

(7) “Invention” means any invention or discovery which is or may be patentable or otherwise protected under title 35 or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

(8) “Made” when used in conjunction with any invention means the conception or first actual reduction to practice of such invention.

(9) “Small business firm” means a small business concern as defined in section 632 of this title and implementing regulations of the Administrator of the Small Business Administration.

(10) “Training technology” means computer software and related materials which are developed by a Federal agency to train employees of such agency, including but not limited to software for computer-based instructional systems and for interactive video disc systems.

(11) “Clearinghouse” means the Clearinghouse for State and Local Initiatives on Productivity, Technology, and Innovation established by section 3704a of this title.

(Pub. L. 96-480, §4, Oct. 21, 1980, 94 Stat. 2312; Pub. L. 99-502, §9(b)(2), (d), Oct. 20, 1986, 100 Stat. 1795, 1796; Pub. L. 100-418, title V, §5122(b), Aug. 23, 1988, 102 Stat. 1439; Pub. L. 100-519, title II, §201(d)(1), Oct. 24, 1988, 102 Stat. 2594; Pub. L. 102-245, title III, §304, Feb. 14, 1992, 106 Stat. 20; Pub. L. 106-404, §7(1), (2), Nov. 1, 2000, 114 Stat. 1745; Pub. L. 110-69, title III, §3002(c)(3), Aug. 9, 2007, 121 Stat. 586.)

#### REFERENCES IN TEXT

The Plant Variety Protection Act, referred to in par. (7), is Pub. L. 91-577, Dec. 24, 1970, 84 Stat. 1542, as amended, which is classified principally to chapter 57 (§2321 et seq.) of Title 7, Agriculture. For complete classification of this Act to the Code, see Short Title note set out under section 2321 of Title 7 and Tables.

#### AMENDMENTS

2007—Pub. L. 110-69 redesignated pars. (2) and (4) to (13) as (1) and (2) to (11), respectively, and struck out pars. (1) and (3) which defined “Office” and “Under Secretary”, respectively.

2000—Pars. (4), (6). Pub. L. 106-404 made technical amendments to references in original act which appear in text as references to sections 3705 and 3707 of this title.

1992—Par. (8). Pub. L. 102-245 inserted before period at end “, as well as any agency of the legislative branch of the Federal Government”.

1988—Par. (1). Pub. L. 100-519, §201(d)(1)(A), substituted “Technology Policy” for “Productivity, Technology, and Innovation”.

Par. (3). Pub. L. 100-519, §201(d)(1)(B), amended par. (3) generally, substituting provisions defining “Under Secretary” for provisions defining “Assistant Secretary”.

Par. (13). Pub. L. 100-418 added par. (13).

1986—Par. (1). Pub. L. 99-502, §9(b)(2)(A), substituted “Productivity, Technology, and Innovation” for “Industrial Technology”.

Par. (3). Pub. L. 99-502, §9(b)(2)(B), substituted “‘Assistant Secretary’ means the Assistant Secretary for Productivity, Technology, and Innovation” for “‘Director’ means the Director of the Office of Industrial Technology”.

Par. (4). Pub. L. 99-502, §9(b)(2)(C), substituted “Cooperative Research Centers” for “Centers for Industrial Technology”.

Par. (6). Pub. L. 99-502, §9(b)(2)(D), (E), redesignated par. (7) as (6), substituted “owned, leased, or otherwise

used by a Federal agency and funded” for “owned and funded”, and struck out former par. (6) which defined “Board” to mean the National Industrial Technology Board established pursuant to section 3709 of this title.

Pars. (7) to (12). Pub. L. 99-502, §9(b)(2)(D), (d), redesignated pars. (7) and (8) as (6) and (7), respectively, and added pars. (8) to (12).

### § 3704. Experimental Program to Stimulate Competitive Technology

#### (a) Program establishment

##### (1) In general

Beginning in fiscal year 1999, the Secretary shall establish a program to be known as the Experimental Program to Stimulate Competitive Technology (referred to in this subsection as the “program”). The purpose of the program shall be to strengthen the technological competitiveness of those States that have historically received less Federal research and development funds than those received by a majority of the States.

