



The Evolving Role of the National Mapping & Cadastre Agencies

Nick Land, Esri

Digital Transformation Is Just Beginning . . .

We Are Living in an Era of Exponential Technological Advancement



Building a "Digital Twin"

The Pace of Change Is Accelerating

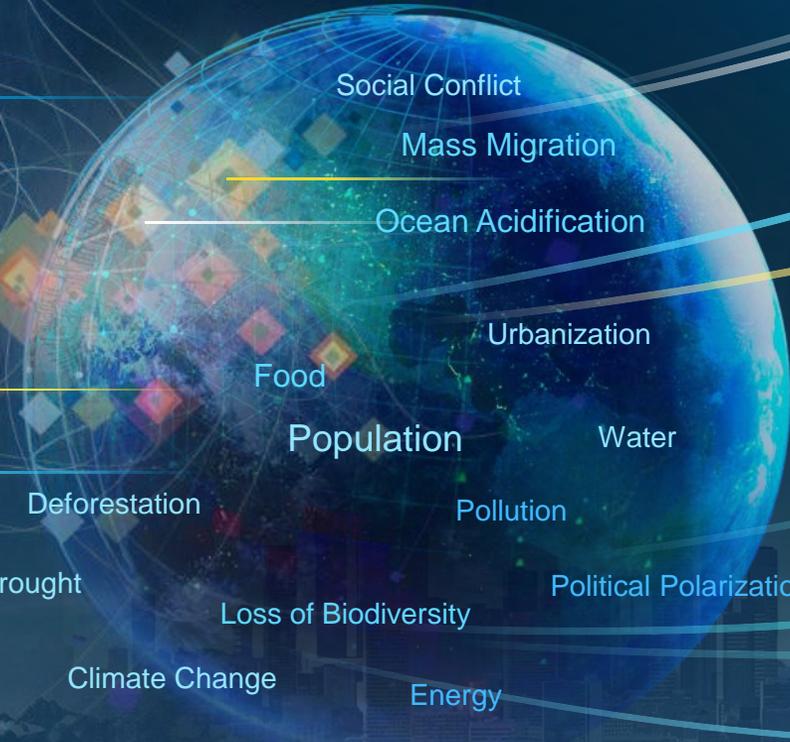
Creating Many Challenges

Threatening Our Natural World
and Our Future as Humans

We Are Now at a Place
Where No Humans Have Been . . .

We Need More Understanding
. . . Collaboration and
. . . Action

Evidence



What Should We Do Next?

Apply the Power of Digital Geography

Envision
What's Possible

Improve
Productivity
and Efficiency

Better Managed
Infrastructure

Make Cities
Smarter

Enable
Connectivity

Engage
Citizens

Improve
Mobility

Create
Sustainable
Development

Data Driven Policy Decisions . . .





Environment
Natural Disasters
Urbanization & Development
Nature Conservation
Natural Resources

Climate Change
Social Conflicts
National Security
Agriculture
Economic Development
Infrastructure

Business
Energy
Water Resources
Transparent Government
Science & Technology
Pollution

