Accelerated Innovation and Commercialization in Critical Technologies

- 1) What are the main **industries** the Hub has targeted or plans to target to commercialize its core technology? Please use the <u>North American Industry Classifications (NAICS)</u>
 - a) Answer category: Open text
- 2) Does the Hub's core technology area have a clearly defined national security end use or case use?
 - Answer category: Radio buttons
 - Yes, and the Hub has engaged with national security agencies
 - Yes, but the Hub has not engaged with national security agencies
 - No
- 3) What are the main **challenges** that might have delayed or prevented the Hub from taking products and/or services to the market in the past?
 - Answer category: Checkboxes (1. Lack of funding, 2. Product design/development issues, 3. Market adoption, 4. Intellectual property issues, 5. Manufacturing and distribution issues, 6. Lack of workforce/talent, 7. Regulatory hurdles, 8. Foreign competition, 9. Domestic competition, 10. Other (please specify))
- 4) **Over the last 12 months**, how many new agreements did the Hub's consortium members make to improve technology transfer, data sharing, and/or agreements that enabled expanded use of the Hub's core technologies? These agreements may include partnerships, contracts, or memorandums of understanding that increased access to equipment, facilities, and intellectual property.
 - Answer category: Integer
- 5) **Over the last 12 months**, how many contractual relationships for technology use or development did the Hub's consortium members have? *These contractual relationships could include relationships among consortium members as well as external relationships*.
 - Answer category: Integer
 - b) [If > 0] How many of these contractual relationships are directly between consortium members and **defense or national security agencies** (including the Department of Defense and its subcomponents, elements of the <u>intelligence community</u>, and relevant federal law enforcement agencies)?
 - c) [If > 0] How many of these contractual relationships are between consortium members and defense contractors or other organizations, where the end use of the final product or service is primarily for a defense, national security, or intelligence purpose?
- 6) What would you estimate to be the Total Addressable Market (TAM), for this core technology area?
 - Answer category: Dollar value
- 7) What would you estimate to be the Serviceable Addressable Market (SAM) estimated for the core technology area? Please provide your answer as a percentage of the dollar value you indicated for the TAM.
 - Answer category: Percentage 0-100
- 8) What would you estimate to be the Serviceable Obtainable Market (SOM) estimated? Please provide your answer as a percentage of the dollar value you indicated for the TAM.
 - Answer category: Percentage 0-100
- 9) **Over the last 12 months**, how much **revenue** have the Hub's consortium members generated from commercially deployed technologies in the Hub's core technology area? *Please consider only revenue generated by product sales, leases, and licensing deals.*

- Answer category: Dollar value
- a. [If > 0] How much of that revenue generated **over the last 12 months** was due to sales to domestic markets?
 - Answer category: Dollar value
- b. [If > 0] Over the last 12 months, what was the Hub's domestic market share of commercially deployed technologies (sales of the Hub's technologies in the US divided by all sales of similar technologies in the US)?
 - Answer category: Percentage 0-100
- **c.** [If > 0] Do the Hub's commercially deployed technologies in your core technology area have any **foreign competitors?**
 - Answer category: Radio buttons
 - Yes/No/Not sure
- d. [If > 0] How much of that revenue generated **over the last 12 months** was due to sales to foreign markets?
 - Answer category: Dollar value
- e. [If > 0] **Over the last 12 months**, which sector was the main buyer of the technologies deployed by the Hub's consortium members?
 - US companies, US government (non-defense-related), Foreign companies, U.S National defense or national security agencies, Academia, Other (please specify)
- 10) Please enter the number of products and/or services in your Hub's core technology area that members of the Hub's consortium took to the market **within the last 12 months** (regardless of whether they did so as a member of the Hub or as an individual organization):

Loop: Products and Services Commercialized by the Hub in the last 12 months						
Number	Question	[Product/ Service 1]	[Product/ Service 2]	[Product/ Service 3]	[Product/ Service 4]	
9.a	Product/service's name					
9.b	Short description [50 characters]					

Business and Entrepreneurial Capacity

- 11) In the last 12 months, how many businesses and startups, within the Hub's service area, have consortium members supported through technical assistance, mentorship, and/or access to core technology?
 - Answer choice: Integer
 - a) [If >0] How many **commercially deployed products and/or services,** in the Hub's core technology area, resulted from this support?
 - Answer choice: Integer
 - b) [If >0] What is the approximate Technology Readiness Level (TRL) of those commercially deployed solutions? (see Table 1)
 - Answer category: Scale 1-9

- **12)** Over the last 12 months, did the Hub or any of its consortium members receive technical assistance related to the Hub's core technology area from organizations outside of the consortium?
 - Answer category: Radio Buttons; Yes/ No
 - b) [If YES], what type of institution(s) provided the technical assistance?
 - **Answer category:** Checkboxes (1. Trade Associations, 2. Government Agencies, 3. Defense Agencies, 4. Universities or Research Institutions, 5. Consulting Firms, 6. International Organizations, 7. Venture Capitalists and Other Investors, 8. Other (please specify))
- 13) **Over the last 12 months,** how many outreach events (webinars, conventions, industry meetings or similar events) have Hub/consortium members participated in with potential investors present? *Please only count outreach events that relate to the Hub's core technology area.*
 - Answer category: Integer
- 14) Please check the associated boxes to indicate if the Hub and its consortium members received any **funding** intended to support activities related to the Hub's core technology area from sources in the following categories **over the last 12 months**:
 - *a*) [If checked], Please enter the total amount received from each source in dollars (\$). You can approximate to rounded numbers up to the hundred thousandth.

