



UN-GGIM: AMERICAS
REGIONAL COMMITTEE OF
UNITED NATIONS INITIATIVE ON
GLOBAL GEOSPATIAL
INFORMATION MANAGEMENT

US National Spatial Data Infrastructure

A Framework for Collaboration and Data Sharing in the Geospatial Ecosystem

Ivan DeLoatch
Executive Director
Federal Geographic Data Committee



Partnerships

Policies

Standards

Procedures

Data

Technology

NSDI Framework for Building and
Maintaining a Geospatial Platform

National Spatial Data Infrastructure

The NSDI Provides a framework of polices, standards, procedures, data and technology to support the effective coordination and sharing of spatial information among a community of stakeholders.

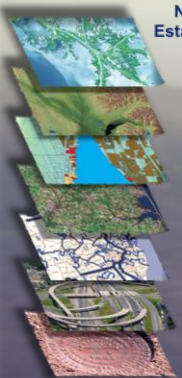
Our Journey Advancing the Location-Based Digital Ecosystem



National Spatial Data Infrastructure



The United States Federal Geographic Data Committee (FGDC) was Established in 1990 to Coordinate the Nations Geographic Information and Federal Spatial Data Activities



Components to enable **Location-Based Smart Communities**



People
Public-Private Partnerships

*Policy
Governance*



Data
*Discoverable, Accessible
Usable*

*Standards
Procedures*



Technology
*Tools, Applications
& Services*

How do we enable a *Location-Based Digital Ecosystem*?

