

URL: <https://infuse.ornl.gov>
Email: infuse@ornl.gov

Webinar 3/04/2020

D. Youchison & A. Diallo

Q&A for 2020 1st RFA Call

INFUSEInnovation Network
for Fusion Energy

What Is INFUSE? Modeling And Simulation Library Submission



Innovation Network for Fusion Energy

The INFUSE program will accelerate fusion energy development in the private sector by reducing impediments to collaboration involving the expertise and unique resources available at DOE laboratories. This will ensure the nation's energy, environmental and security needs by resolving technical, cost, and safety issues for industry.

[Read More](#)

<

Hot Topic: U.S. Department of Energy Office of Fusion Energy Sciences Strengthened

>



What's New



Contact Us



Activities & Events

Newsroom



FES supports fusion science research

New funding opportunities announced for fusion science research

[Read More](#)



FES launches new website for the INFUSE program

A new website hosted at ORNL will facilitate news and announcements concerning the INFUSE program and act as a proposal submission and review site.

[Read More](#)



INFUSE announces initial round of proposal solicitation

The Innovation Network for Fusion Energy program announced its first proposal solicitation for the private/public partnership.

[Read More](#)





What is INFUSE?

INFUSE

Innovation Network
for Fusion Energy

- FES established INFUSE program to aid private/public partnerships in Fusion
 - ORNL and PPPL manage the INFUSE program for FES
 - ORNL launched a new INFUSE website for submissions and reviews
 - **Two RFA calls are planned for FY2020, 1st is now open.**
- 12 FY2019 awards announced in October, funding released in January
 - 1st annual INFUSE workshop occurred Nov. 22-23 in Knoxville, TN

10 Participating laboratories: BNL, INL, LANL, LBNL, LLNL, ORNL, PNNL, PPPL, SNL, SRNL

Topical areas: Enabling Technologies including magnets
Materials Science
Plasma Diagnostics
Theory and Simulation
Magnetic Fusion Experimental Capabilities

