Commonwealth Research Commercialization Fund

FY2020 SOLICITATION
Matching Funds Program Guidelines

The Matching Funds Program assists qualified organizations in commercializing research or technologies with high potential for economic benefit to Virginia and/or leveraging federal and private funds designated for commercialization. Each application and award addresses the research or commercialization of a discrete technology.

**KEY INFORMATION**

| Submission Caps: | Four LOIs/applications per organization
|                 | One LOI/application per Principal Investigator, counted toward an organization’s overall total |
| Funding Cap:     | $150,000 |

**DEADLINES**

- **Letter of Intent (LOI) Deadline:** Wednesday, November 6, 2019 (noon)
- **Application Deadline:** Friday, February 7, 2020 (noon)
- **Award Announcements:** Early June 2020

Administered by the Center for Innovative Technology on behalf of the Innovation and Entrepreneurship Investment Authority

**CONTENT AND FORMAT OF APPLICATIONS MUST BE IN ACCORDANCE WITH THESE PROGRAM GUIDELINES**

For more information, visit [www.cit.org/initiatives/crcf/fy2020/](http://www.cit.org/initiatives/crcf/fy2020/)
For questions, email [crcf@cit.org](mailto:crcf@cit.org)
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Program Overview

The Commonwealth Research Commercialization Fund (CRCF) advances science- and technology-based research, development, and commercialization to drive economic growth in the Commonwealth, create and foster high-potential technology companies, and to encourage and strengthen collaboration and partnerships between the public and private sector. The Fund seeks to advance Virginia’s position in strategically important areas including, but not limited to human health, cybersecurity, smart communities, and unmanned systems.

The Matching Funds Program assists qualified organizations in commercializing research or technologies with high potential for economic benefit to Virginia. The program leverages federal, private, and non-Virginia funds designated for commercialization. Projects must be based upon sound scientific principles and present an opportunity for valid research, as well as offer significant potential for commercialization and economic benefits that accrue in the Commonwealth. Each application and award addresses the research or commercialization of a discrete technology.

The CRCF programs support commercialization goals primarily through technology development in Virginia. CRCF monies may additionally be used for market validation, intellectual property protection, acquisition of materials and supplies, and other efforts that further technology commercialization and drive economic benefits to Virginia.

Resources for the CRCF FY2020 solicitation and Matching Funds Program are available, including FAQs, webinars, templates, and the link to submit the online letter of intent (LOI).

Applicants

Applicants for the Matching Funds Program are to be a(n):

- Virginia public or private institution of higher education or its associated intellectual property foundation that adopts a policy regarding the ownership, protection, assignment, and use of intellectual property pursuant to Code of Virginia, Section 23.1-1303
- University research consortium that includes Virginia college and university member institutions
- Federal research facility located in Virginia
- Other nonprofit research institution in Virginia that was established for and whose primary purpose is performing basic and/or applied research

Matching Funds Program Conditions

See Appendix A for full list of conditions common to all CRCF programs; applicants and awardees will be held accountable to common and program-specific conditions.

a. Organizations may submit up to four LOIs and subsequently four applications
   - For the purpose of this solicitation, a research center, school, department, institute, and/or other entity associated with the institution of higher education or research facility is considered under the umbrella of
that organization, and LOIs/applications received by any of the aforementioned entities will count toward the maximum submissions for that umbrella organization.

b. Of an organization’s four LOIs/applications, a Principal Investigator may submit no more than one.

c. Applications leverage federal, private, or other funding from non-Commonwealth of Virginia sources designated for commercialization and may:
   - Be tied to expansion or commercialization activity in an existing program; or
   - Fulfill a matching funds requirement for proposals to be submitted by March 31, 2020; CIT must be notified within two business days of the award decision; or
   - Be tied to projects for which awards have been made, but required matching funds have not been secured.

d. Applicants may request up to $150,000 from CRCF.

e. Applicants must provide funds that, at a minimum, are one-to-one to the total funds requested from CRCF.

f. Up to 49% of the total CRCF request may be used to support consultant/subcontractor efforts.

h. Up to 30% of the total direct costs requested from CRCF may be requested for indirect costs.

Industry Sectors

The core mission of the technology and CRCF projects must directly align with one or more of the industry sectors below and support the goals identified in the Commonwealth Research and Technology Strategic Roadmap, current as of September 2019. Industries are further defined in Appendix C.

