

# **BIRD CYBER 2022 CALL FOR PROPOSALS WEBINAR**

**September 14, 2022  
11am - 12pm Eastern  
6pm - 7pm Israel**



# .....DHS SCIENCE & TECHNOLOGY.....



Science &  
Technology

**Megan Mahle**  
**Director of Industry**  
**Partnerships**  
**DHS Science and Technology**

# S&T Delivers Scientific Rigor to

## 6 DHS Mission Areas

Counter Terrorism & Homeland Security Threats

Secure Cyberspace & Critical Infrastructure

Strengthen Preparedness & Resilience

Secure U.S. Borders & Approaches

Preserve & Uphold the Nation's Prosperity and Economic Security

Champion the DHS Workforce & Strengthen the Department



### S&T VISION

A Safer America through  
Advances in Research,  
Development and Innovation



### S&T MISSION

Contribute critical thinking and  
scientific rigor to deliver  
effective solutions in homeland  
security in areas of high impact  
and value for the nation.



[ RESEARCH ]

# Providing Mission-based Research & Development

S&T applies scientific rigor to detect, protect against and counter major threats and help speed response and recovery operations for intentional, accidental or natural disasters. S&T strives to strengthen the nation's preparedness and resilience through our mission-based portfolio.

S&T manages projects and programs across six thrust areas that align to DHS priorities.



Border Security



Chemical, Biological,  
Explosives Defense R&D



Counter Terrorist



Cybersecurity,  
Information  
Analysis R&D



First Responder  
Disaster Resilience R&D



Physical Security &  
Critical Infrastructure  
Resilience



Science and  
Technology



# S&T Does RD&I in 3 Workstreams

1

## Near-Term Component Needs

Includes projects/activities (3 years or less) that focus on gaps or needs that have been identified by DHS Components.

- Office of Mission Capability & Support
- Silicon Valley Innovation Program

2

## Foundational Science

Enduring research that results in data sets, knowledge products and publications to support scientific endeavors.

- Office of National Laboratories
- Office of University Programs
- Small Business Innovative Research
- Technology Centers

3

## Future Needs & Emerging Threats

Exploring emerging science and technology areas and their potential threat or application to future DHS missions.

- Technology Centers

# INDUSTRY PARTNERSHIPS

INCENTIVIZING INNOVATION TO DELIVER HOMELAND SECURITY SOLUTIONS



Engaging Industry



Incentivizing Innovation



Delivering Solutions

# ENGAGING WITH INDUSTRY TO SOLVE HOMELAND SECURITY CHALLENGES



## **BIRD HLS and Cyber**

Provides grants funded by DHS S&T & Israel MOPS or INCD to develop advanced technologies of mutual interest



## **Hacking for Homeland Security**

Pairs university students with DHS mentors, technical experts, and business leaders to develop solutions for DHS problems



## **In-Q-Tel**

Sources venture-backed commercial tech for homeland security use



## **Long Range Broad Agency Announcement**

Provides an open invitation for the innovation community to propose novel solutions for DHS needs



## **Prize Competitions**

Use public crowd-sourcing to incentivize innovation



## **Silicon Valley Innovation Program**

Engages the global startup community to harness commercial R&D for government applications



## **Small Business Innovation Research Program**

Helps small businesses develop and commercialize solutions



# DELIVERING SOLUTIONS TO SOLVE HOMELAND SECURITY CHALLENGES



## Technology Transfer and Commercialization

Coordinates intellectual property (IP) rights protection, licensing, and commercialization activities



## Cooperative Research and Development Agreements

Facilitate collaborative R&D between DHS and a non-federal partner



## Homeland Security Startup Studio (HSSS)

Brings together entrepreneurs and inventors to deliver technology solutions for homeland security



## Partnership Intermediary Agreements

Assist DHS with technology transfer and commercialization activities



## Commercialization Accelerator Program

Increases the likelihood of successful transfer of federally funded technologies from lab to market





# SILICON VALLEY INNOVATION PROGRAM TOPIC CALL



NEW SVIP TOPIC CALL!



## Software Supply Chain Visibility Tools

APPLICATIONS DUE

**OCTOBER 3, 2022 @ 12 P.M. PT**



SVIP's topic call, in partnership with the DHS Cybersecurity and Infrastructure Security Agency (CISA), seeks technology that will enable stakeholder visibility into software supply chains and new risk assessment capabilities.

