

*Presented at the FIG Congress 2018,
May 6-11, 2018 in Istanbul, Turkey*



Reimagining Spatial Data Infrastructures

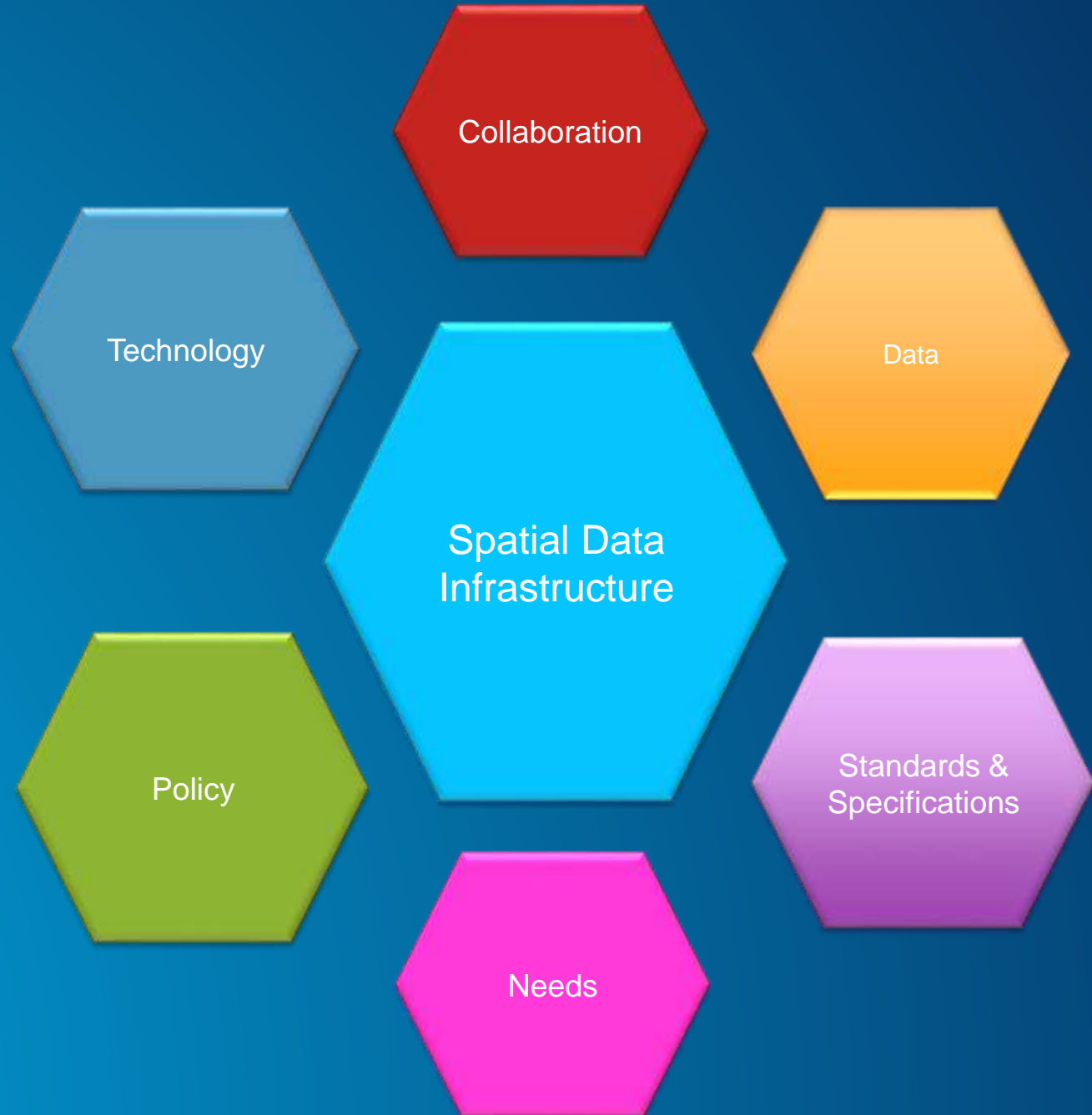
Nick Land

Esri

Spatial Data Infrastructures

A Well Established Concept

- **Discovery**
- **Clearinghouses**
- **Portals**
- **INSPIRE**
-



SDIs in Europe

Estonia & Cyprus

The screenshot shows the Estonian Geoportal interface. The top navigation bar includes 'Home', 'Metadata', 'Services', 'About INSPIRE', 'Data owner', 'Map', 'Sign up', and 'Help'. The main content area is titled 'Eesti geoportaal' and 'Maa-Amet'. A left sidebar lists various layers under 'All layers' and 'Selected layers'. The main map area displays 'Cadastral parcels (CU)' with a spatial dataset description and a map view showing a grid of parcels. Below the map, there are links for 'View Service (WMS)' and 'Download Service (WFS and AtomFeed)'.