- Clean energy
- Cybersecurity
- Data analytics
- Life sciences
- Unmanned systems

LOI Submission

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Letters of Intent (LOIs) allow CIT to assess CRCF eligibility and identify those projects that offer the most promise for the Commonwealth. LOIs must be submitted online between Wednesday, September 25 and 12:00 p.m. (noon) on Wednesday, November 6, 2019 to be considered for the FY2020 solicitation. LOIs will not be accepted after the deadline.

The LOI is comprised of an online form that provides administrative information and a document to be uploaded that seeks information on the market opportunity, technology, project, team, and projected economic outcomes. A sample LOI is available.
Use of the **FY2020 LOI template referenced above is required** and is also available on CIT’s website. Address each of the five questions by typing or pasting content to the right of the “>” symbol using 11-point Arial font. Each response should be no more than 1200 characters, including spaces and punctuation. In addition, the footer should indicate the applicant organization’s name and the PI’s last name in the appropriate placeholders; page numbers have already been included. Margins are set and should not be modified. The completed LOI is to be no more than 2 ½ pages. LOIs may not be modified after they are submitted.

An email will confirm CIT’s receipt of the LOI. Review of all LOIs will occur following the submission deadline. All applicants will be notified of their status, via email, in December 2019. Applicants who are invited to submit a proposal will receive an email with directions on accessing and completing their application; this email will include a **unique link to submit, which can only be found within this approval email.** If your LOI is not approved, your email notification will be followed, in January, by additional feedback to include the reason the project was not accepted. LOI decisions are final.

**Application Submission**

Applications must be completed and submitted online no later than 12:00 p.m. (noon) on Friday, February 7, 2020. The applicant will receive an email confirmation, upon successful submission. Applications may be modified until they are submitted.

**Application Format**

The Matching Funds Program application is comprised of an online questionnaire and documents to be uploaded. A [sample application](#) is available.

Applicants must use the FY2020 Matching Funds Program Proposal and Budget templates provided in the sections below and available on CIT’s website; a template is not provided for the Appendix.

Submission materials must:

- Be in final form
- Use ½” margins
- Use 10-point Arial font (with the exception of captions, figures, and charts)
- Use the naming convention described in the following sections:
  - The “CRCFREF#” is the CRCF reference number that will be auto-populated within each applicant’s online questionnaire
  - “Proposal”, “Budget”, “Appendix” at the end of the file name signifies the application section and should not be changed (please do not include applicant’s project title or other information)

File limits are 5MB per upload field. One document is permitted per upload field.

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**Applications must be submitted with the content outlined and in the format described per these Guidelines. Applications that do not comply with the Program Guidelines will not proceed past initial review.**
Application Components

Proposal

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Each Proposal has two sections: Technical Discussion and Strategic Plan. A key component of the Technical Discussion is the work plan. Estimated page counts for sections are identified in parentheses below. Your content may be longer or shorter; the only cap is the page limit for the Proposal as a whole: 8 pages. All Proposal content must be included within the allowable page count; links and/or external materials will not be evaluated.

**Technical Discussion**

- **Executive Summary** (up to ½-page)
  
  Provide a one-paragraph, high-level summary of your project suitable for a general audience. This may be used to publicly describe your project.

- **Project Description** (1 ½ pages)
  
  Identify, provide, and/or discuss each of the following:
  
  o Unmet need and opportunity, including why current/available solutions are inadequate (brief discussion; content should be expanded upon in the Strategic Plan)
  
  o Overview of the technology, product, or service to be commercialized, including the stage of development at the beginning of the CRCF project
  
  o Overview of the project, including its goals and high-level technical objectives, including the maturity of the technology at the end of the CRCF project
  
  o Intellectual property: status of IP, including its stage and IP strategy

- **Work Plan** (2 pages)
  
  Provide a narrative that thoroughly describes your plan of work. The work plan should discuss each of the following:
  
  o Key tasks and subtasks
  
  o Measurable milestone(s) for each task
  
  o Project risks and plans for overcoming these
  
  o Identification of key personnel and their role(s) in the project
  
  o How project activities advance commercial readiness

- **Graphic Timeline** (¼-½-page)
  
  Provide a high-level graphic timeline (Gantt or line chart/table) depicting this work plan, including milestones
### Strategic Plan

The Strategic Plan must include (2 pages):

- **Evaluation plan that identifies:**
  - Criteria that define success for the overall CRCF project
  - How project execution will be managed by the Principal Investigator and/or project team
  - Criteria that define long-term success for the project