Dennis Youchison-ORNL, INFUSE Director

Ahmed Diallo-PPPL INFUSE Deputy Director

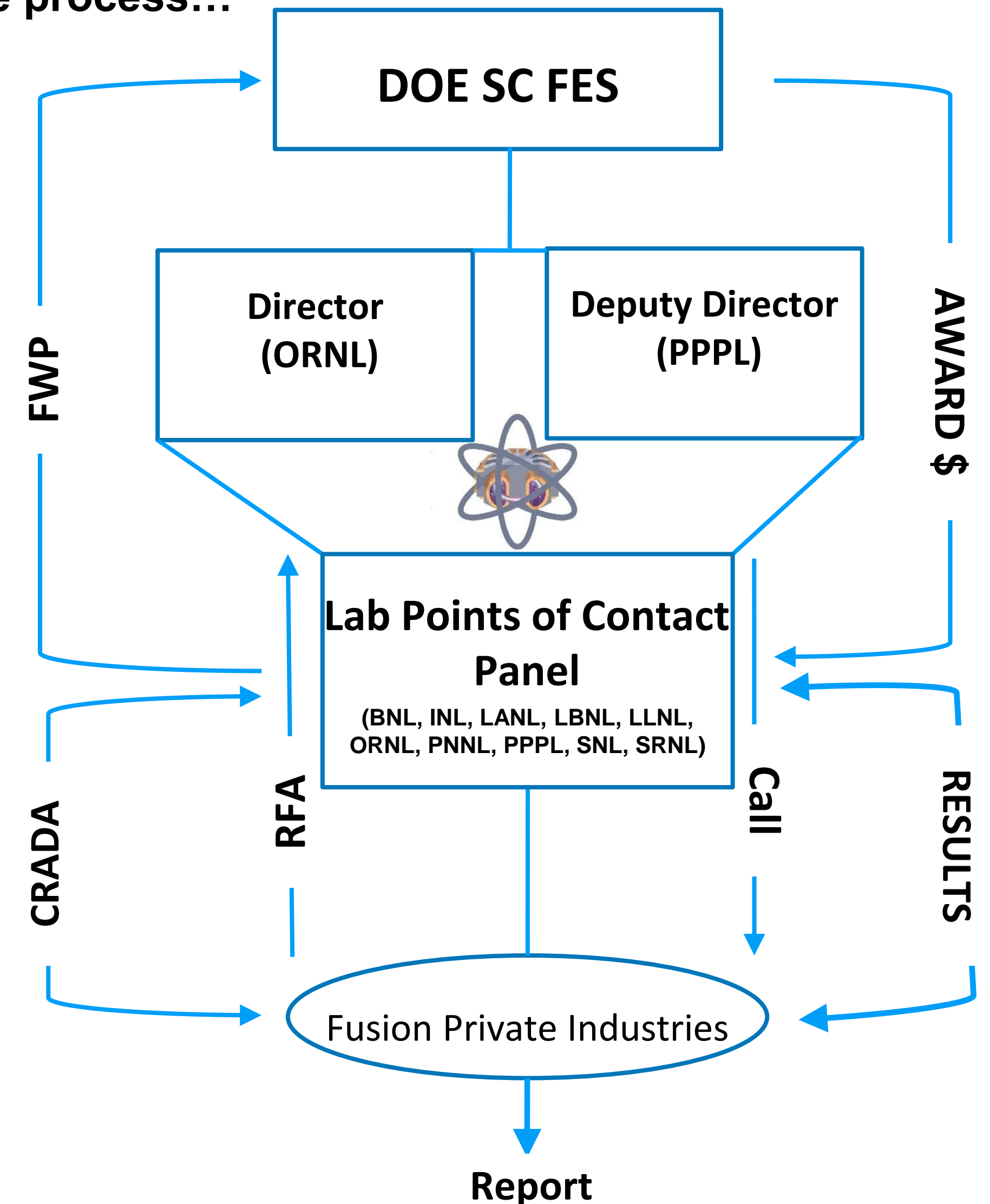
<https://infuse.ornl.gov/>

04-03-20 – 2020 INFUSE Webinar

What is INFUSE?

INFUSE is a private/public partnership to accelerate innovation in fusion research in the private sector by lowering barriers to collaboration between industry and US DOE national laboratories. The DOE awards funding directly to laboratories in response to a Request for Assistance (RFA) application from a US private company. The RFAs are collected and reviewed after a call period and passed to FES for award selection. Projects must involve scientific research and cannot compete with any private sector services.

The process...



Changes to POCs

- **2 POCs changed.**

Idaho National Laboratory – **Paul Humrickhouse** – safety & tritium

Savannah River National Laboratory – **Jim Klein** – tritium & fuel cycle

Official Points-of-Contact

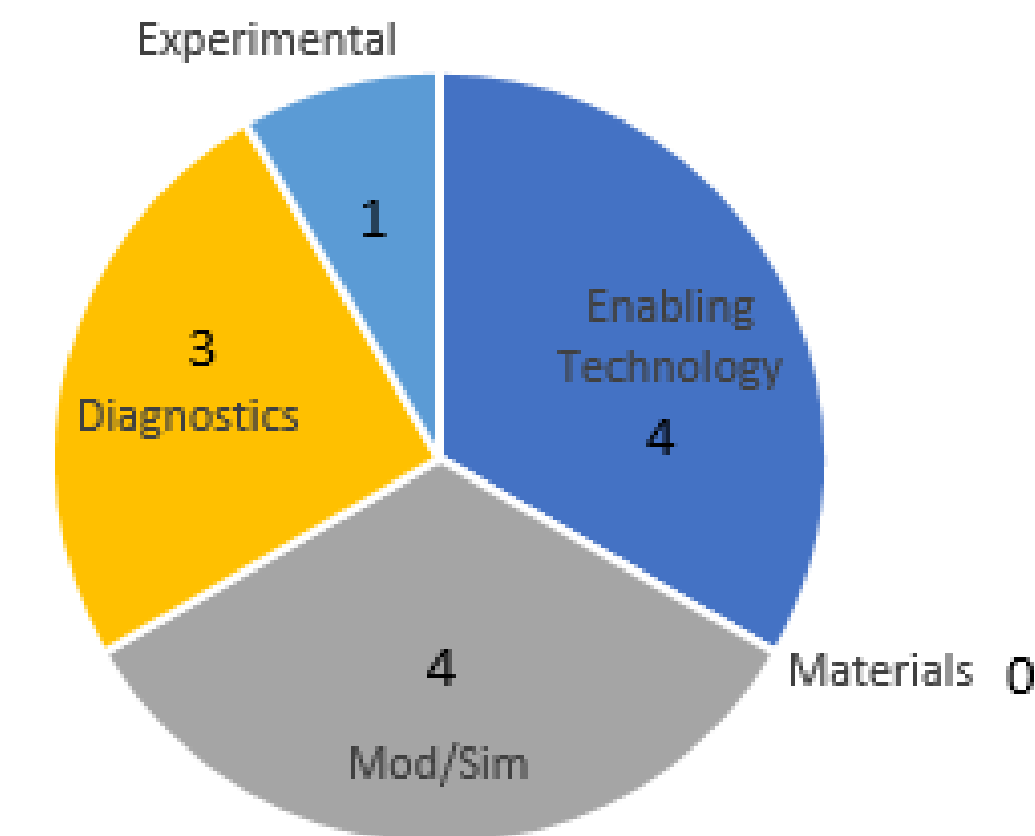
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Savannah River National Laboratory (SRNL)	James Klein	james.klein@srnl.doe.gov	(803) 507-8549

