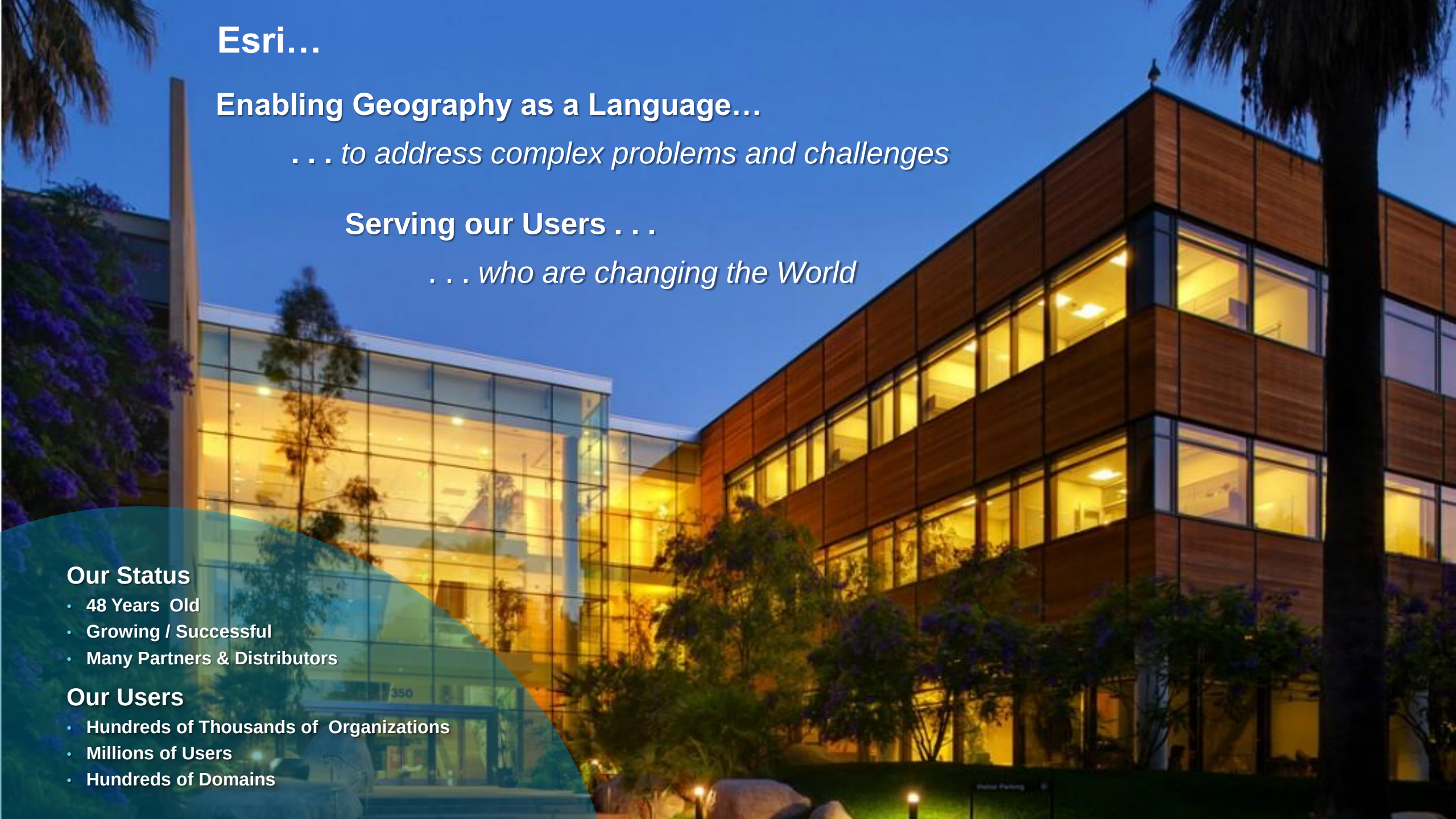


# Esri Data, Platform & Commercialization Options

Este Geraghty, MD, MS, MPH, FACP, GISP

Chief Medical Officer & Health Solutions Director at Esri



# Esri...

## Enabling Geography as a Language...

*... to address complex problems and challenges*

## Serving our Users . . .

*... who are changing the World*

### Our Status

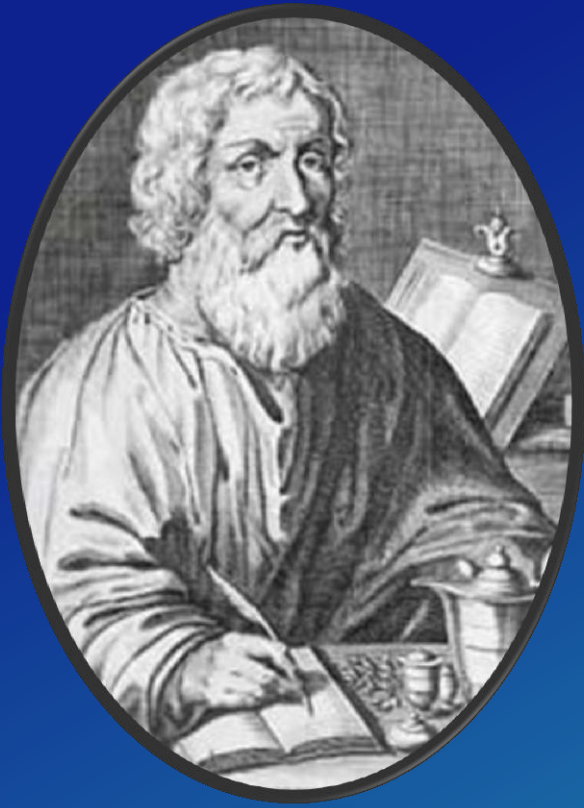
- 48 Years Old
- Growing / Successful
- Many Partners & Distributors

