

Oak Ridge National Laboratory

**U.S. Department of Energy Office of Small and Disadvantaged
Business Utilization (OSDBU)**
Fall Virtual Small Business Outreach Event

November 10, 2020
9:00 a.m. – 11:00 a.m. Eastern

Dr. Cassandra McGee Stuart
Mgr., Small Business Program

ORNL is managed by UT-Battelle, LLC for the US Department of Energy

Agenda

Oak Ridge National Laboratory Research Initiatives

Doing Business with ORNL

Project Updates and Business Opportunities

IT/Computing

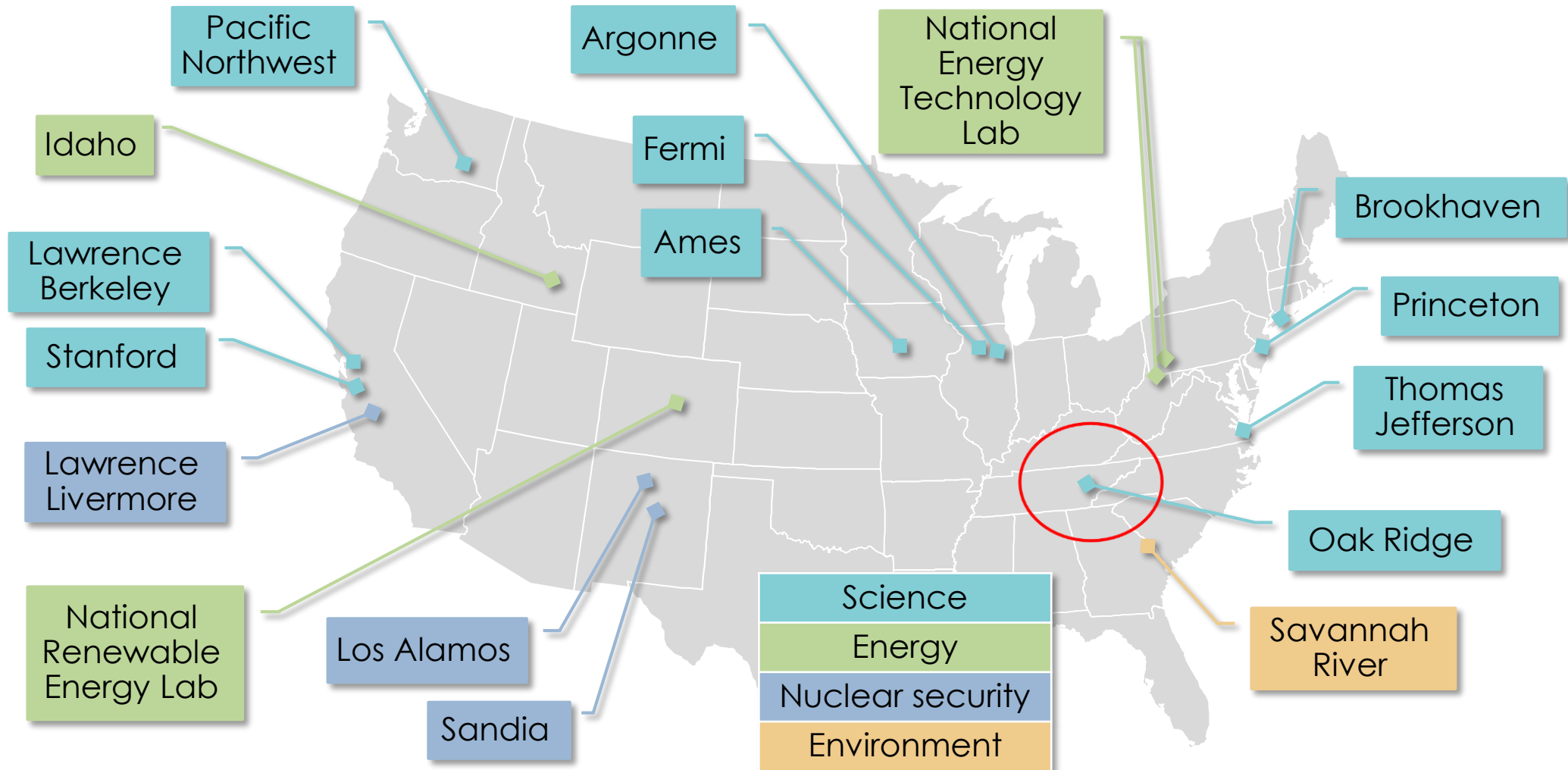
Construction

U.S. ITER

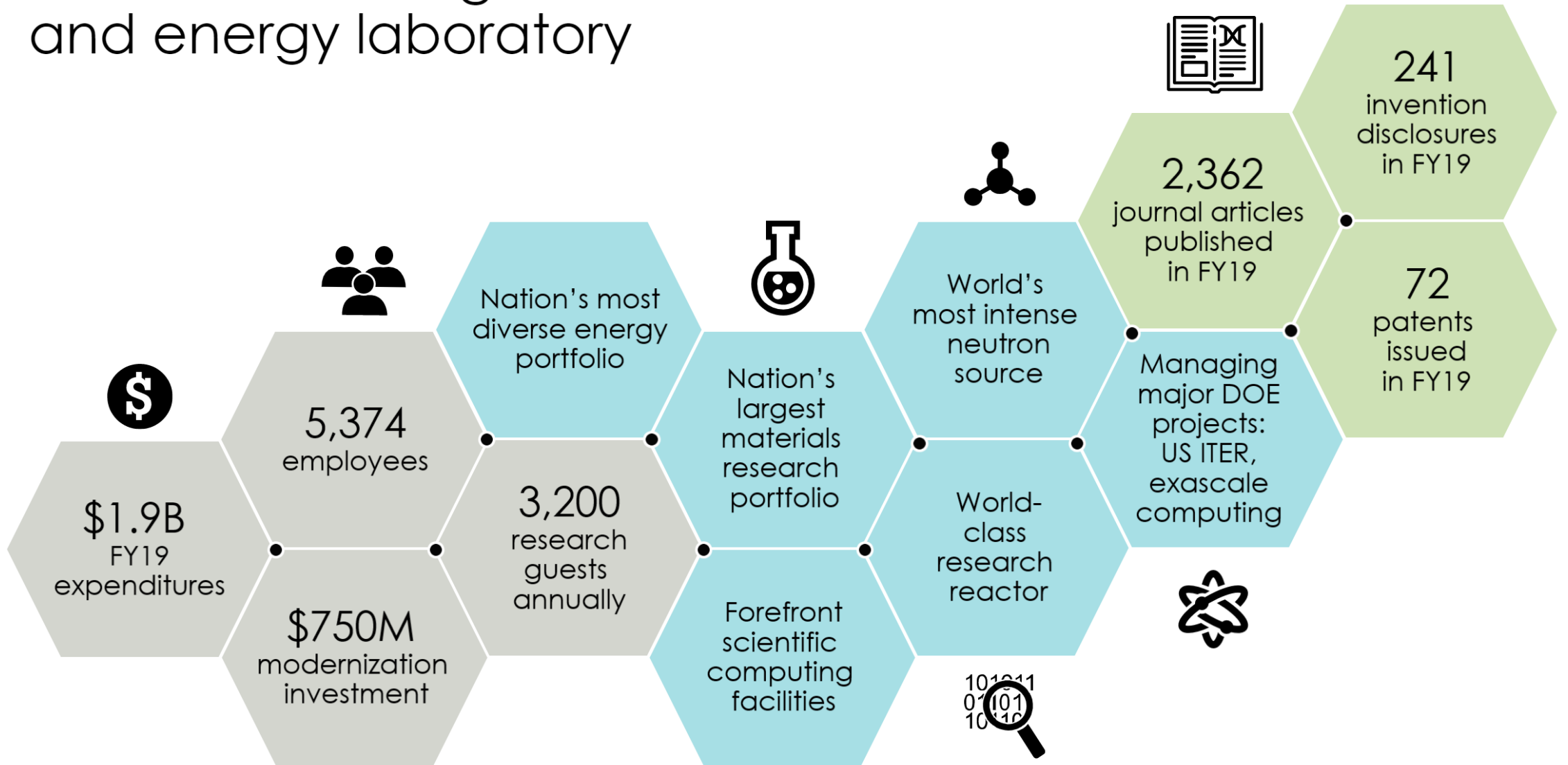
Second Target Station

Additional Projects

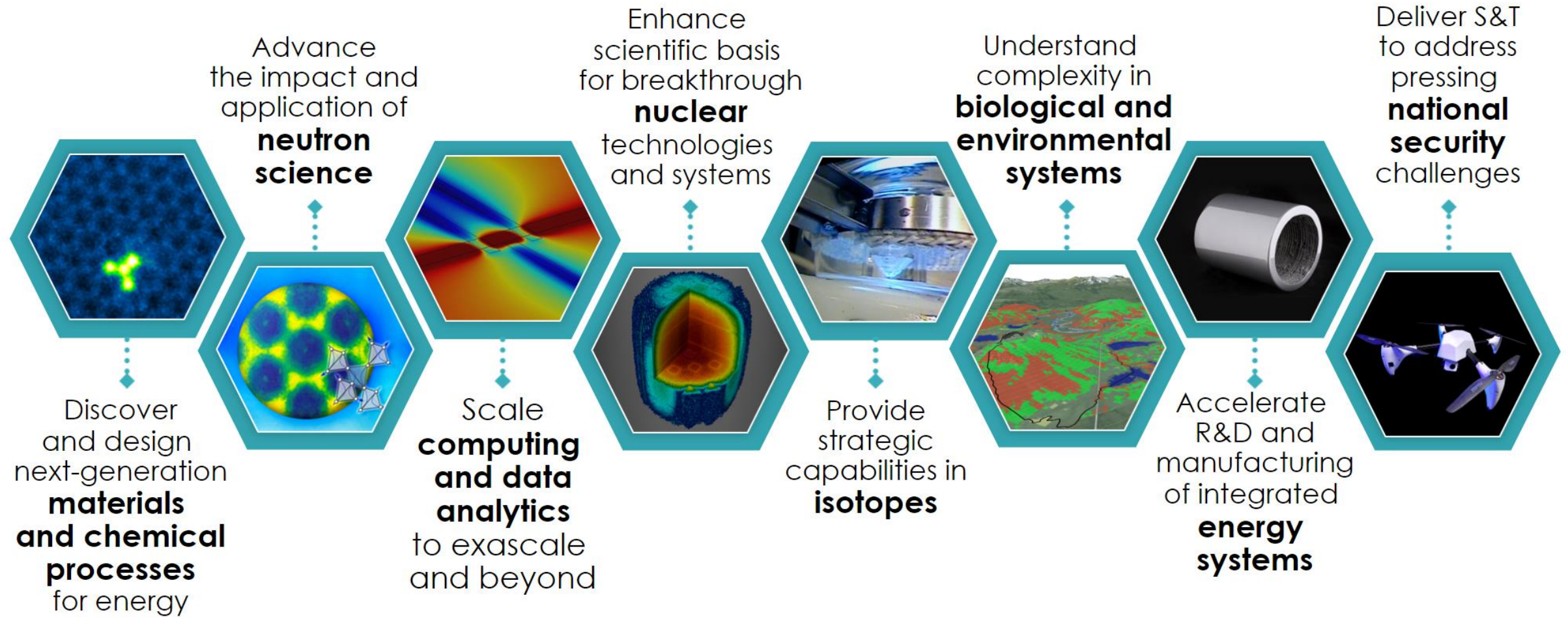
The national laboratories of the U.S. Department of Energy constitute a network for discovery and innovation