2019 INFUSE Awards and Changes for 2020

AWARDS

- 12 projects from 22 applications received 2019 awards totaling \$1.72 M
- The 12 awards went to 6 U.S. companies and involved 6 national labs
- Detailed list: <https://infuse.ornl.gov/2019-infuse-awards-2/>

Awarded Topical Areas



CHANGES

- **Eligibility:** In 2020 US companies with a majority foreign ownership can now participate. All must show economic advantage to US economy, must accept CRADA terms and export control restrictions (DOE POLICY 485.1 and 2CFR910.124)
- Two labs added to INFUSE program: SNL and SRNL for expertise in tritium and fuel cycle.
- Max. number of proposals per company is 5, but no longer restricted to one from each topical area.
- 2020 projects can now span a two year duration and receive a maximum of \$500k
- Two RFA calls anticipated. One in February, the 2nd in June.
[Depending on the number & quality of the applications - we might end up with only one call].
1st cycle submissions 2/24-4/10/2020 with reviews 4/11-5/30/2020.
- Annual workshop added to improve communication and showcase projects, 11/2020.

2020 Program changes

**DOE FES has approved the following:*

- **Eligibility:** In 2020 US companies with a majority foreign ownership can now participate
All must show economic advantage to US economy, must accept CRADA terms and export control restrictions
- **Two labs added to INFUSE program:** SNL and SRNL for expertise in tritium and fuel cycle.
- **Max. number of proposals per company is 5, but no longer restricted to one from each topical area.**
- **Maximum award value can reach \$500k over two years with DOE approval**
- **Two RFA calls anticipated depending on the quality of the proposals. One in ~January, the second in ~June.**
- **Annual workshop added. Venue will move to attract largest industry participation. Include a previous projects poster session. (11/2020)**
- **Detailed lab capabilities now posted on web site**

2020 Program changes

- Formulation of “working groups” and begin discussion of mini-workshops/webinars
- Record-of-Discussion documentation required with RFA submission
- A DUNS number and US registration still required
- Pay attention to abstract. It will be public.

Suggestions for abstract preparation on web.

- FY2021 2-day Workshop will include poster session featuring 2019 projects
- Final CRADA report can serve as INFUSE report
(ensure all IP and EC are removed, due at end of CRADA)
- Questions?

Additional submission documents

Record of Discussion – INFUSE

Title of Proposed Research Activities:

Start Date:

A Record of Discussion, RoD, is required for the application submission. It can be a WORD or pdf document that consists of dated copies of e-mail correspondence between the private company PI and laboratory PI or copies of memos or notes dated when created. A one pager is sufficient. It must convey that the project concepts were discussed prior to submission and the parties are in mutual agreement concerning the content of the RFA application. Both the private and laboratory PIs must sign the RoD. Use of DOE laboratory equipment and test facilities must also show prior approval was obtained from the laboratory PI's manager.

