

**Bidding**



**T**  
**INCLINATION**

**endencies**

**IN**  
**THE**

**G**  
**GULF**

**O**  
**OF**

**MEXICO**  
**M**

Where are

*THE* **MOST**

areas offshore



*IN THE*

**G** **O** **M**  
GULF OF MEXICO





Is there a

**Pattern** (?)

**On the bidding activity**



# Agenda





**BACK** ←  
**1543**

Looking for

**Water**

**Fire**

not



# Where

Are bids following a trend?

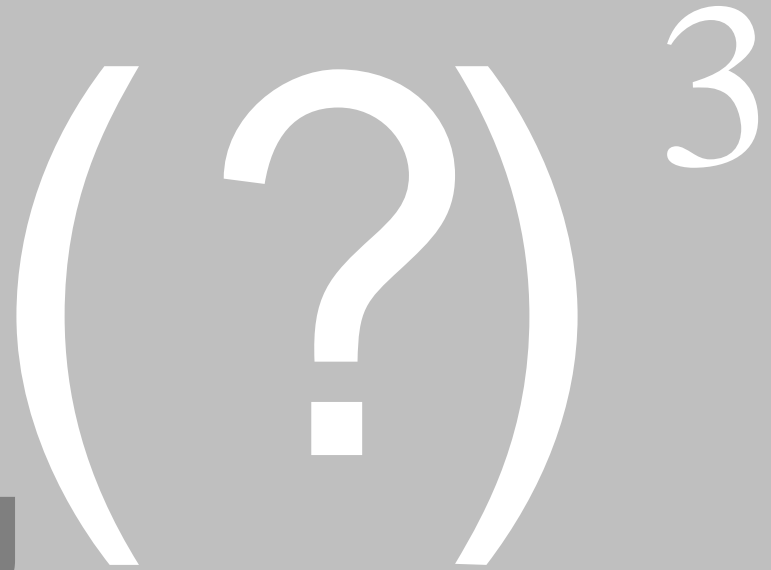
**WHERE** are the most valued areas in the GOM?

**WHERE** are the hot spots in the Gulf?

# How

**HOW** we got to today's lease sale system.

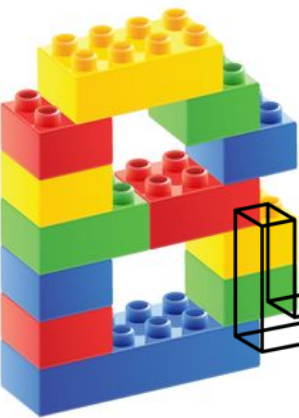
**HOW** are we looking to find a pattern?



**WHAT** are we looking for?

# What

Bids & values patterns



LOOKS

&

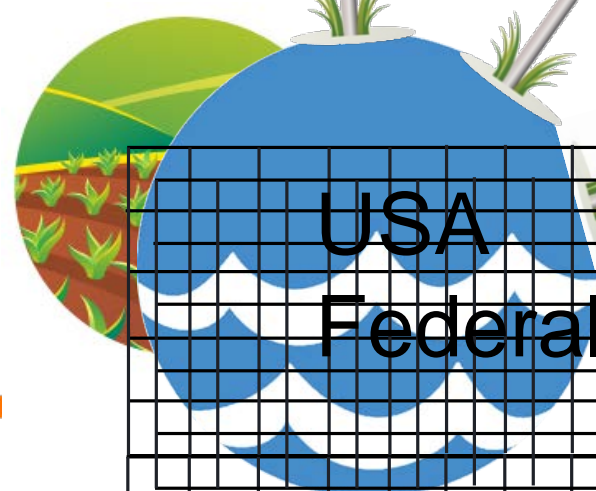
MARK

RENT

SALE

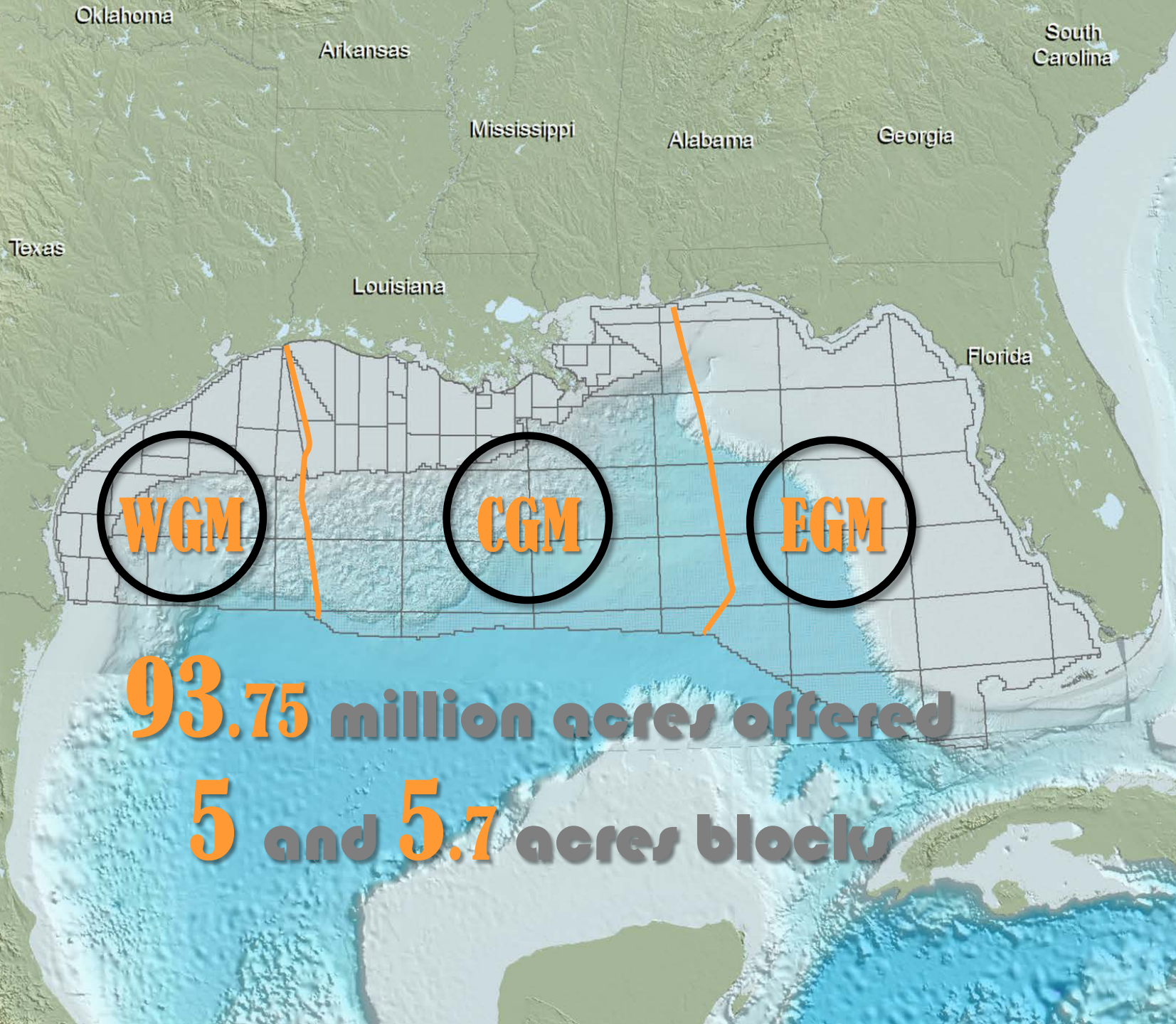
FOR LEASE

SOLD



USA	
Federal Gov (BOEM)	
(OCS)	Bureau of Ocean
Offshore Continental Shelf	Energy
Submerged Lands	Management





**WGM**

**CGM**

**EGM**

**93.75 million acres offered**

**5 and 5.7 acres blocks**



# Leasing

## BACKGROUND



Track Nomination

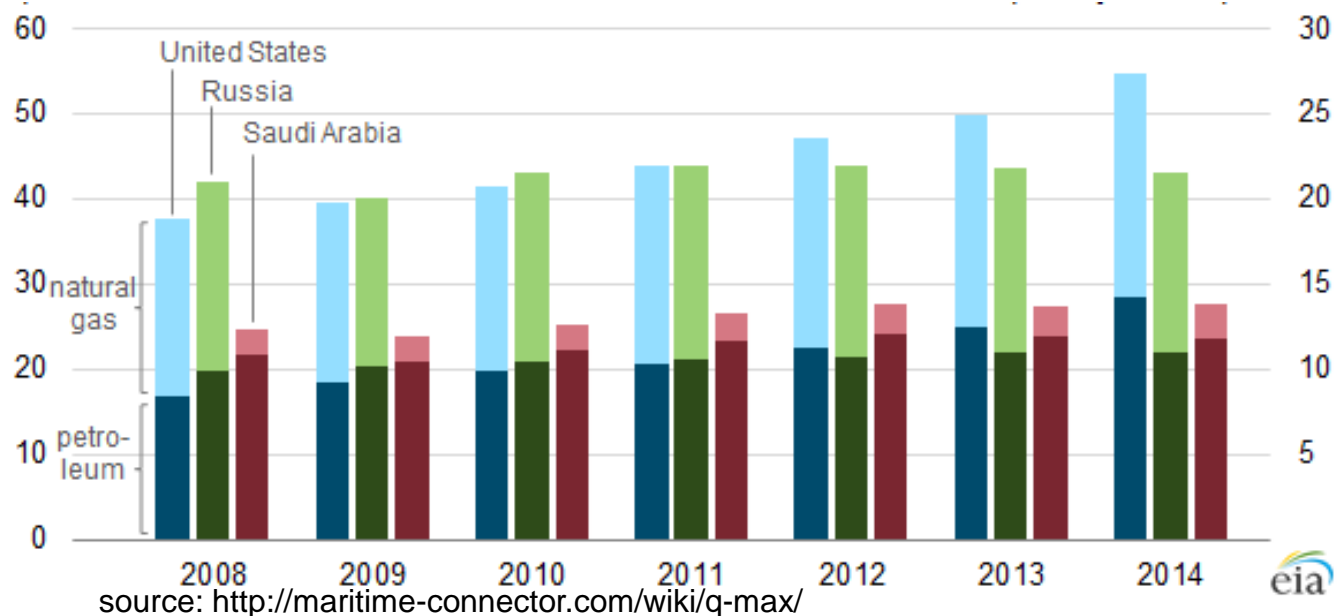
- VS -

Area Wide Leasing

2006

# Leasing Today

- Why we are interested in this area:
  - A **premier hydrocarbons province** on global scale
    - 20 to 25 % of US oil production (DW: 15%);
    - 23 % of natural gas production;
    - 15 % of total proved reserves
  - Second most important **source of revenue** for US government; offshore activities mean USD 6 billion per year to Louisiana's economy alone





