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National Institute of Standards and Technology

Technology Administration U.S. Department of Commerce

For a quick look to see if ATP is right for you and to answer the following questions:

- What is ATP?
- Who may apply?
- How can I receive funding?
- When do I submit my proposal?
- Where do I submit my proposal?

See Chapter 1, pages 1 through 3, in this Kit.

Telephone: 1–800–ATP–FUND or 1–800–287–3863* **Fax:** 301–926–9524 or 301–590–3053

E-mail: atp@nist.gov

Internet: http://www.atp.nist.gov

*Advanced Technology Program (ATP) toll-free hotline. Call to hear recorded messages about the current status of ATP and workshops being held or to request that a name be added to the ATP mailing list.

Foreword



I am pleased to provide you with this revised version of the *ATP Proposal Preparation Kit*. This kit provides all the necessary requirements and guidelines for developing an ATP proposal during fiscal year 2004. All individuals who are currently on the ATP mailing list will receive a copy of this kit as well as any competition announcements. If you are not on our mailing list and wish to be added, call us at 1–800–287–3863 or submit an electronic request at http://www.atp.nist.gov/atp/atpform.htm. To learn more about ATP, I encourage you to visit the ATP website at http://www.atp.nist.gov. The ATP website

offers general information about ATP, a searchable database of previously funded ATP projects, and much more.

As U.S. industry vies for position in the global markets of the 21st century and faces unprecedented challenges from foreign competitors, it is more important than ever to emphasize our strengths. Innovation and entrepreneurship are and will remain our best strategies in this contest—our essential edge on the competition. ATP was established to leverage those strengths, to encourage entrepreneurship in research and development, and to foster technological innovation. The path-breaking new ideas that are the essence of ATP projects can come from any industry, any company. We look forward to working with you to dramatically change the future direction of technology.

Marc G. Stanley

Director, Advanced Technology Program National Institute of Standards and Technology

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CHAPTER

Questions and Answers About the Advanced Technology Program (ATP)

A. General Information

1. What is ATP?

In 1990 ATP began to provide cost-shared funding to industry to accelerate the development and broad dissemination of challenging, high-risk technologies that promise significant commercial payoffs and widespread benefits for the nation. This unique government-industry partnership aids companies in accelerating the development of emerging or enabling technologies that lead to revolutionary new products and industrial processes and services that can compete in rapidly changing world markets. ATP challenges the research and development (R&D) community to take on higher technical risk projects with commensurately higher potential payoffs for the nation than they would otherwise pursue. The ATP statutory authority is 15 U.S.C. § 278n (see Appendix A or http://www.atp.nist.gov/ atp/helpful.htm)1. The ATP implementing regulations are set forth in 15 C.F.R. Part 295 (see Appendix B or http://www.atp.nist.gov/ atp/helpful.htm).

2. Who may apply?

A U.S.-owned, single, for-profit company or an industry-led joint venture may apply. See Section B of this chapter for more details.

3. How can I receive funding?

You must submit a proposal to ATP in response to a solicitation/request for proposal published by ATP. Notices are published in the *Federal Register* announcing the availability of ATP funds and are posted on the ATP website (http://www.atp.nist.gov).

4. What information is required in an ATP proposal?

Information requirements are discussed in detail in Chapters 2 and 3 of this *Proposal Preparation Kit.* ATP reviews proposals under a multi-stage and sequential review process; therefore, prescribed information is requested at different stages called gates.

5. How many gates are in ATP's proposal submission process?

There are four gates, as follows:

Gate 1: Detailed information addressing the scientific and technological merit selection criterion and preliminary information addressing the potential for broad-based economic benefits selection criterion are submitted. If the information is determined to meet the selection criteria, the proposer is notified that the proposal has passed the Gate 1 stage and is asked to submit the required Gate 2 information.

¹Websites listed in this publication are accurate as of the publishing date. Check www.atp.nist.gov/atp/helpful.htm for updates to websites.

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Gate 2: Detailed information addressing the potential for broad-based economic benefits selection criterion and the Budget Narrative are submitted. If the information submitted is determined to have high merit, the proposer is notified that the proposal has been selected as a semi-finalist and proceeds to Gate 3.

Gate 3: An invitation to the National Institute of Standards and Technology/ATP for an oral review is issued. Required forms and additional documentation are submitted, as requested by ATP. After the oral review, if ATP determines, based on all the information received, that the proposal has high merit, the proposal is considered a finalist and is recommended to the Selecting Official. If selected by the Selecting Official, the proposal proceeds to Gate 4.

Gate 4: If the proposal is selected, the final award is processed and issued and funding begins.

6. How are proposals submitted?

Proposals may be submitted either electronically or in hardcopy. Electronic submissions are encouraged and save the proposer mailing and copying fees. See Chapter 2, Section A, for format instructions and Chapter 2, Section B, for electronic submission guidance. Also visit the ATP Electronic Submission System website at http://ess.atp.nist.gov, which provides instructions and tools for submitting ATP proposals securely over the Internet.

7. Will confidential/proprietary information in my proposal be protected?

Yes. All individuals who have access to proposals must sign nondisclosure agreements. The government will protect confidential/proprietary

information about business operations and trade secrets possessed by any company or participant to the full extent of the law. Such information will be withheld from disclosure pursuant to the following statutes which can be found at http://www.atp.nist.gov/atp/helpful.htm.

- a. ATP Statute—15 U.S.C. § 278n(d)(5).
- b. Trade Secrets Act—18 U.S.C. § 1905.
- c. Freedom of Information Act (FOIA)—5 U.S.C. § 552(b).
- d. Economic Espionage Act—18 U.S.C. § 1832.

In view of the above, proposers are advised that proposals are unlikely to be competitive if significant technical and/or business details are omitted due to the proposer's reluctance to reveal confidential information.

8. Where can I seek help with preparing my proposal?

- a. Visit the ATP Alliance Network website at http://www.atp.nist.gov/alliance/welcome.htm, which provides useful tools for creating and managing R&D partnerships. The website offers interactive forums such as the Collaboration Bulletin Board, through which potential proposers can anonymously post their interest in finding a partner, and the R&D Alliances Forum, where individuals can exchange their ideas and questions about high-risk R&D alliances.
- b. Contact the NIST Manufacturing Extension Partnership (MEP), a nationwide network of locally managed extension centers whose sole purpose is to provide small- and medium-sized manufacturers with the help they need to succeed. The centers provide guidance to hightechnology companies seeking resources and

teaming relationships that help with commercialization efforts. To contact a MEP center, call 1–800–MEP–4–MFG (1–800–637–4634) or visit MEP's website at http://www.mep.nist.gov.

c. Contact state agencies.

9. Does ATP hold any public meetings or conferences to assist in proposal preparation?

Yes. ATP typically holds one or more proposers' conferences per year. These meetings provide general information regarding the program, tips on preparing proposals, and the opportunity for questions and answers. Proprietary technical or business discussions about specific project ideas with NIST staff are not permitted at the public meeting(s) or at any time before submitting the proposal to ATP. Therefore, you should not expect to have proprietary issues addressed at the public meeting(s).

Attendance at ATP proposers' conferences is not required; many successful ATP recipients have not attended a proposers' conference. However, those who have attended said they found the information helpful. Information regarding dates and locations of ATP proposers' conferences is published in the *Federal Register* and posted on the ATP website. Additionally, all those on the ATP mailing list (http://www.atp.nist.gov/atp/atpform.htm) are notified when the conferences are announced.

Presentation materials from proposers' conferences will be made available on the ATP website.

NIST/ATP staff will not critique proprietary project ideas while they are being developed by a

proposer. However, NIST/ATP staff will, at any time, answer questions that you may have about our project selection criteria, selection process, eligibility requirements, cost-sharing requirements, and the general characteristics of a good ATP project.

10. Is there a deadline for submitting an ATP proposal?

Yes. The deadline date(s) will be published in the *Federal Register* and posted on the ATP website. Once an ATP solicitation/request for proposal is published, proposals may be submitted until the deadline date(s). The most up-to-date information about ATP competitions is posted on the ATP website. In addition, you can have your name added to the ATP mailing list (http://www.atp. nist.gov/atp/atpform.htm) so that you are notified when a new competition is announced.

11. Where do I submit proposals?

Proposals should be submitted to either of the following locations and not directly to ATP staff:

- a. Electronic: use the downloadable forms and the Forms Viewer at (http://ess.atp.nist.gov).
- b. Hardcopy:

Advanced Technology Program
National Institute of Standards
and Technology
Administration Building 101, Room A413
100 Bureau Drive, Stop 4701
Gaithersburg, MD 20899–4701

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12. Whom do I contact if I have questions?

Subject Area	Point of Contact
Competition process, project selection criteria, or other programmatic questions	Bettijoyce Lide Phone: 301–975–2218 Fax: 301–926–9524 E-mail: bettijoyce.lide@nist.gov
Eligibility and cost-sharing requirements, budgets, or other administrative questions	Barbara Lambis Phone: 301–975–4447 Fax: 301–869–1150 E-mail: barbara.lambis@nist.gov
Human and/or animal subjects used in research	Human and Animal Subjects Advisor Phone: 301–975–8779
Electronic proposal submission	John Garguilo Phone: 301–975–4426 Fax: 301–926–9524 E-mail: john.garguilo@nist.gov
Foreign participation as single-company proposers, joint ventures, or subcontractors	Connie Chang Phone: 301–975–4318 Fax: 301–975–4776 E-mail: connie.chang@nist.gov

B. Eligibility

1. Who is eligible to apply?

U.S.-owned, single, for-profit companies and industry-led joint ventures may apply for ATP funding. In addition, companies incorporated in the United States that have parent companies incorporated in another country may apply as discussed in Section 3 below. The term *company* means a for-profit organization, including sole proprietorships, partnerships, limited-liability companies (LLCs), and corporations (15 C.F.R. § 295.2).

 a. Single Company—a single small, medium, or large for-profit company, including an LLC.
 The single company must be substantially involved in the R&D, with a leadership role in programmatically steering the project and facilitating definition of the research agenda.

b. **Joint Venture**—at least two separately owned for-profit companies, both of which are substantially involved in the R&D and both of which are contributing to the cost-sharing requirement. ATP joint ventures consist of companies that formally agree (i.e., sign a Joint Venture Agreement as discussed in Chapter 2, Section C) to collaborate on the R&D and establish an effective plan to commercialize the technology if successful. In addition to comprising at least two separately owned for-profit companies, a joint venture may include additional for-profit companies and other organizations that perform research and that may or may not contribute nonfederal funds to the project.

2. Can universities, government laboratories, independent research organizations, and non-profit organizations participate?

Yes. Universities, government laboratories (excluding NIST laboratories), independent research organizations, and nonprofit organizations may participate in an ATP project in the following two ways:

- a. As subcontractors to a single company or to a joint venture.
- b. As additional partners in a joint venture. In addition to a for-profit company, any one of these four types of organizations (universities, government laboratories, independent research organizations, and nonprofit organizations) can serve as the catalyst to organize a joint venture. However, of these four types of organizations, only an independent research organization or a nonprofit organization may submit a proposal on behalf of a joint venture and administer the project, provided that the following two conditions are met:
 - (1) As described above, the joint venture must include at least two separately owned for-profit companies, both substantially involved in the R&D and both contributing to the cost-sharing requirement.
 - (2) The joint venture must be industry led. In other words, the industrial partners must take a leadership role in programmatically steering the project, facilitate definition of the research agenda, be substantially involved in the R&D, and commit to the commercialization plans if the technology is successfully developed.

3. Can a foreign-owned company apply for ATP funding?

Yes, provided that certain requirements are met. A company incorporated in the United States that has a parent company incorporated in another country is eligible to apply for and receive an ATP award if it meets the conditions in the ATP legislation (15 U.S.C. § 278n(d)(9)) and regulations (15 C.F.R. § 295.3). Before making the final award, ATP will make a foreign-eligibility finding based on these conditions regarding the company's participation in the ATP project. The foreign eligibility finding involves the collection of evidence of whether the following conditions are met:

- a. the company's participation in the ATP project is in the economic interest of the United States, and
- b. the home country of the parent company provides all of the following:
 - (1) comparable opportunities for U.S.-owned companies to participate in government-funded programs similar to ATP,
 - (2) comparable local investment opportunities for U.S.-owned companies, and
 - (3) adequate and effective protection of U.S.owned intellectual property rights.

ATP takes responsibility for gathering information related to the above requirements. The submitting organization must provide information in the Gate 2 submission (see Chapter 2) related to the role of the foreign-owned company in the project to help address foreign eligibility requirement 3.a above. Evidence that the company's participation is in the economic interest of the United States includes the following:

- a sound justification that the involvement by the company is necessary to achieve the technical or commercial objectives of the project;
- b. documentation that the company makes investments in research, development, and manufacturing in the United States;
- c. documentation that the company makes significant contributions to employment in the United States;

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- d. documentation that the company agrees to promote the manufacture of products within the United States resulting from ATP-supported technology and to procure supplies from competitive U.S. suppliers; and
- e. other aspects relevant to the project's potential to produce broad-based economic benefits for the United States.

4. Is a foreign-eligibility finding required for foreign subcontractors?

No. The submitting organization, however, must justify the use of foreign-owned or foreign-located subcontractors or subsidiaries and explain how their participation will benefit the U.S. economy. The submitting organization should state how and why U.S. sources were judged to be unavailable and inadequate in meeting the project goals.

5. Can a foreign-owned company without a U.S.-incorporated subsidiary receive an ATP award?

No. Foreign-owned companies located outside the United States cannot receive an ATP award. According to ATP's founding legislation, only U.S.-owned companies and U.S. subsidiaries of foreign-owned companies that meet certain requirements are eligible to receive ATP funding.

6. Can a company owned by non-U.S. citizens and without a foreign parent company receive an ATP award?

No. However, a company that is incorporated in the United States and owned by one or more non-U.S. citizen green-card holders but that does not have a foreign parent company may apply for an ATP award, but it cannot receive any funding unless the ownership issue has been resolved (e.g., the owner has since become a U.S. citizen, or ownership has been transferred to a U.S. citizen or citizens) before final award selections. Awards will not be deferred for this issue to be resolved.

7. Where can I find additional information regarding foreign-owned company eligibility?

Additional information is available in the ATP booklet ATP Eligibility Criteria for U.S. Subsidiaries of Foreign-Owned Companies: Legislation, Implementation, and Results, which is available at http://www.atp.nist.gov/eao/ir-6099/contents.htm.

C. Selection Criteria and Selection Process

1. What selection/evaluation criteria are used to select ATP proposals for funding?

The evaluation criteria used to select a proposal for funding and their respective weights are found in 15 C.F.R. § 295.6 and are listed below. No proposal will be funded unless ATP determines that it has scientific and technological merit and that the proposed technology has strong potential for broad-based economic benefits for the nation. Additionally, no proposal will be funded that does not require federal support, that is product development rather than high-risk R&D, that does not display an appropriate level of commitment from the proposer, and that does not have adequate technical and commercialization plans. Meeting the scientific and technological merit criterion will not make up for major flaws in the potential for broad-based economic benefits selection criterion and vice versa. Detailed guidance on how to address the selection criteria is provided in Chapter 3.

a. Scientific and Technological Merit (50 percent). This selection criterion has three critical components: (1) Technical Innovation, (2) Technical Risk With Evidence of Scientific Feasibility, and (3) Technical Plan.

The proposed technology must be highly innovative. The research must be challenging, with high technical risk. It must be aimed at overcoming an important problem (or problems) or exploiting a promising opportunity. The technical leverage of the technology must be adequately explained. The research must have a strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technical knowledge base. The technical plan must be clear and concise and must clearly identify the core innovation, the technical approach, the major technical hurdles, and the attendant risks, and it must clearly establish feasibility through adequately detailed plans linked to major technical barriers. The plan must address the questions of "what, how, where, when, why, and by whom" in substantial detail. ATP will assess the proposing team's relevant experience for pursuing the technical plan. The team carrying out the work must demonstrate the high level of scientific/technical expertise needed to conduct the R&D and have access to the necessary research facilities.

b. Potential for Broad-Based Economic
 Benefits (50 percent). This selection criterion has three critical components: (1) National Economic Benefits, (2) Need for ATP Funding, and (3) Pathway to Economic Benefits.

The proposed technology must have a strong potential to generate substantial benefits for the nation that extend significantly beyond the direct returns to the proposing organization(s). The proposal must explain why ATP support is needed and what difference ATP funding is expected to make in terms of what will be accomplished with the ATP funding versus without it. The pathway to economic benefits

must be described, including the proposer's plan for getting the technology into commercial use as well as additional routes that might be taken to achieve broader diffusion of the technology. The proposal should identify the expected returns that the proposer expects to gain as well as returns that are expected to accrue to others—that is, spillover effects. ATP will assess the proposer's relevant experience and level of commitment to the project; the project's organizational structure and management plan, including the extent to which participation by small businesses is encouraged and is a key component in a joint venture proposal; and for large single-company proposers, the extent to which subcontractor/subrecipient teaming arrangements are featured and are a key component of the proposal.

2. How are proposals selected for funding?

All proposals are selected based on a peer-review process, as described in 15 C.F.R. § 295.4. Proposals judged through Gates 1 and 2 to have sufficient merit based on the established selection criteria receive further consideration and are referred to as *semifinalists*. Semifinalist proposers will be invited to NIST/ATP for an oral review (Gate 3) of their proposals. In some cases, site visits may be required. Semifinalist proposals are then ranked, and the Selecting Official selects funding recipients based on the ranking, the availability of funds, the adherence to ATP selection criteria, and the appropriate distribution of funds among technologies and their applications. NIST reserves the right to deny awards in any case where a reasonable doubt exists regarding a proposer's ability to comply with ATP requirements or to handle federal funds responsibly. All funding decisions are final and cannot be appealed. NIST/ATP reserves the right to negotiate the cost and scope of the proposed work with the proposers that have been selected to receive awards. For example, NIST/ATP may

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require that the proposer delete from the scope of work a particular task that is deemed by NIST/ATP to be product development or otherwise inappropriate for ATP support.

3. What are the most common reasons that a proposal submitted to ATP is not successful?

- a. Lack of clear definition of technical risks or barriers that prevent progress on the commercial front. Less competitive proposals often fail to answer the question, "What technical issue or issues are preventing you from exploiting this technology for this class of applications?"
- b. Lack of an innovative technological approach—that is, the concept or end products may be innovative, but reaching the goal is based on state-of-the-art techniques that will not be advanced.
- c. Lack of detail in the technical plan or failure to clearly describe how the path to innovation will be accomplished. For example:
 - (1) Use of a trial-and-error approach to generate new products or processes based on state-of-the-art techniques that does not result in advancing the methodology beyond trial and error.
 - (2) Risks in the project not described at the scientific level other than that the approach may not work as expected, or there is no clear identification of alternatives for various risks at each step in the R&D.
 - (3) Straightforward scale-ups based on standard engineering practices and state-of-the-art techniques that will not advance scale-up methodology (e.g., faster, better, cheaper the next time).

- (4) Use of proprietary techniques that are already developed in-house to generate novel products or processes where there is no expectation to move the technique(s) to a next-generation advancement.
- d. A general description of the market opportunity with no specific market segment analysis of, for example, size, sales, potential customers, and competitors.
- e. Lack of detail about the approach to be taken to commercialize the technology after the ATP project ends, or failure to address market opportunity.
- f. Unconvincing case for the need for ATP funding, or the difference that ATP can make, and failure to describe actions taken to secure non-ATP funding (including evidence of the results of those actions).

D.Ineligible Projects and Ineligible Costs

1. What types of projects are ineligible for ATP funding?

- a. Straightforward improvements of existing products or product development.
- b. Projects that are basic research.
- c. Projects that are Phase II, III, or IV clinical trials.
- d. Pre-commercial-scale demonstration projects where the emphasis is on demonstrating that some technology works on a large scale or is economically sound rather than on R&D that extends the state of the art.
- e. Projects that ATP believes would likely be completed without ATP funds in the same time frame or nearly the same time frame or with the same scale or scope.

- f. Predominantly straightforward, routine data gathering (e.g., creation of voluntary consensus standards, data gathering/ handbook preparation, testing of materials, or unbounded research aimed at basic discovery science) or application of standard engineering practices.
- g. Projects that are simply a follow-on or a continuation of tasks previously funded in ATP projects from essentially the same proposing team.
- h. Projects in which the only risk is market oriented—that is, the risk that the end product may not be embraced by the marketplace.

2. What types of costs are ineligible/unallowable?

The following items, regardless of whether they are allowable under the federal cost principles, are unallowable under ATP:

- Marketing, sales, or commercialization costs, unless they are included in a federally approved indirect cost rate.
- b. Costs for the construction of new buildings or extensive renovations of existing laboratory buildings. However, costs for the construction of experimental research and development facilities to be located within a new or existing building are allowable provided that the equipment or facilities are essential for carrying out the proposed scientific and technical project and are approved by the NIST Grants Officer.
- c. Indirect costs for single-company recipients, which must be absorbed by the company. (Note that with large businesses submitting proposals as single-company proposers, indirect costs absorbed by the large business may be used to meet the cost-sharing requirement.)
- d. Bid and proposal costs, tuition costs, and costs for marketing surveys, commercialization

- studies, and general business planning, unless they are incorporated into a federally approved indirect cost rate. However, a university participating in an ATP project as a subcontractor or as a joint venture partner may charge ATP for tuition remission or other forms of compensation in lieu of wages paid to university students working on ATP projects but only as provided in OMB Circular A-21, Section J.41. In such cases, tuition remission would be considered a cash contribution rather than an in-kind contribution.
- e. For research involving human and/or animal subjects, any costs used to secure Institutional Review Board or Institutional Animal Care and Use Committee approvals before the award or during the award.
- f. Relocation costs, unless they are included in a federally approved indirect cost rate.
- g. Office furniture costs, unless they are included in a federally approved indirect cost rate.
- h. Costs for general purpose office equipment and supplies that are not used exclusively for the research—for example, office computers, printers, copiers, paper, pens, and toner cartridges.
- i. Subcontractor expenses such as those for office supplies and conferences/workshops.
- Patent costs and legal fees, unless they are included in a federally approved indirect cost rate.
- k. Profit, management fees, interest on borrowed funds, or facilities capital cost of money.
- Subcontracts to another part of the same company or to another company with identical or nearly identical ownership. Work proposed by another part of the same company or by another company with identical or nearly identical ownership should be shown as funded through interorganizational transfers

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that do not contain profit. Interorganizational transfers should be broken down in the appropriate budget categories.

