

Sustainable Products & Solutions (SPS) Program University of California, Berkeley

2008 1st Quarter - Request for Proposals (RFP)

PROGRAM OVERVIEW

The vision of the Sustainable Products & Solutions (SPS) Program is to create a multi-disciplinary learning and research environment where the foundations of sustainability -- society, science, engineering, environment, and finance -- are all considered simultaneously as new products and solutions are explored. The Program's working definitions of sustainable products & solutions involve a business model that is financially sustainable after valuing its social, health and environmental costs and benefits. This valuation is grounded in scientific evidence and involves the entire supply chain and life-cycle of the product or solution.

SCOPE OF INTEREST

Two key components of the SPS Program's mission are to sponsor research and support students (and faculty) working toward sustainable products and solutions. This research may take the form of "core" scientific or lab research or it may entail a "case study" or non-lab/sustainable product and solution educational projects. As a result, the funding for this RFP and the Program plans to fund research, curriculum development and/or "case study" projects that will help elucidate and better understand the scientific, social and business principles of sustainability in the areas of chemistry, engineering, business, biology, health sciences, natural resources, and energy. Topics of initial interest include **but are not limited to**:

- ✓ Reducing and measuring the carbon footprint of products and solutions
- ✓ Providing safe drinking water where it doesn't exist today
- ✓ Production of bio-based materials and feedstocks
- ✓ Converting biomass into useful products with minimal waste
- ✓ Storing energy cleanly and efficiently
- ✓ Sustainable market-based Solutions
- ✓ Measuring the lifecycle environmental footprints across a supply chain
- ✓ Decreased use of scarce resources
- ✓ Reducing exposure levels to chemicals throughout the life of a product
- ✓ Decreased emissions (air, water & land) and non-useful by-products
- ✓ Public Policy implications of "sustainable solutions"
- ✓ Improved the health profile of the final solution (eg. reduced PBT's / CMR's) ¹

¹ Persistent, Bioaccumulative, Toxins (PBT's) and Carcinogen, Mutagen, Reproductive toxins (CMR's).

The Program is also interested at this early stage in strategies and best practices for translating discoveries in these sustainability areas of interest into real world products, markets, policy and solutions.

This first SPS Program RFP intends to distribute ~\$2,000,000 (direct costs) during 2008. The dollar distribution between the three award levels will be determined based on merit by the faculty steering committee (see below).

THREE AWARD LEVELS:

- **Solution & Product Action Awards:** Initial product/system design and development of draft business/sustainability plans or finalized case studies for sustainable products or solutions; Product/system refinement/adaptation/analysis/public policy implications and field testing for products / technologies / systems with potential to lead to significant contributions to sustainable products and/or solutions (one time awards typically from a few thousand to \$75,000).

- **SPS Core Research Awards:** Scientific development, field testing, market research, analysis and partnership development for successful technologies, products and systems to demonstrate effectiveness, impact, life cycle benefits, and/or financial viability of innovative sustainable product and solution related technologies/systems with the goal of developing or scale-up of sustainable products (up to \$200,000 per year for two years with a potential for renewal). Research Awards need not encompass all of these components, and projects devoted to developing new technologies and/or advancing fundamental knowledge essential to sustainable practices are also encouraged.

- **SPS Curriculum Development Awards:** Development of multidisciplinary graduate-level sustainability curriculum targeting a minimum of two different colleges on campus. Also included in this level would be Seminar or Speaker Series Proposals where sustainable products and solutions are explored. The funding could include funding for graduate students focused on these sustainability courses. (one time awards typically from a few thousand for a speaker series to ~\$75,000).

SELECTION CRITERIA AND REVIEW PROCEDURES

The SPS Program also strives to foster inter-disciplinary cooperation, and an important criterion for funding will be the opportunity for interaction between one or more of the UC Berkeley colleges or departments and divisions within a college or school.

Proposals will be evaluated by a steering committee (see final page) on the basis of merit, qualifications of the proposer(s), and how closely they meet the overall goals of the Program. The metrics include but are not limited to reducing the fossil carbon footprint and use of scarce resources; decreasing waste; increasing energy efficiency; creating healthier product profiles and reducing the risk to humans and the ecosystem; being economically viable for all in the value chain; providing tools to enhance decision making; clarifying public policy implications for proposed solutions and increasing public trust and process transparency. There is no expectation that a new product or solution will meet all of these criteria; in fact, trade-offs and conflicts may be unavoidable, as is often the case for new solutions.

PRE-PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

Formatting instructions:

- Margins must be at least one inch on all sides.
- The font size must be size 11 or larger.
- Submission should be in the form of a single PDF document.

All proposals must be submitted electronically to SPSRFP08@haas.berkeley.edu

Call for Pre-Proposals: week of January 14, 2008

Pre-Proposal Submission Deadline: February 15, 2008

Full Proposals Requested from top Entrants: on or before March 5, 2008

Submission Deadline for Full Proposal: March 27, 2008

Final Awards Announced on or before April 18, 2008

Proposals can be from individuals or teams but there is a preference for the latter. Student-led proposals must include faculty involvement (e.g. a faculty mentor). Student involvement in faculty-led proposals is likewise preferred.

Pre-Proposals should include:

Descriptive title beginning with "SPS 2008:"; along with:

A single page summary of the issue/opportunity that the proposed project will affect. (This should be written for a general audience. Assume the readers have limited knowledge.)

This Summary should include:

- Basic description of the proposed project or development.
- What difference will this make and how?
- Specific goals/outputs expected under the requested funding.
- Basic methodology and proposed activities to reach goals/outputs.
- Including the role of any partner organizations/institutions and **Interdisciplinary links.**
- Basic Budget request from SPS Program
- Names of those involved in the project, denote the lead person / Principal Investigator (PI) along with their home departments.

Student-led proposals should be prepared to supply a letter of support from at least one faculty, indicating their role, if any, in the proposed research, activities and/or field work.

STEERING COMMITTEE (1/2008)

Kellie McElhane – SPS Program Director and Chair, SPS Program Steering Committee and Executive Director, Center for Responsible Business, Haas School of Business, UC Berkeley

Keith Alexander – Executive Director, Product Development Program, Chemical Engineering, UC Berkeley

Sara Beckman – Adjunct Professor, Haas School of Business, UC Berkeley

Arpad Horvath – Professor, Civil and Environmental Engineering, UC Berkeley

Tom Kalil – Special Assistant to the Chancellor for Science and Technology, UC Berkeley

David Levine – Professor, Haas School of Business, UC Berkeley

Stephen Rappaport – Adjunct Professor, School of Public Health, UC Berkeley

Don Tilley – Professor, College of Chemistry

Catherine Wolfram - Professor, Haas School of Business, Exec. Director, CEEI

TBD – Professor, School of Natural Resources

Tony Kingsbury – Executive-in-Residence, Center for Responsible Business & the Sustainable Products & Solutions Program / Haas School of Business (non-voting)

Questions should be directed to:

Tony Kingsbury

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tkingsbury@haas.berkeley.edu

Visit: <http://www.haas.berkeley.edu/responsiblebusiness/SPSProgram.htm>