# BACK TO THE FUTURE

Annual DW production expected to grow

from **0.8** Tcf to **4.5** Tcf

to satisfy 50% of incremental  
US gas demand over 10 years



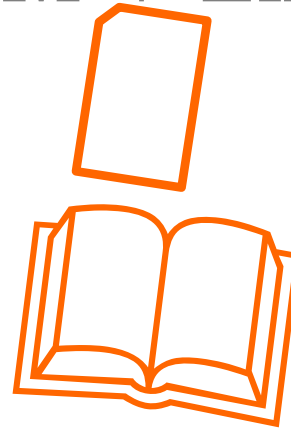
Petrotrek + Petroview + IHS + Internal DB +  
.Gov + Industry Mag + BOEM + EIA Energy In



+



+



+



**Data sources**



# Description of the Data

(let the data speak to you)

Entire Lease sales  
bidding activity **since**  
**1996** Including last **20**  
**years** for a total of  
**15,337** high/wining bids

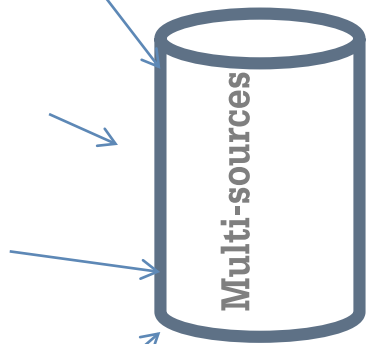


Currently lease 4,795  
date back to **1936**

Highest bid: USD  
**157,111,000** Almost all  
the bids are in the  
range of zero to **16**  
**million**

