

NTIS DATA SERVICES

**U.S. Department of Commerce
National Technical Information Service (NTIS)
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NTIS Joint Venture Partnerships for Data Innovation

Avi Bender, Director, NTIS

avi.bender@ntis.gov

703-605-6401

NTIS Fills a Critical Void for Achieving Data Driven Priorities Through a Federal-Private Sector Partnership

Challenge

Federal agencies and the private sector are challenged in their capacity to work together (time, skills, infrastructure) using data and technology to benefit the public and to improve government operations.

NTIS as a Solution Provider

- *NTIS is an entrepreneurial federal private sector data partnership that is fully fee funded without any appropriations from Congress.*
- *We are the exclusive provider of data services to Federal agencies, through a joint venture partnership (JVP) authority with the private sector, to advance Federal data priorities, promote economic growth, and enable operational excellence.*



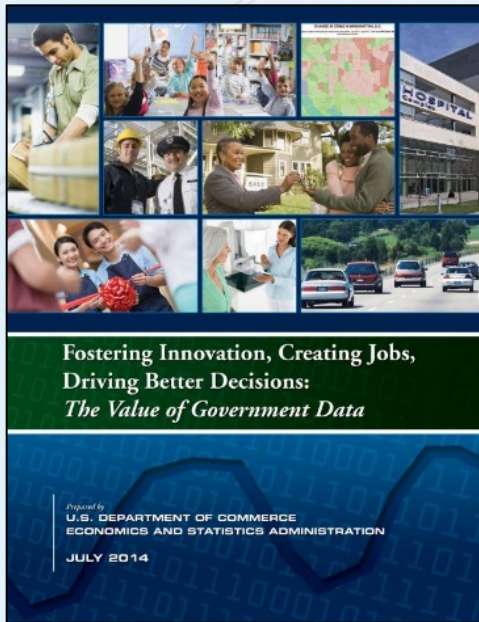
This joint venture partnership agreement is not a contract, and JVP is not a contractor to NTIS. Consequently, the Federal Acquisition Regulation (FAR) is not applicable to this joint venture partnership agreement

Advance Federal Data Priorities

The Federal government and the private sector must speak the same language of data driven opportunities

Promote Economic Growth

- Make it easier for businesses, communities, citizens to discover, access, analyze, and use Federal data, either alone or in combination with non-Federal data.
- Enable the private sector to develop and/or use new and improved data products and services that serve businesses, communities, and citizens.



Enable Operational Excellence

- Transform the delivery of critical government data services for the American people.
- Create a data-driven government by leveraging advances in data science, software development, and cybersecurity to increase efficiency/effectiveness of government programs.

NTIS and HHS/OIG- Sample Use Case

SUPPORT PREVENTION AND PROSECUTION OF MEDICARE/MEDICAID WASTE, FRAUD AND ABUSE

Agency: HHS OIG

IN THE FIRST HALF OF FY 2016, OIG REPORTED:

\$2.77B



EXPECTED RECOVERIES
OF MORE THAN
\$2.77 BILLION

428



CRIMINAL ACTIONS
AGAINST INDIVIDUALS
OR ENTITIES THAT
ENGAGED IN CRIMES
AGAINST HHS PROGRAMS

383



CIVIL ACTIONS,
WHICH INCLUDE CMP
SETTLEMENTS, FALSE
CLAIMS AND UNJUST-
ENRICHMENT LAWSUITS

**Medicare Funds Totaling \$60 Billion Improperly Paid,
Report Finds** - ABC News – GAO Report Jul 23, 2015, 5:59 PM ET



\$1 TRILLION

OIG IS CHARGED WITH
OVERSEEING NEARLY
\$1 TRILLION DOLLARS
IN HHS SPENDING,
WHICH REPRESENTS
APPROXIMATELY A
QUARTER OF EVERY
FEDERAL DOLLAR SPENT

NTIS together with its Joint Venture Partner

- Help consolidate, standardize and modernize the OIG mission data platform and improve open data capabilities.
- NTIS and JVP apply data science skills and capabilities using open source development tools, and cloud computing.
- Provide expertise in Agile Development, training, coaching and Scrum Master Support

Approach

- *Think Big, Start Small, Move Fast and leverage data science and cloud technologies*

Project

- Involves roughly 80 terabytes of medical claims with approximately 40 legacy OIG systems with interconnections to several other systems, and involves at least 2 major CMS systems.