##### (2) Arrangements

In carrying out the program, the Secretary shall—

(A) enter into such arrangements as may be necessary to provide for the coordination of the program through the State committees established under the Experimental Program to Stimulate Competitive Research of the National Science Foundation; and

(B) cooperate with—

(i) any State science and technology council established under the program under subparagraph (A); and

(ii) representatives of small business firms and other appropriate technology-based businesses.

##### (3) Grants and cooperative agreements

In carrying out the program, the Secretary may make grants or enter into cooperative agreements to provide for—

(A) technology research and development;

(B) technology transfer from university research;

(C) technology deployment and diffusion; and

(D) the strengthening of technological capabilities through consortia comprised of—

(i) technology-based small business firms;

(ii) industries and emerging companies;

(iii) universities; and

(iv) State and local development agencies and entities.

##### (4) Requirements for making awards

###### (A) In general

In making awards under this subsection, the Secretary shall ensure that the awards are awarded on a competitive basis that includes a review of the merits of the activities that are the subject of the award.

###### (B) Matching requirement

The non-Federal share of the activities (other than planning activities) carried out under an award under this subsection shall be not less than 25 percent of the cost of those activities.

**(5) Criteria for States**

The Secretary shall establish criteria for achievement by each State that participates in the program. Upon the achievement of all such criteria, a State shall cease to be eligible to participate in the program.

**(b) Coordination**

To the extent practicable, in carrying out subsection (a), the Secretary shall coordinate the program with other programs of the Department of Commerce.

**(c) Minority Serving Institution Digital and Wireless Technology Opportunity Program****(1) In general**

The Secretary shall establish a Minority Serving Institution Digital and Wireless Technology Opportunity Program that awards grants, cooperative agreements, and contracts to eligible institutions to enable the eligible institutions in acquiring, and augmenting the institutions' use of, digital and wireless networking technologies to improve the quality and delivery of educational services at eligible institutions.

**(2) Application and review procedures****(A) In general**

To be eligible to receive a grant, cooperative agreement, or contract under this subsection, an eligible institution shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may require. Such application, at a minimum, shall include a description of how the funds will be used, including a description of any digital and wireless networking technology to be acquired, and a description of how the institution will ensure that digital and wireless networking technology will be made accessible to, and employed by, students, faculty, and administrators. The Secretary, consistent with subparagraph (C) and in consultation with the advisory council established under subparagraph (B), shall establish procedures to review such applications. The Secretary shall publish the application requirements and review criteria in the Federal Register, along with a statement describing the availability of funds.

**(B) Advisory council**

The Secretary shall establish an advisory council to advise the Secretary on the best approaches to encourage maximum participation by eligible institutions in the program established under paragraph (1), and on the procedures to review applications submitted to the program. In selecting the members of the advisory council, the Secretary shall consult with representatives of appropriate organizations, including representatives of eligible institutions, to ensure that the membership of the advisory council includes representatives of minority businesses and eligible institution communities. The Secretary shall also consult with experts in digital and wireless networking technology to ensure that such expertise is represented on the advisory council.

**(C) Review panels**

Each application submitted under this subsection by an eligible institution shall be reviewed by a panel of individuals selected by the Secretary to judge the quality and merit of the proposal, including the extent to which the eligible institution can effectively and successfully utilize the proposed grant, cooperative agreement, or contract to carry out the program described in paragraph (1). The Secretary shall ensure that the review panels include representatives of minority serving institutions and others who are knowledgeable about eligible institutions and technology issues. The Secretary shall ensure that no individual assigned under this subsection to review any application has a conflict of interest with regard to that application. The Secretary shall take into consideration the recommendations of the review panel in determining whether to award a grant, cooperative agreement, or contract to an eligible institution.

**(3) Awards****(A) Limitation**

An eligible institution that receives a grant, cooperative agreement, or contract under this subsection that exceeds \$2,500,000 shall not be eligible to receive another grant, cooperative agreement, or contract under this subsection.

**(B) Consortia**

Grants, cooperative agreements, and contracts may only be awarded to eligible institutions. Eligible institutions may seek funding under this subsection for consortia, which may include other eligible institutions, a State or a State educational agency, local educational agencies, institutions of higher education, community-based organizations, national nonprofit organizations, or businesses, including minority businesses.

**(C) Planning grants**

The Secretary may provide funds to develop strategic plans to implement grants, cooperative agreements, or contracts awarded under this subsection.