# Methodology

Initial Data  
Assessment

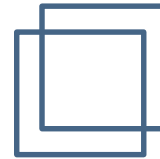


Sufficient data  
Adequate values



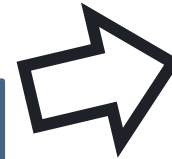
**G**

Join data  
with  
geometry



Data  
cleaning

Format and  
enable time



*Time*

Currently

lease

&

Entire Lease

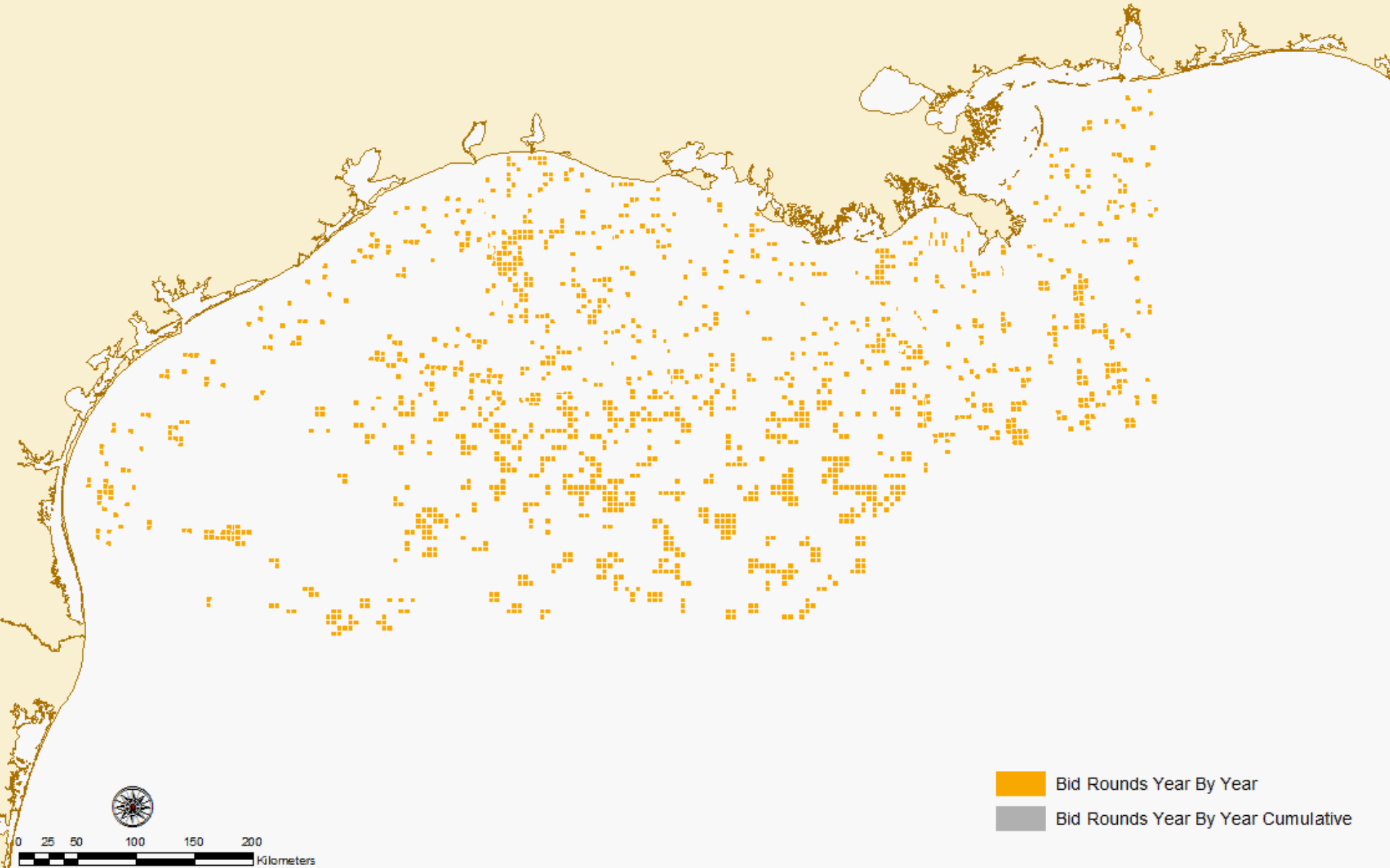
sale records

review

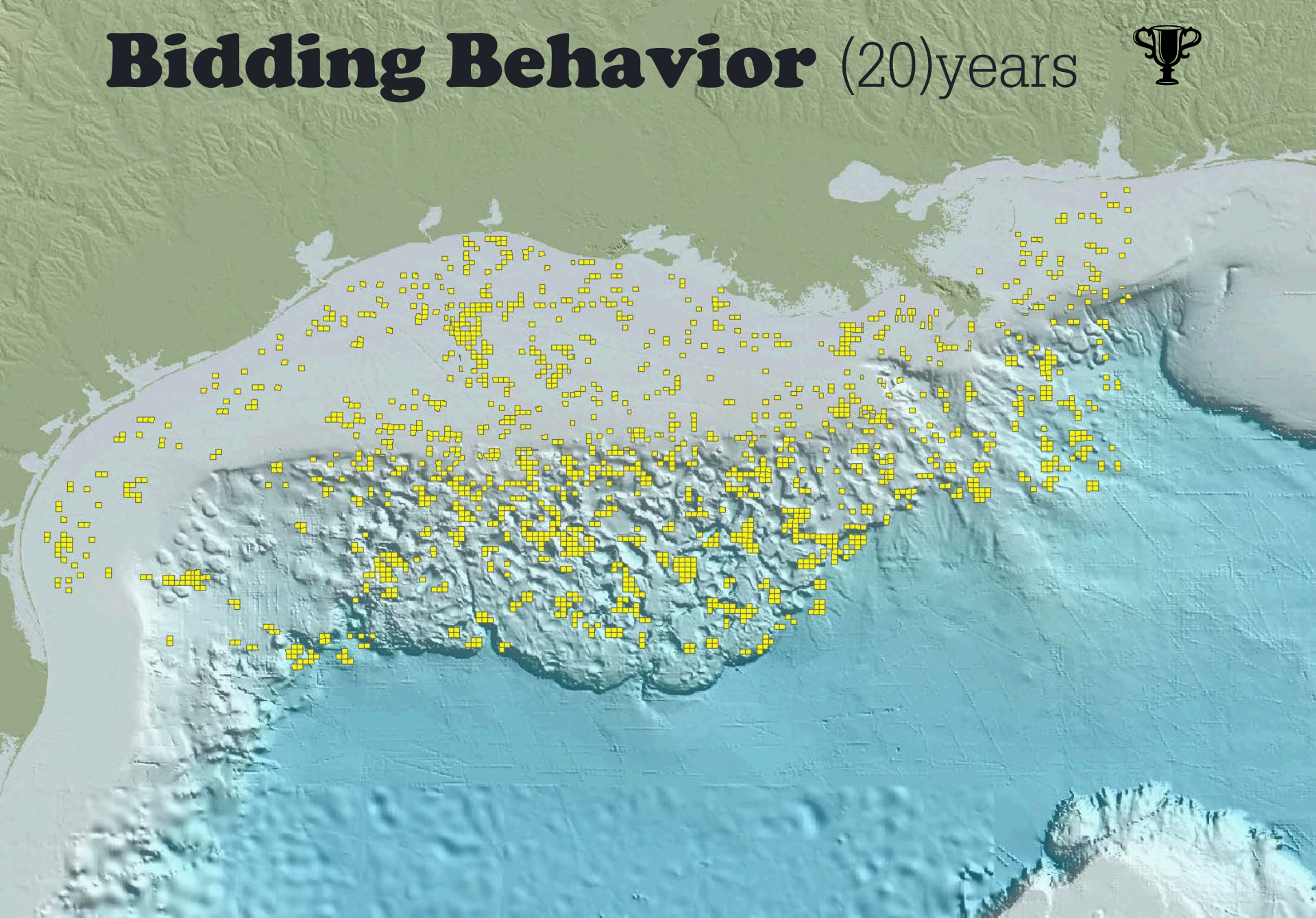




# Bidding Behavior (20)years



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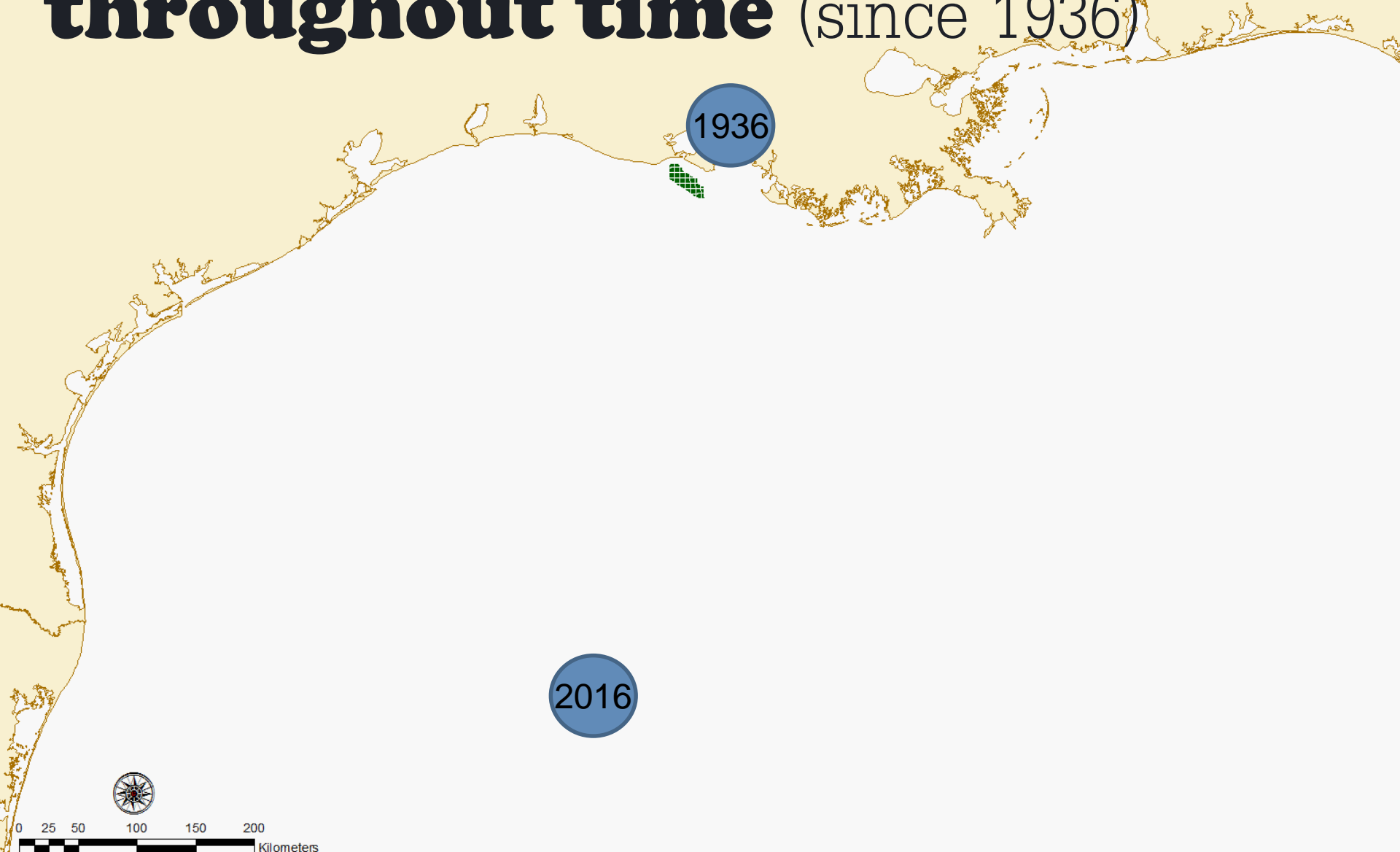