- E-mails
- Notes on telephone conversations, face-to-face or web meetings

Laboratory Principal Investigators:

Names & Signature

Private Industry Principal Investigators:

Names and signature

If DOE equipment and test facility are required to accomplish the tasks – the Lab PI's supervisor must approve

Name and Signature

Record of Discussion

CORPORATE INFORMATION

Please provide the information below so that INFUSE can complete the evaluation of eligibility for participation in the program. Accurate information is needed before any agreement can be proposed or initiated with DOE National Laboratories, including your company's U.S. or Foreign ownership status. All ownership information will be kept strictly confidential.

Please upload the completed form with your RFA application. It will become part of your proposal application package.

Information Required:	Complete below:
Legal Business Name (Signing Entity)	
Name 2 (if Division of) *	
Name 3 (if "Doing Business As") *	
Physical Address (Street)	
Street – Line 2	
Street – Line 3	
PO Box	
City	
State/Province	
Zip/Postal Code	
Country	
Telephone	
Fax	
E-Mail	
Entity Type (select from list)	<input type="checkbox"/> US Small Business <input type="checkbox"/> US State or Local Govt <input type="checkbox"/> US Non-Profit <input type="checkbox"/> Foreign Entity** <input type="checkbox"/> US Univ or college <input type="checkbox"/> US Entity with Foreign Control/Ownership**** <input type="checkbox"/> US Large Business
**Explanation regarding company ownership. If needed	
100% work performed in US	<input type="checkbox"/> Request waiver for work abroad
Parent Co. Country of Incorporation	
DUNS Number	
% of Parent Co. annual operating costs spent by US firm in the US	
***Capitalization: Provide % breakdown of total company ownership by owners' country of citizenship	
Products created with IP developed through INFUSE will be largely (>50%) produced in the United States.	<input type="checkbox"/> YES <input type="checkbox"/> NO
Contact Name (to verify information)	
Contact Phone	
Contact Email	

*If the legal name of your US business is a division name within another company, or a subsidiary of another company, provide both/all names. The legal name of the US entity will be used on the CRADA.

Foreign: *https://en.wikipedia.org/wiki/Foreign_entity
A Foreign Entity is defined as: (1) any foreign government or foreign government agency or instrumentality thereof; (2) any international organization; (3) any form of business enterprise or legal entity organized, chartered or incorporated under the laws of any country other than the United States or its territories; and (4) any form of business enterprise organized or incorporated under the laws of the United States or a State or its territories, and (5) any person who is not a citizen or national of the United States. ****This type of entity is also considered by the U.S. Government to be a Foreign Entity; however, please select this type if you are incorporated under the laws of the United States or a State or other jurisdiction within the United States and owned, controlled or influenced by a foreign government, agency, firm, or corporation.

This is to certify that, to the best of my knowledge and belief, the information provided herein is accurate, complete, and current as of the date executed below.

Firm _____
Name _____ Signature _____
Title _____ Date _____

	A	B	C	D	E
1	item	laboratory (\$)	company costshare (\$)	Description	
2	Personnel			labor hrs or fte - fully loaded costs per individual	
3					
4	Equipment			list equipment costs	
5					
6	Materials and Supplies			list major expendable item costs	
7					
8	Travel			estimate travel expenses per trip	
9					
10	Subawards/Subcontracts			each subcontract requires similar breakout to this table	
11					
12	Other			other costs or fees	
13	Subtotal	\$0.00	\$0.00		
14					
15	* (add lines as needed under each item category)				
16					
17					
18					

Corporate Information

Budget Details

HPC Access...2021

- INFUSE has begun dialog with OLCF and NERSC to apply for allocations
- CPUs: NERSC @ LBNL
- GPUs: OLCF @ ORNL, M&IC @ LLNL
- Consider adding allocation request form to submission site; so request can be routed as proposals are reviewed.



University participation

- **University participation is welcome**
 - Subcontract directly from company
 - Subcontract from laboratory (e.g. LLNL/MIT, POC: Andris Dimits)
 - Use existing laboratory student program(s)
(fit or overlap with project duration)
- **Workforce development for industry**

Open Q&A

- **Q&A**