

# Proposal Guidelines

## Indiana 21<sup>st</sup> Century Research and Technology Fund

### Revised 6-2-09

#### INTRODUCTION

The Indiana 21<sup>st</sup> Century Research and Technology Fund (the "Fund"), a component of the Small Business and Entrepreneurship Division of the Indiana Economic Development Corporation (the "IEDC"), is open to proposals from all public and private entities for technology-based commercialization activities encompassing science/technology creation, innovation, and transfer intended to have economic impact in Indiana.

***The Indiana Economic Development Corporation's 21st Century Research and Technology Fund makes three basic types of award:***

***(1) Support of early proof-of-principle/early prototype activities in small/medium size companies. Such "Technology Commercialization Initiation" awards are usually made in amounts of less than \$500,000. The objective of the initiation awards is to position companies for follow-on support from the 21 Fund and/or other sources (potential jobs growth).***

***(2) Support of the efforts of companies that have already entered the market, with product enhancements and market development. These "Technology Commercialization Enhancement Awards" will be made in amounts up to \$2,000,000; and will require involvement of other simultaneous investors. The objective of enhancement awards is to accelerate company development (near term real jobs growth).***

***(3) Support of the SBIR/STTR applicant community in Indiana, through Phase I matching awards, Phase II enhancement awards, and proposal development assistance. These awards are subject of a separate Request for Applications (<http://www.in.gov/iedc/sbir.htm>).***

#### FUND OBJECTIVES:

The Fund was created by the Indiana General Assembly to: Stimulate the transfer of research and technology into marketable products; Diversify Indiana's economy by focusing investment in biomedical research and biotechnology, information technology, and other high technology industry clusters requiring high skill, high wage employees; and Encourage an environment of innovation and cooperation among universities and businesses to promote research activity, and to Increase the capacity of Indiana institutions of higher education, Indiana businesses, and Indiana nonprofit organizations to compete successfully for federal or private research and development funding.

During its first five years, the Fund supported the development of critical academic-commercial networks, transferring advanced university technologies to the private commercial sector, and developing essential

technical infrastructure. During its second five years, the Fund focused on the critically important early stages of technology development in small/medium size companies, and has created a large and growing portfolio of awardees, at all stages of development, through its technology commercialization awards as well as its SBIR/STTR matching and enhancement programs. Now, the Fund is beginning to emphasize the key transitions leading to commercial activity, market penetration, and highly inflected jobs growth.

The Fund's focus on supporting high-growth, science/technology-based businesses is complemented by other IEDC programs supporting sustainable commercial activity (<http://www.iedc.IN.gov>). The Fund intends to increase the numbers and rates of development of new and expanding technology-based companies in Indiana by funding promising opportunities.

#### FUND IMPACTS:

The greatest societal benefits flow from developing new nationally competitive science/technology products. As these enter the mainstream of commercial activities, Indiana companies will gain and sustain important competitive advantages. The Fund has positioned itself to have maximal impact on two critical risks of developing companies: (1) the initial demonstration of the value of a new technology in the context of an evolving business structure; and (2) the initial entry into the marketplace, when rapid product and management evolution determines success or failure.

The creation of high-wage high-technology jobs is a primary driver of Fund award activities. Not only must the technology development plan be highly innovative and well-reasoned, but also the intended commercial development of that technology must be convincing and related to near-term jobs creation. It must be clear that if all project activities succeed, significant near- and long-term hiring will take place in Indiana. As a result, the nature of the business development plan will strongly influence the likelihood of an award action by the Fund. The IEDC will carefully weigh both the 'upside' commercial scale and job creation effects of every project under consideration. The IEDC Board, which must recommend all Fund awards, thoroughly reviews each project's likely commercial impacts.

#### GENERAL SELECTION CRITERIA:

In making awards, the IEDC/Fund will balance: (1) time-to-market; (2) jobs creation potential; (3) the probability of technical and business success, and (4) cost. The Fund's emphasis will be in supporting and accelerating the transition from technology development to commercial processes.

The 21 Fund SBIR programs are designed to help small businesses develop successful proposals, and to supplement federal award support. In all development projects, the IEDC/21Fund prefers to leverage additional sources of funds, whether public or private. Similarly, our emphasis on time-to-market requires that projects with extended commercialization time-lines, such as early stage therapeutic drug and medical device development, utilize federal programs to the extent possible before approaching the Fund.