# Currently leased Blocks



Award Year  
■ 1936

## throughout time (since 1936)



1936

2016

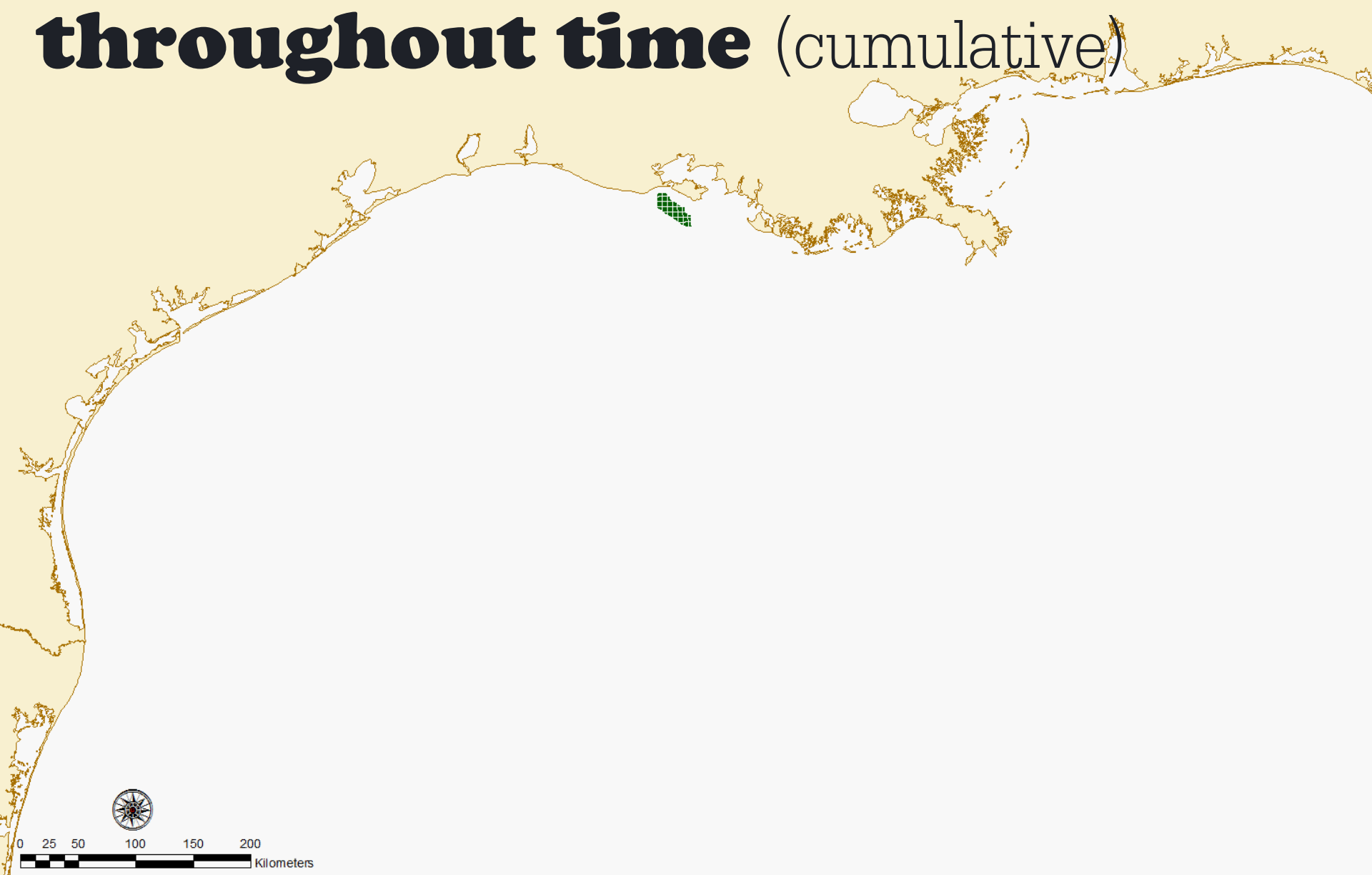


0 25 50 100 150 200 Kilometers

# Currently leased Blocks throughout time (cumulative)



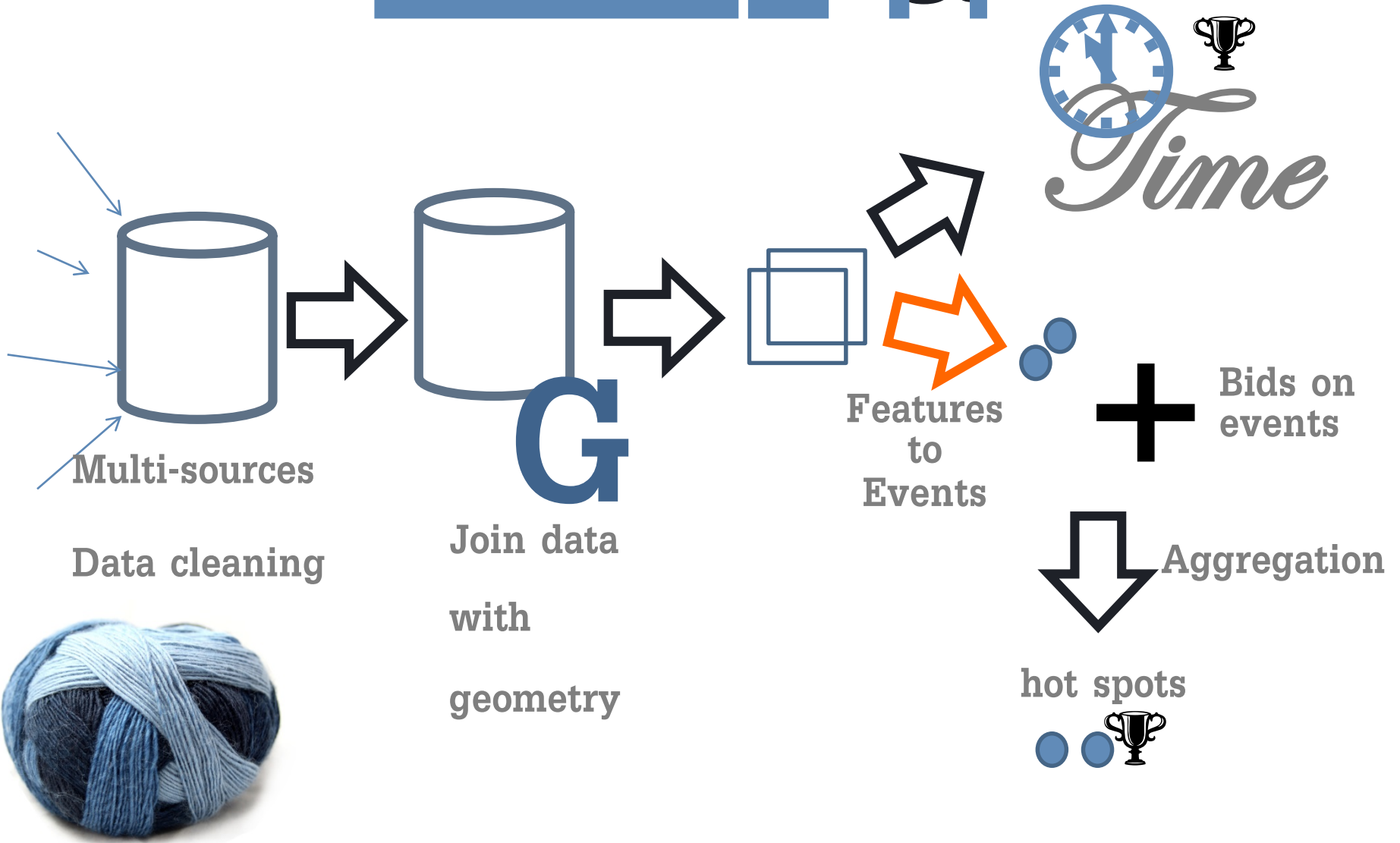
Award Year  
■ 1936



0 25 50 100 150 200  
Kilometers

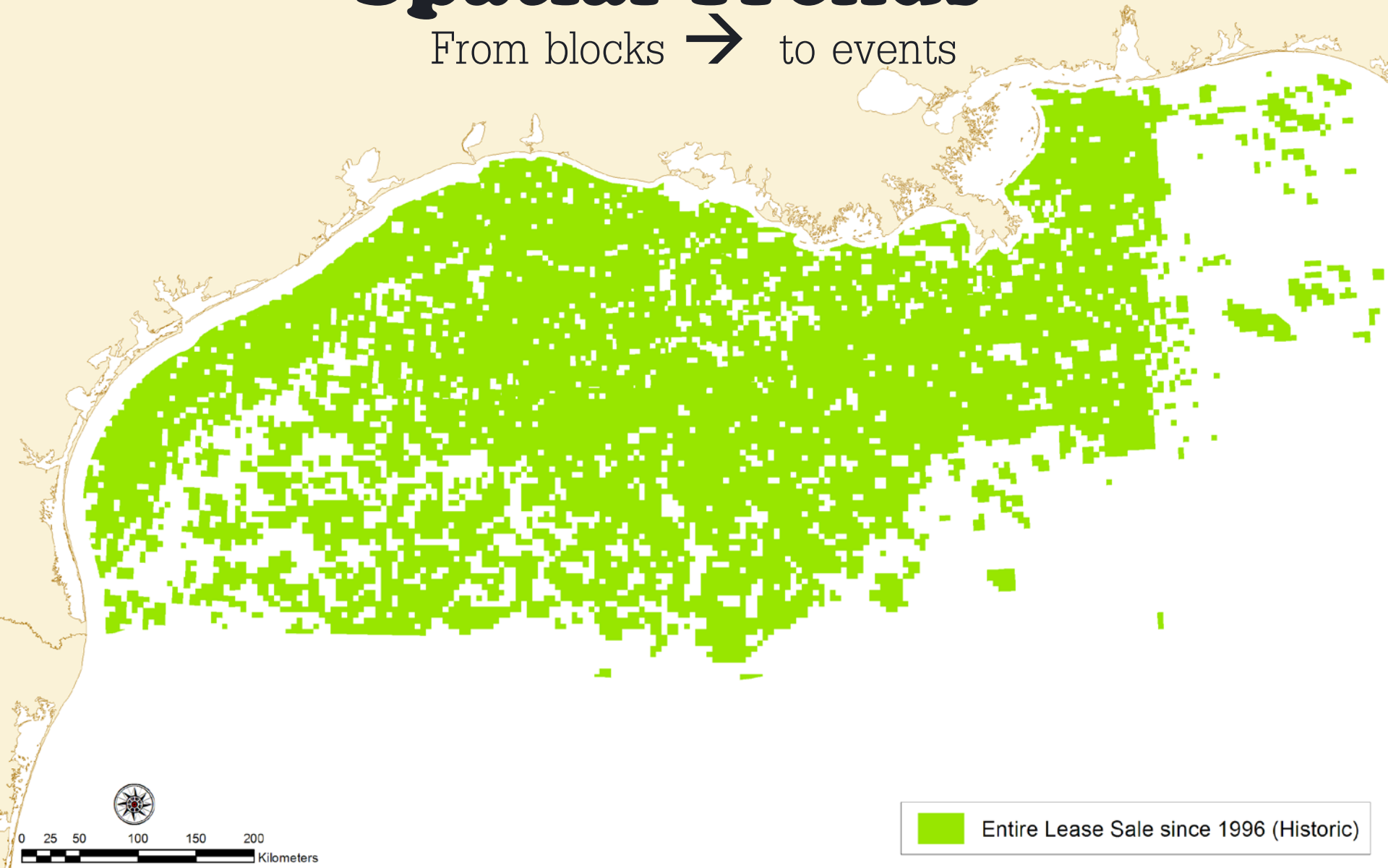