### Our Users

- Hundreds of Thousands of Organizations
- Millions of Users
- Hundreds of Domains

# Place Matters in Health

**WHERE** people live, work, learn and play and their corresponding environments, has a significant impact on their personal health outcomes

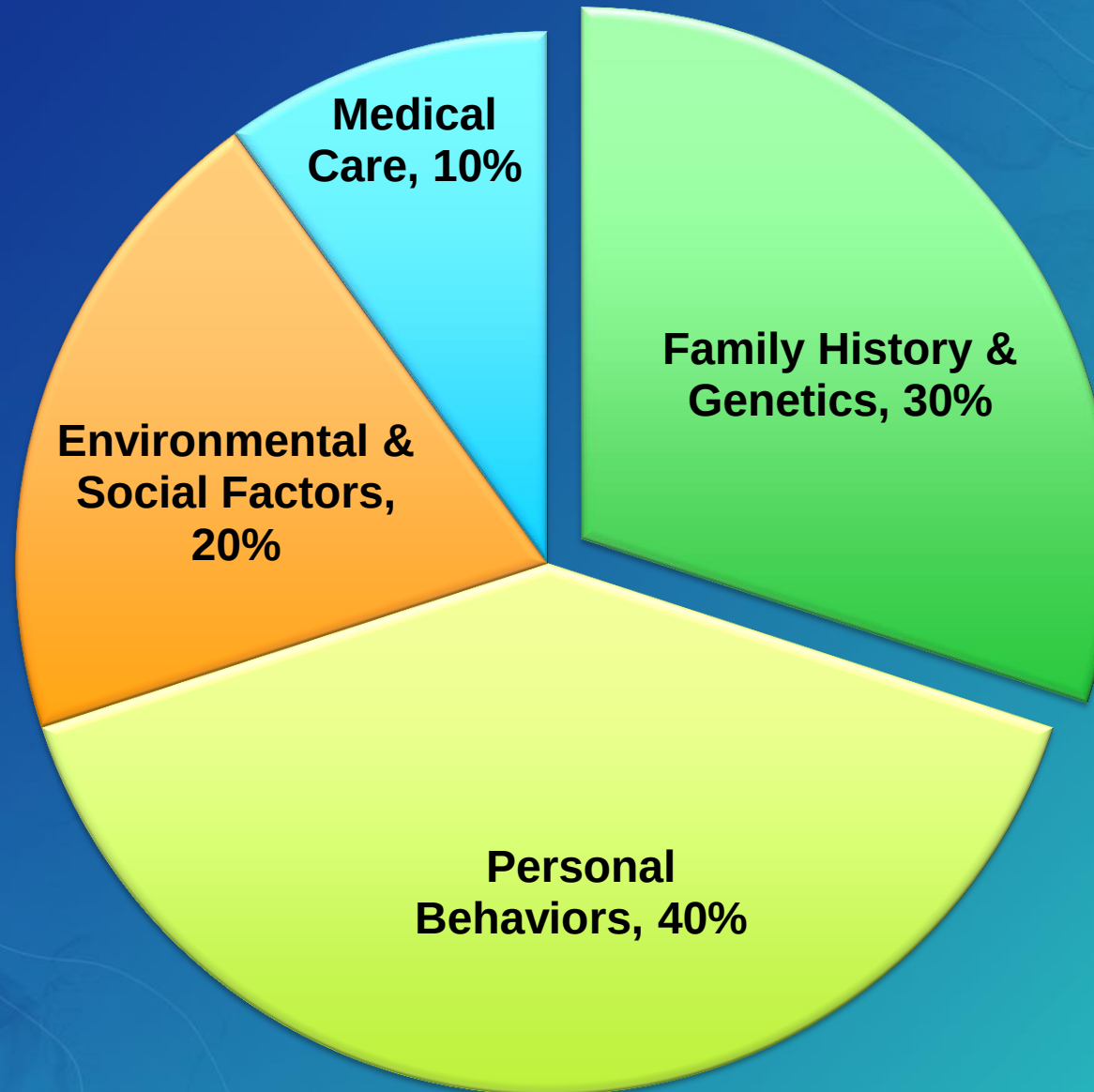


Hippocrates  
born ~460 BCE

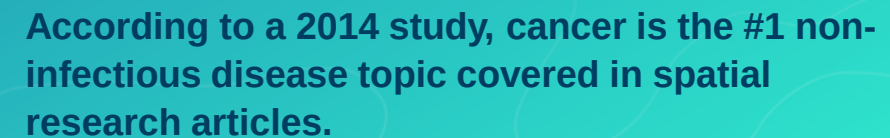


“When a race lives in a rough mountainous country, at high elevation, and well watered, where great difference of climate accompany the various seasons, there the people will be of large physique, well-accustomed to hardihood and bravery, with no small degree of fierceness and wildness in their character.”