Fund awards are subject to approval by the IEDC Board, which considers and recommends Fund awards to the Indiana State Budget Committee. A diagram describing the Fund's processes is attached.

## Technology Commercialization Initiation Awards

These awards provide a maximum of \$500,000 for one year. Submission of a follow-on request for 21 Fund support would be allowed nine months after the date of a completed Initiation Award agreement with applicant.

**Purpose:** Develop evidence that a long-term technology commercialization process is worthy of pursuit. Provide a route into the 21 Fund portfolio. Enable a clear path to attracting both public and private sector funding.

**Rationale:** The early development of a technology-based business requires initial evidence that an otherwise good/interesting idea is worth pursuing. Such early technical milestones form the basis for the later orderly evolution of technical, financial, and managerial resources.

Provision of initial, limited, support has been utilized by the 21 Fund Board to encourage promising technology development, while simultaneously limiting its financial risk and developing objective measures (project outcomes) of the capabilities of our applicants.

**Advantages:** Commercialization Initiation Awards limit the exposure of the 21 Fund at the point of maximum technical risk. Later 21 Fund or other review of a full proposal will have the advantage of both initial development results and evidence that the applicants are able to effectively manage this challenging stage of technology development.

### **Proposal Issues:**

The proposal must present a cogent case for undertaking an initial technology development.

The proposal must clearly identify sources of follow-on funding, assuming that the proposed technology development/validation is successful. Since 21 Fund has limited resources, this point will be a key review issue.

The early design/creation of a new prototype, selection of a lead therapeutic agent, or formulation of new processes or software involve technical and business risks. Our applicants must provide a convincing technical argument for undertaking these early steps.

The 21 Fund expects that Technology Commercialization Initiation Awardees will reach an identified go-no-go stage within 12 months. Reaching such a milestone will lead to development of a full technology commercialization proposal to the 21 Fund, or access to other sources of support<sup>1</sup>.

We ask our reviewers to comment on the following issues: The innovation and significance of this project; The nature and importance of the technical milestone(s) identified by our applicant; The clarity and feasibility of the development plan; and The likelihood of follow-on funding.

### **Proposals should be no longer than 15 pages, including:**

- 1) A discussion of the context of the technology plan.
- 2) The specific goals of the preliminary planning/studies.
- 3) The expected outcomes (including jobs creation) and decision points, and
- 4) A brief summary of the expected evolution of the project in Indiana, assuming that the initial proof-of-principle is accomplished.
- 5) A budget showing and justifying costs to be paid by the 21 Fund must be included.
- 6) In addition, other funds (and their sources) to be utilized during the project's first 12 months

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<sup>1</sup>Subsequent proposals to the Fund by Technology Initiation awardees must include elaboration of the business development activities necessary to raise needed capital, including Fund participation.

should be summarized, as well as indications of the participation of elements of the likely user community/market. Provide a blueprint of what funding is needed *to get to revenue*.

The information provided must be sufficiently technically detailed to allow an expert in the technology area to draw specific conclusions regarding the innovation and significance of the project and its feasibility. Absent appropriate details, our reviewers will be forced to say that conclusions cannot be reached, and the project will be declined.

Fund staff will be glad to examine preliminary drafts of proposals and offer suggestions regarding level of detail and other project specifics.

The review of Initiation proposals is considerably more rapid than for full Commercialization projects. However, review feedback will be less comprehensive. Usually, a funding decision is possible within several weeks from acceptance of a proposal.

## Technology Commercialization Enhancement Awards

**SUMMARY: Technology Commercialization Enhancement Awards.** Recognizing the scarcity of funds for initial seed rounds of VC funding, the IEDC provides funds (up to \$2 million) to companies with proven technology-based products (i.e. already entering a market) in order to induce these companies to grow in Indiana, and to provide a measure of risk-management to venture capital providers. The transition from the early market stage to creation of a full service company, appropriately differentiated in the market, is a great challenge from both the management and technical points of view. These awards are based on compelling cases involving both technology and company development, and involving large-scale financial leveraging. The Fund takes a problem-solving approach with companies that have significant growth opportunities.