# Methodology



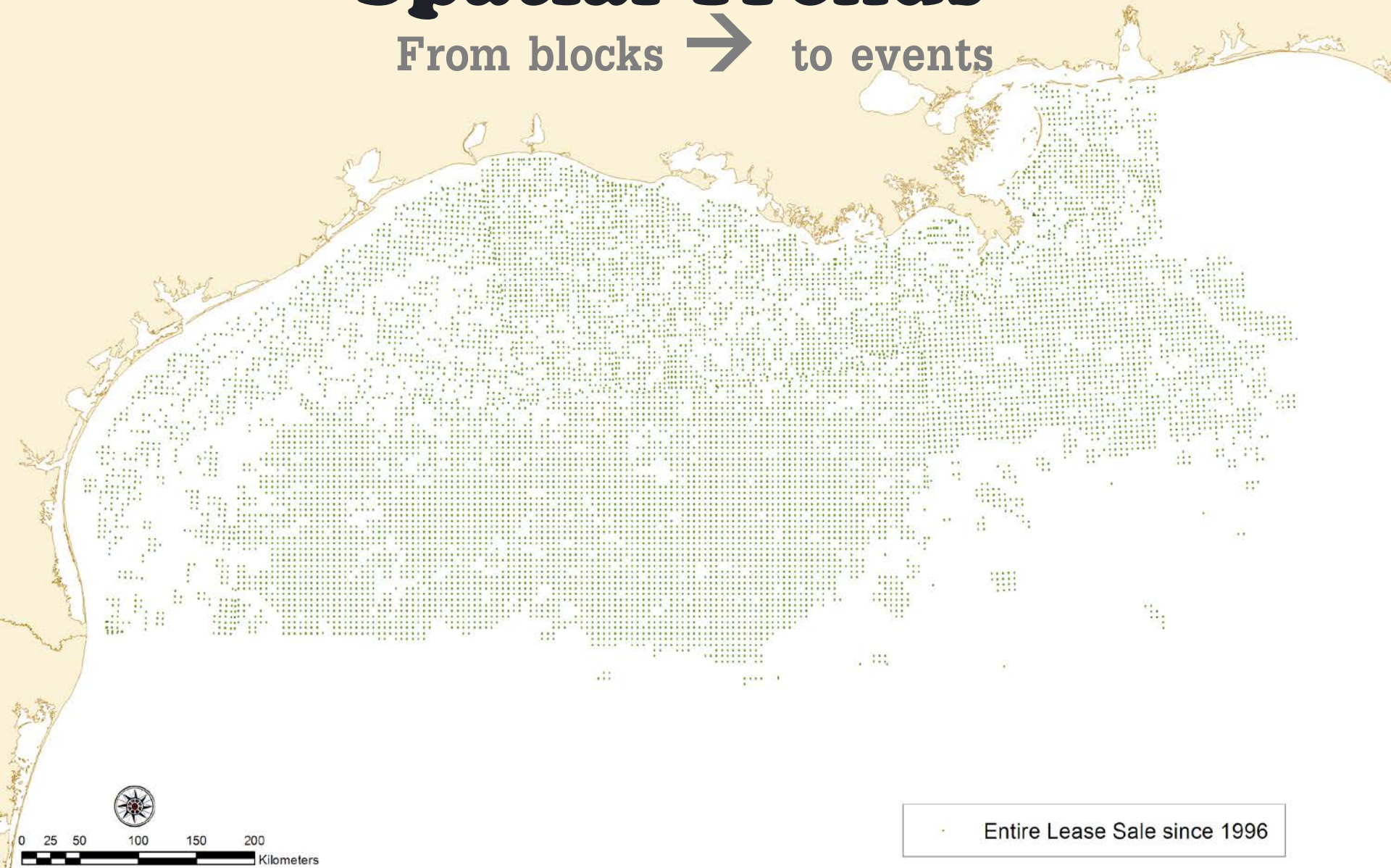
# Spatial Trends

From blocks → to events



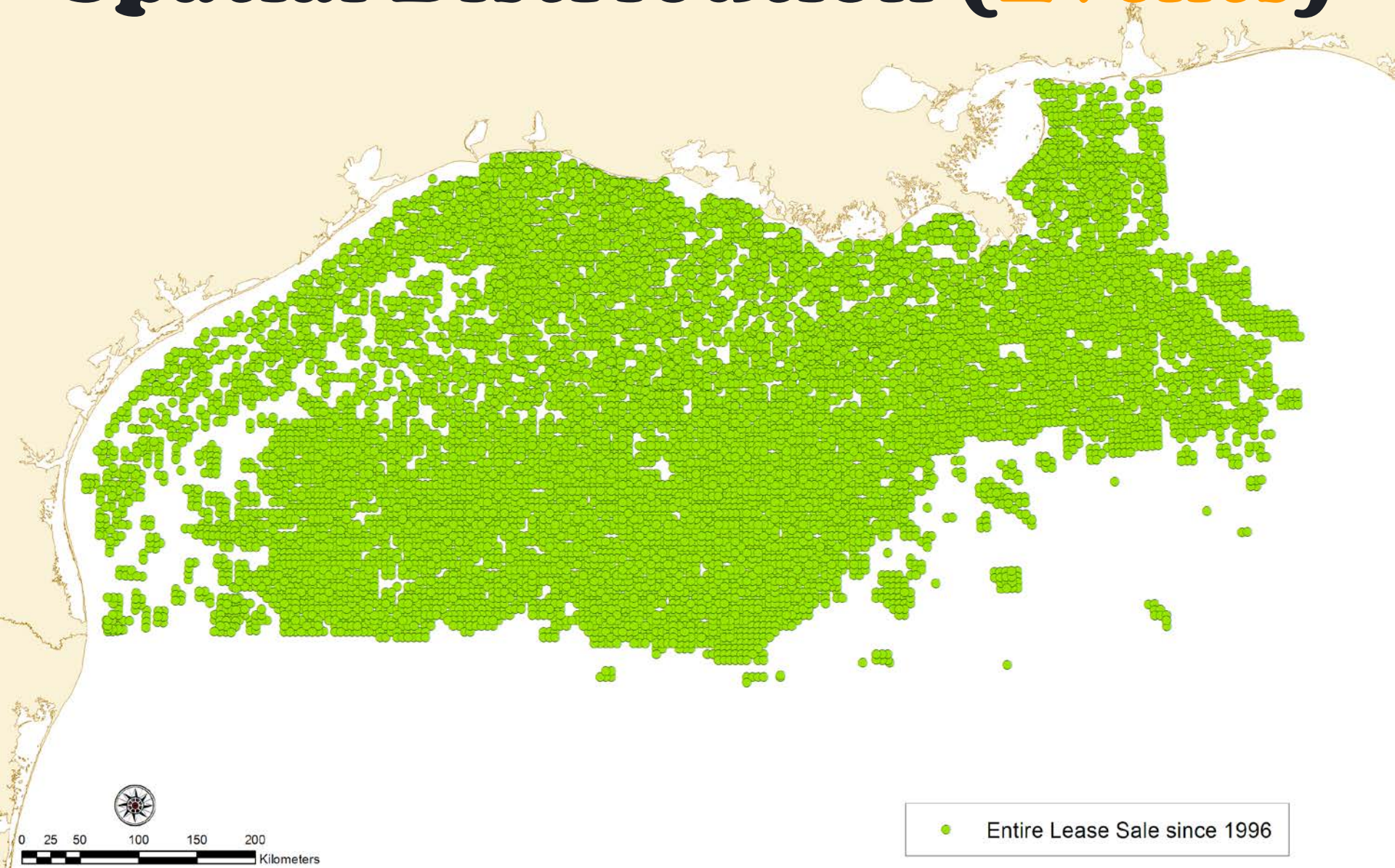
# Spatial Trends

From blocks → to events



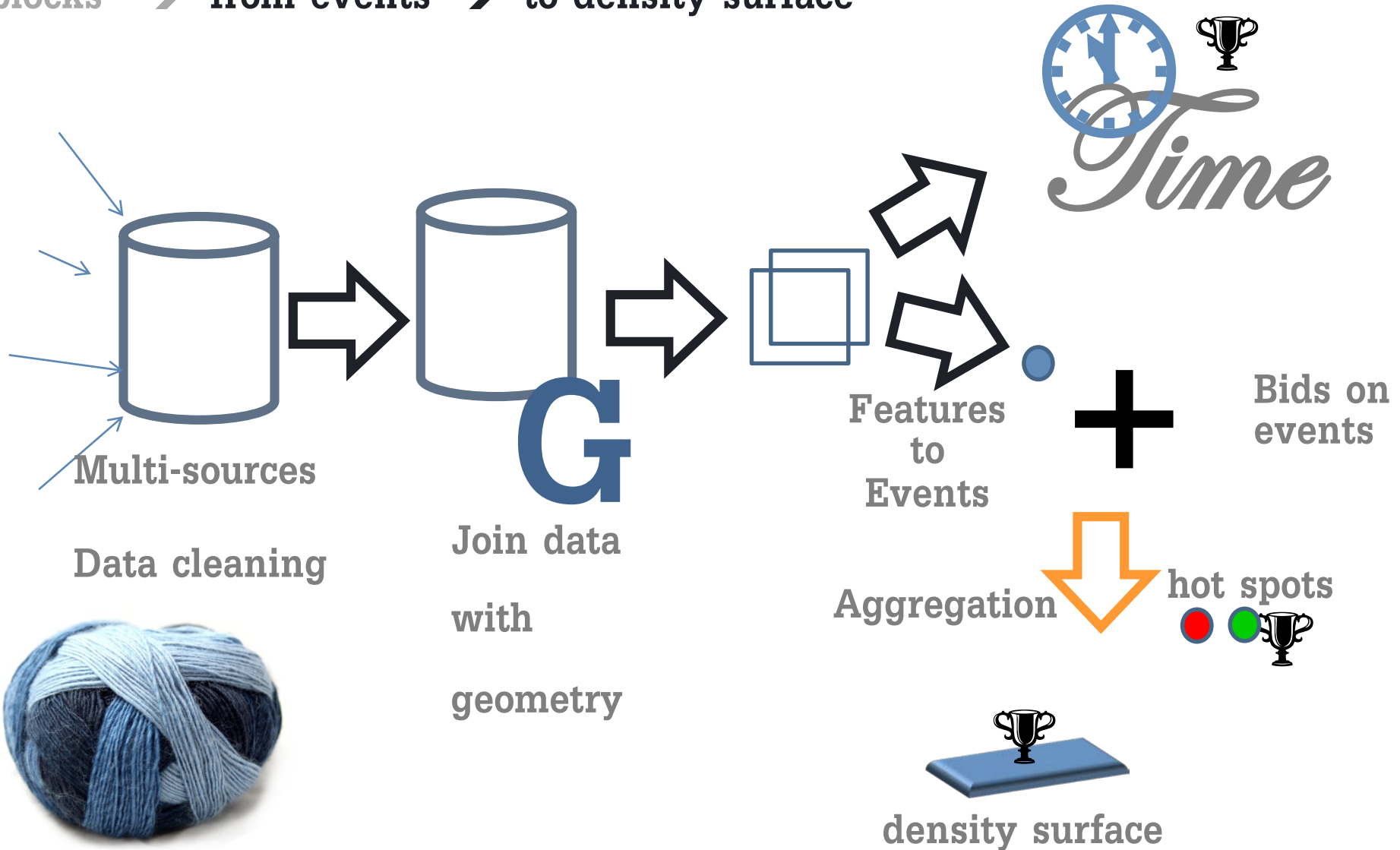


# Spatial Distribution (Events)



# Spatial Trends

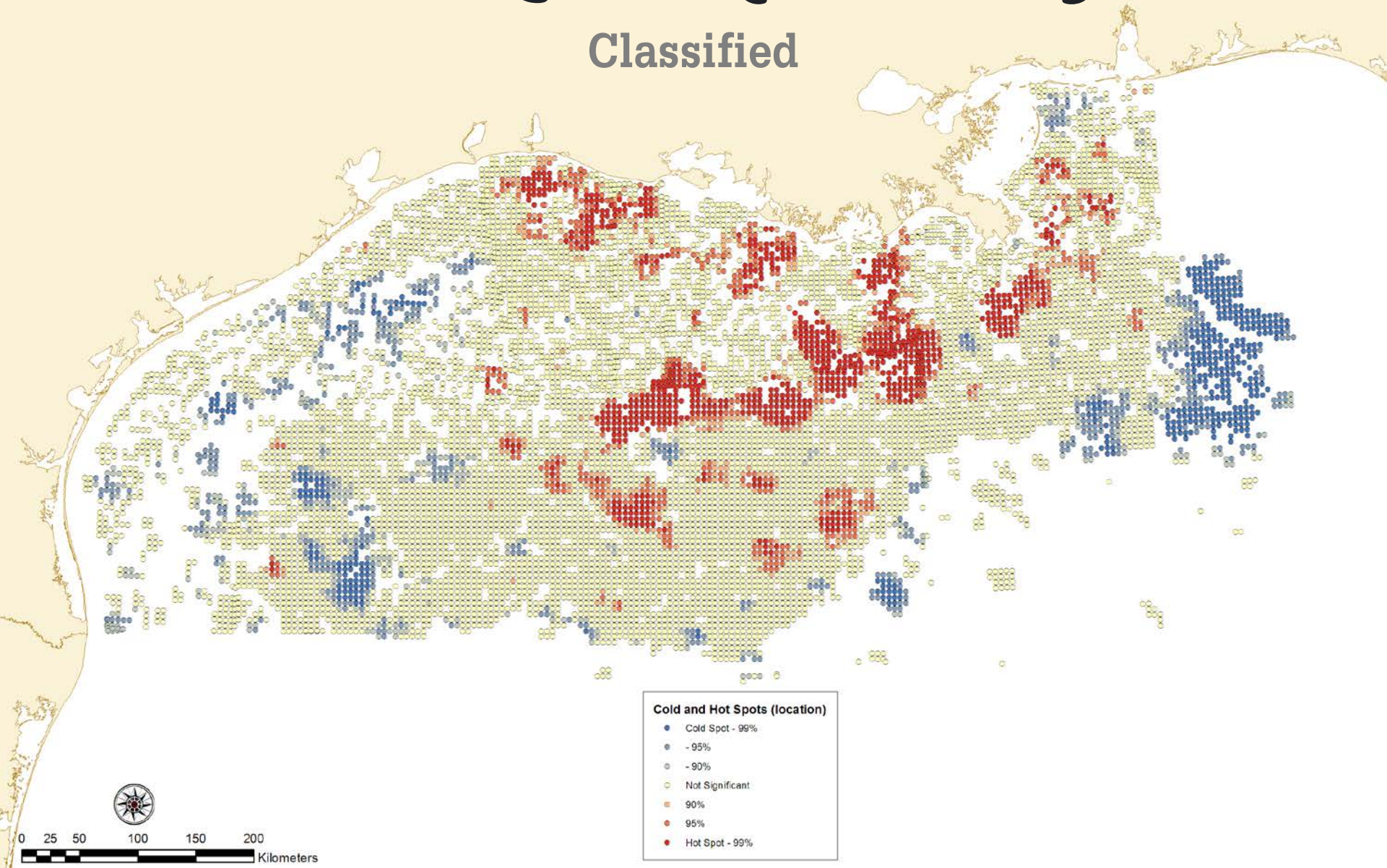
blocks → from events → to density surface