- **Commercialization:**
  - Market opportunity, including target market size and target customers
  - Competitive advantage/existing products, including why customers would prefer your product or service
  - Commercialization strategy
  - Time (in months or years) for the technology to enter the market
  - Pathway and anticipated and/or potential challenges to market entry

- **How CRCF funding will impact commercialization of the technology**
- Funding received or pending for this technology from Commonwealth grant programs VRIF, CHRB, and/or VHBRC/The Catalyst; include the source(s), amount(s), and year(s), if applicable
- Likely sources of and approach to acquire follow-on funding
- Anticipated measurable economic outcomes, within and outside the Commonwealth, following the end of the CRCF project and the timeframe for these outcomes; outcomes may include, though are not limited to: job creation, sales and/or licensing revenue, private investment, new or expanded facilities, and companies that relocate to Virginia
- Future opportunities for public and private collaboration
- Principal Investigator’s experience commercializing technology and/or in the industry
- Partners and how they will advance the project

### Budget

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**Reminders:**

- Matching funds of at least one-to-one to CRCF requested funds are required; monies must come from non-Commonwealth of Virginia sources, be unspent, and be available during the CRCF project’s period of performance *(updated October 2019)*
- Consultant/subcontractor efforts are capped at 49% of total requested CRCF funds
- Market validation support is capped at 5% of total requested CRCF funds
- Indirect cost support is capped at 30% of requested CRCF direct costs

### Appendix

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The Appendix must include:

- **Letter from the Authorized Representative**
  The Letter from the Authorized Representative indicates organizational support for the application. It must be on the applicant’s letterhead, include the CRCF reference number and the title of the project, and be signed by the organization’s Authorized Representative. If an organization prefers its information not be shared among CIT's various funding programs, this must be stated in the letter.

- **Letter Addressing Market Potential**
  Provide a letter from the organization’s licensing office or equivalent or a senior administrative official discussing the ways it or s/he will support the technology or service being proposed. The letter may also provide greater insight into the market potential, target customers, and/or commercialization strategy. Content does not need to be duplicated from the Strategic Plan.

- **Two discrete CVs**:  
  - Principal Investigator (2-page maximum)  
  - One additional key personnel involved in the CRCF project (2-page maximum)

*Two CVs are called for. If there are no additional key personnel supporting the project, indicate this in the Strategic Plan.*

Additional Appendix content may include, though are not required:

- Bibliography/references
- Letters of support
- Proprietary information (only if necessary for evaluation of the application and/or a full understanding of the project; proprietary information must be clearly marked)

Content called for in the Technical Discussion is to be in that section of the Proposal rather than the Appendix, unless, as noted above, the content is proprietary.

### Evaluation and Selection

#### LOI Evaluation Criteria
Each of the five questions on the LOI will be assigned a score from 5 to 1, from highly promising to poor or not a fit for CRCF. An LOI’s overall score will determine whether a proposal will be invited:

- 25-22: considered ‘highly promising’ and expected to be invited to submit a proposal
- 21-18: considered ‘promising’ and may be invited to submit a proposal
- 17-15: may be asked to strengthen one or more areas and submit in a future round
- 14 and below: may be asked to strengthen one or more areas and submit in a future round or will be advised that the technology or project is not a fit for CRCF
Application Evaluation Criteria

An application will be evaluated on adherence to these Guidelines, including how completely it provides the information requested for all sections of the submission, and on the following criteria. Subject matter expert (SME) evaluation forms, which reflect this criteria, will be available by early December via the CRCF FY2020 Solicitation Resources page.

**Strategic Alignment: 10%**
- Funding requested for direct costs; stronger consideration will be given to applications that request CRCF funds for direct costs only
- Demonstration of public/private collaboration, or collaboration between higher education institutions
- Leverages federal, private, or other non-Virginia funds designated for commercialization

**Technical Feasibility and Merit: 45%**
- Sound project work plan and timeline, including well-defined milestones
- Qualifications of applicant organization and team to achieve goals
- Reasonableness of project costs
- Evaluation plan
- Importance of CRCF funding on commercialization

**Commercialization and Economic Impact: 45%**
- Clear understanding of market, path to commercialization, and time to commercialization (appropriate for industry)
- Market opportunity, market size, and competitive advantage
- Commercialization potential; likelihood project will lead to high-potential technologies, products, or services in Virginia
- Potential for new IP and licensing opportunities
- Likelihood project will contribute substantially to the Commonwealth’s economic development

*Information and materials submitted to CRCF will be shared for review purposes. Additionally, data may be compiled aggregately for the CRCF Annual Report and in other ad hoc reports.*