Outcome

- Field investigators will be able to review OIG's analytical products with "Google-search" like geospatial capabilities, data visualization and discovery by the data analysis team

NTIS-JVP Data Service Opportunities Attributes

- First or early use of emerging technology;
- Complexity of solution architecture, interoperability, and/or security;
- Agile applications development and systems operations which require adaptive scoping; and/or
- Custom solutions to meet unique requirements for which there is no commercial-off-the-shelf solution.

Innovative Data Services

**Discovery
Usability**

**Accessibility
Interoperability**

**Analytics
Insights**

**Security
Privacy**

Provide innovations in the use of Federal data and data services, either alone or in combination with non-Federal data (*Usability, Security, Privacy*).

Provide new, more effective and more efficient methods for sharing data (*Discovery, Accessibility, Interoperability*).

Advance ways to analyze, interpret, and understand data, as well as apply it in meaningful ways (*Analytics*).

Develop technologies, techniques, and processes that can lead to deeper understanding from and new insights into data (*Insights*).

NTIS Joint Venture Partner Data Capabilities

Addressing a Rapidly Changing Big Data Landscape

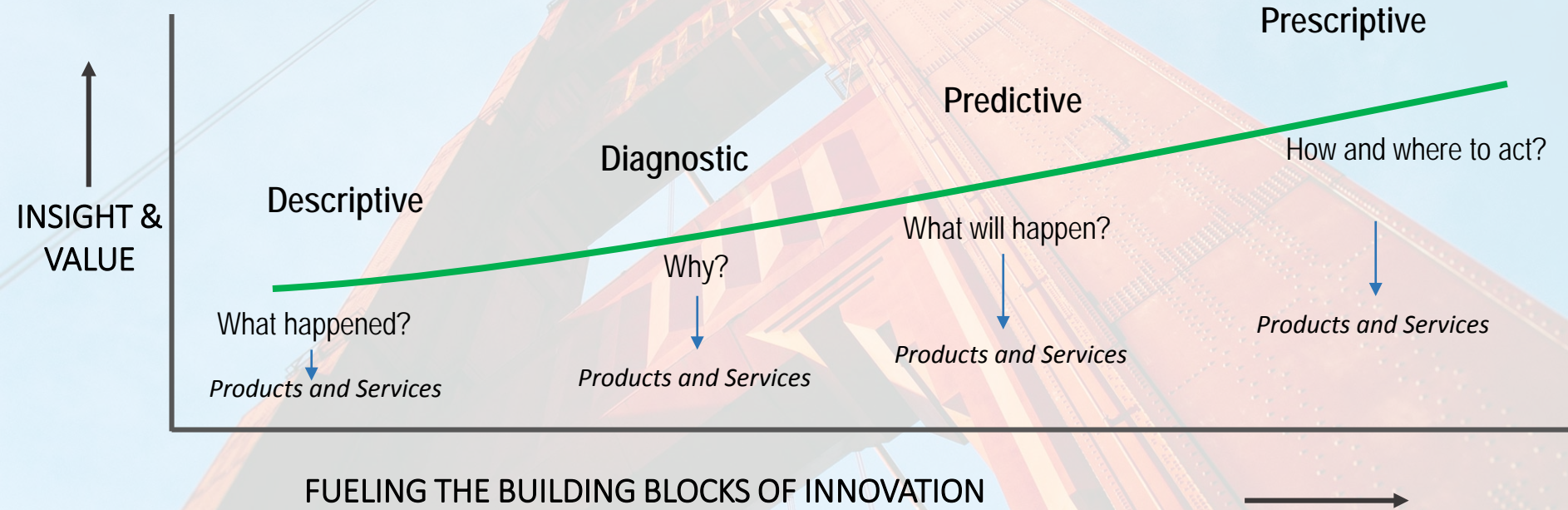
- ❖ DATA ANALYTICS
- ❖ DATA COLLECTION
- ❖ MACHINE LEARNING/AI
- ❖ SMART CITIES
- ❖ DATA INTEROPERABILITY
- ❖ CLOUD INFRASTRUCTURE
- ❖ SECURITY/PRIVACY
- ❖ DATA MINING
- ❖ SOCIOECONOMIC RESEARCH
- ❖ DATA INTEGRATION
- ❖ VISUALIZATION
- ❖ DATA DISSEMINATION
- ❖ STATISTICAL RESEARCH
- ❖ GEOSPATIAL ANALYTICS
- ❖ REMOTE SENSING
- ❖ OPEN SOURCE TOOLS
- ❖ FRAUD DETECTION
- ❖ HIGH PERFORMANCE COMPUTING
- ❖ PREDICTIVE ANALYTICS
- ❖ PATTERN RECOGNITION