Applications are required to align to the first technical topic area (TTA) listed below and one or more of the additional TTAs:

1. [REQUIRED] Foundational Open-Source Libraries
  - Multi-format SBOM Translator
  - Software Component Identifier Translator
2. Automated SBOM Generation
3. SBOM Enabled Vulnerability Visualization
4. SBOM Enabled Interactive Development Environment (IDE) Plug-in
5. SBOM Enabled Security Incident and Event Management (SIEM) Plug-in

**Deadline: October 3, 2022 at 12:00 PM PT**

*For more information: [www.dhs.gov/science-and-technology/svip](https://www.dhs.gov/science-and-technology/svip)*



# .....CONNECT WITH S&T.....



[scitech.dhs.gov](https://scitech.dhs.gov)



[SandT.Innovation@hq.dhs.gov](mailto:SandT.Innovation@hq.dhs.gov)



[@dhsscitech](#)



Science &  
Technology

**BIRD**

Israel-U.S.  
Binational Industrial Research  
and Development Foundation



# BIRD Cyber



Andrea Yonah

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East Coast and Midwest

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Israel-United States Binational Industrial Research and Development Foundation

[www.birdf.com](http://www.birdf.com)



# BIRD Foundation



BIRD = Binational Industrial Research and Development

Joint fund, established in 1977 as a joint initiative between the US and Israeli governments

## Mission

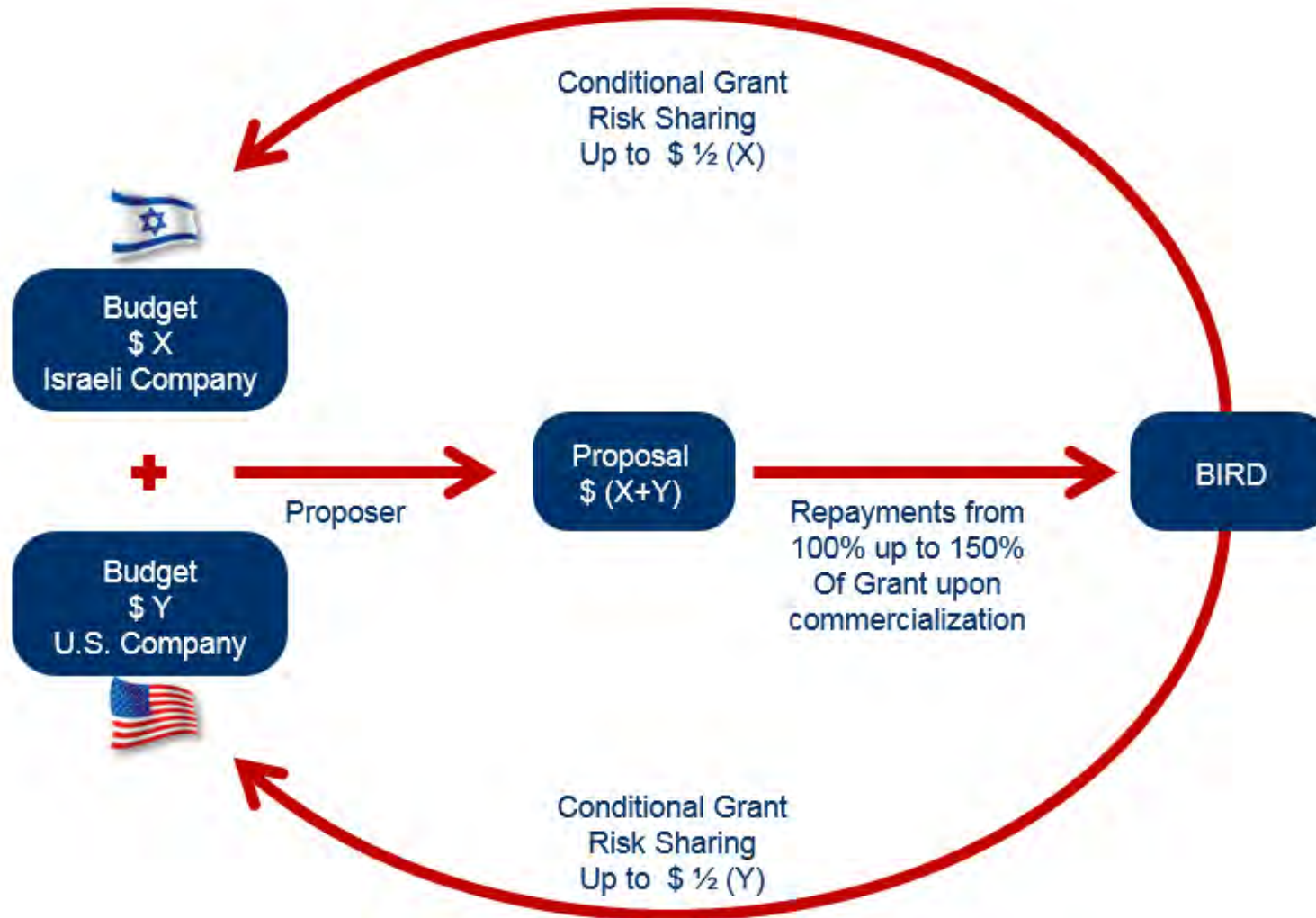
To stimulate, promote and support joint (non-defense) industrial R&D of mutual benefit to Israel and the United States

## Funding

Income from interest earned on \$110 million endowment grant and from repayments from successful BIRD projects



# The BIRD Model



- The BIRD Foundation offers conditional grants on a risk-sharing basis
- The Foundation funds up to **50%** of each company's R&D expenses associated with the project
- Maximum conditional grant= **\$1.5M**
- **Every dollar invested by the governments yields at least \$2 of activity through private sector cost-sharing**