<http://inspire.maaamet.ee/>

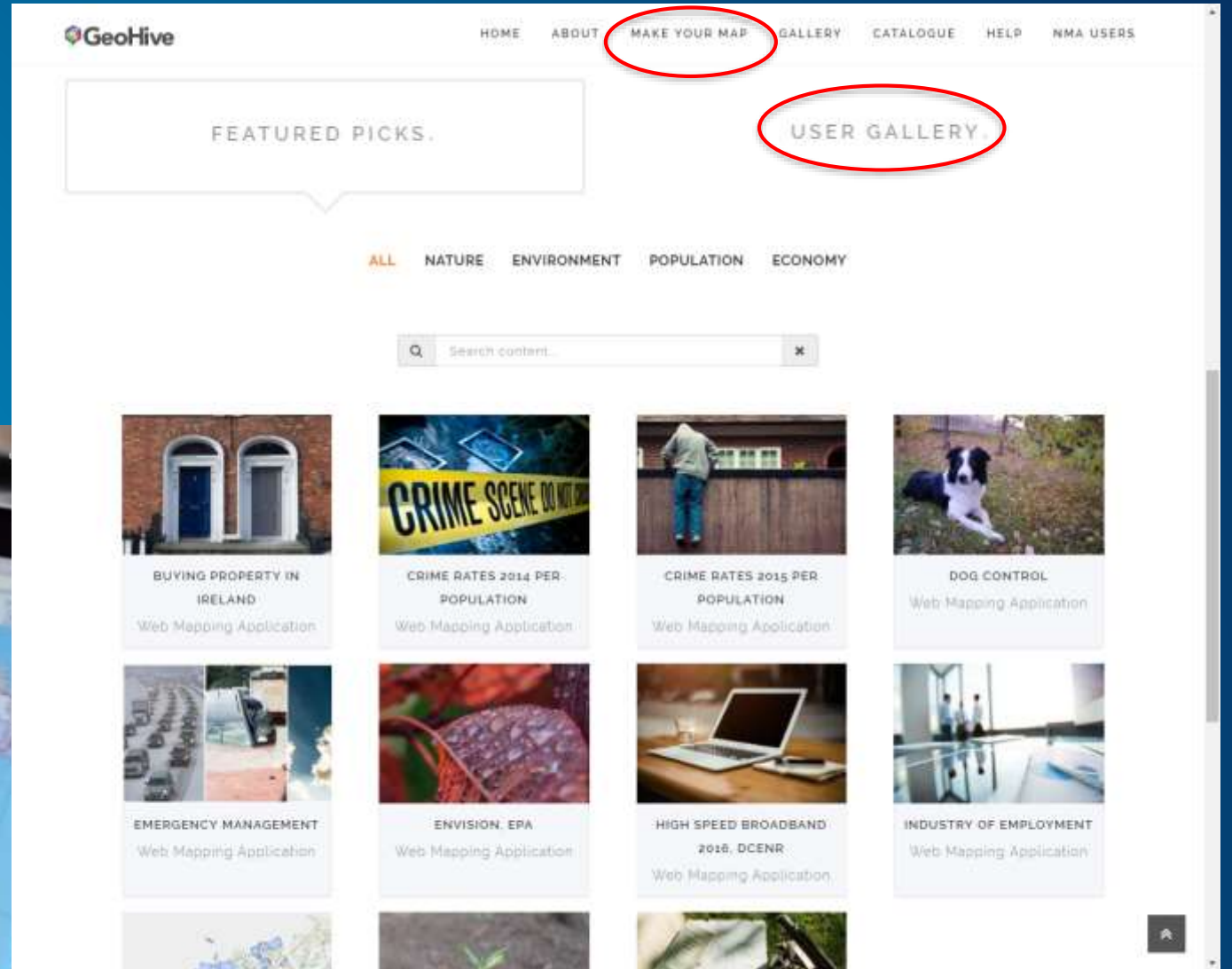
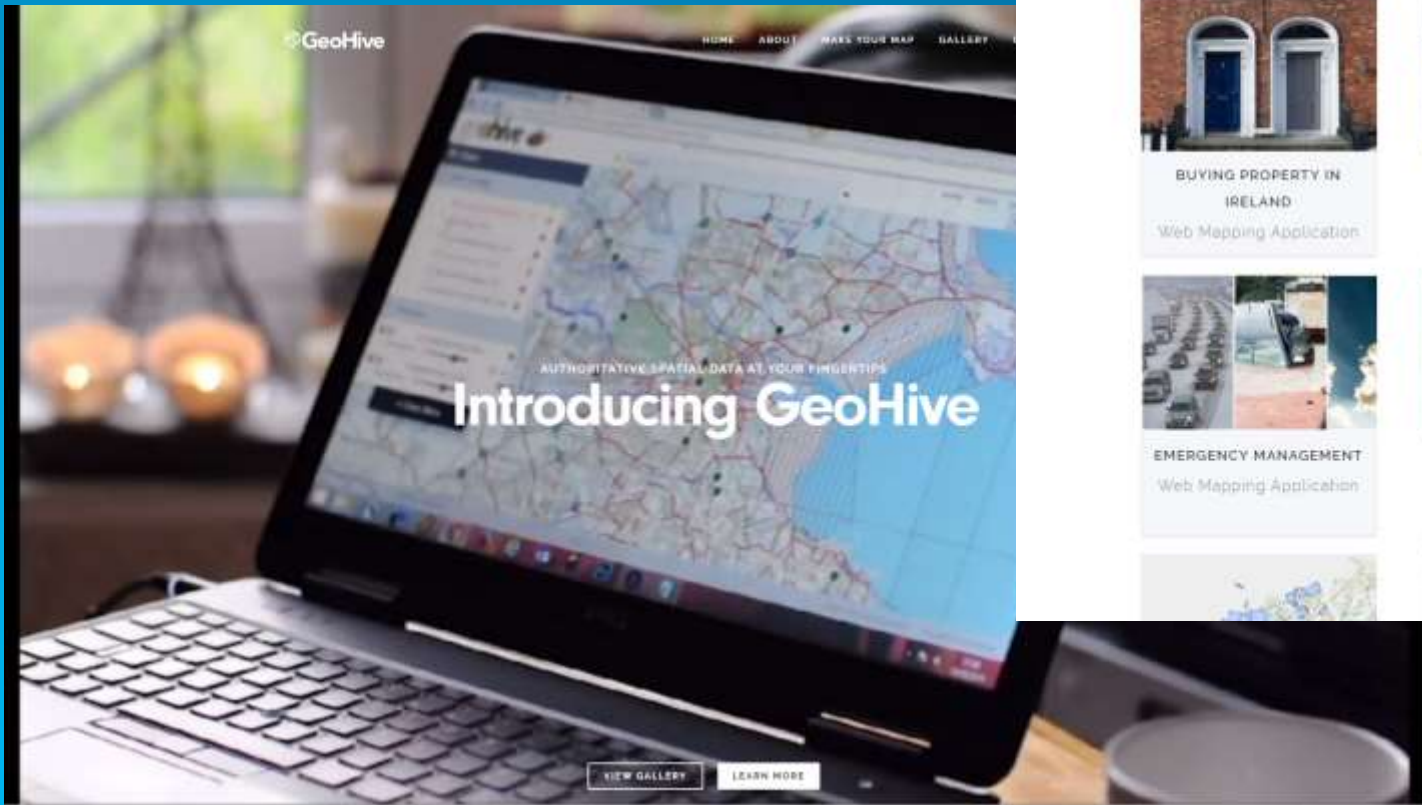
The screenshot shows the Department of Lands and Surveys Web Portal. The top navigation bar includes 'REPUBLIC OF CYPRUS | MINISTRY OF INTERIOR | DEPARTMENT OF LANDS AND SURVEYS' and 'CITIZEN PORTAL, ELECTRONIC APPLICATIONS, INTERACTIVE MAPS, INSPIRE GEO-PORTAL'. The main content area features a large banner with the text 'The Department of Lands and Surveys Web Portal' and a 'READ MORE' button. Below the banner, there is a section titled 'Electronic Services' with the instruction 'Choose a Service of your interest.' Four service icons are displayed: 'CITIZEN PORTAL' (Information, Latest News, Projects of the Department of Lands and Surveys), 'ELECTRONIC APPLICATIONS' (Submit On-Line Applications, Provision of Legal, Fiscal, Taxation, Survey and Cartographic Data, Electronic Services to Organisations), 'INTERACTIVE MAPS' (On-Line Real Time Navigation and Search to a Property, Different Thematic Map Layers, WEB GIS, Cadastral, Topographical, Hydrographical), and 'INSPIRE GEO-PORTAL' (View, Discovery and Download of INSPIRE Services, Spatial Data from Various Governmental Agencies, Various Data Themes, Metadata Search).