	Source type	Approximate Amount
U.S. Government	U.S. Federal (non-defense) government	\$
	U.S. National defense agencies and armed forces	\$
	U.S. State government	\$
	U.S. Local government	\$
U.S. Companies	U.S. Private equity/ Venture capital	\$
and Organizations	U.S. Philanthropies and nonprofits	\$
	Private loans	\$
	Licensing deals	\$
	U.S. Companies (not captured above)	\$
Foreign	Foreign investors	\$
Investments		
	Other	\$

- 15) Has the Tech Hub Designation improved the consortium's ability to seek external funding?
 - Answer category: Radio buttons
 - Yes/No/Not sure
- 16) Have any of the grants (or the prospect of grants) provided by EDA been matched by other funding sources like private investors, local or state funding agencies?
 - Answer category: Radio buttons
 - Yes/No
 - a. [If Yes] Approximately how much external funding has the consortium raised thanks to the Tech Hub Designation?
 - Answer category: Approximate dollar amount

Enabling Infrastructure and Advancing Manufacturing

- 17) How many square feet of manufacturing capacity or space, dedicated to testing or manufacturing of core technology, are **currently** available in your region for your core technology area?
 - a) Answer category: Integer
- 18) List up to ten critical inputs (indispensable and difficult to substitute components or materials) for your lab to market processes and where the Hub sources these from.

Critical Inputs				
Critical	Critical	Where does the Hub source it from?	% sourced from foreign	
Input	Input		countries?	
Number	Name			
1	Open Text	US/Other – please specify	%	
2	Open Text	US/Other – please specify	%	
3	Open Text	US/Other – please specify	%	
4	Open Text	US/Other – please specify	%	
5	Open Text	US/Other – please specify	%	
6	Open Text	US/Other – please specify	%	
7	Open Text	US/Other – please specify	%	
8	Open Text	US/Other – please specify	%	
9	Open Text	US/Other – please specify	%	
10	Open Text	US/Other – please specify	%	

19) List up to five chokepoints (nodes within the supply chain where disruptions, bottlenecks, or vulnerabilities can occur, causing delays, interruptions, or constraints in the flow of inputs) that can affect the reliability of the Hub's supply chain (input/location).

Chokepoints				
	Affected input	Reason	Impact	
Chokepoint 1	Open Text	Open Text	Open Text	
Chokepoint 2	Open Text	Open Text	Open Text	
Chokepoint 3	Open Text	Open Text	Open Text	
Chokepoint 4	Open Text	Open Text	Open Text	
Chokepoint 5	Open Text	Open Text	Open Text	

Integrated and Agile Workforce System

20) Please enter the number of **full-time** and **part-time** employees **currently** working for the Hub or its consortium members in roles involved in the Hub's activities in its core technology area for each of the categories below:

Current Employees		
Group	Full-time	Part-time
How many total employees across the Hub's consortium currently work in roles related to the Hub's core technology area?	Integer	Integer
How many employees across the Hub's consortium currently work in R&D roles related to the Hub's core technology area?	Integer	Integer
How many employees across the Hub's consortium currently work in roles involved in the manufacturing of technologies in the Hub's core technology area?	Integer	Integer
How many employees across the Hub's consortium currently work in roles involved in business development related to the Hub's core technology area?	Integer	Integer

- 21) **Over the last 6 months,** how many **new** jobs related to the Hub's core technology area were **created** by the Hub or its Hub/consortium members?
 - Answer category: Integer
- 22) **Over the last 6 months**, how many **job vacancies** (for existing positions) related to the Hub's core technology area were posted by the Hub or its consortium members?
 - Answer category: Integer
 - a) [If > 0] How many of the job vacancies related to the Hub's core technology area that were posted by the Hub or its consortium members over the last 6 months were prompted by restaffing needs due to employee turnover?
 - Answer category: Integer
 - b) [If > 0] How many of the job vacancies related to the Hub's core technology area that were posted by the Hub or its consortium members over the last 6 months currently remain **unfilled?**
 - Answer category: Integer
 - (1) [If > 0] What are the main reasons why these vacancies remain unfilled?
 - Answer category: 1. Lack of Qualified Candidates, 2. Unable to offer competitive salaries/benefits, 3. Lack of Applicants, 4. Location issues, 5. High Employee Turnover, 6. Other (please specify), 7. Don't know.la
- 23) Over the last 6 months, what type of positions at the Hub have been the most difficult to fill?
 - Answer category: Open text
- 24) **Over the last 12 months**, did any consortium members operate **workforce training programs** aimed at the development or upscaling of workforce in roles relevant to the Hub's core technology area?
 - Answer category: Yes/No
 - a. [If YES] Please select which of the following types of workforce training programs were operated by the Hub or its consortium members:

- i. Postgraduate degrees, 4-year undergraduate degrees, Vocational Training, Trade Schools, Apprenticeships, On-the-job Training, Internships, Online Learning, Certification Programs, Boot Camps, Other (please specify)
- b. [if YES] Do any of the workforce training programs operated by the Hub or its consortium members over the last 12 months offer any **certifications or credentials?**
 - Answer category: Yes/No
 - (1) [if YES] What **types of certifications or credentials** are offered by the workforce training programs operated by the Hub or its consortium members **over the last 12 months?**
 - Answer category: Open text
- c. [If YES] **Over the last 12 months,** how many people **completed** the Hub or its consortium members' workforce training program(s)?
 - Answer category: Integer
- d. [If YES] How many people who have completed the Hub's or its consortium members' workforce training program(s) were **placed into jobs** in industries related to the Hub's core technology area **over the last 12 months?**

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