# Why BIRD?



- Non-Dilutive Funding
- Risk sharing - willing to invest in high risk technologies that require longer time to market.
- “Stamp of approval” – review of the project by external organizations such as DHS\* and INCD\*\*
- High positive reputation which improves fundraising, PR and ability to find additional partners
- Commitment - Improved Partnership

\* U.S. Department of Homeland Security

\*\* Israel National Cyber Directorate





# How do we evaluate projects?



- Innovation (Technology)
- Synergy between companies
- Market opportunity
- Go to market strategy / commercialism



# BIRD Foundation Staff

## Headquarters - Israel

<p><b>Eitan Yudilevich, Ph.D.</b> <b>Executive Director</b> <a href="mailto:eitan@birdf.com">eitan@birdf.com</a></p> <p><b>PBC *</b></p>		
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	<p><b>Maha Wakileh</b> <b>IT</b> <b>Information Systems Manager</b> <a href="mailto:maha@birdf.com">maha@birdf.com</a></p>	<p><b>Omer Carmel</b> <b>PBC</b> <b>Director of Business Development</b> <a href="mailto:omer@birdf.com">omer@birdf.com</a></p>

## U.S. Offices

### West Coast (California)

**Maya Vardi Shoshani**  
**Director of Business Development**  
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### East Coast & Midwest (New Jersey)

**Andrea Yonah**  
**Director of Business Development**  
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### South (Texas)

**Shiri Freund Koren**  
**Director of Business Development**  
**Energy Center U.S. Coordinator**  
[shirik@birdf.com](mailto:shirik@birdf.com)



\*PBC – Primary BIRD Contact

# U.S.-Israel Cybersecurity Initiative



An annual program, funded by DHS S&T (the U.S. Department of Homeland Security, Science and Technology Directorate) and INCD (the Israel National Cyber Directorate).



# BIRD Cyber 2022 Call for Proposals

<https://www.birdf.com/bird-cyber/>

- Secured Architecture for Protecting Core Operational Processes
- Small to Medium Airports or Seaports Real-Time Risk Assessment Solution Pilot
- Piloting Resilience Centers for Small and Medium Businesses and Enterprises
- Advanced Data Fusion and Analytics

- **Executive Summary:** November 15, 2022
- **Final Proposal:** January 10, 2023
- **Decisions:** March 2023



The poster features logos for the U.S. Department of Homeland Security, BIRD, and the Israel National Cyber Directorate. The main title is 'U.S.-Israel Cybersecurity Initiative' with a subtitle 'BIRD Cyber Call For Proposals'. It highlights 'Advanced Cybersecurity Applications' and describes a program for collaboration on cybersecurity and emerging technologies. It lists four topics for consideration: Secured Architecture for Protecting Core Operational Processes, Small to Medium Airports or Sea Ports Real-Time Risk Assessment Solution Pilot, Piloting Resilience Centers for Small and Medium Businesses and Enterprises, and Advanced Data Fusion and Analytics. It provides a website for further details and a timetable of key dates: Executive Summary (Nov 15, 2022), Final Proposal (Jan 10, 2023), and Decisions (March 2023). Contact information is provided for Israel, the U.S. East Coast/Midwest, West Coast, and South.

**U.S.-Israel Cybersecurity Initiative**  
**BIRD Cyber Call For Proposals**

**Advanced Cybersecurity Applications**

The U.S. Department of Homeland Security (DHS) and the Israel National Cyber Directorate (INCD) have established a new program to promote collaboration on cybersecurity and emerging technologies aimed at enhancing the cyber resilience of critical infrastructure and economies of both countries by harnessing the innovation and ingenuity of the Israeli and the American technology sectors.  
The BIRD Cyber program is managed by the BIRD Foundation.

**To be considered, a project proposal should include:**

Cooperation between two companies or cooperation between a company and a university / research institution (one from the U.S. and one from Israel), leading to demonstrations and pilot implementations of innovative technologies, in one of the following topics:

- Secured Architecture for Protecting Core Operational Processes
- Small to Medium Airports or Sea Ports Real-Time Risk Assessment Solution Pilot
- Piloting Resilience Centers for Small and Medium Businesses and Enterprises
- Advanced Data Fusion and Analytics

For further detail and requirements on each topic see: [www.birdf.com/BIRD-Cyber](https://www.birdf.com/BIRD-Cyber)

The maximum conditional grant is \$1.5 M per project, and no more than 50% of the joint R&D budget  
BIRD Cyber follows the BIRD Foundation's rules and procedures  
Please refer to BIRD's website for submission details: [www.birdf.com](https://www.birdf.com)

**Timetable and deadlines:**  
**Executive Summary** | November 15, 2022 **Final Proposal** | January 10, 2023 **Decisions** | March 2023

**For further inquiries, please contact:**  
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# BIRD Cyber 2022 Call for Proposals

