2023 YEAR IN REVIEW

HSWERX
HOMELAND SECURITY INNOVATION HUB

A DEFENSEWERX HUB

HSWERX IMPACT
2023 HIGHLIGHTS

"HSWERX has been an invaluable partner in collaboration with the Department of Homeland Security (DHS) Science and Technology Directorate's (S&T) Maritime Safety and Security's (MSS) Energy Efficient Propulsion System. The staff organized the Collaboration Events, including sending invites to the ideal participants to ensure S&T MSS obtained an optimal list of requirements and information on cutting-edge technologies in this field. With their instrumental assistance, this activity has been improved by expediting the early research stages with beneficial information on possible customer requirements and the technology landscape."

MATT BARGER

DHS S&T PROGRAM MANAGER

"*HSWERX has significantly accelerated ITF's timeline to source viable solutions and demonstrate a proof of concept...TSA ITF is excited to deploy the proof of concept in 2024 and looks forward to providing the department with an update and results of the Mobile SSTA Optimization Demonstration.*"

NICHOLAS KOBILANSKY

TSA ITF PROGRAM MANAGER

"HSWERX provides the most comprehensive think tank that encourages an environment of progressive ideas and discourages selfish means and replaces it with common goals and idea sharing."

Justin Swartz
FLYMOTION

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"The [Assessment Event] was useful getting a broader understanding of future needs. The concept paper/pitch are phenomenal as it allows proposing a broader opportunity and new propulsion system architectures vs. answering a specific need limited to traditional tech and legacy requirements."

Kent Kristensen

GLX Powers

Systems Inc.

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PAST EFFORTS
2023 HIGHLIGHTS

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JUNE 7

TSA Airport Resource Optimization Collaboration Event

+ **148** challenges and ways to overcome were identified
+ Groups developed **17** problem statements which were prioritized to help stakeholders build assessment criteria for the follow-on Assessment Event (AE)

■ Industry: **84%**   ■ Government: **14%**

■ Academia: **2%**

JUNE 28

Energy Efficient Propulsion Systems Government Only Collaboration Event

+ **140** challenges and ways to overcome were identified
+ Groups developed **9** problem statements which were prioritized to help stakeholders develop next steps for a Collaboration Event

■ Government: **100%**

JULY 12

Automotive Vehicle Cybersecurity Collaboration Event

+ **188** challenges and ways to overcome were identified
+ Groups developed **16** problem statements which were prioritized to help stakeholders build assessment criteria for the follow-on Assessment Event (AE)

■ Industry: **52%**   ■ Government: **40%**

■ Academia: **8%**

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SEP 6

Energy Efficient Propulsion Systems Collaboration Event

+ **120** solutions were developed for the **9** problem statements that were outcomes of the government only CE
+ The groups developed **13** Blue Sky action plans which were prioritized to help stakeholders build assessment criteria for the follow-on Assessment Event (AE)

■ Industry: **67%** ■ Government: **33%**

SEP 19

Digital Identity Testbeds Collaboration Event

+ **185** challenges and ways to overcome were identified
+ Groups developed **13** problem statements which were prioritized to help stakeholders build assessment criteria for the follow-on Assessment Event (AE)

■ Industry: **86%** ■ Government: **14%**

SEP 20

Beyond Visual Line of Sight (BVLOS) Collaboration Event

+ **319** challenges and ways to overcome were identified
+ Groups developed **16** problem statements which were prioritized to help stakeholders build assessment criteria for the follow-on Assessment Event (AE)

■ Industry: **49%** ■ Government: **43%**

■ Academia: **8%**

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NOV 15-16

Automotive Vehicle Cybersecurity Assessment Event

- **34** submitters RSVP'd to a **Q&A Session** that was held on **Oct 4** to better understand DHS's specific technology objective
- Out of **18** submissions, **13** capabilities were selected to present
- **5** DHS representatives participated

  ■ Industry: **72%** ■ Government: **14%**
  ■ Laboratories: **11%** ■ Academia: **3%**

NOV 28

TSA Airport Resource Optimization Assessment Event

- **53** submitters RSVP'd to a **Q&A Session** that was held on **Oct 4** to better understand DHS's specific technology objective
- Out of **18** submissions, **6** capabilities were selected to present
- **12** DHS representatives participated