People: Collaboration, Cooperation, Cultivation



NSDI Partnerships & Collaboration

Federal

State & Local

Tribal

Private & Professional

Academia

International

NATIONAL
SPATIAL
DATA
INFRASTRUCTURE



Public-Private
Partnerships



- Partnerships
- Policies
- Standards
- Procedures
- Data
- Technology

National Spatial Data Infrastructure

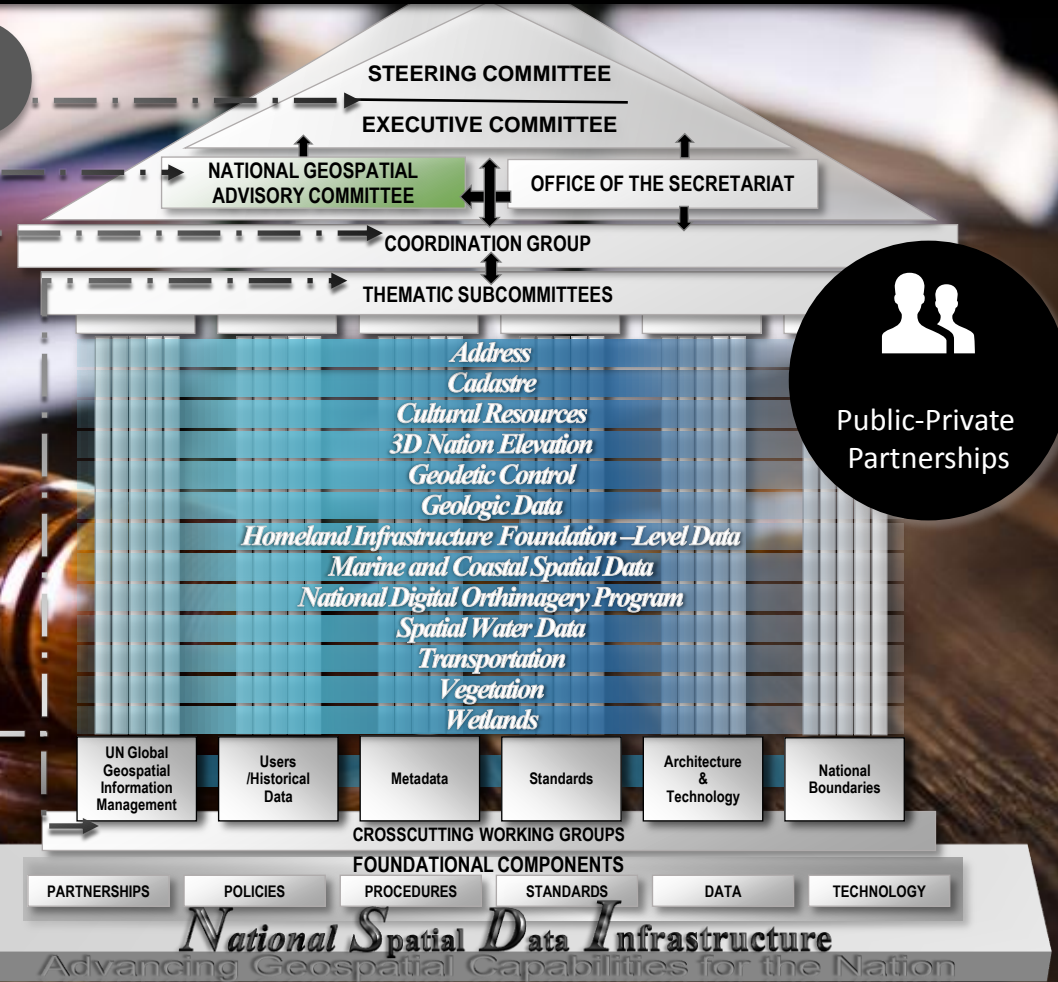
Partnerships and Governance

Strategic Direction

Non-Federal Advisory

Federal Advisory

Address Specific Geospatial Issues



Policy and Procedures

Policy
Governance

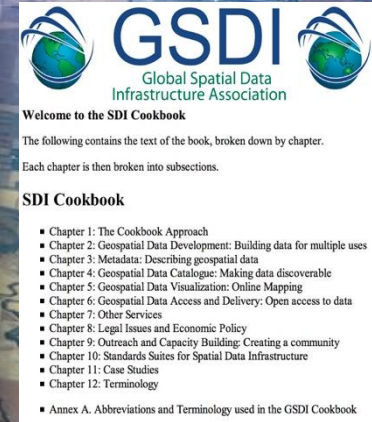
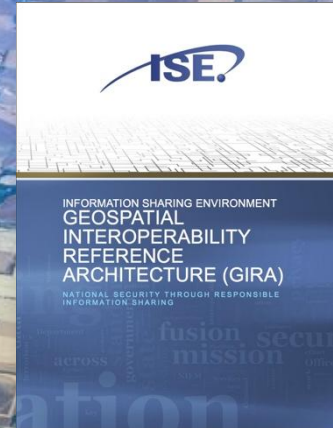
Public Laws

Executive Memos

Circulars

Reference Guides

OPEN
GOVERNMENT
DIRECTIVE



Process for maintaining Executive Theme Champions, Theme Leads, and Dataset Managers

NGDA datasets inventory and register metadata on the GeoPlatform.gov/Data.gov catalog

Process for nomination/removal of NGDA Datasets within the A-16 NGDA Portfolio

Geospatial investments definitions document

NGDA Collaboration Community on Geoplatform.gov

NGDA Theme public websites on GeoPlatform.gov

Complete NGDA Dataset Lifecycle Maturity Assessment (LMA)

NGDA Strategic Theme Plan Template

Coordinate across NGDA Themes

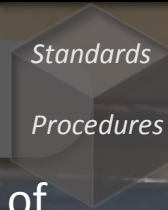
Dataset Report (Jan 2016)

Initial Theme Summary Report (Jan 2016)

Dashboard (Jan 2016)



Standards & Interoperability



Standards facilitate development, sharing, and use of geospatial data and services