3. Can a university employee establish a company and subcontract back to his/her university?

Generally no. This would present a conflict of interest. However, under certain circumstances, for example, if the university's participation is unique and essential to the project, the subcontracting arrangement may be considered. In such a case, the organization/individual with the conflict of interest may not benefit or profit from the subcontract. For more information, see the Codes of Conduct guidance in 15 C.F.R. § 14.42 (http://www.atp.nist.gov/atp/helpful.htm).

4. Can an individual who has a financial or other interest in a company receive a subcontract from that company?

Generally no. See the answer to D.3 above.

5. Will ATP fund research performed outside the United States?

Possibly. Although ATP is not precluded from funding research performed outside the United States, proposals involving significant research outside the United States would likely be less competitive when evaluated against the ATP selection criterion related to how national economic benefits accrue to the United States. Any proposed use of a foreign subcontractor or a foreign-located organization must be justified in the proposal. This justification must include why the work or services cannot be performed equivalently or obtained in the United States.

E. Funding and Cost Sharing

1. How much funding can a company/ organization receive, and is cost sharing required?

a. A **single company** can receive up to a total of \$2 million for R&D activities for up to 3 years. ATP funds may only be used to pay direct costs for single-company recipients. Single-company recipients are responsible for funding all of their indirect/overhead costs. Small- and medium-sized companies applying as single-company proposers are not required to provide cost sharing of direct costs; however, they may pay a portion of the direct costs if they propose to, in addition to all indirect costs throughout the project. If a single company proposes to pay direct costs, it will become a requirement of the award. The company will be responsible for meeting its committed cost share in accordance with its approved budget throughout the award.

Large companies applying as single-company proposers must cost share at least 60 percent of the yearly total project costs (direct plus all of the indirect costs). A *large company* is defined as any business, including any parent company plus related subsidiaries, having annual revenues in excess of \$3.043 billion. (Note that this number will likely be updated annually and will be noted in future annual announcements of availability of funds and revised editions of the *ATP Proposal Preparation Kit.*)

b. A joint venture can receive funds for R&D activities for up to 5 years with no funding limitation other than the announced availability of funds. Joint ventures must cost share more than 50 percent of the yearly total project costs (direct plus indirect costs).

If an award is issued to a joint venture, each joint venture participant will be responsible for meeting its committed cost share in accordance with its approved budget throughout the award. No joint venture participant will be responsible for the cost-share commitment of any other joint venture participant. However, with the agreement of the joint venture participants, along with notification to the NIST Grants Officer, a joint venture participant that has exceeded its cost-share commitment may allow its excess cost share to be applied to the cost-share deficit of another joint venture participant, so that the overall joint venture cost share is met.

2. How does ATP define cost sharing?

Cost sharing is that portion of the project costs not borne by the federal government and includes direct and indirect costs. Sources of revenue to satisfy the required cost share include cash and in-kind contributions. Cash contributions can be from recipient, state, county, city, or other nonfederal sources. In-kind contributions can be made by recipients or nonfederal third parties (excluding subcontractors) and can include, but are not limited to, equipment, research tools, software, and supplies. Except as specified in 15 C.F.R. § 295.25, the value of in-kind contributions shall be determined in accordance with 15 C.F.R. § 14.23. The value of in-kind contributions will be prorated according to the share of total use dedicated to the ATP project. Labor/personnel costs are not in-kind contributions; they are cash contributions. ATP limits the total value of inkind contributions that can be used to satisfy the cost share to 30 percent of the nonfederal share of the total project costs.

Any cost sharing must be in accordance with the "cost sharing or matching" provisions of 15 C.F.R. Part 14, *Uniform Administrative Requirements for Grants and Cooperative Agreements*

With Institutions of Higher Education, Hospitals, Other Non-Profit, and Commercial Organizations (http://www.atp.nist.gov/atp/helpful.htm).

Additionally, as with the federal share, any costs included as cost share must be allowable under the following applicable federal cost principles. These documents may be found at http://www.atp.nist.gov/atp/helpful.htm:

- a. For-profit companies, 48 C.F.R. Part 31.
- b. Universities, OMB Circular A-21.
- c. Nonprofit organizations, OMB Circular A-122.
- d. Hospitals, 45 C.F.R. Part 74, Appendix E.

3. What are direct and indirect costs?

Direct costs are those that are directly related to a specific, single cost objective. Examples include personnel, travel, equipment, subcontractors, and materials and supplies. An indirect cost is any cost not directly identified with a single, final cost objective but identified with two or more final cost objectives or an intermediate cost objective. After direct costs have been determined and charged directly to the project or other work, indirect costs are those remaining to be allocated to the several cost objectives. Because of diverse characteristics and accounting practices of recipient organizations, it is not possible to specify the types of costs that may be classified as indirect costs in all situations. However, typical examples of indirect costs for many organizations include general administration such as salaries and expenses of executive officers, rent, utilities, personnel administration, maintenance, library expenses, and accounting. ATP shall interpret indirect costs in accordance with applicable federal cost principles.

4. I am a small startup company and do not have any indirect costs. If funded, the ATP project would be the only project for my company. Will ATP fund a proposal that only has direct costs?

No. When the assertion is made that a company has no indirect costs, it raises the following concerns:

- a. If a company claims to have no indirect costs, this suggests to ATP that either the company is inexperienced in its fiscal affairs or the company has no intention of carrying on any business other than performing research for the ATP project. On this latter point, ATP will not pay for commercialization activities in which the company may engage at some point to earn revenues.
- b. ATP projects are industry/government, costshared projects. A company proposing to recover 100 percent of the project costs from ATP is not complying with the spirit of the ATP statute because the company has no funds of its own at risk. In addition, if the company is not sharing in the risk of the investment with ATP, it gives the appearance that it is not very committed to moving the technology into the marketplace. Therefore, a proposal claiming no indirect costs is unlikely to receive an ATP award.
- 5. I am a small startup company and expect to cost share direct costs through the use of state or other private investors. If those resources fall through after I receive an ATP award, will I be expected to make up the cost-share gap?

Yes. If a single-company or joint venture proposal is selected for funding, the recipient's percentage of cost sharing will be made a part of the award, and only rarely will NIST reduce it

after the award is issued. NIST cannot violate the ATP statutory cost-sharing requirements.

6. Can Cooperative Research and Development Agreement (CRADA) funds be used as cost sharing? May I count my company CRADA contribution as cost share?

No. Since CRADA funds derive from federal sources, they cannot be used for cost-sharing purposes. In the event that CRADA funds have been awarded in areas closely related to the ATP project, the proposer must make a clear distinction between the two projects. Recovering the proposer's cost share through a CRADA would be contrary to the kind of financial commitment expected of proposers by the ATP statute. In addition, title to any inventions arising from an ATP-funded project must be held by a for-profit company or companies incorporated or organized in the United States. Federal laboratories cannot hold title to inventions from ATP-funded research. This is another reason to keep the projects separate and distinct.

7. Can independent research and development (IR&D) funds be used as cost sharing?

The fundamental expectation for cost sharing is that the proposer's share of the ATP project costs will be funded from nonfederal sources, such as retained earnings or profits, not funds included as an indirect expense that is subsequently allocated for reimbursement under federally funded procurement contracts, grants, and other agreements. Recovering the proposer's cost share as part of its IR&D/General and Administrative (G&A) allocation to other federally funded projects would be contrary to the kind of financial commitment expected of proposers by the ATP statute.

Proposers **MAY NOT** classify the nonfederal share of the ATP project costs as an IR&D expense that is subsequently allocated, either as

a separate cost or as an element of a G&A cost pool, to federally funded procurement contracts, grants, or other agreements.

Proposers MAY allocate to an ATP project IR&D or G&A costs that include IR&D as an element provided that the IR&D/G&A rate applied to the ATP project is a federally approved indirect cost rate.

F. Intellectual Property

1. Who retains title to patentable inventions arising from an ATP-funded project?

Title to any inventions arising from an ATPfunded project must be held by a for-profit company, or companies, incorporated or organized in the United States. A university, government laboratory, independent research organization, or other nonprofit organization cannot retain title to patents, although such organizations can receive mutually agreeable payments (either one-time or continuing) from the company or companies holding title to the patent. However, a for-profit corporation organized by a university can be considered a for-profit company for the purpose of retaining title to patents arising from an ATP award. In such a case, documentation of the for-profit status must be provided in the proposal. If your organization is not a for-profit company but plans to be involved in an ATP project, you will not be able to retain title to any patentable inventions arising from the ATP project. Please make sure your legal department is aware that ATP cannot waive this mandated provision (15 U.S.C. § 278n(d)(11)(A) and 15 C.F.R. § 295.2). Title to any such invention shall not be transferred or passed, except to a company organized in the United States, until the expiration of the first patent obtained in connection with such invention.

2. Does the federal government have any rights to patentable inventions arising from an ATP-funded project?

Yes. The United States reserves a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any patentable invention arising from an ATP award. The federal government shall not, however, in the exercise of such license, publicly disclose proprietary information related to the license. The federal government also has march-in rights in accordance with 37 C.F.R. § 401.14(j). Since its inception in 1990, ATP has not exercised either of these rights.

G. Human and Animal Subjects

1. Will ATP fund projects involving human subjects?

Yes. Research involving human subjects must be in compliance with applicable federal regulations and NIST policies for the protection of human subjects. Human subjects research involves interactions with live human subjects or the use of data, images, tissue, and/or cells/cell lines (including those used for control purposes) from human subjects. Research involving human subjects may include activities such as the use of image and/or audio recordings of people, taking surveys or using survey data, using databases containing personal information, and many tasks beyond those within traditional biomedical research. A Human Subjects Determination Checklist is included in Exhibit 2 to assist you in determining whether your proposal has human subjects involvement, which would require additional documents with the Gate 1 and/or Gate 3 submission(s). Detailed information regarding the use of human subjects in research projects

Questions and Answers About ATP

and required documentation is available at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm, or by calling 1–800–287–3863.

2. We are not a biotech company. Does our research involve human subjects?

It could. For example, manufacturing, electronic, and information technology projects may use human subjects in research that falls within the regulations. The use of human subjects in research is not limited to biologically based studies; there are numerous examples of nonmedical research proposals that may use human subjects or data with personal information about people. For example, a computer software company may propose to have a new web-based curriculum reviewed by a group of volunteers and solicit feedback on such things as usability, design, and content. The use of certain types of volunteers to review the web-based system (or the curriculum in a software format) may constitute the use of human subjects as defined by federal regulations. This type of research may require the submission of certain documents to NIST.

3. Will ATP fund projects involving animal subjects?

Yes. Research involving animal subjects must be in compliance with applicable federal regulations and NIST policies for the protection of animal subjects. Vertebrate animal research involves live animals that are being cared for, euthanized, or

used by the project participants to accomplish research goals or for teaching or testing. The regulations do not apply to animal tissues purchased from commercial processors or tissue banks or to uses of preexisting images of animals (e.g., a wildlife documentary or pictures of animals in newscasts). Detailed information regarding the use of animal subjects in research projects and required documentation can be obtained at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm, or by calling 1–800–287–3863.

H. Award Requirements

1. If my proposal is selected for funding, what terms and conditions must I follow?

For your convenience, the award form for the cooperative agreement and the standard terms and conditions are available at http://www.atp.nist.gov/atp/helpful.htm.

2. How will I receive funds if my proposal is selected for funding?

Award funds are disbursed through electronic funds transfers using the Department of Treasury's Automated Standard Application for Payment (ASAP) system. Detailed information about ASAP is available at http://www.atp.nist.gov/atp/helpful.htm.

Proposal Format and Submission Requirements

NOTE: Proposals that deviate substantially from these guidelines or that omit required information may be found unresponsive and may not be considered for funding.

A. Proposal Format for Submission to Gates 1 and 2

- 1. **Bindings.** Bind all (including signed original) but one copy of the proposal securely. Bindings that permit the proposal to lie flat while being read are preferred. Loose-leaf ring binders or stapled copies are **not** acceptable. If you are submitting proposals electronically, paper copies are not required.
- **2. Double-sided copy.** Print on both sides of the paper (front to back counts as two pages).
- **3. E-mail proposal submissions.** Will **not** be accepted.
- 4. Facsimile (fax) proposal submissions. Will **not** be accepted.
- **5. Font.** Times New Roman or Arial and readable (12-point minimum).
- **6.** Line spacing. Single.
- **7. Margins.** 1 inch top, bottom, left, and right.
- **8. Number of copies.** 16 (1 original, signed, bound proposal plus 15 copies [1 unbound

- and 14 bound]). If the original proposal is in color, all copies must also be in color. If the proposal is submitted electronically, paper copies are not required.
- **9.** Page limit. 24 pages for Gate 1 and 15 pages for Gate 2 for a single company; 35 pages for Gate 1 and 20 pages for Gate 2 for a joint venture. See **Exhibit 1** for more details.
- **10. Page numbering.** Number pages sequentially.
- **11. Paper size.** 21.6 by 27.9 centimeters (8½ by 11 inches).
- 12. Proposal language. English.
- **13. References.** Include a list of bibliographic technical references in Gate 1 and a list of bibliographic references supporting business assertions or data in Gate 2.
- **14. Table of abbreviations.** Include a table that defines abbreviations likely to be unfamiliar to the reader. Common abbreviations, for example, U.S., ATP, DoD, and cm, need not be defined.
- **15**. **Table of contents**. Not required.
- **16. Typed document.** All proposals, including forms, must be typed; handwritten proposals and forms will **not** be accepted.
- 17. Use of metric/system international (SI) units. Use metric/SI units; however, English units may be put in parentheses.

Proposal Format and Submission Requirements

B. Electronic Proposal Submission

During open competitions, ATP encourages proposers to submit proposals electronically over the Internet via ATP's secure Electronic Submission System (ESS) (http://ess.atp.nist.gov). ESS includes all forms necessary for submitting proposals electronically, as described in this *Proposal Preparation Kit*, a downloadable Forms Viewer for filling out the forms and submitting the proposal, and a link to the application for an Access Certificates for Electronic Services (ACES) Digital Certificate.

Proposals submitted through ESS must be digitally signed using an ACES Business Representative Digital Certificate. These certificates can be obtained at no cost to the proposer, but the proposer must allow 7–10 business days between application and issuance of the certificate for identity verification. Once the digital certification is obtained, it is valid for 2 years.

The electronic proposal forms look the same as their paper counterparts. The electronic proposal attachment(s) (e.g., proposal narrative) must be readable in one of the formats described on the ESS website. The guidelines for preparing an ATP proposal are the same, except that displays, graphics, figures, and diagrams must be embedded within the file containing the project narrative. Format requirements (e.g., font, line spacing, margin, page limit, page numbering, and page size), stipulated in Section A of this chapter still apply. The ATP ESS website provides details about how to submit proposals electronically, including the following:

- 1. Steps to submit
- 2. System requirements
- 3. Security of the ESS

- 4. Frequently Asked Questions
- 5. ESS User's Guide

ESS also provides proposer tools needed to submit electronically, including the following:

- 1. Link to the ACES Digital Certificate Application
- 2. Downloadable Forms Viewer
- 3. Downloadable electronic forms

The due date for submission of electronic proposals is stipulated in the competition announcement published in the *Federal Register* and posted on the ATP website (http://www.atp.nist.gov). **Do not wait until the last minute to submit a proposal electronically.**

C. Documentation Requirements for Gates 1 and 2 Proposal, Unless Otherwise Specified

(Forms are included in this *Proposal Preparation Kit* as exhibits and are posted on the ATP website at http://www.atp.nist.gov/atp/helpful.htm.)

1. Single Company Only

- a. Form NIST-1262 (Pages 1 & 2): Single-Company Advanced Technology Program
 Proposal Cover Sheet (see Exhibit 3).

 Page 1 of this form serves as the cover for the proposal; no other cover page should be included.
- Form NIST-1262 (Page 3): Estimated Multi-Year Budget—Single Company (see Exhibit 4).

c. Form NIST-1262 (Page 4): Subcontracts (see Exhibit 5).

2. Joint Venture Only

- a. Form NIST-1263 (Pages 1 & 2): Joint Venture Advanced Technology Program Proposal Cover Sheet (see Exhibit 6).
 Page 1 of this form serves as the cover for the proposal; no other cover page should be included.
- b. Form NIST-1263 (Page 3): Estimated Multi-Year Budget—Joint Venture (see Exhibit 7).
- c. Form NIST-1263 (Page 4): Other Joint Venture Participants (see Exhibit 8).
- d. NIST-1263 (Page 5): Subcontracts (see Exhibit 9).
- e. Joint Venture Agreement (for Gate 3 submission)—A draft Joint Venture Agreement must be submitted before an oral review. The information below is provided in advance to alert joint venture participants of the minimum requirements so that the parties may begin negotiating the Joint Venture Agreement early:
 - (1) Authorization for one of the joint venture participants (a legal entity, not an individual person) to serve as the Joint Venture Administrator to bind all of the other participants to the terms and conditions of the NIST/ATP award and to administer the NIST/ATP award on behalf of all of the participants.
 - (2) Treatment of intellectual property—that is, who will own what, including provisions granting the required licenses to the government.
 - (3) Agreement that the ATP award terms and conditions take priority over those in the Joint Venture Agreement.

- (4) Acknowledgment of the parties of their respective cost-sharing commitment and that no party is responsible for the cost-sharing commitment of any other party.
- (5) Acknowledgment that if a party is removed unilaterally by the NIST Grants Officer, that party is also removed from the Joint Venture Agreement.

Although the draft Joint Venture Agreement need not be signed at the time of an oral review, it must be finalized and signed by all joint venture participants **before an award can be made.** A sample Joint Venture Agreement and Intellectual Property Plan is available on the ATP website (http://www.atp. nist.gov/atp/jvsample.htm). The sample Joint Venture Agreement includes important information; however, it is not meant to be the sole Joint Venture Agreement model. If a joint venture wants to develop its own Joint Venture Agreement, it may do so, provided the minimum provisions mentioned above are included.

Some issues that are most often raised by company legal counsel in negotiating the Joint Venture Agreement include the following:

- (1) Who will hold title to intellectual property?
- (2) How are revenue streams to be divided?
- (3) What indemnification provisions will be acceptable to all parties?
- (4) Who will be the spokesperson for the joint venture?
- (5) Who authorizes licensing agreements?
- (6) Who handles the billing to NIST and brings issues to NIST's attention?
- (7) What will happen during the course of the project if one party drops out and/or another party wishes to join?

Proposal Format and Submission Requirements

- (8) Who will coordinate writing the quarterly reports to be submitted to NIST/ATP?
- (9) Who will track progress against technical milestones to bring issues to the attention of the joint venture and NIST/ATP?
- (10) In what capacity is a government laboratory participating? If as a joint venture partner, is the government laboratory willing to execute the Joint Venture Agreement? (NOTE: If it is not willing to execute the Joint Venture Agreement, the government laboratory may participate as a subcontractor under a separate agreement [e.g., a CRADA] with the Joint Venture Administrator.)
- (11) How will disputes be handled should they arise?
- (12) How will project expenses be reported by joint venture participants to the Joint Venture Administrator for reporting to NIST?
- (13) Will the joint venture participants be required/need to share commercialization strategies? At what level of detail to succeed?

Before investing a large effort in planning technical work for a joint venture, companies are urged to obtain a legal review of the sample Joint Venture Agreement by all participants. If it appears likely that reaching an agreement to the provisions contained in the sample Joint Venture Agreement and Intellectual Property Plan will be contentious, ATP urges you to carefully consider whether the joint venture is feasible. If there are questions, your legal staff may contact the Office of the NIST Counsel at 301–975–2803.

ATP strongly recommends that the person who signs the proposal submission be someone at a high enough level in the company to be able to deal effectively with the kinds of legal and policy concerns that are necessary to execute

a successful Joint Venture Agreement. It is often helpful if this same individual signs the Joint Venture Agreement on behalf of the lead company if the project is selected for funding. This individual must coordinate with top management within his/her own company and participating companies/organizations about their commitment and proposed cost-share contribution to the proposed project.

3. Both Single Company and Joint Venture

a. Budget Narrative (see Exhibit 10) (for Gate 2 submission). The Budget Narrative is used by technical, business, and grants staff to determine reasonableness and allowability of costs in an ATP proposal. Proposed costs must be reasonable, allocable, and allowable in accordance with applicable federal cost principles and ATP guidelines.

ATP recognizes that unexpected events may occur in R&D projects and that budgets may need to be changed as a project proceeds. Providing a multi-year budget beyond the first year will not lock the proposal into those details. ATP allows a certain amount of flexibility in moving funds from one line item to another as circumstances change. In stating an amount for a given task, you will not be required to spend precisely that amount on that task. For example, if, in the second or third year of your project, you find that you need to spend more on one task and less on another than anticipated, that can be accommodated as long as you obtain the required prior approval from the NIST Grants Officer. A task that proves unnecessary can be deleted and a new task can be defined if there is adequate justification that such changes will enhance the chances of accomplishing the objectives of the project and the spirit of the original proposal objective is maintained.

Recognizing that change is inevitable, recipients may be requested to submit a revised budget prior to the beginning of each year of a multi-year project. However, the total amount provided by ATP for the project cannot be increased. You will **not** be reimbursed for project overruns. Overestimating or underestimating project costs should be avoided. The dollar amount requested must be commensurate with the defined tasks, as ATP will evaluate for cost reasonableness.

- b. Foreign-Owned Company Questionnaire (see Exhibit 11) (for Gate 2 submission), if the recipient, including any joint venture participant, is foreign owned.
- c. R&D Work Performed Outside the United States by the Recipient or Subcontractor Questionnaire (see Exhibit 12) (for Gate 1 submission), if the recipient, including any joint venture participant, or subcontractor will perform work outside the United States.

CHAPTER III

Guidelines for Preparing Project Narrative

A. Gate 1 Project Narrative Content

Executive Summary (no more than two pages)

A one- or two-page Executive Summary briefly highlighting the major sections of the Project Narrative must be submitted at the time of the initial proposal submission (Gate 1). This Executive Summary is not included in the page count for the proposal. The Executive Summary should address the ATP selection criteria as follows:

- a. Scientific and Technological Merit
 - (1) Technical Innovation
 - (2) High Technical Risk With Evidence of Scientific Feasibility
 - (3) Detailed Technical Plan
- b. Potential for Broad-Based Economic Benefits
 - (1) National Economic Benefits
 - (2) Need for ATP Funding
 - (3) Pathway to Economic Benefits

In the Executive Summary, explicitly link the technical objectives, the eventual planned commercial application of the technology, and the expected economic benefits so that the path from the technical objectives to the benefits is clear.

