

108TH CONGRESS
1ST SESSION

H. R. 766

To provide for a National Nanotechnology Research and Development Program, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

FEBRUARY 13, 2003

Mr. BOEHLERT (for himself, Mr. HONDA, Mr. EHLERS, Mr. HALL, Mr. SMITH of Michigan, Mr. GORDON, Mrs. BIGGERT, Ms. EDDIE BERNICE JOHNSON of Texas, Mr. BARTLETT of Maryland, Ms. LOFGREN, Mr. GUTKNECHT, and Mr. BISHOP of New York) introduced the following bill; which was referred to the Committee on Science

A BILL

To provide for a National Nanotechnology Research and Development Program, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Nanotechnology Re-
5 search and Development Act of 2003”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act—

8 (1) the term “advanced technology user facil-
9 ity” means a nanotechnology research and develop-

1 ment facility supported, in whole or in part, by Fed-
2 eral funds that is open to all United States research-
3 ers on a competitive, merit-reviewed basis;

4 (2) the term “Advisory Committee” means the
5 advisory committee established under section 5;

6 (3) the term “Director” means the Director of
7 the Office of Science and Technology Policy;

8 (4) the term “Interagency Committee” means
9 the interagency committee established under section
10 3(c);

11 (5) the term “nanotechnology” means science
12 and engineering aimed at creating materials, devices,
13 and systems at the atomic and molecular level;

14 (6) the term “Program” means the National
15 Nanotechnology Research and Development Pro-
16 gram described in section 3; and

17 (7) the term “program component area” means
18 a major subject area established under section
19 3(c)(2) under which is grouped related individual
20 projects and activities carried out under the Pro-
21 gram.

22 **SEC. 3. NATIONAL NANOTECHNOLOGY RESEARCH AND DE-**
23 **VELOPMENT PROGRAM.**

24 (a) IN GENERAL.—The President shall implement a
25 National Nanotechnology Research and Development Pro-

1 gram to promote Federal nanotechnology research, devel-
2 opment, demonstration, education, technology transfer,
3 and commercial application activities as necessary to en-
4 sure continued United States leadership in nanotechnology
5 research and development and to ensure effective coordi-
6 nation of nanotechnology research and development across
7 Federal agencies and across scientific and engineering dis-
8 ciplines.

9 (b) PROGRAM ACTIVITIES.—The activities of the Pro-
10 gram shall be designed to—

11 (1) provide sustained support for
12 nanotechnology research and development through—

13 (A) grants to individual investigators and
14 interdisciplinary teams of investigators; and

15 (B) establishment of interdisciplinary re-
16 search centers and advanced technology user fa-
17 cilities;

18 (2) ensure that solicitation and evaluation of
19 proposals under the Program encourage interdiscipli-
20 nary research;

21 (3) expand education and training of under-
22 graduate and graduate students in interdisciplinary
23 nanotechnology science and engineering;

1 (4) accelerate the commercial application of
2 nanotechnology innovations in the private sector;
3 and

4 (5) ensure that societal and ethical concerns
5 will be addressed as the technology is developed by—

6 (A) establishing a research program to
7 identify societal and ethical concerns related to
8 nanotechnology, and ensuring that the results
9 of such research are widely disseminated; and

10 (B) integrating, insofar as possible, re-
11 search on societal and ethical concerns with
12 nanotechnology research and development.

13 (c) INTERAGENCY COMMITTEE.—The President shall
14 establish or designate an interagency committee on
15 nanotechnology research and development, chaired by the
16 Director, which shall include representatives from the Na-
17 tional Science Foundation, the Department of Energy, the
18 National Aeronautics and Space Administration, the Na-
19 tional Institute of Standards and Technology, the Envi-
20 ronmental Protection Agency, and any other agency that
21 the President may designate. The Interagency Committee,
22 which shall also include a representative from the Office
23 of Management and Budget, shall oversee the planning,
24 management, and coordination of the Program. The Inter-
25 agency Committee shall—

1 (1) establish goals and priorities for the Pro-
2 gram;

3 (2) establish program component areas, with
4 specific priorities and technical goals, that reflect the
5 goals and priorities established for the Program;

6 (3) develop, within 6 months after the date of
7 enactment of this Act, and update annually, a stra-
8 tegic plan to meet the goals and priorities estab-
9 lished under paragraph (1) and to guide the activi-
10 ties of the program component areas established
11 under paragraph (2);

12 (4) consult with academic, State, industry, and
13 other appropriate groups conducting research on and
14 using nanotechnology, and the Advisory Committee;
15 and

16 (5) propose a coordinated interagency budget
17 for the Program that will ensure the maintenance of
18 a balanced nanotechnology research portfolio and en-
19 sure that each agency and each program component
20 area is allocated the level of funding required to
21 meet the goals and priorities established for the Pro-
22 gram.

23 **SEC. 4. ANNUAL REPORT.**

24 The Director shall prepare an annual report, to be
25 submitted to the Committee on Science of the House of

1 Representatives and the Committee on Commerce,
2 Science, and Transportation of the Senate at the time of
3 the President's budget request to Congress, that in-
4 cludes—

5 (1) the Program budget, for the current fiscal
6 year, for each agency that participates in the Pro-
7 gram and for each program component area;

8 (2) the proposed Program budget, for the next
9 fiscal year, for each agency that participates in the
10 Program and for each program component area;

11 (3) an analysis of the progress made toward
12 achieving the goals and priorities established for the
13 Program; and

14 (4) an analysis of the extent to which the Pro-
15 gram has incorporated the recommendations of the
16 Advisory Committee.