**Purpose:** To accelerate the commercialization trajectories and enhance the likelihood of robust jobs growth of technology-based companies.

**Rationale:** Bringing a new technology to the market is a major achievement for any company. However, small companies experience intense financial stresses as they cope with developing both the new market and their technology in order to sustain competitive advantage. Required funding is often provided by seed-level funds, which prefer to emphasize market development rather than further technology development. Particularly in today's environment, a key risk-management activity of State funding involves minimizing technical risks while simultaneously encouraging seed funds' interest in near-term business development. With the involvement of both the State and seed funds, the business is solidified while the groundwork for sustained technology competitiveness is also being expanded, optimizing the likelihood of long-term jobs creation in Indiana.

**Review Issues:** Requests for Technology Commercialization Enhancement Awards will be thoroughly peer-reviewed. Reviewer emphasis will be on technical innovation, feasibility, and the relationship between the technology development plan and the nature and development of the company and its market(s). The demonstrated capabilities of company management will be evaluated. In addition, the IEDC expects applicants for technology enhancement awards to engage additional private or public capital matching, to demonstrate an ability to see the business through to a cash-flow break even.

**Proposal Guidelines:** There are no proposal format restrictions for this award type. Discuss in detail the current status of your technology, and the corresponding development of your business. Include discussion of the market

and its segmentation. Provide a detailed map of further technology development, associated financing, and the related business and management activities required for your future success. How will the planned technology development work provide you with a sustained competitive advantage? Will your market change as a result of your further technology development?

Explain in detail the budget required for this enhancement of your technology commercialization. Provide details of immediate and longer term funds to be acquired from other sources.

Fund staff will be glad to examine preliminary drafts of proposals and offer suggestions regarding level of detail and other project specifics.

## **SUBMISSION PROCESS:**

Prior to submitting a proposal to the Fund, we recommend that you familiarize yourself with the material in this document, and discuss your project ideas with Fund staff. Projects identified as likely fits to the Fund's objectives will be invited to submit project descriptions for both technological and business reviews. *A schematic describing the Fund's submission and review process is attached.*

A submission to the Fund involves several basic steps:

**FIRST**, contact Fund staff (Linda Peterson-Roe; lpeterson-roe@iedc.in.gov; 317-234-4652) to discuss your interest in submitting a proposal and your technology and commercialization goals. This initial interaction will generally result in a request for you to complete a form called a "Project Information Sheet". It is a simple form, covering basic information about your company and project. The completed Sheet will provide the necessary background information for step two of the process. This Information Sheet is not intended to be an element of your proposal.

**SECOND**, Fund Staff will schedule a conference call or meeting with you, involving at least one member of the Fund's technical staff and one member of the Fund's business staff. This discussion will allow Fund staff to identify applicants that appear to be a good fit to its programs. For applicants meeting the basic criteria, this meeting will stimulate a discussion of details of the submission and the review processes. Fund staff will also discuss the typical terms of award agreements (available at [www.21fund.org](http://www.21fund.org)).

**THIRD**, using the 21 Fund secure, on-line application website, provide 21 Fund staff (e-mail preferred) with a document (or documents) which describe the technical and business aspects of your proposed project. It should be noted, though, that business plans typically do not provide sufficient technical detail to satisfy our technical reviewers. Thus, it is usually necessary to submit separately the technical specifics described herein.

## **IMPORTANT POINTS REGARDING THE TECHNICAL PROPOSAL SUBMISSION PROCESS:**

1. **PROPOSAL DEVELOPMENT ASSISTANCE:** The proposal development process is iterative. When you initially send a proposal, it is considered to be a "draft" document - not the final version. If you would like assistance, Fund staff will read your proposal and provide feedback with the goals of helping you write the best proposal you can and preventing you from making simple, critical omissions. Fund staff will NOT write the proposal for you. Fund staff will examine multiple revisions of a proposal until you and staff agree that the proposal is ready to be submitted to review, or until Fund staff determines that substantive changes are no longer being made from one version to the next.