<http://portal.dls.moi.gov.cy/en-us/homepage>

SDIs

From “Compliance” to Use

- Open Data
- Collaborative platform

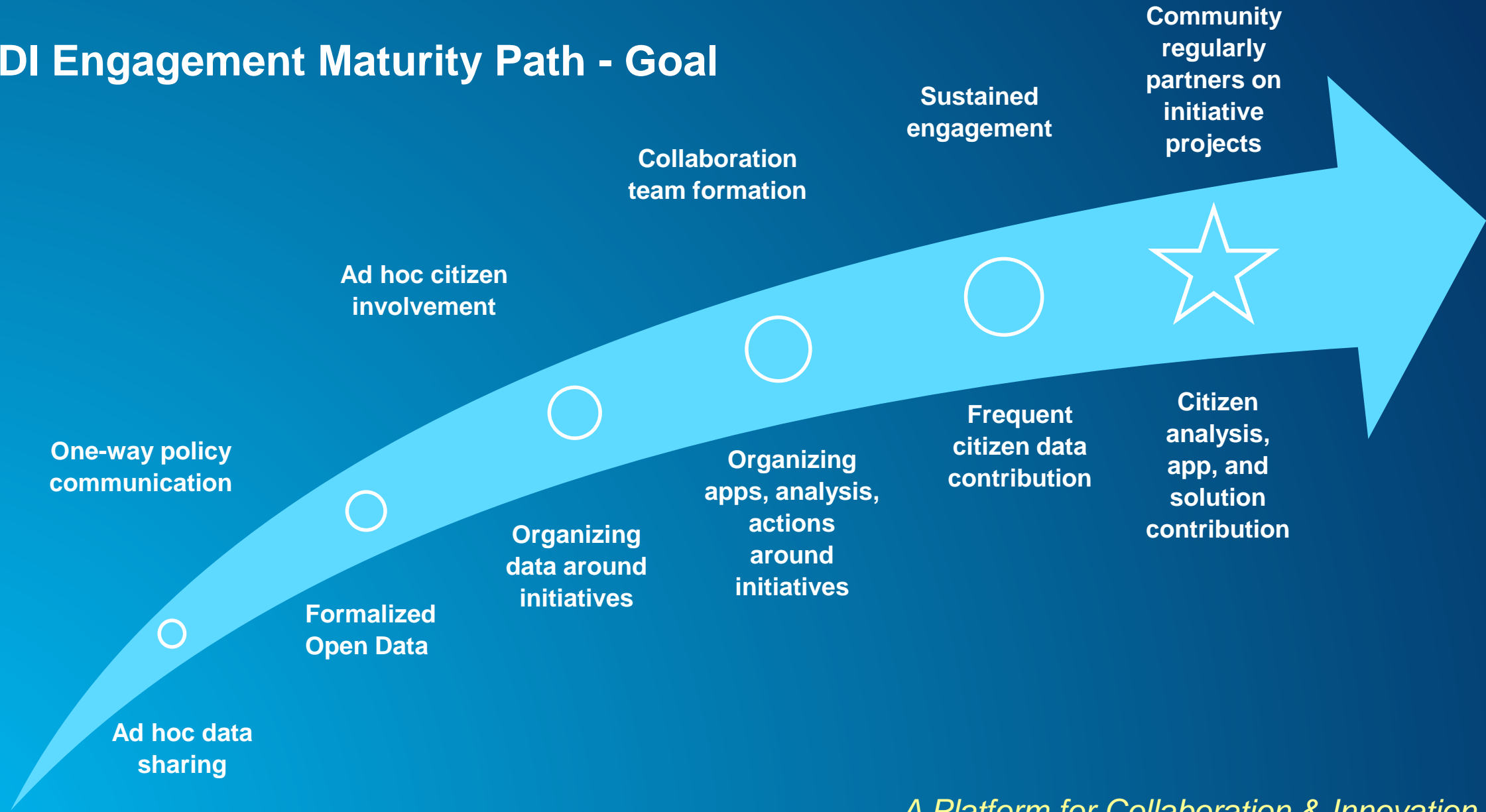


<http://geohive.ie>

SDI Engagement Maturity Path - Today

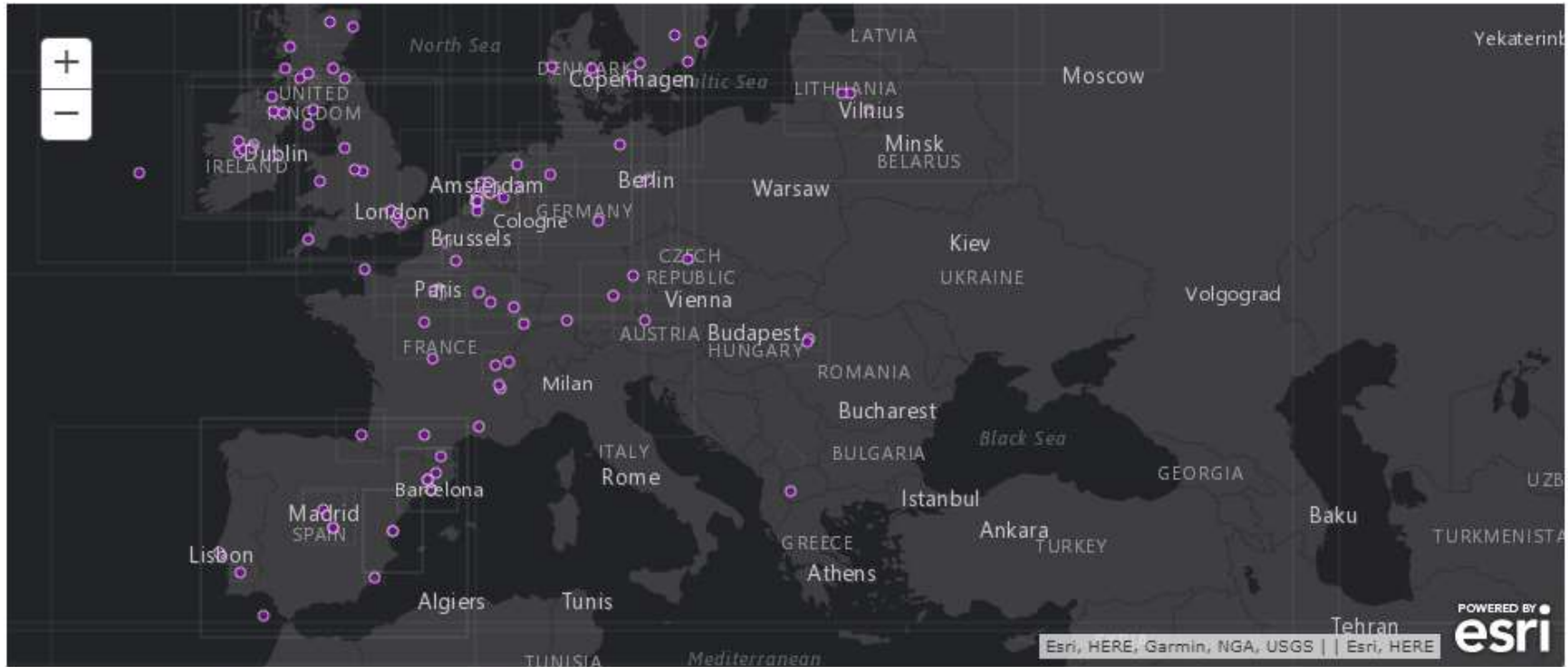


SDI Engagement Maturity Path - Goal



A Platform for Collaboration & Innovation

Open Data Is All Over the World



Launch the [Open Data Sites Around the World](http://www.esri.com/software/arcgis/arcgisonline/arcgis-open-data) story map.

<http://www.esri.com/software/arcgis/arcgisonline/arcgis-open-data>



Connect With Your Citizens

Citizens are an integral part of any government. Whether they're buying a house or wondering about road construction, Open Data allows citizens to engage with your data, and allows you to better understand what issues the community is focused on.