  ■ Industry: **70%** ■ Government: **30%**

DEC 13

Energy Efficient Propulsion Systems Assessment Event

- **29** submitters RSVP'd to a **Q&A Session** that was held on **Oct 24** to better understand DHS's specific technology objective
- Out of **20** submissions, **7** capabilities were selected to present
- **7** DHS representatives participated

  ■ Industry: **78%** ■ Government: **22%**

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NOV 17

Next Generation 911

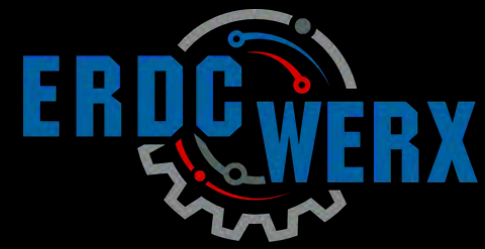**Optimizing Emergency Communication Centers (ECCs) w/AI Q&A Session**

- **64** submitters RSVP'd to the Q&A to better understand DHS's specific technology objective in preparation for the **January 17, 2024** Assessment Event
- **34** organizations submitted their technology proposals

SPECIAL MENTION
2023 HIGHLIGHTS

DHS & DEFENSEWERX

DHS T2C visited the DEFENSEWERX Hub, ERDCWERX in Vicksburg, Mississippi on November 15, 2023. Several ideas resulted from this meeting centered around licensing technologies, growing the ecosystem, and partnering opportunities between DHS and ERDC.

One of **HSWERX's sister hubs,** ERDCWERX (EWX) was created under a Partnership Intermediary Agreement between DEFENSEWERX and the U.S. Army Engineer Research and Development Center (ERDC).

On August 15, 2023 **DHS VIP, Kalpesh Patel, DHS CWMD,** visited SOFWERX. An HSWERX team member was on-site to meet the VIP and answer questions about the Hub.

On October 11, 2023, **DHS VIPs, Joel Rynes and Steven Griffin, DHS CWMD,** visited SOFWERX. An HSWERX team member was on-site to meet the VIPs and answer questions about the Hub.

One of **HSWERX's sister hubs,** SOFWERX (SWX) was created under a Partnership Intermediary Agreement between DEFENSEWERX and the U.S. Special Operations Command (USSOCOM).

Alongside DHS Science & Technology Directorate, Technology Transfer and Commercialization, HSWERX has served the following components:

United States Coast Guard (USCG)

Transportation Security Administration (TSA)

United States Customs and Border Protection (CBP)

United States Secret Service (USSS)

Science & Technology (S&T)

