From: Gary Fedder, Co-Director & Matthew Sanfilippo, Co-Associate Director, CMU
Date: August 6, 2012
Subject: Request for Proposals: Research for Advanced Manufacturing in Pennsylvania (RAMP) – Fiscal Year 2012-2013

Background

Carnegie Mellon University’s (CMU) Institute for Complex Engineered Systems (ICES) is proud to announce the recent awarding of a new collaborative university-industry economic development program by the Pennsylvania (PA) Department of Community and Economic Development under the Discovered and Developed in PA (D2PA) Program. The program, entitled Research for Advanced Manufacturing in Pennsylvania (RAMP) (http://www.ices.cmu.edu/ramp/), will be administered jointly by CMU ICES and Lehigh University’s Institute Center for Advanced Technology for Large Structural Systems (ATLSS).

The RAMP Program will leverage the research and innovation capabilities of two of the Commonwealth’s leading research universities, Lehigh and Carnegie Mellon, and the technology-rich manufacturing sector of PA industry, to form a unique university-industry collaboration that will lead to the following outcomes in the Commonwealth:

- Create a program that is PA manufacturing company influenced and uses a competitive proposal process to select and enable projects that will drive innovation in PA’s manufacturing job creators.
- Create an environment linking PA companies with students to create high paying manufacturing jobs and to interest and retain highly educated students in the field of manufacturing
- Provide PA companies with a competitive technology edge by introducing them to researchers and universities with equipment and skill sets to which they do not currently have access;
- Open the floodgates of technology assistance and innovation to PA companies by breaking down the barriers to academic expertise;
- Focus the innovation and educational capabilities of PA’s world-class research universities on real-world manufacturing solutions for PA.

RAMP will operate as a competitive funding program that will provide small Commonwealth funded incentive grants (approximately $25,000 to $75,000) to researcher-lead teams at PA universities that engage in specific, short-term manufacturing innovation projects of up to 1.5 years in duration with a PA manufacturing company to rapidly develop and transfer innovative technologies that would help PA manufacturers to compete in the global marketplace. These grants would be used to primarily support graduate students and other non-faculty related expenses at universities under the supervision of researchers who would be committed to working with PA manufacturing companies. The PA partner companies and/or other non-state government sources would be required to provide leverage funding, targeted at $1.50 for every $1.00 of RAMP funding, for labor and project expenses to complement the funding by the proposed Commonwealth project. The results obtained by these industry-university partnership projects would also provide incentive for university researchers to seek federal grants in areas that augment the efforts initiated by the Commonwealth program and amplify the upstream investment in PA manufacturing.

The RAMP program will primarily target projects with partnering PA companies that have manufacturing facilities located within the Commonwealth. Companies with operations in PA, but with US-based manufacturing operations outside of the Commonwealth, can also be considered when partnering on a proposal, although manufacturing operations in PA is the program’s preferred structure for the PA project partner.
Request for Proposals

Funding for RAMP FY2012-2013 will be administered by ATLSS, which is now soliciting proposals for projects that fit within the RAMP mission outlined above and which include collaboration with an industry partner with manufacturing operations within the Commonwealth. Proposals are due by September 10, 2012, with approval memos for selected projects expected to be issued by November 1, 2012.

The anticipated start date for selected projects will be November 1, 2012. The typical award period will run from November 1, 2012 to June 30, 2014. Typical project awards for RAMP funds are expected in the range of $25,000 to $75,000.

A main emphasis for RAMP projects is the focus on the “Active Participation of Pennsylvania Companies” (see below). For these collaborative projects, PIs are required to supply “support letters” from the participating companies as an attachment to the proposal. Note that for leverage funding to be considered as part of the budget proposal, the company support letter must quantify either the direct cash leverage value or in-kind donation value. Non-quantified in-kind leverage will not be considered as leverage funding. Additionally, PIs are required to submit a contact name and full address for a member of the participating company to serve as the company’s RAMP point-of-contact for the duration of the project. The point-of-contact will be invited to attend RAMP events during the course of the project, and will be asked to periodically provide feedback on the RAMP program. Additionally, language from the support letter may be included in reporting to the program sponsor.

