Attachment A:

This section collects information on research and development activity.

What is Research and Development (R&D)?

Research and development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge and to devise new applications of available knowledge.

The term R&D does NOT include expenditures for:

- Costs for routine product testing, quality control, and technical services unless they are an integral part of an
- R&D project
- Market research
- Efficiency surveys or management studies
- Literary, artistic, or historical projects, such as films, music, or books and other publications
- Prospecting or exploration for natural resources

R&D activity in software INCLUDES:

- Software development or improvement activities that expand scientific or technological knowledge
- Construction of new theories and algorithms in the field of computer science

R&D activity in software EXCLUDES:

- Software development that does not depend on a scientific or technological advance, such as supporting or adapting existing systems adding functionality to existing application programs, and routine debugging of existing systems and software
- Creation of new software based on known methods and applications
- Conversion or translation of existing software and software languages
- Adaptation of a product to a specific client, unless knowledge that significantly improved the base program was added in that process

Reporting unit

The reporting unit is this business, including all subsidiaries and divisions. Include subsidiary companies where there is more than 50 percent ownership.

Reporting period

Report data for the calendar year 2023, if possible, or for this business's fiscal year ending between April 2022 and March 2023.

Estimates are acceptable

Report all items to the best of your ability.

1. During 2023, did this business do any of the following R&D activities? Include activities that:

- This business performed
- Others paid this business to do
- This business paid others to do

Select one for each row.

	Yes	No
a. Conducted activities aimed at acquiring new knowledge or understanding without specific immediate commercial applications or uses	☐	☐
b. Conducted activities aimed at acquiring new knowledge for solving a specific problem or meeting a specific commercial objective	☐	☐
c. Conducted systematic work, drawing on research and practical experience and resulting in additional knowledge, which is directed to producing new products or processes or to improving existing products or processes	☐	☐
d. Developed and tested goods, services, or processes that were derived from scientific research or technical findings	☐	☐
e. Developed software that advanced scientific or technological knowledge	☐	☐
f. Produced findings that could be published in academic journals or presented at scientific conferences	☐	☐
g. Applied scientific or technical knowledge in a way that has never been done before	☐	☐
h. Created new scientific or technical solutions that can be generalized to other situations	☐	☐
i. Conducted work to discover previously unknown technological facts, structures, or relationships	☐	☐
j. Conducted work to extend the understanding of scientific facts, relationships, or principles in ways that could be useful to others	☐	☐

2. What was the total cost (both direct and indirect) in 2023 for all the R&D activities reported as "Yes" in the above question?

Report dollar amount in thousands. If none, report zero.

Include:

- Salaries, wages, and fringe benefits
- Plant, machinery, and equipment, except that which was capitalized because it had an alternative future use
- Materials, supplies, software
- Rent and utilities
- Consultants and contractors
- Depreciation expense from plant, machinery, and equipment that was capitalized because it had an alternative future use

Exclude:

- Costs for routine product testing, quality control, and technical services unless they are an integral part of an R&D project
- Market research
- Efficiency surveys or management studies
- Literary, artistic, or historical projects, such as films, music, or books and other publications
- Prospecting or exploration for natural resources
- Capital expenditures (i.e., costs for construction or renovation of facilities).
- Payments/funds in excess of the actual cost of the research work performed (e.g., profits or fees)

Total Amount of R&D Costs _____

3. What amount of the Total R&D costs was for cybersecurity?

Total Amount of Cybersecurity R&D Costs _____

Technology

This section collects information on technology.

During 2023, did your company engage in any of these technologies? *Select one for each row.*

	Yes	No	Don't know
Advanced Computing (e.g., supercomputing, edge computing)	☐	☐	☐
Advanced Engineering Materials (e.g., material genomics)	☐	☐	☐
Advanced Gas Turbine Engine Technologies (e.g., power generation)	☐	☐	☐
Advanced and Networked Sensing (e.g. signature management, adaptive optics)	☐	☐	☐
Advanced Manufacturing (e.g., additive manufacturing, smart manufacturing)	☐	☐	☐
Artificial Intelligence (e.g., machine learning, deep learning)	☐	☐	☐
Biotechnologies (e.g., genetic engineering, bioinformatics)	☐	☐	☐
Clean Energy Generation and Storage (e.g., renewable generation, batteries)	☐	☐	☐
Data Privacy, Data Security, and Cybersecurity Technologies (e.g., digital assets)	☐	☐	☐
Directed Energy (e.g., lasers, particle beams, high-powered microwaves)	☐	☐	☐
Highly Automated, Autonomous, and Uncrewed Systems, and Robotics	☐	☐	☐
Human-Machine Interfaces (e.g., augmented reality, virtual reality)	☐	☐	☐

Hypersonics (e.g., propulsion, aerodynamics and control) ☐ ☐ ☐

Integrated Communication and Networking Technologies (e.g., radio frequency) ☐ ☐ ☐

Positioning, Navigation, and Timing (PNT) Technologies ☐ ☐ ☐

Quantum Information and Enabling Technologies (e.g., quantum computing) ☐ ☐ ☐

Semiconductors and Microelectronics (e.g., MEMS, NEMS, automation tools) ☐ ☐ ☐

Space Technologies and Systems (e.g., launch, range, and safety technologies) ☐ ☐ ☐

Innovation
This section collects information on goods and services.

During the three years 2021 to 2023, did this business introduce to the market any new or improved goods or services that differed significantly from this business's previous goods or services? *This includes the addition of new functions or improvements to existing functions or user utility. Functions include quality, technical specifications, reliability, durability, economic efficiency during use, affordability, convenience, usability, and user friendliness. User utility includes attributes such as affordability and financial convenience.*

Goods: usually a tangible object, such as a smartphone, furniture, or packaged software, but also includes digital goods, such as downloadable software, music and film. *Exclude the simple resale of new goods or changes of a solely aesthetic nature.*

☐ Yes
☐ No

Services: intangible activities, such as retailing, insurance, educational courses, air travel, consulting, etc.; also includes digital services. *Exclude the simple resale of new services.*

☐ Yes
☐ No

If you reported **No** to either question, please select the reason(s) that your business did not engage in new or improved goods or services. *Mark all that apply.*

☐ Lack of internal finance for innovation ⌗

☐ Lack of credit or private equity

☐ Difficulties in obtaining public grants or subsidies

☐ Costs too high

☐ Lack of skilled employees within this business

☐ Lack of collaboration partners

☐ Lack of access to external knowledge

☐ Uncertain market demand for your ideas

☐ Too much competition in your market

☐ Different priorities within this business

☐ Government Regulations

☐ Other (please specify) _____