New Data Services Joint Venture Partners*

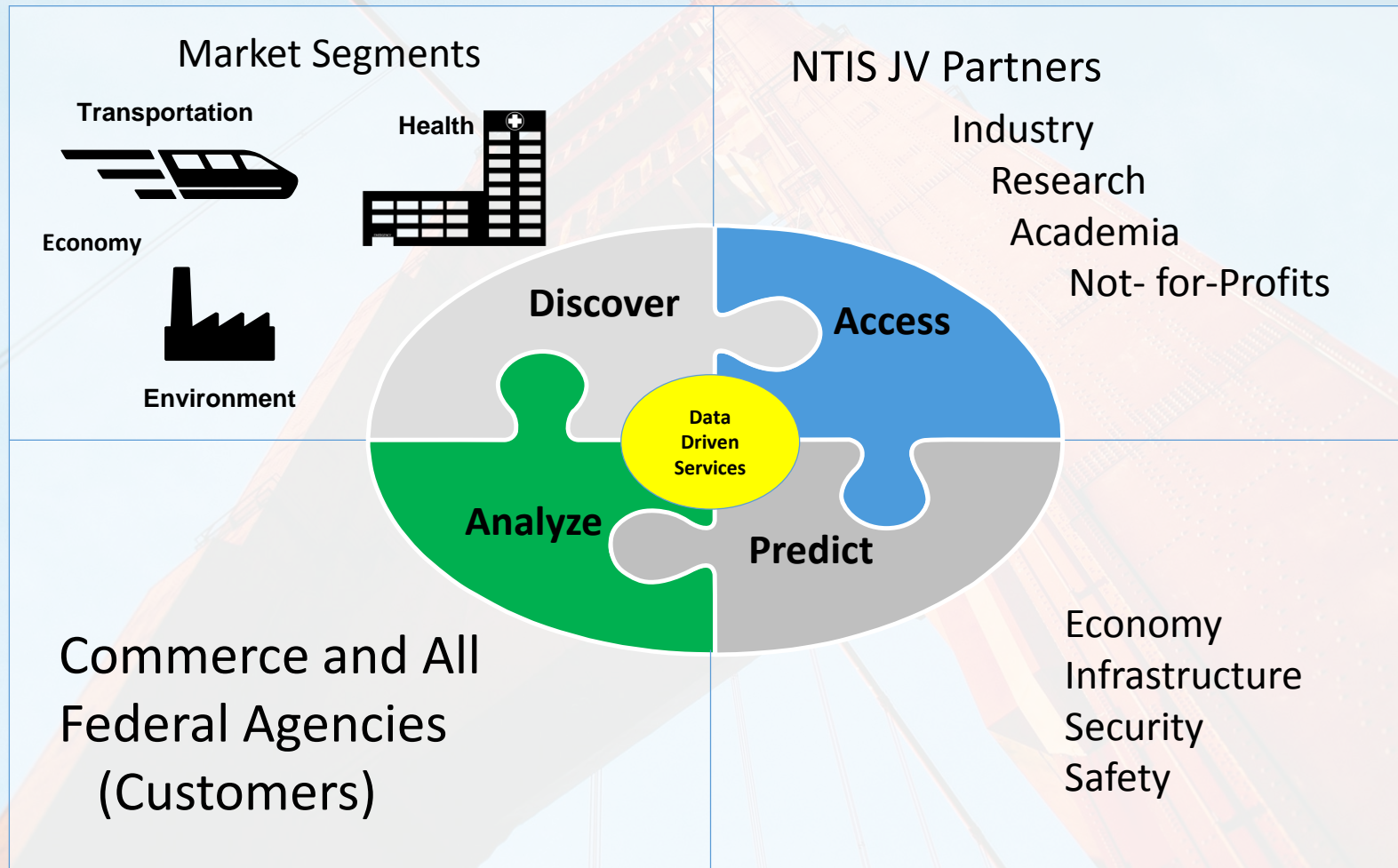
- 1901 Group, LLC
- Amazon Web Services, Inc.
- Arcadia Data, Inc.
- ASET Partners Corporation
- Bayes Impact
- Berico Technologies, LLC
- Booz Allen Hamilton, Inc.
- Cherokee Nations Technology Solutions, LLC
- Civis Analytics
- Columbia University on behalf of Northeast Big Data Innovation Hub (lead organization), in partnership with the West Big Data Innovation Hub, the Midwest Big Data Innovation Hub, and the South Big Data Innovation Hub
- data.world
- Deloitte Consulting LLP
- D&B Government Solutions
- EBO, Inc.
- Esri
- Excella Consulting, Inc.
- Govini
- HP Enterprise Services, LLC
- Hypatia Project, LLC /dba/Dendrite Technologies
- i3solutions, Inc.
- IBM Corporation
- ICF Incorporated, LLC
- National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign
- New Enterprise Associates
- Onu Technology, Inc.
- Palantir Technologies Inc.
- People Power Company, Maalka, Inc., and Urban.Systems
- Qubole
- Socrata
- Splice Machine, Inc.
- SRI International
- Stanford University
- Uncharted Software Inc.
- IPUMS at the University of Minnesota