**(D) Institutional diversity**

In awarding grants, cooperative agreements, and contracts to eligible institutions, the Secretary shall ensure, to the extent practicable, that awards are made to all types of institutions eligible for assistance under this subsection.

**(E) Need**

In awarding funds under this subsection, the Secretary shall give priority to the eligible institution with the greatest demonstrated need for assistance.

**(4) Authorized activities**

An eligible institution may use a grant, cooperative agreement, or contract awarded under this subsection—

(A) to acquire equipment, instrumentation, networking capability, hardware and software, digital network technology, wire-

less technology, and infrastructure to further the objective of the program described in paragraph (1);

(B) to develop and provide training, education, and professional development programs, including faculty development, to increase the use of, and usefulness of, digital and wireless networking technology;

(C) to provide teacher education, including the provision of preservice teacher training and in-service professional development at eligible institutions, library and media specialist training, and preschool and teacher aid certification to individuals who seek to acquire or enhance technology skills in order to use digital and wireless networking technology in the classroom or instructional process, including instruction in science, mathematics, engineering, and technology subjects;

(D) to obtain capacity-building technical assistance, including through remote technical support, technical assistance workshops, and distance learning services; or

(E) to foster the use of digital and wireless networking technology to improve research and education, including scientific, mathematics, engineering, and technology instruction.

**(5) Information dissemination**

The Secretary shall convene an annual meeting of eligible institutions receiving grants, cooperative agreements, or contracts under this subsection to foster collaboration and capacity-building activities among eligible institutions.

**(6) Matching requirement**

The Secretary may not award a grant, cooperative agreement, or contract to an eligible institution under this subsection unless such institution agrees that, with respect to the costs incurred by the institution in carrying out the program for which the grant, cooperative agreement, or contract was awarded, such institution shall make available, directly, or through donations from public or private entities, non-Federal contributions in an amount equal to 25 percent of the grant, cooperative agreement, or contract awarded by the Secretary, or \$500,000, whichever is the lesser amount. The Secretary shall waive the matching requirement for any institution or consortium with no endowment, or an endowment that has a current dollar value lower than \$50,000,000.

**(7) Annual report and assessments**

**(A) Annual report required from recipients**

Each eligible institution that receives a grant, cooperative agreement, or contract awarded under this subsection shall provide an annual report to the Secretary on its use of the grant, cooperative agreement, or contract.

**(B) Independent assessments**

**(i) Contract to conduct assessments**

Not later than 6 months after August 14, 2008, the Secretary shall enter into a contract with the National Academy of Public

Administration to conduct periodic assessments of the program established under paragraph (1). The assessments shall be conducted once every 3 years during the 10-year period following August 14, 2008.

**(ii) Evaluations and recommendations**

The assessments described in clause (i) shall include—

(I) an evaluation of the effectiveness of the program established under paragraph (1) in improving the education and training of students, faculty, and staff at eligible institutions that have been awarded grants, cooperative agreements, or contracts under the program;

(II) an evaluation of the effectiveness of the program in improving access to, and familiarity with, digital and wireless networking technology for students, faculty, and staff at all eligible institutions;

(III) an evaluation of the procedures established under paragraph (2)(A); and

(IV) recommendations for improving the program, including recommendations concerning the continuing need for Federal support.

**(iii) Review of reports**

In carrying out the assessments under this subparagraph, the National Academy of Public Administration shall review the reports submitted to the Secretary under subparagraph (A).

**(iv) Report to Congress**

Upon completion of each assessment under this subparagraph, the Secretary shall transmit the assessment to Congress along with a summary of the Secretary's plans, if any, to implement the recommendations of the National Academy of Public Administration.

**(8) Definitions**

In this subsection:

**(A) Digital and wireless networking technology**

The term “digital and wireless networking technology” means computer and communications equipment and software that facilitates the transmission of information in a digital format.