**NEW** BIRD Cyber Program  
Call for Proposals  
[Click for information](#)

Home • About • Guidelines&Forms • News&Events • BIRD Energy • ENERGY CENTER • BIRD HLS • **BIRD Cyber** • Contact

**BIRD Cyber - Introduction**

[BIRD Cyber – Introduction](#)  
[BIRD Cyber – Call for Proposals](#)  
[Explanations of Topics](#)

[Call for Proposals \(pdf\)](#)  
[Explanation of Topics \(pdf\)](#)

**Deadline:** November 15, 2022

**BIRD Cyber**

**BIRD Cyber – Introduction**

Science & Technology  
BIRD Israel-U.S. Binational Industrial Research and Development Foundation

**U.S.-Israel Cybersecurity Initiative**

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[Click here to view the Call for Proposals](#)  
[Click here for the Explanation of Topics](#)

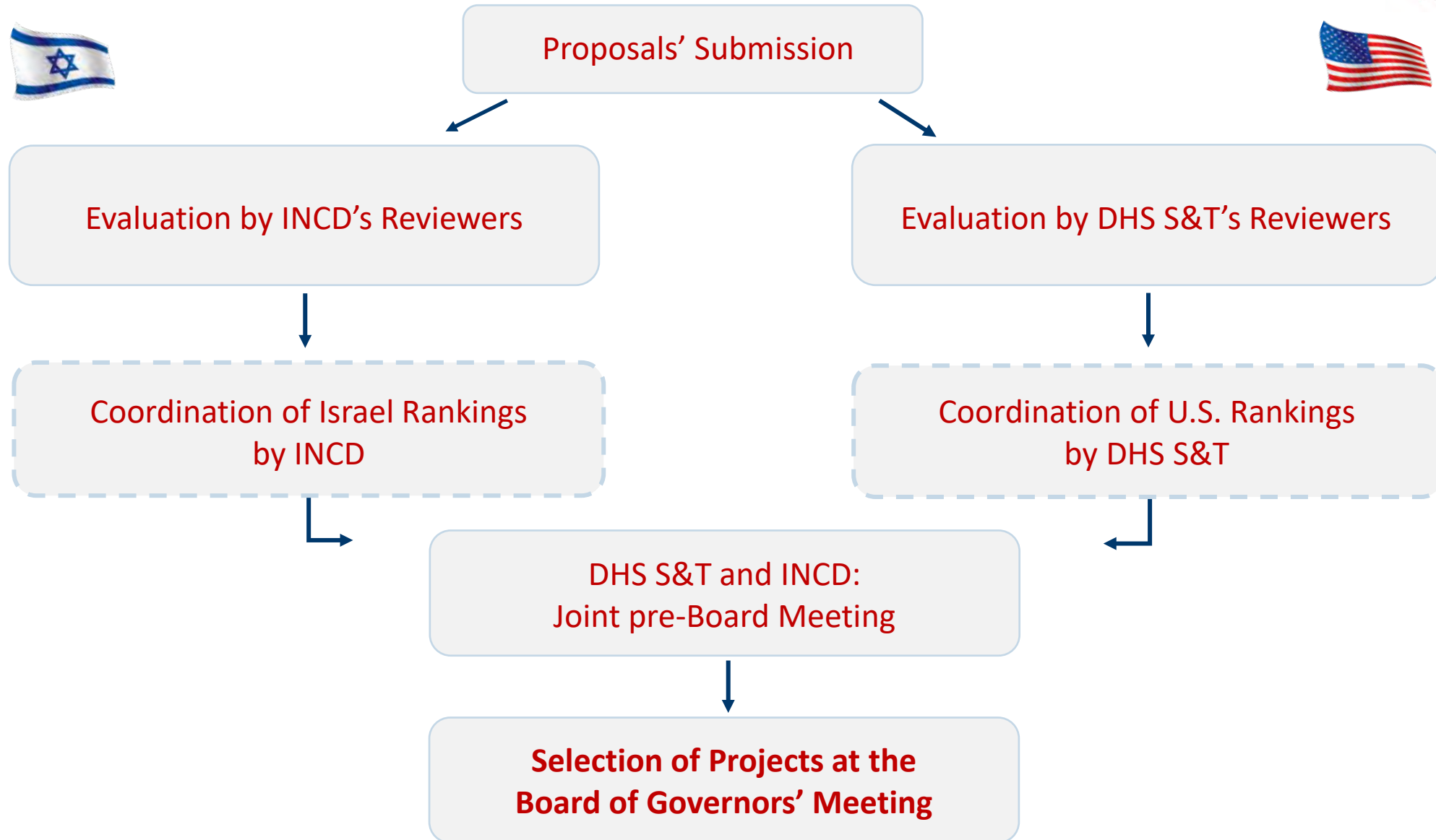
<https://www.birdf.com/bird-cyber/>

# BIRD Cyber Highlights

- Answering market gaps that are not properly answered by the industry
- Focus on SMBs
- Specific topics – the proposal answers a requested need/market gap
- The stakeholders, DHS and INCD, define the needs, review all proposals, and are exposed to your offering
- BIRD and INCD can help with demo sites both in Israel and in the U.S.
- One of the partners may be a university/research institution
- Demo sites might be partners in the program