Scientific and Technological Merit Project Narrative (no more than 20 pages for a single company and no more than 30 pages for a joint venture)

The Project Narrative includes the detailed information that must be provided with the Gate 1 proposal to address the scientific and technological merit selection criterion. The scientific and technological merit portion of the Project Narrative may not exceed 20 pages for a single company and 30 pages for a joint venture, out of the total page count of 24 and 35 pages, respectively (4 pages out of the 24-page limit for the single-company proposal and 5 pages out of the 35-page limit for the joint venture are to be used to address the preliminary information in response to the potential for broad-based economic benefits selection criterion). The Gate 1 submission should also include a list of bibliographic technical references. This list is not included in the page limit.

The scientific and technological merit selection criterion includes the innovations in the technical development, technical risk with evidence of scientific feasibility, and the quality of the detailed technical plan. All three items must be addressed successfully for a proposal to pass Gate 1. The proposal must clearly state or clearly describe how the proposed technology and/or the technical approach are highly innovative. The proposal must also clearly state or clearly describe how the research is challenging, with high technical risk, and what the sound scientific rationale

Guidelines for Preparing Project Narrative

is for the proposed approach to overcome these risks. The research must be aimed at overcoming an important problem(s) or exploiting a promising opportunity. The research must have strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technical knowledge base. The project team must be qualified to conduct the R&D and must have access to the necessary research facilities.

The following is a detailed discussion of the key information needed in the Project Narrative for assessing the quality of the proposal against this selection criterion. While the format below is not required, to be competitive a proposal must address all of these key points. ATP reviewers are technically knowledgeable about the topics discussed in the proposal; however, the reviewers will only have what is written in the proposal to evaluate the project against the ATP criteria.

Proposals must include significant proprietary information to be competitive. ATP takes protection of that proprietary information very seriously. ATP screens reviewers for conflicts of interest and requires reviewers to sign nondisclosure agreements. In addition, proposals are securely stored and tracked to further ensure that the proprietary nature of the proposal is protected.

Following the Executive Summary, to start the Gate 1 narrative portion, it is good practice to include an introduction describing the overall problem and why others have not solved it. This overview can describe the technical problem faced by industry and the context for the innovation and/or the technical barriers that limit economic growth in the industry and prevent the problem from being solved.

Diagrams, flowcharts, and tabulated summaries are good tools to help communicate the innovation, risk, and technical plan for the proposed project. All diagrams, flowcharts, pictures, tables, and other illustrations **are** included in the page count.

NOTE: ATP does not pay for product development. Product development includes incremental or routine enhancement of existing products or processes. Product development also includes straightforward applications of existing technology or technologies in new prototypes or products.

The following information is necessary for evaluation against the criterion:

Scientific and Technological Merit Criterion: **Technical Innovation**—The proposal must convince expert reviewers that the project involves a high level of technical innovation. ATP defines innovation as providing a unique approach to developing new-to-the-world prototypes of products or processes. The proposed innovation may relate to the objectives of the research or to the approach to achieving those objectives, or both; innovation may be in what is to be accomplished as well as in how it will be accomplished. The innovative approach can be completely novel or a novel integration of existing or new technologies. ATP looks for technical innovation that is revolutionary, not an incremental or evolutionary next step for existing technology. This innovation should be disruptive (revolutionary) with respect to the state of the art.

- **Technical Barriers**—Describe the technical barriers that prevent technical improvement in industry in this area.
- Proposed Solution/Technical Objectives—
 Describe the proposed solution to the identified problem and describe why it is innovative. For projects involving the development of a prototype, provide schematics of the envisioned system, system diagrams, or system architecture as appropriate. Make clear how the proposed innovative solution will overcome the technical barriers.
- **Technical Targets**—Identify the measurable success criteria for the proposed technology development efforts. Provide quantifiable measures. These measures should be explained.
- **Key Factors Chart**—Summarize in a table the key technical factors (or variables) associated with the approach, the proposed quantitative

Table 1: Key Factors (Example)

Key Factors	Proposed Technical Targets	Requirement for Commercial Success	Current Practice	Associated Technical Barriers	Innovative Technical Approaches		
Oxygen permeability of carbon nanotubes	10 ⁻⁵ mL per m ² day at 25 o ^c , 1 atm, & 90% RH	10 ⁻² mL per m ² day at 25 o ^c , 1 atm & 90% RH	10 ⁻¹ mL per m ² day at 25 o ^c , 1 atm, & 90% RH	Loss of oxygen barrier properties at high humidity	New composite materials		
Percent of speech recognized	99.9%	99%	70%	Range of accents	New approach to recognizing inflection		
Noninvasive glucose sensor	50% improvement in accuracy and precision over current method metrics	25% improvement in accuracy and precision over current methods	Invasive in vivo methods	Calibration and reliability	Noninvasive in vivo device		

targets for those factors, the minimum requirements for commercial success for those factors, current practice, associated technical barriers to reaching the targets, and the innovative approach (see Table 1).

■ **Technical Competitors**—Discuss why the proposed solution has not previously been attempted or accomplished. Show how the proposed solution is particularly innovative relative to alternative approaches being pursued by foreign and domestic competitors or elsewhere within the proposing team's organization(s). Cite relevant patents and the open literature to support this discussion. Ignoring state-of-the-art knowledge and ongoing work by others and within the proposing team's organization(s) may lead reviewers to assume that the proposer is not aware of existing work. Identifying existing efforts helps to ensure that the proposed work does not duplicate these efforts. Discuss the expected state of the proposed technology at the end of the ATP project relative to competitors' expected capabilities at that time, if the project is successful.

Impact on the U.S. Knowledge Base/ Technical Leverage—Successfully accomplishing the proposed research and surmounting technical challenges should result in a dramatic change in the future direction of the technology. This "path change" should be a major leap forward, advancing the state of the art. Summarize the impact, or technical leverage, of successfully accomplishing the proposed research and overcoming the high technical risks. Technical leverage is the possibility of using the research results beyond the initial applications proposed. Describe the potential usefulness and benefits of partial results or knowledge gained from a project even if it is not completely successful.

Scientific and Technological Merit Criterion: High Technical Risk With Evidence of Scientific Feasibility—Successful proposals must effectively balance high technical risk with evidence of scientific and/or engineering feasibility for overcoming that risk. ATP funds projects that seek to overcome extremely difficult technical challenges that make success uncertain. Many proposals are

Guidelines for Preparing Project Narrative

not competitive because the proposal does not discuss the specific technical risks embodied in the proposed research in sufficient detail or the proposal cites only routine risks common to all technology development efforts in a field.

- Technical Risk—Describe the technical challenges and assess the probability of success of the project approach(es). Characterize the major technical tasks, including those performed by subcontractors, with respect to technical risk. Identify and analyze the high-risk tasks. Risk may be high in the development of one or more single innovations, the integration of disparate technologies, or both. Surmounting the technical challenges should result in a dramatic change in the future direction of the technology. The technical risks cited should be recognizable and credible to experts in the field. Note that ATP does not consider market-place acceptance to be a technical risk.
- Feasibility—Demonstrate that the technical approach is feasible by documenting that there is a sound scientific and/or engineering foundation or rationale for the proposed approach. This foundation comes from early research evidence such as a proof of concept, experimentation, or sound theoretical thinking. Cite relevant patents, the open literature, and experimental results as appropriate to support the discussion. ATP does not fund projects that are predominantly basic discovery science. In addition, ATP does not fund projects that violate sound scientific principles (e.g., the second law of thermodynamics).

Scientific and Technological Merit Criterion:

Detailed Technical Plan—The technical plan
must explain how the technical objectives will be
reached. It should address all the anticipated technical problems and describe how these problems
will be handled. ATP has only the written technical plan to evaluate how the proposed results
will be achieved. Many proposals are not competitive because, although the meritorious technical
goals are emphasized, the proposal provides only
a vague plan on how to reach those goals. It is
not adequate merely to describe the established

technical barriers and provide only an overview of the research path using standard scientific or engineering methods. ATP requires a more detailed technical plan to evaluate how the goals will be met. The project proposal will provide the basis for project management should an award be issued. For a proposal to be competitive, ATP must be able to track the project from initial idea to the end of the project results. A detailed technical plan is, therefore, critical for effective project management and good communications between the ATP Project Manager and the project Principal Investigator.

- **Technical Approach**—For a proposal to be competitive, the elements of the technical plan must fit together in a reasonable way to instill confidence that the proposing team can implement the proposed approach. The following plan elements are needed:
 - ☐ Multi-Disciplinary Knowledge—Most projects require a multi-disciplinary approach to overcome technical barriers. Discuss how the cross-disciplinary knowledge and capabilities required for the project's success will be available when needed. Describe how the views and constraints of suppliers, considerations of manufacturability, requirements of customers, regulatory concerns, safety issues, environmental impacts, and so forth will be taken into account in the technical plan. Describe how the necessary scientific, engineering, and business knowledge will be available when needed.
 - □ Tasks and Subtasks—Discuss how the work will be organized into tasks and subtasks. Provide clear descriptions. Include tasks and subtasks performed by subcontractors and clearly identify these subcontractors if known at the time of proposal submission. If the subcontractor is not known, provide the qualifications needed to perform the proposed subcontract work. Explain the technical rationale for the major tasks. Clearly link tasks to the budget and to the subcontracts (where

appropriate). Highlight major risks and innovations inherent in specific tasks and the strategies for managing unexpected results.

- ☐ Interrelationship of Tasks—Discuss how the tasks link to one another, which tasks depend on others, which tasks are sequential, and which tasks would be done in parallel.
- ☐ Metrics—Provide clear metrics for measuring the project's progress toward the overall technical goals. These metrics should be quantitative and objective and should relate to the project's technical objectives, targets, and success criteria.
- ☐ Milestones—Provide appropriate interim and final milestones for each year of the technical plan and tie these to the metrics. Milestones are critical for tracking progress made in the project. Include a discussion of the testing strategy for critical milestones. An example showing the linkage between milestones, metrics, and timing is provided in Table 2.
- □ Contingency Plans/Alternate
 Approaches—If appropriate, discuss
 any contingency plans or alternative technical approaches for carrying out key
 portions of the technical work. Tie these
 approaches to the decision-point strategy
 that follows. Highlight the level of risk and
 innovation inherent in the alternatives and

compare them to the preferred approach. ATP may not accept alternatives that significantly change the technical risk or level of innovation.

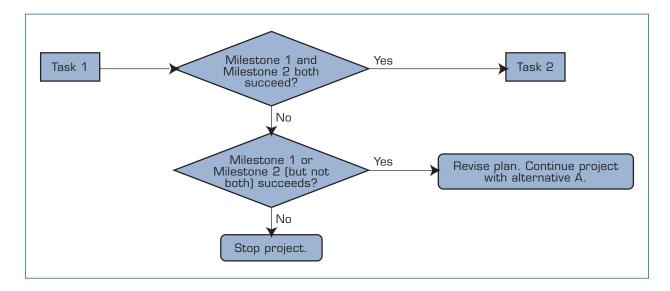
Decision-Point Strategy—Provide gono-go decision points for the project. These can be discussed in specific tasks or separately relative to several tasks. Decision points describe conditions, in terms of milestones and metrics, that define when it is clear that a project or line of research has succeeded or failed. For example, the technical barrier identified as a risk was overcome or could not be overcome using the proposed approach. A decision point could involve a decision to use an alternative approach or to stop the project. Projects that pursue more than one technical approach in parallel must discuss how the decision to select among those approaches will be made and when it will be made in the decisionpoint strategy. A good decision-point strategy identifies the first go/no-go decision points within the first year of a project. Risks, milestones, metrics, and decision points must be linked in the decision-point strategy. A decision-point tree or critical-path chart may be very helpful to communicate this information. One example of a decision-point strategy is given on page 26. There are many other ways to effectively portray the information.

Table 2: Key Milestone (Example)

Milestone	Timing	Metric	Minimum Value for Successful Result	Test Method	Decision
Handwriting recognition	End year 1	Percent of written input recognized	80%	Use of dataset: NIST hand- printed forms and characters	Continue with approach or switch to alternative

Guidelines for Preparing Project Narrative

Decision-Point Strategy (Example)



- ☐ Gantt Chart—Include a Gantt chart showing tasks, subtasks, timing by quarter year, performers, and milestones. Performers are key personnel leading tasks and subtasks, and can be subcontractors, joint venture partners, or other team members. Indicate who will lead which task (see Table 3). In addition to the Gantt chart, the project tasks must be described in narrative form. It must be clear how the goals of the project will be achieved by those tasks.
- Provide information about the key technical team members. Describe the quality and appropriateness of the technical staff assigned to the project, and the amount of time each individual will allocate to the project. Briefly highlight the education and experience of key personnel, including subcontractors. If a project proceeds to Gate 3, ATP may request two-page resumes or curriculum vitae (CV) from each key team member. If key staff will be hired, describe the qualifications needed for key positions not yet filled and the time-line for hiring these staff.
- Adequacy of Facilities, Equipment, and Resources—Discuss the research facilities and specialized equipment required. Identify what facilities, equipment, and resources already exist for use; what will be obtained through subcontracting; and what is needed even though sources are not yet identified. Provide the timeline for obtaining needed facilities, equipment, and resources.
- **Subcontracts**—Many projects include subcontracts to obtain key expertise, access to existing facilities, or specialized goods and services. Discuss what each subcontractor brings to the project. Clearly identify what each subcontractor will do and why that subcontractor was chosen. Discuss the relationship of the work to be done by the subcontractor to the technical plan. Discuss how subcontractor progress will be monitored and redirected as appropriate. Subcontracts can be used for carrying out research tasks or for the purchase of customized goods and services necessary for project participants to carry out their research tasks. ATP expects, however, that the proposer will direct and carry out key high-risk tasks. Projects with a significant portion of the work allocated to a subcontractor

Table 3: Gantt Chart (Example)

Tasks	Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10	Q 11	Q 12	Performers	Major Milestone and Metric
1.0 Task													Smith	
1.1 Subtask		M1											Subcontractor A	M1: Measure X must be greater than Y
1.2 Subtask			M2										Jones	M2: Material property P must be at least Z
1.3 Subtask				M3									Ahmed	M3: Test specific feature using described test plan
1.4 Subtask					M4								Wang	M4: Performance metric must exceed threshold
2.0 Task													Wilson	
2.1 Subtask					M5								Todd	M5: Component must be assembled
2.2 Subtask					M6								Jones	M6: Component must be assembled
2.3 Subtask							M7						Taylor	M7: Complete initial prototype
3.0 Task													Wang	
3.1 Subtask										M8			Ahmed	M8: Test system on specified dataset
3.2 Subtask												M9	Subcontractor B	M9: Complete final test scenario

Guidelines for Preparing Project Narrative

may appear to be a "pass through" of funds from the proposer to subcontractors (who are not permitted to cost share) and will likely not be competitive. In system integration projects, the proposer should make clear how the proposer is involved in integrating the technologies and taking the system forward. This section should address how intellectual property issues will be handled to assure the reviewers that the proposer will be able to commercialize the system. Subcontractors can be other companies, universities, national laboratories, nonprofit organizations, or consultants. In the discussion, state the type of institution and work involved for each subcontract.

R&D Activities at Non-U.S. Sites—ATP strongly discourages use of non-U.S. sites for research and development activities. In the event that the project includes work performed at a non-U.S. site, the proposer will need to provide Exhibit 12, R&D Work Performed Outside the United States by the Recipient or Subcontractor Questionnaire. If a portion of the project can only be carried out at a non-U.S. site because of the site's unique capabilities, explain the technical work to be done, the relationship of this work to the overall project, the cost of this work, and the unique capabilities associated with the non-U.S. site. Explain why equivalent work cannot be performed within the United States.

Potential for Broad-Based Economic Benefits— Preliminary Information (no more than four pages for a single company and no more than five pages for a joint venture)

The Gate 1 submission must fully address the scientific and technological merit selection criterion to satisfy the Gate 1 evaluation process. In addition, the Gate 1 submission must provide preliminary information addressing the potential for broad-based economic benefits criterion. Single companies are limited to four pages and joint ventures are limited to five pages for this additional information.

If ATP determines that the Gate 1 proposal has high scientific and technological merit, the proposal will advance to Gate 2. ATP will notify the proposer and ask for more detailed information to address the potential for broad-based economic benefits criterion within a prescribed time frame. Since the turnaround time is limited for the Gate 2 submission, ATP strongly encourages proposers to begin preparing this information early to ensure that sufficient time is allocated to finalize it and obtain required approval(s) within the proposing organization(s).

The proposal must clearly link the project's technical targets, commercial pathway, and economic benefits.

The Gate 1 submission should provide a brief overview of the following information required to address the potential for broad-based economic benefits criterion:

Potential for Broad-Based Economic Benefits: National Economic Benefits

- Explain the business opportunity and identify the future users of the technology.
- Describe the economic significance of the project.
- Describe any additional benefits such as the following: quality-of-life benefits, environmental benefits, health benefits, improved security, or energy savings.
- Quantify the magnitude of the improvement over current technology. Discuss how successful commercialization will benefit the proposing company, customers, competitors, industry, and others.

Potential for Broad-Based Economic Benefits: Need for ATP Funding

■ Describe the efforts that have been made to obtain funding for this project from other

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sources (e.g., internal, private, or other federal agencies) and the results of those efforts.

Describe how ATP funding would change the scope, scale, and/or timing of the research effort.

Potential for Broad-Based Economic Benefits: Pathway to Economic Benefits

- Describe the initial planned product incorporating the technology and the commercialization plan for bringing the technology into the marketplace.
- Describe how the proposing organization(s) will ensure that the technology will be broadly diffused.
- Explain the planned organizational structure for the project.
- Describe the experience and qualifications of the business staff who will work toward achieving the commercialization goals. Note that salaries for the project's business staff cannot be part of the project budget, as ATP cannot fund business development, commercialization, or product development.

B. Gate 2 Project Narrative Content

Potential for Broad-Based Economic Benefits

(no more than 15 pages for a single company and no more than 20 pages for a joint venture)

The Gate 1 proposal addressed the scientific and technological merit selection criterion to demonstrate the quality of the proposed research. The Gate 2 proposal addresses the potential for the broad-based economic benefits selection criterion to demonstrate the benefit for the nation beyond the returns to the proposer.

Detailed information must be provided with the Gate 2 submission to address this selection criterion. The detailed information to address the criterion must not exceed 15 pages for a single-company project and 20 pages for a joint venture project. In addition, the Gate 2 submission should also include letters of support, letters of commitment, and letters of nonfinancial support as appropriate. (This information is not included in the page count.) The Gate 2 submission should also include a list of bibliographic references supporting business assertions or data. This list is not counted in the page limit.

The mission of ATP is to fund research projects with strong potential for delivering large economic benefits for the nation, beyond the returns to the proposer. While ATP funds cannot be used for product development or for other commercialization activities, proposals must provide a commercialization plan to show how the research will lead to economic growth. ATP determines the potential for broad-based economic benefits by assessing the proposal's information about the potential national economic benefits, the project's need for ATP funding, and the proposed pathway to achieving the economic benefits.

The proposal must make a convincing case that large national economic benefits will result from successful deployment of the technology, including benefits to the proposer and, more important, benefits to other organizations, users, industries, and the general public. The proposal must also provide evidence that the project needs ATP funding and that without ATP funding these benefits would not occur in the same scale, scope, or timing. In addition, the proposal must identify a commercialization pathway that will use existing markets or develop new markets to achieve the economic benefits. The plans for commercialization and diffusion of the technology provide the critical link between the technical plan and the large economic benefits for the nation that would be enabled by the proposed project.

Guidelines for Preparing Project Narrative

The following key information is needed in the Gate 2 submission to assess the project against the potential for the broad-based economic benefits selection criterion. Although ATP business reviewers are experts familiar with related technologies and industries, the reviewers will only have what is written in the proposal to evaluate the project. Competitive proposals must include significant proprietary information. ATP takes protection of that proprietary information very seriously. ATP screens reviewers for conflicts of interest and requires reviewers to sign nondisclosure agreements. In addition, proposals are securely stored and tracked to further ensure that the proprietary information is protected.

Potential for Broad-Based Economic Benefits Criterion: National Economic Benefits—ATP seeks to fund broadly enabling technologies that are path-breaking in opening up possibilities for new markets and new industries, infrastructural in addressing industrywide problems, or multi-use in having applications across a number of industries. It is important that the proposal show how the proposed technology fits one or more of these categories. A strong case for government use of taxpayer funds for the proposed research must be made by demonstrating large benefits for the nation beyond those received by the proposing organization(s).

- Business Opportunity—Explain the business opportunity for the technology and how the technology addresses a problem of economic importance to the nation (e.g., why the technology will remove some major impasse that has been plaguing an industry).
- Markets for the Technology—Discuss the users of the technology, the expected size of the markets for the technology in the immediate future and the more distant future, and the growth trends for those markets. When describing market sizes, be sure to discuss the market for this technology specifically, not

just the size of the industry or broader product markets. For technologies that could enable new industries and new markets, discuss the expected timeline and growth of these emerging markets and industries and what initial markets might exist. The federal government should not be the primary, or only, buyer of the technology but could be one customer or user.

- Source of Benefits—Show how the proposing company or joint venture will benefit from the proposed technology. Show how others, including potential customers, competitors, suppliers, and the general public, will benefit. Describe any performance and quality gains and cost savings to the proposing company or joint venture and to others. Describe any health, safety, or environmental benefits. Describe any potential for synergies with what others are doing or with market directions.
- Magnitude of Impact—Quantify the magnitude of the advantage enabled by this project in terms of its economic and business benefit. For example, benefits could be lower cost per unit to manufacture, improved fuel efficiency, or reduced time to produce software. Document societal and quality-of-life benefits and quantify these, if possible. For example, a new treatment for a disease can save costs through shorter hospital stays and quicker returns to work, but it can also provide quality-of-life benefits in less painful side effects than other treatments. Be as quantitative as possible.

Be clear in the discussion about the marginal difference, or "added value," that ATP funding makes in realizing the economic benefits of the proposed project. In general, ATP cares about the specific competitive advantage of the technology and the spectrum and number of users who will benefit in addition to well-supported projections of impact.

Potential for Broad-Based Economic Benefits Criterion: Need for ATP Funding—Explain why the project needs taxpayer funds and why full

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private funding is not available. Tax dollars are used for the benefit of the nation and only secondarily for the benefit of the individual company. An overview of this section should be provided in item 15 of Form NIST-1262 or Form NIST-1263 accompanying the proposal. Be sure that the answer provided in item 15 is consistent with the discussion in the Gate 2 proposal (but do not just duplicate the information given in item 15). Include at the end of the proposal any letters corroborating the proposer's efforts to secure other funding.

