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# Virtual Institute on Feedstocks of the Future (VIFF)

Expressions of Intent Informational Webinar

June 12, 2023



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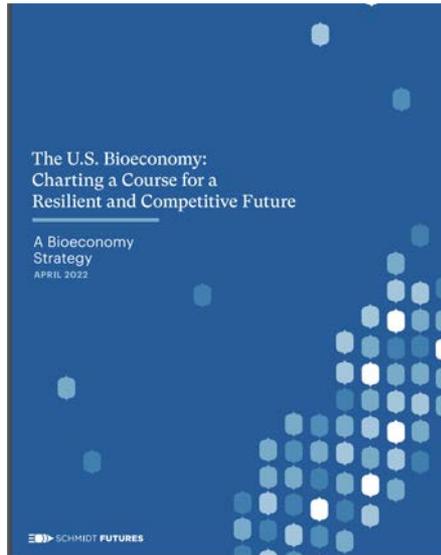
# Schmidt Futures

Founded by Eric and Wendy Schmidt, Schmidt Futures is a philanthropic initiative that brings talented people together in networks to prove out their ideas and solve hard problems in science and society.

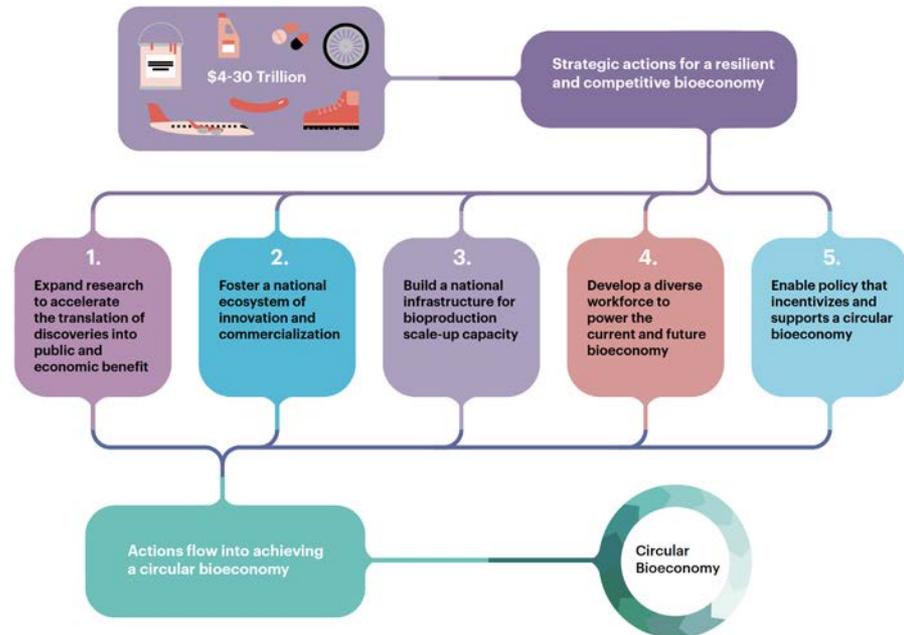


# Schmidt Futures and the Bioeconomy

*The U.S. Bioeconomy: Charting a Course for a Resilient and Competitive Future*



<https://www.schmidtfutures.com/our-work/task-force-on-synthetic-biology-and-the-bioeconomy>





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# BioFutures

The BioFutures Program aims to catalyze a vibrant, competitive, resilient, and circular U.S. bioeconomy, in which biological resources are transformed sustainably into food, feed, and biomaterials.

## Key Areas of Focus

- **Repurposing sustainable waste biomass**
- Overcoming engineering constraints
- Mobilizing talent for bioeconomy-related federal agencies

<https://www.schmidtfutures.com/our-work/biofutures/>

# Schmidt Futures Virtual Institutes

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A **Virtual Institute (VI)** is a **distributed network of carefully selected scientific and technical talent** focused on solving hard and important problems by working across institutions and disciplines. Examples:

- The **Virtual Earth System Research Institute (VESRI)** aims to improve global climate models through enhanced software, mathematics, and algorithms.
- The **Virtual Institute for Astrophysics (VIA)** focuses on accelerating discovery in astrophysics through advanced computing and technological innovation.