# Evaluation Process





# A strategic partner



- A joint R&D collaboration is a long term strategic act
- What are your needs?  
Analyze your needs and your offering before approaching a company.
- Build your network within the partnering company



# Thank You



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# Israel National Cyber Directorate

Dadi Gertler,  
Executive Director of Innovation  
& Technology Cooperation



**סייבר ישראל**

מערך הסייבר הלאומי

מערך הסייבר הלאומי

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# »»»» The National Cyber Directorate( INCD)

- The national agency for securing Israeli Civil cyberspace
- Promoting Cybersecurity Innovation & Capacity building



**סייבר ישראל**

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INCD

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# INCD Scope of Responsibility



Government

Critical Infrastructures

Vital Assets and Sectors

Industries and Services

SMBs

Man in the Street

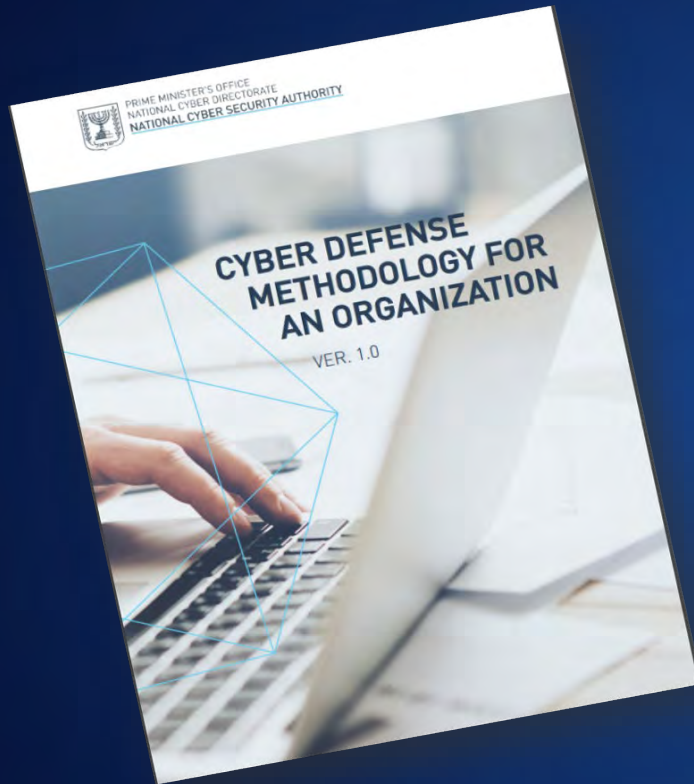


**סייבר ישראל**

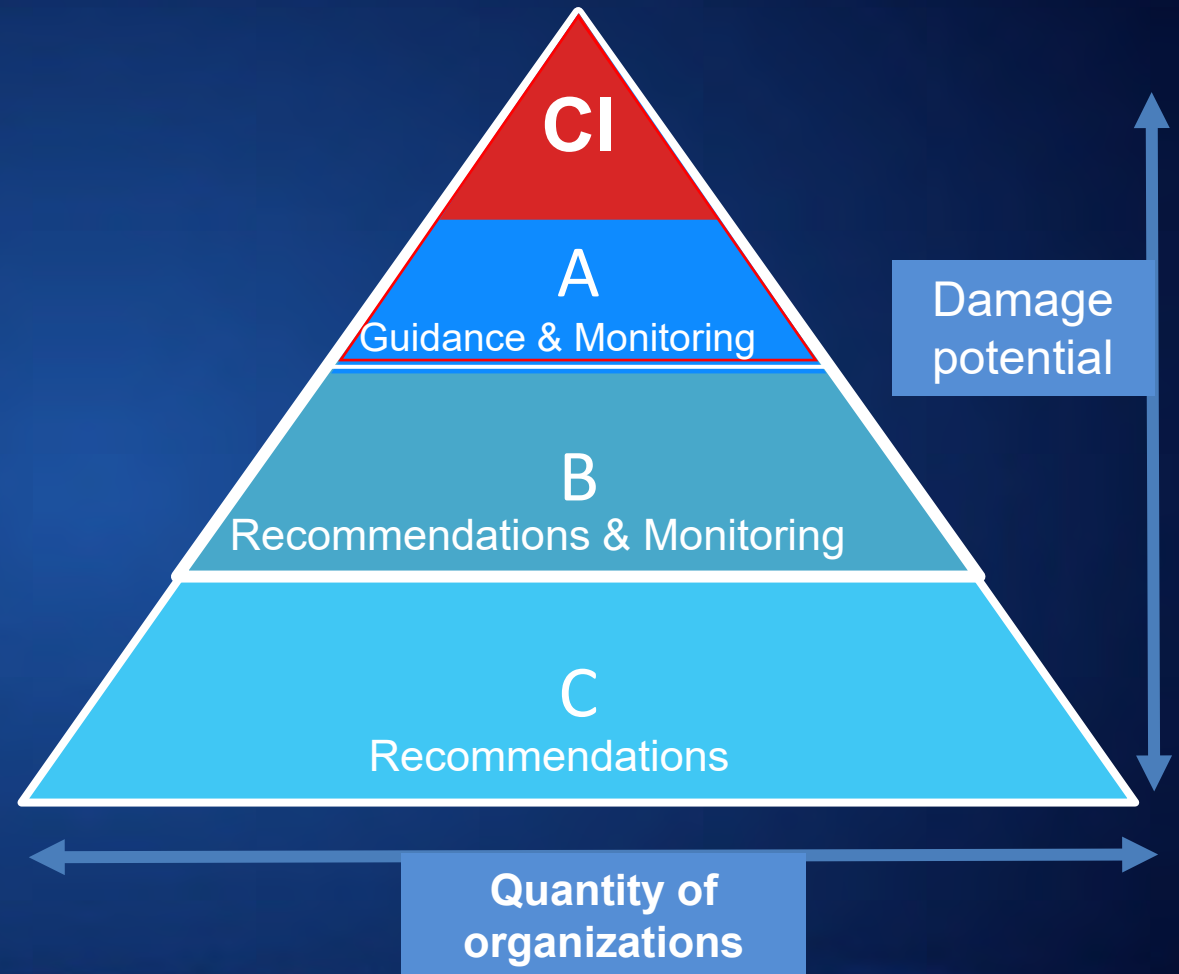
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## Involvement Model