2. **TECHNICAL DETAIL REQUIREMENTS:** The level of technical detail in your proposal will to some extent depend on what you intend to do; however, the most frequent reason for failure in our technical review is reflected

in reviewer comments such as: ‘not enough detail’; ‘important aspects of the project are not described’; ‘how this will be done is not described’; etc. Perhaps the best advice in this regard is to say: “imagine that you (or your technical advisor) are reading a project description intended to convince you that the project has significant merit. What would you want to know?” In Fund technical review, you are addressing experts. You are not selling your idea to a lay audience or to a group of ‘generalists’. If you do not provide the detail necessary to win positive comments by persons with recognized expertise in your field, you will not likely win an award from the Fund. On the other hand, it is also important to note that it is possible to seriously and concisely describe a complex project without providing tedious protocol-like details, which any expert would implicitly expect you to manage.

Another way to think of the issue of proposal detail, is from the point of view of clarity. You must organize your thoughts logically and express them forcefully and clearly. Your proposal should open with clear statements describing what you intend to do and why. This will set the context for the remainder of the discussion, and will prevent our reviewers from ‘guessing’ what your objective is going to be. **Since resubmissions are not accepted for six months following the date of a decline, it is quite important that you provide an appropriate level of detail.**

3. PROPOSAL FORMAT: We have no formatting requirements and no deadlines. This means your proposal can be any length, it can contain the relevant information in any order, and it can be submitted at any time. The 21 Fund does not impose strict guidelines in these areas in order to allow applicants to express themselves in a manner that makes most sense to them. You should make sure, though, that your proposal presents information logically, that it presents only relevant information, and that it is not repetitive.

4. OFFICIAL SUBMISSION: Proposals must be submitted by the leadership of the lead applicant’s organization or academic institution. The application must contain official acknowledgement of participation in the proposal by EACH institution or entity represented in the proposal. Separate letters confirming participation can be attached as an appendix. This acknowledgement does not constitute a contract among parties to the proposal. Subcontract agreements are solely the responsibility of the lead organization or institution.

5. BUDGETS: A budget detailing all project costs to be paid by the Fund, as well as budgets, prepared by subcontracting organizations, must be included. Subcontracts involving academic institutions must be processed through their sponsored programs offices. Include in your budget \$8,000 for CPA reviews.

6. CONTACT PERSON: A single contact person and lead organization should be indicated; the Fund often refers to this person as the “principal investigator”. Disbursements will be made to the lead organization. The lead organization will be responsible for the submission of proposal information and the budget, as well as providing outcomes information, other reporting requirements, and development and disposition of partnerships.

7. ALLOWABLE COSTS: **ONLY DIRECT COSTS WILL BE SUPPORTED.** Examples of allowable costs include: equipment, personnel, IP expenses, etc. Institutions will not be provided indirect (overhead) cost support, such as costs that cannot be specifically attributed to a particular project, such as rent, phone, etc. In general the Fund will not pay for ‘normal business activities’. It is assumed that Fund support is for a clearly specified new activity.

8. ACADEMIC INTERNS: While not a review criterion, the Fund encourages the inclusion of interns from any academic institution, or participating commercial sector partner, in order to increase project-related involvement of students at all levels.

## **DISQUALIFICATIONS:**

*Entities with previous Fund awards that are not current with regard to financial or technical reporting requirements will be disqualified from making new submissions to the Fund. **Generally, recipients of other IEDC business development incentives will be ineligible to receive 21 Fund support.** However, check with 21 Fund staff for an opinion in your specific case.*

*Resubmissions of previously declined proposals will be considered **only after the lapse of 6 months**, and then only if substantive changes have been made to the proposal. Fund staff will determine whether to review resubmissions.*

## **CONFIDENTIALITY AND CONFLICTS OF INTEREST:**

The Fund utilizes confidential peer review involving Indiana, national, and international experts. The Fund's reviewers complete confidentiality and conflicts-of-interest agreements with the Fund prior to developing reviews. Proposal and review materials have been designated as confidential by the IEDC Board, and are protected from public release<sup>2</sup>. However, project abstracts, provided by applicants during the course of the awards process in the Project Information Sheet, ARE public. Thus, it is important to avoid discussing confidential information in the abstract that you provide. Lists of applicant principal investigator, applicant organization and location, project title (and abstract), and amount requested are publicly available on the Fund's web site. If an award is made, the partner institutions are also listed in public tabulations.

