

# Introduction to Data and Visualizations for Marine Spatial Planning at National Level

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Marine Spatial Planning, Information  
Management and Capacity Building  
Workshop

Dar es Salaam, Tanzania



# Esri EA — Serving Our Users

Advancing GIS & The Science of Where

Strong and Growing

Engineering and  
Science Focus

Software  
Development  
& Products

Technical  
Support

Education  
& Training

Professional  
Services

Partnerships

International  
Activities

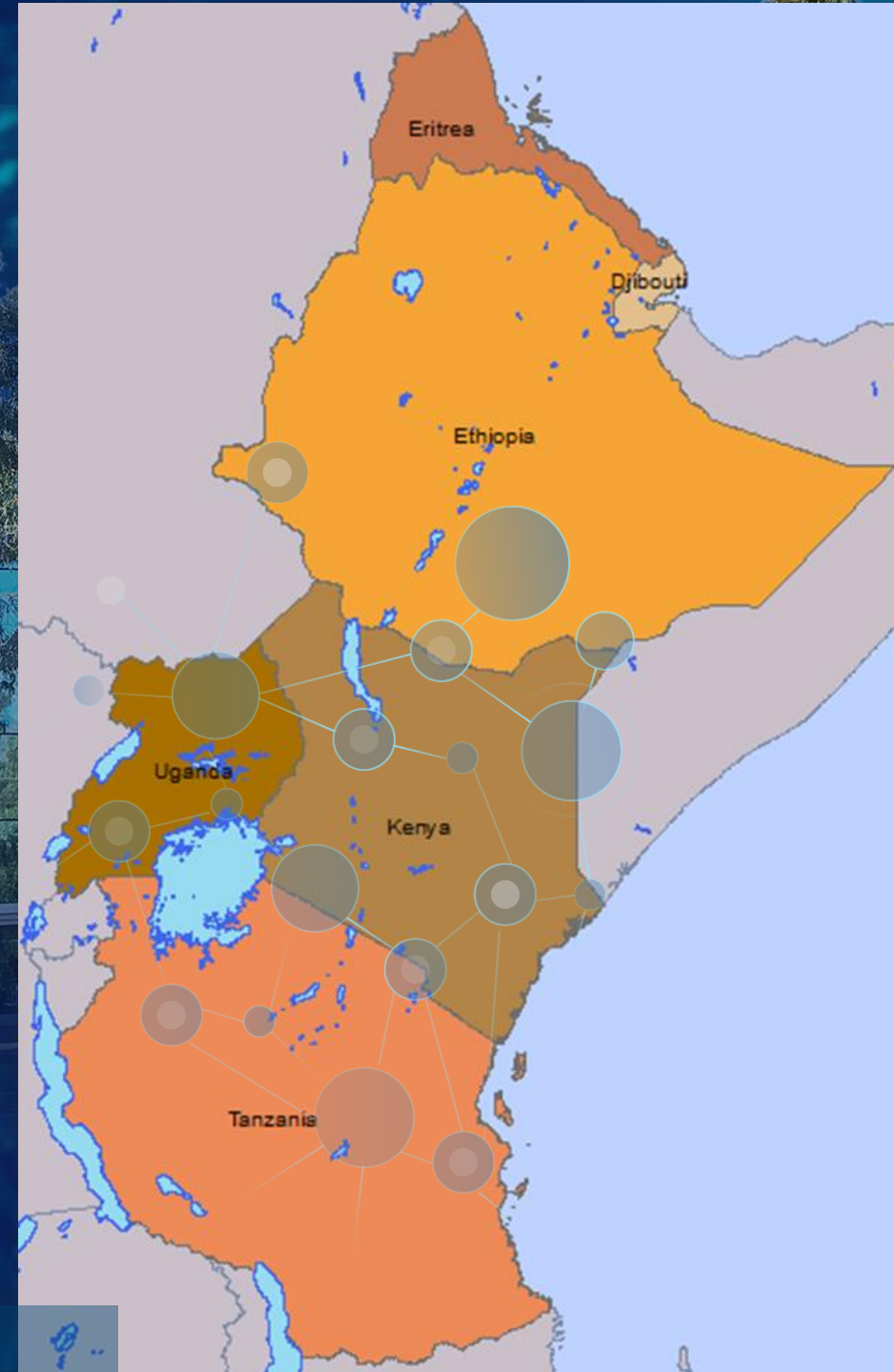
Marketing

Business  
Development

Operations

THE  
SCIENCE  
OF  
WHERE

... Working Together to Make a Difference



# Esri Eastern Africa

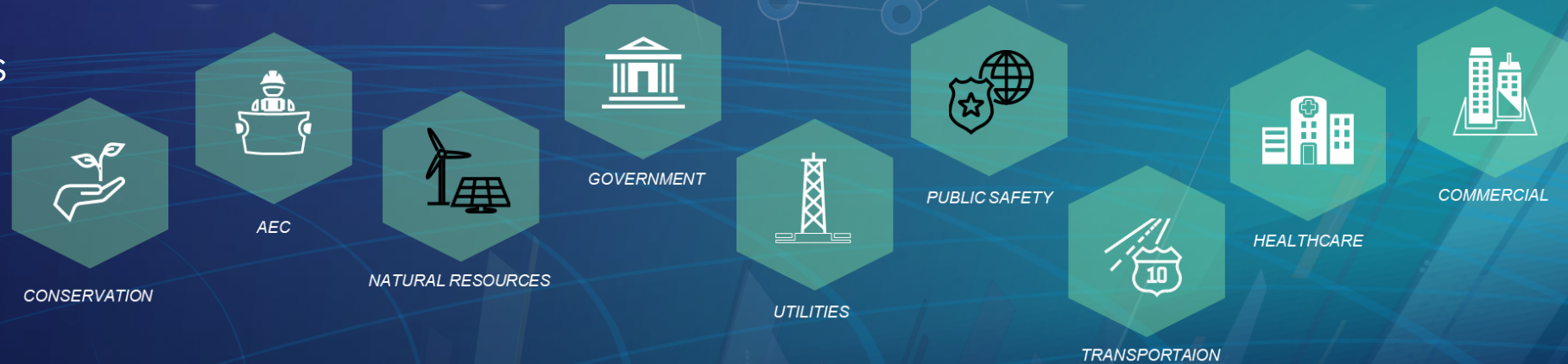
## Solutions

- Leading GIS ArcGIS Technology
- Imagery

## Support Users

- Professional Services