Search Data

Find Bus Routes, Park Services, Schools

Near City, Country



Total Datasets 97,512

Organizations Worldwide Sharing Open Data 5,250

Browse by Categories



Safe

Crime
Disaster
Emergency Response



Prosperous

Demographics
Economy
Education



Sustainable

Climate
Energy
Infrastructure



Healthy

Agriculture
Disease
Health-Care



Liveable

Culture
Housing
Transportation



Well-Run

Boundaries
Financial
Planning & Land Use

Every Community wants to be...

Sustainable

Transparent

Resilient

Livable

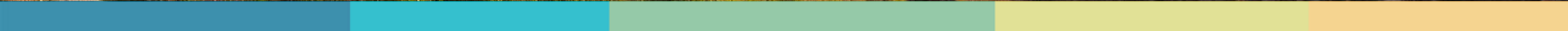
Healthy

Collaborative

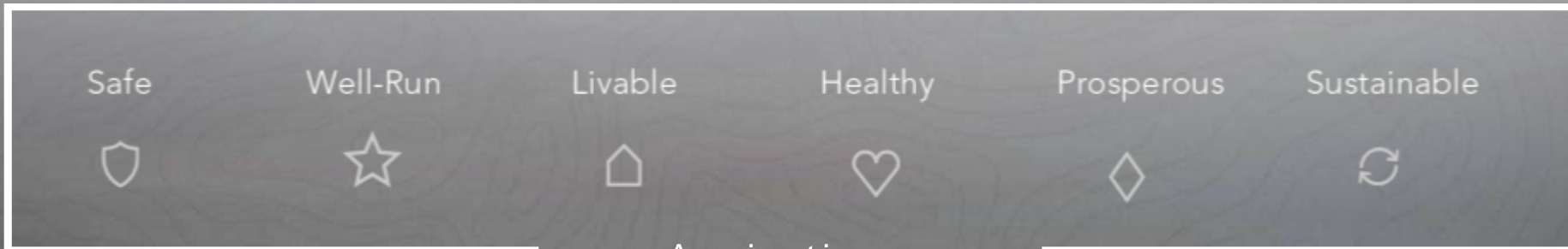
Safe

Prosperous

Innovative



Aspirations get translated into actionable, real-world Initiatives



Aspirations



Initiatives



Partnership

Enterprise Collaboration

- Cross-department Teams
- Initiative Focus

