

# SHELDON®

Data-Driven Advisory Services

Engaging with SHELDON  
as a U.S. Government  
Stakeholder

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## What is SHELDON?

SHELDON is a data science consulting firm.

SHELDON has developed a database containing millions of data points related to U.S. government spending and the federal market. We partner with customers to leverage the SHELDON dataset to answer their questions and solve their specific problems.

We are *not* a software company selling a “one size fits all” product. Instead, SHELDON’s data scientists build custom solutions for each customer based on their unique needs, workflows and technical proficiency. Solutions can take the form of static or interactive reports, interactive dashboards, raw data files, or custom developed software — all powered by our unique database.

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## The SHELDON Dataset

The SHELDON dataset contains hundreds of open source federal and federally-adjacent datasets that have been unified to create a fully explorable and dynamic mirror of the federal government and all of the entities that it works with. Hundreds of USG stakeholders have validated the fact that it is the most comprehensive dataset of its kind.

## Analytics Products



Static Reports



Interactive Reports



Custom Interactive Dashboards



Custom Interactive Applications



Data Files



Other Custom Output

## Traditional Solutions

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### Enterprise Software Tools

- Expensive to develop and deploy.
- Standard, rather than customizable, features and user interface.
- Difficult to explore subsets of the data.

### Marketplace Platforms

- One-size-fits-all design that forces the client to fit to the software, rather than fitting the software to the client.
- Require users to self-report; only valuable once they have been adopted by a critical mass of stakeholders.

### Traditional Market Research

- Uses single, outdated data sources instead of catching the full breath of what is out there.

### Traditional Consulting Firms

- Do not prioritize transparency. They calculate numbers/figures in a “black box.”
- No incentive for customers to interact with data directly or to derive insights from the data independent from their services. These misaligned incentives add costs and time to the engagement.

## The SHELDON Difference

SHELDON's one-of-a-kind dataset contains millions of disaggregated government and government-adjacent data points, unified into a single, usable resource — putting it at the forefront of what makes SHELDON special. Additionally, SHELDON prioritizes:



### Transparency

SHELDON's interactive outputs allow the end-user to dig into the data, enabling them to extract more insights and understand how figures were calculated.



### Data Integrity

SHELDON's dataset comes from diverse sources, leading to a more complete and honest answer.



### Customization

SHELDON's analytics products are customized to the particular needs of the client.



### Interactivity

SHELDON's analytics products emphasize interactivity so that users can understand the information at hand and use it to make data-driven decisions.



### Affordable & Secure

SHELDON products don't have to be hosted on a server, leading to easy integration, virtually no monetary upkeep, and security benefits.

## Solving Problems with SHELDON

SHELDON enables government stakeholders of all technical skill levels to answer questions and solve problems in areas including but not limited to resource allocation, technology development, benchmarking and success metrics, supplier sourcing, technology transition, and more.

SHELDON facilitates answers to questions such as:

**We're planning to direct resources into a key technology.**

How much money has the USG already spent on that technology? What USG stakeholders have made those investments, and what external entities (companies, universities, research institutions, not for profits, consortia, etc.) have received those funds?

**We're looking for an innovative new technology.**

What existing USG vendors or research entities are doing related work? Can we leverage their capabilities? What other USG stakeholders are seeking and/or investing in similar technologies? Can we collaborate to reduce duplicative efforts, and to ensure our market research and investments drive next-generation innovation?

**We're looking to solve a complex capability gap.**

Who else across the USG is tackling related problems? How can we adapt their solutions to address our gap?

**Several of our critical small vendors went out of business or grew into "large" businesses, and we need alternative sources of supply.** What other small businesses provide similar products/services to other USG customers?

**How well is my organization achieving its priorities/objectives?** For example:

- My organization is focused on attracting innovative new suppliers. To what extent are we actually working with companies new to the USG market?
- How well does my portfolio reflect key modernization priorities? Are we directing our resources into companies with the "right" capabilities?
- It's critical that we expand/diversify key aspects of our industrial base. Are we doing a good job of that?

**I'm trying to connect suppliers in my organization's portfolio with transition partners and/or other relevant government customers.** What government stakeholders are seeking the capabilities/products/services my portfolio companies possess? How do I connect my suppliers with these potential end-users?

**Am I investing adequate R&D resources to solve my organization's problems?** Am I prioritizing my organization's R&D investments appropriately?

# Problem to Plan

SHELDON products can be hosted on a server or completely serverless.