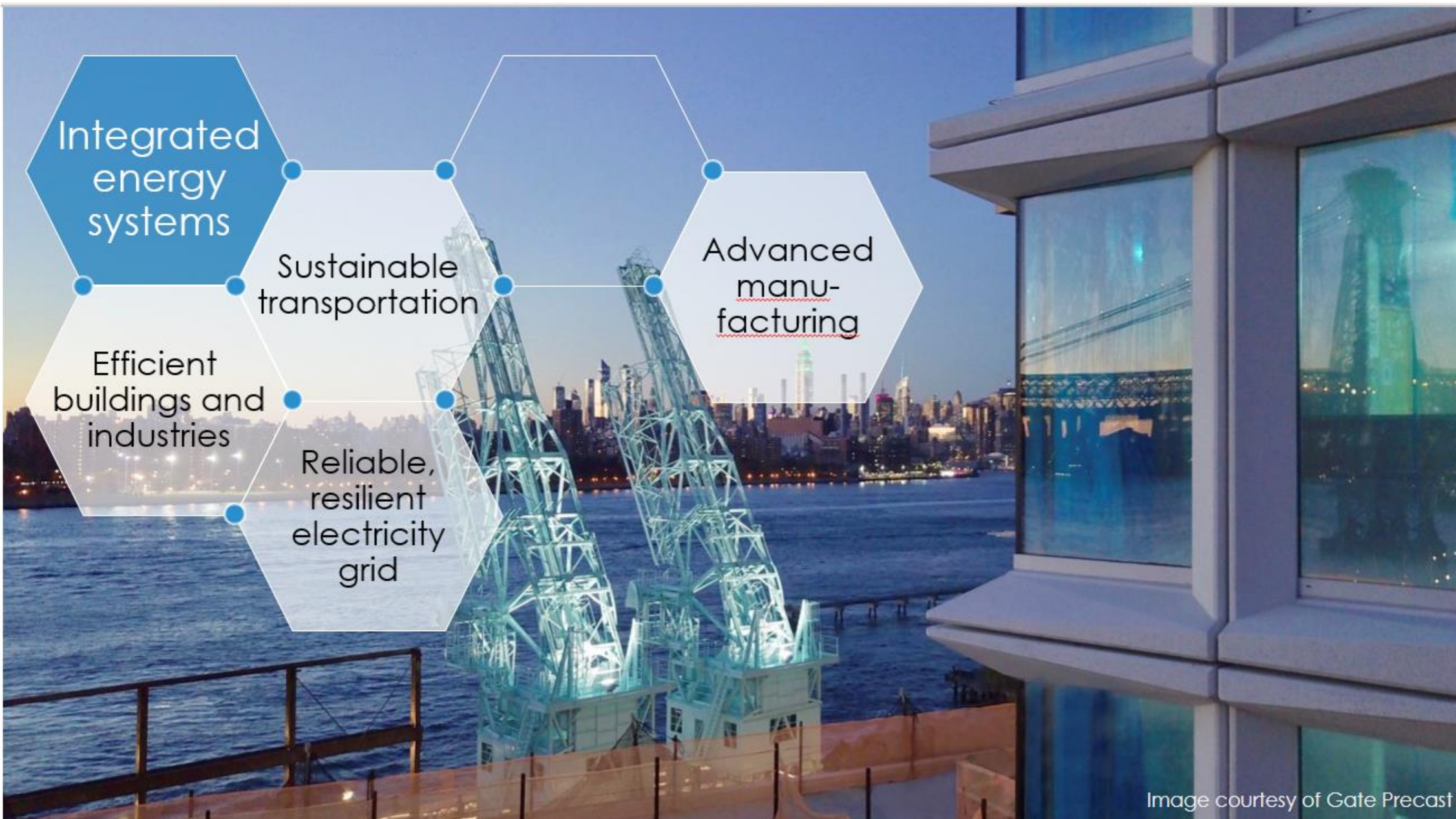


ORNL is a leading science and energy laboratory



Delivering advances in science and technology





Integrated energy systems

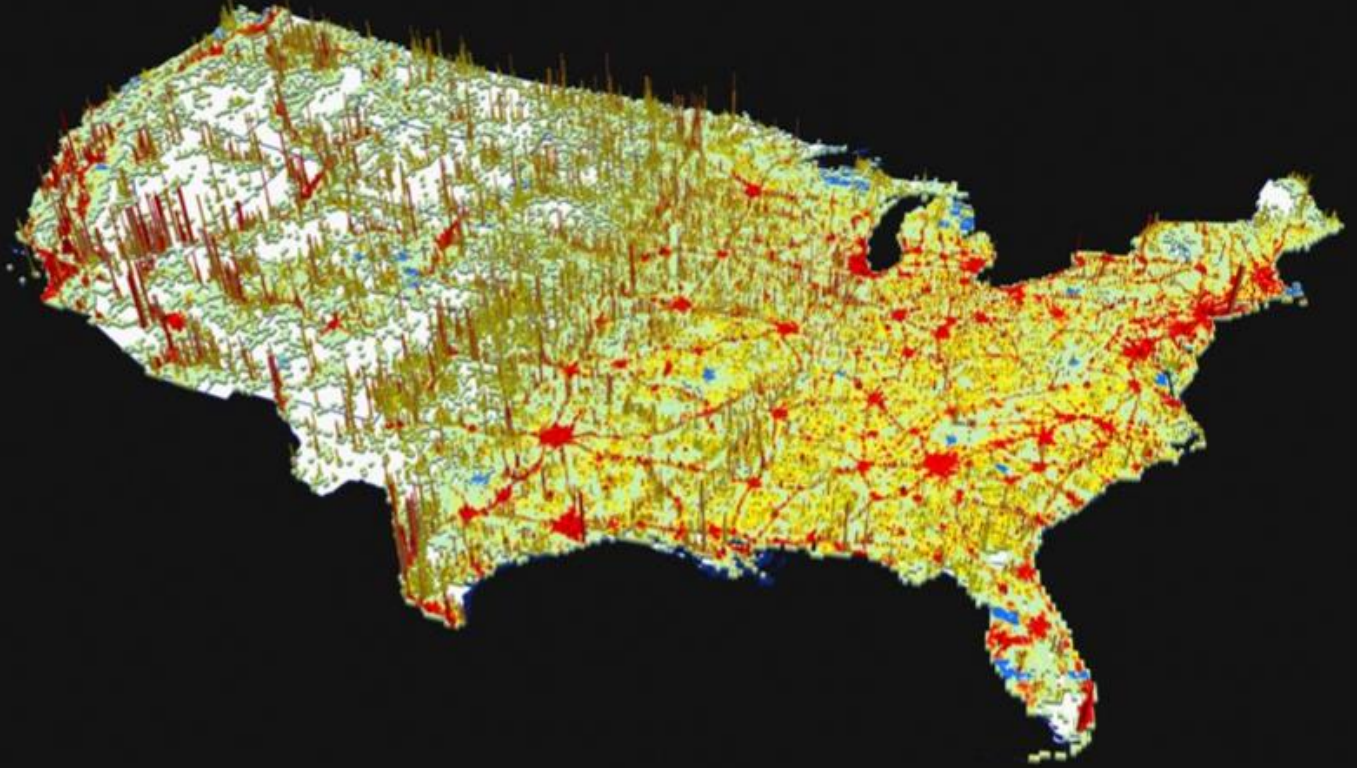
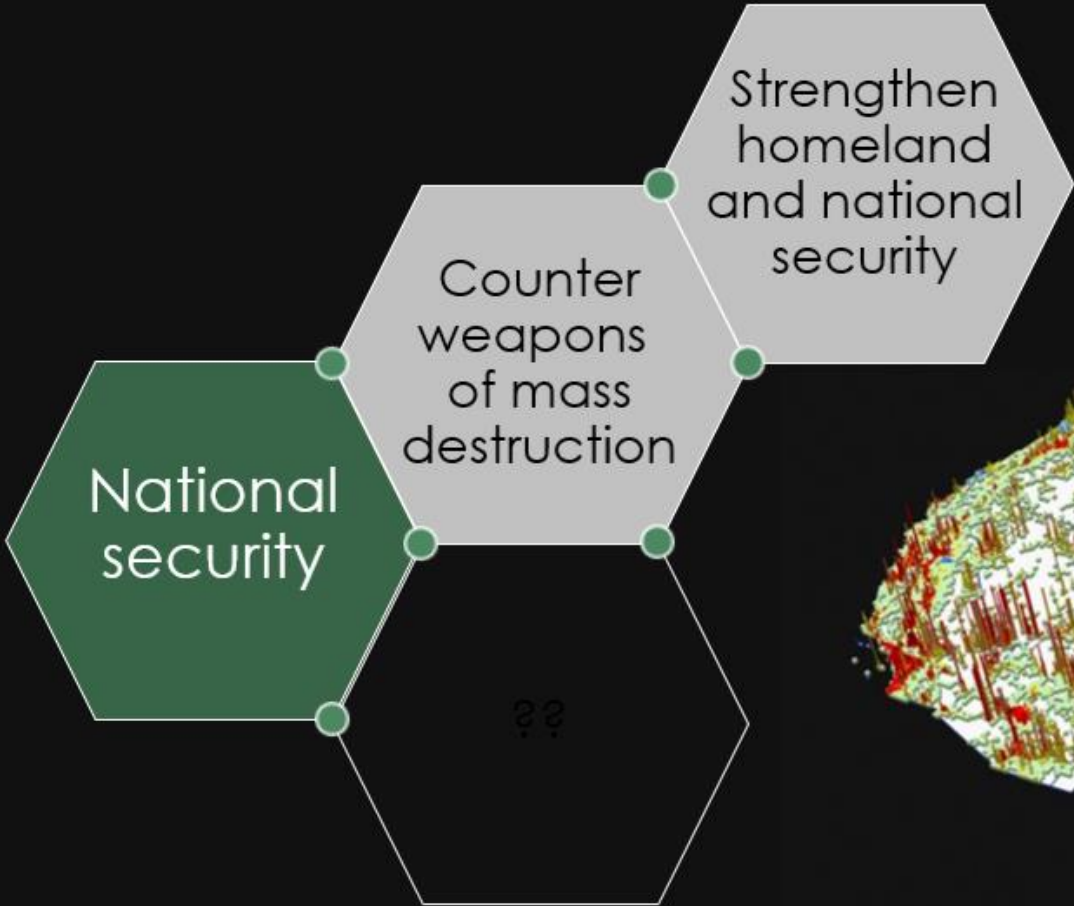
Sustainable transportation