* Pending completion of the Agreement with NTIS

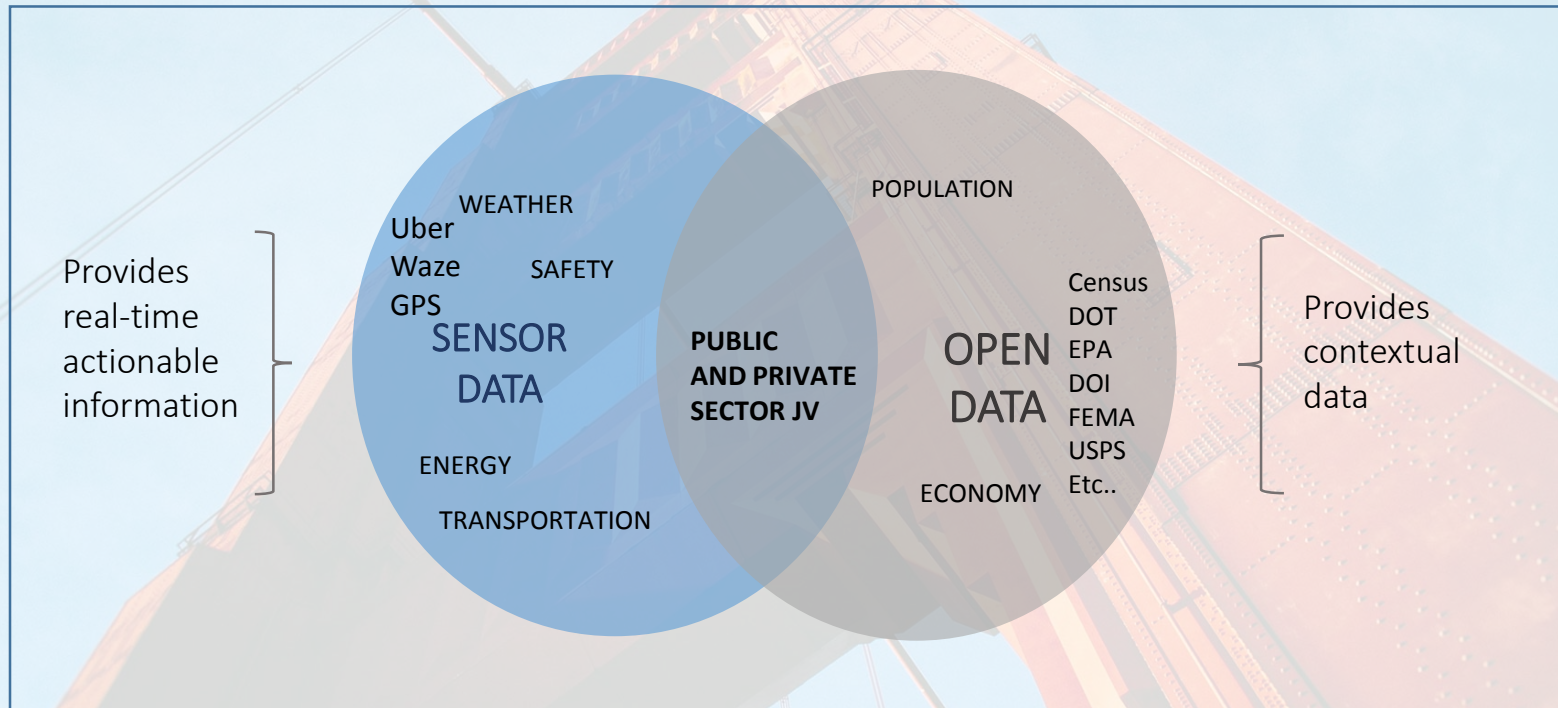
NTIS-JVP Addressing Gaps for Data Driven Decisions



NTIS JV Authority Creates a Capacity to Scale Innovation



Smart Cities Services and Infrastructure (example)



INNOVATIVE, VALUE ADD, CREATIVE PRODUCTS AND SERVICES FROM
FEDERAL-PRIVATE SECTOR PARTNERSHIPS

Value of New JV Partnerships

For Federal Agencies

- Transform the delivery of critical government data services for the American people.
- Leverage advances in data science, software development, and cybersecurity to increase efficiency/effectiveness of government programs.