PHASE ONE



## Communicate Need

Client explains a high-level question or problem statement, and SHELDON translates it into data and analysis needs.

A series of driving problem statements and questions guide the conversation.

PHASE TWO



## Clarify Need

SHELDON identifies and proposes technical and data requirements:

Which parts of the SHELDON data are required? Which added data sources need to be acquired? Which technologies and products are needed?

PHASE THREE



## Statement of Work Developed

Clarify and finalize outputs, timelines, and costs. Client and SHELDON team review and update.

PHASE FOUR



## Task Order Finalized

Budgets in place, teams finalized and work commences.

**SUPPLIER SOURCING**

# NESTT Supplier Sourcing

Naval Enterprise Sustainment Technology Team (NESTT) focuses on maintenance and sustainment technologies for the Navy.

**CLIENT OBJECTIVES**

Determine if existing SBIR-funded companies could satisfy a NESTT capability gap

**FINAL DELIVERABLES**

Complex workflow, simple deliverable, CSV file

**CLIENT OBJECTIVES**

Determine if existing SBIR-funded companies could satisfy a NESTT capability gap: *the need for a drone that could detect corrosion on an asset and apply an anti-corrosive solution to affected surfaces*

**SHELDON helped NESTT explore the universe of prior-funded research grants to determine if what they were looking for had already been done; and to enable them to connect with relevant, existing USG vendors.**

**FINAL DELIVERABLES**

- Complex workflow, simple deliverable
- CSV containing 40 relevant companies

**ENGAGEMENT NOTES**

- Duration: 45 Days
- Included ~10 Hours of consulting time
- NESTT indicated all 40 SHELDON-identified companies were relevant
- Nearly all 40 companies were previously unknown to NESTT
- Cost: \$30K

**POINT OF CONTACT**

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## Workflow

### Initial Analysis

Leveraging SHELDON data, identified 13,000+ relevant SBIR companies. Then re-fined problem statement with NESTT: *NESTT wanted a shortlist of 40 relevant companies.*

### Trelliscope Developed

Generated custom dashboard (Trelliscope\*) to dynamically explore features of matched companies

### Delivered CSV

Refined matched companies based on NESTT priorities to identify 40 relevant companies

\* Trelliscope manages, sorts, and visualizes large quantities of data and is infinitely customizable.

**BENCHMARKING & SUCCESS METRICS**

# AFWERX/AFVentures

AFWERX is the Air Force SBIR program, and within AFWERX, AFVentures focuses on expanding the defense industrial base for advanced technologies.

**CLIENT OBJECTIVES**

SHELDON helped AFWERX understand the composition and performance of its portfolio.

**FINAL DELIVERABLES**

Templated interactive presentations, Trelliscopes, data files

**CLIENT OBJECTIVES**

SHELDON helped AFWERX understand the composition and performance of its portfolio. Specifically, SHELDON helped AFWERX assess the extent to which it has achieved two of its primary objectives:

- Attracting emerging technologies into the Air Force (AF)
- Delivering AFWERX-funded capabilities to AF and USG end-users

**FINAL DELIVERABLES**

- Templated interactive presentations  
Interactive reports utilize Markdown, an interactive text language developed by programmers for non-technical users
- Interactive dashboards (Trelliscopes)
- Data Files

**ENGAGEMENT NOTES**

- Duration: 1 year
- Included bi-weekly calls
- Cost: \$25,000/quarter + set-up fee

**POINT OF CONTACT**

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## Workflow

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**Leverage SHELDON Data**

Leveraged the SHELDON dataset and incorporated CSV files from the AFWERX team to isolate a set of 2,277 AFWERX companies for analysis

**Trelliscopes and Interactive Reports Developed**

Grouped similar companies together based on factors informed by AFWERX stakeholders. Leveraged custom interactive reports and Trelliscopes to present data for feedback and ultimately reduce 2,277 companies into 17 groups.

**Assessed Transition**

Assessed intragovernmental transition rate among AFWERX companies at the group level, analyzing subsequent USG performance using metrics to describe 1) transition revenue and 2) all other USG revenue

**Delivered Reports**

Generated static & interactive reports highlighting key findings for a senior-leader audience & briefed senior leaders.

**RESOURCE ALLOCATION**

# Navy Corrosion Directorate

NCD is affiliated with the Naval Sea Systems Command (NAVSEA) and the Office of the Assistant Secretary of Defense for Sustainment.