GIS & Authoritative Data

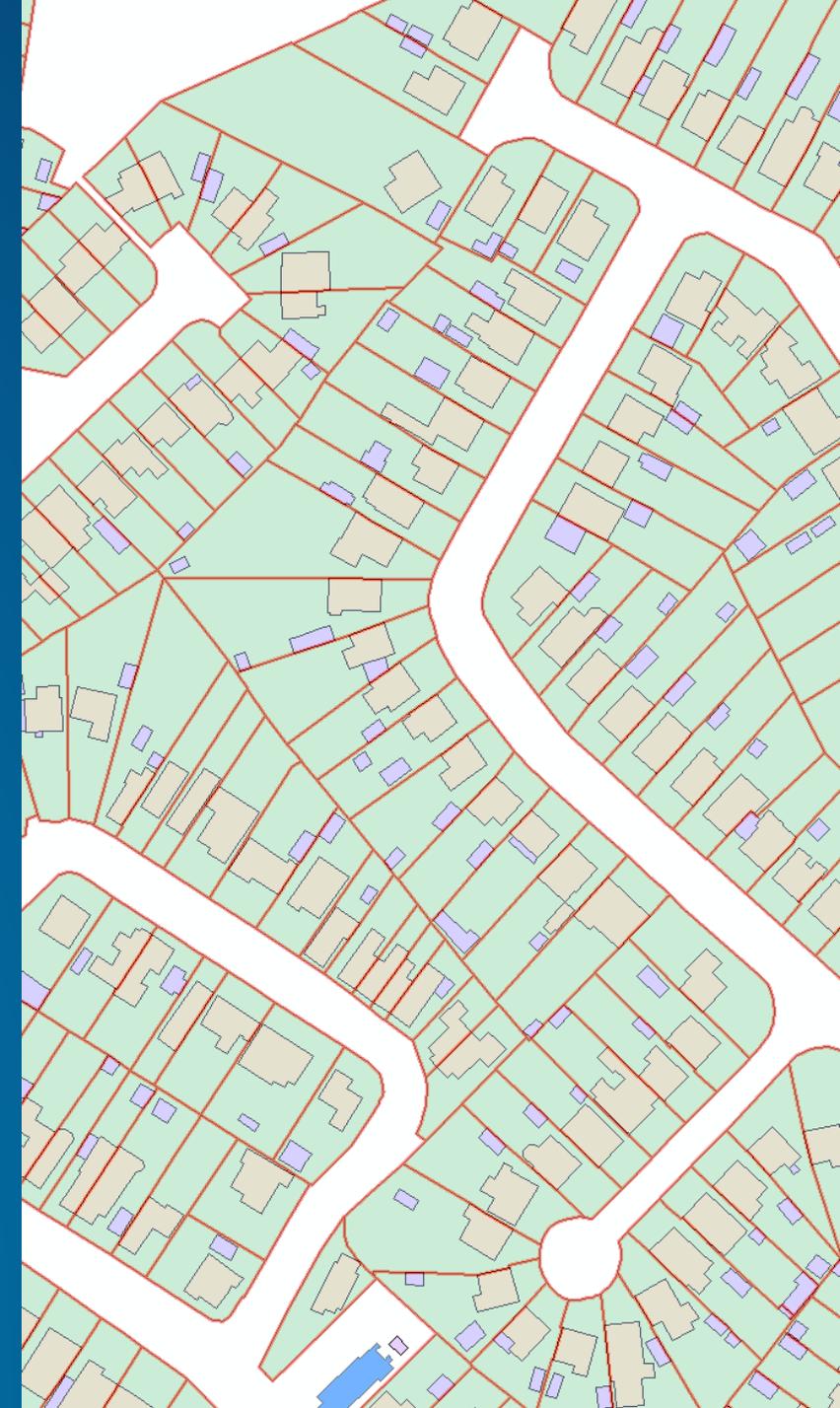
Addressing *All Our World's* Challenges

Authoritative Data

“System of Record”

- Complete
- 2D & 3D
- Near Real Time
- Multi-sourced, quality assured
- Relevant (“Fit for Purpose”)