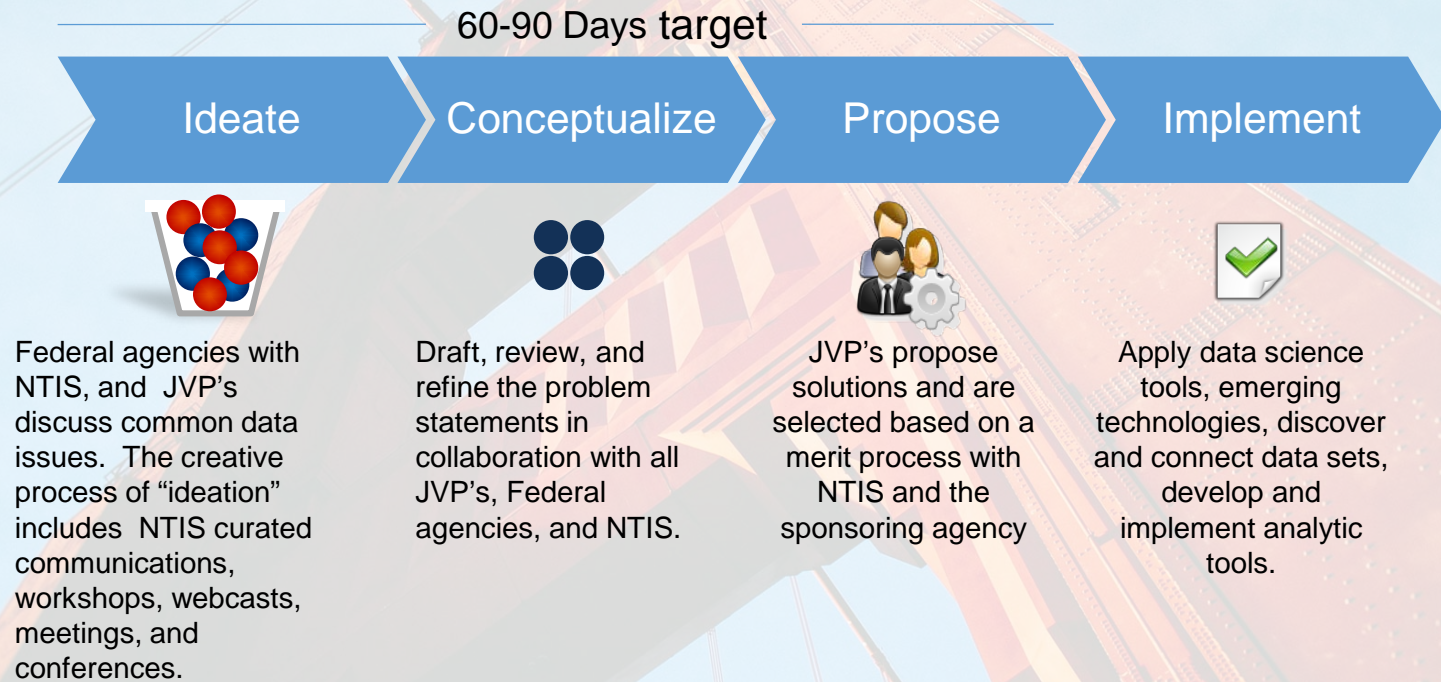
For JV Partners

- JVPs will be eligible to compete to work with NTIS on challenging and innovative data projects conducted for and funded by Federal agencies within a uniquely flexible, interactive, and collaborative environment.
- JVPs will be in a position to leverage spin-off benefits through improvements to their data products and services based on their work on data projects with NTIS.
- JVPs will be able to accelerate time to value for Federal agencies through collaboration and use of emerging technologies to address complex data priorities.

For NTIS

- NTIS will create a new market driven operating model to deliver innovative data services for Federal agencies.
- NTIS will be able to build and curate data science capabilities via the new JV partners and core team of in-house experts.

A Structured and Merit Based Process to Support Data Innovation Through Federal Private Sector Collaboration



* Estimated engagement with signed JVP's begins January/February 2017