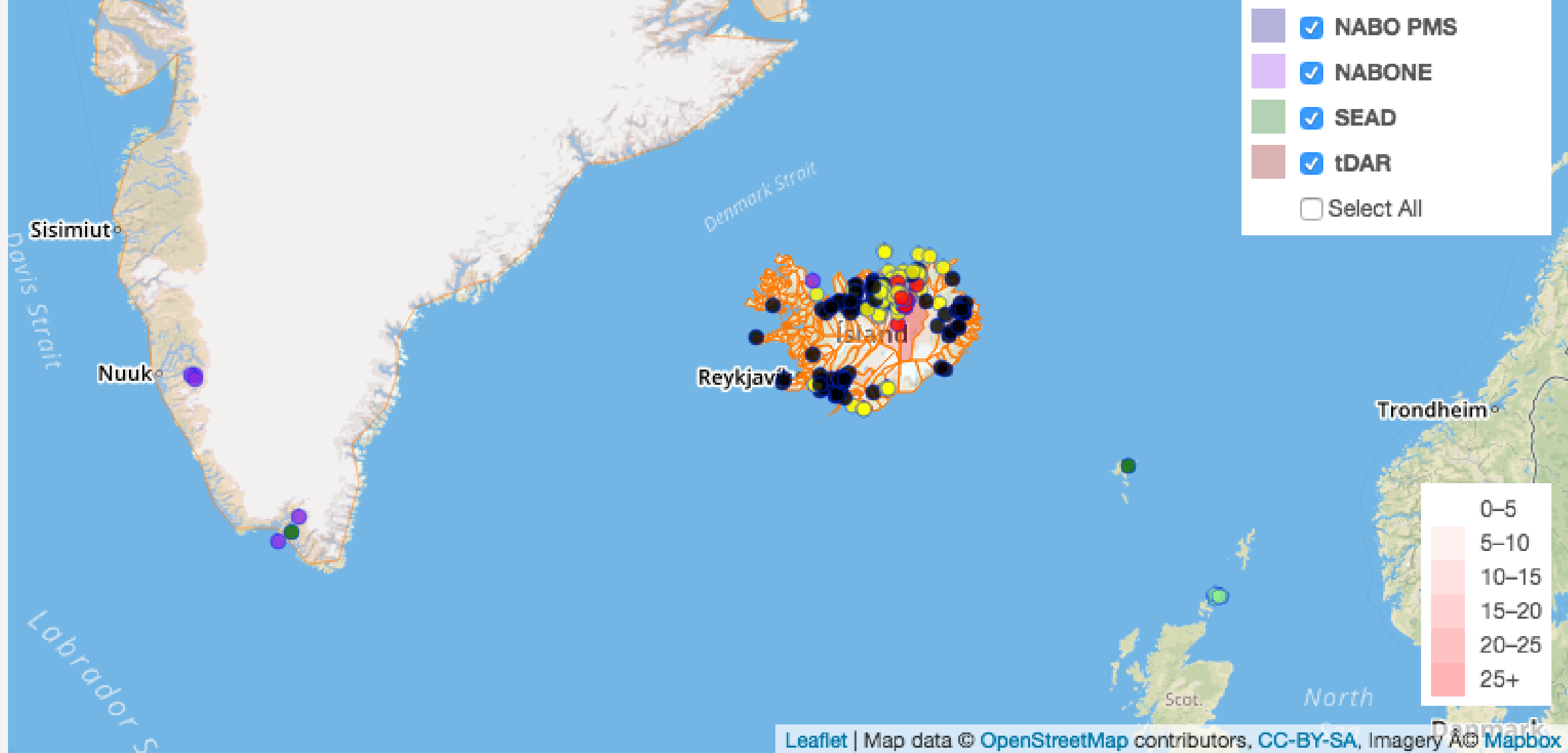
conceptual / semantic linkages

figure out the "aggregated / processed data" that
we would like to focus on
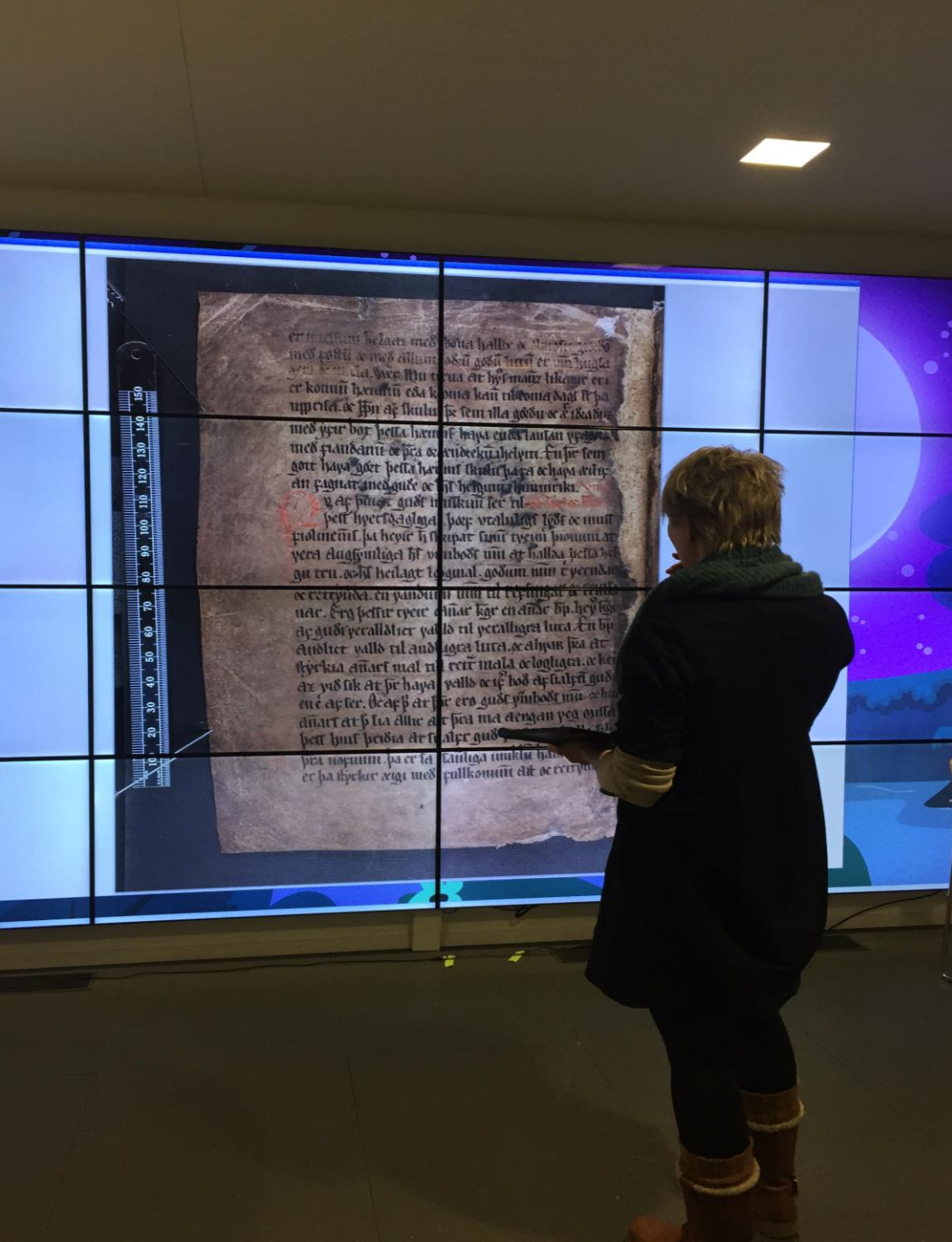
THE PROTOTYPE