**Selection Process**

CRCF employs a multi-stage review process to assess and advance applications. Letters of Intent (LOIs) are first reviewed by CIT for general compliance. Eligible LOIs advance to a review committee that includes the Research and Technology Investment Advisory Committee (RTIAC) and a pool of subject matter experts. The group will recommend those projects which will be invited to submit an application. Applications are evaluated initially by CIT for compliance with Program Guidelines. Compliant submissions undergo external review by subject matter experts, who are drawn from sectors that include academia, the federal government, industry, venture capitalist, and research institutes, and who are based in and outside of Virginia. Subsequently, for projects that advance, evaluation is performed by the RTIAC. After its review, the RTIAC will recommend awards to the CIT Board, which will consider those recommendations and make award decisions.
Appendix A: CRCF Common Conditions

a. An LOI is required for each CRCF application.
b. Each application may be submitted under only one CRCF program.
c. If at any time between application submission and award announcement an applicant learns they are not eligible for CRCF for any reason or that there is a meaningful change in the proposed activity or timeline, CIT must be notified.
d. The applicant organization and Principal Investigator must be located in and perform the CRCF project in Virginia.
e. Organizations included on the [U.S. Department of Labor debarment list](https://www.dol.gov/agencies/cbp/whd/debarment) are not eligible to apply for CRCF funding.
f. Projects may start, at the earliest, on June 15, 2020, and begin no later than 60 days after the award announcement date, unless the federal SBIR or STTR award (for SBIR and STTR Matching Funds Programs) is received after this time or other special consideration is granted.
g. Where applicable, given the nature of the work in dual- or multi-party projects, an executed intellectual property agreement(s) must be provided prior to the disbursement of funds and within 60 days of the award announcement. Intellectual property agreements must be durable enough to satisfy the requirements of commercialization and production as envisioned for the end product. CIT does not take ownership of intellectual property nor provide a template intellectual property agreement.
h. Inclusion of proprietary information in applications, communications, and/or subsequent reports is discouraged unless necessary for evaluation of the application and/or a full understanding of the project. **Proprietary information must be clearly marked, and, in CRCF applications, must be included in the Appendix.**
i. No classified information will be accepted.
j. If an organization applies for financial support under a program managed by CIT, such as CRCF, the information provided may be reviewed by/for other programs managed by CIT, such as the GAP Funds. If an applicant chooses that its information not be available to or for other programs, it must indicate this in the Letter from the Authorized Representative.
k. Award recipients retain the title of approved equipment purchased with CRCF monies.
l. A project’s matching funds may not be monies from prior CRCF awards, other Commonwealth of Virginia funding programs, such as the GAP Funds, the Virginia Biosciences Health Research Corporation (VBHRC, the Catalyst), the Commonwealth Health Research Board (CHRBB), the Virginia Research Investment Fund (VRF), or other state contracts or grants. The salary of a university researcher and associated indirect costs, even if considered state monies, may be used as matching funds. Matching funds must be unspent and available during the CRCF project’s period of performance. *(updated October 2019)*
m. For purposes of determining whether property was developed “wholly or predominantly” through the use of state funds, per the third enactment of Chapter 816 of the Acts of Assembly of 2011, awards made from the CRCF shall not be considered state or general funds.
n. LOI and award decisions are final and not subject to further review or appeal.
o. The recipient’s ability, including the ability of any of its proposed or actual partners, to perform the research and commercialization as set forth in its application and to further the goals set forth in the Commonwealth Research and Technology Strategic Roadmap, is critically important in the granting of an award.
p. Awards will be made subject to the availability of funds.
q. A performance agreement memorializing the terms and conditions of the award must be executed by the Authority and the recipient of the award before funds are disbursed. The performance agreement is comprised of the recipient’s CRCF award letter, program guidelines, and award Terms and Conditions.

r. After initial disbursement, payments will be contingent upon successful performance against key milestones and other performance standards outlined in the proposal and performance agreement.

s. Award monies not expended by the end of the period of performance must be returned to the Fund.

t. Projects must be conducted as proposed and approved, including the plan of work and budget, unless prior approval is received from CIT. Award recipients require prior approval from CIT for a plus or minus 20% deviation for any budget category, no cost extension, and/or other deviations from the project as defined in the performance agreement. Budget modifications may adjust the indirect cost ratio if the change reduces the percent of the award spent on indirect costs.

u. Award recipients requesting a no cost extension must notify CIT at least 30 days prior to the project’s end date.