NMCA as “Authoritative” Data Provider

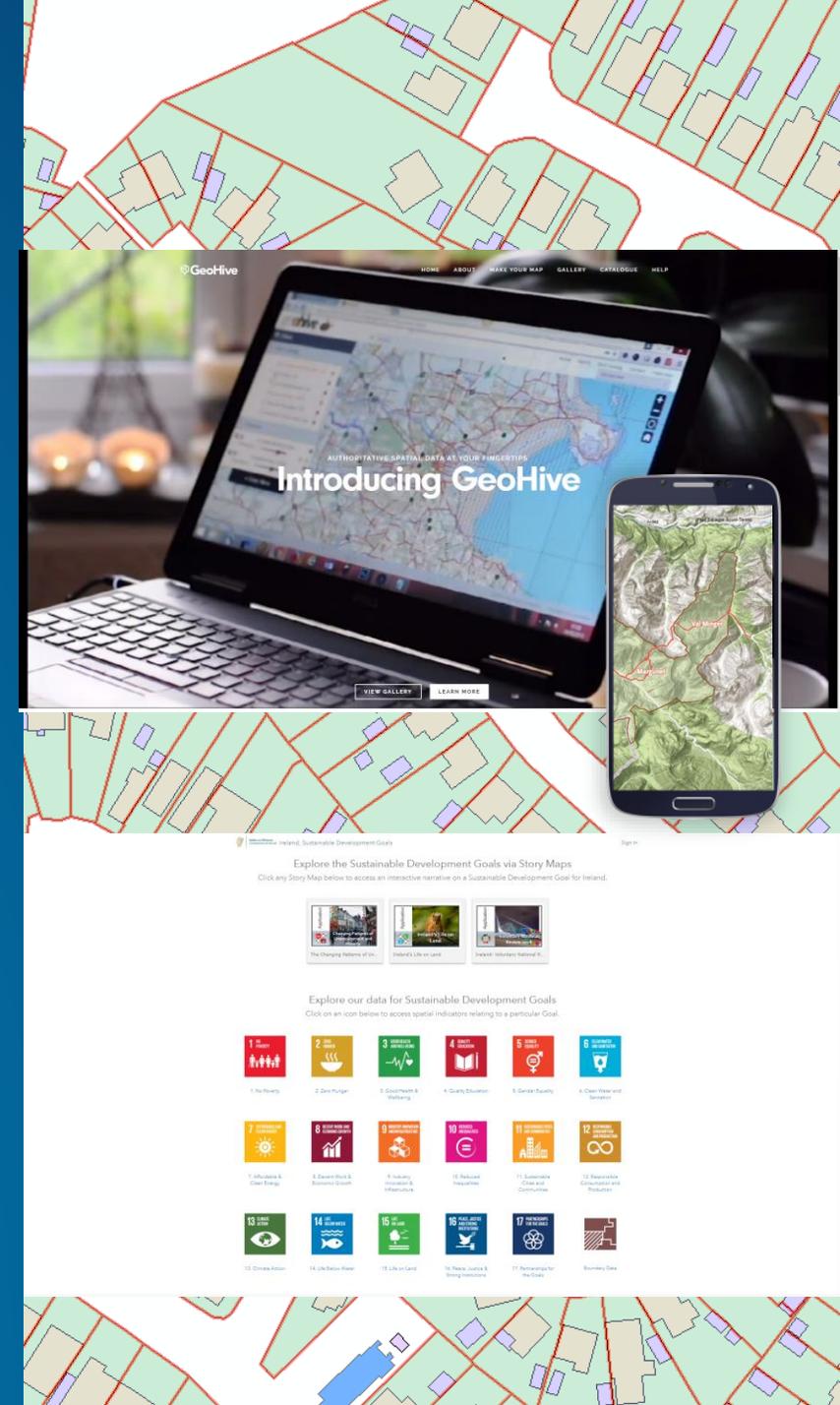


Authoritative Data

“System of Engagement”

- Discoverable, Accessible, Usable
- Open
- Integral Part of a Nation’s Geospatial (Data) Infrastructure
- Integral to Government Policy & Digital Transformation

NMCA as “integrator” of Geospatial Data



Ireland's UN SDG Data Hub



Rialtas na hÉireann
Government of Ireland | Ireland, Sustainable Development Goals

Sign In

17 Goals to Transform our World

Governments, businesses and civil society together with the United Nations (UN) have started to mobilise efforts to achieve the Sustainable Development Agenda by 2030. Universal, inclusive and indivisible, the Agenda calls for action by all countries to improve the lives of people everywhere.

This is Ireland's public platform for exploring, downloading and combining publicly available data relating to the UN and the European Union (EU) Sustainable Development Goals. Ireland's progress against each Goal is measured using a set of globally and EU agreed Indicators and here you can search for, discover and visualise the data we use to create those Indicators.