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# Virtual Institute on Feedstocks of the Future (VIFF)

**Mission:** VIFF aims to support U.S.-based science and technology research towards the use of underutilized biomass carbon sources as alternative feedstocks for biomanufacturing.

VIFF intends to host several independent (and complementary) integrated, interdisciplinary, and regionally distributed teams of researchers and partners. These teams will focus on advancing cutting-edge research, supported with sustained funding and connections across the Schmidt Futures talent network. All winning teams will convene annually to share learnings.

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## VIFF: What is a Future Feedstock?

A collective term for biomass feedstocks derived from waste materials, as well as those not currently in common use due to technical and other challenges. These include agricultural residues, animal waste, forestry residues, the organic fraction of municipal solid waste, and processing residues. For VIFF, future feedstocks do not include industrial gases or dedicated biomass crops.

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# VIFF: Our Approach

- VIFF will focus on the interdisciplinary science and technology research required to accelerate the adoption of future feedstocks in bioproduction
- Multiple funded project teams will operate in an integrated manner to tackle pervasive technological, cultural, and logistical challenges in this domain
- Projects will span up to five years, with budgets of no more than ~\$10M each

# Expressions of Intent (EOIs): Focal Areas

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We seek **EOIs** for research projects address one or more of the following areas:

- Heterogeneity
- Data, Modeling, Digital Tools, and Knowledge-Sharing

# EOIs: Project Types

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- Scientific Research
- Tools and Technology Development

Project types may include research efforts of individual organizations or teams of organizations.

# EOIs: Team Types

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- **Single-Institute**
- **Multi-Institute**
- **Regional Consortia.** Consortia of interdisciplinary researchers focused on advancing the use of future feedstocks available in a particular U.S. region through scientific research and/or tools and technology development.

Projects are anticipated to be led by PIs at not-for-profit U.S. research institutions, who will manage collaborations that may include subawards to other institution types.

*Preference will be given to regional consortia.*

# EOIs: Information to Include

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- Primary area of innovation; key challenges addressed to support VIFF's mission
- How the proposed work may inform or support the increased use of future feedstocks in bioproduction; the work's relevance to advancing S&T for society
- Scientific ability, relevant expertise, project management experience, capacity/ ability of PIs and partners to implement a large collaborative project
- Research infrastructure available to the team to advance proposed efforts
- Project type(s)
- Team type(s)
- Collaborative, diverse teamwork approach; plan for within-team coordination across research methods and disciplines

# EOIs: Submission Process

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- The EOI should be short (two pages) and should include all elements detailed in the Request for EOIs document.
- Detailed budgets are not requested at this stage. Proposed project budgets should not exceed \$10 million distributed over a 5-year period.
- EOIs must be submitted through the [form](#) linked in the [Request for EOIs](#) document on or before June 26, 2023.

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# Evaluation and Award Process

- **EOI Submission Deadline:** Monday, June 26, 2023, by 11:59 pm EDT
- **Review Process:** EOIs will be anonymized for an initial blinded review by a committee of peers and Schmidt Futures staff
- **For Additional Information:** Please refer to the [VIFF FAQ](#)
- **Invited Proposals:** In late July, we will invite selected teams to submit full proposals
  - Invited teams will have ~60 days to submit a full proposal
- **Award Decisions:** Winning teams will be notified in October 2023
- **Funding Timing:** Grants/gifts are anticipated to be executed in late 2023 to support research starting in January 2024

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## Q&A

- Questions from today's webinar will be added to the VIFF FAQ later this week (week of June 12).
- Please contact [viff@schmidtfutures.com](mailto:viff@schmidtfutures.com) with any additional questions, including "VIFF EOI Question" in the subject line.