# Israeli Cyber Industry

## Investments & Acquisitions 2021



 **11** New cyber unicorns  
(private companies worth over \$1B)

more than

**33%** of the cyber unicorns in the world are Israeli

**40%** Private global investments in cyber funding rounds are in Israel

**\$8.8B** in 131 funding rounds  
has tripled compared to 2020 (\$2.9B)

**40** Israeli Companies were acquired in deals totaling more than **\$3.5B**

**4** IPOs  
2 in the NASDAQ Including the highest valued one ever by SentinelOne



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# Topic - 1

## 1. Secured Architecture for Protecting Core Operational Processes

The solution should demonstrate a holistic approach to protect key Operational Technology and Industrial Control System processes within a major operational critical infrastructure utilities (such as Water, Industry 4.0, Transportation, and Oil & Gas). There should be an emphasis on external connectivity with innovative online artificial intelligence optimization services in the cloud.





# Topic - 2

## 2. Small to Medium Airports or Seaports Real-Time Risk Assessment Solution Pilot

The solution will provide continuous cyber-posture visibility & situational awareness for EITHER small to medium airports OR small to medium seaports challenged to meet cybersecurity regulations released by sector-specific government agencies and industry associations. The solution should include a fusion of various sources such as external attack surface management, vulnerability assessment (IT & OT) & management, breach & attack simulation (BAS), passive network sensors, endpoint sensors, IoT analytics tools, and threat intelligence.



# Topic - 3

## 3. Piloting Resilience Centers for Small and Medium Businesses and Enterprises

Focusing on sectoral hubs\*, the solution should demonstrate resilience centers capable of serving hundreds of entities, and including capabilities such as continuous monitoring, detection and response, online risk assessment services, cyber insurance, training & awareness, and other professional, financial and technological services, which are tailored to the challenge of working at scale, in a highly cost effective and distributed manner.

\*Sectoral Hubs are defined here as associations or other entities which typically engage/serve a substantial number of organizations from the same market sector.



# Topic - 4

## 4. Advanced Data Fusion and Analytics

Developing and piloting data fusion architecture by collecting unstructured data from a diverse set of feeds (such as commercial threat intelligence, deception technologies, DNS data, malware samples, and inline sensors) and using AI/ML techniques to effectively identify and Persistent Threats.

Additionally, develop AI/ML infrastructure, algorithms, and tools to enable Security Orchestration, Automation, and Response, behavioral anomaly detection, data reduction, triaging and queuing of analyst workflows, and other useful mission needs.

A particular use case of interest is the ability to generate representative training data that can be shared among partners including Government to Government and Government to Private Sector.





# Israel National Cyber Directorate

Dadi Gertler,  
Executive Director of Innovation  
& Technology Cooperation



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U.S. Department of Homeland Security

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# **CYBERSECURITY AND INFRASTRUCTURE SECURITY AGENCY**



# Cybersecurity and Infrastructure Security Agency (CISA)

## VISION

Secure and resilient  
infrastructure for the  
American people.

## MISSION

We lead the National effort  
to understand, manage, and  
reduce risk to our cyber and  
physical infrastructure.