- Private Sources—Document past efforts to secure private funding. Describe attempts to obtain external private funding (e.g., venture capital, angel investment). Describe the decisionmaking process and priorities for allocating internal research funds. Provide the reason those efforts were not successful.
- Government Sources—Describe any other government agencies that are funding this area of technology, if known. Describe any past or current submissions to other federal agencies and the outcome or current status of those submissions. Discuss why other government sources are not available and/or why other federal funding was not sought for this project.
- Industry Partners—Describe any efforts made to seek full or partial funding from industry partners. Be specific in the response including specific companies that were approached and the reasons for their rejection. If industry partners were not sought, explain why.
- Difference in the Project Due to ATP Funding—Describe the difference ATP funding will make to the proposed research. Be specific in terms of scale, scope, and timing of the project.
- Difference in the Economic Benefits Due to ATP Funding—Describe how the difference in the proposed research discussed above would impact projected economic benefits. This discussion should not repeat information

provided in the economic benefits section but should give supporting information as to how the changes in the research discussed above will impact the benefits stream. For example, delaying the research results could cause the project to miss a market window, or reducing the scope of the project could eliminate significant features of the technology, thereby reducing its benefit to customers.

Potential for Broad-Based Economic Benefits Criterion: Pathway to Economic Benefits—ATP expects the proposing organizations to take the lead in commercializing the technology. The proposal needs to provide a credible, complete pathway to the benefits described and must detail how the technology will be put into use.

■ Commercialization Plan—Discuss how the technology will enter the market. ATP anticipates that the pathway to economic benefits will generally begin by entry of new/improved products, processes, and services into the marketplace. Whether a large or small company, the proposer must address commercialization, including the plan to achieve market success. For successful proposals, commercialization is planned at the outset, and business staff are involved at the proposal writing stage. For large companies, indicating that the technology will be passed to an internal sales and marketing division or providing a generic plan is not enough. The proposal must document the specific plan to commercialize the technology successfully. For small companies, include plans to build the necessary business infrastructure and alliances to be successful. Understand that a fantastic technology may capture the imagination but not necessarily the market. History has many examples of great technology losing out to an inferior competitor because of marketing failure. Pathbreaking technologies may, in the long run, lead to the development of new markets and industries; however, the proposer will need to survive in the short run to achieve this longterm vision. Be sure to discuss both long-term

Guidelines for Preparing Project Narrative

market development and more immediate markets that will help bring in revenues to sustain and grow the company.

- □ **Strategic Vision**—Describe the company's strategic vision. Indicate where the company plans to be in 5 years. The commercialization plan should fit the company and its expected resources.
- **Products and Market**—Demonstrate an understanding of the market opportunity. Identify the planned initial products, processes, or services and how these incorporate the technology. Provide the business advantage of the proposed technical approach over other competitors. Discuss potential competitors, the key drivers and players for this market, and what technology they bring to the problem. Assess strengths, weaknesses, and opportunities from a competitive standpoint. Describe company strengths for capitalizing on the advantages of the proposed new technology and overcoming challenges in confronting the current ways of doing things.
- □ Window of Opportunity—Identify the window of opportunity for the planned product. Identify when the planned product will enter the market. Indicate how long a competitive advantage can be maintained as a result of successfully developing the proposed technology. Explain to what extent this is a leap beyond what competitors will have.
- □ Strategy for Bringing the Product to
 Market—Describe the company's strategy
 for bringing the product into the market.
 Be as specific as possible. Some examples
 might be licensing to pharmaceutical
 companies, direct sales, or contract
 manufacturing.
- ☐ Strategic Alliances and Early Adopters— Discuss the role of strategic alliances and

marketing arrangements in the commercialization plan. Identify the types of partners needed for commercializing the product. If any of these partnerships are already in place, provide letters of support for the new technology at the end of the Gate 2 proposal. For partnerships that are not yet in place, identify specific needs and the timing necessary for those arrangements for the commercialization to be successful. Identify potential partners, if known.

- □ **Pricing and Sales**—Describe the pricing strategy for the planned product and the rationale for choosing that strategy. Indicate the magnitude of sales anticipated and the timing of those sales.
- Investment Strategy—Indicate what investment will be needed to commercialize the technology and from where that investment will come.

ATP recognizes that the inability to achieve full technical success, as well as unanticipated developments in fast-moving markets, can change opportunities and alter plans. Discuss the possibility of adjustments to the commercialization plan in response to different or changing conditions. Some path-breaking technologies have the potential to lead to the development of new markets and industries. Companies commercializing these technologies have the added challenge of describing how they will foster the growth of these new markets and industries.

Intellectual Property Protection and Broader Diffusion—Describe how the research results and contributions to the U.S. technology base will diffuse beyond the proposing organization while maintaining ownership of core knowledge needed to commercialize the project's technical results. Discuss the planned use of patents, copyrights, trade secrets, and any other forms of intellectual property protection. Discuss any planned strategy for publishing or

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disseminating the technical results. Describe licensing strategies outside the core application areas discussed in the commercialization plan. ATP is interested in these indirect paths as well as the paths to direct customers because they often expand opportunities for intra- as well as interindustry diffusion. ATP encourages the protection of proprietary information to maintain incentives for the commercialization of the technology. ATP also expects that the proposing organization will take specific steps to diffuse the new technology broadly.

- Company Commitment—Describe the company's commitment to the ATP project. This commitment includes the resources to be brought to the ATP project: financial, time commitment of key people in the organization, equipment, and dedicated facilities. Commitment can also be demonstrated in the priority this project is given relative to other company activities. Describe the relationship of this project to the company's strategic vision and direction. Provide evidence of commitment from senior management to the project. For single-company projects, a letter of commitment from an authorized senior executive of the company should be included in the letters of support at the end of the Gate 2 proposal. For joint ventures, letters of commitment verifying the availability of costsharing funds must be submitted from all participants in the joint venture. If there are commitments from regional, state, or local agencies or private sources of capital to contribute cost-sharing funds, indicate the nature of those arrangements and give evidence of the commitment. NOTE: Subcontractors may not provide cost share.
- Organizational Structure and Project Management—Provide evidence of a solid organizational structure that makes sense for the company, project, and management plan. The role of each partner in a joint venture and each subcontractor on the project should be clear. Indicate the reporting relationships and

responsibilities for technical and commercialization activities. Identify known weaknesses in organizational structure and how they will be overcome. Planning a complex joint venture or a single-company project will likely involve collaborative activities and relationships with other organizations.

- Business Experience and Qualifications— Describe the business staff who will be working on the commercialization activities for the technology. While ATP funds cannot be used for product development and other commercial activities, ATP funding decisions are based in part on a consideration of the opportunities for commercial success. Indicate the amount of time each individual on the business staff will allocate to the project; however, time spent on commercialization activities may not be included in the budget. Briefly highlight the education and experience of key staff. Discuss relevant past commercialization performance of the company and/or key staff and describe other unique capabilities and experience. If the proposal proceeds to Gate 3, the proposer may be asked to supply two-page resumes or CVs for the key business staff.
- Organizational Information—ATP needs to know about the current status of the companies involved in a project it might fund. Provide information about how the proposing organization(s) is organized, financial information, past experience, and related government work. Should the proposal proceed to Gate 3, more information will be required.
 - □ Date and State of Incorporation—
 Provide the date of incorporation and the state in which the company is incorporated. For startup companies, this could be information for the planned incorporation.
 - □ Previous Federal Awards—Provide a list of all previous federal R&D contracts, grants, and other awards for the previous 5 years and all pending federal awards. For example, provide a list of the Small

Guidelines for Preparing Project Narrative

- Business Innovative Research (SBIR) grants received for the previous 5 years. Include the name of the project, the funding agency/organization, the principal investigator, and the federal government contact's name and phone number.
- □ Source of Cost Share—Describe how the company will obtain the necessary funds to meet the direct cost match, if any, and/or the indirect costs listed in the project budget. Remember that once a cost-share rate is proposed, it cannot be decreased.
- ☐ Financial, Employment, and Ownership Information—Provide information about the financial status, current employees, and ownership of the proposing single company or for each member of a proposed joint venture. See Table 4 for the required format. If the proposal is selected as a semifinalist, the proposing single company or, for a joint venture, each joint venture member will be asked to provide financial statements if it is not a public company. Public companies will be asked for copies of their most recent 10-K or annual report.

Table 4: Financial, Employment, and Ownership Information for the Previous 3 Years

Financial Informa	Financial Information				
Income	Current Year – 1	Current Year – 2	Current Year – 3		
Contract R&D					
Product sales					
Other					
Total income					
Expenditures					
Cost of goods sold					
R&D					
General and administrative					
Total expenditures					
Gross income before taxes					
Net income after taxes					



Table 4 (continued)

Balance Sheet			
Assets	Current Year – 1	Current Year – 2	Current Year – 3
Current assets			
Fixed assets			
Total assets			
Liabilities			
Current liabilities			
Long-term liabilities			
Stockholders equity			
Total liabilities			

Employment Information					
	Number of Employees				
	Current Year – 1	Current Year – 2	Current Year – 3		
Full time					
Part time					
Full time R&D					
Part time R&D					

Ownership Structure (for private companies)				
	Percent (Current)	For private companies less than 3 years old	Capitalization (Current)	
Founders		Venture capital	\$	
Directors		Angel investors	\$	
Employees		Individuals	\$	
Investors		Other (e.g., state)	\$	
Individuals		Self-funded (officers/directors)	\$	
ESOP				

EXHIBITS

The required forms and other proposal-related documents follow this page. All of the forms and documents are available on the ATP website at http://www.atp.nist.gov/atp/helpful.htm.

- 1. Checklist/Reminders for Submission of an ATP Proposal
- 2. Human Subjects Determination Checklist
- 3. Form NIST-1262 (Pages 1 & 2): Single-Company Advanced Technology Program (ATP) Proposal Cover Sheet
- 4. Form NIST-1262 (Page 3): Estimated Multi-Year Budget—Single Company
- 5. Form NIST-1262 (Page 4): Subcontracts
- 6. Form NIST-1263 (Pages 1 & 2): Joint Venture Advanced Technology Program (ATP) Proposal Cover Sheet
- 7. Form NIST-1263 (Page 3): Estimated Multi-Year Budget—Joint Venture
- 8. Form NIST-1263 (Page 4): Other Joint Venture Participants
- 9. Form NIST-1263 (Page 5): Subcontracts
- 10. Budget Narrative
- 11. Foreign-Owned Company Questionnaire
- 12. R&D Work Performed Outside the United States by the Recipient or Subcontractor Questionnaire

CHECKLIST/REMINDERS FOR SUBMISSION OF AN ATP PROPOSAL

A. SINGLE COMPANY (also complete items under C and D below):

		1.	No indirect costs are included in the ATP funds requested.
		2.	If a large company (annual revenues in excess of \$3.034 billion), cost sharing is at least 60 percent of total yearly project costs (direct plus all of the indirect costs).
		3.	Total project duration does not exceed 3 years.
		4.	Total ATP funding does not exceed \$2 million.
В.	JO	IN'	T VENTURE (also complete items under C and D below):
		1.	Cost sharing is more than 50 percent of total yearly project costs (direct plus indirect costs).
		2.	Total project duration does not exceed 5 years.
		3.	At least two separately owned, for-profit companies are substantially involved in the R&D and both are contributing to the cost share.
C.	SI	NG	LE COMPANY AND JOINT VENTURE:
		1.	Amounts on page 3 of NIST-1262 and NIST-1263 add up and match amounts in Budget Narrative.
		2.	Total value of in-kind contributions does not exceed 30 percent of nonfederal share of total project costs.
		3.	Information on page 4 of Form NIST-1262 and page 5 of Form NIST-1263 (Subcontracts) corresponds with information in the Project Narrative and Budget Narrative.
		4.	GATE 1 AND GATE 2 SUBMISSIONS: 16 copies of the proposal (1 original, signed, bound proposal plus 15 copies [1 unbound and 14 bound]).
		5.	GATE 1 SUBMISSION:
			\square a. Form NIST-1262 (all four pages) or Form NIST-1263 (all five pages).
			☐ b. Executive Summary.
			□ c. Project Narrative: Scientific and Technological Merit—Detailed information addressing the scientific and technological merit selection criterion including the following:
			☐ (1) Technical Innovation—Detailed information describing the proposed innovation, why it is innovative, technical barriers that prevent technical improvement in this



	area, the technical objectives and targets of the proposed research, technical competitors, and impact on the U.S. knowledge base of the proposed research.
□ (2	High Technical Risk With Evidence of Scientific Feasibility—Detailed information about the technical risks of the research, and the scientific foundation or rationale for the approach.
□ (3	Detailed Technical Plan—Detailed plan explaining how the targets and objectives will be achieved, including task and subtask descriptions, task interrelationships, metrics, milestones, decision points, alternate approaches, qualifications of key personnel, information on facilities and information on subcontractors.
	oject Narrative: Potential for Broad-Based Economic Benefits—Preliminary inforation addressing potential for the broad-based economic benefits selection criterion.
□ e. Li	st of bibliographic technical references including patent citations, if applicable.
	&D Work Performed Outside the United States by the Recipient or Subcontractor uestionnaire, if applicable.
☐ 6. GATE 2	SUBMISSION:
□ a. Fo	orm NIST-1262 (all four pages) or Form NIST-1263 (all five pages).
□ b. Bu	udget Narrative.
ad	oject Narrative: Potential for Broad-Based Economic Benefits—Detailed information dressing potential for the broad-based economic benefits selection criterion including e following:
□ (1	National Economic Benefits—Detailed information describing the potential benefit to the U.S. economy from the invention, including a discussion of the business opportunity, market for the technology, source of the economic benefit, and the magnitude of the economic impact.
□ (2	Need for ATP Funding—Detailed information describing the company's efforts to obtain funding from other sources for the project and the difference that ATP funding would make, consistent with the information supplied in response to question 15 on Form NIST-1262 or Form NIST-1263.
□ (3	Pathway to Economic Benefits—Detailed information describing the company's commercialization plan including its strategic vision, proposed product, window of opportunity, customers, and strategic alliances. Also, detailed information about the company's plans to protect the intellectual property and diffuse the technology, as well as the company's commitment to the project, organizational structure, business experience, and general organizational information.
☐ d. Li	st of bibliographic references supporting business assertions or data.
□ e. Le	etters of support.
☐ f. Le	etters of commitment.



	σ.	Letters	documentin	g efforts	to secure	other	funding.
_	\sim			5		~ ~ ~ ~	

☐ h. Foreign-Owned Company Questionnaire, if proposer or any joint venture participant is foreign-owned.

ADDITIONAL DOCUMENTS REQUIRED FOR GATES 1 AND 3: If the research involves human and/or animal subjects, please refer to the booklet titled *Advanced Technology Program Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects*, which can be obtained at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm or by calling 1–800–287–3863. A Human Subjects Determination Checklist is included in this *Proposal Preparation Kit* (see Exhibit 2) to assist in determining whether the proposal may have human subjects involvement, which would require additional documents with the Gate 1 and/or Gate 3 submission. If the required information is not included with the proposal, the proposal may be deemed unacceptable.

NOTE: If a proposal is selected as a semifinalist, it advances to **Gate 3** and the following additional forms and documents will be required when requested by ATP and can be found at ATP's helpful resources website (http://www.atp.nist.gov/atp/helpful.htm), unless otherwise noted:

- 1. SF-424B, Assurances—Non-Construction Programs.
- 2. Form CD-511, Certifications Regarding Debarment, Suspension and Other Responsibility Matters; Drug-Free Workplace Requirements and Lobbying.
- 3. SF-LLL, Disclosure of Lobbying Activities, if applicable.
- 4. Form CD-346, Applicant for Funding Assistance
- 5. Financial Statement, if not a public company.
- 6. For joint ventures only, a Draft Joint Venture Agreement (http://www.atp.nist.gov/atp/jvsample.htm).
- 7. Budget Narrative for all subcontractors receiving \$500,000 or more.

D. PAGE LIMITS:

Proposal Type	GATE 1	GATE 2	
Single Company	24 pages (No more than 20 pages for detailed information addressing the Scientific and Technological Merit selection criterion and no more than 4 pages for preliminary information addressing the Potential for Broad-Based Economic Benefits selection criterion)	15 pages (detailed information addressing the Potential for Broad-Based Economic Benefits selection criterion)	
Joint Venture	35 pages (No more than 30 pages for detailed information addressing the Scientific and Technological Merit selection criterion and no more than 5 pages for preliminary information addressing the Potential for Broad-Based Economic Benefits selection criterion)	20 pages (detailed information addressing the Potential for Broad-Based Economic Benefits selection criterion)	



Page limits **EXCLUDE** Forms NIST-1262 and NIST-1263, Budget Narrative, Executive Summary, list of bibliographic technical references, list of bibliographic references supporting business assertions or data, Foreign-Owned Company Questionnaire, R&D Work Performed Outside the United States by the Recipient or Subcontractor Questionnaire, letters of commitment, letters of support, letters documenting efforts to secure other funding, and any human and/or animal subjects documentation.

Page limits **INCLUDE** all text, diagrams, flowcharts, pictures, tables, illustrations, and resumes. To maximize pages for relevant technical and business information, the following suggestions are offered:

- 1. List data only for the key people and briefly highlight their education and experience. Do not include lengthy resumes for all people involved in the project.
- 2. Cite only those references that are particularly relevant to the ATP project. Do not include copies of published papers as appendices or lengthy lists of publications.
- 3. Do not include supplemental material not specifically requested in this *Proposal Preparation Kit*, either separate from or bound with the proposal.
- 4. Do not include company sales catalogs, financial statements (ATP will request these if the proposal is selected as a semifinalist), videotapes or audiotapes, presentation slides, and other marketing materials.



HUMAN SUBJECTS DETERMINATION CHECKLIST

This checklist should be used to determine whether human subjects are involved in the research project and whether the research is exempt under the Department of Commerce regulations for the protection of human subjects found at 15 C.F.R. Part 27. A proposal may contain more than one research activity involving human subjects that requires different levels of review. This checklist should be used for each potential use of human subjects.

1.	occ dre	urri n us	e an intervention or an interaction with a living person that would not be occurring or would be ng in some other fashion but for this research? Examples: videotaping people, observing chil-sing software, surveying manufacturing personnel during a pilot test of new equipment, gathering or cells from human donors.
		Yes	s—Human subjects are involved. Go to question 3.
		No	—Go to question 2.
2.	a.	rese	Il data/information/specimens collected originally from people or about people be used in this earch? Examples: broadcast video, Web-use logs, medical information, cells or tissues, survey estions.
			Yes—Identifiable human subjects may be involved. Go to question 2.b.
			No—Go to question 6. It appears that human subjects may not be involved in the project. However, an exemption determination may be required. Please review question 3 for additional information about research that may require an exemption determination.
	b.	or 1	es that information contain private information in a form in which the identity of the subject is may readily be ascertained from the information? Examples: medical records, donor name or less, sales transaction records.
			Yes—Identifiable human subjects are involved. Go to question 3 to see if an exemption may apply. If you know that an exemption does not apply, proceed to question 5.
			No—Go to question 3. The research may not be within the scope of 15 C.F.R. Part 27; however, it may require an exemption determination to be made due to the use of data, recordings, or specimens that could be linked to humans without appropriate safeguards.
3.	exe req	mpt uest	think the research may either not be within the scope of 15 C.F.R. Part 27 or qualify for an action under 15 C.F.R. § 27.101(b)? The following questions will help you evaluate whether to an exemption determination by ATP or provide documentation that the research may not be the scope of 15 C.F.R. Part 27:
	a.		Il the task involving human subjects use only existing data, recordings (audio or visual), or specens? Examples: patient records, a company's customer data, Web-use logs, cells, or tissue.
			Yes—Go to question 3.d.
			No—Go to question 3.b.



Will the research plan involve normal educational practices such as instructional strategies or comparison of instructional techniques, curricula, or classroom management methods? Examples: observation of student-teacher interactions, video of instruction.
☐ Yes—Go to question 3.d.
□ No—Go to question 3.c.
Will the research plan involve educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior? Examples: broadcast video, software usage testing.
☐ Yes—Go to question 3.d.
☐ No—Go to question 5. This research is probably not exempt and will require Institutional Review Board (IRB) review and approval.
Do any of the data, recordings, specimens, or practices/procedures involve or come from a protected class? Protected classes include prisoners, children, pregnant women, human in vitro fertilization, fetuses, and nonviable fetuses or fetal sources of data, cells, or tissue. Examples: testing educational software with children, surveys of obstetric patients.
☐ Yes—Go to question 5. This research is probably not exempt and will require IRB review and approval.
□ No—Go to question 3.e.
Are the data, recordings (audio or visual), or specimens publicly available? NOTE: Publicly available may include items for sale, items that are freely available to the public, or items that reside in the public domain. Examples: customer data sets, catalog orders of cells or tissues, donations of pathological specimens, shareware.
☐ Yes—Go to question 4. This research may be exempt under 15 C.F.R. § 27.101(b).
□ No—Go to question 3.f.
Will the data, recordings (audio or visual), or specimens be stripped of all identifiable information that could be linked to a human subject prior to being received by the investigator?
☐ Yes—Go to question 4. This research may not be within the scope of 15 C.F.R. Part 27, or this research may be exempt under 15 C.F.R. § 27.101(b).
□ No—Go to question 3.g.



- g. Will information be recorded by the investigator in such a way that it can be linked to the human subject? Examples: Web-use logs tied to e-mail address, patient records, or specimens that include patient identifiers.
 - ☐ Yes—Go to question 5. This research is probably not exempt and will need an IRB review.
 - □ No—Go to question 4. This research may be exempt under 15 C.F.R. § 27.101(b).
- 4. An exemption under 15 C.F.R. § 27.101(b) may apply to the task, or the task may not be within the scope of 15 C.F.R. Part 27. In order to complete the necessary requirements for research considered exempt under 15 C.F.R § 27.101(b), please review the booklet *Advanced Technology Program Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects*. A copy of that booklet can be obtained on the ATP website at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm or by calling 1–800–287–3863. Complete Appendix 3 and/or Appendix 4 in the booklet as required and submit with Gate 1 proposal.
- 5. An exemption probably does not apply to the proposed research and further documentation is required. Please review the ATP booklet *Advanced Technology Program Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects.* A copy of that booklet can be obtained on the ATP website at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm or by calling 1–800–287–3863. See Appendix 5 in the booklet for required documentation list.
- 6. It appears that human subjects are not involved in this project. This checklist is only a tool for general guidance and does not constitute a final legal opinion from NIST on whether or not human subjects are involved, or whether or not an exemption determination under the regulations is needed. If upon NIST/ATP review of your proposal, it is determined that additional documentation is needed to reach a final determination, and your proposal is selected as a semifinalist (Gate 3), you will be asked to provide the additional documentation prior to an oral review.