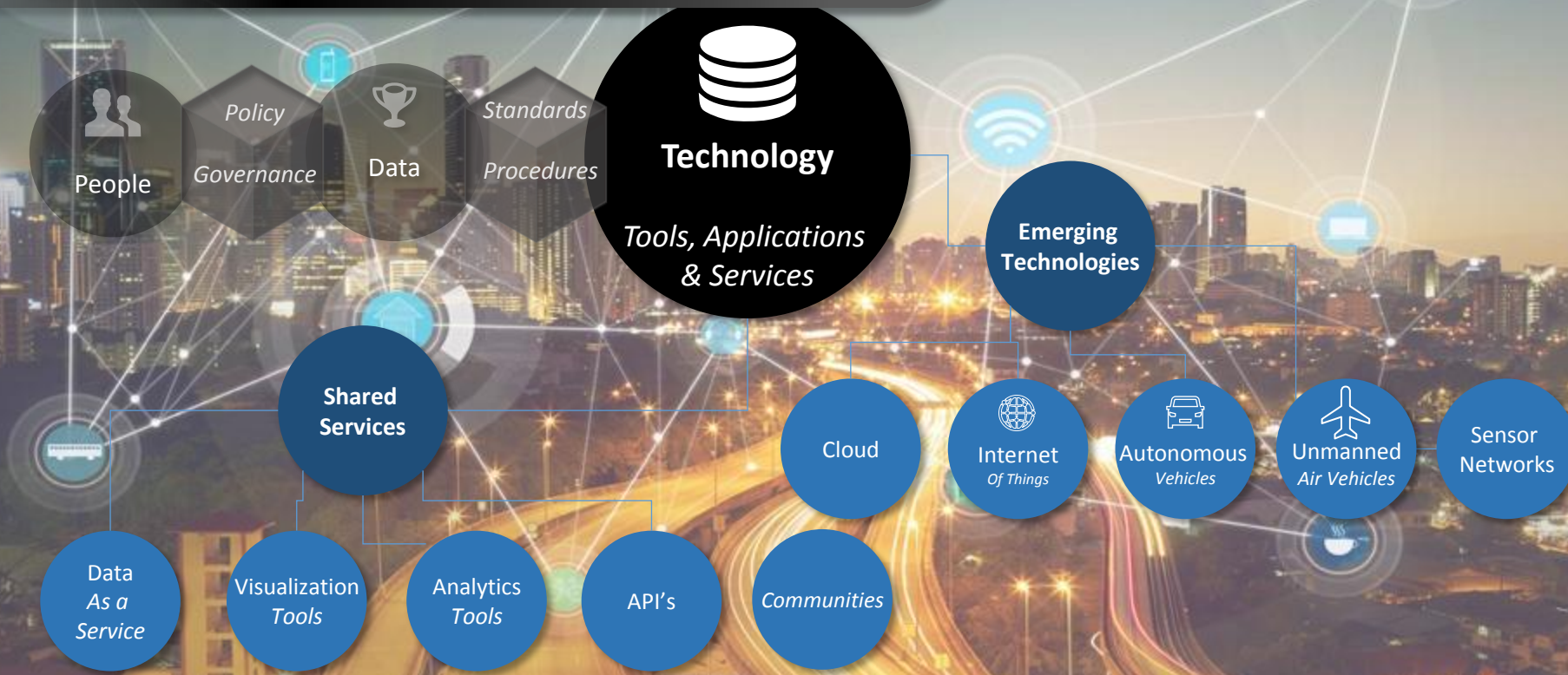
How do we enable a *Location-Based Digital Ecosystem*?

Data : As a National Asset



How do we enable a *Location-Based Digital Ecosystem*?

Technology : Providing data, tools and services





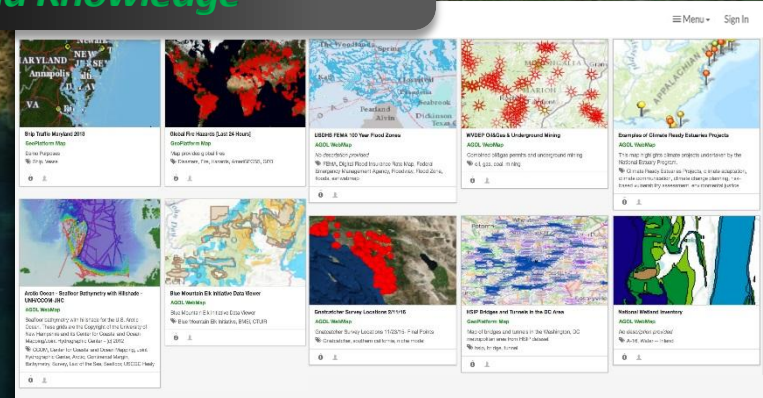
The GeoPlatform links and Connects Local-to-Global *Data, Information and Knowledge*

Welcome to the Geospatial Platform

The GeoPlatform provides shared and trusted geospatial data, services, and applications for use by the public and by government agencies and partners to meet their mission needs.