Advanced manufacturing

Efficient buildings and industries

Reliable, resilient electricity grid

Image courtesy of Gate Precast



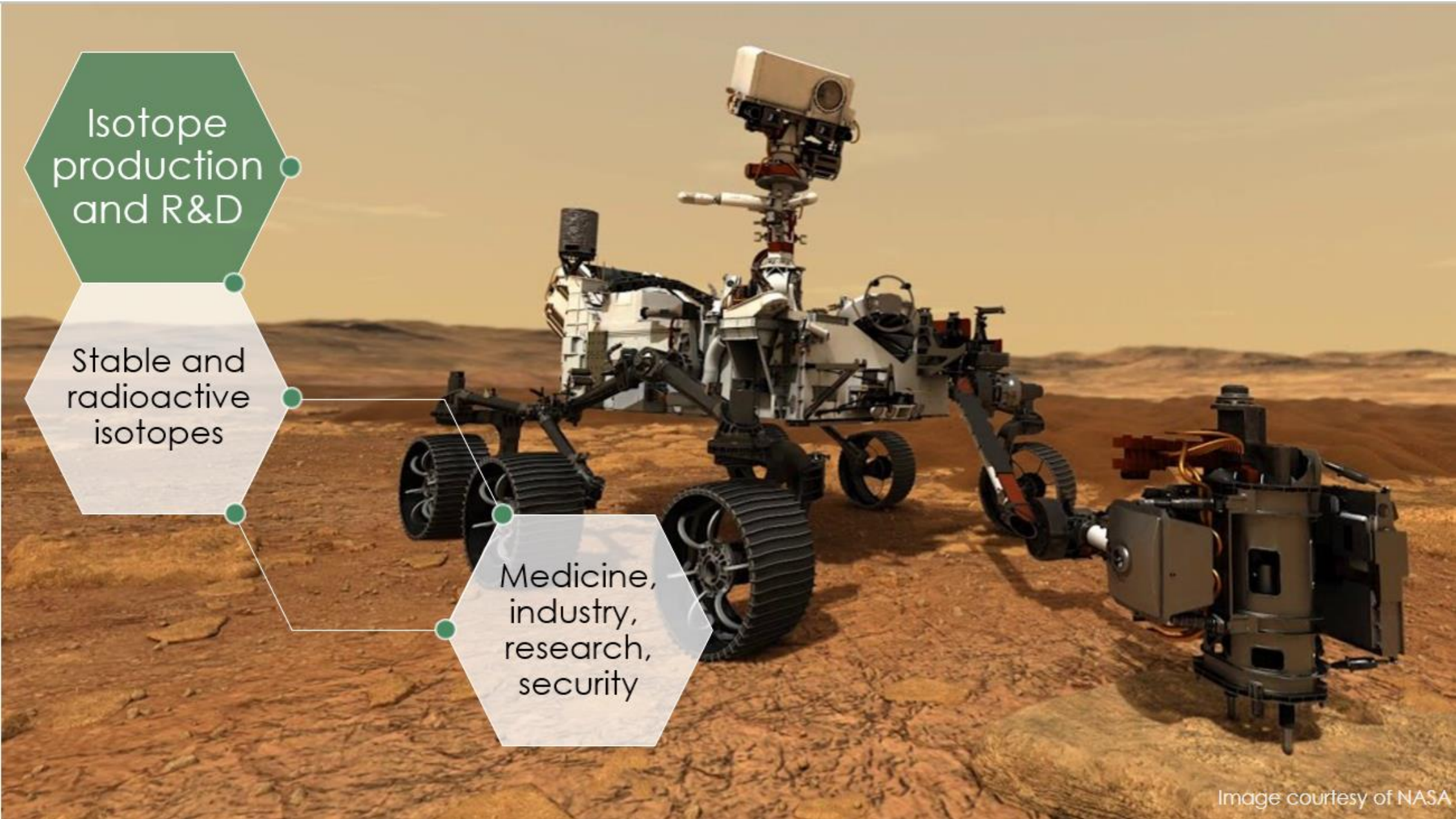


Image courtesy of NASA

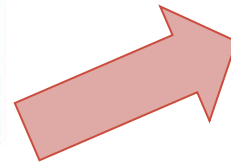
Doing Business with ORNL

- <https://smallbusiness.ornl.gov>

Business Opportunities
Find a list of contracts currently available at Oak Ridge National Laboratory and for small businesses.

Mentor-Protégé Program
Learn about the Department of Energy initiative designed to help small businesses enhance their capability to perform subcontracts.

Small Business Program Facts
Get the facts about ORNL's Small Business Program to see if your business is a good fit.



ORNL Business Opportunities

Brooks Baldwin, Director, Contracts - (865) 576-7151

Cassandra McGee Stuart, Manager, Small Business Programs - (865) 576-3560 / mcgeecm@ornl.gov

For International ITER Business Opportunities, please see: <https://www.usiter.org/opportunities/procurements>
For general information concerning the ITER project, please see: <https://www.usiter.org/>

Sign up to to be notified by email when new listings are posted! **SUBSCRIBE**

Current Business Opportunity Listings

Category	Description	Small Business Set-Aside	Estimated Value	Expected Issue Date	Expected Award Date
Fabrication and Machining Services	Cryo-guard Vacuum System (CGVS) Details	No	>\$500K	May-19	Jul-19
Industrial and Facility Services	Camera Investigations, Civil Survey, and Geotechnical Details	No	\$1M - \$2M	Jul-19	Sept-19
Construction	Construction Services to SNS Site Details	Yes	<\$10M	Jul-19	Oct-19
Construction	Asphalt Paving Details	No	>\$1M	Jul-19	Aug-19
Construction	OLFCS Electrical Upgrade Details	Yes	\$8.8M	Jul-19	Sept-19
Industrial Equipment	Furnace Details	No	>\$200K	Jul-19	Aug-19
Industrial Equipment	Tokamak Cooling Water Systems - Drying System: Charging Compressor Details	No	<\$1M	Sept-19	Dec-19
Industrial Equipment	Tokamak Cooling Water Systems - Vacuum Vessel Baking Heater and Drying System Electrical Heater Details	No	>\$1M	Sept-19	Dec-19
Construction	SNS PPU Klystron Gallery Construction Details	No	\$4M - \$5M	Aug-19	Sept-19

ORNL Business Opportunities

Sign up to to be notified by email when new listings are posted!