# Drivers of Health Outcomes

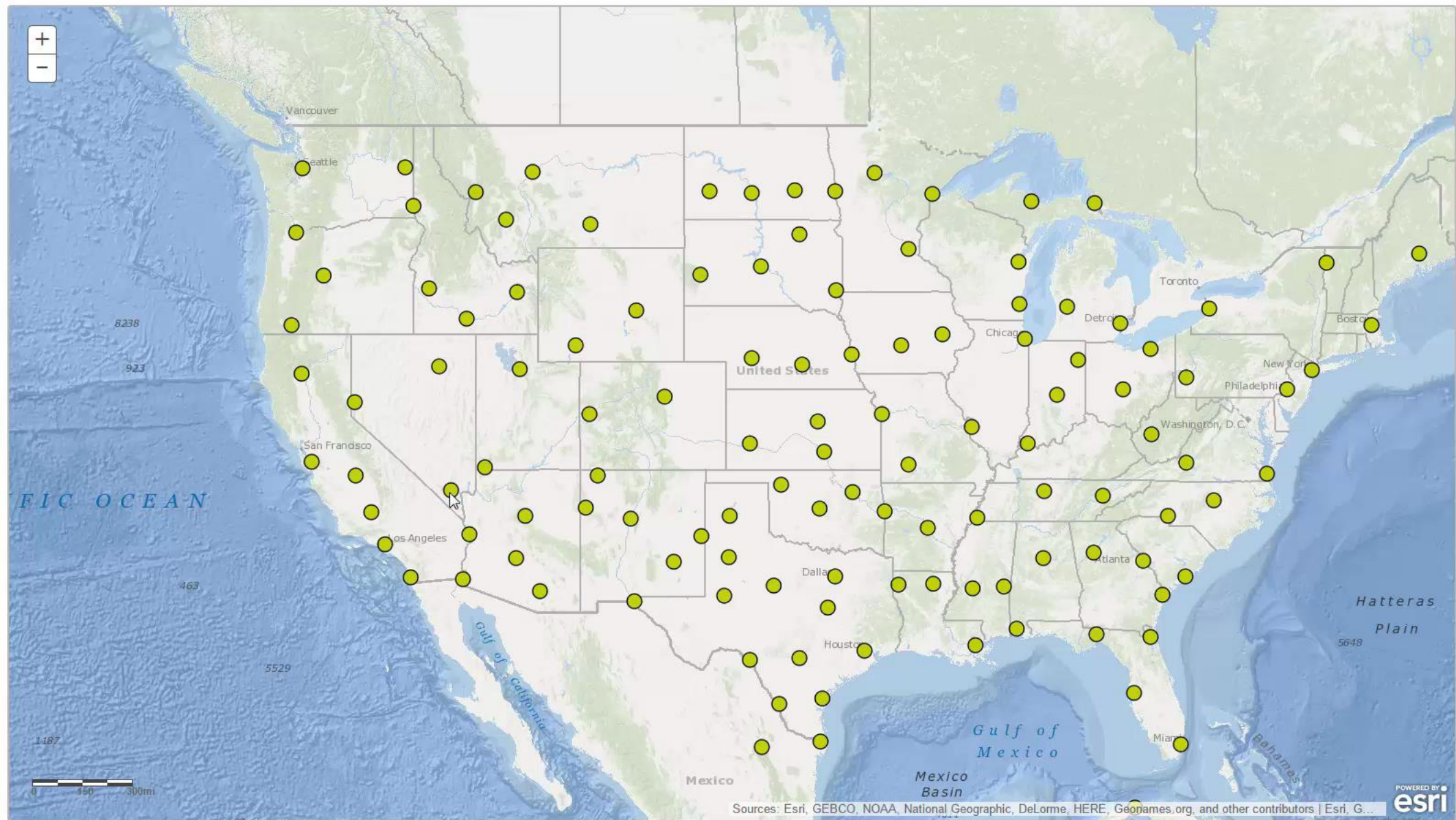


- **Lung cancer (standardized mortality rates) for men in Glasgow, Scotland**
  - **1959 to 1963**



**Figure 3: Lung Cancer (males) in Glasgow, 1959-63.** This map illustrates the use of computer mapping of standardized mortality ratios.

Heat-Related Indices for Selected Cities



Click a city to see its  
Avg summer heat index for 2010 . You'll  
also see the five cities that feel most like it right  
now.

☐ Show another attribute

Climate data courtesy of NOAA Geophysical Fluid  
Dynamics Laboratory (GFDL). The output is from Model  
and Experiment GFDL-CMIP5-ESM2M-RCP60, available  
[here](#).  
Please see the [GFDL Data Portal](#) for further information.

Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors | Esri, G...

POWERED BY  
**esri**

# Heat Events and Social Vulnerability

This map shows summary of the social vulnerability of populations in the United States.