data-arc.org/prototype

http://scratch.cast.uark.edu/dataarcwireframe/

NABO PMS

NABONE

SEAD

tDAR

Select All

0–5
5–10
10–15
15–20
20–25
25+

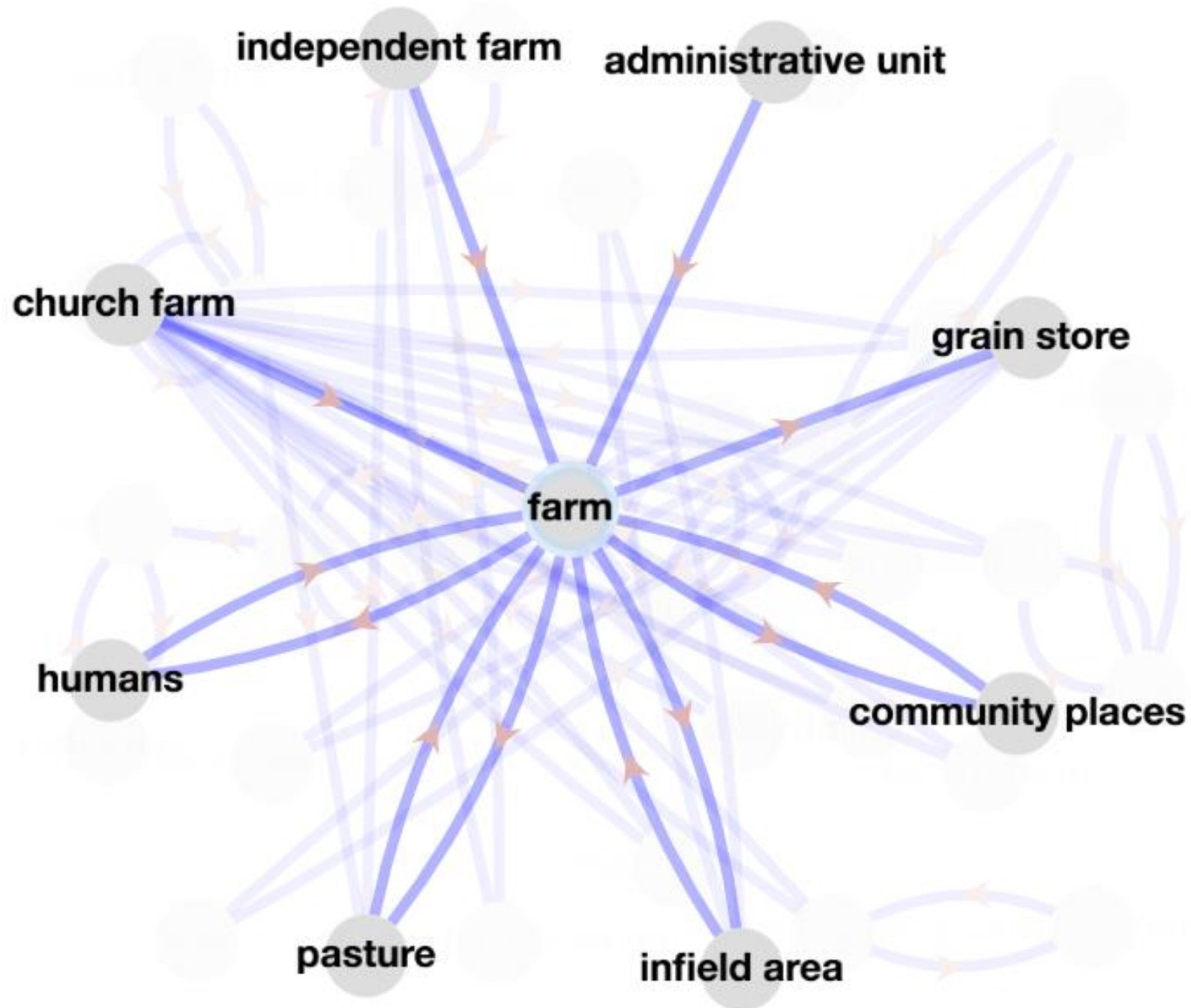Limit by year: 0   2016   cluster results?