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OTHER GOVERNMENT AGENCIES
HSWERX COLLABORATED WITH IN 2023

500+ INNOVATORS
FROM INDUSTRY, ACADEMIA, AND NATIONAL LABORATORIES INTERACTED WITH HSWERX IN 2023

Aalyria. Above Promotions. Accrete.AI. Adaptive Computation LLC. Admiral Fluidics Corp. Adyton Public Benefit Corporation. Aegis Creek. Aerial Vantage Inc. Affinity Networks, Inc. Agilious LLC. Air Space Intelligence. Airgility Inc. AIRIA. Airside Mobile. Alagant Tech LLC. Alba Consulting. Alteryx. Amberoon Inc. American Aerospace ISR. Analogic Corporation. Analytical AI, LLC. Anduril Industries. Anodyne Technologies Inc. AP Cyber. Apogee Engineering. Apollo 13 Designs, LLC. Applied Information Sciences (AIS). Applied Integrated Technologies. Applied Research Associates (ARA). Apstax Solutions. Arc Boat Company. Archimedes Controls Corp. Argonne National Laboratory. Arizona State University. Armodias. ArmorGIS. ASAP SHIPPING LLC. ASIUS TECHNOLOGIES. ASRC Federal. ASTI. Astras.ai. ATCorp. Athena Sciences Corporation. Atlantic Center Advisory Group. Attack Point Technologies. AURA Technologies. Aurora Marine Design. Avari Aerospace. B-TEAM SECURITY. BAE Systems. BAIB Consulting. BAKER ENGINEERING. Baker Hughes. Battelle. Beaten Zone Venture Partners.BEONTRA. Bigbear.ai. Black Cape. Black Ops Associates. Block Engineering LLC. Block Harbor Cybersecurity. Blue Biometrics Inc. Blue Ridge Dynamics. BookerDiMaio, LLC. British Standards Institution. BTI. Building Momentum. Byteworks, LLC. C3.AI. CAM2 Technologies. Canaery. Canyon Consulting. Charles River Analytics. City University of New York. Clear-Armor LLC. ClosedAI. Cloudnine AI. Cobalt Solutions Inc. Codex Laboratories LLC. Cogent Info Tech. Color Tokens. Colorado State University. ConductorAI. Copenhagen Optimization. Corner Alliance, Inc. Cornerstone Integration, Inc. Corsha. Crius Technology Group. Cryptic Vector. Curie Technologies Inc. Cyber Capital Partners, LLC. Cyber DI LLC. Cyber Solutions. D'Angelo Technologies, LLC. D&A Technologies, Government Solutions. Dark Wolf Solutions. Databuoy Corporation. DataSoft Corp. DeciSym, LLC. Dell Technologies. Deloitte Consulting. Design Interactive, Inc. Detroit Mercy. Device Solutions Inc. Dignari. Ditto Live, Inc. DKC Group. Drone Industry Systems Corp (DISC). DropDrone. Duke University. EASE Airport Ops, LLC. Easy Aerial Inc. Edge Autonomy. Eduworks. Enginuity Partners LLC. Equitus.ai. Event 38 Unmanned Systems Inc. Ex Solis Marine LLC. FaceTec, Inc. Feldhake Consulting LLC. Fend Inc. FGS LLC. FIDO Alliance. First In Ventures. FLYMOTION. ForAllSecure. Fuse Machines. Garoux LLC. Gati Consulting LLC. GCAS Inc. General Algorithmic Technologies Company. General Radar. Global Management Group. GLX Power Systems Inc. GS VORTEX SYSTEMS. H2O.ai. HamiltonJet, Inc. HashiCorp. Haylon Technologies. Hexagon US Federal. High Point Aero Technologies. Hitachi Vantara Federal. Holmes and Associates, Inc. HP Tuners LLC. HUMAN Security. HumanLink, LLC. Hushmesh Inc. HyALTA Aeronautics Inc. Hydrogen Helix. Hyphen Innovations. I-Infusion Inc. IBM. Idaho National Lab. IDmachines. IM Technologies, LLC. ImageTrend. Impact Consulting. Improving Aviation LLC. Infiltron Software Suite, LLC. InMar Technologies. Innovatrics s. r. o. Innovet, LLC. Instabase. Integer Technologies, LLC. Intel Corporation. Intelligent Payload Solutions, INC. Intellisense Systems, Inc. iProov. IPtoki Inc. IQM Reseach Institute. iVALT. IXI TECHNOLOGY. John Snow Labs. Johns Hopkins University. JTEK Data