Attached is the required format for FY 2012-2013 RAMP technical and accompanying cost proposals. Technical proposals are limited to 4 pages, excluding company support letters and the budget template. Proposed projects with strong technical content and significant impact on both the Pennsylvania manufacturing organization and the Pennsylvania manufacturing sector AND with the following features have the best chance to be selected for funding (in general order of importance):

1. **Collaborative Projects**
   Active Participation of Pennsylvania Companies with projects benefiting companies with manufacturing operations within Pennsylvania. Examples of active participation include cash cost matching and in-kind use of company facilities, equipment, materials, and/or personnel to conduct experiments, demonstrations, or other research tasks directly related to the project. Please review the earlier note that in-kind contributions from organizations must be quantified on company letterhead to be considered as leverage funding. Cash cost matching is particularly encouraged. The support-letters from industry must explicitly list the type and amount of their participation. Any cost match that is provided by the industry participant should be administered through a Lehigh University account.

2. **Active Participation of Graduate and/or Undergraduate Students.** A key element of the mission of RAMP is to link students with Pennsylvania companies and agencies to increase the retention of well-educated students in the Commonwealth. Projects with clear plans for interaction of graduate students and/or undergraduate students with Pennsylvania companies are strongly encouraged.

3. **Leverage Funding.** Leverage funding falls into four broad categories (in general order of importance):
   a. New cost matching from Pennsylvania industrial partners (specific to the current RAMP proposal)
   b. Existing cost matching from Pennsylvania industrial partners related to the proposed project goals (exist independent of the current RAMP proposal)
   c. New cost matching from non-Pennsylvania sources (e.g. federal government, out-of-state industrial partners) (specific to the current RAMP proposal)
   d. Existing funds related to the proposed project goals that do not fall into the categories above and that are not from Pennsylvania State government sources (exist independent of the current RAMP proposal).

As a guideline, the overall RAMP program goal is $1.50 of expended leverage funding for each $1.00 of expended RAMP funding. The leverage funding identified in a project proposal must be in place before RAMP funds are released to the project and must be expended during the period of performance of the project. Also, the relationship of leveraged funds to the project must be stated in the proposal.

4. **Follow-on Funds.** Follow-on funds are generated from future grants or contracts that result from concepts or technologies enabled by RAMP funding. The proposal should briefly outline any existing plans to seek follow-on funds based on your project.

5. **Budget.** RAMP funds should not be used to support tenured or tenure-track faculty, although faculty salary from non-RAMP sources can be included in the leverage funds for the project. Budgets should place an emphasis on graduate and undergraduate student effort. Leverage sources should be clearly identified.
Note that the program sponsor does not allow for the application of indirect costs to RAMP funding, so all requested RAMP funding will cover direct project expenses.

Follow On Reporting and Metrics

A key component of sustaining RAMP program funding is to highlight the outcomes of the individual projects to the program sponsor. If your RAMP project is funded, the RAMP program and its sponsor, the PA Department of Community and Economic Development (DCED), require project PIs and partner companies to assist in identifying and measuring program effectiveness. This will be done through project reporting (including a final report) and performance measurement through metric submittals.

The current DCED guidelines require specific metrics to be addressed at a frequency of twice per year for five years after the completion of the project, including the following:

- Providing university impact information (e.g., students involved, patents, publications, presentations, leverages funds, follow-on funds)
- Assisting RAMP staff in collecting economic impact information (PA companies and agencies involved and economic impact at these companies and agencies) for the project. Impacts will be tracked twice per year for five years after project completion.
- Identifying RAMP and DCED as project sponsors in all project presentations, publications, and discussions of the project with the media.

Note that current DCED metric reporting requirements could change at any time as required by the program sponsor, and as such, project PI’s and participating PA industry partners are expected to support the metrics as defined by the RAMP program and its sponsor.

Submittal and Questions

Please submit proposals electronically to Amanda Bilak (abilak@andrew.cmu.edu), using the attached technical and cost proposal forms. Questions regarding the proposal content, the proposal form, and budget preparation should be addressed to RAMP Associate Director Matthew Sanfilippo at mattsanf@cmu.edu or at 412-268-8859.