Year: 2014

Minimum Number of Days: 50

Measurement

Consecutive: ☒ Total: ☐

Temperature

Over 90° F: ☒ Over 100° F: ☐

Details | ☒ Display Heat Event Layer

Get Social Vulnerability Stats | Bookmarks ▾

Social Vulnerability 2010

Highest

Very High

High

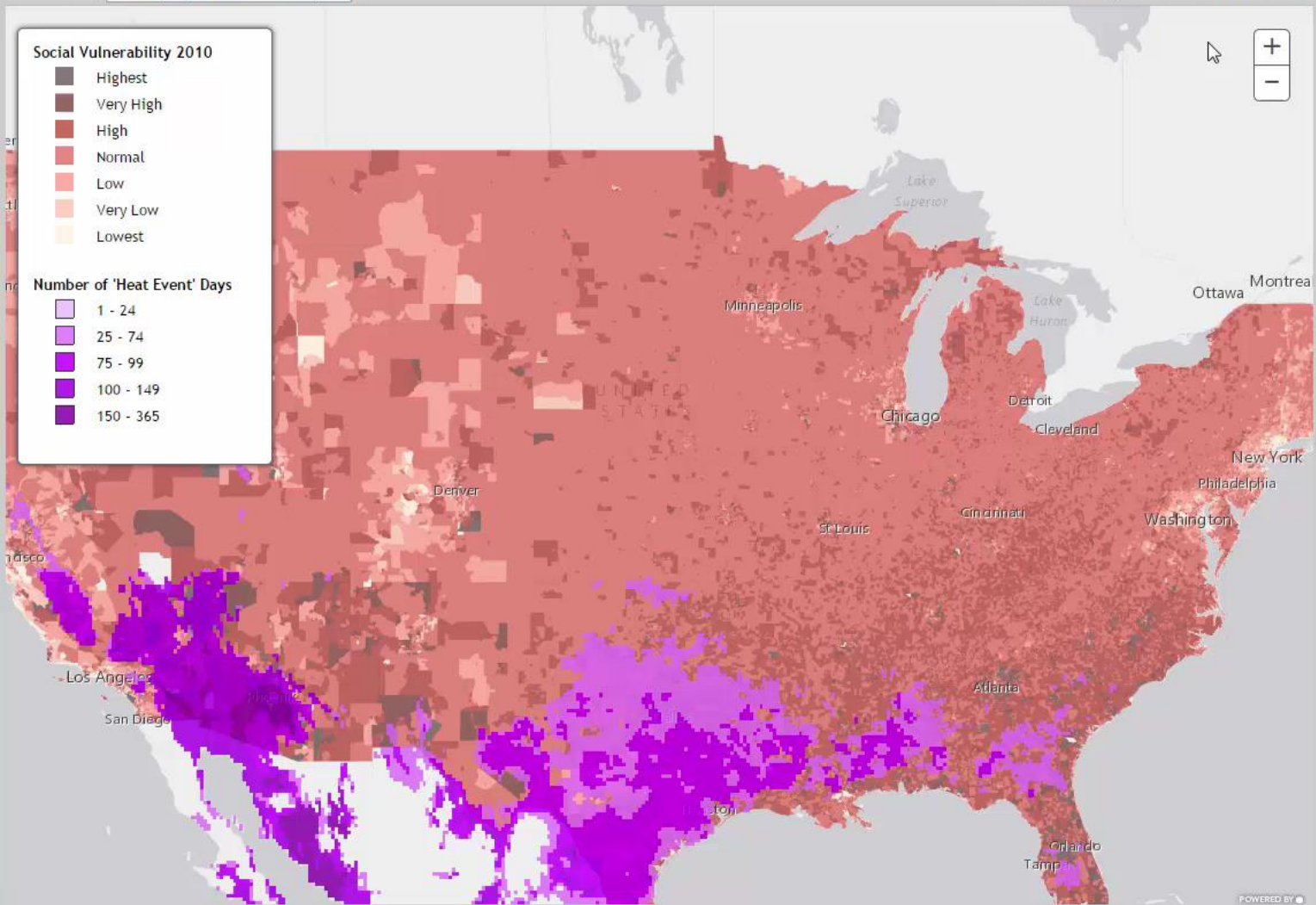
Normal

Low

Very Low

Lowest

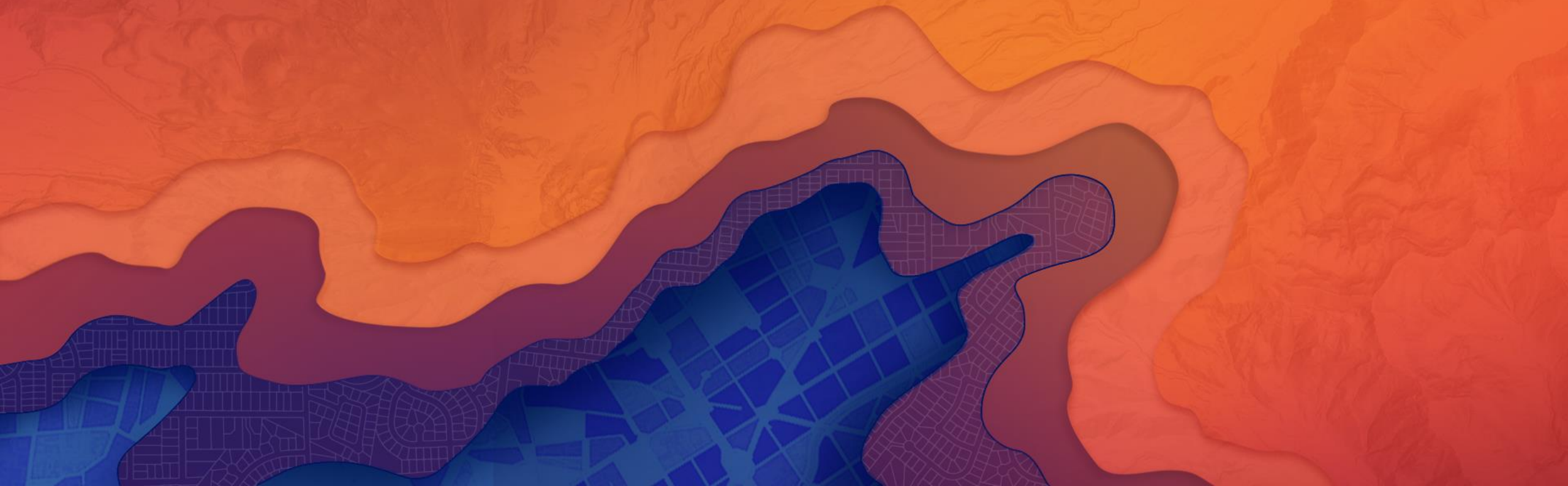
Number of 'Heat Event' Days

1 - 2425 - 7475 - 99100 - 149150 - 365