**(B) Eligible institution**

The term “eligible institution” means an institution that is—

(i) a part B institution, as defined in section 1061(2) of title 20, an institution identified in subparagraph (A), (B), or (C) of section 1063b(e)(1) of title 20, or a consortium of institutions described in this clause;

(ii) a Hispanic-serving institution, as defined in section 1101a(a)(5) of title 20;

(iii) a Tribal College or University, as defined in section 1059c(b)(3) of title 20;

(iv) an Alaska Native-serving institution, as defined in section 1059d(b) of title 20;

(v) a Native Hawaiian-serving institution, as defined in section 1059d(b) of title 20;

(vi) a Predominately Black Institution, as defined in section 1059e of title 20;

(vii) a Native American-serving, non-tribal institution, as defined in section 1059f of title 20;

(viii) an Asian American and Native American Pacific Islander-serving institution, as defined in section 1059g of title 20; or

(ix) a minority institution, as defined in section 1067k of title 20, with an enrollment of needy students, as defined in section 1058(d) of title 20.

#### (C) Institution of higher education

The term “institution of higher education” has the meaning given the term in section 1001 of title 20.

#### (D) Local educational agency

The term “local educational agency” has the meaning given the term in section 7801 of title 20.

#### (E) Minority business

The term “minority business” includes HUBZone small business concerns (as defined in section 632(p)<sup>1</sup> of this title).

#### (F) Minority individual

The term “minority individual” means an American Indian, Alaskan Native, Black (not of Hispanic origin), Hispanic (including persons of Mexican, Puerto Rican, Cuban, and Central or South American origin), or Pacific Islander individual.

#### (G) State

The term “State” has the meaning given the term in section 7801 of title 20.

#### (H) State educational agency

The term “State educational agency” has the meaning given the term in section 7801 of title 20.

(Pub. L. 96-480, § 5, Oct. 21, 1980, 94 Stat. 2312; Pub. L. 99-382, § 2, Aug. 14, 1986, 100 Stat. 811; Pub. L. 99-502, § 9(b)(3)-(5), (e)(2)(A), Oct. 20, 1986, 100 Stat. 1795, 1797; Pub. L. 100-519, title II, § 201(a)-(c), (d)(2), Oct. 24, 1988, 102 Stat. 2593, 2594; Pub. L. 102-245, title III, § 306, Feb. 14, 1992, 106 Stat. 20; Pub. L. 105-309, § 9, Oct. 30, 1998, 112 Stat. 2938; Pub. L. 106-404, § 7(3), Nov. 1, 2000, 114 Stat. 1745; Pub. L. 110-69, title III, § 3002(a), Aug. 9, 2007, 121 Stat. 586; Pub. L. 110-315, title IX, § 971, Aug. 14, 2008, 122 Stat. 3473; Pub. L. 114-95, title IX, § 9215(sss), Dec. 10, 2015, 129 Stat. 2190.)

#### REFERENCES IN TEXT

Section 632(p) of this title, referred to in subsec. (c)(8)(E), was redesignated section 657a(b) of this title by Pub. L. 115-91, div. A, title XVII, § 1701(a)(2), Dec. 12, 2017, 131 Stat. 1795.

#### AMENDMENTS

2015—Subsec. (c)(8)(D), (G), (H). Pub. L. 114-95 made technical amendments to references in original act which appear in text as references to section 7801 of title 20.

2008—Subsec. (c). Pub. L. 110-315 added subsec. (c).

2007—Pub. L. 110-69, § 3002(a)(5), substituted “Experimental program to stimulate competitive technology”

for “Commerce and technological innovation” in section catchline.

Subsec. (a). Pub. L. 110-69, § 3002(a)(3)(B), (E), substituted “Program establishment” for “Experimental Program to Stimulate Competitive Technology” in heading and struck out “, acting through the Under Secretary,” after “Secretary” wherever appearing in text.

Pub. L. 110-69, § 3002(a)(1), (2), redesignated subsec. (f) as (a) and struck out former subsec. (a) which related to the establishment of a Technology Administration within the Department of Commerce.

Subsec. (a)(1). Pub. L. 110-69, § 3002(a)(3)(A), substituted “Beginning in fiscal year 1999, the Secretary shall establish” for “The Secretary, acting through the Under Secretary, shall establish for fiscal year 1999”.

Subsec. (a)(6). Pub. L. 110-69, § 3002(a)(3)(C), redesignated par. (6) as subsec. (b).

Subsec. (a)(7). Pub. L. 110-69, § 3002(a)(3)(D), struck out par. (7) which required the Under Secretary of Commerce for Technology to submit a report on the Experimental Program to Stimulate Competitive Technology no later than 90 days after Oct. 30, 1998.