## OVERALL GOALS

### GOAL 1

#### DEFEND TODAY

Defend against urgent  
threats and hazards

seconds | days | weeks

### GOAL 2

#### SECURE TOMORROW

Strengthen critical  
infrastructure and  
address long-term risks

months | years | decades

# Our Work

The Cybersecurity and Infrastructure Security Agency (CISA) works with partners to defend against today's threats and collaborating to build more secure and resilient infrastructure for the future



PARTNERSHIP  
DEVELOPMENT



INFORMATION AND  
DATA SHARING



CAPACITY BUILDING



INCIDENT  
MANAGEMENT  
& RESPONSE



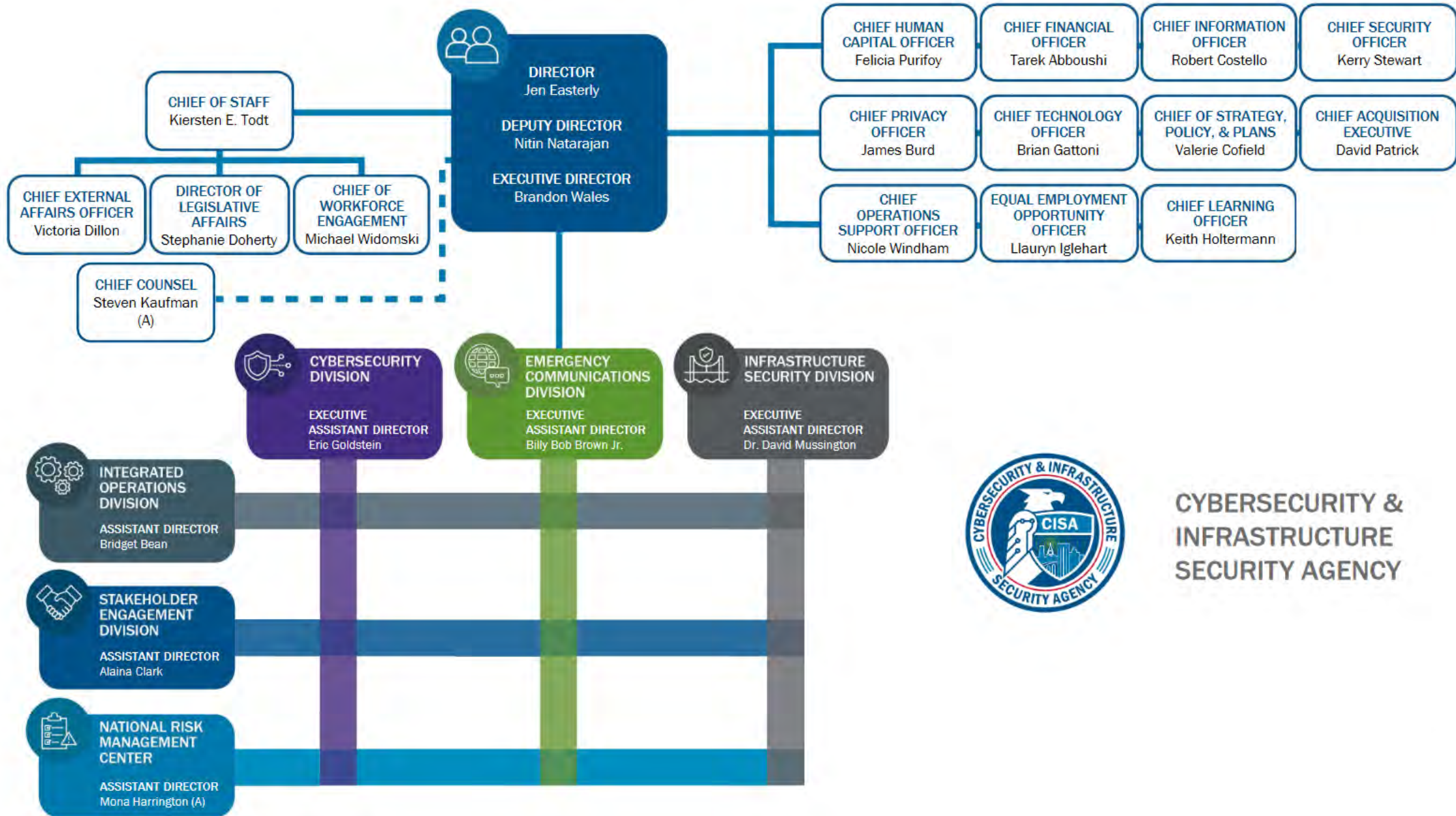
RISK ASSESSMENT  
AND ANALYSIS



NETWORK DEFENSE








EMERGENCY  
COMMUNICATIONS



**CYBERSECURITY &  
INFRASTRUCTURE  
SECURITY AGENCY**

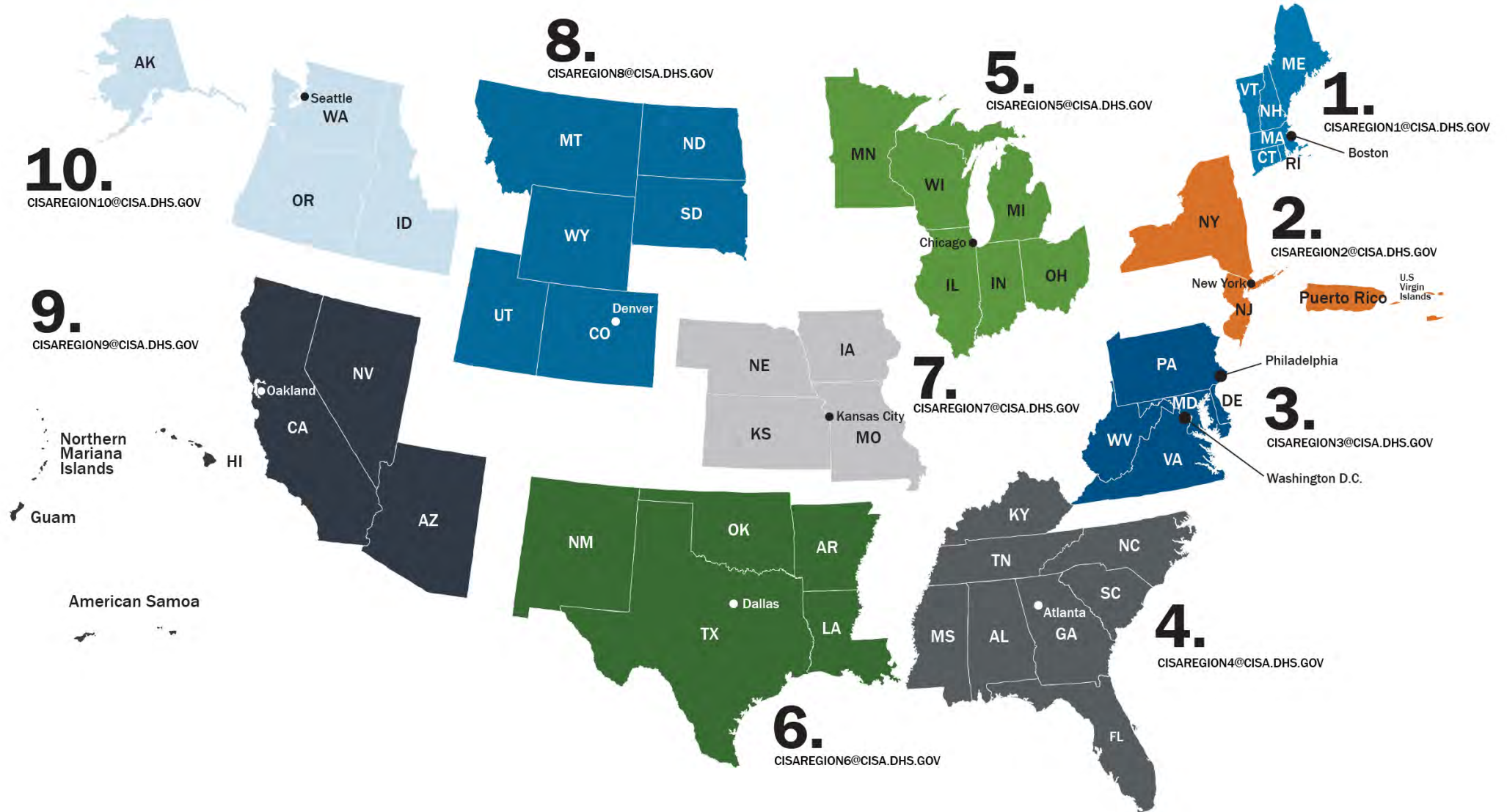