[SUBSCRIBE](#)

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Current Business Opportunity Listings

Category	Description	Small Business Set-Aside	Estimated Value	Expected Issue Date	Expected Award Date
Professional and Staffing Services	Project Management Services Details	Yes	\$25M	November 2020	TBD
Fabrication and Machining Services	Piezoelectric Pressure Transducer Details	No	<\$3M Phased Procurement (Phase I and Phase II)	August 2020	September 2020
Construction	A-E Services: Material Plasma Exposure Experiment Details	No	<\$500K	September 2020	December 2020/January 2021
Fabrication and Machining Services	VAS-02 Cryostat Piping Spool and Fitting manufacturing and packaging for shipment for a total of 23 pipe spools. Details	No	\$750K	August 2020	September 2020
Computer/IT Services	ICPT Agreement for IT Equipment & Peripherals Details	No	\$5M	July 2020	November 2020

Details:

Project Management Services

Category: Professional and Staffing Services

Small Business Set-Aside: Yes

Estimated Value: \$25M

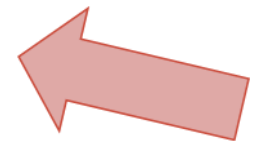
NAICS Code: 561320

Expected Issue Date: November 2020

Expected Award Date: TBD

Contact Name: Angela Shillings

Contact Email: shillingsag@ornl.gov



ORNL Business Opportunities

- <https://smallbusiness.ornl.gov>



Business Opportunities

Find a list of contracts currently available at Oak Ridge National Laboratory and for small businesses.



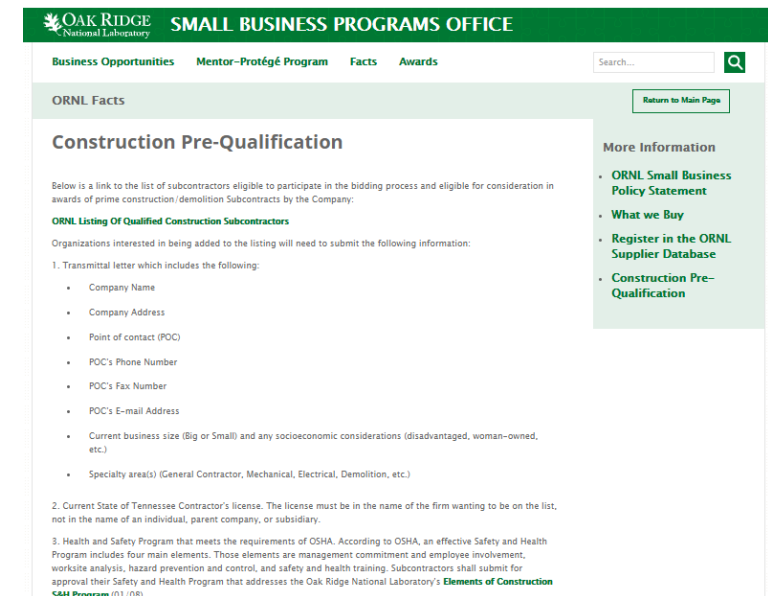
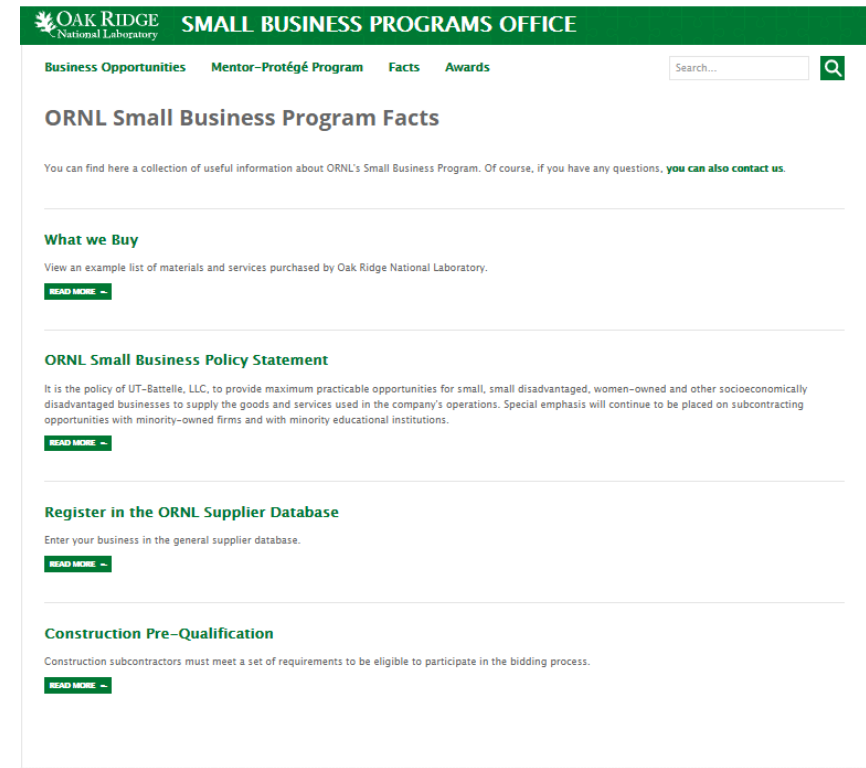
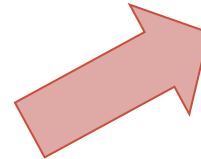
Mentor-Protégé Program

Learn about the Department of Energy initiative designed to help small businesses enhance their capability to perform subcontracts.



Small Business Program Facts

Get the facts about ORNL's Small Business Program to see if your business is a good fit.



Construction Pre-Qualification

Below is a link to the list of subcontractors eligible to participate in the bidding process and eligible for consideration in awards of prime construction/demolition Subcontracts by the Company.

ORNL Listing Of Qualified Construction Subcontractors

Organizations interested in being added to the listing will need to submit the following information:

1. Transmittal letter which includes the following:
 - Company Name
 - Company Address
 - Point of contact (POC)
 - POC's Phone Number
 - POC's Fax Number
 - POC's E-mail Address
 - Current business size (Big or Small) and any socioeconomic considerations (disadvantaged, woman-owned, etc.)
 - Specialty area(s) (General Contractor, Mechanical, Electrical, Demolition, etc.)
2. Current State of Tennessee Contractor's license. The license must be in the name of the firm wanting to be on the list, not in the name of an individual, parent company, or subsidiary.
3. Health and Safety Program that meets the requirements of OSHA. According to OSHA, an effective Safety and Health Program includes four main elements: Those elements are management commitment and employee involvement, worksite analysis, hazard prevention and control, and safety and health training. Subcontractors shall submit for approval their Safety and Health Program that addresses the Oak Ridge National Laboratory's **Elements of Construction S&H Program** (01/08)

Construction

- Upcoming Competitive Opportunities
 - A-E Services
 - Material Plasma Exposure Experiment
 - General A-E Services (small business set-aside)
 - Building 1610 Modification
 - Roofing
 - As new projects are considered, looking for GC, electrical, civil, mechanical, etc.
- These and any other major opportunities will be posted on the Business Opportunities page.