## Social Vulnerability Statistics

## Top 10 Most Vulnerable Census Block Groups

# The ArcGIS Platform



# Data Integration



Landsat

Sensors

Healthcare

Public Health

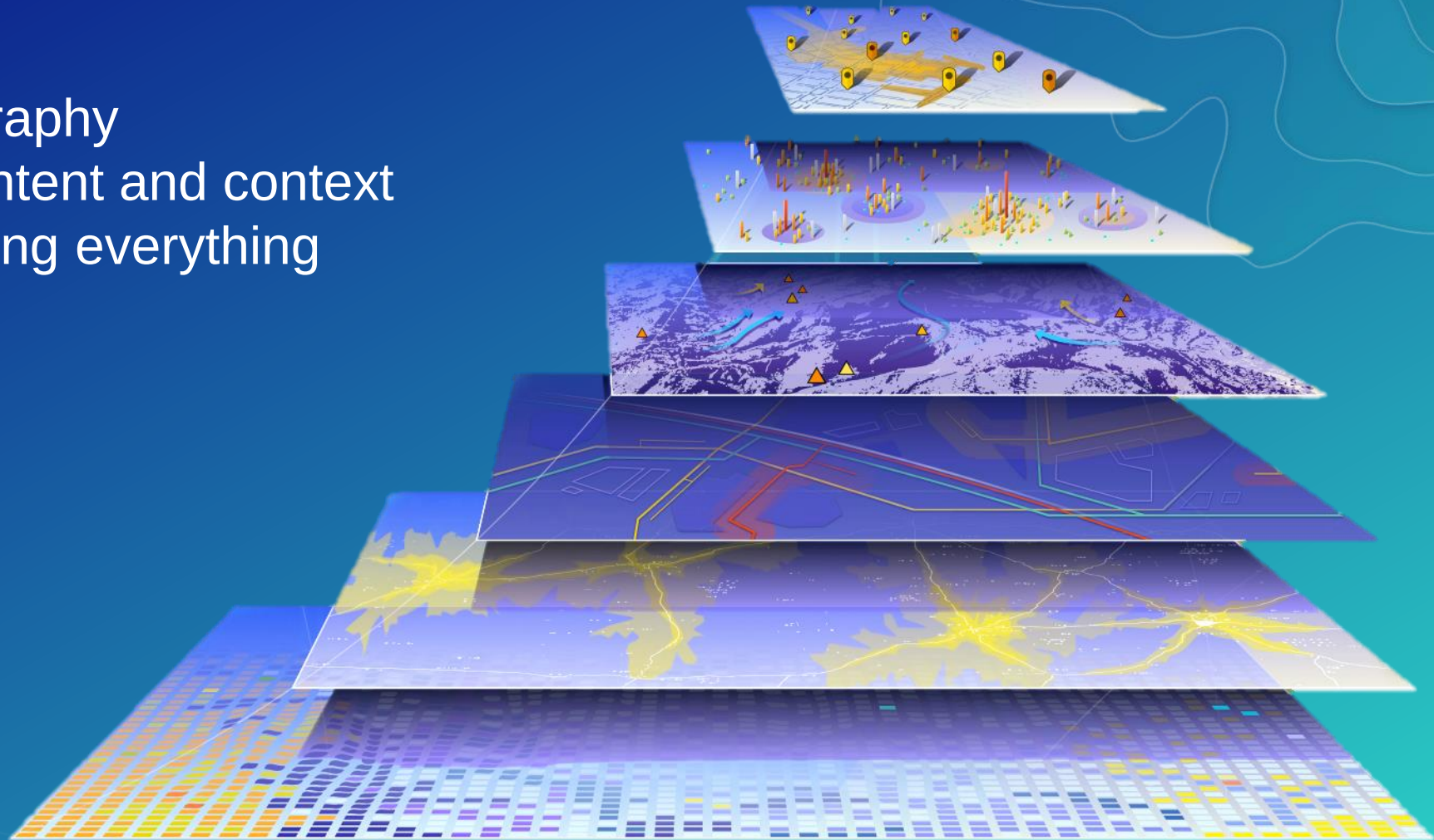
Demographic

Others

Data Integration → Understanding → Action → Impact

## GIS and Geography

Provide the content and context  
for understanding everything



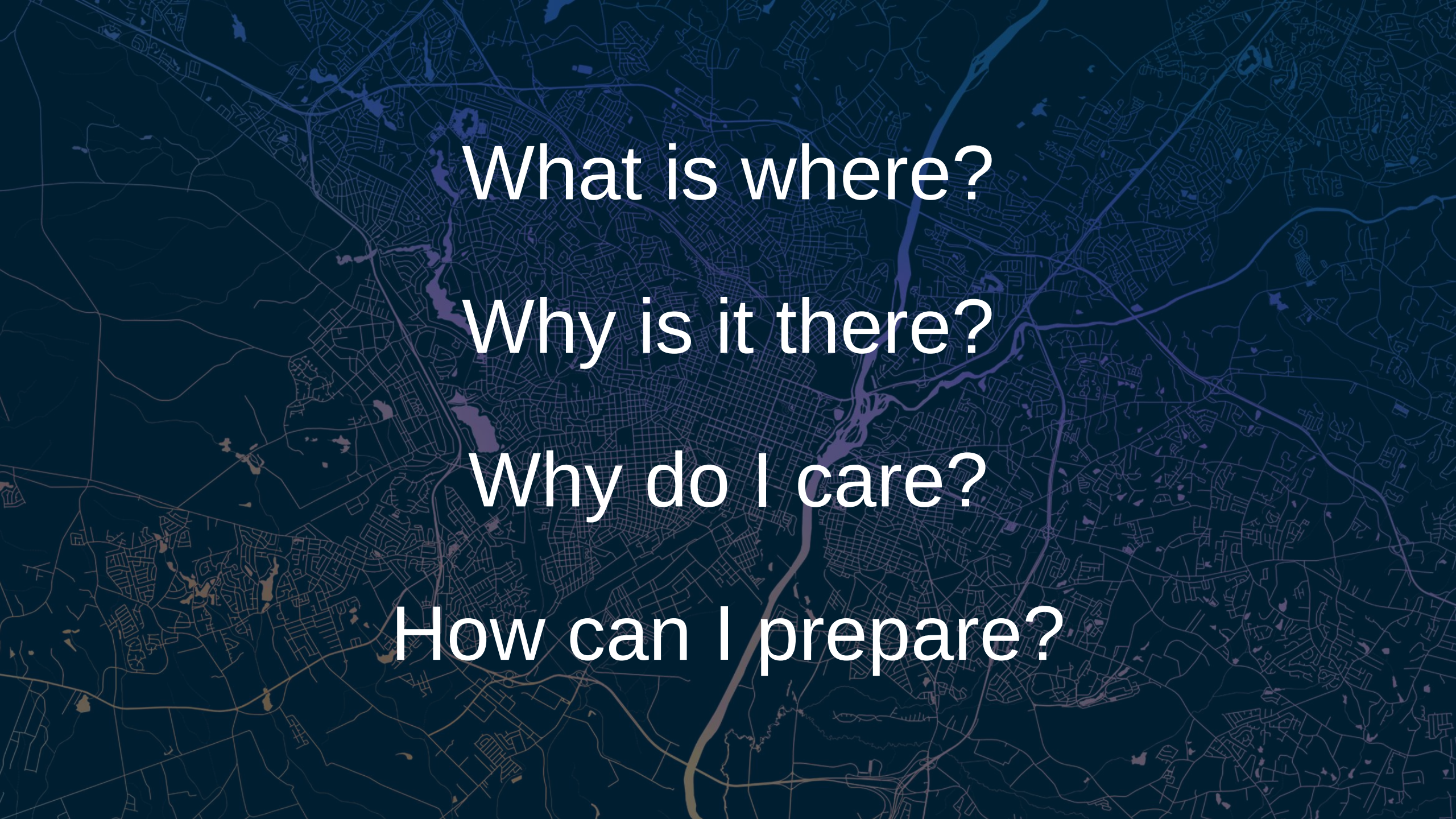