# 16 Critical Infrastructure Sectors & Corresponding Sector Risk Management Agencies

 <b>CHEMICAL</b> <b>CISA</b>	 <b>FINANCIAL</b> <b>Treasury</b>
 <b>COMMERCIAL FACILITIES</b> <b>CISA</b>	 <b>FOOD &amp; AGRICULTURE</b> <b>USDA &amp; HHS</b>
 <b>COMMUNICATIONS</b> <b>CISA</b>	 <b>GOVERNMENT FACILITIES</b> <b>GSA &amp; FPS</b>
 <b>CRITICAL MANUFACTURING</b> <b>CISA</b>	 <b>HEALTHCARE &amp; PUBLIC HEALTH</b> <b>HHS</b>
 <b>DAMS</b> <b>CISA</b>	 <b>INFORMATION TECHNOLOGY</b> <b>CISA</b>
 <b>DEFENSE INDUSTRIAL BASE</b> <b>DOD</b>	 <b>NUCLEAR REACTORS, MATERIALS AND WASTE</b> <b>CISA</b>
 <b>EMERGENCY SERVICES</b> <b>CISA</b>	 <b>TRANSPORTATIONS SYSTEMS</b> <b>TSA &amp; USCG</b>
 <b>ENERGY</b> <b>DOE</b>	 <b>WATER</b> <b>EPA</b>

# CISA Regions

- 1 Boston, MA
- 2 New York, NY
- 3 Philadelphia, PA
- 4 Atlanta, GA
- 5 Chicago, IL
- 6 Dallas, TX
- 7 Kansas City, MO
- 8 Denver, CO
- 9 Oakland, CA
- 10 Seattle, WA









Q&A