17 **SEC. 5. ADVISORY COMMITTEE.**

18 (a) IN GENERAL.—The President shall establish an
19 advisory committee on nanotechnology consisting of non-
20 Federal members, including representatives of research
21 and academic institutions and industry, who are qualified
22 to provide advice and information on nanotechnology re-
23 search, development, demonstration, education, technology
24 transfer, commercial application, and societal and ethical
25 concerns. The recommendations of the Advisory Com-

1 mittee shall be considered by Federal agencies in imple-
2 menting the Program.

3 (b) ASSESSMENT.—The Advisory Committee shall as-
4 sess—

5 (1) trends and developments in nanotechnology
6 science and engineering;

7 (2) progress made in implementing the Pro-
8 gram;

9 (3) the need to revise the Program;

10 (4) the balance among the components of the
11 Program, including funding levels for the program
12 component areas;

13 (5) whether the program component areas, pri-
14 orities, and technical goals developed by the Inter-
15 agency Committee are helping to maintain United
16 States leadership in nanotechnology;

17 (6) the management, coordination, implementa-
18 tion, and activities of the Program; and

19 (7) whether societal and ethical concerns are
20 adequately addressed by the Program.

21 (c) REPORTS.—The Advisory Committee shall report
22 not less frequently than once every 2 fiscal years to the
23 President and to the Committee on Science of the House
24 of Representatives and the Committee on Commerce,
25 Science, and Transportation of the Senate on its findings

1 of the assessment carried out under subsection (b), its rec-
2 ommendations for ways to improve the Program, and the
3 concerns assessed under subsection (b)(7). The first re-
4 port shall be due within 1 year after the date of enactment
5 of this Act.

6 (d) FEDERAL ADVISORY COMMITTEE ACT APPLICA-
7 TION.—Section 14 of the Federal Advisory Committee Act
8 shall not apply to the Advisory Committee.

9 **SEC. 6. NATIONAL NANOTECHNOLOGY COORDINATION OF-**
10 **FICE.**

11 The President shall establish a National
12 Nanotechnology Coordination Office, with full-time staff,
13 which shall—

14 (1) provide technical and administrative support
15 to the Interagency Committee and the Advisory
16 Committee;

17 (2) serve as a point of contact on Federal
18 nanotechnology activities for government organiza-
19 tions, academia, industry, professional societies, and
20 others to exchange technical and programmatic in-
21 formation; and

22 (3) conduct public outreach, including dissemi-
23 nation of findings and recommendations of the
24 Interagency Committee and the Advisory Committee,
25 as appropriate.

1 **SEC. 7. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) NATIONAL SCIENCE FOUNDATION.—There are
3 authorized to be appropriated to the National Science
4 Foundation for carrying out this Act—

- 5 (1) \$350,000,000 for fiscal year 2004;
6 (2) \$385,000,000 for fiscal year 2005; and
7 (3) \$424,000,000 for fiscal year 2006.

8 (b) DEPARTMENT OF ENERGY.—There are author-
9 ized to be appropriated to the Secretary of Energy for car-
10 rying out this Act—

- 11 (1) \$197,000,000 for fiscal year 2004;
12 (2) \$217,000,000 for fiscal year 2005; and
13 (3) \$239,000,000 for fiscal year 2006.

14 (c) NATIONAL AERONAUTICS AND SPACE ADMINIS-
15 TRATION.—There are authorized to be appropriated to the
16 National Aeronautics and Space Administration for car-
17 rying out this Act—

- 18 (1) \$31,000,000 for fiscal year 2004;
19 (2) \$34,000,000 for fiscal year 2005; and
20 (3) \$37,000,000 for fiscal year 2006.

21 (d) NATIONAL INSTITUTE OF STANDARDS AND
22 TECHNOLOGY.—There are authorized to be appropriated
23 to the National Institute of Standards and Technology for
24 carrying out this Act—

- 25 (1) \$62,000,000 for fiscal year 2004;
26 (2) \$68,000,000 for fiscal year 2005; and

1 (3) \$75,000,000 for fiscal year 2006.

2 (e) ENVIRONMENTAL PROTECTION AGENCY.—There
3 are authorized to be appropriated to the Environmental
4 Protection Agency for carrying out this Act—

5 (1) \$5,000,000 for fiscal year 2004;

6 (2) \$5,500,000 for fiscal year 2005; and

7 (3) \$6,000,000 for fiscal year 2006.

8 **SEC. 8. EXTERNAL REVIEW OF THE NATIONAL**
9 **NANOTECHNOLOGY RESEARCH AND DEVEL-**
10 **OPMENT PROGRAM.**

11 Not later than 6 months after the date of enactment
12 of this Act, the Director shall enter into an agreement
13 with the National Academy of Sciences to conduct periodic
14 reviews of the Program. The reviews shall be conducted
15 once every 3 years during the 10-year period following the
16 enactment of this Act. The reviews shall include—

17 (1) an evaluation of the technical achievements
18 of the Program;

19 (2) recommendations for changes in the Pro-
20 gram;

21 (3) an evaluation of the relative position of the
22 United States with respect to other nations in
23 nanotechnology research and development;

24 (4) an evaluation of the Program's success in
25 transferring technology to the private sector;

1 (5) an evaluation of whether the Program has
2 been successful in fostering interdisciplinary re-
3 search and development; and

4 (6) an evaluation of the extent to which the
5 Program has adequately considered societal and eth-
6 ical concerns.

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