Solutions. Karambit.AI Inc. KARMAI CONSULTING LLC. KEF Robotics. KHLG & Associates, Inc. Kinnami. Knowledge Based Systems, Inc. Koru Ports. KUNGFU.AI. Kynamics LLC. Lander Analytics. Lauretta AI, LLC. Lawrence Livermore National Lab. Leidos. LexisNexis Risk Solutions. Lockheed Martin. Lp3. Lupton Consulting. Lyten. Manufacturing Works. Marcantonio Global LLC. Marjo Engineering LLC. MatrixSpace. Mauck Research Group. mesur.io. Micro Hydrogen Inc. Mighty Waves Energy. Mile Two. Mississippi State University. MixMode AI. Mobius Logic, Inc. Mosaic ATM, Inc. MRead Limited. NALEJ Corporation. National Renewable Energy Laboratory. Native American Industrial Solutions (NAIS). NEC National Security System. Nestbox AI. Networks Design Inc (NDi). New Jersey City University. NewLinum LLC. Nexcepta Inc. NextgenID Inc. North American Wave Engine. NOVI LLC. Nyentek LLC. NYSTEC. Oak Ridge National Lab. ObjectSecurity. Optiphase Drive Systems, Inc. Orion Integrated Biosciences Inc. OrionBlockSystems, Inc. Ohio State University. Pacific Northwest National Laboratory. PacMar Technologies LLC. Palantir Technologies. Pasteur Labs. Pathfinder Systems. Phalanx. PHELPS2020, INC. Photon Marine. Picolo Labs. Pienso. Precision Combustion, Inc. Prepared911. Privoro. Prometheus Computing, LLC. Prompt Inversion LLC. Pyramid Analytics. Pytho AI. Qualcomm. QuSecure. R2AG Solutions, LLC. R3 Experiential. Radial Vector Consulting. RAIN Defense + AI. RAM Laboratories, Inc. Reality Defender. Regan Partners. REGENT Craft, Inc. Resecurity. Resilient Cognitive Solutions LLC. Rigil Corporation. RTI International. SafeFlight Corporation. Sage Analysis Group. Saltenna LLC. Salus. SandboxAQ. SandTech Solutions. SAS Institute. Sayso Technologies Inc. SCALED ENTELECHY, INC. SCATR. ScriptString. SEAS, LLC. Secmation. Securiport LLC. Security Effects. Sensity. Sertainty Federal Systems. ServiceNow. SherloQ. Shift5. Shipcom. SICDRONE. SigNetCyber LLC. Silicon Mountain Technologies. Silverdraft Supercomputing. SilverEdge. SitScape Inc. Smart City Works VENTURE LABS. Socure. Software Tech Enterprises. Solid State Battery Inc. Solo.io. Southwest Research Institute (SwRI). Spectric Labs. Spirit Marine Services. STACATO LLC. Stellar IT. Stevens Institute of Technology. Strategic AI Labs. SubSeaSail LLC. SurceAmerica. Swain Techs. Sweetwater Defense. taag. tailgent. Talos Industry Corporation. Tb2 Aerospace. TDA Research, Inc. TEAM STE 8a JV. TeamSense AI, LLC. Teamworks Innovations. Teamworks Tactical Solutions, Inc. TECHFORGE Solutions. Technergetics LLC. Technology Advancement Group. Telos Corporation. TensorX. Teracore Inc. Tern AI. Textron Systems. thatDot. The CONSILIO Group. The Fuel Ox, LLC. The Reddix Group. Tiami Networks. Titan Technologies. Tomahawk Robotics. Trabus Technologies. TraitWare Inc. TranslateLive, LLC. TRECIG LLC. Trust Stamp. Trusted Science and Technology uAvionix Corporation. ÜbelKorp Industries. UberEther. University of California Riverside. University of Central Florida. University of Florida. University of Louisiana at Lafayette. University of Southern California Information Sciences Institute. Unmanned Experts Inc. Unstructured Technologies, Inc. USI, Inc. V2ESecure. valid8.com, inc. Vega Technology Group LLC. Velos Labs. Veloxxity. VenLogic LLC. Verizon. VETS, LLC. Vibronyx Inc. Virginia Tech. VivSoft. Wallaroo Labs, Inc. Wallaroo.AI. WANDR Studio. WingXpand. Workforce.com. XaaSLabs Inc. Xadite Perceptions LLC. Xage Security. z SofTech Solutions, INC. ZILED GROUP/ZO-EX. Zimperium. Inc.