GeoPlatform users have access to

- A one-stop shop that delivers trusted, consistent data and services
- Authoritative data to support informed decision making
- Reusable applications and services for governmental and nongovernmental use
- A shared infrastructure that can host your data and applications
- A focal point where governmental, academic, private, and public data can be visualized together to inform national and regional issues



Geospatial Platform Services

GEOPLATFORM.gov

Data Services

GEOPLATFORM.gov

Applications & Tools

GEOPLATFORM.gov

Shared Services

GEOPLATFORM.gov

Communities

GeoPlatform Dataset Search

Search

Search Datasets

Enter keywords and press 'Enter'
Surround phrases with quotations ("")

Search by geography

Sort By
Popular

Technology
Tools, Applications & Services

Organizations

Organization	Count
National Oceanic and Atmospheric Administration, Department of Commerce	70845
NSGIC GIS Inventory (aka Ramona)	16988
Federal Emergency Management Agency, Department of Homeland Security	8109
U.S. Geological Survey, Department of the Interior	6222
Earth Data Analysis Center, University of New Mexico	5436

Find

USGS National Hydrography Dataset (NHD) - USGS National Map Downloadable Data Collection [↗](#)
U.S. Geological Survey, Department of the Interior

The USGS National Hydrography Dataset (NHD) Downloadable Data Collection from The National Map (TNM) is a comprehensive set of digital spatial data that encodes information about naturally occurring and constructed bodies of surface water (lakes, ponds, and reservoirs), paths through which water flows (canals, ditches, streams, and rivers), and related entities such as point features (springs, wells, stream gages, and dams). The information encoded about these features includes classification and other characteristics, delineation,

WAF FTP Amazon Cloud Esri REST Esri REST + 3 more

FEMA FLOODPLAIN, AUSTIN COUNTY, TEXAS [↗](#) Federal

Federal Emergency Management Agency, Department of Homeland Security

The Floodplain Mapping/Redelineation study deliverables depict and quantify the flood risks for the study area. The primary risk classifications used are the 1-percent-annual-chance flood event, the 0.2-percent-annual-chance flood event, and areas of minimal flood risk. The Floodplain Mapping/Redelineation flood risk boundaries are derived from the engineering information Flood Insurance Studies (FISs), previously published Flood Insurance Rate Maps (FIRMs), flood hazard analyses performed in support of the FISs and FIRMs, and new

SHP HTML

NOAA Integrated Surface Global Hourly Data [↗](#) Federal

National Oceanic and Atmospheric Administration, Department of Commerce

Integrated Surface Data (ISD) is digital data set DSI-3505, archived at the National Climatic Data Center (NCDC). The ISD database is composed of worldwide surface weather observations from over 20,000 stations, collected and stored from sources such as the Automated Weather Network (AWN), the Global Telecommunications System (GTS), the Automated Surface Observing System (ASOS), and data keyed from paper forms. Most digital observations are decoded either at operational centers and forwarded to the Federal

HTML HTML HTML HTML Esri REST + 13 more

Basemaps for USA, WMS from US Bureau of Land Management [↗](#) Other

Arizona Geological Survey

Includes: UTM zones, BLM Administrative Boundaries, Urban Areas, Counties, 100K quadrangle boundaries, Major Roads, US Highways, Interstates, State boundaries. FGDC metadata available at http://www.geocommunicator.gov/GeoComm/metadata/basemaps/BLM_MAP_BASEMAPS.htm

WMS HTML

Cell Tower FCC (point) [↗](#) State

State of Arkansas

This dataset contains FCC registered cellular antenna structure locations.

HTML HTML

USGS United States Tornado Touchdown Points 1950-2004 - Direct Download [↗](#) Federal

U.S. Geological Survey, Department of the Interior

The Tornado Touchdown Points (TTP) dataset contains the locations of tornado touchdowns in the United States, Puerto Rico, and the U.S. Virgin Islands, from 1950 to 2004. Statistical data were obtained from the National Weather Service, Storm Prediction Center, and the National Oceanic and Atmospheric Administration (NOAA) Storm Data website.

TTP02_Low_Shapefile_021110_U.S._Commod National Shapefile_02

Use

Water Availability

Flood Planning

Climate Forecasting

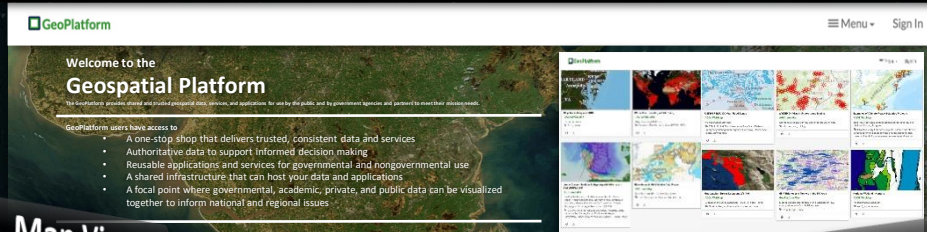
Land Management

Communications

GEOPLATFORM.gov

Data Services

The GeoPlatform delivers *trusted, nationally consistent, authoritative, geographically enriched social, economic, environmental* and other *data* for understanding and decision making.