Community Organization

- Engagement on Initiatives
- Citizens with Identity

- Shared Data & Tools
- Discovering Solutions Together

Initiative Web Pages

Los Angeles Vision Zero Initiative page

Banner

Narrative

Performance

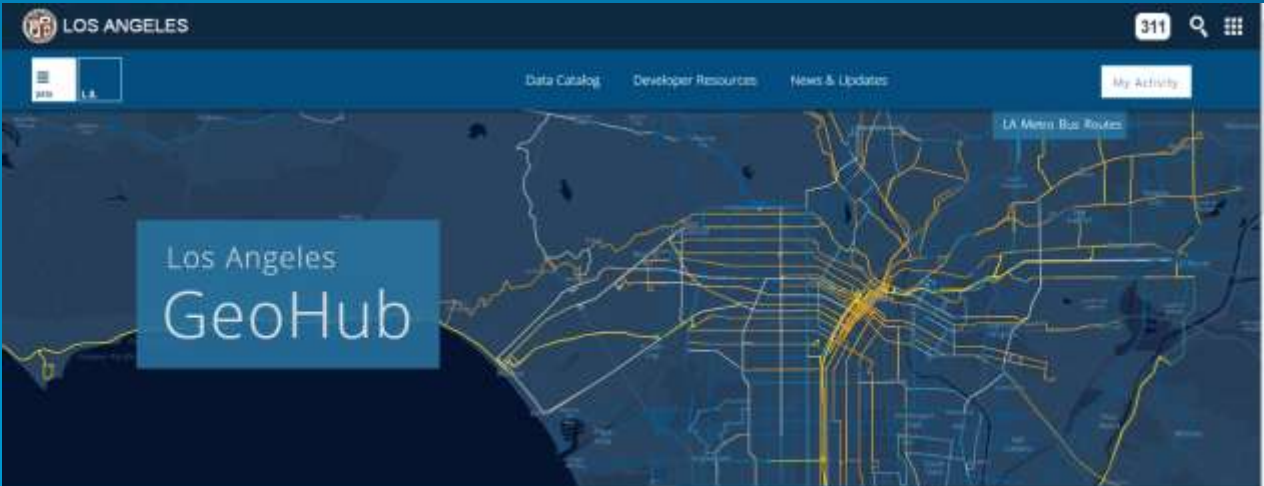
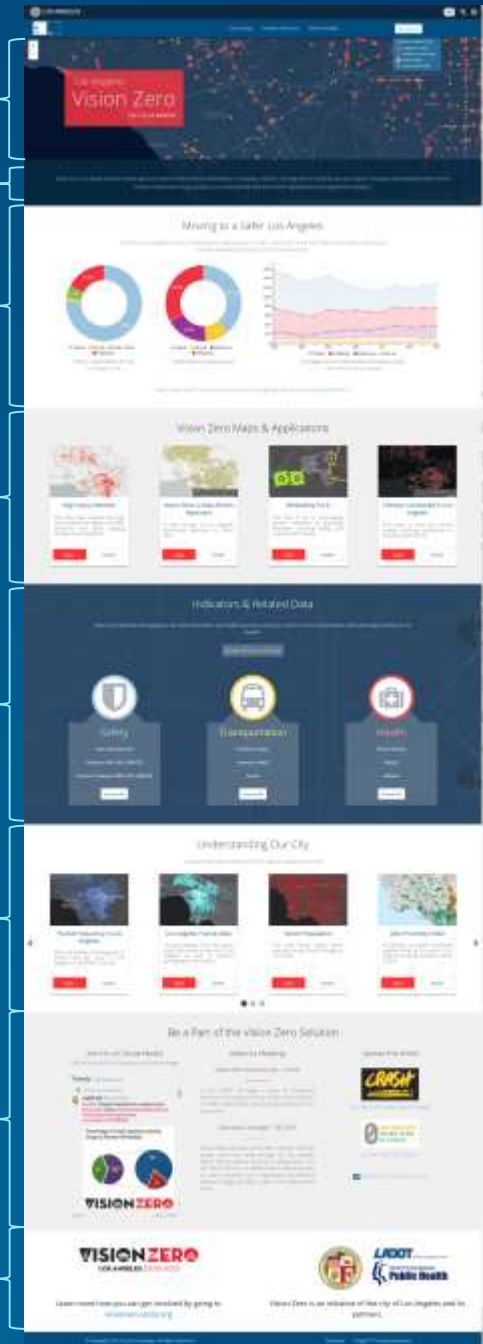
Apps

Data Catalog

Maps

Ways to Engage

Participating Agencies



Putting Data to Work

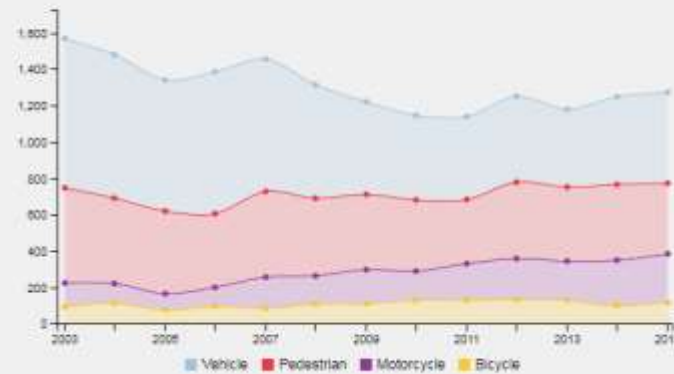
Featured Initiative



"Every year, more than 200 people are killed while trying to move around Los Angeles. Nearly half of the people who die on our streets are people walking and bicycling, and an alarming number of them are children and older adults. Our streets must be safer." - Mayor Eric Garcetti

See how the Los Angeles Vision Zero initiative is making our streets safer by putting data to work.