<http://irelandsdg.geohive.ie/>

Ireland's UN SDGs Data Hub – Data Access



5. Gender Equality

(1 of 2)

SDG 5.5.1, NUTSIII, Proportion of Seats Held by Women in Local Government, 2014, Local Government Elections & OSi

OBJECTID	6
NUTS1	IE
NUTS1NAME	Ireland
NUTS2	IE06
NUTS2NAME	Eastern and Midland
NUTS3	IE061
NUTS3NAME	Dublin
Shape__Area	2597391756.7597656

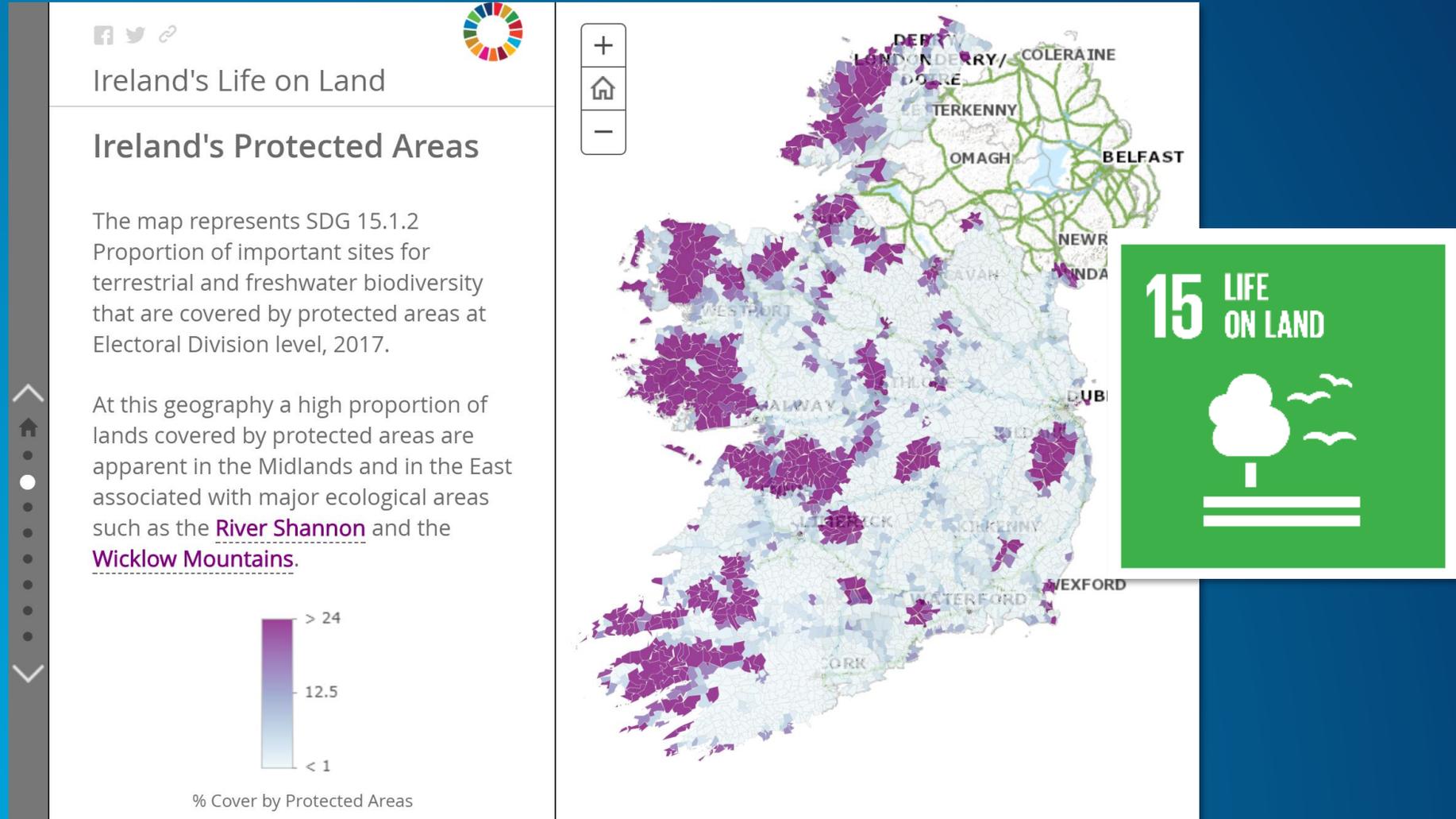
Overview | Data | API Explorer
© Ordnance Survey Ireland

SDG 5.5.1, NUTSIII, Proportion of Seats Held by Women in Local Government, 2014, Local Government Elections & OSi

Showing 1 to 8 of 8 Hint: Click on ▼ to filter columns.