... Creating a Framework for Solving Complex Problems

# The Science of Where

Helps us to answer the fundamental questions of where . . .

- Where is it
- How do I get there
- What's nearby
- Where are we going
- Where's the problem
- Where is it changing
- Where is the issue
- Where is it suitable
- Where should we locate





What is where?

Why is it there?

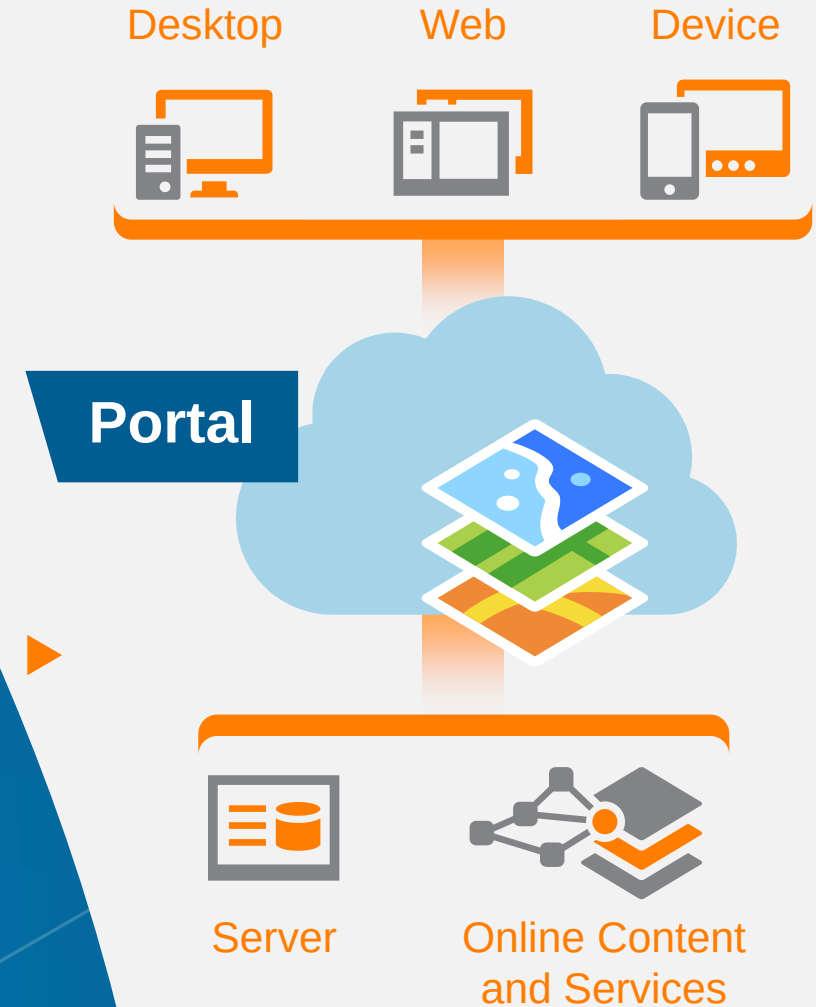
Why do I care?

