

AMENDMENT NO. \_\_\_\_\_

Calendar No. \_\_\_\_\_

Purpose: To establish a quantum sandbox through the establishment of a public-private partnership focused on quantum application development acceleration for quantum application near-term use cases.

**IN THE SENATE OF THE UNITED STATES—119th Cong., 2d Sess.**

**S. 3597**

To reauthorize the National Quantum Initiative Act, and for other purposes.

Referred to the Committee on \_\_\_\_\_ and ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by Mrs. BLACKBURN

Viz:

1 At the end of title II of the National Quantum Initia-  
2 tive Act, as amended by section 13, add the following:

3 **“SEC. 204. COLLABORATION FOR QUANTUM APPLICATION**  
4 **DEVELOPMENT ACCELERATION.**

5 **“(a) DEFINITION OF NEAR-TERM USE CASE.—**In  
6 this section, the term ‘near-term use case’ means—

7 “(1) in the case of an application that includes  
8 the development of quantum computing hardware,  
9 an application that can be developed and deployed in  
10 less than 3 years; or

1           “(2) in the case of an application that includes  
2 quantum technologies in general, including quantum  
3 communication, sensing, algorithm development for  
4 hybrid applications, supply chain innovation, or dem-  
5 onstrations of computational advantage, where new  
6 quantum computer hardware would not need to be  
7 developed, an application that can be developed and  
8 deployed in less than 18 months.

9           “(b) ESTABLISHMENT OF COLLABORATIVE VENTURE  
10 FOR QUANTUM APPLICATION DEVELOPMENT ACCELERA-  
11 TION.—Consistent with the activities authorized under  
12 this title, the Director of the National Institute of Stand-  
13 ards and Technology shall establish or expand an existing  
14 collaborative venture or consortia with other public or pri-  
15 vate sector entities—

16           “(1) for innovation and development of applica-  
17 tions using quantum information sciences with a  
18 focus on near-term use cases; and

19           “(2) that can be used to develop and test dem-  
20 onstrations, proofs of concepts, and pilot applica-  
21 tions.

22           “(c) COORDINATION AND ENGAGEMENT.—In car-  
23 rying out subsection (b), the Director shall —

24           “(1) coordinate activities with the members of  
25 the Subcommittee on Quantum Information Science

1 and the Subcommittee on Economic and Security  
2 Implications of Quantum Science; and

3 “(2) engage with the Quantum Economic De-  
4 velopment Consortium, the National Laboratories  
5 (as defined in section 2 of the Energy Policy Act of  
6 2005 (42 U.S.C. 15801)), Federally funded research  
7 and development centers, and other members of the  
8 United States quantum computing and quantum in-  
9 formation ecosystem, including industry.

10 “(d) SUCCESS METRICS.—In administering this sec-  
11 tion, the Director shall, in consultation with the entities  
12 described in subsection (c), define clear success metrics  
13 for the quantum sandbox established under subsection (b).

14 “(e) COORDINATION.— The Director shall ensure co-  
15 ordination and avoid unnecessary duplication of the activi-  
16 ties carried out under this section with existing activities  
17 of the Institute, other activities carried out under this Act,  
18 and other related programs, as appropriate.”.