## **POST-AWARD ISSUES:**

### Grant Agreements:

If a proposal receives all the necessary approvals described in the Review Process above, the applicant will enter into a grant agreement with the IEDC. In order to ensure that the grant is invested in Indiana and applicants receive due incentive to grow their businesses in Indiana, the awards contain conditions relating to repayment of grant funds in certain circumstances. The following summary of the material provisions contained in the grant agreement is for informational purposes only. The final terms of an applicant's grant will be as set forth in the definitive grant agreement between the applicant and the IEDC.

### Indiana Presence:

Proposals from organizations and individuals outside of Indiana are welcome. However, the IEDC will include in its agreements specific terms intended to ensure that Indiana is the primary beneficiary of project technology development and related commercial activity. Some of these terms are stated in the repayment terms above, including: 'movement of the project outside the State of Indiana', and 'payment of more than fifty percent of the total amount of all salaries, wages and benefits to persons other than full-time residents of the State of Indiana.'

In addition to conducting project activities and commercialization in Indiana, the IEDC is likely to require the presence in Indiana of the company's management. For start-up companies, this means that the entire company must be present in Indiana, including management. For existing companies intending to locate new divisions in Indiana this means that the majority of the technology development activities related to the IEDC award must be located in Indiana. Furthermore, while elements of company management may be located outside of Indiana, the Indiana activities must be independently managed and operated in Indiana. Product manufacturing and support must be intended to occur in Indiana. Agreement terms related to 'Indiana presence' will be determined on a case-by-case basis, but it is important to discuss such issues with the IEDC prior to developing a full proposal.

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<sup>2</sup>[www.21fund.org/confidentiality.aspx](http://www.21fund.org/confidentiality.aspx)

## Post-Award Reporting Requirements:

Awardees will be expected to submit quarterly technical reports and semi-annual financial reports summarizing the project. Through the award agreement, the IEDC also establishes the right to conduct site visits. Typically site visits will occur on a yearly basis. Awardees will be given at least one-week prior notice before any site visit.

### No-Cost Extensions:

It is very important that you plan carefully the time it will take you to accomplish your project objectives. The IEDC will approve no-cost extensions of project duration *only under exceptional circumstances*. Return of unexpended funds is required by our award agreements

## **OTHER RELATED INITIATIVES SUPPORTED BY THE IEDC:**

**The IEDC's SBIR Office** encourages development of SBIR/STTR proposals. In conjunction with the Fund, the SBIR Office manages an SBIR/STTR Phase I matching program. In addition, the SBIR Office will carry out fast-turn around reviews of SBIR/STTR proposals from Indiana applicants prior to their submission. Separate RFAs are available on the IEDC's web site describing the process for obtaining a Phase I matching award (and for obtaining letters verifying the existence of this Phase I matching program which can be submitted with your federal Phase I proposal), and for requesting Phase II enhancement awards. For more information, contact Brooke Pyne, Director of the IEDC's SBIR Office (bpyne@iedc.in.gov; 812-384-3078).

**The Indiana Small Business Development Center (ISBDC)** is a state-based organization offering a wealth of free and low cost information, management counseling, and educational services designed to support Indiana small business owners and potential entrepreneurs. Their mission is to help Indiana business grow and create new jobs within the state. You can find more information about the ISBDC at <http://www.isbdc.org/>.