IT/Computing

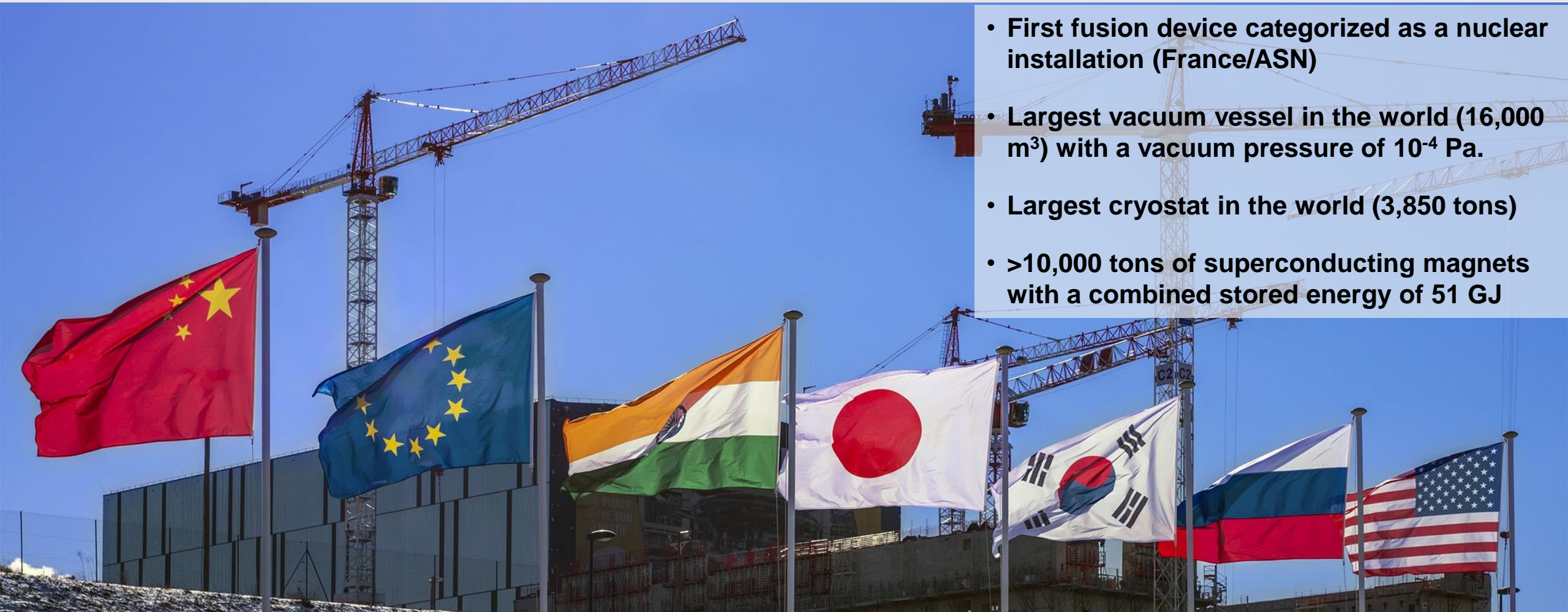
- Upcoming Competitive Opportunities
 - High Performance Computing System
 - Web Applications Support Services (small business set-aside)

- These and any other major opportunities will be posted on the Business Opportunities page.

ITER Mission

To demonstrate the feasibility of fusion energy for peaceful purposes

- First fusion device categorized as a nuclear installation (France/ASN)
- Largest vacuum vessel in the world (16,000 m³) with a vacuum pressure of 10⁻⁴ Pa.
- Largest cryostat in the world (3,850 tons)
- >10,000 tons of superconducting magnets with a combined stored energy of 51 GJ



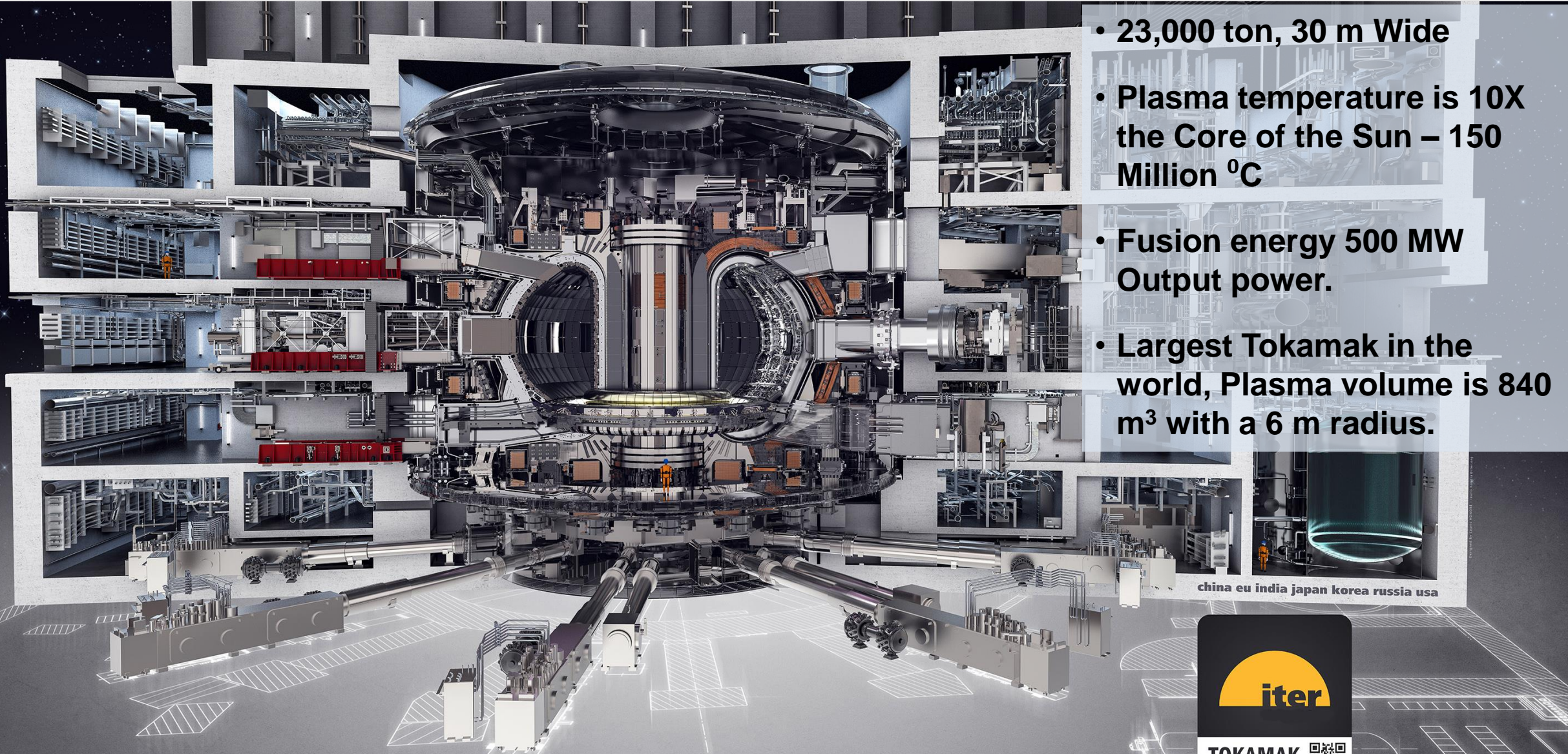
International ITER Project is ~70% complete for First Plasma site construction and components

ITER Site

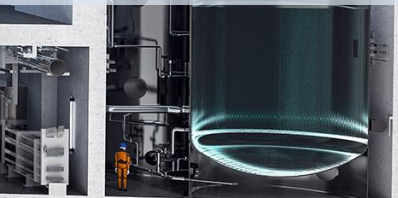
Saint-Paul-lès-Durance, France | May 2020