▼ OBJECTID	▼ NUTS1	▼ NUTS1NAME	▼ NUTS2	▼ NUTS2NAME	▼ NUTS3	▼ NUTS3NAME	▼ Shape__Area	▼ Shape__Area
1	IE	Ireland	IE04	Northern and Western	IE041	Border	33976428463.48242	4334486...
2	IE	Ireland	IE04	Northern and Western	IE042	West	40510973141.15039	4736892...
3	IE	Ireland	IE05	Southern	IE051	Mid-West	28529686404.691406	1508101...
4	IE	Ireland	IE05	Southern	IE052	South-East	19344366248.70215	1609152...
5	IE	Ireland	IE05	Southern	IE053	South-West	32387562750.646972	4373512...

StoryMap – Ireland's Life on Land

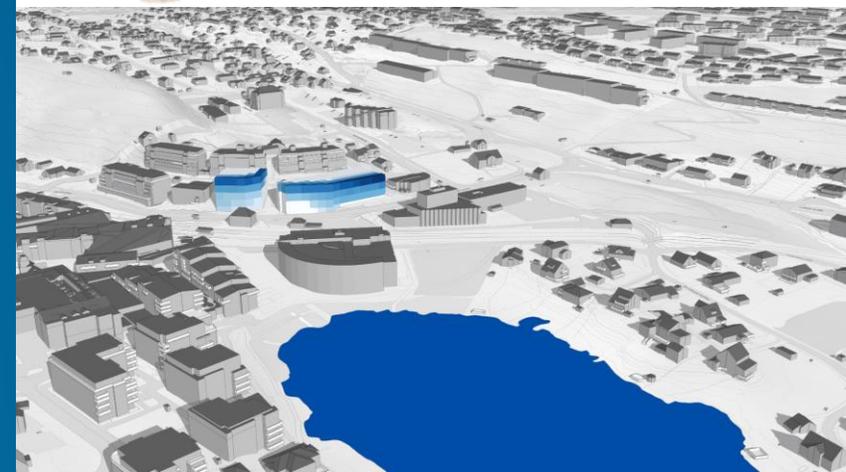
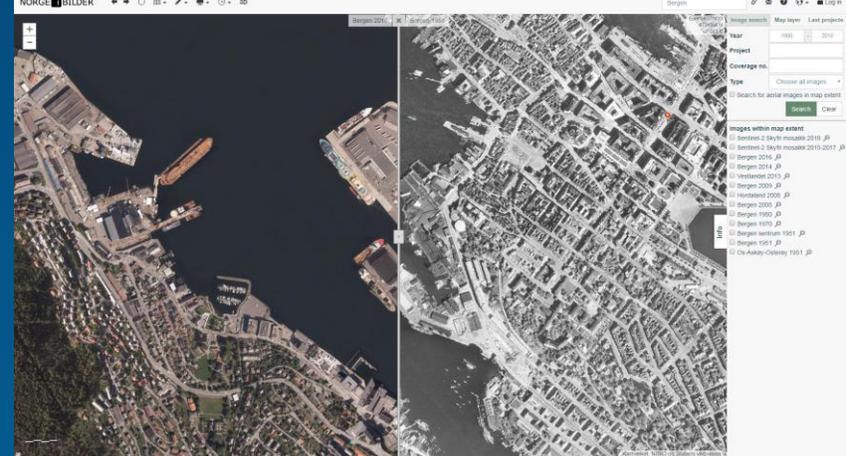


Authoritative Data

“System of Insight”