- Training & Education
- Technical Support
- User Conference, Industry Seminars, Technical sessions

## Support Business Partners



# Geoinformation System

*A Framework  
and Process*



Data Management  
& Integration

Visualization &  
Mapping

Analysis &  
Modeling

Planning &  
Design

Decision  
Making

Action

Understanding

Predicting

Collaborating

Informing

Measuring

*Transforming How We Think and Act . . .*

# ArcGIS

Supports Three Fundamental Systems

## System of Insight (Analytics)

*Extract Information  
from Imagery*



*Professional  
Imagery & Geospatial  
Analysts*

## System of Engagement (Apps and Maps)

*Share imagery products and  
information to those that need it*



*Content:  
ArcGISOnline  
Partners, Org*



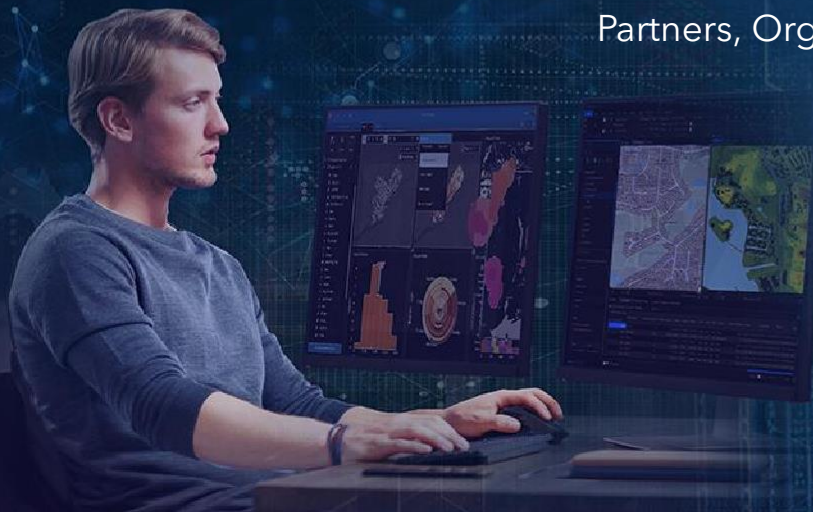
*Real-Time Measurement  
(Field / IoT / Remote Sensing)*