v. Awardees are required to submit a progress report(s) and final report as a condition of their award, and report on commercialization and/or other outcomes for five years after the period of performance. Report guidelines and due dates will be provided by CIT. Contents may include, but are not limited to: performance against milestones, proposed budget vs. actual expenditures, intellectual property created, commercialization, job creation and retention, and follow-on funding. Notwithstanding the foregoing, award recipients shall notify CIT immediately if their ability to perform pursuant to the terms and conditions of the award, including those conditions set forth herein, is compromised for any reason or may be reasonably expected to become so compromised. CIT will use such notice exclusively for the purpose of determining the status of the CRCF award, including any applicable repayment requirements.

w. CIT has the prerogative to audit financial and/or other records associated with the CRCF award for three years following the project end date.

x. Award recipients must comply with federal and state laws, regulations, and policies. Violations or allegations of violations must be reported to CIT within 30 days.

y. Award recipients and their partners who are delinquent in any CRCF obligation are not eligible to apply for or receive future CRCF funding until obligations are resolved to CIT’s satisfaction.

z. The indebtedness or breach of any material obligation to the Commonwealth of Virginia, its political subdivisions, and/or its agents by an applicant and/or an applicant’s proposed or actual partners results in ineligibility for CRCF funding.

aa. Award recipients whose CRCF-related activity leaves the Commonwealth during or within 24 months following the period of performance end date will be required to repay, in full, funds awarded. Partial repayment will not be accepted. As contemplated by this paragraph, CRCF-related activity may “leave” the Commonwealth as a result of a variety of factors, including, for example, the relocation of all or part of the award recipient or the sale of the award recipient or the CRCF-supported technology. Repayment is not required if the CRCF-supported technology is licensed to an out-of-state company, as this is an acceptable outcome.

bb. Should the recipient organization be sold or otherwise acquired during the period of performance or following the conclusion of the project, the award recipient will coordinate with CIT to determine if reporting responsibilities will be transferred to the new organization.

cc. CIT may terminate awards in the event of non-compliance with the terms and conditions of the CRCF award, including those conditions set forth herein, or other extenuating conditions. Repayment may be required in the event award monies have been expended for purposes other than those outlined in the applicant’s submission or, for whatever reason, cannot be expended for those purposes outlined in the applicant’s submission.
dd. Pursuant to Chapter 853 of the 2009 Acts of Assembly Enactment Clause 3, no award from the CRCF may be provided if the otherwise qualified business performs research in Virginia on human cells or tissue derived from induced abortions or from stem cells obtained from human embryo, nor shall any award from the Fund be used for such research. The foregoing provision shall not apply to research conducted using stem cells other than embryonic stem cells.
Appendix B: CRCF Background

CRCF advances science- and technology-based research, development, and commercialization to drive economic growth in the Commonwealth, create and foster high potential technology companies, and to encourage and strengthen collaboration and partnerships between the public and private sectors. In support of the Commonwealth’s overall plan to maximize the return on investment of taxpayer dollars and to enhance economic development, CRCF awards must further the goals set forth in the Commonwealth Research and Technology Strategic Roadmap (Roadmap), advancing Virginia’s position in strategically important areas, including but not limited to human health, cybersecurity, and smart communities.

The CRCF is composed of funds appropriated by the Virginia General Assembly and any gifts, grants, or donations from public or private sources. Pursuant to Virginia Code Section 2.2-2233.1, the Fund is administered by the Center for Innovative Technology (CIT) on behalf of the Innovation and Entrepreneurship Investment Authority (IEIA, the Authority). Awards may be made to Virginia public or private institutions of higher education or to their associated intellectual property foundations and qualified research institutions, federal labs, political subdivisions, and/or to technology companies within the Commonwealth.

Appendix C: Definitions

Eligible Industries

- **Clean energy:** includes solar, wind, geothermal, bioenergy, nuclear, clean coal, and energy efficiency technologies
- **Cybersecurity:** includes technologies designed to protect networks, devices, programs, and data from attack, damage, or unauthorized access
- **Data analytics:** technologies envisioned are specialized systems or software. Data analytics is the process of examining large data sets in order to draw conclusions about the information they contain, increasingly with the aid of specialized systems or software. The insights from data are used to recommend action or to guide decision-making rooted in business context.
- **Life sciences:** includes diagnostics, therapeutics, medical devices, health IT, and biotechnology
- **Unmanned systems:** unmanned or autonomous vehicles or systems for air, space, land, or maritime use. Eligible technologies include vehicles or other mobile solutions and their subsystems, components, and software, as well as the data derived from their use.