- Providing Answers to Questions

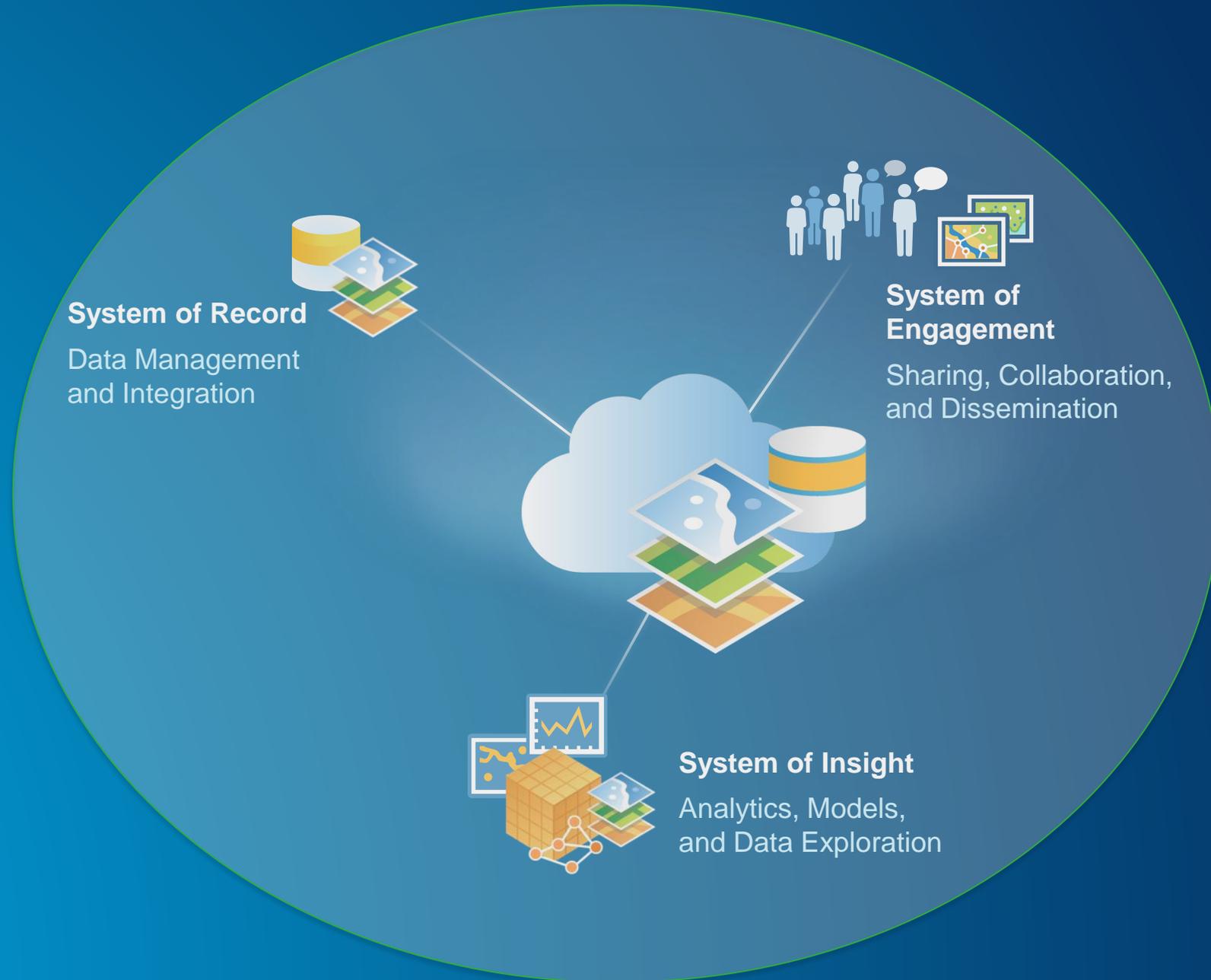
NMCA as “Centre of Excellence”



NMCA Goals

- Data Driven Policy
- Efficiency in Public Service
- Creating Economic Growth
- Societal Development
- Environmental Protection

“Creating Value”



Evolving Role, Evolving Behaviours

Embrace Digital Transformation as Subject Matter Experts . . .
. . . Community Builder & Problem Solver

*Envision a
Better Future*

Innovate
Create Solutions
Participate &
Take Action
Take the Initiative
Work Together
Critical Thinking
Speak the other
persons language
Embrace
Technology
Learn
Continuously



. . . Better Decision Making Underpinned by Authoritative, "Fit for Purpose", Data



esri

THE
SCIENCE
OF
WHERE

nland@esri.com