

Calendar No. 736

107<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION**H. R. 2733****[Report No. 107-319]**

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IN THE SENATE OF THE UNITED STATES

JULY 12 (legislative day, JULY 10), 2002

Received; read twice and referred to the Committee on Commerce, Science,  
and Transportation

OCTOBER 16, 2002

Reported by Mr. HOLLINGS, without amendment

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## **AN ACT**

To authorize the National Institute of Standards and Technology to work with major manufacturing industries on an initiative of standards development and implementation for electronic enterprise integration.

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 “Enterprise Integration  
5        Act of 2002”.

6        **SEC. 2. FINDINGS.**

7        The Congress makes the following findings:

1           (1) Over 90 percent of United States companies  
2 engaged in manufacturing are small and medium-  
3 sized businesses.

4           (2) Most of these manufacturers produce goods  
5 for assemblage into products of large companies.

6           (3) The emergence of the World Wide Web and  
7 the promulgation of international standards for  
8 product data exchange greatly accelerated the move-  
9 ment toward electronically integrated supply chains  
10 during the last half of the 1990's.

11           (4) European and Asian countries are investing  
12 heavily in electronic enterprise standards develop-  
13 ment, and in preparing their smaller manufacturers  
14 to do business in the new environment. European ef-  
15 forts are well advanced in the aerospace, automotive,  
16 and shipbuilding industries and are beginning in  
17 other industries including home building, furniture  
18 manufacturing, textiles, and apparel. This invest-  
19 ment could give overseas companies a major com-  
20 petitive advantage.

21           (5) The National Institute of Standards and  
22 Technology, because of the electronic commerce ex-  
23 pertise in its laboratories and quality program, its  
24 long history of working cooperatively with manufac-  
25 turers, and the nationwide reach of its manufac-

1 turing extension program, is in a unique position to  
2 help United States large and smaller manufacturers  
3 alike in their responses to this challenge.

4 (6) It is, therefore, in the national interest for  
5 the National Institute of Standards and Technology  
6 to accelerate its efforts in helping industry develop  
7 standards and enterprise integration processes that  
8 are necessary to increase efficiency and lower costs.

9 **SEC. 3. ENTERPRISE INTEGRATION INITIATIVE.**

10 (a) ESTABLISHMENT.—The Director shall establish  
11 an initiative for advancing enterprise integration within  
12 the United States. In carrying out this section, the Direc-  
13 tor shall involve, as appropriate, the various units of the  
14 National Institute of Standards and Technology, including  
15 the National Institute of Standards and Technology lab-  
16 oratories (including the Building and Fire Research Lab-  
17 oratory), the Manufacturing Extension Partnership pro-  
18 gram established under sections 25 and 26 of the National  
19 Institute of Standards and Technology Act (15 U.S.C.  
20 278k and 278l), and the Malcolm Baldrige National Qual-  
21 ity Program. This initiative shall build upon ongoing ef-  
22 forts of the National Institute of Standards and Tech-  
23 nology and of the private sector, shall involve consortia  
24 that include government and industry, and shall address  
25 the enterprise integration needs of each United States

1 major manufacturing industry at the earliest possible  
2 date.

3 (b) ASSESSMENT.—For each major manufacturing  
4 industry, the Director may work with industry, trade asso-  
5 ciations, professional societies, and others as appropriate,  
6 to identify enterprise integration standardization and im-  
7 plementation activities underway in the United States and  
8 abroad that affect that industry and to assess the current  
9 state of enterprise integration within that industry. The  
10 Director may assist in the development of roadmaps to  
11 permit supply chains within the industry to operate as an  
12 integrated electronic enterprise. The roadmaps shall be  
13 based on voluntary consensus standards.

14 (c) REPORTS.—Within 180 days after the date of the  
15 enactment of this Act, and annually thereafter, the Direc-  
16 tor shall submit to the Committee on Science of the House  
17 of Representatives and the Committee on Commerce,  
18 Science, and Transportation of the Senate a report on the  
19 National Institute of Standards and Technology’s activi-  
20 ties under subsection (b).

21 (d) AUTHORIZED ACTIVITIES.—In order to carry out  
22 this Act, the Director may work with industry, trade asso-  
23 ciations, professional societies, and others as appro-  
24 priate—

1           (1) to raise awareness in the United States, in-  
2           cluding awareness by businesses that are majority  
3           owned by women, minorities, or both, of enterprise  
4           integration activities in the United States and  
5           abroad, including by the convening of conferences;

6           (2) on the development of enterprise integration  
7           roadmaps;

8           (3) to support the development, testing, promul-  
9           gation, integration, adoption, and upgrading of  
10          standards related to enterprise integration including  
11          application protocols; and

12          (4) to provide technical assistance and, if nec-  
13          essary, financial support to small and medium-sized  
14          businesses that set up pilot projects in enterprise in-  
15          tegration.

16          (e) **MANUFACTURING EXTENSION PROGRAM.**—The  
17          Director shall ensure that the Manufacturing Extension  
18          Program is prepared to advise small and medium-sized  
19          businesses on how to acquire the expertise, equipment, and  
20          training necessary to participate fully in supply chains  
21          using enterprise integration.

22          **SEC. 4. DEFINITIONS.**

23          For purposes of this Act—

24                  (1) the term “automotive” means land-based  
25                  engine-powered vehicles including automobiles,

1 trucks, busses, trains, defense vehicles, farm equip-  
2 ment, and motorcycles;

3 (2) the term “Director” means the Director of  
4 the National Institute of Standards and Technology;

5 (3) the term “enterprise integration” means the  
6 electronic linkage of manufacturers, assemblers, sup-  
7 pliers, and customers to enable the electronic ex-  
8 change of product, manufacturing, and other busi-  
9 ness data among all partners in a product supply  
10 chain, and such term includes related application  
11 protocols and other related standards;

12 (4) the term “major manufacturing industry”  
13 includes the aerospace, automotive, electronics, ship-  
14 building, construction, home building, furniture, tex-  
15 tile, and apparel industries and such other industries  
16 as the Director designates; and

17 (5) the term “roadmap” means an assessment  
18 of manufacturing interoperability requirements de-  
19 veloped by an industry describing that industry’s  
20 goals related to enterprise integration, the knowledge  
21 and standards including application protocols nec-  
22 essary to achieve those goals, and the necessary  
23 steps, timetable, and assignment of responsibilities  
24 for acquiring the knowledge and developing the  
25 standards and protocols.

1 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

2       There are authorized to be appropriated to the Direc-  
3 tor to carry out functions under this Act—

4           (1) \$2,000,000 for fiscal year 2002;

5           (2) \$10,000,000 for fiscal year 2003;

6           (3) \$15,000,000 for fiscal year 2004; and

7           (4) \$20,000,000 for fiscal year 2005.

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