## **INTERESTED IN APPLYING TO THE FUND OR WANT MORE INFO?**

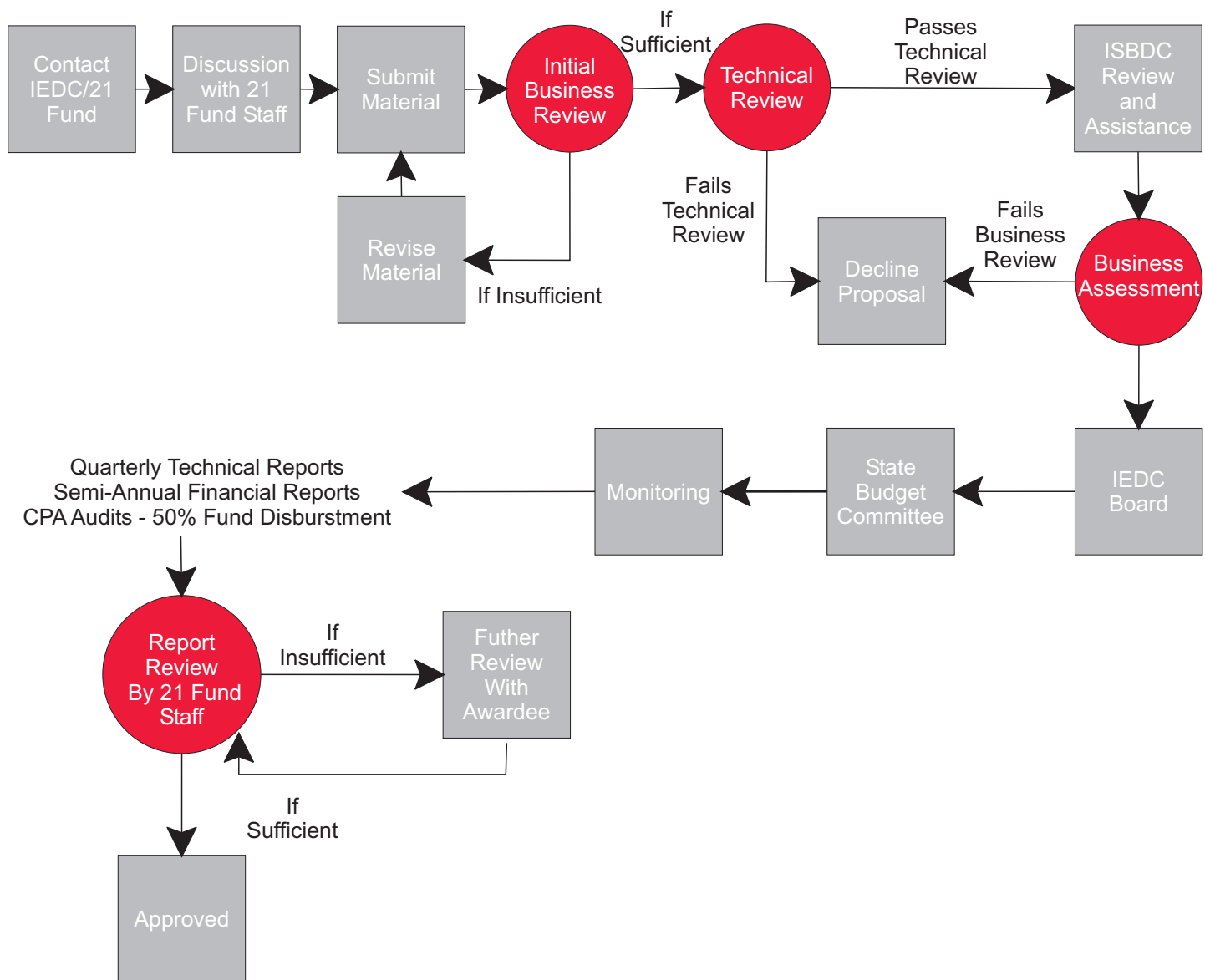
Contact:

### **LINDA PETERSON-ROE**

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## IEDC/21 FUND SUBMISSION, REVIEW, AND OVERSIGHT PROCESSES



The Fund proposal submission, review, and oversight processes consist of four phases: (1) Proposal Development; (2) Technical/Business Review; (3) Approval Processes; and (4) Monitoring.

*Proposal Development:* Involves initial contact with 21 Fund staff and discussion of the project plan; and submission and revision of proposal drafts. This optimizes the proposal for external expert technical review and for business review.

*Technical/Business Review:* Involves formal review of both technical and business aspects of the project plan. Negative reviews lead to decline of the proposal. Verbatim external reviews and a review summary/analysis (written by 21 Fund staff) are provided. If specific review issues require applicant comment, review materials are provided to the applicant with a request for a response to specific issues, leading to an award/decline recommendation to the IEDC, which in the case of an award recommendation undertakes an overall review of the project and review materials in order to select projects to be recommended to the IEDC Board.

*Final Approvals:* The IEDC Board receives and considers project award recommendations from the IEDC/Fund. Projects approved for award by the IEDC Board are presented to the Indiana State Budget Committee for final approval.

*Oversight:* Awardees provide quarterly technical reports and semi-annual financial reports to the Fund. These reports are used to identify technical or commercialization issues requiring attention. At 50% expenditure of award Funds, a CPA review is conducted.