OMB APPROVAL NUMBER: 0693-0009 APPROVAL EXPIRES: NOVEMBER 30, 2006

NIST-1262 (REV. 11-2003) DAO 203-26

U.S. DEPARTMENT OF COMMERCE

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

(FOR ATP USE ONLY)

SINGLE COMPANY ADVANCED TECHNOLOGY PROGRAM (ATP) PROPOSAL COVER SHEET

(CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER 11.612)

Public reporting burden for this collection of information is estimated to average thirty (30) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Director, Advanced Technology Program, National Institute of Standards and Technology, 100 Bureau Drive, Stop 4700, Administration Building, Room A333, Gaithersburg, Maryland 20899-4700.

institute of Standards and Techr	lology, 100 Bureau Driv	e, Stop 4700, Administration E	building, Room A333, Gaither	sburg, waryland 2	0899-4700.	
1. COMPETITION NUMBER	2. EMPLOYER IDENTIF	FICATION NUMBER (EIN)	3. DUN AND BRADSTREET	Γ NUMBER	4. PROJECT	
					YE	ARS MONTHS
5. LEGAL NAME, ADDRESS, AND WEBSITE OF SUBMITTING ORGANIZATION			6. NAME OF PRINCIPAL IN (Address required, if different		SUBMITTING O	RGANIZATION
			TELEPHONE NUMBER:			
			FAX NUMBER:			
			E-MAIL ADDRESS:			
7. NAME OF BUSINESS MANAG (Address required, if different th		RGANIZATION	8. NAME OF GRANT/CONT (Address required, if different		AT SUBMITTIN	G ORGANIZATION
TELEPHONE NUMBER:			TELEPHONE NUMBER:			
FAX NUMBER:			FAX NUMBER:			
E-MAIL ADDRESS:			E-MAIL ADDRESS:			
9. ORGANIZATION TYPE (Mark	one in column 1 and an	v that apply in column 2)	E-MAIL ADDRESS.			
PROFIT—SMALL BUSINE		PUBLIC COMPANY (*	Ticker symbol)		
PROFIT—MEDIUM BUSIN	IESS	FOREIGN-OWNED, U	.SLOCATED COMPANY			
PROFIT—LARGE BUSINE	iss					
10. SOURCES OF FUNDS		YEAR 1	YEAR 2	YEAR 3		TOTAL
A. ATP (Direct costs only)		\$	\$	\$	\$	
B. PROPOSER		\$	\$	\$	\$	
C. TOTAL (A + B)		\$	\$	\$	\$	
11. PROPOSAL TITLE						
12. NONPROPRIETARY PROPO	SAL ABSTRACT					

	CERTIFICATION: BY SIGNING THIS PROPOSAL COVER SHEET, I CERTIFY, TO THE BEST OF MY KNOWLED POSAL IS TRUE AND CORRECT AND THAT THE FOLLOWING QUESTIONS HAVE BEEN TRUTHFULLY ANSW		ION IN THIS	s
	TOCALIO MOL AND COMMENTAND MAT THE TOLECOMING GOLD MONTH AVE BLENT MOTHER LET ANOW		YES	NO
A.	IS THIS PROPOSAL REQUESTING FUNDING FOR EXISTING OR PLANNED RESEARCH PROJECTS THAT WITH SAME TIME PERIOD IN THE ABSENCE OF FINANCIAL ASSISTANCE UNDER ATP?	OULD BE CONDUCTED IN		
В.	IS THE COMPANY DELINQUENT ON ANY FEDERAL DEBT? (If yes, explain in item 14.)			
c.	WAS THIS PROPOSAL OR A VERY SIMILAR PROPOSAL SUBMITTED TO ANOTHER FEDERAL AGENCY? (H	yes, explain in item 14.)		
D.	DOES THE PROPOSED R&D INVOLVE THE USE OF HUMAN SUBJECTS, AND/OR HUMAN TISSUE, AND/OR explain in item 14, and indicate whether the research plan has been reviewed and approved by an Institution (IRB).]			
E.	DOES THE PROPOSED R&D INVOLVE THE USE OF LIVE VERTEBRATE ANIMALS? (If yes, explain in item 19 research plan has been reviewed and approved by an Animal Care and Use Committee.)	, and indicate whether the		
F.	DOES THE COMPANY HAVE A PARENT COMPANY OUTSIDE THE UNITED STATES? (If yes, identify the parent company, and the place of incorporation of parent company in item 14.)	ent company, its ultimate		
G.	IS THE COMPANY MAJORITY OWNED BY NON-U.S.CITIZENS? (If yes, explain in item 14.)			
н.	IS THE COMPANY SUBJECT TO CONTROL BY NON-U.S. CITIZENS? (If yes, explain in item 14.)			
TO A	DESCRIBE BRIEFLY WHY FEDERAL ASSISTANCE IS NEEDED TO EMBARK ON THIS PROPOSED PROJECT. IPPLYING FOR ATP FUNDING TO SECURE PRIVATE CAPITAL TO SUPPORT THIS PROJECT WHOLLY. NOTE UNAVAILABILITY OF PRIVATE CAPITAL IS UNACCEPTABLE.			
16.	AUTHORIZED COMPANY REPRESENTATIVE (Type name and title.)	17. TELEPHONE NUMBER		
10	CIONATURE	10. DATE		
18.	SIGNATURE	19. DATE		

INSTRUCTIONS FOR FORM NIST-1262 (Pages 1 & 2): SINGLE-COMPANY ADVANCED TECHNO-LOGY PROGRAM PROPOSAL COVER SHEET

This form must be completed in its entirety and submitted with each single-company proposal. The authorized company representative who signs the form must have delegated fiduciary authority. By signing this form, the company representative certifies the company's commitment to pay all indirect costs and, if included as additional cost share, any direct costs; verifies the certification statements on the form; and attests to the accuracy of the proposal. The signature also signifies that the company representative has coordinated with top management within his/her own company about their commitment to the proposed project. Additionally, by signing the form, the company representative acknowledges that the proposal is being submitted with the agreement that ATP may use nongovernment reviewers if necessary. (Such reviewers are screened to eliminate conflicts of interest and are required to sign nondisclosure agreements.)

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to, a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The reason for collecting this information is for NIST to be able to perform the appropriate technical and business reviews of an ATP proposal. The information obtained will assist in determining eligibility for federal financial assistance. Responses to the collection of information are required to be considered for an ATP award. In accordance with the ATP legislation, information that is obtained by ATP or other Department of Commerce offices on a confidential basis about business operations and trade secrets possessed by any company will be protected by the government and shall be

exempt from disclosure under the Freedom of Information Act.

- 1. Enter the competition number as stated in the *Federal Register* notice.
- 2. Enter your employer identification number (EIN). To obtain an EIN, see http://www.atp.nist.gov/atp/helpful.htm, or call 1–866–816–2065.
- 3. Enter your Dun and Bradstreet (D&B) number. To obtain a D&B number, see http://www.dnbmdd.com/mddi.
- 4. Enter the duration of the proposed work in years and months. **NOTE:** The maximum duration allowed for a single company is 3 years.
- 5. Enter the legal name, street address, city, twoletter state abbreviation, ZIP code, and website of the organization submitting the proposal. (DO NOT USE A POST OFFICE BOX.)
- 6. Enter the name, telephone number, fax number, and e-mail address of the Principal Investigator at the submitting organization who is responsible for the technical aspects of the proposal. Include the mailing address if it differs from that of the submitting organization.
- 7. Enter the name, telephone number, fax number, and e-mail address of the business manager at the submitting organization who is responsible for business matters. Include the mailing address if it differs from that of the submitting organization.
- 8. Enter the name, telephone number, fax number, and e-mail address of the grant/contract manager at the submitting organization who



- is responsible for contract/grant administrative matters. Include the mailing address if it differs from that of the submitting organization.
- 9. Check all boxes that apply to identify the type of organization.
- 10. A. In each column, enter the total amount requested from ATP for each year, and enter the total in the last column. **NOTE:** The maximum amount of ATP funding to a single company is \$2 million; ATP funds may only be used to fund direct costs.
- 10. B. In each column, enter the proposer's total cost sharing for each year, and enter the total in the last column. **NOTE:** Large companies must cost share at least 60 percent of the yearly total project costs (direct plus all of the indirect costs). Small and medium-sized companies must pay for all of their indirect costs and may elect to pay part of the direct costs.
- 10.C. In each column, enter the total for each year of the project, and enter the entire project total in the last column.
- 11. Enter the title of the proposal (90-character limit).
- 12. Enter a **NONPROPRIETARY** abstract of the proposed work. As part of the abstract, include a statement of the technical problem addressed in the proposal. This abstract may be used as the basis for a publicly distributed abstract should the proposal be selected for an award.
- 13.A. through 13.H. Answer each question by marking an "x" in the appropriate box.
 - A. Self-explanatory.
 - B. If the company is delinquent on any federal debt, including debt to the Internal Revenue Service (IRS), provide in item 14 the amount of the debt, the name of the federal agency to which the debt is owed,

- how old the debt is, the circumstances surrounding the establishment of the debt, and why the debt has not been paid.
- C. If this proposal or a similar proposal was submitted to another federal agency, provide in item 14 the name of the federal agency, the date the proposal was sent to that federal agency, the name of the financial assistance program under which the proposal was submitted, the amount of federal funding requested, and the name and phone number of the agency contact person.
- D. If the proposed R&D involves the use of human subjects, and/or human tissue, and/or human cell lines, explain in item 14 and indicate whether the research plan has been reviewed and approved by an Institutional Review Board (IRB). For further guidance, refer to the ATP Booklet Advanced Technology Program Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects, available at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm.
- E. If the proposed R&D involves the use of live vertebrate animals, explain in item 14 and indicate whether the research plan has been reviewed and approved by an Institutional Animal Care and Use Committee (IACUC).
- F. If a company has a parent company outside the United States, identify the parent company and its place of incorporation in item 14. This includes LLCs where the ownership by foreign companies is 50 percent or more.
- G. If a company is majority owned by individuals who are not citizens of the United States, explain in item 14.
- H. If a company is subject to control by individuals who are not citizens of the United States, explain in item 14.



- 14. Provide any explanations to answers given in item 13 and any other remarks you wish to offer.
- 15. Describe briefly why your project needs ATP funding to embark on this project. Why is private capital not available or not possible? What efforts were made to secure internal R&D funding as well as external private capital? Be specific. Providing a general statement indicating the unavailability of private funding is unacceptable.
- 16. Enter the name and title of the authorized company representative submitting the proposal.
- 17. Enter the telephone number of the authorized company representative submitting the proposal.
- 18. The authorized company representative submitting the proposal must sign this form.
- 19. Enter the date the form is signed.

ESTIMATE	D MULTI-YEAR BUD	GET—SINGLE COM	MPANY	
	YEAR 1	YEAR 2	YEAR 3	TOTAL
. OBJECT CLASS CATEGORY				
A. Personnel salaries/wages	\$	\$	\$	\$
B. Fringe benefits				
C. Travel				
D. Equipment				
E. Materials/supplies				
F. Subcontracts				
G. Other				
H. Total direct costs (lines A thru G)				
I. Total direct costs requested from ATP				
J. Total direct costs shared by proposer (if any)	\$	\$	\$	\$
K. Total indirect costs absorbed by proposer	\$	\$	\$	\$
L. Total costs (lines H + K)	\$	\$	\$	\$
2. SOURCES OF FUNDS				
A. ATP (same as line I)	\$	\$	\$	\$
В.				
C.				
D.				
E. Total sources of funds (same as line L)	\$	\$	\$	\$
. TASKS				
Α.	\$	\$	\$	\$
В.				
c.				
D.				
E.				
F.				
G.				
н.				
I.				
J.				

INSTRUCTIONS FOR FORM NIST-1262 (Page 3): ESTIMATED MULTI-YEAR BUDGET— SINGLE COMPANY

Every item must be completed and reflect estimated costs for each year of the proposed project. Include a **TOTAL** budget, which consolidates all of the project years' costs.

- OBJECT CLASS CATEGORY. List in each column the costs (rounded to the nearest whole dollar) associated with each object class category for each year of the proposed project. Enter the totals of the three columns in the last column.
 - A. **Personnel Salaries/Wages**—Enter the total salaries of full- and part-time personnel, excluding fringe benefits.
 - B. **Personnel Fringe Benefits**—Enter the total fringe benefits (vacation, sick leave, and military leave; health and life insurance; retirement, social security, etc.) associated with the personnel.
 - C. **Travel**—Enter the costs for transportation, including airfare, taxis, lodging, subsistence, and so forth.
 - D. Equipment—Enter the costs for general items of equipment. NOTE: ATP funds may not be used for construction of new buildings or extensive renovations of existing laboratory buildings. ATP funds may, however, be used for construction of experimental research and development facilities to be located within a new or existing building provided that the equipment or facilities are essential for carrying out the proposed scientific and technical project. Costs must be prorated if equipment or facilities will not be 100 percent dedicated to the ATP project during the project period.

- E. **Materials/Supplies**—Enter the costs for expendable materials and supplies.
- F. Subcontracts—Enter the costs for subcontracts. NOTE: Single companies may not subcontract to another part of the same company or to another company with identical ownership. Subcontractors, excluding those that provide goods and services, who receive more than \$500,000 each are subject to the same audit requirements as the recipient. The cost of the subcontractor's audit should be included in the subcontracts category.
- G. **Other**—Enter the costs for any other direct costs that do not fit into the direct categories above. The cost of the project audit should also be included in this category unless it is part of the indirect costs or to be performed by a cognizant federal audit agency. Audits must be performed in accordance with the NIST Program-Specific Audit Guidelines for ATP Cooperative Agreements With Single Companies (http://www.atp.nist.gov/ atp/psag-co.htm). For nonprofit organizations subject to OMB Circular A-133, Audits of States, Local Government, and Non-Profit Organizations (http://www.atp. nist.gov/helpful.htm), the annual Circular A-133 audit is deemed to meet the ATP audit requirement. Audits must be conducted by an external auditor (CPA or a cognizant federal audit agency). For awards less than 24 months, an audit is required at the end of the project; for 2- and 3-year awards, an audit is required after the first year and at the end of the project. If a recipient has never received



federal funding from any federal agency, a certification will be required from a CPA to determine whether the recipient has a functioning financial management system that meets the provisions of 15 C.F.R. § 14.21. The CPA costs may be included in this category unless they are part of the indirect costs.

- H. **Total Direct Costs**—Enter total direct costs.
- I. Total Direct Costs Requested From ATP—Enter the amount of direct costs requested from ATP.
- J. Total Direct Costs Shared by Proposer— Enter direct costs, if any, to be shared by the proposer.
- K. Total Indirect Costs Absorbed by **Proposer**—Enter the total indirect costs to be charged to the proposed project. An indirect cost is any cost not directly identified with a single, final cost objective but identified with two or more final cost objectives or an intermediate cost objective. After direct costs have been determined and charged directly to the project or other work, indirect costs are those remaining to be allocated to the several cost objectives. Because of the diverse characteristics and accounting practices, it is not possible to specify the types of costs that may be classified as indirect costs in all situations. However, typical examples of indirect costs for many organizations include general administration, such as the salaries and expenses of executive officers; rent; utilities; personnel administration; maintenance; library expenses; and accounting. ATP shall interpret indirect costs in accordance with applicable federal cost principles.

L. **Total Costs**—Enter the total costs for the proposed R&D project.

2. SOURCES OF FUNDS

- A.–D. List in the left-most column all sources of support (ATP first), and enter associated costs in the appropriate columns. Examples of non ATP sources of funds include company, state/local government, etc. Enter the totals of the rows in the last column.
- E. **Total Sources of Funds**—Enter the total sources of funds in each column for each year (12-month period) of activity.

3. TASKS

- A.–J. List in the left-most column all of the proposed tasks, and enter the associated costs in the appropriate rows. Enter the totals of the rows in the last column. Tasks should be a high-level aggregation of subtasks that have costs that can be easily updated as a group on an annual basis. ATP does not prescribe the appropriate number of tasks. If you have more tasks than the lines provide, make additional copies of this sheet to show the additional tasks. Task names and amounts must correspond with those in the Gantt chart in the R&D plan discussion.
- K. Total Costs of All Tasks—Enter the total costs of all of the tasks in each of the columns for each year of activity.

	PAGE OF
	SUBCONTRACTS
1. NAME AND ADDRESS OF SUBCONTRACTOR	2. ORGANIZATION TYPE (Mark one in column 1 and any that apply in column 2) PROFIT—SMALL BUSINESS PUBLIC COMPANY (Ticker symbol
NAME OF CONTACT: TELEPHONE NUMBER: FAX NUMBER: E-MAIL ADDRESS:	3. ESTIMATED AMOUNT OF SUBCONTRACT
DESCRIBE SCOPE OF WORK AND IDENTIFY WHICH TASK OR TASK IS THIS A SOLE-SOURCE SUBCONTRACT? NO	KS IN R&D PLAN REQUIRE SUBCONTRACTOR'S INVOLVEMENT.
6. DOES THE SUBCONTRACTOR HAVE ANY FINANCIAL OR OTHER IN NO ES (If yes, briefly explain what type and how much	
7. DOES THE SUBMITTING ORGANIZATION HAVE ANY FINANCIAL OF NO ES (If yes, briefly explain what type and how much	
1. NAME AND ADDRESS OF SUBCONTRACTOR NAME OF CONTACT: TELEPHONE NUMBER: FAX NUMBER:	2. ORGANIZATION TYPE (Mark one in column 1 and any that apply in column 2) PROFIT—SMALL BUSINESS PUBLIC COMPANY (Ticker symbol Ticker symbol
E-MAIL ADDRESS: 4. DESCRIBE SCOPE OF WORK AND IDENTIFY WHICH TASK OR TAS	KS IN R&D PLAN REQUIRE SUBCONTRACTOR'S INVOLVEMENT.
5. IS THIS A SOLE-SOURCE SUBCONTRACT? NO ES (If yes, explain why this subcontractor is the	only one that can perform the work and the nature of its unique capability/experience.)
6. DOES THE SUBCONTRACTOR HAVE ANY FINANCIAL OR OTHER IN NO YES (If yes, briefly explain what type and how much	
7. DOES THE SUBMITTING ORGANIZATION HAVE ANY FINANCIAL OF NO YES (If yes, briefly explain what type and how much	

INSTRUCTIONS FOR FORM NIST-1262 (Page 4): SUBCONTRACTS

This form must be submitted with each proposal to identify each subcontract. This form may be duplicated, as necessary, if there are additional subcontractors.

- 1. Enter the name, street address, city, two-letter state abbreviation, and ZIP code of the subcontractor. Also enter the name, telephone number, fax number, and e-mail address of the individual in the subcontractor organization to be contacted regarding technical aspects of the proposal. If the subcontractor's identity is still undetermined, enter "Undetermined."
- 2. Mark an "x" in the appropriate box or boxes that apply to the subcontractor.
- 3. Enter the estimated total subcontractor costs.
- 4. Briefly describe the scope of work to be performed by the subcontractor.

- 5. Mark an "x" in the appropriate box regarding whether the subcontractor will be selected on a sole-source basis. Subcontractors should be selected on a competitive basis. If "YES" is marked, that is, if a subcontractor is selected on a sole-source basis, provide a brief justification for selection on a noncompetitive basis. Explain why this subcontractor is the only one that can perform the work and the nature of its unique capability/experience.
- 6. If the subcontractor has any financial or other interest in the submitting organization, briefly explain what type and how much.
- 7. If the submitting organization has any financial or other interest in the subcontractor, briefly explain what type and how much.

OMB APPROVAL NUMBER: 0693-0009 APPROVAL EXPIRES: NOVEMBER 30, 2006

NIST-1263 (REV. 11-2003) **DAO 203-26**

U.S. DEPARTMENT OF COMMERCE

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

(FOR ATP USE ONLY)

JOINT VENTURE ADVANCED TECHNOLOGY PROGRAM (ATP) PROPOSAL COVER SHEET (CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER 11.612)

Public reporting burden for this collection of information is estimated to average thirty (30) hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Director, Advanced Technology Program, National Institute of Standards and Technology, 100 Bureau Drive, Stop 4700, Administration Building, Room A333, Gaithersburg, Maryland 20899-4700.