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GeoPlatform users have access to:

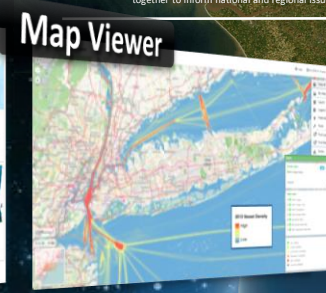
- A one-stop shop that delivers trusted, consistent data and services
- Authoritative data to support informed decision making
- Reusable applications and services for governmental and nongovernmental use
- A shared infrastructure that can host your data and applications
- A focal point where governmental, academic, private, and public data can be visualized together to inform national and regional issues



Technology
Tools, Applications & Services



Map Manager



Map Viewer



Data Acquisition



Marketplace



Service Dashboard



Community



Knowledge Base



Performance Dashboard

Category	Value	Target	Status
System Health	95%	90%	Good
Service Uptime	99.9%	99.5%	Good
Data Sync Success	98%	95%	Good
User Satisfaction	4.2/5	4.0/5	Good
Security Incidents	0	0	Good
Compliance Score	100%	100%	Good

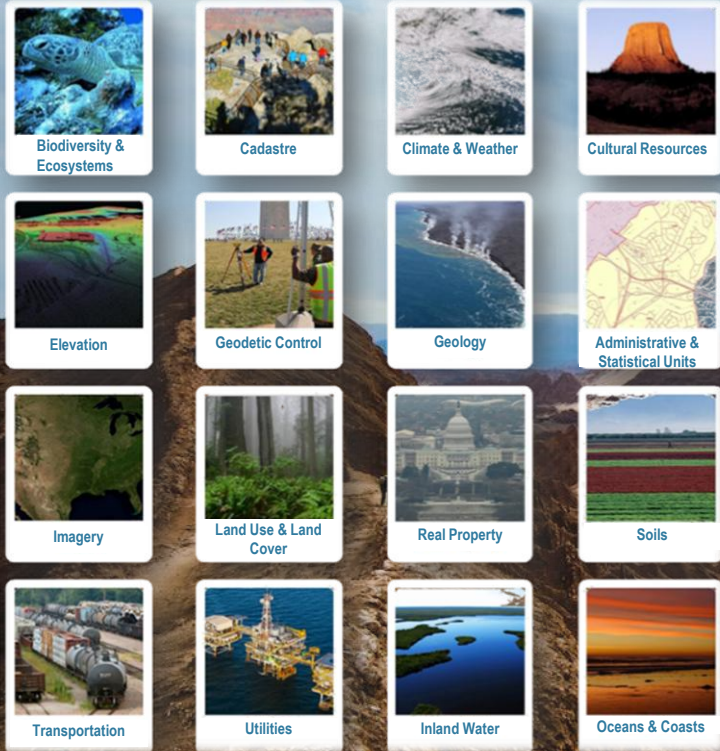
The GeoPlatform provides a suite of *applications and tools* for integrating, synthesizing, analyzing problem-solving and visualizing geographically enriched data to *accelerate understanding* and *decision-making*.




Technology
Tools, Applications
& Services



The GeoPlatform provides *shared hosting infrastructure* that allows agencies to publish their geospatial data, applications, and tools in a *secure cloud-computing* environment at a low cost.



GeoPlatform GeoCONOPS About GeoCONOPS Quick Start Guide Mission Areas Contact Us

Homeland Security Enterprise (HSE) Geospatial Concept of Operations (GeoCONOPS)

HSE GeoCONOPS
Understand how the geospatial community supports Homeland Security Missions and National Preparedness.

0:00 / 3:30

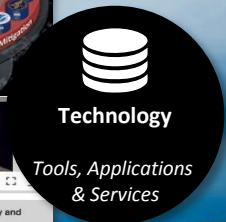
GOAL: Improve geospatial national preparedness by increasing the overall capacity and capability necessary, at all levels of government, to identify and utilize geospatial data, capabilities, and resources in order to conduct homeland security missions and improve national preparedness.

- Stakeholders:** Identify geospatial stakeholders, across all levels of government, supporting homeland security and PPD-3.
- GeoData & Products:** Search and discover geospatial data and products available to your mission.
- Capabilities:** Find geospatial resources and capabilities to aid in mission planning, rehearsal, and execution.
- Tradecraft:** Access training, operating procedures, templates, and other resources.
- Best Practices:** Discover methods and innovative practices for improving geospatial mission support.