Iceland Landnam

Christianity formally accepted in Iceland and Greenland   Maximum

Greenland and Vinland Landnam   "Viking to Crusader" Period

Norman conquest of England constitutes formal end

farm (Center)

Interdisciplinary Analysis Addressing Long-Term Human Ecodynamics in the North Atlantic
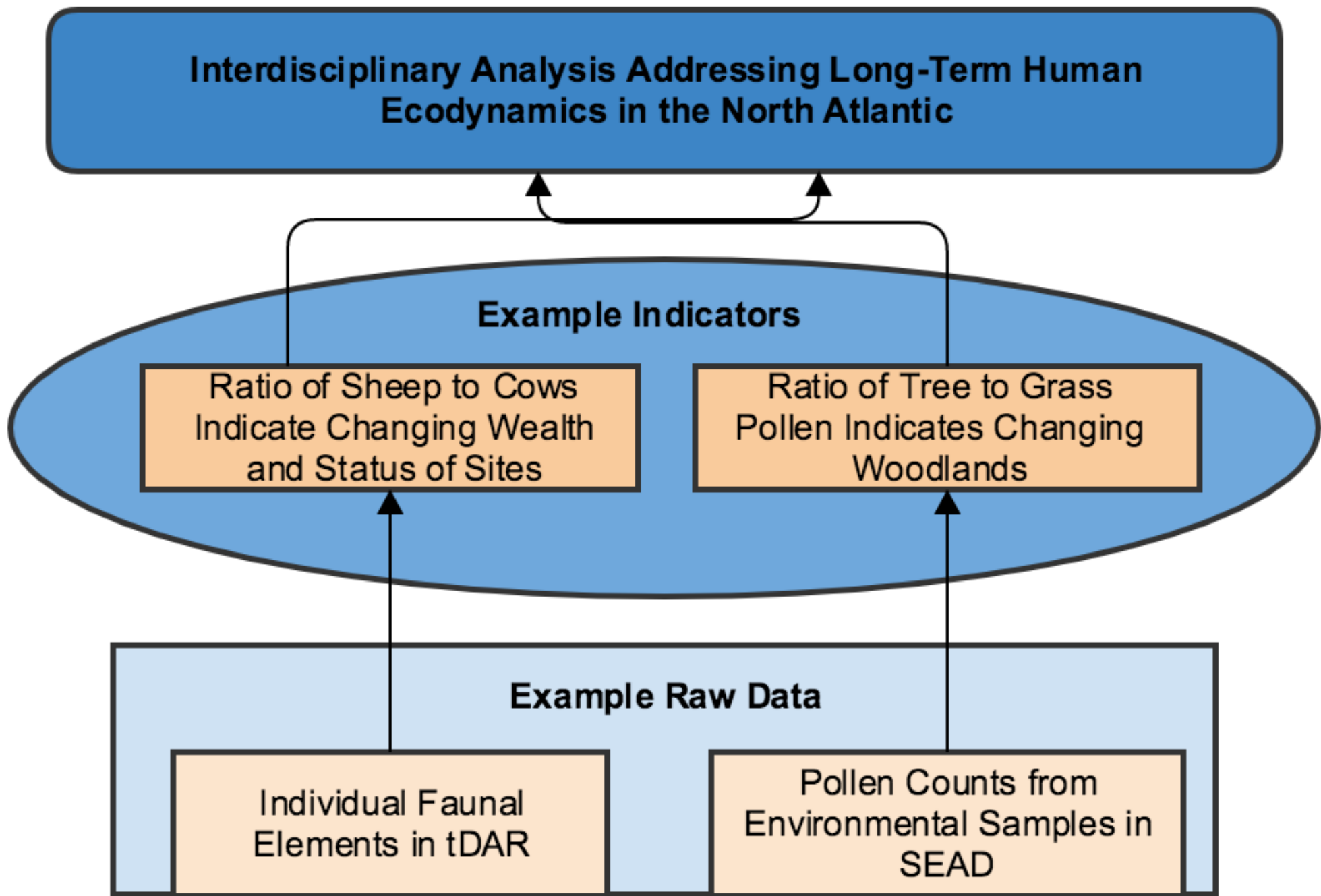
Example Indicators

Ratio of Sheep to Cows Indicate Changing Wealth and Status of Sites

Ratio of Tree to Grass Pollen Indicates Changing Woodlands

Example Raw Data

Individual Faunal Elements in tDAR

Pollen Counts from Environmental Samples in SEAD

LONG(ER) TERM PLANS

Move beyond Iceland (Greenland and Faroes in Years 2 and 3)

Scottish Northern Isles Data (kicking this off Year 1)

Training and outreach modules

Sustainability (?)

THANK YOU!

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data-arc.org

http://data-arc.org/prototype