License DHS Technology

Within the first **30** days of launching the licensing page on the HSWERX website, **7** companies requested Information to license DHS technology.

Magnetic Breakaway Mount for Tools & Equipment

Emergency Prevention & Response

Scalable Body Armor System

Emergency Prevention & Response

High Resolution Enhancement for 3D LiDAR Systems

Transportation Security & Explosives Characterization Solutions

Rescue Basket

Emergency Prevention & Response

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DEFENSEWERX has the world's largest innovation ecosystem to ensure national security.

IN 2023

THE HSWERX OPT-IN ECOSYSTEM GREW BY

186%

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The following chart shows underserved communities that are active in the HSWERX ecosystem.

Other 12.9%

8A 1.8%

HUBZone 3.7%

Minority Owned 14.1%

SDVOSB 5.8%

VOSB 6.1%

EDWOSB 0.6%

WOSB 7.7%

SDB 3.4%

Small Business 43.9%
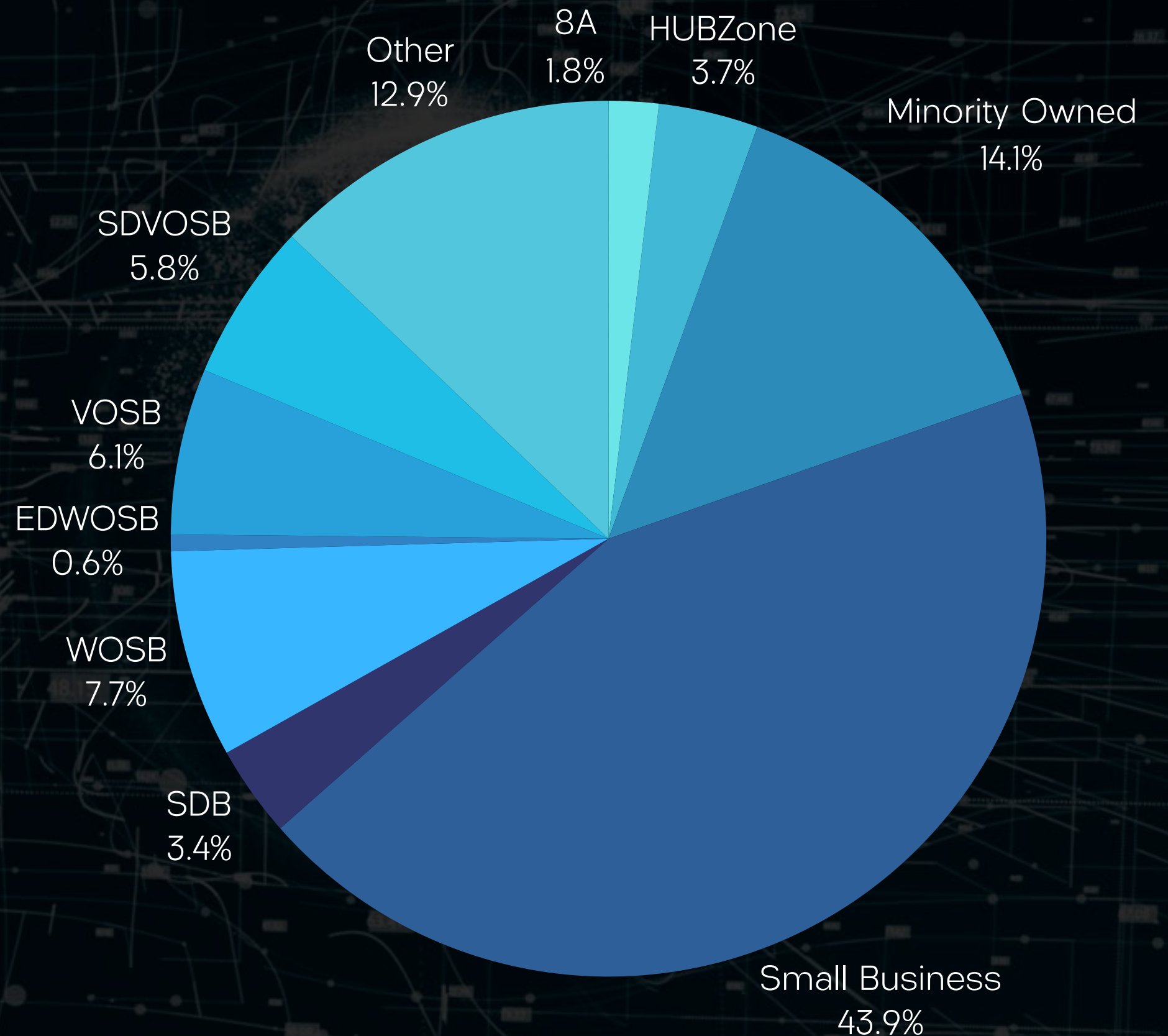
EXCITING NEWS AHEAD IN 2024!

1. **Dynamic Collaborations:** Expect more collaborations with DHS and stakeholders to tackle evolving challenges in cyberspace, air, land, and sea.
2. **Cutting-Edge Technologies:** Look out for revolutionary technologies shaping security and defense, keeping our nation innovative.
3. **Expanded Reach:** Engaging a wider range of innovators and experts to enhance homeland security solutions.
4. **Impactful Events:** Collaborating with DHS and innovators to identify and deliver real-world solutions.
5. **Tech Transfer & Commercialization:** Bringing groundbreaking solutions to market alongside DHS T2C.

Join us in shaping the future of homeland security.
Together, we make a difference!

DHS Components - Submit Your Challenges Here

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