Understand how the geospatial community works to unify operations that integrate and synchronize existing geospatial capabilities to support Prevent, Protect, Mitigate, Respond, and Recovery missions.

- Prevent**
- Protect**
- Mitigate**
- Respond**
- Recover**

Want to help, contribute, or get involved in the community? **Get Involved**



The GeoPlatform provides *collaborative tools and social resources* to advance the use of geospatial resources by *communities* to achieve measurable results.

International Collaboration

GEOPLATFORM.gov
geospatial data, services, government agencies and

GeoPlatform users have access to:

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- Authoritative data to support informed decision making
- Reusable applications and services for Federal govt and non-govt use
- A shared infrastructure to host data and applications
- A focal point where governmental, academic, private, and public data can be visualized together to inform and address national and regional issues

Featured: GeoPlatform Release Preview

Local | State | Tribal | Federal | Academia | Professional

National

Data Catalog | Tools | Products | Services | Communities

ARCTIC SDI | **GeoSUR**

Regional

Arctic Spatial Data Infrastructure (Arctic SDI)

GeoSUR

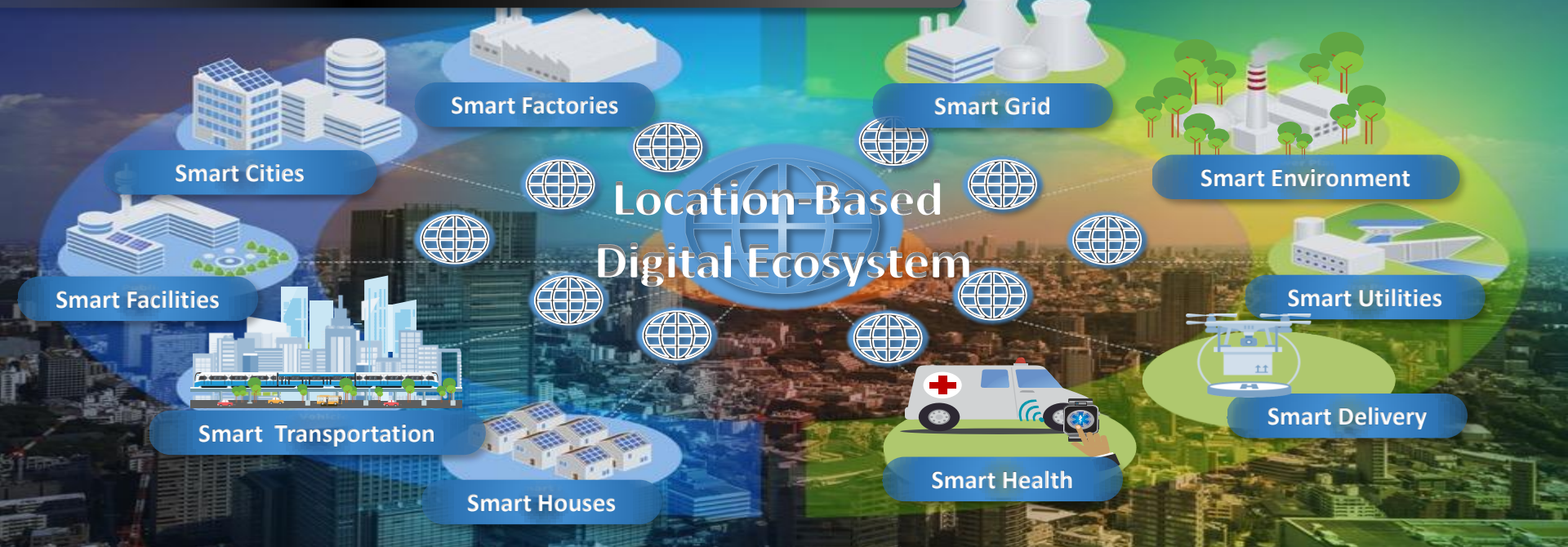
Regional

GLOBAL Earth Observation System of Systems (GEOSS)

Global

GROUP ON EARTH OBSERVATIONS

The Future – *Location Based Smart Communities*



Expand shared services and exploit emerging technologies to enable *smart communities*...



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Thank You for Your
Attention!

Contact: FGDC@FGDC.gov