Subsec. (b). Pub. L. 110-69, § 3002(a)(1), (3)(C), (4), redesignated subsec. (a)(6) as (b), substituted “subsection (a)” for “this subsection”, and struck out former subsec. (b) which related to appointment of Under Secretary of Commerce for Technology and Assistant Secretary of Commerce for Technology Policy.

Subsecs. (c) to (e). Pub. L. 110-69, § 3002(a)(1), struck out subsecs. (c) to (e) which related, respectively, to duties of the Secretary, Japanese technical literature, and a progress report required within 3 years after Oct. 21, 1980.

Subsec. (f). Pub. L. 110-69, § 3002(a)(2), redesignated subsec. (f) as (a).

2000—Subsec. (c)(11). Pub. L. 106-404 substituted “State or local governments” for “State of local governments”.

1998—Subsec. (f). Pub. L. 105-309 added subsec. (f).

1992—Subsec. (c)(13) to (15). Pub. L. 102-245 added par. (13) and redesignated former pars. (13) and (14) as (14) and (15), respectively.

1988—Subsec. (a). Pub. L. 100-519, § 201(a), amended subsec. (a) generally. Prior to amendment, subsec. (a) read as follows: “The Secretary shall establish and maintain an Office of Productivity, Technology, and Innovation in accordance with the provisions, findings, and purposes of this chapter.”

Subsec. (b). Pub. L. 100-519, § 201(b), amended subsec. (b) generally. Prior to amendment, subsec. (b) read as follows: “The President shall appoint, by and with the advice and consent of the Senate, an Assistant Secretary for Productivity, Technology, and Innovation.”

Subsec. (c). Pub. L. 100-519, § 201(c)(2), substituted “Under Secretary, as appropriate,” for “Assistant Secretary, on a continuing basis,” in introductory provisions.

Subsec. (c)(1) to (9). Pub. L. 100-519, § 201(c)(1), (2), added pars. (1) to (4) and redesignated former pars. (1) to (5) as (5) to (9), respectively. Former pars. (6) to (9) redesignated (10) to (13), respectively.

Subsec. (c)(10). Pub. L. 100-519, § 201(c)(1), (3), redesignated former par. (6) as (10) and substituted “Under Secretary” for “Assistant Secretary”. Former par. (10) redesignated (14).

Subsec. (c)(11) to (14). Pub. L. 100-519, § 201(c)(1), redesignated former pars. (7) to (10) as (11) to (14), respectively.

Subsec. (d)(1). Pub. L. 100-519, § 201(d)(2), substituted “and the Under Secretary shall establish, and through the National Technical Information Service and with the cooperation of” for “shall establish and, through the National Technical Information Service and”.

1986—Subsec. (a). Pub. L. 99-502, § 9(b)(3), substituted “Office of Productivity, Technology, and Innovation” for “Office of Industrial Technology”.

Subsec. (b). Pub. L. 99-502, § 9(b)(4), substituted “an Assistant Secretary for Productivity, Technology, and Innovation” for “a Director of the Office, who shall be

<sup>1</sup> See References in Text note below.

compensated at the rate provided for level V of the Executive Schedule in section 5316 of title 5”.

Subsec. (c). Pub. L. 99-502, §9(b)(5)(A), substituted “the Assistant Secretary” for “the Director” in provisions preceding par. (1).

Subsec. (c)(6). Pub. L. 99-502, §9(b)(5)(A), substituted “the Assistant Secretary” for “the Director”.

Subsec. (c)(7) to (10). Pub. L. 99-502, §9(b)(5)(B), (C), added pars. (7) and (8) and redesignated former pars. (7) and (8) as (9) and (10), respectively.

Subsec. (d). Pub. L. 99-382, §2(2), added subsec. (d). Former subsec. (d) redesignated (e).

Subsec. (e). Pub. L. 99-502, §9(e)(2)(A), which directed the insertion of “(as then in effect)” in subsec. (d), was executed to subsec. (e) to reflect the probable intent of Congress in view of the redesignation of subsec. (d) as (e) by Pub. L. 99-382.

Pub. L. 99-382, §2(1), redesignated subsec. (d) as (e).