# Hot Spots (Events)

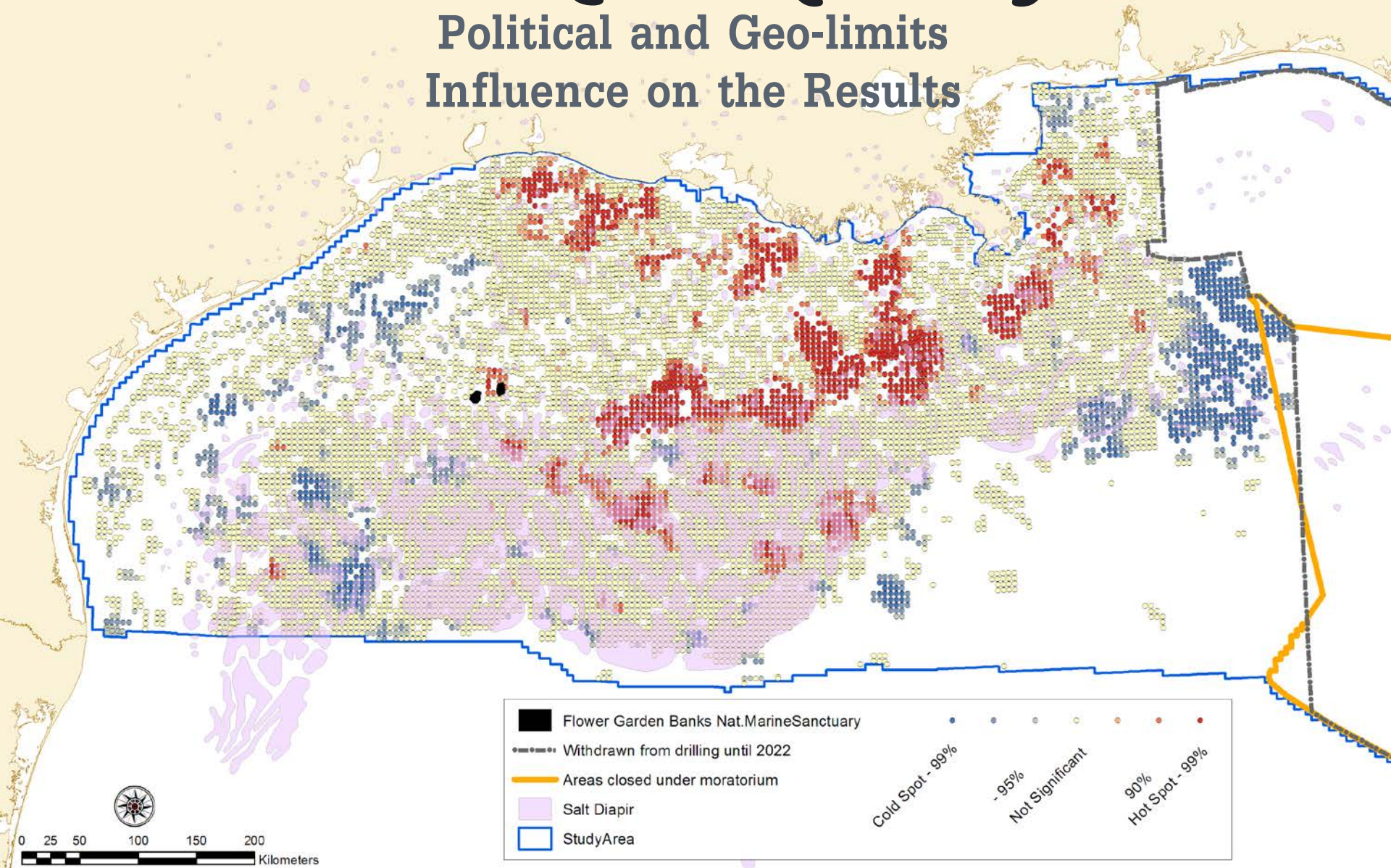
Classified





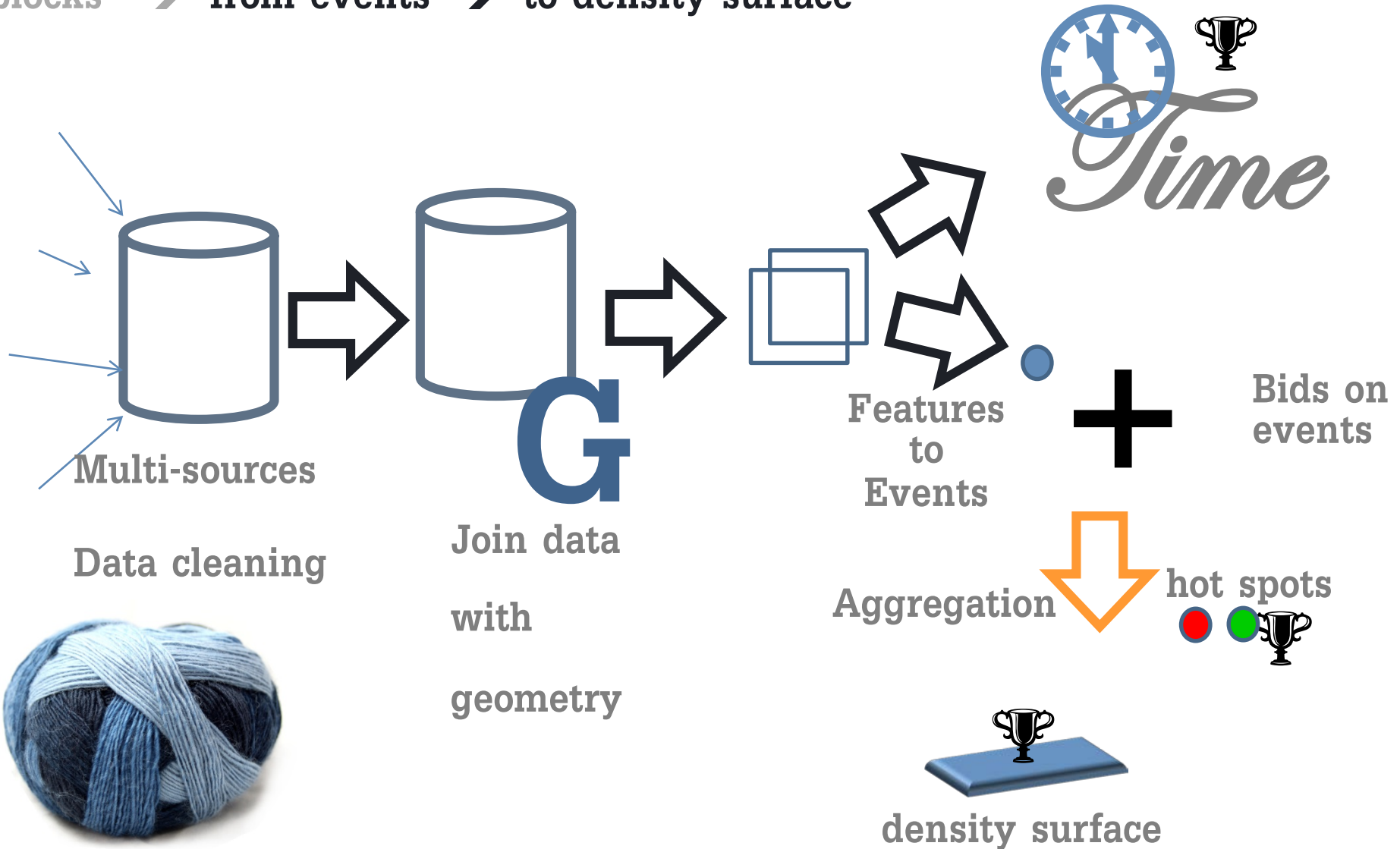
# Hot Spots (Bids)