	2. EMPLOYER IDENTIFICATION		_	STREET NUMBER	4. PROJECT DUR	RATION
		,			YEARS	
5. LEGAL NAME, ADDRESS, AN	D WEBSITE OF SUBMITTING (DRGANIZATION		CIPAL INVESTIGATOR AT if different than Item 5)		
			TELEPHONE NUMI	BER:		
			FAX NUMBER:			
			E-MAIL ADDRESS:			
7. NAME OF BUSINESS MANAG (Address required, if different the		ATION		IT/CONTRACT MANAGEF if different than Item 5)	R AT SUBMITTING O	RGANIZATION
TELEPHONE NUMBER:			TELEPHONE NUME	RER.		
FAX NUMBER:			FAX NUMBER:	JE11.		
E-MAIL ADDRESS:			E-MAIL ADDRESS:			
9. ORGANIZATION TYPE (Mark of	one in column 1 and any that a	pply in column 2.)				
PROFIT—SMALL BUSINE	SS	PUBLIC COMPA	NY (Ticker symbol _)		
PROFIT—MEDIUM BUSIN	ESS	FOREIGN-OWNI	NED, U.SLOCATED COMPANY			
PROFIT—LARGE BUSINE	:SS					
NONPROFIT ORGANIZAT						
10. SOURCES OF FUNDS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
A. ATP (Direct costs only)	\$	\$	\$	\$		\$
B. PROPOSER	\$	\$	\$	\$		\$
C. TOTAL (A + B)	\$	\$	\$	\$	5	\$
11. PROPOSAL TITLE						
12. NONPROPRIETARY PROPOS	SAL ABSTRACT					

	CERTIFICATION: BY SIGNING THIS PROPOSAL COVER SHEET, I CERTIFY, TO THE BEST OF MY KNOWLED POSAL IS TRUE AND CORRECT AND THAT THE FOLLOWING QUESTIONS HAVE BEEN TRUTHFULLY ANSW		ON IN THIS	3
PAC	FOSAL IS THUE AND CORRECT AND THAT THE FOLLOWING QUESTIONS HAVE BEEN TRUTHFULLY ANSW	ENED:	YES	NO
A.	IS THIS PROPOSAL REQUESTING FUNDING FOR EXISTING OR PLANNED RESEARCH PROJECTS THAT WITH SAME TIME PERIOD IN THE ABSENCE OF FINANCIAL ASSISTANCE UNDER ATP?	OULD BE CONDUCTED IN		
В.	ARE ANY OF THE JOINT VENTURE PARTNERS DELINQUENT ON ANY FEDERAL DEBT? (If yes, explain in i	tem 14.)		
C.	WAS THIS PROPOSAL OR A VERY SIMILAR PROPOSAL SUBMITTED TO ANOTHER FEDERAL AGENCY? (H	yes, explain in item 14.)		
D.	DOES THE PROPOSED R&D INVOLVE THE USE OF HUMAN SUBJECTS, AND/OR HUMAN TISSUE, AND/OR explain in item 14, and indicate whether the research plan has been reviewed and approved by an Institution (IRB).]			
E.	DOES THE PROPOSED R&D INVOLVE THE USE OF LIVE VERTEBRATE ANIMALS? (If yes, explain in item 1 research plan has been reviewed and approved by an Animal Care and Use Committee.)	1, and indicate whether the		
F.	DO ANY OF THE JOINT VENTURE PARTNERS HAVE A PARENT COMPANY OUTSIDE THE UNITED STATES? ultimate parent company or companies, and place(s) of incorporation of parent company or companies in it			
G.	ARE ANY OF THE JOINT VENTURE PARTNERS MAJORITY OWNED BY NON-U.S. CITIZENS? (If yes, explain	in item 14.)		
H.	ARE ANY OF THE JOINT VENTURE PARTNERS SUBJECT TO CONTROL BY NON-U.S. CITIZENS? (If yes, ex	plain in item 14.)		
15. REG FUN	DESCRIBE BRIEFLY WHY FEDERAL ASSISTANCE IS NEEDED FOR THIS JOINT VENTURE TO FORM, OR WHURES FEDERAL ASSISTANCE TO EMBARK ON THIS PROPOSED PROJECT. ALSO, DESCRIBE WHAT EFFOUNG TO SECURE PRIVATE CAPITAL TO SUPPORT THIS PROJECT WHOLLY. NOTE: PROVIDING A GENERAL CAPITAL IS UNACCEPTABLE.	RTS WERE MADE PRIOR TO APPLYIN		
16	NUTHORIZED COMPANY REPRESENTATIVE (Type name and title)	17. TELEDHONE NUMBED		
16.	AUTHORIZED COMPANY REPRESENTATIVE (Type name and title.)	17. TELEPHONE NUMBER		
18.	SIGNATURE	19. DATE		

INSTRUCTIONS FOR FORM NIST-1263 (Pages 1 & 2): JOINT VENTURE ADVANCED TECHNOLOGY PROGRAM PROPOSAL COVER SHEET

This form must be completed in its entirety and submitted with each joint venture proposal. The authorized company representative who signs the form must have delegated fiduciary authority. By signing this form, the company representative certifies the commitment of cost sharing, verifies the certification statements on the form, and attests to the accuracy of the proposal. The signature also signifies that the company representative has coordinated with top management within his/her own company and with all companies/organizations described as joint venture partners about their commitment and cost sharing to the proposed project. Additionally, by signing the form, the company representative acknowledges that the proposal is being submitted with the agreement that ATP may use nongovernment reviewers if necessary. (Such reviewers are screened to eliminate conflicts of interest and are required to sign nondisclosure agreements.)

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to, a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number. The reason for collecting this information is for NIST to be able to perform the appropriate technical and business reviews of an ATP proposal. The information obtained will assist in determining eligibility for federal financial assistance. Responses to the collection of information are required to be considered for an ATP award. In accordance with the ATP legislation, information that is obtained by ATP or other Department of Commerce offices on a confidential basis about business operations and trade secrets possessed by any company will be protected by the government and shall be exempt from disclosure under the Freedom of Information Act.

- 1. Enter the competition number as stated in the *Federal Register* notice.
- 2. Enter your employer identification number (EIN). To obtain an EIN, see http://www.atp.nist.gov/atp/helpful.htm, or call 1–866–816–2065.
- 3. Enter your Dun and Bradstreet (D&B) number. To obtain a D&B number, see http://www.dnbmdd.com/mddi.
- 4. Enter the duration of the proposed work in years and months. **NOTE:** The maximum duration allowed for a joint venture is 5 years.
- 5. Enter the legal name, street address, city, two-letter state abbreviation, ZIP code, and website of the organization submitting the proposal. (DO NOT USE A POST OFFICE BOX.) NOTE: The names and information on the other joint venture participants should be identified on Form NIST-1263 (Page 4), Other Joint Venture Participants.
- 6. Enter the name, telephone number, fax number, and e-mail address of the Principal Investigator at the submitting organization who is responsible for the technical aspects of the proposal. Include the mailing address if it differs from that of the submitting organization.
- 7. Enter the name, telephone number, fax number, and e-mail address of the business manager at the submitting organization who is responsible for business matters. Include



- the mailing address if it differs from that of the submitting organization.
- 8. Enter the name, telephone number, fax number, and e-mail address of the grant/contract manager at the submitting organization responsible for contract/grant administrative matters. Include the mailing address if it differs from that of the submitting organization.
- 9. Check all boxes that apply to identify the type of organization.
- 10.A. In each column, enter total amounts requested from ATP for each year, and enter the total in the last column. NOTE: The ATP funding requested must be less than 50 percent of the total project costs.
- 10.B. In each column, enter the proposer's (joint venture's) total cost sharing for each year, and enter the total in the last column.
 NOTE: Joint ventures must provide more than 50 percent of each year's total costs.
- 10.C. In each column, enter the total for each year of the project, and enter the entire project total in the last column.
- 11. Enter the title of the proposal (90-character limit).
- 12. Enter a **NONPROPRIETARY** abstract of the proposed work. As part of the abstract, include a statement of the technical problem addressed in the proposal. This abstract may be used as the basis for a publicly distributed abstract should the proposal be selected for an award.
- 13.A. through 13.H. Answer each question by marking an "x" in the appropriate box.
 - A. Self-explanatory.
 - B. If any of the joint venture participants is delinquent on any federal debt, including debt to the Internal Revenue

- Service, provide in item 14 the amount of the debt, the name of the federal agency to which the debt is owed, how old the debt is, the circumstances surrounding the establishment of the debt, and why the debt has not been paid.
- C. If this proposal or a similar proposal was submitted to another federal agency, provide in item 14 the name of the federal agency, the date the proposal was sent to that federal agency, the name of the financial assistance program under which the proposal was submitted, the amount of federal funding requested, and the name and phone number of the agency contact person.
- D. If the proposed R&D involves the use of human subjects, and/or human tissue, and/or human cell lines, explain in item 14 and indicate whether the research plan has been reviewed and approved by an Institutional Review Board (IRB). For further guidance, refer to the ATP Booklet Advanced Technology Program Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects, available at http://www.atp.nist.gov/atp/kit-04/has_guide/contents.htm.
- E. If the proposed R&D involves the use of live vertebrate animals, explain in item 14 and indicate whether the research plan has been reviewed and approved by an Institutional Animal Care and Use Committee (IACUC).
- F. If any joint venture partner has a parent company outside the United States, identify the parent company or companies and their place of incorporation in item 14. This includes LLCs where the ownership by foreign companies is 50 percent or more.

ATP Proposal Preparation Kit

- G. If any joint venture partner is majority owned by individuals who are not citizens of the United States, explain in item 14.
- H. If any joint venture partner is subject to control by individuals who are not citizens of the United States, explain in item 14.
- 14. Provide any explanations to answers given in item 13 and any other remarks you wish to offer.
- 15. Describe why your project needs ATP funding for the industry to form a joint venture or why an existing joint venture requires federal assistance to embark on this project. Why is private capital not available or not

- possible? What efforts were made to secure internal R&D funding as well as external private capital? Be specific. **Providing a general statement indicating the unavailability of private funding is unacceptable.**
- 16. Enter the name and title of the authorized company representative submitting the proposal on behalf of the joint venture.
- 17. Enter the telephone number of the authorized company representative submitting the proposal on behalf of the joint venture.
- 18. The authorized company representative submitting the proposal must sign this form.
- 19. Enter the date the form is signed.

ES	STIMATED MUI	LTI-YEAR BUI	OGET—JOINT	VENTURE	Υ	EAR:
SPECIFY NAME OF PARTICIPANT:	PARTICIPANT	PARTICIPANT	PARTICIPANT	PARTICIPANT	PARTICIPANT	TOTAL
1. OBJECT CLASS CATEGORY						
A. Personnel salaries/wages	\$	\$	\$	\$	\$	\$
B. Fringe benefits						
C. Travel						
D. Equipment						
E. Materials/supplies						
F. Subcontracts						
G. Other						
H. Total direct costs (lines A thru G)						
I. Total indirect costs						
J. Total costs (lines H + I)	\$	\$	\$	\$	\$	\$
K. Non-ATP funds	\$	\$	\$	\$	\$	\$
L. ATP funds requested	\$	\$	\$	\$	\$	\$
2. SOURCES OF FUNDS						
A. ATP (same as line L)	\$	\$	\$	\$	\$	\$
В.						
C.						
D.						
E. Total sources of funds (same as line J)	\$	\$	\$	\$	\$	\$
3. TASKS						
Α.	\$	\$	\$	\$	\$	\$
В.						
C.						
D.						
E.						
F.						
G.						
H.						
I.						
J.						
K. Total costs of all tasks (same as line J)	\$	\$	\$	\$	\$	\$

INSTRUCTIONS FOR FORM NIST-1263 (Page 3): ESTIMATED MULTI-YEAR BUDGET— JOINT VENTURE

Every item must be completed and reflect estimated costs for each year of the proposed project. This form may be duplicated, as necessary, depending on the duration of the project and the number of participants. Specify the year on each page at the top right-hand block as noted and the name of each participant at the top of each column. Include a **TOTAL** budget, which consolidates all of the project years' costs.

- OBJECT CLASS CATEGORY. List in each column the costs (rounded to the nearest whole dollar) associated with each object class category for each year of the proposed project. Enter the totals of the five columns in the last column.
 - A. **Personnel Salaries/Wages**—Enter the total salaries of full- and part-time personnel, excluding fringe benefits.
 - B. **Personnel Fringe Benefits**—Enter the total fringe benefits (vacation, sick leave, and military leave; health and life insurance; retirement, social security, etc.) associated with the personnel.
 - C. **Travel**—Enter the costs for transportation, including airfare, taxis, lodging, subsistence, and so forth.
 - D. Equipment—Enter the costs for general items of equipment. NOTE: ATP funds may not be used for construction of new buildings or extensive renovations of existing laboratory buildings. ATP funds may, however, be used for construction of experimental research and development facilities to be located within a new or existing building provided that the equipment or facilities are essential for carrying out the proposed scientific and technical

- project. Costs must be prorated if equipment or facilities will not be 100 percent dedicated to the ATP project during the project period.
- E. **Materials/Supplies**—Enter the costs for expendable materials and supplies.
- F. **Subcontracts**—Enter the costs for subcontracts. **NOTE:** Joint venture participants may not subcontract to another part of the same company or to another company with identical ownership. Subcontractors, excluding those that provide goods and services, who receive more than \$500,000 each are subject to the same audit requirements as the recipient. The cost of the subcontractor's audit should be included in the subcontracts category.
- G. **Other**—Enter the costs for any other direct costs that do not fit into the direct categories above. The cost of the project audit should also be included in this category unless it is part of the indirect costs or to be performed by a cognizant federal audit agency. Audits must be performed in accordance with the NIST Program-Specific Audit Guidelines for the ATP Cooperative Agreements With Joint Ventures (http://www.atp.nist.gov/atp/psagjv.htm). For nonprofit organizations subject to OMB Circular A-133, Audits of States, Local Government, and Non-Profit Organizations (http://www.atp.nist.gov/ atp/helpful.htm), the annual Circular A-133 audit is deemed to meet the ATP audit requirement. Audits must be conducted by an external auditor (CPA or cognizant federal audit agency). For awards of less than 24 months, an audit is required at the end



of the project; for 2-, 3-, or 4-year awards, an audit is required after the first year and at the end of the project; for 5-year awards, an audit is required after the first year and the third year and at the end of the project. If a recipient has never received federal funding from any federal agency, a certification will be required from a CPA to determine whether the recipient has a functioning financial management system that meets the provisions of 15 C.F.R. § 14.21. The CPA costs may be included in this category unless they are part of the indirect costs.

- H. Total Direct Costs—Enter total direct costs.
- I. Total Indirect Costs—Enter the total indirect costs to be charged to the proposed project. An indirect cost is any cost not directly identified with a single, final cost objective but identified with two or more final cost objectives or an intermediate cost objective. After direct costs have been determined and charged directly to the project or other work, indirect costs are those remaining to be allocated to the several cost objectives. Because of the diverse characteristics and accounting practices it is not possible to specify the types of costs that may be classified as indirect costs in all situations. However, typical examples of indirect costs for many organizations include general administration, such as the salaries and expenses of executive officers; rent; utilities; personnel administration; maintenance; library expenses; and accounting. ATP shall interpret indirect costs in accordance with applicable federal cost principles.
- J. **Total Costs**—Enter the total costs for the proposed R&D project.
- K. **Non-ATP Funds**—Enter the total non-ATP funds (i.e., funds provided by each

- participant, state/local sources, and other private sources). **NOTE:** The total non-ATP funds must be more than 50 percent of the total project costs for each year's total costs.
- L. **ATP Funds Requested**—Enter the total amount requested from ATP. **NOTE:** The ATP funding requested must be less than 50 percent of the total project costs for each year's total costs.

2. SOURCES OF FUNDS

- A.–D. List in the left-most column all sources of support individually (ATP first), and enter associated costs in the appropriate columns. Examples of non ATP sources of funds include each participant, state/local government, etc. Enter totals of the rows in the last column.
- E. **Total Sources of Funds**—Enter the total sources of funds in each column for each year (12-month period) of activity.

3. TASKS

- A.–J. List in the left-most column all of the proposed tasks, and enter the associated costs in the appropriate columns. Enter the totals of the rows in the last column. Tasks should be a high-level aggregation of subtasks that have costs that can be easily updated as a group on an annual basis. ATP does not prescribe the appropriate number of tasks. If you have more tasks than the lines provide, make additional copies of this sheet to show the additional tasks. Task names and amounts must correspond with those in the Gantt chart in the R&D plan discussion.
- K. Total Costs of All Tasks—Enter the total costs of all of the tasks in each of the columns for each year of activity.

OTHER JOINT VENTURE PARTICIPANTS DO	NOT INCLUDE SUBMITTING ORGANIZATION
1. LEGAL NAME, ADDRESS AND WEBSITE OF PARTICIPANT	2. ORGANIZATION TYPE (Mark one in column 1 and any that apply in column 2.) PROFIT—SMALL BUSINESS PUBLIC COMPANY (Ticker symbol PROFIT—MEDIUM BUSINESS PROFIT—LARGE BUSINESS FOREIGN-OWNED, U.SLOCATED COMPAN NONPROFIT ORGANIZATION
NAME OF CONTACT:	GOVERNMENT LABORATORY
TELEPHONE NUMBER: FAX NUMBER: E-MAIL ADDRESS:	3. EMPLOYEE IDENTIFICATION NUMBER 4. DUN AND BRADSTREET NUMBER EIN
1. LEGAL NAME, ADDRESS AND WEBSITE OF PARTICIPANT	2. ORGANIZATION TYPE (Mark one in column 1 and any that apply in column 2.) PROFIT—SMALL BUSINESS PUBLIC COMPANY (Ticker symbol Ticker symbol Ticker symbol Ticker symbol PROFIT—MEDIUM BUSINESS FOREIGN-OWNED, U.SLOCATED COMPAN NONPROFIT ORGANIZATION UNIVERSITY GOVERNMENT LABORATORY
NAME OF CONTACT: TELEPHONE NUMBER: FAX NUMBER: E-MAIL ADDRESS:	3. EMPLOYEE IDENTIFICATION NUMBER EIN 4. DUN AND BRADSTREET NUMBER
1. LEGAL NAME, ADDRESS AND WEBSITE OF PARTICIPANT	2. ORGANIZATION TYPE (Mark one in column 1 and any that apply in column 2.) PROFIT—SMALL BUSINESS PUBLIC COMPANY (Ticker symbol PROFIT—MEDIUM BUSINESS FOREIGN-OWNED, U.SLOCATED COMPAN NONPROFIT ORGANIZATION UNIVERSITY GOVERNMENT LABORATORY
NAME OF CONTACT: TELEPHONE NUMBER: FAX NUMBER: E-MAIL ADDRESS:	S. EMPLOYEE IDENTIFICATION NUMBER 4. DUN AND BRADSTREET NUMBER EIN
1. LEGAL NAME, ADDRESS AND WEBSITE OF PARTICIPANT	2. ORGANIZATION TYPE (Mark one in column 1 and any that apply in column 2.) PROFIT—SMALL BUSINESS PUBLIC COMPANY (Ticker symbol Ticker symbol PROFIT—MEDIUM BUSINESS PROFIT—LARGE BUSINESS FOREIGN-OWNED, U.SLOCATED COMPAN NONPROFIT ORGANIZATION
	GOVERNMENT LABORATORY

INSTRUCTIONS FOR FORM NIST-1263 (Page 4): OTHER JOINT VENTURE PARTICIPANTS

This form must be submitted with each joint venture proposal to identify the joint venture participants (excluding the organization submitting the proposal since that information is provided on page 1 of the Form NIST-1263). This form may be duplicated, as necessary, if there are additional participating organizations. Categories of joint venture participants are not adequate identification. For example, do not list a "manufacturing company," a "university," or a "hospital." You must provide the legal name and contact information of each joint venture participant. Include only those organizations to be bound by the Joint Venture Agreement. Do not list subcontractors on this form, as information about proposed subcontractors should be provided on page 5 of NIST-1263. Additionally, do not list informal collaborators.

- 1. Enter the legal name and street address, city, two-letter state abbreviation, ZIP code, and website of the participant. (**DO NOT USE A POST OFFICE BOX.**) Also enter the name, telephone number, fax number, and e-mail address of the individual in the participant's organization to be contacted regarding the technical aspects of the proposal.
- 2. Check all the boxes that apply to identify the type of organization.
- 3. Enter your employer identification number (EIN). To obtain an EIN, see http://www.atp.nist.gov/atp/helpful.htm, or call 1–866–816–2065.
- 4. Enter your Dun and Bradstreet (D&B) number. To obtain a D&B number, see http://www.dnbmdd.com/mddi.

		PAGE	OF
SUBCON'	TRACTS		
1. NAME AND ADDRESS OF SUBCONTRACTOR NAME OF CONTACT: TELEPHONE NUMBER: FAX NUMBER: E-MAIL ADDRESS:	2. ORGANIZATION TYPE (Mark one in col PROFIT—SMALL BUSINESS PROFIT—MEDIUM BUSINESS PROFIT—LARGE BUSINESS NONPROFIT ORGANIZATION UNIVERSITY GOVERNMENT LABORATORY 3. ESTIMATED AMOUNT OF SUBCONTRA	PUBLIC COI (Ticker sym FOREIGN-0 U.SLOCAT FOREIGN-LI ORGANIZAT	WPANY OOI) WNED, ED COMPAN OCATED
DESCRIBE SCOPE OF WORK AND IDENTIFY WHICH TASK OR TASKS IN R&D PLA IS THIS A SOLE-SOURCE SUBCONTRACT? NO	an perform the work and the nature of its u		perience.)
6. DOES THE SUBCONTRACTOR HAVE ANY FINANCIAL OR OTHER INTEREST IN TH NO ES (If yes, briefly explain what type and how much.)	E SUBMITTNG ORGANIZATION?		
7. DOES THE SUBMITTING ORGANIZATION HAVE ANY FINANCIAL OR OTHER INTER NO ES (If yes, briefly explain what type and how much.)	REST IN THE SUBCONTRACTOR?		
1. NAME AND ADDRESS OF SUBCONTRACTOR NAME OF CONTACT: TELEPHONE NUMBER: FAX NUMBER: E-MAIL ADDRESS: 4. DESCRIBE SCOPE OF WORK AND IDENTIFY WHICH TASK OR TASKS IN R&D PLA	2. ORGANIZATION TYPE (Mark one in col PROFIT—SMALL BUSINESS PROFIT—MEDIUM BUSINESS PROFIT—LARGE BUSINESS NONPROFIT ORGANIZATION UNIVERSITY GOVERNMENT LABORATORY 3. ESTIMATED AMOUNT OF SUBCONTRA	PUBLIC COI (Ticker sym FOREIGN-0 U.SLOCAT FOREIGN-L' ORGANIZAT	WPANY DOI) WNED, ED COMPAN DCATED
IS THIS A SOLE-SOURCE SUBCONTRACT? NO	an perform the work and the nature of its u	nique capability/ex	perience.)
6. DOES THE SUBCONTRACTOR HAVE ANY FINANCIAL OR OTHER INTEREST IN TH NO YES (If yes, briefly explain what type and how much.)	E SUBMITTNG ORGANIZATION?		
7. DOES THE SUBMITTING ORGANIZATION HAVE ANY FINANCIAL OR OTHER INTER NO YES (If yes, briefly explain what type and how much.)	REST IN THE SUBCONTRACTOR?		

INSTRUCTIONS FOR FORM NIST-1263 (Page 5): SUBCONTRACTS

This form must be submitted with each proposal to identify each subcontract. This form may be duplicated, as necessary, if there are additional subcontractors.

- 1. Enter the name, street address, city, two-letter state abbreviation, and ZIP code of the subcontractor. Also enter the name, telephone number, fax number, and e-mail address of the individual in the subcontractor organization to be contacted regarding technical aspects of the proposal. If a subcontractor's identity is still undetermined, enter "Undetermined."
- 2. Mark an "x" in the appropriate box or boxes that apply to the subcontractor.
- 3. Enter the estimated total subcontractor costs.
- Briefly describe the scope of work and identify which task(s) in the R&D plan will be performed by the subcontractor.