How can I prepare?

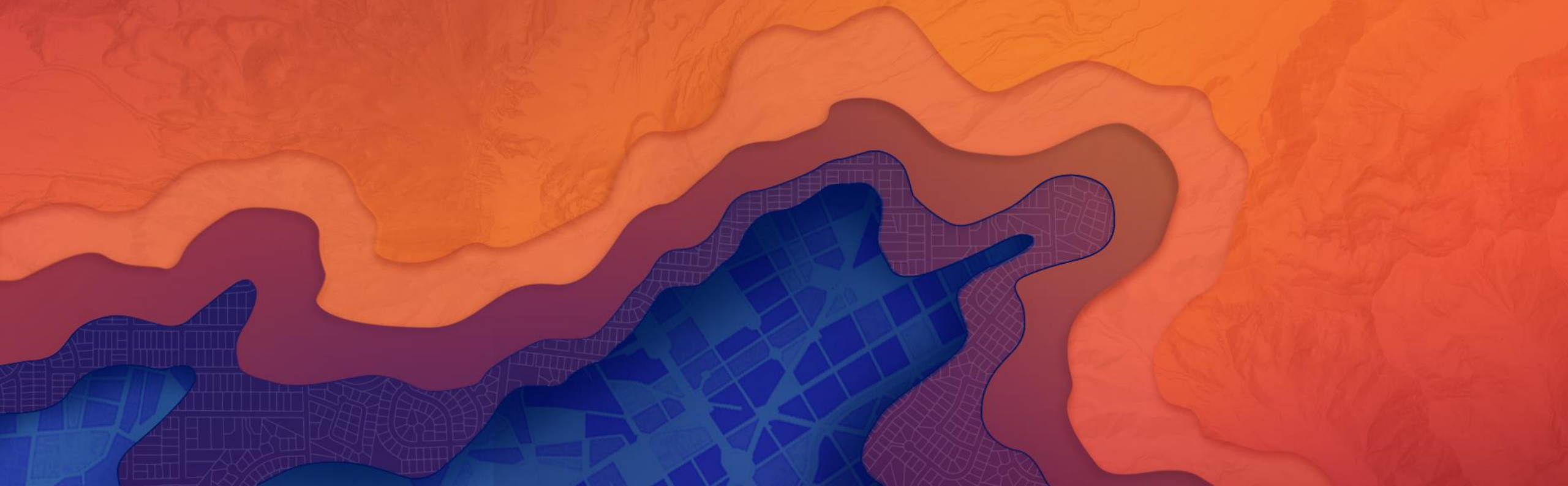
# ArcGIS

## An Integrated Web GIS Platform

Providing mapping, analysis, data  
management, and collaboration



# Data Resources



Explore 69,851 Open Datasets  
from 4,162 Organizations Worldwide.

Find Bus Routes, Park Services, Schools

Near City, Country



Pinellas County, photo by Pinellas County (CC-BY)



### CANCER MAP

#### INFORMATION

Climate and Cancer map provides support for deciding where to focus cancer control efforts. Environmental factors are visualised and predicted to determine risks. Climate and Cancer map consists of two parts.

First part provides a thematic analysis and lists state cancer profile characteristics. Also, climate factors including criteria gases, toxic, precursors, lead, cigarette consuming and UV is visualised for each state and county level. You can reach filters on the left and see detailed information on the right tab.

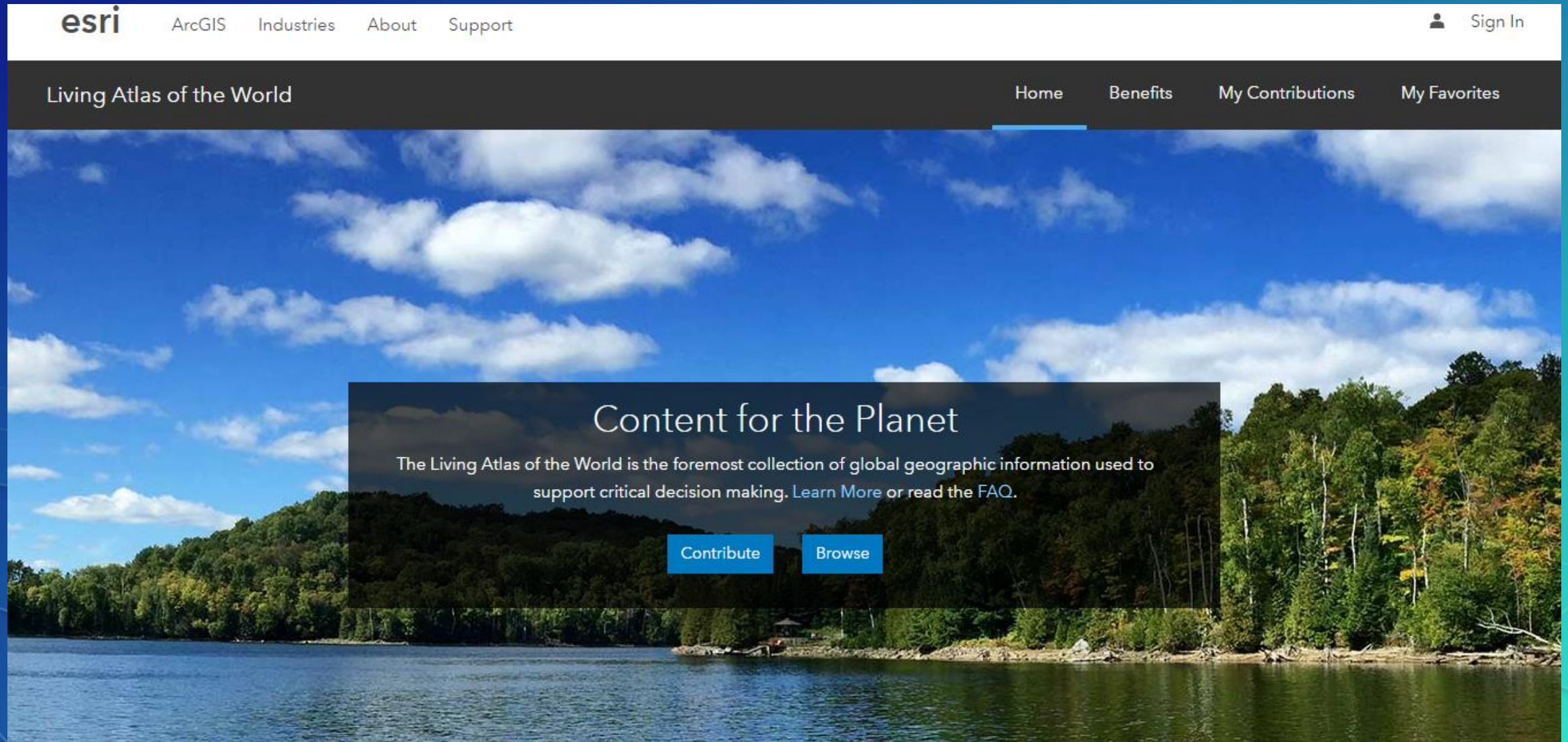
**Hint :** Pulsing points are indicating cancer level and climate levels are at the top risky point.