ITER Tokamak Complex



- 23,000 ton, 30 m Wide
- Plasma temperature is 10X the Core of the Sun – 150 Million °C
- Fusion energy 500 MW Output power.
- Largest Tokamak in the world, Plasma volume is 840 m³ with a 6 m radius.



china eu india japan korea russia usa

Upcoming Procurement Areas in 2020

- Tokamak Cooling Water System
- Electron Cyclotron Transmission Lines
- Ion Cyclotron Transmission Lines
- Vacuum Systems
- Instrumentation & Controls
- Pellet Injectors
- Disruption Mitigation



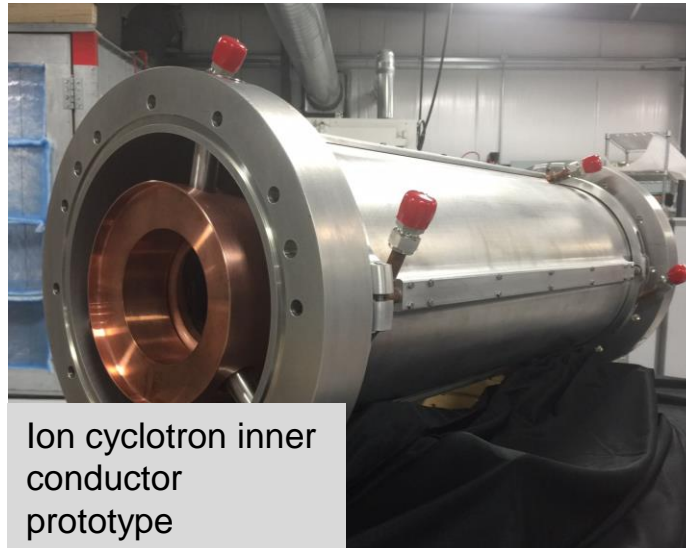
Nuclear qualified pressure vessels delivered for cooling water system



Prototype shattered pellet injectors installed on KSTAR tokamak



Electron cyclotron expansion unit prototype



Ion cyclotron inner conductor prototype

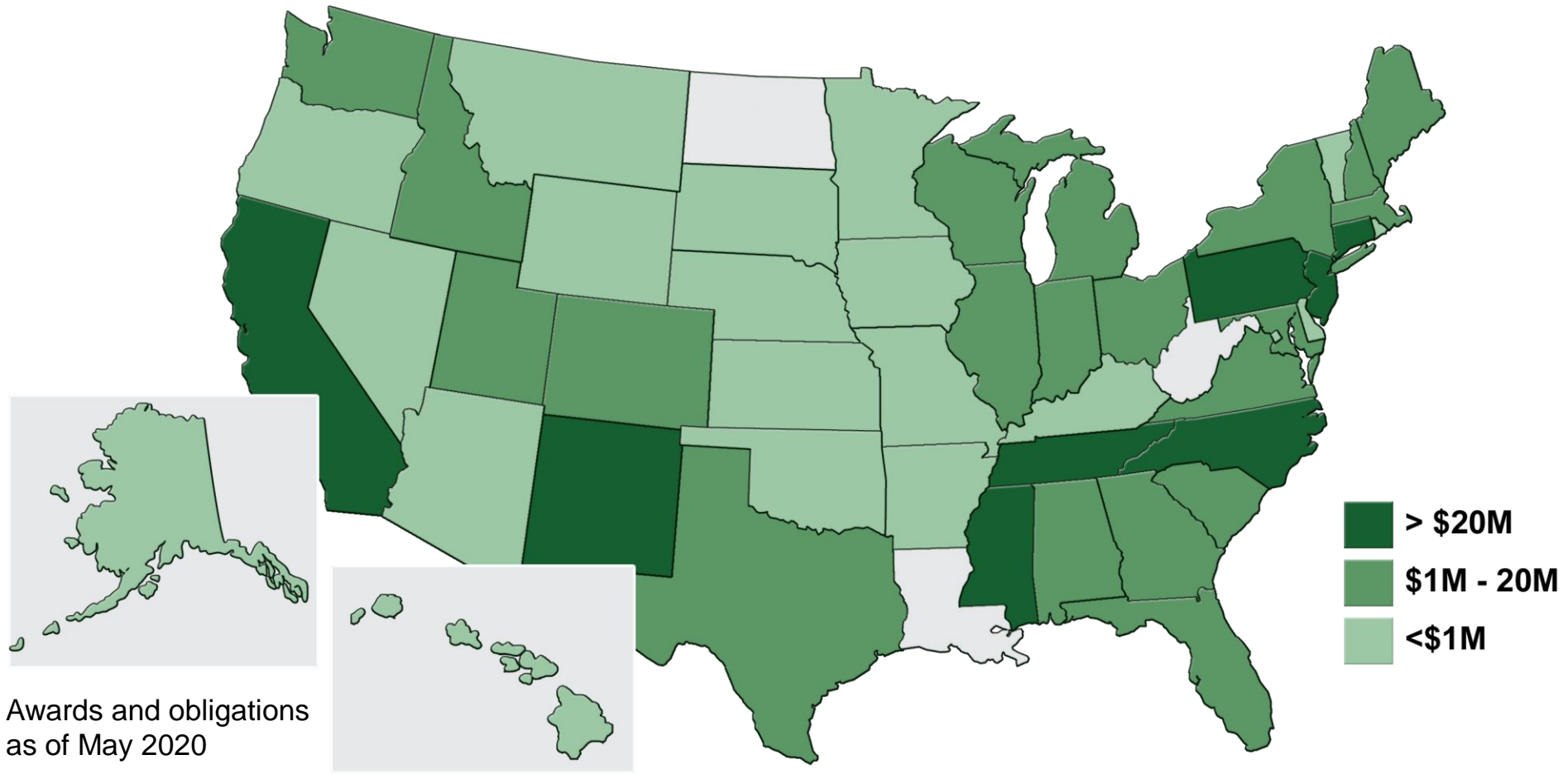
Upcoming Procurements in 2020

US ITER Procurements and ITER IO Procurements

- Current US ITER Procurement Opportunities are posted at: <https://usiter.org/opportunities/procurements>.
- Interested bidders should watch the IO website <https://www.iter.org/proc/overview> for other opportunities.