Political and Geo-limits  
Influence on the Results



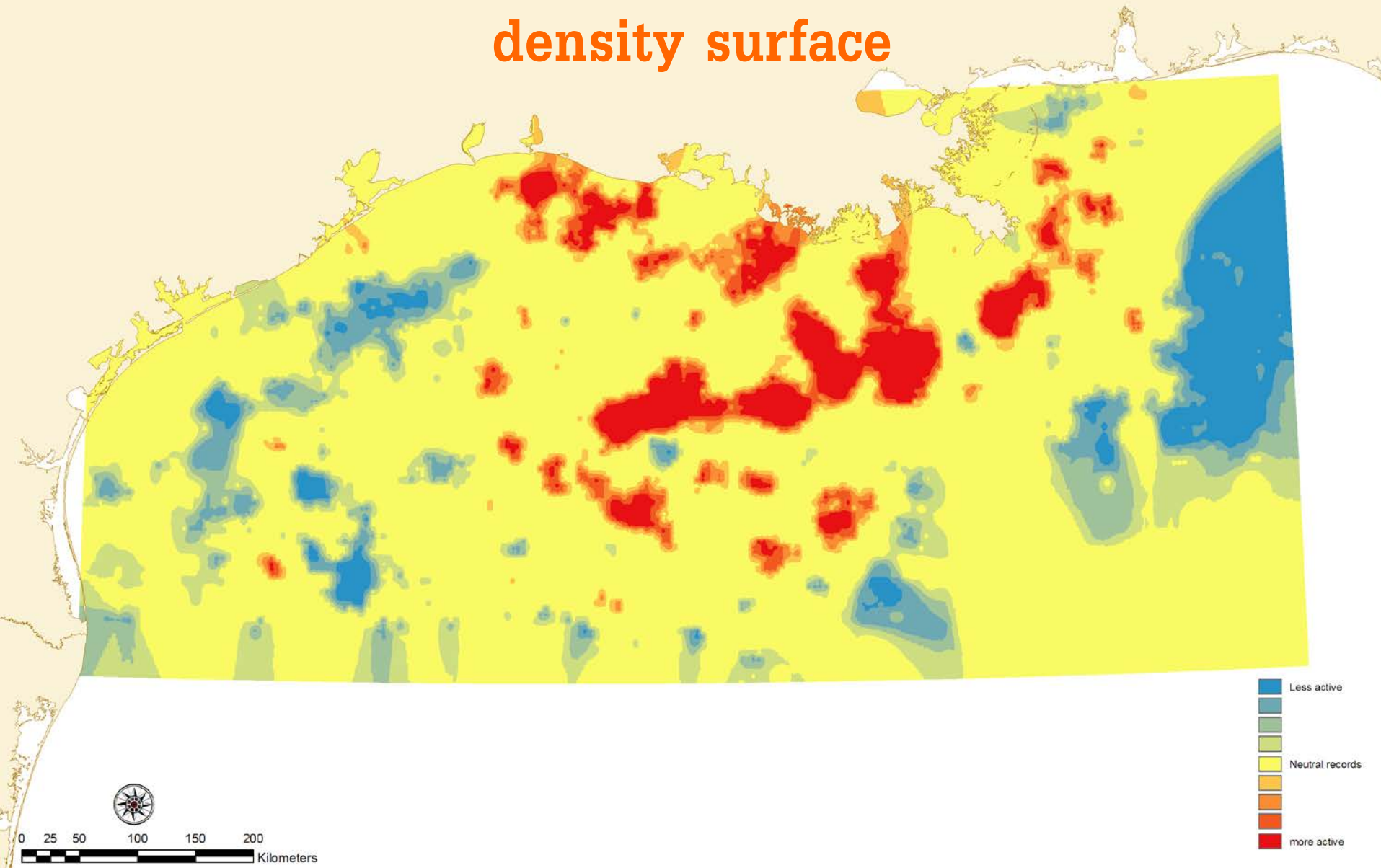
# Spatial Trends

blocks → from events → to density surface



# Spatial Distribution (Events)

density surface

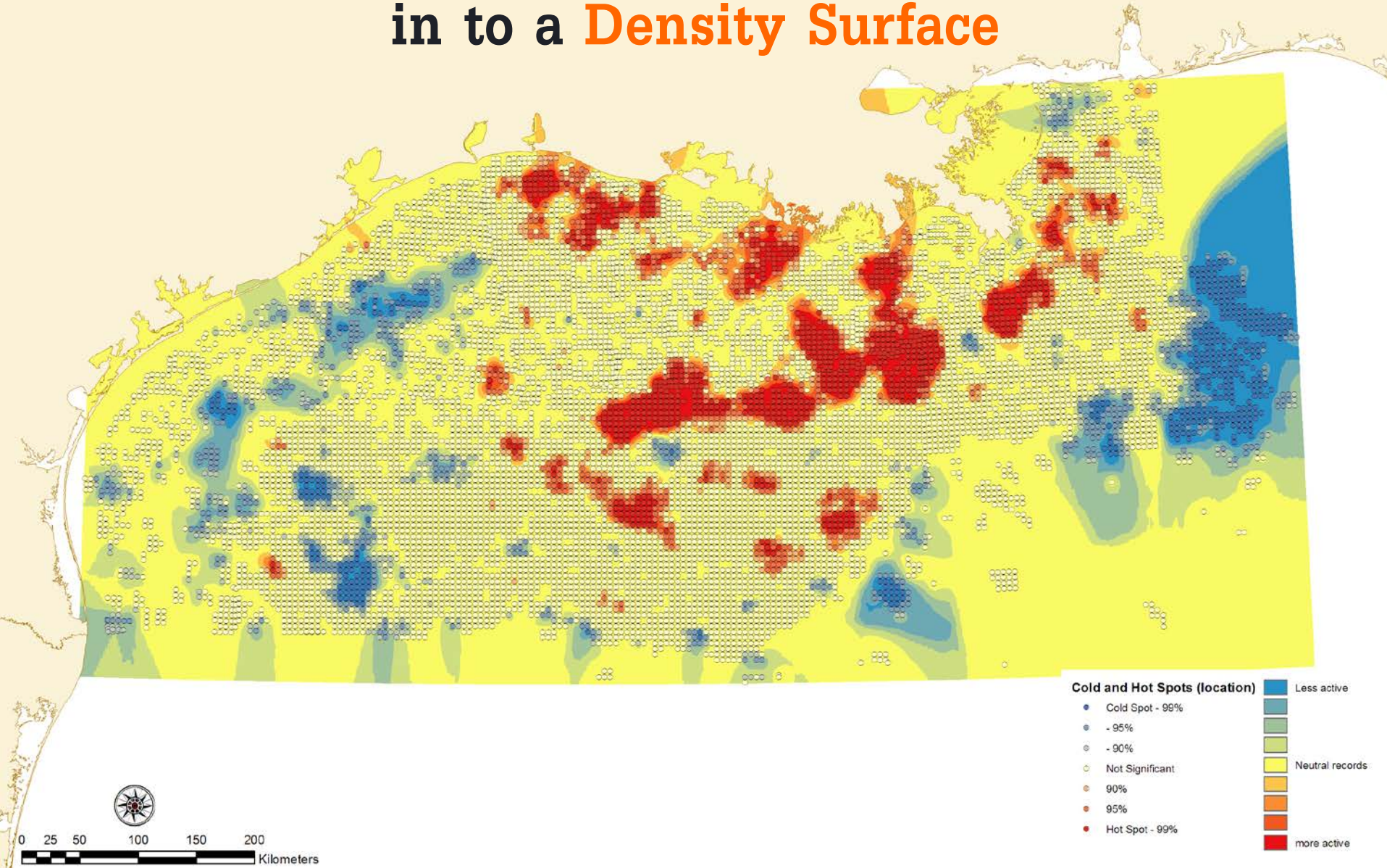




# Interpolation (Events)

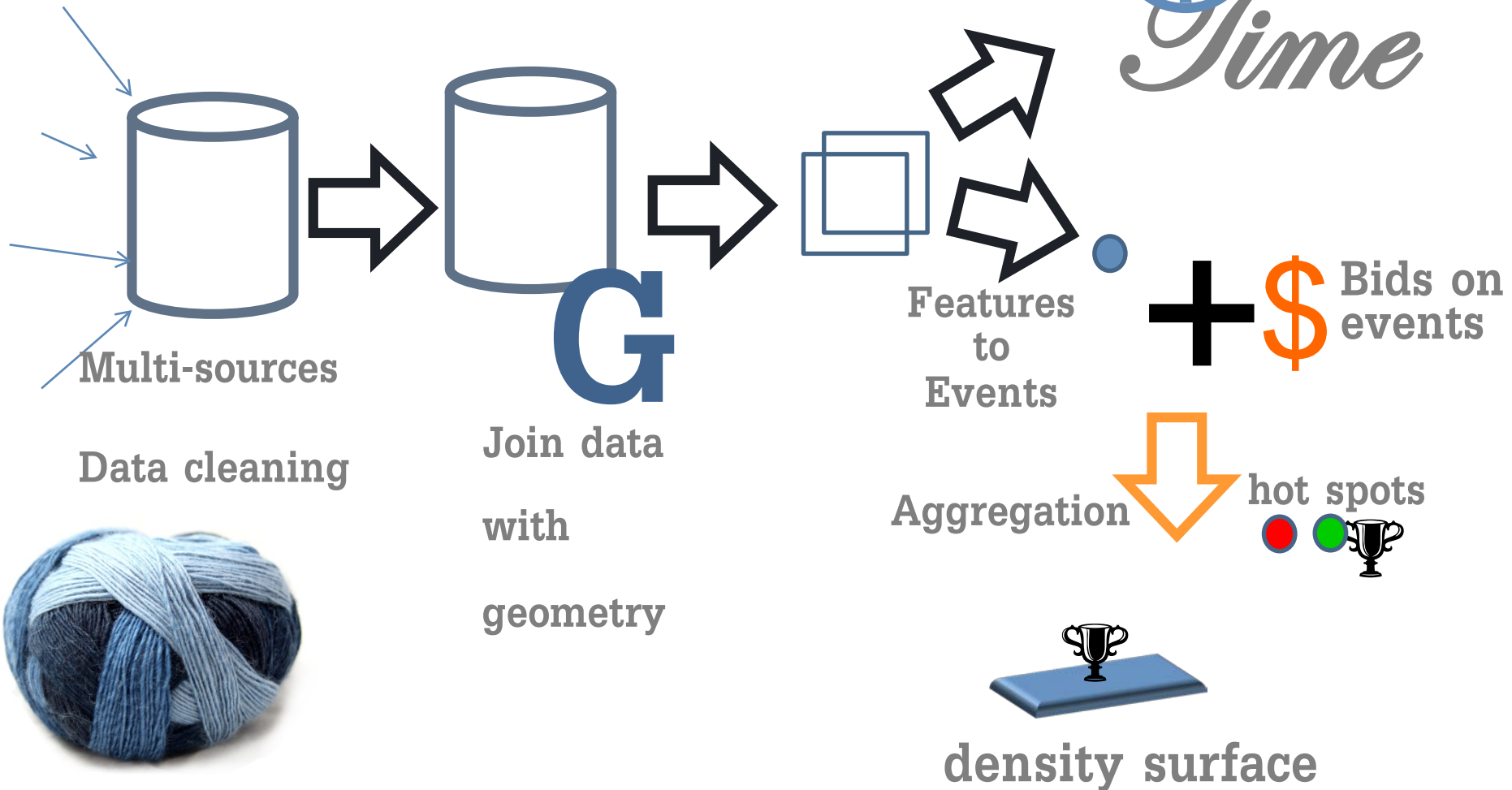


in to a **Density Surface**

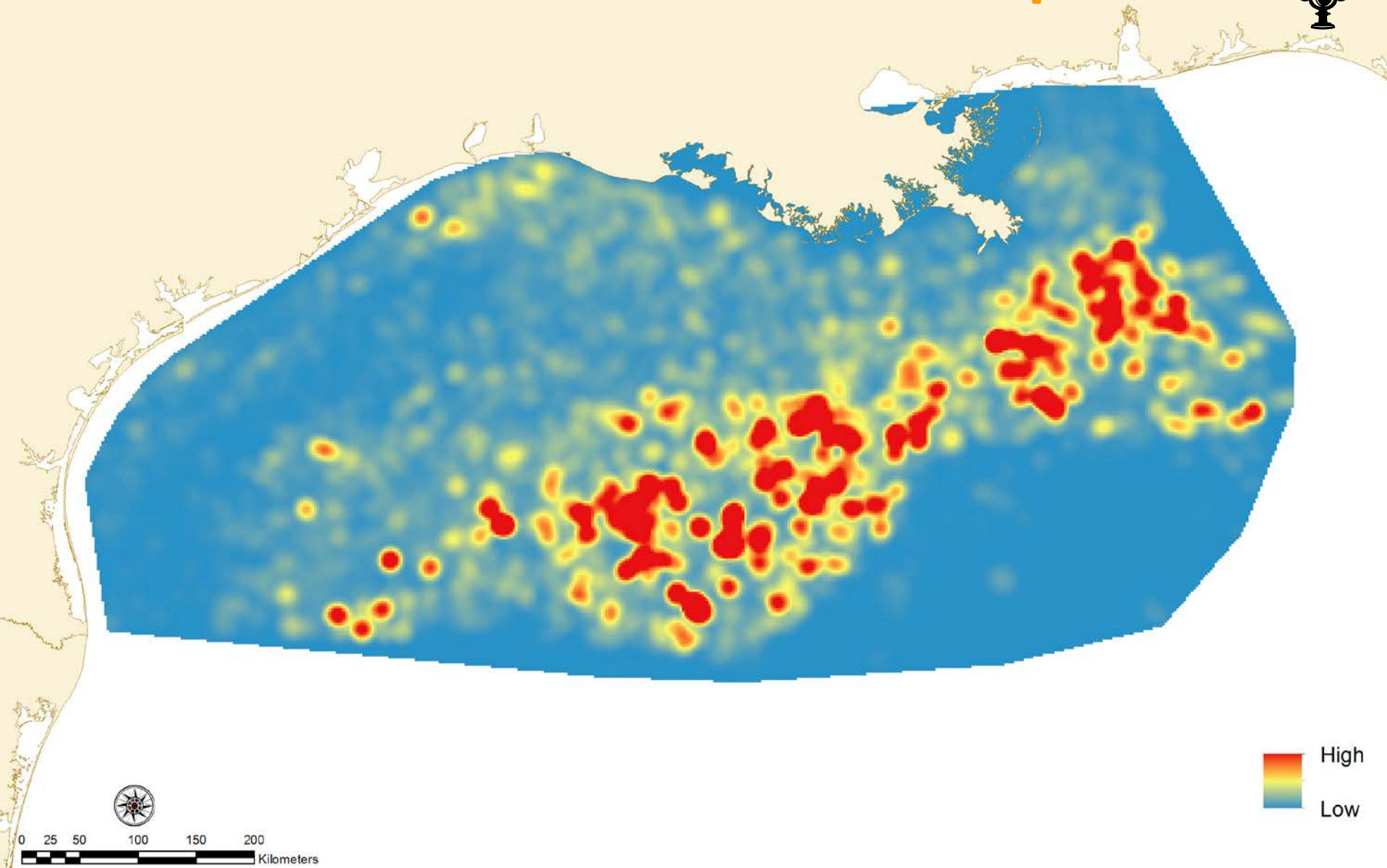