## System of Record

*Manage and process  
all your imagery*

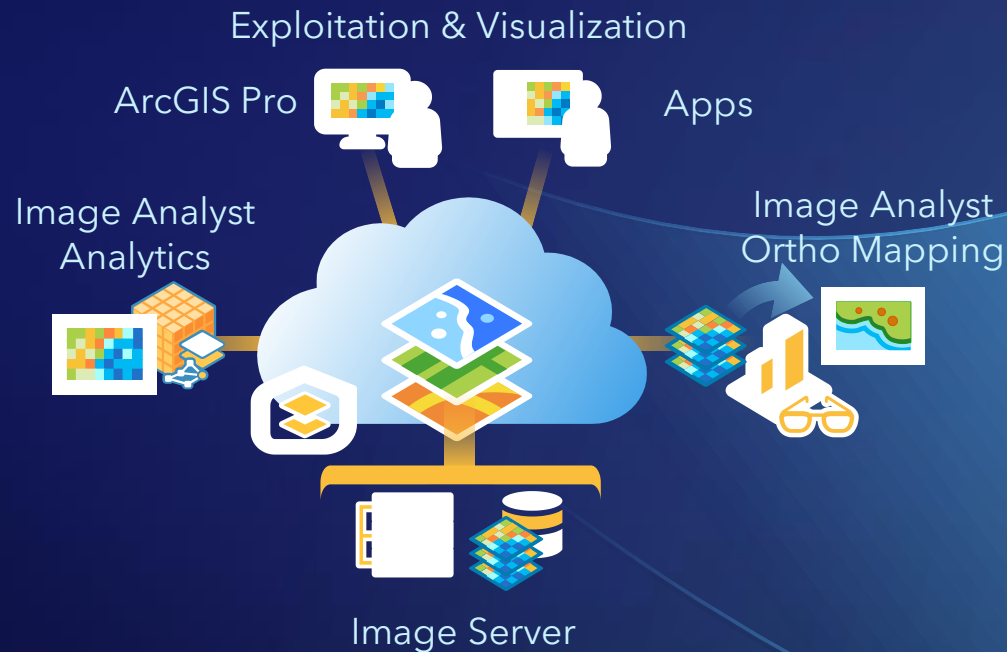
*Bringing Together Systems, Workflows and Content*

*Empowering users to make informed decisions*

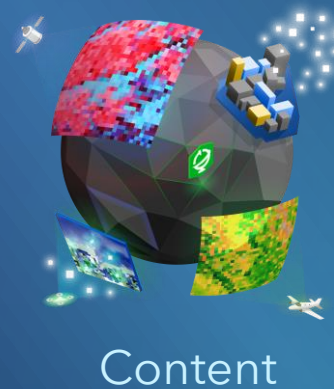


# ArcGIS is a Comprehensive GIS Platform for Mapping, Spatial Analysis and Visualization

Focused on our users workflows



*A scalable platform for working with all forms of imagery (drone, aerial, and satellite) to create valuable information products, integrated with GIS.*