- 5. Mark an "x" in the appropriate box regarding whether the subcontractor will be selected on a sole-source basis. Subcontractors should be selected on a competitive basis. If "YES" is marked, that is, if the subcontractor is selected on a sole-source basis, provide a brief justification for selection on a noncompetitive basis. Explain why this subcontractor is the only one that can perform the work and the nature of its unique capability/experience.
- 6. If the subcontractor has any financial or other interest in any joint venture members, briefly explain what type and how much.
- 7. If the submitting organization has any financial or other interest in the subcontractor, briefly explain what type and how much.

BUDGET NARRATIVE

NOTE: All proposed direct and indirect costs must be consistent with costs incurred for like or similar items on all other federal and nonfederal projects or cost centers. Provide a Budget Narrative for each year of the project and for each joint venture participant. All figures must be rounded to the nearest dollar and correspond with those on the NIST-1262 or NIST-1263. Be sure arithmetic is correct. This form should not be altered. If additional space is needed, indicate "continued on next page," and attach additional sheets following the same format of specific item.

Proposal Number: Name of Company	Year					
A. Personnel—List each position by name of employee and title, if available. Show the annual salary and the percentage of time devoted to the project. Compensation paid for employees must be consistent with that paid for similar work within the proposer's organization and similar positions in the industry. Employees who are considered indirect labor should not be included in the breakdown of direct salaries or in item 1.A. (page 3) of Form NIST-1262 or Form NIST-1263. Escalation rates for the out-years should be reasonable. ATP recognizes that a company may not be able to identify all of the personnel to be assigned to the project several years down the road. Where this cannot be done, use generic position titles such as "senior chemical engineer" and for name, use "to be determined." Information about consultants should NOT be included in this category but included more appropriately in Section F ("Subcontract") of this form and described on Form NIST-1262 or Form NIST-1263, pages 4 and 5, respectively.						
	Percentage of Time					
Name and Position Title Annual Salar	on Project Cost					
	TOTAL					
	TOTAL					
(vacation, sick leave, military leave; health an	reater than 35 percent, provide a breakdown of what makes up the fringe benefits d life insurance; retirement, social security, etc.). If fringe benefits are normally ite, they should be budgeted as such, and the appropriate line checked below. Check here if included in indirect cost rate: breakdown:					
	TOTAL					

by number of people r regarding travel, such ings, because these me "communications strat and will require a stron- costs are not considered	nultiplied by numeras coach rather the cetings are held at tegy" for smooth one justification for the R&D-related extension of the R&D-related extension for the the related extension for t	ber of trips). Note that ATP is an first-class accommodation the funded organization. Tracoordination among participar how it is directly related to	recipients are expected to the second recipients. Do not include travel avel costs should represents. While foreign trave the R&D activities of the cluded. If attendance is	mputation (i.e., item multiplied o adhere to government policies to NIST for project review meetent a coherent part of the project's al is not precluded, it is discouraged to ATP project. Likewise, conference critical to performing the R&D, an
		Item (mode of		
		transportation, lodging,		
Purpose of Travel	Destination	and subsistence)	Computation	Cost
Travel justification for for	eign travel and co	nferences:		
Tiuver jubunieum nor nor				
				TOTAL

competitive bid, publish items), and cost. Budget identify by placing an as lished depreciation acco cated to carrying out the tions of existing laborate ment facilities to be loca out the project. If such a computers, printers, cop they are not included in	ed price lists, or cost/price and estimates for each equipment sterisk on any in-kind owned ounting methods. The value of proposed ATP work. ATP further bry buildings. ATP funds may, atted within a new or existing becosts are proposed, include beliers, etc., are normally include indirect costs, they can be cor	alysis), basis of computation (in the exceeding \$100,000 must equipment and its current depretequipment will be further promoted may not be used for construction of the equipment will be further promoted may not be used for construction of the equipment will be used for construction of the equipment will be used for construction of the equipment of the equipmen	t the proposed costs (i.e., historical costs, .e., cost per item multiplied by number of st be described and justified separately. Also eciated value using the participant's preestableated according to the share of total use dedicated of new buildings or extensive renovation of experimental research and development or facilities are essential for carrying General purpose office equipment, e.g., office re should not be budgeted as direct costs. If they must be used exclusively for the ATP llowable.
Item	Methodology	Computation	Cost
Justification for each equip	ment item exceeding \$100,000), and/or any construction costs	s:
			TOTAL
to arrive at the proposed tation (i.e., item multipli included in indirect cost	costs (i.e., historical costs, colled by number of items), and of	empetitive bid, published price cost. Office supplies, e.g., paperere. If they are not included in	le materials and supplies, methodology used lists, or cost/price analysis), basis of computer, pens, toner cartridges, etc. are normally in indirect costs, they must be used exclusively
Item	Methodology	Computation	Cost
			TOTAL

Name of Subcontractor	Service Provided	Computation	Cost
subcontractor's fees are in e	excess of \$450 per day, justif	y here:	
			Subtotal
fice supplies and conference teive more than \$500,000 ea	es/workshops are unallowabl ach are subject to the same a	e. Subcontractors, excluding the	abcontractors in addition to their fees. ose that provide goods and services, who
fice supplies and conference	es/workshops are unallowabl ach are subject to the same a	e. Subcontractors, excluding the	
fice supplies and conference seive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
ice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
ice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference eive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference seive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co
fice supplies and conference seive more than \$500,000 ea these subcontractors should	es/workshops are unallowable ach are subject to the same and be listed in Section F.	e. Subcontractors, excluding the udit requirements as the recipies	ubcontractors in addition to their fees. ose that provide goods and services, who nt (see Section G); however, the audit co

basis of computation included in this case of the indirect cost accordance with the NIST Program-Sp ject to OMB Circuis deemed to meet Audits must be consult is required a the project; for 5-has never received	on (i.e., cost per item multiplied by tegory unless it is part of the indirects, indicate it as such. Each joint vene <i>NIST Program-Specific Audit Guecific Audit Guidelines for ATP Coc</i> ular A-133, Audits of States, Local of the ATP audit requirement. All of the nducted by an external auditor (CPA) the end of the project; for 2-, 3-, of year awards, an audit is required after federal funding from any federal a	f any other direct costs that do not fall into the object cost categories above, number of items), and cost. The cost of the project audit should also be ct costs or to be performed by a cognizant federal audit agency. If it is part nture participant should budget for an audit. Audits must be performed in tidelines for ATP Cooperative Agreements With Single Companies or the operative Agreements With Joint Ventures. For nonprofit organizations sub-Government, and Non-Profit Organizations, the annual Circular A-133 audit these documents may be found at http://www.atp.nist.gov/atp/helpful.htm. A or cognizant federal audit agency). For awards less than 24 months, an or 4-year awards, an audit is required after the first year and at the end of er the first year and the third year and at the end of the project. If a recipient agency, a certification will be required from a CPA to determine whether the tem that meets the provisions of 15 C.F.R. § 14.21.
Description	Computation	Cost
		TOTAL
		10ML
Percentage Rate: □ Check here if neg	agency, include a copy of the appro otiated indirect cost rate agreemerect cost rate has not been establi	
COST SHARING C	OMPOSITION—Identify the total	source of funding by cash and in-kind contributions.
	•	
Cash:	of the total pro § 295.25, the	ibutions cannot exceed 30 percent of the nonfederal share oject costs. Additionally, except as specified in 15 C.F.R. value of in-kind contributions should be determined in ith 15 C.F.R. § 14.23.)
Identify type of in-kir	d contribution (e.g., equipment, res	search tools, software, supplies, etc.) and associated amount(s) below:
		TOTAL COST SHARE



FOREIGN-OWNED COMPANY QUESTIONNAIRE

Complete answers to all questions must be provided for each foreign-owned company participating in the proposed ATP project. Submit additional documentation, if necessary.

	roposal Number: ame of Submitting Organization:
1.	Is the foreign-owned company incorporated in the United States, or is the LLC, partnership, or sole proprietorship with foreign ownership organized in the United States? (NOTE: A company, LLC, partnership, or sole proprietorship is considered foreign owned if it is majority owned or controlled by a non-U.S. entity, and the non-U.S. entity, or its ultimate parent, if any, is incorporated outside the United States.)
	□ No. You are ineligible for an ATP award. Do not continue.□ Yes. Please continue.
2.	Name of foreign-owned company and U.S. address where research for the project will be conducted.
3.	Name of ultimate foreign parent, address, and country of incorporation. Also provide percentage of ownership.
4.	What is the type of participation of the foreign-owned company?
	\square Single company \square Joint venture lead company \square Joint venture participant
5.	What is the role of the foreign-owned company? (Check all that apply)
	 ☐ Key contributor to the high-risk tasks of the project ☐ Minor contributor to the high-risk tasks of the project ☐ Supplier of materials, equipment, or software services ☐ Manufacturer ☐ Other. Please explain.
6.	What skills, capabilities, and resources does the foreign-owned company bring to the project? How will the company's role affect project milestones and the plan for commercialization?
7.	Provide a brief description (including location, square footage, special equipment) of the facility or facilities where project activities will be carried out.

8. How many employees will be dedicated to the project?

9. Provide the names, titles, and main responsibilities of key project staff.



10.	Will there be any activities performed outside the United States?				
		No.			
		Yes. a.	Please be specific and explain below what the activities are in terms of project tasks, when they will be performed, and where they will be performed. Explain impact to the project if activities were required to be performed in the United States. Describe the process used to determine whether or not a U.Sbased organization could perform the work.		
		b.	State dollar amount of the total activity.		
11.	to i		reign-owned company expect to develop any new products or apply any new processes et lines incorporating the ATP supported technology?		
		Yes. a. b. c. d.	For each new product or process, when will it first occur? Where? If in the United States, which facility? Which U.S. product line? Other? Please explain.		
12.	a.		investments that the foreign-owned company has made in research, development, cturing, distribution, sales, and marketing during the past 3 years.		
	b.	State ap	proximate dollar value.		

R&D WORK PERFORMED OUTSIDE THE UNITED STATES BY THE RECIPIENT OR SUBCONTRACTOR QUESTIONNAIRE

Title	Λf	Dro	nacal	ı,
Hue	OI.	FIU	pusai	l

Name of Submitting Organization:

Name of Company To Perform R&D Work Outside the United States:

Country Where Work Will Be Performed:

- 1. Is the work to be performed outside the United States less technically challenging and lower risk relative to the work carried out in the United States? If no, please explain.
- 2. Describe the impact on the economic benefits with and without the R&D being performed outside the United States.
- 3. What is the percentage of the total ATP project for R&D performed outside the United States?
- 4. What are the total dollars by organization for R&D performed outside the United States?
- 5. a. Explain how your organization made a good faith effort to identify alternatives to having this particular work performed outside the United States.
 - b. Explain why those alternatives were less attractive (e.g., cost, schedule, insufficient interest, or commitment).
- 6. Would the projected economic benefits to the United States be less likely to occur if the work outside the United States were not carried out at all, or if ATP insisted that the work be performed in the United States? Explain why.
- 7. Does the facility proposing to carry out the work outside the United States bring to the project special expertise, extra resources, or other factors that would represent a substantial loss to the project were they not there? Explain.
- 8. a. Is the company proposing to do work outside the United States U.S. owned? \square Yes \square No
 - b. Does the company also have R&D and manufacturing facilities in the United States that would benefit from the project? Please describe.
 - c. Who else would benefit?
- 9. Will the company performing the work outside the United States agree to surrender intellectual property resulting from the work to a company incorporated in the United States?

APPENDICES

The ATP statute and rule follow this page. These documents are also available on the ATP website at http://www.atp.nist.gov/atp/helpful.htm.

- A. Appendix A. ATP Statute
- B. Appendix B. ATP Rule—15 C.F.R. Part 295

ATP Statute

NOTE: The ATP statute originated in the Omnibus Trade and Competitiveness Act of 1988 (Pub. L. 100-418, 15 U.S.C. § 278n) but was amended by the American Technology Preeminence Act of 1991 (Pub. L. 102-245). This law has been codified at 15 U.S.C. § 278n.

Sec. 278n. Advanced Technology Program

- (a) There is established in the Institute an Advanced Technology Program (hereafter in this Act referred to as the "Program") for the purpose of assisting United States businesses in creating and applying the generic technology and research results necessary to—
 - (1) commercialize significant new scientific discoveries and technologies rapidly; and
 - (2) refine manufacturing technologies.

The Secretary, acting through the Director, shall assure that the Program focuses on improving the competitive position of the United States and its businesses, gives preference to discoveries and to technologies that have great economic potential, and avoids providing undue advantage to specific companies. In operating the Program, the Secretary and Director shall, as appropriate, be guided by the findings and recommendations of the Biennial National Critical Technology Reports prepared pursuant to section 603 of the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. § 6683).

- (b) Under the Program established in subsection (a), and consistent with the mission and policies of the Institute, the Secretary, acting through the Director, and subject to subsections (c) and (d), may—
 - (1) aid industry-led United States joint research and development ventures (hereafter in this section referred to as "joint ventures") (which may also include universities and independent research organizations), including those involving collaborative technology demonstration projects which develop and test prototype equipment and processes, through—
 - (A) provision of organizational and technical advice; and
 - (B) participation in such joint ventures by means of grants, cooperative agreements, or contracts, if the Secretary, acting through the Director, determines participation to be appropriate, which may include (i) partial startup funding, (ii) provision of a minority share of the cost of such joint ventures for up to 5 years, and (iii) making available equipment, facilities, and personnel, provided that emphasis is placed on areas where the Institute has scientific or technological expertise, on solving generic problems of specific industries, and on making those industries more competitive in world markets:



- (2) provide grants to and enter into contracts and cooperative agreements with United States businesses (especially small businesses), provided that emphasis is placed on applying the Institute's research, research techniques, and expertise to those organizations' research programs;
- (3) involve the Federal laboratories in the Program, where appropriate, using among other authorities the cooperative research and development agreements provided for under section 12 of the Stevenson-Wydler Technology Innovation Act of 1980; and
- (4) carry out, in a manner consistent with the provisions of this section, such other cooperative research activities with joint ventures as may be authorized by law or assigned to the Program by the Secretary.
- (c) The Secretary, acting through the Director, is authorized to take all actions necessary and appropriate to establish and operate the Program, including—
 - (1) publishing in the *Federal Register* draft criteria and, no later than six months after the date of the enactment of this section, following a public comment period, final criteria, for the selection of recipients of assistance under subsection (b)(1) and (2);
 - (2) monitoring how technologies developed in its research program are used, and reporting annually to the Congress on the extent of any overseas transfer of these technologies;
 - (3) establishing procedures regarding financial reporting and auditing to ensure that contracts and awards are used for the purposes specified in this section, are in accordance with sound accounting practices, and are not funding existing or planned research programs that would be conducted in the same time period in the absence of financial assistance under the Program;

- (4) assuring that the advice of the Committee established under section 10 is considered routinely in carrying out the responsibilities of the Institute; and
- (5) providing for appropriate dissemination of Program research results.
- (d) When entering into contracts or making awards under subsection (b), the following shall apply:
 - (1) No contract or award may be made until the research project in question has been subject to a merit review, and has, in the opinion of the reviewers appointed by the Director and the Secretary, acting through the Director, been shown to have scientific and technical merit.
 - (2) In the case of joint ventures, the Program shall not make an award unless the award will facilitate the formation of a joint venture or the initiation of a new research and development project by an existing joint venture.
 - (3) No Federal contract or cooperative agreement under subsection (b)(2) shall exceed \$2,000,000 over 3 years, or be for more than 3 years unless a full and complete explanation of such proposed award, including reasons for exceeding these limits, is submitted in writing by the Secretary to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives. The proposed contract or cooperative agreement may be executed only after 30 calendar days on which both Houses of Congress are in session have elapsed since such submission. Federal funds made available under subsection (b)(2) shall be used only for direct costs and not for indirect costs, profits, or management fees of the contractor.

ATP Proposal Preparation Kit

- (4) In determining whether to make an award to a particular joint venture, the Program shall consider whether the members of the joint venture have made provisions for the appropriate participation of small United States businesses in such joint venture.
- (5) Section 552 of title 5, United States Code, shall not apply to the following information obtained by the Federal Government on a confidential basis in connection with the activities of any business or any joint venture receiving funding under the Program—
 - (A) information on the business operation of any member of the business or joint venture; and
 - (B) trade secrets possessed by any business or any member of the joint venture.
- (6) Intellectual property owned and developed by any business or joint venture receiving funding or by any member of such a joint venture may not be disclosed by any officer or employee of the Federal Government except in accordance with a written agreement between the owner or developer and the Program.
- (7) If a business or joint venture fails before the completion of the period for which a contract or award has been made, after all allowable costs have been paid and appropriate audits conducted, the unspent balance of the Federal funds shall be returned by the recipient to the Program.
- (8) Upon dissolution of any joint venture or at the time otherwise agreed upon, the Federal Government shall be entitled to a share of the residual assets of the joint venture proportional to the Federal share of the costs of the joint venture as determined by independent audit.

- (9) A company shall be eligible to receive financial assistance under this section only if—
 - (A) the Secretary finds that the company's participation in the program would be in the economic interest of the United States, as evidenced by investments in the United States in research, development, and manufacturing (including, for example, the manufacture of major components or subassemblies in the United States); significant contributions to employment in the United States; and agreement with respect to any technology arising from assistance provided under this section to promote the manufacture within the United States of products resulting from that technology (taking into account the goals of promoting the competitiveness of United States industry), and to procure parts and materials from competitive suppliers; and

(B) either—

- (i) the company is a United Statesowned company; or
- (ii) the Secretary finds that the company is incorporated in the United States and has a parent company which is incorporated in a country which affords to United Statesowned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those authorized under this Act: affords to United States-owned companies local investment opportunities comparable to those afforded to any other company; and affords adequate and effective protection for the intellectual property rights of United Statesowned companies.



- (10) Grants, contracts, and cooperative assignments under this section shall be designed to support projects which are high risk and which have the potential for eventual substantial widespread commercial application. In order to receive a grant, contract, or cooperative agreement under this section, a research and development entity shall demonstrate to the Secretary the requisite ability in research and technology development and management in the project area in which the grant, contract, or cooperative agreement is being sought.
- (11) (A) Title to any intellectual property arising from assistance provided under this section shall vest in a company or companies incorporated in the United States. The United States may reserve a nonexclusive, nontransferable, irrevocable paid-up license, to have practiced for or on behalf of the United States, in connection with any such intellectual property, but shall not, in the exercise of such license, publicly disclose proprietary information related to the license. Title to any such intellectual property shall not be transferred or passed, except to a company incorporated in the United States, until the expiration of the first patent obtained in connection with such intellectual property.
- (B) For purposes of this paragraph, the term "intellectual property" means an invention patentable under title 35, United States Code, or any patent on such an invention.
- (C) Nothing in this paragraph shall be construed to prohibit the licensing to any company of intellectual property rights arising from assistance provided under this section.

- (e) The Secretary may, within 30 days after notice to Congress, suspend a company or joint venture from continued assistance under this section if the Secretary determines that the company, the country of incorporation of the company or a parent company, or the joint venture has failed to satisfy any of the criteria set forth in subsection (d)(9), and that it is in the national interest of the United States to do so.
- (f) When reviewing private sector requests for awards under the Program, and when monitoring the progress of assisted research projects, the Secretary and the Director shall, as appropriate, coordinate with the Secretary of Defense and other senior Federal officials to ensure cooperation and coordination in Federal technology programs and to avoid unnecessary duplication of effort. The Secretary and the Director are authorized to work with the Director of the Office of Science and Technology Policy, the Secretary of Defense, and other appropriate Federal officials to form interagency working groups or special project offices to coordinate Federal technology activities.
- (g) In order to analyze the need for the value of joint ventures and other research projects in specific technical fields, to evaluate any proposal made by a joint venture or company requesting the Secretary's assistance, or to monitor the progress of any joint venture or any company research project which receives Federal funds under the Program, the Secretary, the Under Secretary of Commerce for Technology, and the Director may, notwithstanding any other provision of law, meet with such industry sources as they consider useful and appropriate.
- (h) Up to 10 percent of the funds appropriated for carrying out this section may be used for



- standards development and technical activities by the Institute in support of the purposes of this section.
- (i) In addition to such sums as may be authorized and appropriated to the Secretary and Director to operate the Program, the Secretary and Director also may accept funds from other Federal departments and agencies for the purpose of providing Federal funds to support awards under the Program. Any Program award which is supported with funds which originally came from other Federal departments and agencies shall be selected and carried out according to the provisions of this section.
- (i) As used in this section—
 - (1) the term "joint venture" means any group of activities, including attempting to make, making, or performing a contract, by two or more persons for the purpose of—
 - (A) theoretical analysis, experimentation, or systematic study of phenomena or observable facts:
 - (B) the development or testing of basic engineering techniques;

- (C) the extension of investigative findings or theory of a scientific or technical nature into practical application for experimental and demonstration purposes, including the experimental production and testing of models, prototypes, equipment, materials, and processes;
- (D) the collection, exchange, and analysis of research information;
- (E) the production of any product, process, or service; or
- (F) any combination of the purposes specified in subparagraphs (A), (B), (C), (D), and (E), and may include the establishment and operation of facilities for the conducting of research, the conducting of such venture on a protected and proprietary basis, and the prosecuting of applications for patents and the granting of licenses for the results of such venture; and
- (2) the term "United States-owned company" means a company that has majority ownership or control by individuals who are citizens of the United States.

ATP Rule—15 C.F.R. Part 295

Subpart A—General

Sec. 295.1 Purpose.

- (a) The purpose of the Advanced Technology Program (ATP) is to assist United States businesses to carry out research and development on high risk, high pay-off, emerging and enabling technologies. These technologies are:
 - (1) High risk, because the technical challenges make success uncertain;
 - (2) High pay-off, because when applied, they offer significant benefits to the U.S. economy; and
 - (3) Emerging and enabling, because they offer wide breadth of potential application and form an important technical basis for future commercial applications.
- (b) The rules in this part prescribe policies and procedures for the award of cooperative agreements under the Advanced Technology Program in order to ensure the fair treatment of all proposals. While the Advanced Technology Program is authorized to enter into grants, cooperative agreements, and contracts to carry out its mission, these rules address only the award of cooperative agreements. The program employs cooperative agreements rather than grants because such agreements allow ATP to exercise appropriate management oversight of projects and also to link ATP-funded projects to ongoing R&D at

- the National Institute of Standards and Technology wherever such linkage would increase the likelihood of success of the project.
- (c) In carrying out the rules in this part, the Program endeavors to put more emphasis on joint ventures and consortia with a broad range of participants, including large companies, and less emphasis on support of individual large companies.

Sec. 295.2 Definitions.