Second part is designed for predicting cancer rate of a person whom lived in different environments of USA. You can reach this part by clicking  icon on the toolbar. In order to start predicting, you should put in your gender info, age and start selecting places you have lived.

# Sample Open Data Cancer Application

# livingatlas.arcgis.com

Greater coverage of the planet, different resources



[doc.arcgis.com/en/esri-demographics](https://doc.arcgis.com/en/esri-demographics)

Over 10,000 variables

## What demographics data is available?

To see the available comprehensive set of global Esri Demographics data, use the data browser below by selecting a country and peruse the available data categories.

Data Browser

United States

search for a variable name



Population



Income



Age



Households



Housing



Health



Education



Business



Race



Spending



Behaviors



Poverty



Jobs



Marital Status



Tapestry



At Risk



Key Facts



Supply and Demand

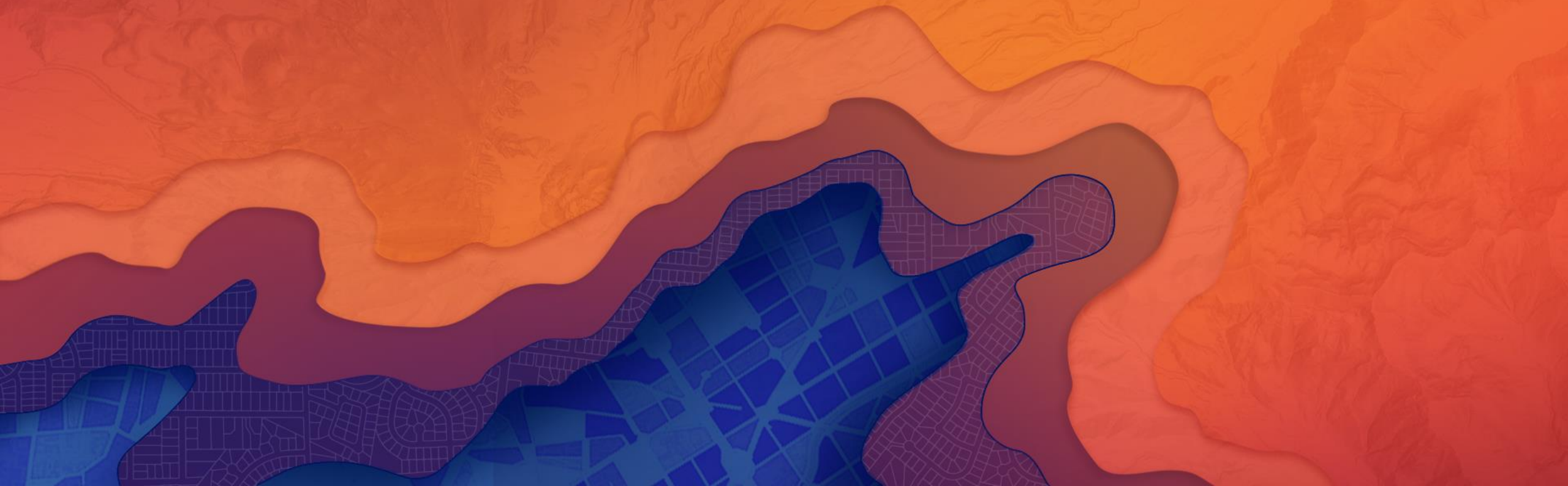


Policy



Landscape

# Commercialization of Data and Applications



marketplace.arcgis.com

Show Me

All

Applications

Data

New

By Esri

Popular

Free

ArcGIS Marketplace

Search for apps and data



[Become a Provider](#)

[Get Help](#)

[Sign In](#)



# ArcGIS Marketplace

Discover a World of Apps, Content and Capabilities.



# GIS Is Helping Us Be Smarter

Improving How We Manage and Make Decisions





esri

THE  
SCIENCE  
OF  
WHERE