Visualization



Analysis



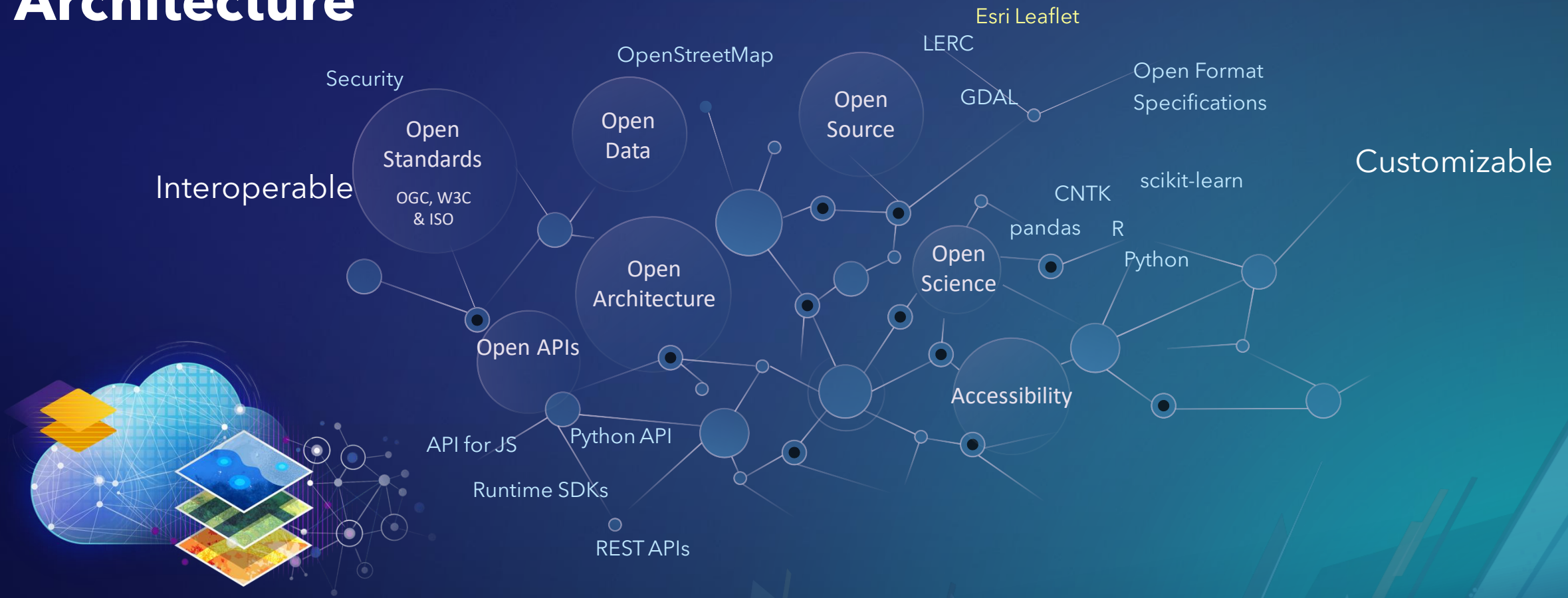
Map Production



Image Management

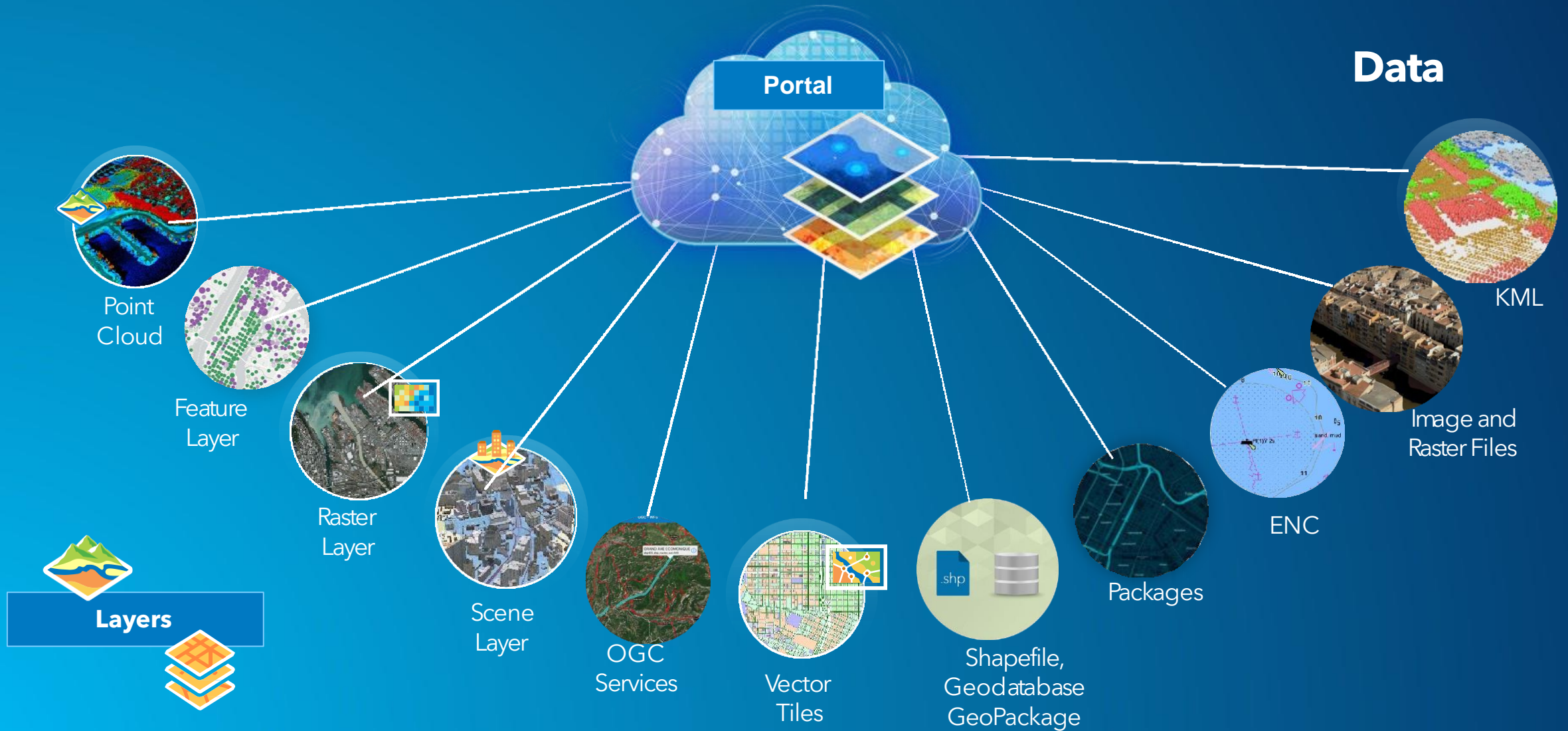


# ArcGIS Provides an Open Platform Architecture



*Successfully Integrated into Thousands of Systems*

# Layers





# Capability → Mapped to Product



## Management

Capabilities  
(What do you do?)

Products  
(What do you need?)  
- Features  
(What do you get)

ArcGIS Pro  
- Authoring Mosaic Datasets  
- Raster Types/Products

ArcGIS Image Server  
- Scalability  
- Dynamic Image Services

ArcGIS Image Online  
- Publish Tile Layers

Imagery Workflow Tools  
- MDCS  
- MDTools  
- OptimizeRasters  
- Oriented Imagery



## Map Production

ArcGIS Pro (Advanced)  
- Ortho Mapping  
- Generate Ortho  
- Generate DSM/DTM

Drone2Map  
- Generate 2D & 3D Products

ArcGIS Image Server  
- Ortho Mapping  
- Ortho Maker

ArcGIS Online  
- Publish Results



## Analysis

ArcGIS Pro  
- Image Visualization  
- Raster Functions  
- GIS Integration

ArcGIS Image Analyst  
- Classification  
- Deep Learning

Spatial Analyst Extension  
- Raster Analysis  
- HydroTools

ArcGIS Image Server  
- Raster Analytics  
- ArcGIS for Python  
- REST APIs



## Visualization & Exploitation

ArcGIS Pro  
- Image Visualization  
- Raster Functions  
- GIS Integration

ArcGIS Image Analyst  
- Stereo  
- Image Space  
- Motion Imagery

ArcGIS Image Online  
- WebMapView  
- Imagery Templates  
- WABIS  
- Image Discovery  
- Oriented Imagery

ArcGIS Excalibur  
- WebBased Image Exploitation

ArcGIS Image Server  
- Dynamic Image Services  
- Base for Excalibur



## Content

ArcGIS Online  
- Imagery content  
- The Living Atlas of the World  
- -Sentinel 2  
- Landsat  
- Worl Imagery