- (a) For the purposes of ATP, the term *award* means Federal financial assistance made under a grant or cooperative agreement.
- (b) The term *company* means a for-profit organization, including sole proprietors, partnerships, limited liability companies (LLCs), or corporations.
- (c) The term *cooperative agreement* refers to a Federal assistance instrument used whenever the principal purpose of the relationship between the Federal Government and the recipient is the transfer of money, property, or services, or anything of value to the recipient to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and substantial involvement is anticipated between the executive agency, acting for the Federal



- Government, and the recipient during performance of the contemplated activity.
- (d) The term *direct costs* means costs that can be identified readily with activities carried out in support of a particular final objective. A cost may not be allocated to an award as a direct cost if any other cost incurred for the same purpose in like circumstances has been assigned to an award as an indirect cost. Because of the diverse characteristics and accounting practices of different organizations, it is not possible to specify the types of costs which may be classified as direct costs in all situations. However, typical direct costs could include salaries of personnel working on the ATP project and associated reasonable fringe benefits such as medical insurance. Direct costs might also include supplies and materials, special equipment required specifically for the ATP project, and travel associated with the ATP project. ATP shall determine the allowability of direct costs in accordance with applicable Federal cost principles.
- (e) The term *foreign-owned company* means a company other than a United States-owned company as defined in 295.2(q).
- (f) The term *grant* means a Federal assistance instrument used whenever the principal purpose of the relationship between the Federal Government and the recipient is the transfer of money, property, services, or anything of value to the recipient in order to accomplish a public purpose of support or stimulation authorized by Federal statute, rather than acquisition by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government; and no substantial involvement is anticipated between the executive agency, acting for the Federal Government, and the recipient during performance of the contemplated activity.
- (g) The term *independent research organization* (IRO) means a nonprofit research and development corporation or association organized

- under the laws of any state for the purpose of carrying out research and development on behalf of other organizations.
- (h) The term *indirect costs* means those costs incurred for common or joint objectives that cannot be readily identified with activities carried out in support of a particular final objective. A cost may not be allocated to an award as an indirect cost if any other cost incurred for the same purpose in like circumstances has been assigned to an award as a direct cost. Because of diverse characteristics and accounting practices it is not possible to specify the types of costs which may be classified as indirect costs in all situations. However, typical examples of indirect costs include general administration expenses, such as the salaries and expenses of executive officers, personnel administration, maintenance, library expenses, and accounting. ATP shall determine the allowability of indirect costs in accordance with applicable Federal cost principles.
- (i) The term industry-led joint research and development venture or joint venture means a business arrangement that consists of two or more separately-owned, for-profit companies that perform research and development in the project; control the joint venture's membership, research directions, and funding priorities; and share total project costs with the Federal Government. The joint venture may include additional companies, independent research organizations, universities, and/or governmental laboratories (other than NIST) which may or may not contribute funds (other than Federal funds) to the project and perform research and development. A for-profit company or an independent research organization may serve as an Administrator and perform administrative tasks on behalf of a joint venture, such as handling receipts and disbursements of funds and making antitrust filings. The following activities are not permissible for ATP-funded joint ventures:

ATP Proposal Preparation Kit

- (1) Exchanging information among competitors relating to costs, sales, profitability, prices, marketing, or distribution of any product, process, or service that is not reasonably required to conduct the research and development that is the purpose of such venture;
- (2) Entering into any agreement or engaging in any other conduct restricting, requiring, or otherwise involving the production or marketing by any person who is a party to such joint venture of any product, process, or service, other than the production or marketing of proprietary information developed through such venture, such as patents and trade secrets; and
- (3) Entering into any agreement or engaging in any other conduct:
 - (i) To restrict or require the sale, licensing, or sharing of inventions or developments not developed through such venture, or
 - (ii) To restrict or require participation by such party in other research and development activities, that is not reasonably required to prevent misappropriation of proprietary information contributed by any person who is a party to such venture or of the results of such venture.
- (j) The term *intellectual property* means an invention patentable under title 35, United States Code, or any patent on such an invention.
- (k) The term *large business* for a particular ATP competition means any business, including any parent company plus related subsidiaries, having annual revenues in excess of the amount published by ATP in the relevant annual notice of availability of funds required by section 295.7(a) of this regulation. In

- establishing this amount, ATP may consider the dollar value of the total revenues of the 500th company in *Fortune* magazine's Fortune 500 listing.
- (l) The term matching funds or cost sharing means that portion of project costs not borne by the Federal Government. Sources of revenue to satisfy the required cost share include cash and in-kind contributions. Cash contributions can be from recipient, state, county, city, or other non-federal sources. In-kind contributions can be made by recipients or non-federal third parties (except subcontractors working on an ATP project) and include but are not limited to equipment, research tools, software, and supplies. Except as specified at Sec. 295.25 of this regulation, the value of in-kind contributions shall be determined in accordance with OMB Circular A-110, Subpart C, Section 23. The value of in-kind contributions will be prorated according to the share of total use dedicated to the ATP program. ATP restricts the total value of in-kind contributions that can be used to satisfy the cost share by requiring that such contributions not exceed 30 percent of the non-federal share of the total project costs. ATP shall determine the allowability of matching share costs in accordance with applicable federal cost principles.
- (m)The term *person* shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.
- (n) The term *Program* means the Advanced Technology Program.
- (o) The term *Secretary* means the Secretary of Commerce or the Secretary's designee.
- (p) The term *small business* means a business that is independently owned and operated, is organized for profit, and is not dominant in



- the field of operation in which it is proposing, and meets the other requirements found in 13 C.F.R. Part 121.
- (q) The term *United States-owned company* means a for-profit organization, including sole proprietors, partnerships, or corporations, that has a majority ownership or control by individuals who are citizens of the United States.

Sec. 295.3 Eligibility of United Statesand Foreign-Owned Businesses.

- (a) A company shall be eligible to receive an award from the Program only if:
 - (1) The Program finds that the company's participation in the Program would be in the economic interest of the United States, as evidenced by investments in the United States in research, development, and manufacturing (including, for example, the manufacture of major components or subassemblies in the United States); significant contributions to employment in the United States; and agreement with respect to any technology arising from assistance provided by the Program to promote the manufacture within the United States of products resulting from that technology (taking into account the goals of promoting the competitiveness of United States industry), and to procure parts and materials from competitive suppliers; and
 - (2) Either the company is a United Statesowned company, or the Program finds that the company is incorporated in the United States and has a parent company which is incorporated in a country which affords to United States-owned companies opportunities, comparable to those afforded to any other company, to participate in any joint venture similar to those authorized under the Program; affords the United Statesowned companies local investment

- opportunities comparable to those afforded to any other company; and affords adequate and effective protection for the intellectual property rights of United States-owned companies.
- (b) The Program may, within 30 days after notice to Congress, suspend a company or joint venture from continued assistance under the Program if the Program determines that the company, the country of incorporation of the company or a parent company, or the joint venture has failed to satisfy any of the criteria contained in paragraph (a) of this section, and that it is in the national interest of the United States to do so.
- (c) Companies owned by legal residents (green card holders) may apply to the Program, but before an award can be given, the owner(s) must either become a citizen or ownership must be transferred to a U.S. citizen(s).

Sec. 295.4 The Selection Process.

(a) The selection process for awards is a multistep process based on the criteria listed in section 295.6. Source evaluation boards (SEB) are established to ensure that all proposals receive careful consideration. In the first step, called "preliminary screening," proposals may be eliminated by the SEB that do not meet the requirements of this Part or the annual Federal Register Program announcement. Typical but not exclusive of the reasons for eliminating a proposal at this stage are that the proposal is deemed to have serious deficiencies in either the technical or business plan; involves product development rather than high-risk R&D; is not industry-led; is significantly overpriced or underpriced given the scope of the work; does not meet the requirements set out in the notice of availability of funds issued pursuant to section 295.7; or does not meet the cost-sharing requirement. NIST will also examine proposals that have been submitted to a previous



- competition to determine whether substantive revisions have been made to the earlier proposal, and, if not, may reject the proposal.
- (b) In the second step, referred to as the "technical and business review," proposals are evaluated under the criteria found in section 295.6. Proposals judged by the SEB after considering the technical and business evaluations to have the highest merit based on the selection criteria receive further consideration and are referred to as "semifinalists."
- (c) In the third step, referred to as "selection of finalists," the SEB prepares a final ranking of semifinalist proposals by a majority vote, based on the evaluation criteria in section 295.6. During this step, the semifinalist proposers will be invited to an oral review of their proposals with NIST, and in some cases site visits may be required. Subject to the provisions of section 295.6, a list of ranked finalists is submitted to the Selecting Official.
- (d) In the final step, referred to as "selection of recipients," the Selecting Official selects funding recipients from among the finalists, based upon the SEB rank order of the proposals on the basis of all selection criteria (section 295.6); assuring an appropriate distribution of funds among technologies and their applications; the availability of funds; and adherence to the Program selection criteria. The Program reserves the right to deny awards in any case where information is uncovered which raises a reasonable doubt as to the responsibility of the proposer. The decision of the Selecting Official is final.
- (e) NIST reserves the right to negotiate the cost and scope of the proposed work with the proposers that have been selected to receive awards. For example, NIST may request that the proposer delete from the scope of work a particular task that is deemed by NIST to be product development or otherwise inappropriate for ATP support.

Sec. 295.5 Use of Pre-Proposals in the Selection Process.

To reduce proposal preparation costs incurred by proposers and to make the selection process more efficient, NIST may use mandatory or optional preliminary qualification processes based on preproposals. In such cases, announcements requesting pre-proposals will be published as indicated in section 295.7, and will seek abbreviated proposals (pre-proposals) that address both of the selection criteria, but in considerably less detail than full proposals. The Program will review the pre-proposals in accordance with the selection criteria and provide written feedback to the proposers to determine whether the proposed projects appear sufficiently promising to warrant further development into full proposals. Proposals are neither "accepted" nor "rejected" at the preproposal stage. When the full proposals are received in response to the notice of availability of funds described in section 295.7, the review and selection process will occur as described in section 295.4.

Sec. 295.6 Criteria for Selection.

The evaluation criteria to be used in selecting any proposal for funding under this program, and their respective weights, are listed in this section. No proposal will be funded unless the Program determines that it has scientific and technological merit and that the proposed technology has strong potential for broad-based economic benefits to the nation. Additionally, no proposal will be funded that does not require Federal support, that is product development rather than high-risk R&D, that does not display an appropriate level of commitment from the proposer, or does not have an adequate technical and commercialization plan.

(a) Scientific and Technological Merit (50%)

The proposed technology must be highly innovative. The research must be challenging, with high technical risk. It must be aimed at overcoming an important problem(s) or



exploiting a promising opportunity. The technical leverage of the technology must be adequately explained. The research must have a strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technical knowledge base. The technical plan must be clear and concise; clearly identify the core innovation, the technical approach, major technical hurdles, and the attendant risks; and clearly establish feasibility through adequately detailed plans linked to major technical barriers. The plan must address the questions of "what, how, where, when, why, and by whom" in substantial detail. The Program will assess the proposing team's relevant experience for pursuing the technical plan. The team carrying out the work must demonstrate a high level of scientific/technical expertise to conduct the R&D and have access to the necessary research facilities.

(b) Potential for Broad-Based Economic Benefits (50%)

The proposed technology must have a strong potential to generate substantial benefits to the nation that extend significantly beyond the direct returns to the proposing organization(s). The proposal must explain why ATP support is needed and what difference ATP funding is expected to make in terms of what will be accomplished with the ATP funding versus without it. The pathways to economic benefit must be described, including the proposer's plan for getting the technology into commercial use, as well as additional routes that might be taken to achieve broader diffusion of the technology. The proposal should identify the expected returns that the proposer expects to gain, as well as returns that are expected to accrue to others, i.e., spillover effects. The Program will assess the proposer's relevant experience and level of commitment to the project and project's organizational structure and management plan, including the extent to which participation by small businesses is

encouraged and is a key component in a joint venture proposal, and for large company single proposers, the extent to which subcontractor/subrecipient teaming arrangements are featured and are a key component of the proposal.

Sec. 295.7 Notice of Availability of Funds.

The Program shall publish at least annually a *Federal Register* notice inviting interested parties to submit proposals, and may more frequently publish invitations for proposals in the *Commerce Business Daily*, based upon the annual notice. Proposals must be submitted in accordance with the guidelines in the *ATP Proposal Preparation Kit* as identified in the published notice. Proposals will only be considered for funding when submitted in response to an invitation published in the *Federal Register*, or a related announcement in the *Commerce Business Daily*.

Sec 295.8 Intellectual Property Rights; Publication of Research Results.

(a)(1) Patent Rights: Title to inventions arising from assistance provided by the Program must vest in a company or companies incorporated in the United States. Joint ventures shall provide to NIST a copy of their written agreement which defines the disposition of ownership rights among the members of the joint venture, and their contractors and subcontractors as appropriate, that complies with the first sentence of this paragraph. The United States will reserve a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any such intellectual property, but shall not, in the exercise of such license, publicly disclose proprietary information related to the license. Title to any such intellectual property shall not be transferred or passed, except to a company

incorporated in the United States, until the expiration of the first patent obtained in connection with such intellectual property. Nothing in this paragraph shall be construed to prohibit the licensing to any company of intellectual property rights arising from assistance provided under this section.

(2)Patent Procedures: Each award by the Program shall include provisions assuring the retention of a governmental use license in each disclosed invention, and the government's retention of march-in rights. In addition, each award by the Program will contain procedures regarding reporting of subject inventions by the funding Recipient to the Program, including the subject inventions of members of the joint venture (if applicable) in which the funding Recipient is a participant, contractors, and subcontractors of the funding Recipient. The funding Recipient shall disclose such subject inventions to the Program within two months after the inventor discloses it in writing to the Recipient's designated representative responsible for patent matters. The disclosure shall consist of a detailed, written report which provides the Program with the following: the title of the present invention: the names of all inventors: the name and address of the assignee (if any); an acknowledgment that the United States has rights in the subject invention; the filing date of the present invention, or, in the alternative, a statement identifying that the Recipient determined that filing was not feasible; an abstract of the disclosure; a description or summary of the present invention; the background of the present invention or the prior art; a description of the preferred embodiments; and what matter is claimed. Upon issuance of the patent, the funding Recipient or Recipients must notify the Program accordingly, providing it with the Serial Number of the patent as issued, the date of issuance, a copy of the disclosure as issued, and if appropriate, the

- name, address, and telephone number(s) of an assignee.
- (b) Copyrights: Except as otherwise specifically provided for in an Award, funding Recipients under the Program may establish claim to copyright subsisting in any data first produced in the performance of the award. When claim is made to copyright, the funding Recipient shall affix the applicable copyright notice of 17 U.S.C. § 401 or § 402 and acknowledgment of Government sponsorship to the data when and if the data are delivered to the Government, are published, or are deposited for registration as a published work in the U.S. Copyright Office. The funding recipient shall grant to the Government, and others acting on its behalf, a paid up, nonexclusive, irrevocable, worldwide license for all such data to reproduce, prepare derivative works, perform publicly and display publicly, and for data other than computer software to distribute to the public by or on behalf of the Government.
- (c) **Publication of Research Results:** The decision on whether or not to publish research results will be made by the funding Recipient(s). Unpublished intellectual property owned and developed by any business or joint research and development venture receiving funding or by any member of such a joint venture may not be disclosed by any officer or employee of the Federal Government except in accordance with a written agreement between the owner or developer and the Program. The licenses granted to the Government under section 295.8(b) shall not be considered a waiver of this requirement.

Sec. 295.9 Protection of Confidential Information.

As required by section 278n(d)(5) of Title 15 of the United States Code, the following information obtained by the Secretary on a confidential basis in connection with the activities of any business



or joint research and development venture receiving funding under the program shall be exempt from disclosure under the Freedom of Information Act—

- (1) Information on the business operation of any member of the business or joint venture:
- (2) Trade secrets possessed by any business or any member of the joint venture.

Sec. 295.10 Special Reporting and Auditing Requirements.

Each award by the Program shall contain procedures regarding technical, business, and financial reporting and auditing requirements to ensure that awards are being used in accordance with the Program's objectives and applicable Federal cost principles. The purpose of the technical reporting is to monitor "best effort" progress toward overall project goals. The purpose of the business reporting system is to monitor project performance against the Program's mission as required by the Government Performance and Results Act (GPRA) mandate for program evaluation. The audit standards to be applied to ATP awards are the Government Auditing Standards (GAS) issued by the Comptroller General of the United States (also known as yellow book standards) and the ATP program-specific audit guidelines. The ATP program-specific audit guidelines include guidance on the number of audits required under an award. In the interest of efficiency, the recipients are encouraged to retain their own independent CPA firm to perform these audits. The Department of Commerce's Office of Inspector General (OIG) reserves the right to conduct audits as deemed necessary and appropriate.

Sec. 295.11 Technical and Educational Services for ATP Recipients.

(a) Under the Federal Technology Transfer Act of 1986, the National Institute of Standards and Technology of the Technology Administration has the authority to enter into cooperative research and development agreements with non-Federal parties to provide personnel, services, facilities, equipment, or other resources except funds toward the conduct of specified research or development efforts which are consistent with the missions of the laboratory. In turn, the National Institute of Standards and Technology has the authority to accept funds, personnel, services, facilities, equipment, and other resources from the non-Federal party or parties for the joint research effort. Cooperative research and development agreements do not include procurement contracts or cooperative agreements as those terms are used in sections 6303, 6304, and 6305 of title 31. United States Code.

- (b) In no event will the National Institute of Standards and Technology enter into a cooperative research and development agreement with a recipient of awards under the Program which provides for the payment of Program funds from the award recipient to the National Institute of Standards and Technology.
- (c) From time to time, ATP may conduct public workshops and undertake other educational activities to foster the collaboration of funding Recipients with other funding resources for purposes of further development and commercialization of ATP-related technologies. In no event will ATP provide recommendations, endorsements, or approvals of any ATP funding Recipients to any outside party.

Subpart B—Assistance to United States Industry-Led Joint Research and Development Ventures

Sec. 295.20 Types of Assistance Available.

This Subpart describes the types of assistance that may be provided under the authority of 15 U.S.C.



- § 278n(b)(1). Such assistance includes but is not limited to:
- (a) Partial start-up funding for joint research and development ventures.
- (b) A minority share of the cost of joint research and development ventures for up to 5 years.
- (c) Equipment, facilities, and personnel for joint research and development ventures.

Sec. 295.21 Qualifications of Proposers.

Subject to the limitations set out in section 295.3, assistance under this Subpart is available only to industry-led joint research and development ventures. These joint ventures may include universities, independent research organizations, and governmental entities. Proposals for funding under this Subpart may be submitted on behalf of a joint venture by a for-profit company or an independent research organization that is a member of the joint venture. Proposals should include letters of commitment or excerpts of such letters from all proposed members of the joint venture, verifying the availability of cost-sharing funds, and authorizing the party submitting the proposal to act on behalf of the venture with the Program on all matters pertaining to the proposal. No costs shall be incurred under an ATP project by the joint venture members until such time as a joint venture agreement has been executed by all of the joint venture members and approved by NIST. NIST will withhold approval until it determines that a sufficient number of members have signed the joint venture agreement. Costs will only be allowed after the execution of the joint venture agreement and approval by NIST.

Sec. 295.22 Limitations on Assistance.

(a) An award will be made under this Subpart only if the award will facilitate the formation of a joint venture or the initiation of a new research and development project by an existing joint venture.

(b) The total value of any in-kind contributions used to satisfy the cost-sharing requirement may not exceed 30 percent of the non-federal share of the total project costs.

Sec. 295.23 Dissolution of Joint Research and Development Ventures.

Upon dissolution of any joint research and development venture receiving funds under these procedures or at a time otherwise agreed upon, the Federal Government shall be entitled to a share of the residual assets of the joint venture proportional to the Federal share of the costs of the joint venture as determined by independent audit.

Sec. 295.24 Registration.

Joint ventures selected for funding under the Program must notify the Department of Justice and the Federal Trade Commission under the National Cooperative Research Act of 1984. No funds will be released prior to receipt by the Program of copies of such notification.

Sec. 295.25 Special Rule for the Valuation of Transfers Between Separately-Owned Joint Venture Members.

- (a) **Applicability.** This section applies to transfers of goods, including computer software, and services provided by the transferor related to the maintenance of those goods, when those goods or services are transferred from one joint venture member to other separately owned joint venture members.
- (b) **Rule.** The greater amount of the actual cost of the transferred goods and services as determined in accordance with applicable Federal cost principles, or 75 percent of the best customer price of the transferred goods and services, shall be deemed to be allowable costs; provided, however, that in no event shall the



- aggregate of these allowable costs exceed 30 percent of the non-Federal share of the total cost of the joint research and development program.
- (c) **Definition.** The term *best customer price* shall mean the GSA schedule price, or if such price is unavailable, the lowest price at which a sale was made during the last 12 months prior to the transfer of the particular good or service.

Subpart C—Assistance to Single-Proposer U.S. Businesses

Sec. 295.30 Types of Assistance Available.

This Subpart describes the types of assistance that may be provided under the authority of 15 U.S.C. § 278n(b)(2). Such assistance includes but is not limited to entering into cooperative agreements with United States businesses, especially small businesses.

Sec. 295.31 Qualification of Proposers.

Awards under this Subpart will be available to all businesses, subject to the limitations set out in section 295.3 and 295.32.

Sec. 295.32 Limitations on Assistance.

- (a) The Program will not directly provide funding under this Subpart to any governmental entity, academic institution, or independent research organization.
- (b) For proposals submitted to ATP after
 December 31, 1997, awards to large businesses made under this Subpart shall not exceed
 40 percent of the total project costs of those awards in any year of the award.
- (c) Awards under this Subpart may not exceed \$2,000,000, or be for more than 3 years, unless the Secretary provides a written explanation to the authorizing committees of both Houses of Congress and then, only after 30 days during which both Houses of Congress are in session. No funding for indirect costs, profits, or management fees shall be available for awards made under this Subpart.
- (d) The total value of any in-kind contributions used to satisfy a cost-sharing requirement may not exceed 30 percent of the non-Federal share of the total project costs.

U.S. Department of Commerce

Donald L. Evans, Secretary

Technology Administration

Phillip J. Bond, Under Secretary of Commerce for Technology

National Institute of Standards and Technology

Dr. Arden L. Bement, Jr., Director

Advanced Technology Program

Marc G. Stanley, Director

National Institute of Standards and Technology Advanced Technology Program 100 Bureau Drive, Stop 4701 Administration Building 101, Room A413 Gaithersburg, MD 20899–4701

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