~\$1.4B to US industry, universities, labs

Over 80% of US ITER funding remains in the US



Second Target Station (STS)

Spallation Neutron Source (SNS) upgrades will accelerate scientific progress and deliver wholly new capabilities



STS project: Build the second target station with initial suite of beam lines

- Optimized for cold neutrons
- World-leading peak brightness
- Provide new science capabilities for measurements across broader ranges of temporal and length scales, real-time, and smaller samples

Sample of Major STS Procurements

#	Name	Estimated Cost (M)
1	Manufacturing - Bulk Shielding Components	\$12.50
2	Monolith Inserts (15 Upper and 6 Lower Moderators)	\$11.00
3	Cooling Water System	\$7.90
4	Manufacture Core Vessel Body	\$7.80
5	Manufacturing - CW System GFE	\$7.60
6	MRA - including Be, moderators, vessel, structure, and piping	\$7.00
7	Target disk including drive shaft	\$6.70
8	Cold Box & Oil Removal Skid - He Refrigeration System Components	\$6.60
9	Polarizing Analyzer	\$5.20
10	SiPM Pixelated Camera Detectors	\$5.20
11	Manufacturing - Waste Disposal Cask	\$4.00
12	³ He Detector Tubes	\$3.70
13	Detector Vessel	\$3.30
14	Bunker Roof Panels & Alignment Structures	\$2.80
15	Low Speed Choppers (F,H) & Components	\$2.70
16	High Speed Choppers (P,M) & Components	\$2.50
17	Detector 8-packs	\$2.10

STS - Two Major Procurements in Progress for Conventional Facilities

- AE Design Services Estimated value \$30-49M
 - Basic Ordering Agreement (BOA) with one AE firm
 - *BIDS RECEIVED*
- CM/GC Contract Estimated value \$600-\$630M
 - Base Contract – Pre-construction Services – fixed price
 - Option 1 CM Services (Cost of CM Staff and Staff Resources, pre-negotiated change fees) – fixed price
 - Phased Firm Fixed Price Scope Packages
 - Solicitation in progress, with **RFP TBD**

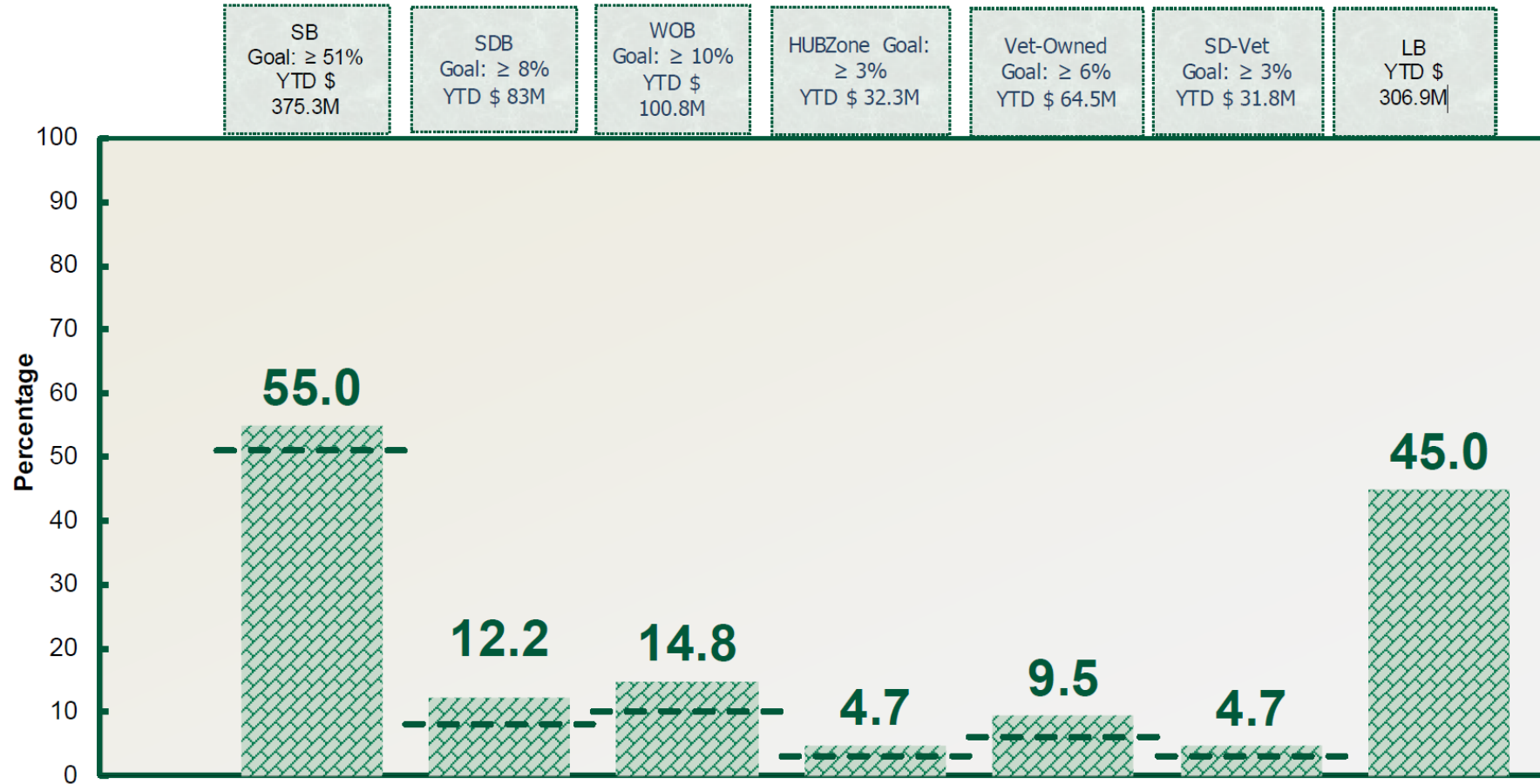
Additional Projects

- U.S. Stable Isotope Production and Research Center (SIPRC)
 - Increase the domestic production capabilities of stable isotopes for scientific, industrial, national security and medical uses
 - Over 500 individual purchases
 - Key components are dipole magnets and pressure vessels
 - Begins in FY21

Additional Projects

- Materials Plasma Exposure Experiment (MPEX)
 - Design, fabricate, install, and commission a Linear Plasma Device to address the need for expanded materials science capabilities, particularly as it pertains to Plasma Material Interactions
 - Estimated \$40M in procurement in a 2-3 year period
 - Some similarities to US ITER procurement scope
 - Magnets
 - Vacuum systems
 - Electrical systems
 - I&C
 - Diagnostics

Subcontract Dollars Placed with SB (%) Firms - FY 2020 (BSC Metric)



SB Goal: ≥ 51% YTD \$ 375.3M	SDB Goal: ≥ 8% YTD \$ 83M	WOB Goal: ≥ 10% YTD \$ 100.8M	HUBZone Goal: ≥ 3% YTD \$ 32.3M	Vet-Owned Goal: ≥ 6% YTD \$ 64.5M	SD-Vet Goal: ≥ 3% YTD \$ 31.8M	LB YTD \$ 306.9M
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Projections	FY20 YTD	Historical Data:	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19
SB Base	SB Base	SB=Small Bus.	55.1	51.5	53.8	60.0	60.7	56.7
545 M	682 M	SDB=Sm Disadvantaged	9.4	9.6	11.1	10.5	8.9	9.0
Exclusions	Exclusions	WOB=Small Woman-Owned	10.2	11.2	13.8	19.4	22.4	17.9
373 M	328 M	HUBZone=Hist. Underutilized Bus Zones	2.9	6.7	3.4	3.8	3.6	4.4
Total Proc	Total Proc	Vet-Owned=Veteran-Owned Sm Bus	6.9	7.6	11.0	10.1	8.5	9.9
918 M	1010 M	SD-Vet=Serv-Disabled Vet-Owned Sm Business	3.9	4.0	5.2	5.0	4.4	5.3

Base for SB, SDB, WOB, HUBZone & Veteran %s excludes FRGN, GOVT, INTG, IGT, Affiliates, ZX13, UT & P-cards. (FY 14 excludes 4000130255)

Data Source: BI ProcStats POHeader
P:\ProcGrps\Contract Services\Metrics\[Monthly Metrics.xlsx]SC \$ w SB
September 2020