#### EFFECTIVE DATE OF 2015 AMENDMENT

Amendment by Pub. L. 114-95 effective Dec. 10, 2015, except with respect to certain noncompetitive programs and competitive programs, see section 5 of Pub. L. 114-95, set out as a note under section 6301 of Title 20, Education.

#### CONSTRUCTION

Pub. L. 110-69, title III, §3002(b), Aug. 9, 2007, 121 Stat. 586, provided that: “The amendments made by subsection (a) [amending this section] shall not be construed to eliminate the National Institute of Standards and Technology or the National Technical Information Service.”

#### TRANSITION PROVISION

Pub. L. 100-519, title II, §201(e), Oct. 24, 1988, 102 Stat. 2594, provided that: “The individual serving as the Assistant Secretary of Commerce for Productivity, Technology, and Innovation immediately before the date of enactment of this Act [Oct. 24, 1988] shall serve as Acting Assistant Secretary of Commerce for Technology Policy until the Assistant Secretary takes office.”

#### COMMERCIAL SPACE PROGRAMS

Pub. L. 100-519, title II, §201(f), as added by Pub. L. 100-685, title II, §219, Nov. 17, 1988, 102 Stat. 4095, provided that: “Nothing in this section [amending this section, sections 3703 and 3710 of this title, and section 5314 of Title 5, Government Organization and Employees, and enacting provisions formerly set out as a note above] authorizes the Department to establish an Office of Commercial Space Programs or to place such an office into the Technology Administration without prior authorization of the Congress.”

### § 3704a. Clearinghouse for State and Local Initiatives on Productivity, Technology, and Innovation

#### (a) Establishment

There is established within the Office of Productivity, Technology, and Innovation a Clearinghouse for State and Local Initiatives on Productivity, Technology, and Innovation. The Clearinghouse shall serve as a central repository of information on initiatives by State and local governments to enhance the competitiveness of American business through the stimulation of productivity, technology, and innovation and Federal efforts to assist State and local governments to enhance competitiveness.

#### (b) Responsibilities

The Clearinghouse may—

(1) establish relationships with State and local governments, and regional and multistate organizations of such governments, which carry out such initiatives;

(2) collect information on the nature, extent, and effects of such initiatives, particularly information useful to the Congress, Federal agencies, State and local governments, regional and multistate organizations of such governments, businesses, and the public throughout the United States;

(3) disseminate information collected under paragraph (2) through reports, directories, handbooks, conferences, and seminars;

(4) provide technical assistance and advice to such governments with respect to such initiatives, including assistance in determining sources of assistance from Federal agencies which may be available to support such initiatives;

(5) study ways in which Federal agencies, including Federal laboratories, are able to use their existing policies and programs to assist State and local governments, and regional and multistate organizations of such governments, to enhance the competitiveness of American business;

(6) make periodic recommendations to the Secretary, and to other Federal agencies upon their request, concerning modifications in Federal policies and programs which would improve Federal assistance to State and local technology and business assistance programs;

(7) develop methodologies to evaluate State and local programs, and, when requested, advise State and local governments, and regional and multistate organizations of such governments, as to which programs are most effective in enhancing the competitiveness of American business through the stimulation of productivity, technology, and innovation; and

(8) make use of, and disseminate, the nationwide study of State industrial extension programs conducted by the Secretary.

#### (c) Contracts

In carrying out subsection (b), the Secretary may enter into contracts for the purpose of collecting information on the nature, extent, and effects of initiatives.

(Pub. L. 96-480, §6, as added Pub. L. 100-418, title V, §5122(a)(2), Aug. 23, 1988, 102 Stat. 1438.)

#### CODIFICATION

Subsec. (d) of this section, which required the Secretary to prepare and transmit a triennial report to Congress, including recommendations to the President, Congress, and Federal agencies, on initiatives by State and local governments to enhance the competitiveness of American businesses through the stimulation of productivity, technology, and innovation, terminated, effective May 15, 2000, pursuant to section 3003 of Pub. L. 104-66, as amended, set out as a note under section 1113 of Title 31, Money and Finance. See, also, page 50 of House Document No. 103-7.

### § 3704b. National Technical Information Service

#### (a) Powers

(1) The Secretary of Commerce, acting through the Director of the National Technical Information Service (hereafter in this section referred to as the “Director”) is authorized to do the following:

(A) Enter into such contracts, cooperative agreements, joint ventures, and other trans-