# Spatial Trends

blocks → from events → to density surface



# Feature and Bid\$



High  
Low

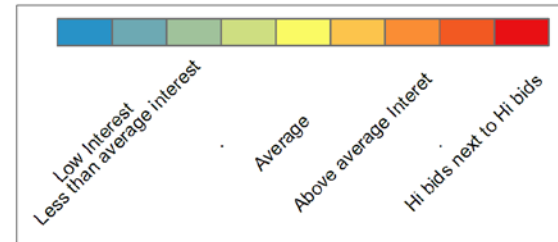
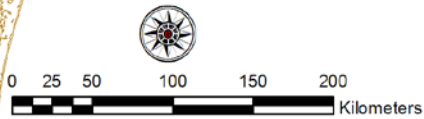
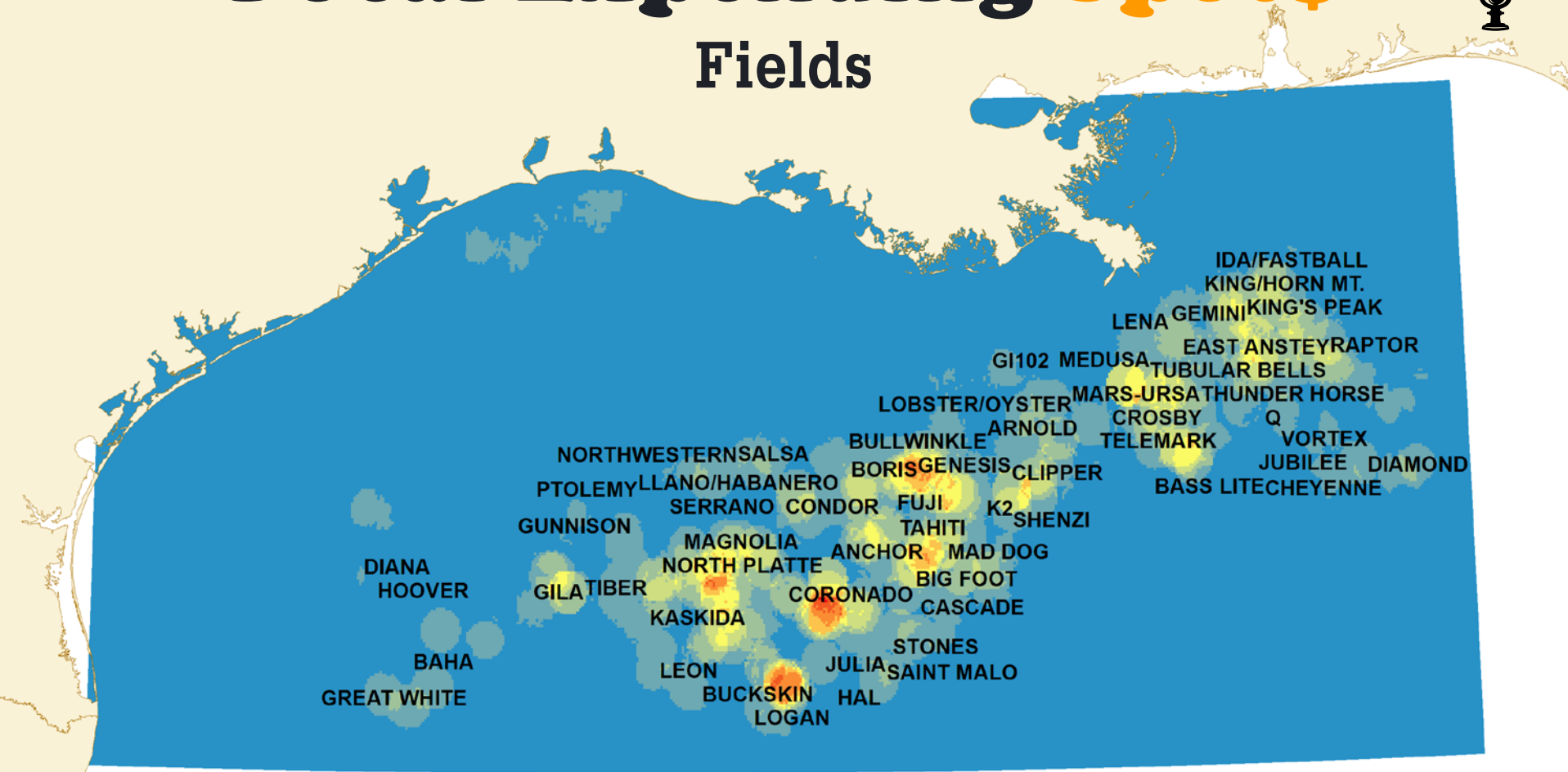
0 25 50 100 150 200  
Kilometers



# Focal Expending **Spot\$**

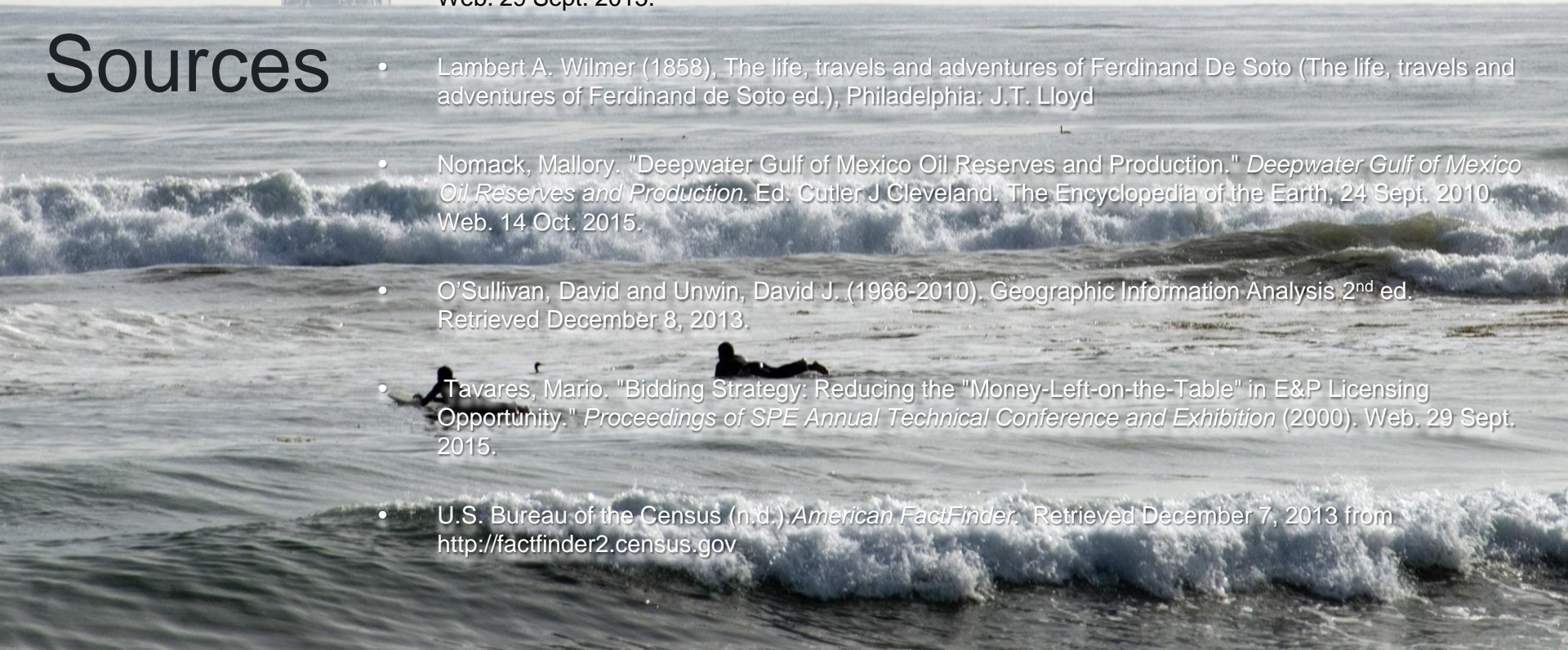


## Fields



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# Sources







***Thank you***