**CLIENT OBJECTIVES**

Is the Navy investing adequate R&D resources into corrosion mitigation?

**FINAL DELIVERABLES**

Templated interactive presentations, Trelliscopes, data files

**CLIENT OBJECTIVES**

Is the Navy investing adequate R&D resources into corrosion mitigation?

Assess Navy investments into R&D focused on mitigating corrosion vis-à-vis what corrosion costs the Navy on an annual basis.

**FINAL DELIVERABLES**

- Interactive Reports
- Trelliscopes
- Static Reports

**ENGAGEMENT NOTES**

- Duration: 12 months
- Included bi-weekly calls
- Cost: \$40K, billed across four 90-day intervals

**POINT OF CONTACT**

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## Workflow

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**Leverage SHELDON Data**

Generated initial macro-level report to isolate corrosion-related data from SHELDON dataset

**Bi-Weekly Calls**

Walked NCD through detailed output (including Trelliscopes and custom presentations) to gather feedback & follow-up questions. Then refined output based on NCD feedback & questions.

**Final Deliverables**

Produced final report detailing Navy corrosion-related R&D investment compared to Navy corrosion-related expenditures



TECHNOLOGY TRANSITION

# SHELDON Matching

SHELDON Matching was developed in partnership with the Air Force and Navy SBIR program offices.

CLIENT OBJECTIVES

What USG customers are seeking the capabilities/products/services my portfolio companies are developing?

FINAL DELIVERABLES

Custom output

CLIENT OBJECTIVES

What USG customers are seeking the capabilities/products/services my portfolio companies are developing?

Improve transition rate among Navy & Air Force SBIR portfolio companies by making it easier for these companies to identify and connect with prospective USG customers

FINAL DELIVERABLES

- Custom Output: Provided companies with links to their matched opportunities via email

ENGAGEMENT NOTES

- Unlike existing platforms designed to connect innovative suppliers with prospective USG customers, SHELDON Matching does not require the company to self-report any information.
- Instead, the approach leverages the rich data that becomes publicly-available once a company begins working with the USG. Likewise, SHELDON Matching does not require the USG stakeholder to self-report any additional information, instead leveraging data they already make public via SAM.gov.

POINT OF CONTACT

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## Workflow

### Leverage SHELDON Data

Leveraged SHELDON data to establish a meaningful understanding of 1) what capabilities each portfolio company possessed, and 2) what products/services are in demand by USG customers, including open requirements from SAM.gov

### Delivered Matches

Algorithmically identified probable matches where a company's capabilities related to the needs of a USG customer

### Results

- 92% of opportunities were unknown to companies before they received their SHELDON matches
- All companies chose to opt-in to receive SHELDON matches
- 91% of companies identifies opportunities worth pursuing via SHELDON Matching

RESOURCE ALLOCATION, TECHNOLOGY DEVELOPMENT, SUPPLIER SOURCING, TECHNOLOGY TRANSITION, AND MORE

# Federal Spend Reports

SHELDON has provided Federal Spend Reports to a range of federal customers including the Naval Corrosion Directorate, Air Force and Navy Small Business Innovation Research program offices, the Air Force and Navy Mixed Reality communities, and more.

## CLIENT OBJECTIVES

Provide a detailed analysis of historic and future investment by the U.S. Federal Government into any given product, service or concept area, in turn:

- Enabling USG stakeholders to make informed, coordinated decisions on investment strategies
- Enabling USG stakeholders to assess the impact of policies on outcomes
- Providing greater situational awareness of the available market for goods and services across the USG
- Providing USG suppliers with actionable insights on USG market opportunities

## FINAL DELIVERABLES

- Templated interactive presentations

## ENGAGEMENT NOTES

- Base fee: \$5,000
- Turnaround time: 72 hours
- Additional customization available

## Workflow

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### Develop Term Corpus

SHELDON uses input keywords from subject matter experts and algorithmically develops a set of terms to describe a topic of interest

### Explore SHELDON Data

Explore incidences of terms across the SHELDON dataset

- Topics include: UAVs, Quantum, RFID, AI, Cloud computing, and more...

### Delivered Interactive Presentation

Populate presentation templates with matched information

- Contains 120+ interactive slides that visualize the historic and future flow of funding into a topic area at the department, agency and contracting office levels.
- Includes entity information for private companies, not-for-profits, academic research institutions, and more.

## To Learn More

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