See Data in Action



Los Angeles Annual Traffic Fatalities and Severe Injuries

WebGIS

A Comprehensive Geospatial Platform

Services Based



Distributed

Supporting Individuals, Teams, and Organizations

WebGIS Provides the Framework

For Managing, Analyzing, and Applying Geographic Information

Integrating People,
Processes, Things,
and Data About Them

System of
Engagement

System of
Record

System of
Insight

Using the Power of Location
to Integrate Everything



Community Engagement

Providing Citizens Information . . .
. . . And Leaders Input



Managing

- Community Outreach
- Policy Initiatives
- External Organizations



Improving Communication, Transparency, and Community Action

A Whole New Type of GIS Is Emerging

Connecting Individuals, Organizations and Communities



Web GIS Portals are Enabling the Vision of NSDI

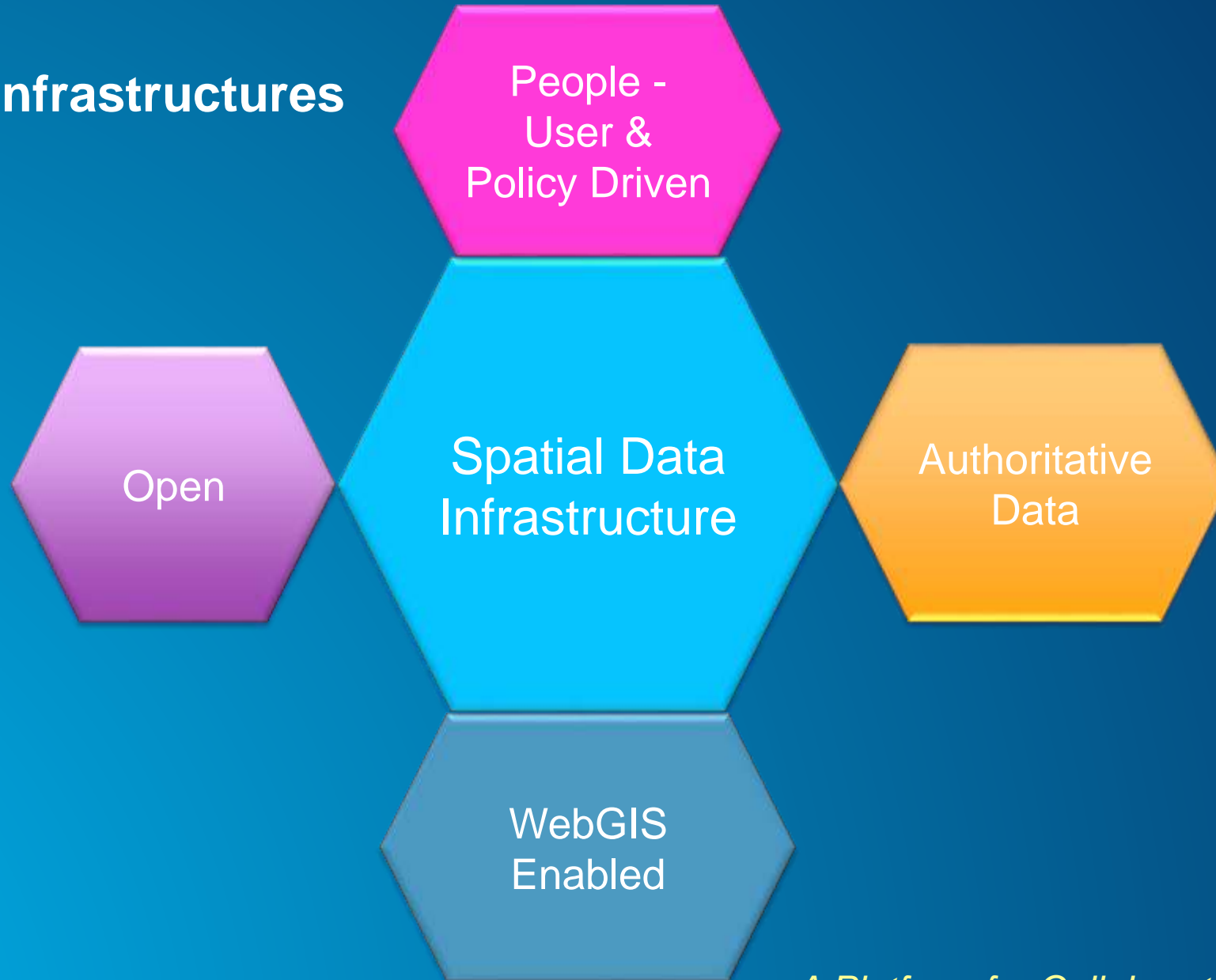
Complementing Metadata Catalogs with an Integrated System



... Transforming the Role of Geospatial Information

Spatial Data Infrastructures

Reimagined



A Platform for Collaboration & Innovation



esri

THE
SCIENCE
OF
WHERE

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