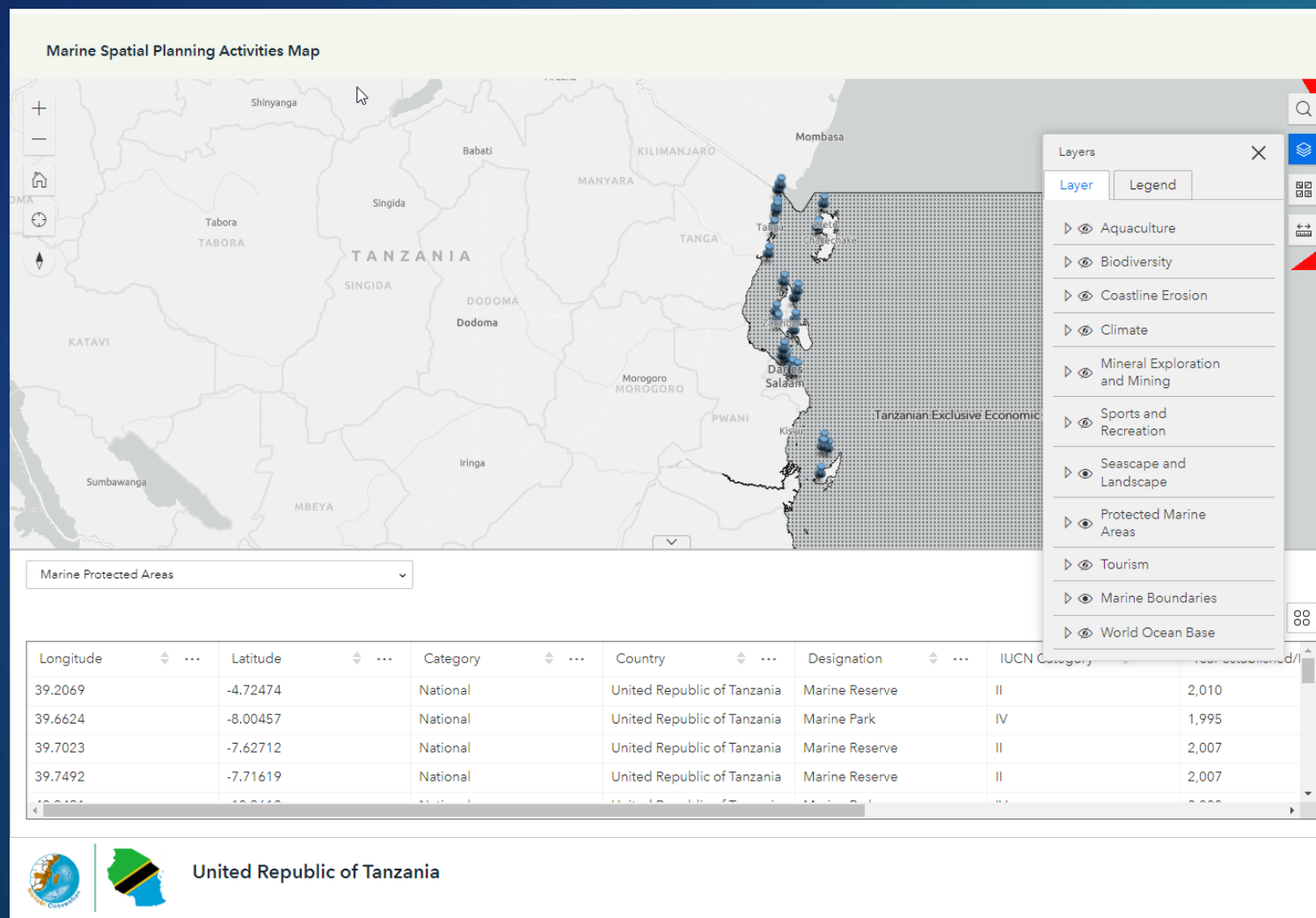
ArcGIS Marketplace  
- Premium data

Partners Integration  
- Airbus, Maxar, Planet...



# ArcGIS for Marine Spatial Planning

## Data Visualization



<https://storymaps.arcgis.com/stories/d8511e89c8704cc9921227cde2e9c0ae>



# Tanzania Marine Spatial Planning Outlook

Nairobi Convention Secretariat

November 29, 2022

[Introduction](#)

[Biodiversity](#)

[Blue Economy](#)

[Marine Resources Governance](#)

[Marine Spatial Activities Map](#)

[Nairobi Convention Engagement ...](#)

[Credits](#)

Tanzania ratified the Nairobi Convention on 1<sup>st</sup> March 1996.

## Introduction

Tanzania is located in the Eastern Africa region, between latitudes 1°00'S and 11°45'S and longitudes 29°15'E and 41°00'E (URT, 2012). Tanzania mainland covers a total area of 948,740km<sup>2</sup>, of which 889,460km<sup>2</sup> is terrestrial.

<https://storymaps.arcgis.com/stories/d8511e89c8704cc9921227cde2e9c0ae>

CORDIO Data Portal Blog Our data Ocean Scenarios

CORDIO Data and Information Portal

Search, Visualize, Download, & Create Maps

Search data

This platform is used to share data, information, and, knowledge to enable active participation in the management and conservation of marine ecosystems and resources. Users can explore, visualise, print, and download data to solve important marine related issues. Let's achieve our goals together!

### Explore our data and information by category

There's a lot to see here, so feel free to peruse our data library by the following categories

- Coral Bleaching
- Fish and Fisheries
- Coral Resilience
- Community Outreach
- Science to Policy
- SDG
- Regional Engagement
- Marine Spatial Planning

<https://cordio-data-portal-cordioea.hub.arcgis.com/>



# esri™ Eastern Africa

THE SCIENCE OF WHERE™



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